

2

Effects of the West African Ebola Epidemic on Health Care of Pregnant Women: Stigmatization With and Without Infection

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2.1 Introduction: Stigma, Ebola Virus, and Pregnant Women

Most scholarship on stigma begins with an explanation of Erving Goffman's *Stigma: Notes on the Management of Spoiled Identity* (Goffman 1963). However, since Goffman's now-classic work on the subject, there have been many linguistic shifts, conceptual slippages, and new contributions to the theorization and understanding of stigma. More recent interpretations of stigma emphasize the psychological and social aspects of stigma, as well as highlight the critical role of power and systemic inequalities which can work to produce or reinforce existing stigmas (Castro and Farmer 2005; Parker and Aggleton 2003). Link and Phelan (2001) stipulate that, in order for stigma to develop, there must be an element of power involved; they do not specifically state who it is that is exercising the power they mention, but surely the differential exists in favor of those doing the stigmatizing. Similarly, Castro and Farmer (2005) argue that for a more nuanced understanding of stigma and its effects in an infectious disease and treatment context, the power structures and inequities that produce poor access to care and treatment should be an integral component of the analysis of stigma production. Parker and Aggleton (2003:13) also argue that stigma "feeds upon, strengthens and reproduces existing inequalities of class, race, gender, and sexuality."

There are a number of possible definitions of stigma. Parker and Aggleton (2003) suggest that many times, stemming from Goffman (though, they say, perhaps mistakenly so), authors treat stigma as an individual process and as a static, fixed item that exists. However, they argue that stigma also "plays a key role in producing and reproducing power relations and control...To properly understand issues of stigmatization and discrimination...requires us to think more broadly about how some individuals and groups come to be socially excluded, and about the forces that create and reinforce exclusion in different settings," advocating for analysis of stigma that takes into account its fluid and generative capabilities (Parker and Aggleton 2003:16). Parker and Aggleton (2003) further argue that conceptualizing

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stigma as an individual process may work in cultures that are more individualistic but, in more communal cultures, stigma clearly works at the level of entire groups of people, affecting them through the connections of kin, community, or village. Barrett and Brown (2008:S34) explain that since Goffman's time, stigma has come to mean a process of negative discrimination "against people with certain physical, behavioral, or social attributes," going on to say that stigma is "an illness in itself, comorbid with respect to its marked physical conditions" (Barrett and Brown 2008:S34).

There are several similarities between Ebola virus disease (EVD) and other stigma-inducing conditions, most particularly HIV/AIDS (see also Davtyan et al. 2014). Maman et al. (2009) found in their multinational study of HIV stigma and attendant discrimination that the factors contributing to HIV stigma and discrimination were: "fear of transmission, fear of suffering and death, and the burden of caring" for someone living with HIV/AIDS (Maman et al. 2009). Unlike in the case of HIV/AIDS, in which a patient might now expect, with access to proper health care and antiretroviral drugs, to live many years with few outward signs and symptoms of the disease, Ebola virus disease strikes relatively quickly, with an incubation period of between 2 and 21 days (WHO 2017), and can rapidly ravage the bodies of victims. In the most severe cases, the sufferer's body hemorrhages in a gruesome display. Though the timeline of EVD is accelerated in comparison to that of HIV, Maman et al.'s (2009) criteria for stigma and discrimination are most certainly all present. In other settings, the fear of infection appears to be a primary driver of stigma, as with tuberculosis stigma in Ghana (Dodor et al. 2008). On a group level, stigma might be collectively produced or reproduced through fear of a condition or state of being, thereby acting as a protective mechanism when individuals or a society feel they are at risk due to the condition (c.f. Dodor et al. 2008).

Recently, scholars have been interested in stigma facing people with HIV/AIDS, but stigma has long been attached to other behaviors and medical conditions. For example, many scholars have written of stigma in the context of people living with tuberculosis and leprosy (for a small sampling see: Adhikari et al. 2014; Amo-Adjei 2016; Barrett 2005; Chinouya and Adeyangu 2017; Coreil et al. 2010; Courtwright and Turner 2010; Garbin et al. 2015). In the case of leprosy, the infected person, without proper access to early and effective treatment, can often exhibit physical deformities, including the loss of digits or open ulcers. Adhikari et al. (2014) found these outwardly visible manifestations of the disease to be correlated with higher degrees of stigmatization for leprosy patients. In such instances, it is difficult for the sufferer to conceal their condition, opening them to increased stigma. Both Luka in the Sudan (2010) and Heijnders in Nepal (2004) found that the stigmatization of people with leprosy occurred in two stages. The first stage, the cognitive dimension, describes the degree of influence that leprosy has on the person's life. The patients "pass through the concealability course, disruptive, aesthetic, origin and peril dimensions" (Bainson and van den Borne 1998). In the second stage, or the affective stage, the person with leprosy undergoes social devaluation. Heijnders also found that stigma reinforced those preexisting inequalities that already existed in the community with regard to social class, gender, and age (Heijnders 2004).

Unlike leprosy, with its mentions in ancient religious texts, for example (Jopling 1991; Rao 2010), or tuberculosis (Dodor et al. 2008) which has been found in Egyptian mummies greater than 5000 years old (Daniel 2006), Ebola is a recently recognized infectious disease, termed an emerging infection. A member of the Filovirus (*Filoviridae*) family of viruses, the Ebola virus was first identified in 1976, at which time it was initially believed to represent a new strain of another filoviral agent, the Marburg virus. Western investigators' attention was first drawn to a human outbreak of the virus that occurred in late August, 1976, when people with a hemorrhagic fever syndrome began to arrive at the rural Yambuku Mission Hospital in northwestern Zaire (now the Democratic Republic of Congo).¹

¹The initial patient specimens were evaluated at the Institute of Tropical Medicine, Antwerp, Microbiological Research Establishment, Porton Down, United Kingdom, and the Institute Pasteur, Paris, France. Eventually, the Special Pathogens Branch of the Centers for Disease Control and Prevention (CDC) in Atlanta, USA, isolated the virus and

Stigma, the subject of this chapter, constituted one of the major deciding factors that determined the name for the new virus in 1976. Previous viral agents had been named after the villages where they first occurred.² In the case of the Ebola virus, to avoid permanently stigmatizing the village from which it was first recognized, it was decided instead to assign it a different name than that of the village of Yambuku where the index epidemic had occurred (Gholipour 2014).³

Despite its recent identification, it is generally believed that the Ebola virus has circulated for a long time among humans as well as nonhuman primates living in the endemic areas of Central Africa (Leroy et al. 2004).⁴ Thus, it seems highly probable that there were at least sporadic human infections, if not small outbreaks, of Ebola virus disease occurring for at least several hundred years prior to its initial recognition by Western investigators in 1976 (Duerkson 2014).

