“The Choice Between Living or Reproducing”: Maternal Mortality in Afghanistan

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Winter Quarter 2017

Thesis submitted in completion of Honors Senior Capstone requirements for
the DePaul University Honors Program

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Abstract

Maternal mortality refers to the number of women who die from pregnancy-related causes while pregnant, during childbirth, or from receiving an abortion per 100,000 live births. Afghanistan has one of the world's highest maternal mortality ratios. This high ratio can be attributed to the 30-year war in Afghanistan that decimated the country's foundation, economy, and social services, resulting in a low quality of life. Maternal mortality is not just a result of biological factors (i.e. hemorrhage, infection, pregnancy-induced hypertension, etc.), but also stems from larger social problems (i.e. poor accessibility to healthcare, unavailability of contraceptive methods, lack of education for girls, etc.). While women directly die from the biological factors, the social factors are the indirect but overarching causes of Afghanistan's maternal mortality crisis. In order to combat maternal mortality, the social factors need closer examination.

Acknowledgements

I would first like to thank my thesis advisor Dr. Michele McCay of the Department of Health Sciences at DePaul University. The door to Dr. McCay's office was always open whenever I ran into a trouble spot or had a question about my research or writing. She consistently allowed this paper to be my own work, but steered me in the right the direction whenever she thought I needed it.

I would also like to acknowledge Dr. Jessica Jerome of the Department of Health Sciences at DePaul University as the reader of this thesis, and I am gratefully indebted to her for her very valuable comments and advice on this thesis and for the incredibly worthy impact she has had on my education and time at DePaul University.

Finally, I must express my very profound gratitude to my family and friends, especially my parents, for providing me with unfailing support and continuous encouragement throughout my years of study and throughout the process of writing this thesis. My parents never once limited me and always made me believe that I could accomplish whatever I set my mind to. I was raised to be kind, humble, independent, and to know that I only had success in store for me if I worked hard. This accomplishment would not have been possible without them. Thank you.

Introduction

This paper examines maternal mortality in Afghanistan. According to the World Health Organization (2016), maternal mortality is the death of a woman while pregnant or within 42 days of childbirth/termination of pregnancy. Afghanistan has one of the highest maternal mortality rates in the world. Research by Pfisterer (2011) shows that in 2005, the maternal mortality ratio was 1800 deaths per 100,000 live births, meaning that almost 2 out of every 100 women died due to pregnancy or childbirth-related issues (p. 62). In comparison to a developed country, the maternal mortality ratio in the United States in 2005 was 15.2 deaths per 100,000 women (Center for Disease Control and Prevention, 2017). Rasooly et al. (2012) argues that this high ratio can be attributed to the almost 30-year war in Afghanistan that decimated the country's infrastructure, economy, and social services. This resulted in a low quality of life, especially for women as many of their rights were denied and services taken away (p. 29). Maternal mortality in Afghanistan can be attributed to many social factors and disparities.

This paper gives an extensive examination of the social disparities that contribute to maternal mortality in Afghanistan, including poor accessibility to healthcare and healthcare facilities, unavailability of contraceptive methods, lack of education for girls, and early marriage. It then examines four current programs that are currently being implemented in Afghanistan whose goals are to reduce maternal mortality: the 2030 Agenda for Sustainable Development, Global Fund Afghanistan, Let Girls Learn campaign, and the implementation of midwifery schools. In closing, this paper discusses the limitations of this project and the future recommendations that the author has regarding the reduction of maternal mortality in Afghanistan.

Background

Many biological factors directly cause maternal deaths, including hemorrhage, sepsis/infections, pregnancy-induced hypertension, obstructed labor, unsafe abortion, HIV, cardiomyopathy, obstetric embolism, and early pregnancy outcome for which causes were undetermined (Bartlett et al., 2005; Kassebaum et al., 2014). However, these biological risk factors are the result of larger social problems, including poor accessibility to healthcare and healthcare facilities, unavailability of contraceptive methods, lack of education for girls, and early marriage (Adams, Gerber, & Osisek, 2016; Akin, 2005; Rasooly et al., 2012; Starrs, 2006). While women directly die from the biological factors, the larger social factors are what is causing Afghanistan's unacceptably high maternal mortality rate.

The War & the Taliban

The long war in Afghanistan and the Taliban rule devastated Afghanistan and caused many health disparities for women. In 1979, the communist Soviet Army invaded Afghanistan, which was opposed by the Afghan army, the mujahideen. Afghanistan was plagued with fighting throughout the 1980s. The Soviet army finally left Afghanistan in 1989, but fighting still persisted as the mujahideen pushed to overthrow the Soviet-placed leader, Mohammad Najibullah. In 1992, Najubullah's regime toppled, but a devastating civil war followed. In 1996, the Taliban, a radical Islamic militant group, began to seize power in Kabul, Afghanistan's capital city, and by 1997, had control over two-thirds of the country. The United States began war on Afghanistan in 1998, which lasted throughout the 2000s as Afghanistan's shaky government ruling and worsening national security and stability disrupted the country. Currently,

security and stability in Afghanistan continues to be threatened by the Taliban and al Qaeda (BBC News, 2015; Moyers, 2008).

