Power, Politics, and Vulnerable Populations: Analyzing the Silences of the Zika Virus Response

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Abstract

The Zika virus outbreak of 2015 was by far the most severe in recorded history. Beginning in Brazil, the virus spread to nearly every geographic area where the mosquito vectors, \textit{Aedes aegypti}, are found. Recent clinical breakthroughs have discovered that Zika is associated with neurological disorders, including Guillain-Barré Syndrome, and congenital microcephaly. In a political climate with restricted reproductive rights, structures of poverty and patriarchy exacerbate the lived experience of the virus, making women (especially from poor and racialized groups) among the most vulnerable to the disease. This thesis merges traditions from feminist international political economy and structural violence theory to form a new critical approach, examining the World Health Organization’s response to the Zika outbreak in Brazil. Close-reading techniques analyze WHO Zika policy documents and infographics, revealing a profound lack of engagement with social determinants of health, and advice that individualizes and feminizes disease prevention. These analyses examine how it is possible that a significant global health actor could overlook the gendered and socioeconomic dimensions of the Zika outbreak.

Ultimately, this thesis reveals that the Zika response is not simply a failure of one organization, but instead, represents a larger system of global inequality and neglect, in which the marginalization of poor, gendered, and racialized groups is structurally sustained. Through a combination of structural violence and institutional passivity, an organization with ostensible attention to social determinants of health still produces policies that fail to engage with gendered or socioeconomic lenses. This research is among the first to analyze the disconnect between public health guidelines and the lived experiences of Zika for vulnerable groups, making an important contribution to an under-explored topic.
Dedication

“No one explains the problem of power better than those who have none.”
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Curriculum Vitae
1.0 From Obscurity to Emergency: The Rise of Zika and Institutional Marginalization

Between 2015 and 2016, the international community witnessed as a relatively understudied disease became a global health emergency (WHO, 2016). With Brazil at the epicentre of the outbreak, the Zika virus quickly spread throughout Southern and Central America, with cases documented in North America, Africa, Asia, and the Pacific. What began in February 2015 as an unidentified, mild infection in impoverished areas of Northern Brazil, quickly became cause for alarm as lab samples tested positive for the Zika virus (WHO, 2016). Carried and transmitted by Aedes mosquitoes, the virus may induce microcephaly in developing fetuses, Guillain-Barré Syndrome, and other neurological complications. Although the association with neurological complications had not yet been confirmed at the time, Zika had never before appeared in the Americas; as such, the population had no existing immunity, making it possible for the virus to spread explosively throughout Latin America and the Caribbean (WHO, 2016).

In addition to the many clinical challenges an illness of this kind presents, the World Health Organization’s response to the outbreak revealed itself to be extremely problematic. In general, the Zika response was characterized by guidelines that individualize disease prevention and management, and a profound lack of engagement with social and structural determinants of health, which included advising women to avoid pregnancy indefinitely (WHO, 2016). These factors coalesce in a political climate with restrictive reproductive rights, making women (especially poor women) among the most vulnerable to the disease. Ultimately, I explore how the Zika response did such a disservice to vulnerable populations, by
placing the majority of the responsibility of avoiding disease transmission on their shoulders.

In the context of this epidemic, this thesis examines the response of the World Health Organization (WHO), which is arguably one of the most significant global health governing bodies. I build upon feminist international political economy and structural violence theory to examine why this organization, which is ostensibly responsible for playing a major global governing role, often underperforms in the face of epidemics. Specifically, I explore why the WHO’s Zika response places an undue burden of avoiding disease transmission on affected vulnerable populations. The disproportionate impact of the Zika crisis on marginalized groups (specifically, women and those of lower socioeconomic status) is an illustration and culmination of global structural crises, while also revealing the ways in which institutions reflect and maintain structural inequalities. Drawing on feminist international political economy (IPE) and structural violence theory, I argue that these global power dynamics create and sustain “a ‘strategic silence’ that marginalizes the work and subjectivity of the vast majority of women so that their concerns are excluded from both national and global [...] governance” (Gill, 2015, p. 20). Structural violence theory is an essential addition to the analytical methods used to explore the construction of neglect and marginalization within global health institutions. The overarching goals for this research are to merge theoretical lines from both feminist international political economy and structural violence theory to develop a new approach which examines how it is possible that the WHO’s Zika policy literature could seemingly overlook the lenses of gender and socioeconomic status when forming official public health recommendations.
Ultimately the goal of this research is to analyze the profound silences and shortcomings in the WHO’s Zika virus (ZIKV) response, and examine why the voices and needs of certain populations were virtually excluded from official Zika guidelines. In order to examine these overarching questions, I argue that the WHO’s Zika response fails to engage with physical and social/structural drivers of Zika burden. Specifically, analysis of physical and social conditions of disease burden includes elements of the built and natural environment which contribute to Brazilian populations’ heightened vulnerability, in particular, poor urban planning and the impacts of climate change on the spread of the Aedes mosquito populations. I examine core WHO Zika policy documents including the “Zika Virus Research Agenda” and “Vector Control Operations Framework for Zika Virus.” Other core policy documents (those pertaining to the social and structural drivers of Zika burden) include the WHO’s Interim Guidance Updates, specifically, those dealing with pregnancy management in the context of ZIKV and sexual transmission of the virus. Most significantly, I draw attention to the fact that much of the existing Zika literature, especially the grey literature created by the WHO, is “problem solving” in the Coxian sense, rather than critical; specifically, these policy documents do not engage with the underlying, structural causes of disease burden for vulnerable populations, relying heavily on limited forms of quantitative, rather than qualitative, metrics. The Zika response was characterized by individualizing disease prevention, and a lack of engagement with structural drivers of health and illness, but as my analysis reveals, these problems are not unique to this particular case study; the shortcomings of the WHO, and the ways in which global health policies are formed, represent a pervasive cycle of institutional neglect, in which the lived experiences of affected vulnerable populations are consistently overlooked. This thesis analyzes the
silences which permeate the WHO’s Zika response, working towards the larger goal of illuminating the challenges vulnerable populations face both in the context of Zika, and more broadly, within the patterns of global health delivery.