Patients infected with these three diseases—leprosy, tuberculosis, and EVD—have, either through necessity (i.e., to prevent transmission) or for other reasons, been subjected to quarantines in which they were removed from normal (uninfected) society—think of leper colonies⁵ and sanatoriums for TB patients.⁶ In the case of EVD, persons with the infection, or even suspected of having infection, were removed from their home settings and quarantined in sites specifically set up for the purpose. This act of quarantining people created ruptures in the preexisting social structures and reinforced the social distance of EVD patients from their social networks through physical removal to other, specially designated spaces. Their removal to sites often constructed by outsiders (humanitarian organizations, for example) could have served to reinforce the patient's strangeness, abnormality, and their threat to other, uninfected individuals. From there, it was only a matter of time until the mere suspicion of Ebola virus infection could start the work of this separation, contributing to stigma production. Dodor et al. (2008) also suggest, in Ghana, that the ways in which health care workers treated TB patients, separating them from family members and restricting their access to visitors, donning extra personal protective equipment (PPE) when attending the patients, and barring families from returning corpses of deceased TB patients to their homes, all contributed to community perceptions of TB as a shameful disease, increasing community fear of the condition. Many of these same aspects of infection prevention and control were present in Ebola-affected areas during the 2013-2015 outbreak but on a much larger scale, and were, out of necessity, undertaken with greater rapidity. These behaviors or activities borne of infection prevention protocols would fall into what Brown et al. (2015:3) term "reorganizations of spatial and material worlds" which "are among the most striking interventions to manage Ebola" and could have

discovered that it represented a newly recognized filovirus.

²When the Lassa fever virus, which initially emerged in the town of Lassa, in Borno State, Nigeria in 1969, it was named after the town in which it occurred. This had the unfortunate result that it forever stigmatized the town of Lassa as being associated with the hemorrhagic fever epidemic.

³How the investigators reached this decision to avoid stigmatizing the town is interesting. While the investigators discussed this issue one evening while drinking Kentucky bourbon, it was initially suggested to name the virus after the town of Yambuku, but Dr. Joel Bremen of the CDC suggested that it be assigned a different name to avoid undue stigma. Another CDC scientist, Dr. Karl Johnson, suggested they name it after a river, and looking at a small map pinned to the wall. They saw that the Ebola river (meaning Black river in Lingala, the local language) ran near Yambuku. Of their choice, Dr. Piot stated "*It seemed suitably ominous*." It was only after the virus was named that they discovered the Ebola River was not the closest river to the town of Yambuku but, as Dr. Piot relates, "*In our entirely fatigued state, that's what we ended up calling the virus: Ebola*" (Gholipour 2014; Piot 2012).

⁴Genetic studies of the relationship between Ebola virus and the related Marburg virus indicate that the two viruses evolved from a common filovirus ancestor approximately 700–850 years ago, a time when larger Bantu-speaking societies were emerging in the same regions of Central Africa (Carroll et al. 2013).

⁵The second author of this chapter worked at the Tala Leprosarium, also known as the Central Luzon Sanitarium, in the Philippines, which has a bed capacity for 2000 and provides care for over 1000 persons with Hansen's Disease (leprosy).

⁶The well-known leprosarium Kalaupapa on Molokai, Hawaii, housed up to 1200 persons at the height of its functioning.

multivalent meanings for social relations within communities that would, ultimately, disrupt containment efforts. The ways in which local and international organizations enacted many of these containment protocols both engendered and exacerbated community resentment, mistrust, and, at times, hostility that transformed into outright violence directed at the people working to implement public health measures (Calain and Poncin 2015).

2.2 Rethinking Stigma in the Context of an Acute Epidemic

When faced with rapidly deteriorating health infrastructure, there is some evidence to suggest, as do Blair et al. (2017) from their work in Liberia, that people with low confidence in formal state functions, institutions, and structures were more likely to ignore recommendations meant to control the spread of EVD. This could, in turn, suggest that countries in which citizens have low confidence in state structures might experience greater levels of EVD-related stigma; as a population at risk, with little other recourse (in the absence of confidence in the state to be able to protect them), began ostracizing the members of society they considered to be the greatest threat to them. Pregnant women, having unpredictable bodily fluids and, upon delivery, Ebola-infected amniotic fluid, hemorrhage, and placental tissue, would certainly fall into that category. The health care workers involved in the care of EVD patients also fell into this category, as well as those people thought to be even remotely affiliated with health facilities or locations in which EVD patients had been.

In their discussion of HIV/AIDS stigma, Castro and Farmer (2005) argue that a driving force behind the stigma is a lack of access to treatment. Stigma is not the determining factor in treatment seeking but, instead, economic and logistical barriers decide who will be able to avail themselves of care (Castro and Farmer 2005). In the case of EVD, poor infrastructure and weak public health systems were undeniable contributors to the spread of the disease. Additionally, as Castro and Farmer (2005) indicate, EVD differentially affected people based upon economic resources. In one of the stories we analyze later in this chapter, the family was able to pay an exorbitant sum for the pregnant wife to access care, but many others did not have the economic means to pursue even regular obstetric care at any cost. These infrastructure and economic constraints, when combined with a high case fatality rate and rapid progression of clinical EVD, dramatically set Ebola apart from HIV/AIDS. Taken together with the criteria of Maman et al. (2009) for stigma, particularly as related to the fears of suffering and death and the fear of transmission, the weak state in many of the affected countries provided the perfect storm for the development of strong and pervasive Ebola stigma. We argue here that it is likely that health care workers and community members fell back on stigmatization as, what they saw as, one of only a few possible ways of protecting themselves. Pregnant women, even those unaffected by the virus, suffered the consequences of people's fears, which took the form of increased stigma that caused many women to be refused care at health facilities. The health care system was undeniably overwhelmed by the number of Ebola patients and the particular needs for quarantine and supplies these patients presented. The fact that an Ebola epidemic was able to effectively shut down any and all routine health care services, particularly vital functions related to obstetric care, is a testament to the long-standing weaknesses of these systems (Chothia 2014).