The Taliban's rule had a major impact on Afghanistan's people. The Taliban restricted mobility, education, and employment, especially for women (Iacopino & Rasekh, 1998). Iacopino & Rasekh (1998) explored some of the Taliban laws that, for example, prohibited girls from attending school (p. 2), suspended medical services to at all women but one poorly-equipped hospital (p. 2), prevented women from exiting their homes and traveling without a male escort (p. 113), and mandated that female patients only visit female doctors (p. 115). This prevented women from being able to autonomously manage their health; they were dependent on their husbands or male relatives. Because women were not allowed to go to school, they could not train to be doctors, which severely impacted the care that women received, considering they could only be seen by female health workers and their health care access was restricted to one hospital.

Findings by Amowitz, Reis, and Iacopino (2002) show that women are more likely to die as a result of pregnancy or childbirth if they do not have a skilled health care worker assisting them during birth. Because women were not allowed to be educated under the Taliban's rule, Afghanistan suffered a severe shortage of skilled health care workers, which made women much more likely to suffer from maternal death. Also, the inaccessibility and lack of health care facilities made it much more difficult to receive prenatal care and care during birth. Because of these harsh laws that restricted women's opportunities to seek health care, Pfisterer (2011) argued that "a woman in Afghanistan has a 1 in 8 risk of maternal death during her lifetime, effectively forcing a choice between living and reproducing" (p. 75). The Taliban's radial laws severely impacted maternal health and contributed to Afghanistan's high maternal mortality.

Maternal Mortality Ratio

Afghanistan as a whole has made efforts to decrease the maternal mortality ratio since 1990. According to the World Bank (2015), Bartlett et al. (2015), and Pfisterer (2011), in 1990 the ratio was 1340 deaths per 100,000 women, in 2000 it was 1900 deaths, in 2005 it was 1800 deaths, and in 2015 it was 396 deaths, respectively (see Figure 1). While the maternal mortality ratio increased in the early 2000s due to the war with the United States and the Taliban's impact on Afghanistan, the ratio has significantly decreased since then.

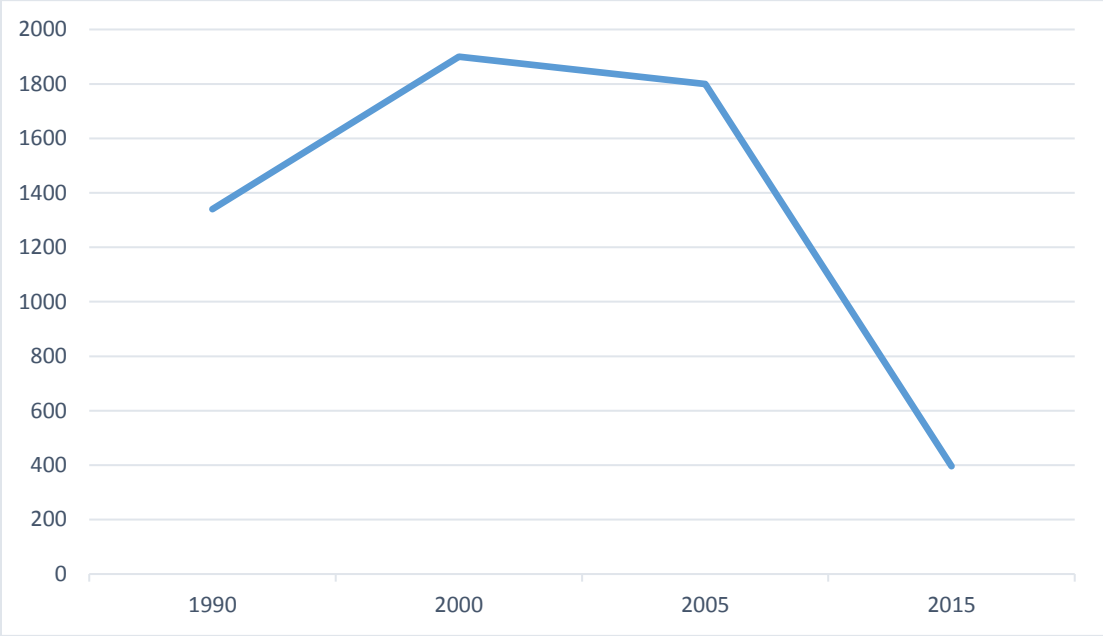

Figure 1: Maternal mortality ratio in Afghanistan over a period of 15 years.

Although the maternal mortality ratio has fallen dramatically in Afghanistan, it still remains higher than surrounding countries (see Figure 2). In 2015, Afghanistan's ratio was almost 2.5 times higher than Pakistan and about 13 times higher than Tajikistan, Turkmenistan, Iran, and Uzbekistan (World Bank, 2015). Developed countries around the world have significantly lower maternal mortality ratios. In 2015, Afghanistan's ratio was 28 times higher

than the United States, 44 times higher than the United Kingdom, and 79 times higher than Japan and Switzerland (World Bank, 2015).

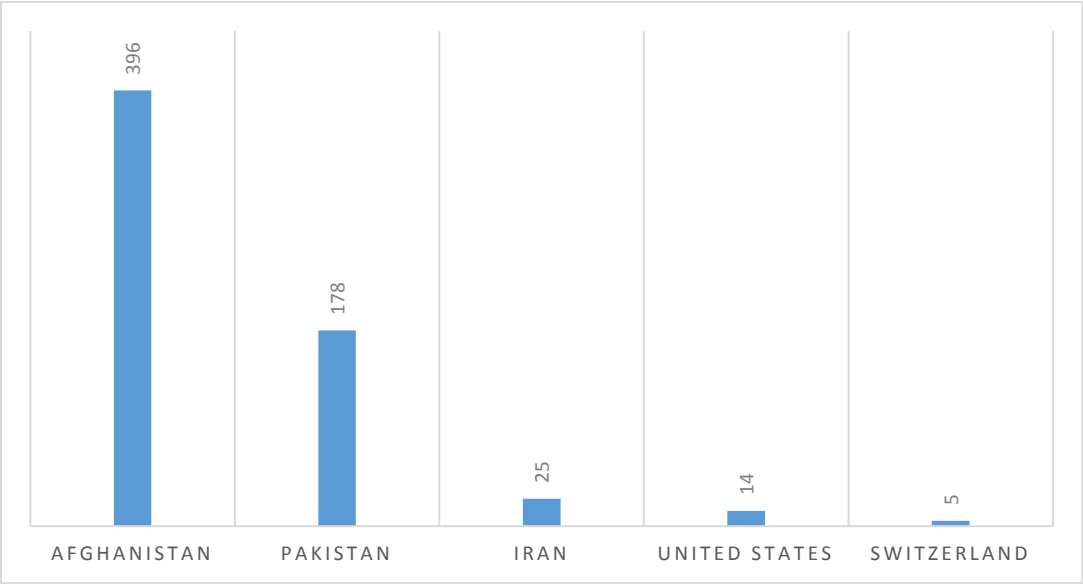

Figure 2: Maternal mortality ratios per 100,000 women of Afghanistan, Pakistan, Iran, the United States, and Switzerland in 2015

Urban vs. Rural Regions

Maternal mortality ratios in Afghanistan differ vastly in urban and rural areas. Bartlett et al. (2005) found that in 2005, Kabul, an urban district, had a maternal mortality ratio of 418 maternal deaths per 100,000 women while Ragh, a remote and rural district, had a mortality ratio of 6507 maternal deaths per 100,000 women.

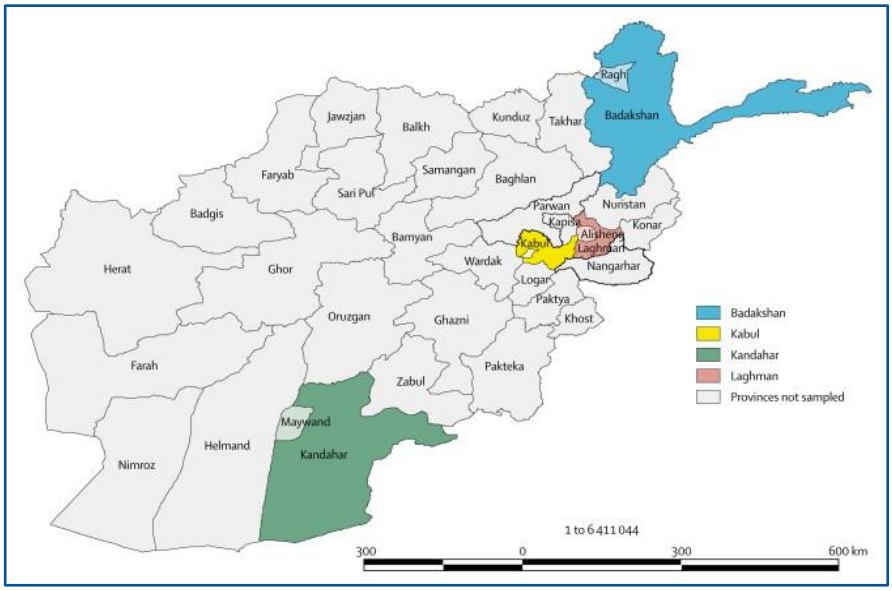

Figure 3: The four study districts in Afghanistan’s from Bartlett’s (2005) study. Reprinted from "Where Giving Birth is a Forecast of Death: Maternal Mortality in Four Districts of Afghanistan, 1999-2002," by L.A. Bartlett et al., 2005, *The Lancet, 365*(9462), p. 865. Copyright 2017 by Elsevier B.V.