While others have begun to write about the lasting stigmatization that Ebola survivors (Karafillakis et al. 2016; van Bortel et al. 2016) or Ebola orphans (Denis-Ramirez et al. 2017) have been experiencing since the end of the outbreak, we are most interested here in examining stigma that occurred *during* the active phase of the outbreak. Likewise, we have chosen to limit our discussion to the experiences of women who were pregnant at the time of Ebola. In this chapter, we argue for a reexamination of stigma in the context of transient, acute crises. Without first understanding more about the ways in which people use or suffer from the effects of stigmatization under these circumstances, it will be impossible

to mitigate the effects of stigma in similar situations. We use a meaning-centered approach to stigma, thinking through what is at stake for both the stigmatized and stigmatizing groups. Next, we put forth examples of three ways in which pregnant women were particularly affected by stigma in the health care setting during the 2014–2015 Ebola virus outbreak in West Africa: (1) Women/community stigmatization and avoidance of health care facilities; (2) Stigmatization of health care workers due to association with Ebola; and (3) Stigmatization directed toward pregnant women (or perceived stigma), which prevented women from receiving care when pregnant or during delivery and in the postpartum period. We then explore the consequences of this stigmatization, seeking to answer questions such as: how did women and/or their family members seek to combat stigmatization? How did pregnant women's stigmatization of other parties (namely health care workers) affect their access to obstetric care? What were the intended effects of stigmatizing health workers? What were the protective effects of stigmatizing pregnant women and for whom? How did reluctance to care for pregnant women result in compounding adverse effects for a segment of the population that was already at far greater risk for death—both from pregnancy-related causes, and Ebola virus itself? The residual effects of EVD, even in people who have survived and recovered, are bound to increase the chances that any similar future outbreak of EVD could generate even more severe stigma because people will have the collective memory of the previous outbreak and its devastating effects.

2.3 Gendering Outbreaks

In outbreaks of infectious diseases, sex, gender, and age all play important roles. Women typically have different gender-assigned roles than do men—even when they are pregnant. They prepare meals, are caregivers for the sick, and often help to prepare the dead, in addition to the daily work of child-care, and, in many areas of Africa, fetching water and firewood, washing clothes, and ensuring the availability of daily provisions for the family, as well as engaging in subsistence farming (Avotri and Walters 1999; WHO 2007). Broader structural factors and power relations influence women's ability to access health care services even under normal conditions.

Women who are pregnant are at an especially high risk for becoming infected with EVD, and then having poor clinical outcomes, for several reasons. Depending on the community norms of their particular ethnic group, women, and pregnant women perhaps even more so, typically have less mobility than do other members of the society, are often dependent upon men or more senior women for decisions related to seeking health care, are poorer than men, and have less access and control over economic resources (Coulter 2009). There are frequently concomitant biological factors which may make pregnant women even more susceptible such as anemia, altered immunity due to pregnancy or reduced health over their life course, low body mass index (BMI), malnutrition and poor nutritional quality of the diet, and other complications of pregnancy including diabetes and hypertensive diseases. Pregnant women may spend more time in health care settings, such as clinics and hospitals, due to the pregnancy itself or due to monthly visits with their young children, or as they accompany others seeking care, and thus have greater exposure to nosocomial transmission of all diseases, not simply Ebola. Pregnant women may also have fewer treatment options or choice of medications because of potential teratogenic effects on the fetus and, if postpartum, due to breastfeeding. As was seen in previous Ebola outbreaks in Uganda and Democratic Republic of the Congo, women are often placed at greater risk for infection due to gender specific roles and activities, particularly those related to funerary practices, which have been well-studied in these previous outbreaks and have taken on a prominent role in gender-specific risk (Anoko 2014; Barbato 2014; Hewlett and Amola 2003; Segers 2014; World Health Organization 2007).

Infants and children are another vulnerable part of society in these countries. In previous outbreaks of the Ebola virus, there have been no documented neonatal survivors from pregnant women infected with the virus (CDC 2016a). The most recent data from the West African epidemic indicate that there are very few infants born to Ebola-infected mothers who survived as neonates for even a few days (Howard 2005; Jamieson et al. 2014). Those newborns who have survived following their mother's Ebola virus infection have been highly profiled in the media (Awford 2015; Chicago Tribune 2015; Martel 2014; Médecins Sans Frontières 2015). Women and children are also vulnerable to the continued effects of destabilization within their countries after the official termination of the outbreak. We are now seeing the beginning signs of lasting physiological and psychological effects of Ebola even on those who made a full recovery after initial infection (Clark et al. 2015; Maron 2015). In these instances, it is clear that Ebola survivors will continue to face the continuing impact of their infection for years to come in the form of the physiological effects mentioned above, but also in the form of social effects. Early findings suggest survivors and children left orphaned due to the outbreak may suffer from on-going stigmatization (Denis-Ramirez et al. 2017). It is also expected that comorbid diseases, especially those that are vaccine-preventable such as measles and meningitis, may now have a resurgence as a result of interruptions of routine immunization practices caused by the Ebola epidemic, which further weakened already strained health systems (Takahashi et al. 2015).

2.4 Ebola and Women

During the 2013–2015 outbreak, women in Liberia, Sierra Leone, and Guinea faced the unwelcome prospect of a triple burden of death—they could die from Ebola virus, during pregnancy, or during childbirth. Early during the development of this outbreak, a preponderance of women were affected, with infected women outnumbering infected men by a 3 to 1 ratio in Liberia, and 2 to 1 in both Guinea and Sierra Leone (Barbato 2014; Bofu-Tawamba 2014; Hogan 2014; Life for African Mothers 2014). This was the result of customs which have been well-described—women had the major roles in providing care for the ill and preparing the dead for burial (Menéndez et al. 2015). It was not until much later in the epidemic that the ratio of new cases normalized to equal numbers of both sexes being infected by early 2015 (Saul 2015; Thomas 2014; WHO 2015). While it has not been systematically confirmed, this equalization perhaps represented effective education concerning modes of transmission, risk behaviors, and an increase in resources coming from governments, volunteers, and nongovernmental organizations (NGOs), and their assistance in the removal and burial of the dead.

With the onset of the Ebola outbreak, the progress which Liberia, Sierra Leone, and Guinea had made in the improvement of maternal health prior to the epidemic had all but disappeared. The few hospitals and clinics that were in existence in these countries were converted largely, or in some cases exclusively, into Ebola treatment centers (ETCs). This had dire consequences even for women who were not infected with the virus—during the height of the epidemic from October 2014 to October 2015, it was estimated that 800,000 women would give birth in Liberia, Sierra Leone, and Guinea, and

⁷During this outbreak, young age was a predictor of mortality due to EVD—children tended to rapidly progress to severe disease and deteriorate, with a median time of admission to an Ebola treatment center (ETC) to death of only 3 days (Fitzgerald et al. 2016; Rojek et al. 2017; WHO Ebola Response Team et al. 2015).