The maternal mortality ratio in Ragh was significantly higher than the overall nation’s range of 1600 and 2200 deaths, highlighting the severe disadvantages that women living in rural areas face concerning availability of health care facilities and providers. Bartlett et al. (2005) writes:

> Kabul, the capital and largest city, has experienced conflict since 1979, and large areas were destroyed in 1992–96. During 1997–2001, the city was controlled by the Taliban. Medical care was available during the study period from two government-run women's hospitals and several clinics run by non-governmental organizations. Alisheng district lies in a predominantly agricultural river valley. The area was affected by the Russian conflict and Taliban rule, and tribal warfare is frequent. Residents have access to a district clinic with basic essential obstetric care and a hospital with comprehensive essential obstetric care in Mehterlam district, several hours' walk from most villages. Maywand district in Kandahar is largely desert. Many people are nomadic, herding animals. A clinic with basic essential obstetric care is over a day's walk from some areas, and the nearest hospital with comprehensive essential obstetric care is in Kandahar city. Finally, Ragh is a remote region in the Hindu-Kush mountains, snowbound at least half the year. Health care is up to 10 days' ride or walk away at the hospital in Faizabad city, which has comprehensive essential obstetric care (p. 865).

This description highlights the inaccessibility to healthcare that rural Afghan citizens face. As the ruralness of the district increases, healthcare becomes less and less accessible and convenient. Kabul has multiple hospitals and clinic, while healthcare in Ragh takes more than a week to access for some citizens. This disparity certainly contributes to maternal mortality, as women in more rural areas do not have accessible healthcare.

Bartlett et al. (2005) also found that "decision-making ability was influenced by perceptions of accessibility" (p. 868). Only 30% of families in Ragh sought health care, compared to the 72% that sought care in Kabul. The further away a clinic or hospital is, the larger the risk is to access it. A woman and her family are less likely to travel long distances to clinics or hospitals to receive medical attention. Liese's (2015) study on the Badakhshan region in northeast Afghanistan writes:

> The nearest neighboring village to the new clinic is at least one hour by foot along a steep and dangerous donkey path. Traveling these paths is even more difficult for women (and pregnant women in particular) who would be required to wear the cumbersome and vision-obscuring burqa. A woman in this village explained, "Why would I try and die to reach the hospital? It is better that I just die at home. It is God's will, in any case" (p. 262).

The clinic that Liese writes about is located in the Darwaz district of Afghan Badakhshan. Before the clinic's construction, women with obstetric complications would have a ten day foot journey to the district's capital, which houses the only hospital. The journey could also only be possible for a few months of the year due to weather and road conditions. The inaccessibility to medical care prevented Afghan women from seeking it.

Preventability of Maternal Deaths

Overall, Bartlett et al. (2005) found that 78% of maternal deaths looked at in their study were preventable and argued: "widespread restrictions on education and employment limit the number of trained female health providers and reduce women's resources to access care. Inability to leave the home without the permission or escort of a male relative is a constraint. These factors are exacerbated in rural areas" (Bartlett et al, 2005, p. 869). The established preventability of these deaths highlights the disparities women faced in Afghanistan. Lack of female health workers and lack of female autonomy contribute to maternal deaths, as well as many more factors not mentioned directly in the quote. The fact that these issues contributed to exceptional amounts of mortality demonstrates the need for social change so that preventable deaths no longer occur.

Education

Research on mothers in developing countries throughout the world demonstrates that a lack of education for girls contributes to maternal mortality. A study by Karlsen et al. (2011) showed that "women with no education had almost four times the risk and those with between one and six years of education had almost twice the risk of maternal mortality compared with women with more than 12 years of education" (p. 5). When girls do not receive a formal education, they are much less likely to receive sexual health education and therefore, are much less likely to learn about contraception and family planning, their bodies' menstrual cycles, and antenatal care. The study by Karlsen et al. (2011) provided a plethora of examples on the connection between education and maternal mortality:

> More educated women may be less likely to accept traditional explanations for life and death and instead take on broad information about birth spacing, the signs of pregnancy complications and the need to improve their nutritional status to reduce the risk of iron deficiency anaemia, all of which are of key importance in the drive to reduce maternal deaths. Furthermore, more educated women are likely to be more confident about asking questions about their health care needs and are more likely to be listened to by health care professionals. The indirect relationship between educational levels and maternal mortality may be through increasing women's self-esteem and thus their empowerment to make health related decisions. Women's improved access to education is also indicative of their more equal position in society. The relationships between education and status provide more highly educated women with more autonomy to make decisions about the number of children they have, their nutrition during pregnancy and their access to health care. (p. 9).

These examples illustrate that education is vital to a woman's health outcome.

Moreover, an educated woman is more likely to break her family out of poverty that runs rampant in developing nations. Girls who are less educated are less likely to ever be employed or learn skills to provide for their families. Adams et al. (2016) show that the children of uneducated girls are also less likely to be educated, and they overall are less likely to break the cycle of poverty that they and their families live in. Uneducated girls become powerless and voiceless, and surrender to the sometimes hopeless situations they live in.

Uneducated girls are also more likely to be married at a young age and begin having children before their bodies are fully matured (Akin, 2005). This significantly increases the possibility of death as adolescent girls are more likely to suffer from obstructed labor, obstetric fistula, postpartum hemorrhage, and preterm birth, which also negatively affects the health outcomes of the infants (Mayor, 2004; World Health Organization, 2017).

Early Marriage

In a study by Amowitz et al. (2002) where 4886 females from the Herat Province between the ages of 15 and 49 years were surveyed and interviewed, 94% of the women had less than 1 year of formal education (average of 0.35 years) and the mean age of marriage was 15 years. This shows a correlation between lack of education and early marriage. It is more likely that if a girl is less educated, she will get married at a young age. Pfisterer (2005) also argued that the earlier a girl gets married, the more likely she is to have a larger total fertility rate. The fertility rate is the total number of children born to a woman (Carlson, 2014). Multigravida and multiparity, a woman who has been pregnant more than once or had a baby more than once, respectively, are also concerns. In addition to a higher fertility rate, women who get married at a young age are more likely to have children with little to no birth spacing. Birth spacing is the practice of waiting between pregnancies, ideally at least 18 months; if the time between pregnancies is shorter, "there is an increased risk of having poor birth outcomes" (Delaware Health and Social Services, 2011). This is problematic for Afghan women because of Afghanistan's resource-poor health system. Lack of birth spacing and multigravida/multiparity all lead to increased risks for the expectant mother and infant. When clinics and hospitals are inaccessible or unreachable, women will have poorer health outcomes and suffer from maternal death.

Contraception

Contraception and family planning, the practice of controlling the number of children in a family and the intervals between their births, are similarly related to maternal mortality ratios. Access to contraceptives promotes family planning, which can help prevent girls from having

children too early or too closely together. There is a direct association between family planning methods and total fertility rate. A survey implemented by the Afghan Public Health Institute Ministry of Public Health, Central Statistics Organization, ICF Macro, Indian Institute of Health Management Research, and World Health Organization Regional Office for the Eastern Mediterranean (2011) showed that the relationship between both socioeconomic status and level of education and contraceptive use is strong. Unsurprisingly, remoteness has a negative effect on contraception usage. The survey writes:

> Urban women are twice as likely to use a method of family planning as are rural women (36 percent and 18 percent, respectively), probably reflecting wider availability and easier access to methods in urban areas than in rural areas. The contraceptive prevalence rate for modern methods is 31 percent in urban areas, compared with 17 percent in rural areas (p. 58).

However, findings from a study by Huber, Saeedi, and Samadi (2009) show that some conservative, rural Afghan communities are moving towards higher contraceptive usage. The most popular methods are injectable contraceptives and oral contraceptive pills, but other methods available to women include the intrauterine device (IUD), male condom, implant, and female sterilization (United Nations Population Fund, 2015; Rasooly, Ali, Brown, & Noormal, 2015). This can be contributed to self-engagement of more women in their health care, better access to contraceptives, education against widespread misconceptions about infertility and contraceptive usage, and education about contraceptive safety and birth spacing. Also, involving men in the education process and incorporating Islamic teachings into education has contributed to higher usages of contraceptives in rural areas.

Examination of Current Programs/Services

In response to Afghanistan's high maternal mortality rate, several global organizations have implemented programs and carried out surveys and assessments to determine what shortages still exist. These organizations provide access to clean water and food, healthcare, education, economic aid, opportunities for employment and empowerment, and many more services. Many organizations have been present in Afghanistan, including but not at all limited to the United Nations Development Programme (UNDP), the Afghan Ministry of Public Health, Let Girls Learn, the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), The Global Fund, Women for Women International, the World Health Organization (WHO), World Bank, the European Union, and Doctors Without Borders. This is not an exhaustive list, and many other organizations are currently present in Afghanistan, providing aid and carrying out implementations.

For this paper, four programs will be examined at length. The programs discussed were picked at random: two have connections with the United Nations, the third has connections with USAID, and the fourth is a broad survey of a program being implemented all across Afghanistan. It is important to get an overview of the different types of programs and services being offered to the Afghan people. These are programs that are contributing to the fight to reduce maternal mortality in Afghanistan. Other programs could have been discussed, but the four chosen particularly stand out.

1. 2030 Agenda for Sustainable Development

These Global Goals, implemented by the UNDP, build on the Millennium Development Goals, which were eight anti-poverty targets that the world committed to achieving by 2015 (see

Figure 4). The Millennium Development Goals, implemented from the years 2000-2015, were not completed.

Figure 4: The 8 Millennium Development Goals: Numbers 2, 3, and 5 spoke to maternal health issues Reprinted from *United Nations Development Programme*, n.d., Retrieved February 19, 2017, from http://www.undp.org/content/undp/en/home/sdgoverview/mdg_goals/. Copyright [2015] by the United Nations Development Programme.