⁸The infant who is perhaps the most well-known survivor of Ebola infection is Nubia, delivered to an Ebola-infected mother in Guinea on October 27th, 2015. Although her mother died of EBV, Baby Nubia was given two experimental medicines—monoclonal antibodies (ZMapp) and the broad-spectrum antiviral GS-5734—together with a buffy coat transfusion from an Ebola survivor by her Médecins Sans Frontières treatment team. Nubia became the first neonate to survive congenital Ebola virus infection, and she remains alive today (Dörnemann et al. 2017; Médecins Sans Frontières 2015).

that up to 120,000 mothers could die if denied access to emergency obstetrical care; this is equivalent to almost 330 women dying from pregnancy each day (Boseley 2014; Hayden 2014; UNFPA 2014c, d). At that time, the United Nations Population Fund (UNFPA) had estimated that, unless sufficient emergency obstetrical care was provided, the maternal death rates in these three countries could effectively double to levels seen in the 1990s during times of political unrest, civil war, and violence. This increase would represent a maternal mortality ratio (MMR)⁹ of 1000 in Guinea and Liberia, and over 2000 in Sierra Leone (UNFPA 2015).

There is no evidence to demonstrate that pregnant women are biologically more susceptible to acquiring Ebola virus infection following exposure; however, there are studies which suggest that the Ebola virus is much more deadly to pregnant women and their infants than it is to the general population (Mupapa et al. 1999; Doucleff 2014; Jamieson et al. 2014; Sieff 2015). The Ebola virus epidemic in West Arica had a case fatality rate (CFR) among people of all ages and sexes of from 60 to 70%, depending upon the specifics of the group evaluated. Data from the Centers for Disease Control and Prevention reported a total of 28,616 confirmed cases of EVD occurring in Liberia, Sierra Leone, and Guinea, with a total number of 11,310 deaths—a mortality rate of 74% (CDC 2016b). Among pregnant women and their infants, however, there is evidence to suggest that the mortality rates are higher. In an analysis of 12 published studies of 108 pregnant women and 110 fetal outcomes following Ebola virus infection in Guinea, Liberia, and Sierra Leone, there were 91 maternal deaths, a case fatality rate of 84.3%, and only one surviving fetus (Garba et al. 2017). In a study of 111 reported cases of EVD among pregnant women in all three West African countries, Bebell et al. (2017) found an aggregate maternal death rate of 86% (Bebell et al. 2017).

The fetus from a pregnant woman with Ebola virus disease (EVD) will almost certainly become infected, likely via the virus passing through the placenta, and be stillborn or die shortly after birth. Dr. Denise Jamieson, an obstetrician with the Division of Reproductive Health of the Centers for Disease Control and Prevention (CDC) in Atlanta, stated, "There have been no neonatal survivors" (Sieff 2015). During the Kikwit, Zaire (currently Democratic Republic of Congo), outbreak of Ebola virus infection in 1995, the case fatality rate (CFR) among infected pregnant women was 95.5% (as compared with a case fatality rate of 70% for nonpregnant women). In this Kikwit outbreak, the infection was uniformly fatal to all unborn infants (CFR = 100%) (Mupapa et al. 1999).

2.5 Stigmatization of Health Facilities and Health Care Workers: Avoidance of Hospitals and Birthing Centers

Liberia, Sierra Leone, and Guinea all had a severe shortage of health workers before the outbreak began in 2014. In Liberia, a nation with 4.3 million people, there were only 51 physicians, 978 nurses and midwives, and 269 pharmacists in the country. Sierra Leone, a more populous country with six million inhabitants, had 136 doctors, 1017 nurses and midwives, and 114 pharmacists (Chothia 2014). Health care resources in the most affected countries were already stretched thin, with Guinea having 10 physicians per 100,000 people, Sierra Leone having 2 physicians per 100,000 people, and Liberia having only 1.4 physicians per 100,000 people (in contrast, Sweden has 380 physicians per 100,000 people) to assist in the treatment of infected persons, as well as the treatment of endemic illnesses and chronic conditions (CIA 2015). And among these limited contingents of physicians present at the

⁹The maternal mortality ratio, or MMR, is a standard statistic utilized to evaluate the level of maternal death in a population. It is derived from the ratio of the number of maternal deaths during a given time period from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) per 100,000 live births during the same time-period. It is the most widely used statistic to compare maternal deaths between countries.

beginning of the epidemic, only a very few were obstetricians, or had even received any additional specialized training in Obstetrics. It has been estimated that there were only six obstetricians in all of Liberia, some of whom also had administrative roles, and many health facilities lacked a single midwife (Sepkowitz and Haglage 2014).

To make matters worse, as the epidemic continued in these three countries, the small contingent of physicians became even smaller as a result of exposure to infected patients. In just 10 months, the total number of physicians in Sierra Leone was reduced by 8.2%—a total of 11 doctors in that nation had died from Ebola virus infection as of December 2014 (Frankel 2014). As of November 4, 2015, there were 378 cases of Ebola infection among all types of health care workers in Liberia, resulting in 192 deaths; 196 cases of Ebola infection in Guinea among health care workers resulting in 100 deaths; and, in Sierra Leone, 307 infections among health care workers causing 221 deaths (Statista 2015)—a total of 831 infected health care workers and 512 deaths as of January 14, 2016 (The Economist 2016). According to the CDC, the confirmed incidence of Ebola virus infection was 103-fold greater in health care workers than in the general population of Sierra Leone (Kilmarx et al. 2014).

Because of these grim statistics, health care workers became associated with Ebola, death, and the spread of the disease. After the end of the outbreak, many health care workers continued to experience the social repercussions of carrying out their professional duties—they have been ostracized and stigmatized in their communities (McMahon et al. 2016). The health care workers themselves lamented the drastic changes in patient-provider interactions that the Ebola outbreak necessitated; gone were many of the small gestures that communicate closeness and caring in these contexts, such as sitting in close proximity, touching a patient's arm or hand, or helping a breastfeeding mother with her baby's latch (McMahon et al. 2016). Quarantines imposed on health facilities that experience compromised contact with people with EVD "induced panic within facilities and the broader community" (McMahon et al. 2016:1235) and health care providers in such communities reported that many people delayed seeking treatment because they associated facilities with points of Ebola transmission (McMahon et al. 2016). McMahon et al. (2016:1235) additionally state that one provider told them, "'If we have not done triage, we are not going to take care of that person even if she is in labor...we have to abandon her on the street." McMahon et al.'s (2016) findings clearly demonstrate the ways in which all three forms of stigma were at play in these communities—people came to associate facilities with transmission points for Ebola; health care workers were stigmatized due to their work caring for patients and for changed behavior necessitated by the outbreak; and even when pregnant women did elect to seek health care services, they might not be treated but left on the street to give birth alone, no one willing to risk assisting her.

Pregnant women avoided going to clinics and hospitals where Ebola patients were concentrated for fear of becoming infected with Ebola, despite the need for antenatal and intrapartum care. This behavior presents one way in which Ebola stigma affected maternal health—by not seeking care for fear of infection or contact with possible Ebola patients, pregnant mothers put themselves at risk for complications left undetected or untreated. There was also fear of physicians, nurses, and other health workers among some people, fueled by rumors and conspiracy theories including that health personnel and aid organizations were responsible for spreading the virus. In one occurrence in Guinea, these fears resulted in the deaths of eight health workers who were killed by members of the community during a health education campaign (BBC 2014). The murder of these health care workers was, arguably, an extreme example of enacted stigma as community members killed those thought responsible for the disease and its effects. The deaths of health care workers in countries that already suffered from a severe health worker deficit further limited the number of those who would have been able to serve pregnant women, when pregnant women overcame their fears of health facilities and providers.

As a result of the murders, governments and agencies organized attempts to educate the populace about the need to seek medical attention, especially targeting pregnant women. For example, the

United Nations Population Fund (UNFPA) distributed the following radio message—"Pregnant women: health workers are there for you, to give you all the care and advice you need for a safe pregnancy and delivery... they ensure your safety and the safety of your child during the Ebola outbreak" (UNFPA 2014b). In the face of strong Ebola stigma and fears of infection, the effects of such an announcement were debatable, particularly when paired with low levels of local confidence in state structures or outsiders (in the form of aid and humanitarian organizations).

Prior to the outbreak, the maternity ward at the West Point¹⁰ clinic, located in an impoverished residential area outside of Monrovia, would have 10-15 births each week-during the height of the outbreak, the clinic saw one or two pregnant women per week, and not all stayed to deliver. "People won't go to the hospital, the clinic," according to a 10-year staff member there, Comfort Tapeh, "They say that when you go to the hospital, the nurses kill you. I tell them, 'So who's killing the nurses?"" (Moore 2014). At the same maternity ward, a pregnant women developed a fever, but the woman resisted attempts by the staff to medicate her. She yelled to the staff, "My husband told me I shouldn't take any injections here!" When the staff spoke with her husband, he refused to permit them to treat his pregnant wife and brought her home. Jemimah Kargbo was on duty at the maternity ward when the woman left. "She will die. With a fever like that, she will definitely die. Maybe the baby too," she said (Moore 2014). These quotes raise a number of other issues related to the differential effect of the Ebola virus outbreak on pregnant women, as well as the effects of stigma associated with EVD itself, and the stigma those people in close contact with Ebola victims attracted in the course of caring for them—be they biomedical health workers, Red Cross volunteers, or family members caring for relatives in their homes. The stigma associated with working in proximity to Ebola patients, or associated with the perception that one was working with Ebola patients, effectively led some pregnant women, such as Comfort Tapeh above, to reject assistance from health care workers. Comfort's case demonstrates, too, the ways in which stigma contributed to Comfort's desire to risk possible death due to infection instead of, what she perceived to be, the worse fate of risking infection from the Ebola virus while in the hospital.

Even in the best of circumstances, in communities with resource-poor health facilities there is often a deep mistrust and suspicion of health care providers (Strong 2017); throughout many resource-poor communities, people speculate that there are no medications or even gloves, because the nurses were selling these supplies in their own shops. In those instances, people became reluctant to seek care in the frontline health facilities, preferring to go further afield or stay at home with local birth attendants for economic, logistic, or social reasons. If the situation were to deteriorate further, as it did during the Ebola outbreak, this suspicion and mistrust would easily multiply.

Data from the CDC in Atlanta have confirmed that fewer pregnant women were seeking care in clinics and hospitals—Dynes et al. (2015) and Luginaah et al. (2016) state the evidence suggests the outbreak most likely eroded recent gains in utilization of prenatal and delivery care in Libera. In the Kenema District of Sierra Leone, a high prevalence area for Ebola virus infections, during the period May to July 2014, there were 29% fewer antenatal care visits and 21% fewer postnatal care visits than occurred prior to the outbreak. The CDC researchers conducted a focus group among pregnant and lactating women and they found that these declines in care-seeking behavior were motivated by fear of becoming infected with Ebola at the facilities and mistrust of the physicians (Dynes et al. 2015). Here, we see both the first and second forms of stigma we proposed above—women and their relatives were stigmatizing health care workers and the facilities in which they worked. This stigmatization or discrimination was motivated by fear and a lack of trust. Returning to Parker and Aggleton's (2003)

¹⁰West Point is a township that is one of Monrovia's most densely populated slums. With approximately 75,000 impoverished persons concentrated on a peninsula which projects out into the Atlantic Ocean, the living conditions are squalid, there are insufficient public toilets and sanitation, and infectious diseases such as tuberculosis are rampant.

assertions that stigma reveals power relations and social processes, we can read women's stigmatization of health care facilities and workers as a different form of power relations. The stigmatization of these health care providers during the Ebola outbreak had roots in a much longer history of distrust of state institutions and health care workers who were unable to provide consistently high quality care due to a persistently weak health care system in many of these countries (Blair et al. 2017). While the pregnant women themselves may not have had any real form of power over health care workers, we suggest that their stigmatization of health providers and facilities, leading to avoidance of services, was a result of systemic and on-going disempowerment of women and community members in the biomedical system, produced by weak state institutions. It is also possible that pregnant women were acting out of perceived, or internalized, stigma (Luginaah et al. 2016), a fear of being stigmatized when they reported to health facilities, as we discuss further below. According to the chief executive of ActionAid, Justin Forsyth, "Ebola is having a huge impact on wider health issues like maternal healthcare. No children have gone to school since March and pregnant mums are avoiding health clinics and hospitals. One clinic I went to said the admissions had plummeted from 80 a day to 20-a worrying stat when the UN estimates that 800,000 mums will give birth in the coming year across the region" (Boseley 2014).