While the Millennium Development Goals produced significant results, they were not successful in addressing and ending poverty and its root causes. With the implementation of seventeen total goals, the 2030 Agenda for Sustainable Development aims to reach much farther than the Millennium Development Goals did, "addressing the root causes of poverty and the universal need for development that works for all people" (United Nations Development Programme, 2016). Some noteworthy goals include:

- End poverty in all its forms everywhere
- Ensure healthy lives and promote well-being for all

- ➢ Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- ➢ Achieve gender equality and empower all women and girls
- ➢ Reduce inequality within and among countries
- ➢ Make cities inclusive, safe, resilient, and sustainable

While there are no goals that specifically address maternal mortality, many of these goals address the social factors that contribute to maternal mortality, like poverty, lack of education, gender inequality, and inaccessibility to health services. Through the 2030 Agenda for Sustainable Government, many social disparities in Afghanistan will be addressed and will meet "citizens' aspirations for peace, prosperity, and wellbeing," with the hopes of reducing maternal mortality in Afghanistan (United Nations Development Programme, 2016).

2. Global Fund Afghanistan

Through UNDP's partnership with The Global Fund, four Global Fund Grants have been awarded to Afghanistan that address the problems of human immunodeficiency virus (HIV), tuberculosis (TB), malaria, and health system strengthening. In 2014, Afghanistan was selected as the Principal Recipient for these grants totaling $38,888,854, which started in April 2015 and is projected to end in December 2017. Afghanistan was chosen as the recipient due to its high rates of HIV, TB, malaria, and lack of effective health systems. The United Nations Development Programme (2015) writes:

> The health care system lacks funding and infrastructure, in particular laboratory facilities. Women have limited access to health care services due to constraints on their movement and a shortage of female health workers, particularly in remote areas. These problems are exacerbated by poverty, insecurity, limited road access, a high turnover of staff at the

> community level, a lack of diagnostic services, an inability to refer complicated cases to higher-level facilities, and an unregulated private sector. Further problems include poor nutrition and sanitation shortage of skilled birth attendants and female health care providers, and mental health issues, illnesses and injuries caused by 30 years of war.

Through the millions of dollars that have been allocated to Afghanistan, health care advancements will be made that will help achieve the reduction of maternal mortality. Like the 2030 Agenda for Sustainable Development, this program does not directly address maternal mortality. However, it does address problems that contribute to maternal mortality, like shortage of skilled birth attendants and female health care providers and limited access to health care facilities. Global Fund Afghanistan is projected to greatly impact Afghanistan's health services.

3. **Let Girls Learn**

Let Girls Learn, launched by former President Barack Obama and First Lady Michelle Obama, is an organization that brings together the Department of State, the USAID, the Peace Corps, the U.S. Department of Labor, the U.S. Department of Agriculture, and the Millennium Challenge Corporation in order "to address the range of challenges preventing adolescent girls from attaining a quality education that empowers them to reach their full potential" (Let Girls Learn, 2016).

On July 7, 2016, USAID committed $25 million to create and sustain a teacher apprenticeship program in Afghanistan for adolescent girls. Afghanistan is deficient in female teachers, which prevents many girls from receiving an education. Girls are usually only permitted to be taught by female teachers due to cultural norms. UK International Development Secretary Justine Greening, one of the partners in this commitment, said:

> Education doesn't just shape individuals, it shapes countries - but right now too many young girls are deprived of an education simply because of their gender. That's why we will work with USAID to help teenage girls in Afghanistan train as teachers. This will both give them the vocational education they need to get a stable job as well as boost the number of female teachers, encouraging more girls to stay in school (United States Agency for International Development, 2016).

Through addressing and working to eliminate the barriers (lack of schools, gender-based violence, and early marriage) that prevent girls from obtaining an education, more Afghan adolescents will be educated and able to utilize their newfound skills into educating the next generation of girls.

Receiving an education is vital in reducing maternal mortality. Educated girls tend to have a lower total fertility rate, have a better knowledge of family planning and antenatal care, and are more likely to break out of the cycle of poverty that plagues so many Afghan families. Additionally, educated Afghan girls have the opportunity to make a significant difference in their country, by gaining the skills to become a teacher, doctor, lawyer, or other profession that can provide aid and empowerment to other Afghan citizens, which will further reduce maternal mortality.

4. **Midwifery Schools**

Midwifery schools have been a life-changing agent in the battle of maternal mortality in Afghanistan. Since their implementation in the early 2000s, they have been a key foundation in lowering maternal mortality ratios. Midwives are instrumental in providing skilled care and assistance to women during their pregnancy, childbirth, and the weeks after birth. They provide medical care, but also offer important emotional support. Oftentimes in Afghanistan, without a

midwife, a woman does not receive any maternal medical care (Global Health Workforce Alliance, 2012).

Afghanistan has suffered from a shortage of trained midwives. In 2002, "only 9 percent of women were assisted by a skilled birth attendant, 8 percent of women received prenatal care, and 10 percent of hospitals provided caesarean sections" (Coleman & Lemmons, 2011, p. 2). According to the World Health Organization (2010), countries with caesarean rates under 10% show underuse, while countries with rates above 15% show overuse (p.3). From this, it is shown that Afghanistan is close to underusing caesarian sections, which is dangerous, as women who need a caesarian section to have a successful birth may not have access to a trained midwife or birth attendant to perform the surgery. Coleman & Lemmons (2011) argue that overall in Afghanistan, an estimated eighty percent of maternal deaths are preventable (p. 4). The implementation of midwifery schools has increased access to maternal health services and in 2011, the maternal mortality ratio in Afghanistan had decreased by thirteen percent (Coleman & Lemmons, 2011, p. 6).