The clinics and hospitals were so overwhelmed with caring for victims of the Ebola outbreak that providing obstetrical services for noninfected women became less of a priority. An important result of this was decreased prenatal care for pregnant women, placing them and their unborn children at higher risk for undetected complications such as other infectious diseases including malaria, HIV and tuberculosis, hypertensive diseases of pregnancy, anemia, and obstructed labor. "The lack of access by women, especially pregnant women, to reproductive health services is a major health disaster in waiting," said John K. Mulbah, Chairman of the Obstetrics and Gynaecology Department at the University of Liberia (UNFPA 2014a). "As a result of the outbreak, there has been an increase in pregnant women dying from preventable causes, including antepartum and post-partum hemorrhage, ruptured uterus, as well as hypertensive disease," said Dr. Mulbah. Pregnant women had to give birth without medical supervision, often without a midwife, and occasionally even alone. In Monrovia, 36 year-old Comfort Fayiah went into labor and was taken by her husband to four different clinics and hospitals to deliver her twins, but she was refused admittance to all four. Her husband, Victor Fayiah, said, "I begged them, I cried, but they bluntly refused." On the final day of hospitalization, an up-front payment of \$450 for a surgical delivery was demanded. "The hospital administration requested a cash down payment of \$450 before my wife would be touched," said her husband. "Upon realizing that we did not have the money, and for fear that my wife could pass away in their premises, a man acting on the order of the hospital physically pushed my wife out. He said, 'Get outside! Do you think this is a free hospital?" After leaving in the rain, they hadn't walked more than 10 m before Mrs. Fayiah fell onto the street and began to deliver her twins. She received no care from the hospital staff, but instead was assisted by people passing by and onlookers. A nurse assistant on a motorbike stopped to help deliver the twins (UNFPA 2014d). Hayden (2014) relates another situation in which a laboring woman was left to give birth alone in the back of an ambulance in Liberia. When the mother arrived at an MSF Ebola management center, the obstetrician found that the woman's placenta and now-dead baby were still between her legs; tests later determined neither the mother nor baby had had Ebola (Hayden 2014). Despite the fact that the woman was not infected with the Ebola virus, health care workers had been too afraid of contamination from the copious bodily fluids involved in birth to chance assisting her without full-body protective equipment.

Other obstetric causes of hemorrhage could simulate the effects of the Ebola virus infection during pregnancy. During the Ebola outbreak in Liberia, Mamie Tarr arrived at a clinic in her fifth month of pregnancy while hemorrhaging, holding her abdomen and complaining of severe pain. Her husband Edwin was ill and previously had been brought to an Ebola Treatment Center for care. "My wife saw

me being carried to the Ebola treatment center as a suspected Ebola case, and she thought I was going to die," he stated. But Mamie did not want to raise the infant without her husband. So, without informing her sick husband, the 30-year-old mother sought out an illegal and unsafe abortion from a "backstreet abortionist" who performed the procedure using a combination of herbs, a rusty syringe, and chalk, known in Liberia as "spoiling the belly." Her husband said "She got scared about raising the child without me, so she spoiled her belly. Then she just closed her mouth, she said nothing, until she started bleeding." Mamie died as a result of the unsafe abortion; her husband Edwin was released from the ETC without ever having had the Ebola virus infection (Thomas 2017).

The Ebola crisis became more severe and, as it spread during 2014 and into 2015, country officials diverted critical resources away from pregnant women, who already faced limited access to adequate health care in these nations. The majority of Ebola units in these countries did not have staff trained in obstetrics or midwifery. For example, in Bong, one of the most populous counties in Liberia, the ambulance that was used for obstetric emergencies was instead being used for the Ebola response, diverting this already scarce and much-needed resource from its original purpose, which had not disappeared, only been overwhelmed by a louder, more urgent disaster. And the surgical and emergency departments at JFK Hospital in Monrovia, one of the country's major referral hospitals, were closed during part of the outbreak (Sepkowitz and Haglage 2014). Giving birth at home is dangerous—there is a risk of hepatitis or HIV infections being transmitted because instruments are not sterilized, as well as life-threatening hemorrhage from a placental abruption, uterine rupture, placenta previa, velamentous cord, retained placenta, or coagulopathy (Schwartz 2015). Giving birth at home also generally takes place with the assistance of untrained relatives or perhaps local midwives who may or may not have had any experience or training related to pregnancy or delivery complications, and may not be able to recognize and deal with an emergency should one arise. This further endangers the lives of both the mother and her baby; a woman can live with hepatitis or HIV, but without proper emergency treatment, will most likely not recover from hemorrhage leading to hypovolemic shock. Should an obstructed delivery occur, which is one of the most frequent causes of maternal death in sub-Saharan Africa, there is no provision for performance of a life-saving Cesarean section at home (Schwartz 2015).

2.6 Stigmatization of Pregnant Women Due to Ebola Infection

Social stigmatization can result from the fear of disease, as well as the fear of people who are understood to be different, often due to perceived connections with the contagion. During an infectious disease outbreak, these two fears can occur simultaneously, resulting in the stigmatization of strangers with or without the disease. This stigmatization creates numerous problems for both care givers and care seekers, increasing the suffering of infected people and interfering with public health measures to control the outbreak, as well as the provision of health care (Des Jarlais et al. 2006; Goffman 1963). From a contemporary historical perspective, stigmatization has been an important sociological aspect of many infectious diseases including Hansen's disease (leprosy), AIDS, tuberculosis, and SARS (severe acute respiratory syndrome) to name but a few (Obilade 2015). During the 2013–2015 Ebola epidemic, besides the problem of pregnant women intentionally avoiding health care facilities, many others were stigmatized when seeking treatment at a clinic or hospital due to the widespread general fear regarding the Ebola outbreak. As a result, when pregnant women sought health care, in some cases they were turned away for fear that they were infected with Ebola virus. For example, in August 2014, Sierra Leonean filmmaker Arthur Pratt was working in Freetown to educate people about the Ebola outbreak. Because all hospitals there were closed to non-Ebola-infected cases, he was forced to drive his 8-month pregnant wife to her mother's village, many hours distant, in order to give birth. "A lot of women are having to give birth in the house now," he said during an interview, "All of the hospitals are closed. They have nowhere to go" (Sepkowitz and Haglage 2014). In the case of Aminata, a young pregnant woman who presented to a health care facility in Sierra Leone with a life-threatening obstructed labor, medical staff at the health care facility were afraid to treat her because she might have Ebola virus disease. While waiting for the results of her blood test for the infection, she was transferred to an Ebola holding center so that she could be rushed for a cesarean section if her test was negative. Aminata and her unborn fetus died from complications of the obstructed labor while waiting for the test results—they were found to be negative for Ebola virus hours later (Farmer and Koroma 2015).