According to a study by Coleman & Lemmons (2011), from 2002 to 2011, the number of midwifery schools increased from 5 to 32, and they serve all provinces of Afghanistan. The programs are run by national and internationals non-governmental organizations (NGOs) and since 2002, over 2200 midwives have graduated from programs run by Institute of Health Sciences and Community Midwifery Education. One reason these programs are so successful is because they have achieved widespread community support, even in Taliban-heavy areas (p. 6). According Coleman & Lemmon (2011):

> Although maternal health services have improved overall in Afghanistan, the greatest changes have been seen in provinces with midwifery programs. In areas with midwifery schools that had graduated students by 2007, prenatal care visits increased proportionally

> by 17 percent and the number of deliveries with skilled birth attendants by 40 percent. Additionally, roughly 61 percent of health centers in Afghanistan are now staffed with at least one midwife (p. 7).

Additionally, midwifery programs provide education, income, and empowerment to women. Coleman & Lemmon write, "In midwifery programs, students learn the health skills necessary to protect mothers and deliver healthy children, and also a more general set of professional and interpersonal skills through classroom work, case studies, and clinical training" (p.7). Furthermore, "even in rural and deeply conservative communities, the introduction of midwifery training programs has been followed by a trend toward seeing more women outside their homes and other cultural changes. Afghan midwives challenge barriers and serve as role models in their communities for other women and girls aspiring to go to school and earn an income" (Coleman & Lemmons, 2011, p. 7).

Since 2002, the UNFPA has worked with the Afghan Ministry of Public Health to "rebuild and revitalize the midwifery profession in a way which is sustainable, culturally appropriate, and meets the standards laid down by the International Confederation of Midwives" (United Nations Population Fund, 2016). One way in which they are achieving this goal is to pilot the Family Health House model in "white areas" of the country: areas that are at least 10 kilometers from the nearest health facility and include 43% of the population. The Family Health Houses (see Figure 5) are "sustainable, community-led initiatives, where candidates for community midwives are nominated and supported by residents. The midwives receive 26 months of training and are supported by community health workers who provide health information, public awareness activities, and treat some basic illnesses" (United Nations Population Fund, 2016). Since 2016, the Family Health Houses have proven to be successful

Figure 5: Women waiting outside one of the Family Health Houses in Daikundi, located in Central Afghanistan.
Reprinted from *United Nations Population Fund*, by S. Karimi, Retrieved February 19, 2017, from http://www.unfpa.org/fr/node/8428. Copyright [2014] by the United Nations Population Fund.

additions to communities who do not have access to basic health care. At the time of this article's publication, UNFPA had opened eighty Family Health Houses in Bamiyan, Daikundi and Faryab provinces and nine mobile support teams in Herat and Badakhshan (United Nations Population Fund, 2016).

Limitations

This study comes with limitations. The largest limitation that affects this paper is the lack of abundance of current data for maternal mortality in Afghanistan. A great deal of sources referenced are more than ten years old, some even older. One reason for this is that accurate data in Afghanistan is difficult to obtain due to worsening security, especially in the southern and eastern provinces (Rasmussen, 2017). Therefore, the reported maternal mortality rates for Afghanistan may not reflect the actual maternal mortality rates. Because of this, much of the

published data is contradictory, making it difficult to accurately conclude if the services being implemented and money being donated are actually helping to reduce maternal mortality. If the actual maternal mortality rates in Afghanistan were reported, the aid sent to Afghanistan would be more beneficial and tailored to the help the country and its women.

Underreporting maternal mortality is a hindrance as it makes it extremely difficult to determine the actual incidence of maternal deaths in Afghanistan. The underreporting of maternal deaths is not purposefully done, but reflects the disparities that women face in Afghanistan. AbouZahr (2003) argued:

> Maternal deaths are too often solitary and hidden events that go uncounted. The difficulty arises not because of lack of clarity regarding the definition of a maternal death, but because of the weakness of health information systems and consequent absence of the systematic identification and recording of maternal deaths (p.1).

Accurate reporting of maternal mortality would reflect the present need in Afghanistan. It would allow more resources to be sent to Afghanistan, in the form of money, community health workers, educators, or medical supplies. The maternal mortality rate at this point is most likely underreported.

An additional limitation relates to the difference between correlation and causation. It is important that these terms are distinguished in research, but they often are used interchangeably. Correlation does not imply causation (Sense about Science USA, 2015). For example, there is a correlation between lack of education and maternal mortality. Girls who are uneducated are more likely to suffer maternal deaths. However, a lack of education does not directly cause maternal mortality. The two are related, but one does not cause the other. In a paper such as this one where many social determinants of health and health disparities are examined in relation to maternal mortality, it is easy to imply causation, which may not always be the case.