Childbirth is a messy process in the safest of circumstances—hemorrhage, amniotic fluid, secretions, sweat, and expulsion of a bloody placenta are all normal processes in childbirth, except that all of these fluids and tissues may contain the virus in infected women. Pregnant women infected with the Ebola virus have been found to have high levels of the viral nucleic acid persisting in amniotic fluid even following the clearance of the virus from maternal blood (Baggi et al. 2014).

Even in the first author's field site in southwestern Tanzania, there was great fear in 2014 that Ebola cases from Democratic Republic of Congo (DRC) or Uganda would jump borders and the virus could find its way into Tanzania. The maternity ward nursing staff repeatedly discussed a deficiency of personal protective equipment (PPE) available at the hospital under normal circumstances and wanted to know why the maternity ward staff had not been the first to be trained in proper techniques for isolating Ebola patients and recognizing the virus's early symptoms. The nurses were of the opinion that the maternity ward staff, with their intimate and nearly continual contact with vast quantities of bodily fluids, would be the first to be infected and die from Ebola in the event that the virus became an issue in their region. Under normal conditions, these midwives expressed a concern with their greater than average exposure to bodily fluids and a lack of vaccines for diseases such as Hepatitis B (Strong 2018). This fear and concern most certainly was multiplied exponentially for midwives working in the areas most heavily affected by the EVD epidemic. Surely, any amount of money to deal with bodily fluids that may or may not be infected was poor incentive for providers to expose themselves to infection and a terrifying death as they watched or heard of their colleagues dying around them.

Compounding the stigmatization of pregnant women due to their potential Ebola infection was a much older, geographically widespread stigma that ties women's bodily fluids to concepts of pollution, dirt, and contamination. In some places, only women from groups which are already constructed as polluted or polluting are considered suitable birth attendants in order to contain the stigma associated with contamination from the bodily by-products of birth. In India, for example, the local birth attendants, dais, are generally from the lowest caste (Rai 2007:177; van Hollen 2003). Even in Western biomedical settings, health care providers and a woman's relatives act to mitigate their contamination from women's bodily fluids due to concerns about germs or infection, but Callaghan (2007) argues, also due to much older, ingrained ideas about the inherently polluting nature of women's bodies that continue to float below the surface of action and thought. In West Africa, a history of menstrual taboos or seclusion practices and other taboos related to sex or reproduction may hint at beliefs regarding the underlying dangers of exposing others to the products of women's bodies (Sterner and David 1991; Strassmann 1992), even if these practices are not in place any longer. It should be noted that restrictions related to menstruation, for example, are not universally damaging to women (Buckley and Gottlieb, 1988). With the spread of biomedicine and its conceptions of microscopic agents of infection (viruses and bacteria) has come a newer understanding of what might be hiding in the substances produced by bodies, particularly women's bodies—in this case, infectious, potentially deadly pathogens such as HIV, Ebola, hepatitis, and others.

Exacerbating the potential stigmatization of caring for pregnant women during an Ebola outbreak were data indicating that some women who were pregnant and infected with Ebola virus may not have

had symptoms of the infection at the time of labor. A 31-year-old woman was presented to a Monrovia hospital in the late stage of pregnancy with suspected premature rupture of membranes (PROM), abdominal pain, and mild uterine contractions. She was afebrile, reported no contact with persons having Ebola virus disease, and did not meet the existing case criteria for having Ebola infection. Subsequently, her blood was found to contain a high viral titer of Ebola virus. Three days after admission, she became febrile, and both she and her unborn fetus died of Ebola virus disease on the seventh day (Akerlund et al. 2015).

Those women with Ebola infection who are pregnant can have copious hemorrhaging. Compounding the hemorrhaging that accompanied delivery in women with Ebola infections was the occurrence of obstetric emergencies that could occur in any cohort of women during pregnancy or in labor. These included such hemorrhagic events as placental abruptions (or abruptio placentae; the premature separation of the placenta before or during labor), placenta previa, retained products of conception, rupture of the uterus, cervical lacerations, ruptured ectopic pregnancy, incomplete abortions, and others (Bolkan 2017). There are no statistics available detailing the prevalence of the problem of obstetrical hemorrhage with Ebola infection, but there are published reports. The chief of ActionAid in Liberia, Korto Williams, has stated, "But we know that many women have had to give birth on their own because people were afraid they had Ebola and women have died because of a lack of care" (Boseley 2014). Korto Williams also said that there are online videos showing women giving birth in the streets alone and without assistance because bystanders were scared they were infected with Ebola (Feminist Newswire 2014). Some women were unable to leave quarantine to give birth (Boseley 2014). The inexperienced staff members found themselves having to risk contamination by caring for a pregnant woman who they believed would die regardless of treatment, thus also wasting valuable supplies and medicines (Lang 2014). The conditions in many clinics and hospitals, overwhelmed with providing care and housing for patients with Ebola, resulted in providers discouraging pregnant women from receiving antenatal care or giving birth within their walls as a result of fear of bodily fluids (Feminist Newswire 2014). There were reports of some clinics and hospitals refusing to admit Ebola-infected pregnant women into their Ebola wards with other patients. At the West Point maternity ward in Monrovia, the staff turned away pregnant women with red eyes and weakness, symptoms of Ebola infection, who were seeking maternity care. A staff nurse there, Tarpeh, said "We are afraid-o, sister. If I had money to sustain my family for six months, I would go home. I'm not lying to you" (Moore 2014). Based upon interviews with nurses caring for Ebola patients in Sierra Leone, the magazine New Yorker reported that an unofficial protocol developed among health workers in that nation: deny infected pregnant women access to Ebola wards, or if entry was permitted, triage them last (Lang 2014). It was reported from Liberia that rumors were common that most health workers who became infected with Ebola virus contracted the disease as a result of caring for pregnant women—it is well-known that this is how the American physician, Dr. Rick Sacra, who was equipped with full personal protective equipment, became infected in August 2014 (Dantzer 2015).

Speaking on the condition of anonymity, a Sierra Leonean nurse told Joshua Lang, a medical student at the University of California San Francisco, "The hospitals are neglecting [pregnant women]—they won't even allow them in." Gabriel Warren, who runs West African Medical Missions, a nonprofit organization in Sierra Leone, saw the effect of this exclusion at a variety of treatment centers. He told Joshua Lang, "They aren't given preferential treatment," he said, "They aren't even given beds. They get put in an area where they get no interventions. They are assumed to die" (Lang 2014). The fear of infection compounded with previously existing poor quality maternity care, which was evidenced by the outstandingly high MMR even before the outbreak had begun. Any tendency towards neglect or abuse (Bohren et al. 2015) could then be amplified by providers' fears of infection and contamination, which were taken out on the women for whom they cared.

The equipment in many of the maternity wards and clinics was insufficient to properly protect the staff, especially in the earlier stages of the outbreak, similar to previous outbreaks in Central African countries. Lucy Barh, the president of the Liberia Midwifery Association, said that feelings about inadequate protection were common to the midwives she led, "That's why some of the clinics are closed—fear, fear, fear. There's no protective equipment, and the lives of those health care workers are threatened" (Moore 2014). In addition to the lack of personal protective equipment, nurses often faced stigma within their own families or communities due to their exposure or potential exposure to the deadly virus (Hewlett and Hewlett 2005; McMahon et al. 2016).

In Monrovia, Fatuma Fofana was a 34-year-old mother of five who was pregnant with her sixth child when she developed severe abdominal pain. Her brother Sheriff took her to a nearby clinic, but they refused to see her—the staff was terrified that she might have Ebola infection. Her brother took her to two other clinics, where she was also refused treatment. Finally, a fourth clinic let them in, but by that time her baby had died—and she did not have Ebola. The staff member did not have the supplies to further treat her and the retained dead infant, so Sheriff called numerous doctors, prepared to offer them a large sum of money (\$400 USD). But no doctor answered his calls, and his sister died, adding to the maternal mortality of the epidemic (Moore 2014). Stories abound of uninfected pregnant women who died as a result of pregnancy complications or miscarriages because they could not get health care. Fatuma's story, similar to Comfort Fayiah's above, also demonstrates an additional burden on poor women; even though her brother was prepared to offer a very large sum of money for her care, it was still impossible to get appropriate medical attention. For many other women and their families, such sums of money would be absolutely out of their reach. Under more normal circumstances (i.e., without the added stressors of a highly fatal epidemic), a family might fundraise from relatives and/or neighbors and friends to acquire enough money for treatment. However, with so many people infected, and rapidly deteriorating infrastructure making daily life more difficult than normal, this network might, logically, rapidly start to fray and become less reliable. It must be considered that women coming from wealthier families would not only have more cultural capital to exert when trying to access care during pregnancy or while giving birth, but would have more physical capital to put on the line in the search for care, as well. Women and families with more funds would be able to pay higher costs that might be charged for scarce medical supplies or that might be given as incentives for transportation or health care services. This differential access to capital would further enlarge the already present gap between those women living at a subsistence level and those who might be considered more middle or upper middle class in these countries. Being able to put resources on the line in the effort to attain care could possibly have helped to mitigate the stigma associated with pregnant women and treating them. However, the story of Fatuma suggests that pregnant women were so highly feared and stigmatized that even large sums of money could not induce health care workers to overcome this stigma.

In some cases of pregnant women who arrived at a clinic or hospital with an urgent pregnancy complication which included bleeding, a common pregnancy-related occurrence with or without Ebola infection, there was a delay in their initial evaluation and treatment. The staff were hesitant to expose themselves to potentially infectious bodily fluids, and there were delays while waiting for the results of testing for the Ebola virus. Dr. Benjamin Black, an obstetrician, has said that poor infrastructure and limited access to laboratory services meant that test results for suspected Ebola patients could take more than 24 h to arrive, during which time a woman and her fetus could die (Guilbert 2015). Poor infrastructure was one of the significant factors in these countries that caused them to be ripe for the spread of this epidemic. While many knew this weak infrastructure was already a barrier to significant improvement in a diverse array of health outcomes in these countries, the Ebola outbreak threw this into stark relief, drastically highlighting the shortcomings and inefficiencies of the preexisting weak health care sector. The existing social inequalities and health system weaknesses helped contribute to the forms of stigma affecting pregnant women, which we have discussed here.

2.7 Conclusions

Despite many of the representations, if we look deeper, pregnant women were not only victims of stigma, but perpetrators, as well. They avoided health facilities and health care workers due to their associations with the disease and its spread. Avoidance of facilities and distrust of health care workers thought to have almost certainly been exposed to Ebola led to the almost complete erasure of previous gains in maternal health outcomes. In a mutually reinforcing cycle, health care workers feared and shunned pregnant women and pregnant women avoided providers and facilities. These forms of stigmatization had fertile ground in which to prosper due to the preexisting health system weaknesses in Guinea, Liberia, and Sierra Leone, compounded by the rapid spread of the epidemic. Gender inequalities meant women had, at least during the first part of the epidemic, a greater risk of contracting Ebola and worse outcomes when they became infected. Pregnant women, both in 2013–2015 and moving forward in time, perhaps suffered the greatest burden through near 100% fatality when infected, but also through the reduction in obstetric services of any kind. It will doubtlessly take these countries several years to recover from the impact of the epidemic and pregnant women will continue to suffer the consequences via a decimated health care profession and weakened networks of care and services. In what was perhaps the most shocking example of the stigma related to pregnant women, health care workers, and EBV infection, one of TIME Magazine's "People of the Year" from 2014, an "Ebola Fighter," Salome Karwah, who was a nursing assistant and herself an Ebola survivor, died on February 21, 2017, due to complications following the Cesarean delivery of her third child (Baker 2017). Karwah used the lasting immunity from her previous Ebola infection to care for patients during the epidemic whom no one else would touch. The outbreak also claimed many of her immediate relatives, including her father who was also a physician (Baker 2017). Of Salome's death following her son's birth, Baker (2017) writes, "Within hours of coming home, Karwah lapsed into convulsions. Her husband and her sister rushed her back to the hospital, but no one would touch her. Her foaming mouth and violent seizures panicked the staff. 'They said she was an Ebola survivor,' says her sister by telephone. 'They didn't want contact with her fluids. They all gave her distance. No one would give her an injection." Salome's sister directly pointed to stigma associated with Ebola as a cause of Salome's death. An MSF health promoter, Ella Watson-Stryker, who worked with Salome during the outbreak said, "To survive Ebola and then die in the larger yet silent epidemic of health system failure... I have no words" (Baker 2017). News of Salome's death spread around the world due to her appearance on the cover of TIME, but she holds a place for the unknown number of pregnant women who died during, and after, the 2013–2015 epidemic due to the effects of stigma and fear.

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