Recommendations

Compared to other developing countries surrounding it, Afghanistan's maternal mortality rate is incredibly high. It is almost 2.5 times higher than Pakistan and about 13 times higher than Tajikistan, Turkmenistan, Iran, and Uzbekistan (World Bank, 2015). There is still work that needs to be done in Afghanistan to reduce its maternal mortality rate. Only by addressing the larger social disparities that contribute to maternal mortality will Afghanistan's maternal mortality rate effectively be reduced.

The Three Delays Model used by Maternity Worldwide (Maternity Worldwide, 2014) identifies three factors that affect the accessibility and quality of care women and girls receive. The three factors identified are:

1. Delay in decision to seek care due to
    a. The low status of women
    b. Poor understanding of complications and risk factors in pregnancy and when to seek medical help
    c. Previous poor experience of health care
    d. Acceptance of maternal death
    e. Financial implications
2. Delay in reaching care due to
    a. Distance to health centers and hospitals
    b. Availability of and cost of transportation
    c. Poor roads and infrastructure
    d. Geography e.g. mountainous terrain, rivers
3. Delay in receiving adequate health care due to
    a. Poor facilities and lack of medical supplies
    b. Inadequately trained and poorly motivated medical staff
    c. Inadequate referral systems

Maternal Worldwide implements programs and services that address these three factors that create barriers to girls and women receiving health care. Some programs implemented provide education to communities, train midwives and physicians to remain in rural areas, empower women to become financially independent and make their own health choices, and improve access to health care (Maternal Worldwide, 2014). While Maternal Worldwide focuses its efforts and resources on countries in Eastern Africa, these factors reflect barriers in Afghanistan, too. It would be beneficial for Afghanistan to similarly assess which delays listed out in the Three Delays Model are affecting maternal health care and then tailor programs to the specific needs of Afghanistan or an Afghan region.

It is also important to address the demand side and supply side interventions (Maternal Worldwide, 2014). Supply side interventions address the implementation of services and facilities, while demand side interventions "are particularly designed to reduce access barriers for poor and vulnerable groups" (MATIND, 2013). It is important to carry out these two types of implementations simultaneously (see Figure 6). For example, if a free health clinic opens up in a rural Afghan region that distributes birth control, but there is no health education or promotion for the citizens of this region on the safety or potential importance of birth control, the supply side intervention will not be successful. Maternal Worldwide (2014) writes: "If services are available but communities are not empowered to access them it will only increase health inequalities. If communities are empowered but there are no facilities there will be no impact."

Figure 6: This figure shows the importance of integrating demand side and supply side interventions. A Needs Assessment is performed on a community, appropriate and applicable demand side and supply side interventions are implemented in the community, and then evaluation and research is done to determine the success or failure of these interventions.
Reprinted from *Maternity Worldwide*, n.d., Retrieved February 19, 2017, http://www.maternityworldwide.org/what-we-do/three-delays-model/. Copyright [2015] by Maternity Worldwide.

The demand side and supply side interventions must be integrated in order to implement programs that are successful and meet the needs of the community that they are aimed towards.

Another recommendation is to expand upon the four programs previously discussed and design and implement more programs aimed specifically at decreasing the education disparity in Afghanistan. Education is vital to the success of a woman. It empowers her, allows her to provide for her family and break the cycle of poverty they may live in, shrinks the gender gap, and gives her the opportunity to receive crucial sexual health education. Education is a significant key in reducing the maternal mortality rate in Afghanistan, and it should be emphasized. Addressing the direct factors of maternal mortality will not reduce Afghanistan's ratio unless the overarching contributing social factors are addressed, too.

Conclusion

Maternal mortality is still unacceptably high in Afghanistan compared to other countries. Myriad women continue to die from very preventable causes due to pregnancy and childbirth. Various factors, both biological and social, contribute to the high ratio. Lack of opportunities for education, limited access to healthcare and healthcare facilities, unavailability and stigmatization of contraceptive methods, and early marriage all are factors in maternal deaths. While women die directly from biological causes, these overarching social and health disparities influence and exacerbate the biological causes.

While efforts are being employed to reduce maternal mortality through international global health organizations and programs, Afghanistan's ratio is still one of the highest in the world. The programs currently in existence are expected to improve the maternal mortality ratio in Afghanistan by providing more services and opportunities to women, but it is apparent that more resources need to be sent to Afghanistan. The social determinants of health in Afghanistan have not been efficiently addressed, and that is contributing to Afghanistan's notoriously high maternal mortality rate.

In her essay "Maternal mortality: Ending needless deaths in childbirth," Aruna Kashyap (2012) wrote, "Childbirth should evoke images of joy and celebration, not death or disability" (p. 232). The fact that countless Afghan women die from preventable deaths is shameful. It is urgent and necessary that steps be taken to provide aid and empowerment to women in Afghanistan so that they no longer have to die solely for being mothers. Only by combating and overcoming the many barriers that women face to receiving healthcare and gaining basic human rights can Afghanistan's maternal mortality disparity be effectively reduced.

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