1.1 Background: Mapping the Crisis

In July of 2015, the Brazilian Government notified the World Health Organization of a slight increase in neurological disorders among their population, including Guillain-Barré syndrome and microcephaly in infants. At the time, the cause of this increase in detected cases was unknown, but the majority of the neurological disorders were reported in the northeastern states of Bahia and Pernambuco, where active transmission of the Zika virus was in the early stages of detection. As similar correlations began appearing in Colombia, Honduras, Venezuela, and other Central and Southern American countries within the next few months, paediatric neurologists began to suspect there was a direct link between Zika and the upsurge in brain malformations and dysfunctions (WHO, 2019). Shortly thereafter, Pernambuco reported a 10-fold increase in microcephaly cases (Nebbia and Douthwaite, 2016), and by November 2015, Brazil had reported over 1248 confirmed cases of microcephaly, a greater than 20% increase of microcephaly cases compared to the previous year (Nebbia and Douthwaite, 2016). As evidence of the severity of the Zika virus became apparent, in February 2016, the World Health Organization declared the Zika outbreak to be a public health emergency of international concern.

By March 2016, as clinical consensus grew, the WHO officially recognized the association between ZIKV, microcephaly, and Guillain-Barré syndrome. As of
January 2018, the Pan American Health Organization estimates that there have been over 230,000 suspected and confirmed cases in Brazil since the onset of the epidemic, with approximately 3000 confirmed cases of congenital abnormalities associated with the virus (PAHO, 2018). (As of January 2019, there have been no further updates to the PAHO’s “Zika Cumulative Cases” webpage). By November 2016, the WHO declared Zika was no longer a “global health emergency;” however, the threat is far from over, as no vaccine has yet been developed, and the areas of active transmission continue to grow. Although the WHO’s Zika Situation Report has not been updated since March 2017, their Zika Virus Classification Table (which was updated as recently as February 2018) reveals that forty-four countries, including Brazil, have on-going transmission, and that twenty-seven more areas have been documented as new sites of transmission, with a total of 148 countries at risk or experiencing active transmission (WHO, 2018). Despite insistence from WHO officials that altering the status of the outbreak does not signify a downgrading of the threat of the virus (The Guardian, 2016), there remain no long-term solutions to viral or vector management. Especially where there is no clinical treatment for Zika virus infection, it is essential to understand the political and social context in which the WHO's Zika recommendations were given, in order to accurately assess their effectiveness.

Although Zika is not associated with a high number of fatalities, manifestations of the disease present enormous and complex strains on public health systems and families. Where no clinical cure or treatment has yet been developed, the burden of care for affected individuals, as well as the burden of avoiding viral exposure, has been placed disproportionately on women. Women have been encouraged by public health advice (both by the Brazilian government and the
WHO) to avoid pregnancy and practice safe sex, in a political context which criminalizes abortions. A theory to analyze this crisis which merges concepts from feminist IPE and structural violence explains how is it possible that the lenses of gender and socioeconomic status appear to have been virtually excluded from mainstream epidemic responses. Especially as this virus holds significant implications for sexual and reproductive health, why have the WHO’s responses failed to include a gendered analysis of the crisis? As it may be some time before a definitive treatment plan is developed, there must be some way to manage the crisis that does not involve individualizing the problem, or advising women to simply avoid pregnancy.

*Drawn from the WHO’s updated Zika Strategic Response Plan, this map displays countries with no previous Zika exposure experiencing an outbreak for the first time in 2015, as well as countries where Zika has appeared before the most recent outbreak, between 2007 and 2014:*

![Zika Strategic Response Plan Map](https://apps.who.int/iris/bitstream/handle/10665/246091/WHO-ZIKV-SRF-16.3-eng.pdf?sequence=1)
The Zika virus belongs to the *Flaviviridae* family within group IV of the Baltimore viral classification system, according to its genome type and mode of replication. Other well-known mosquito-borne members of the *Flaviviridae* family are known to cause Dengue Fever, West Nile viruses, Japanese Encephalitis, and Yellow Fever, which was originally considered the prototype for the viral family (Abushouk et. al. 2016, p. 54). It was in fact during a study of the Yellow Fever virus in 1947 that Zika was first identified. A group of researchers from the United Kingdom isolated the Zika virus from an infected rhesus macaque in the Zika Forest of Uganda while studying the effects of Yellow Fever in primates (Abushouk et. al., p. 54). Phylogenetic analyses and research of the molecular evolution of the Zika virus have led scientists to postulate that the virus originated in East Africa, then spread to West Africa and Asia between fifty to one hundred years ago, but it was not until 1952 that the first case of Zika virus infection in a human subject was identified in Uganda and the United Republic of Tanzania. During the next two decades following the discovery of the virus, fewer than 500 total laboratory-confirmed cases were observed (Abushouk et. al., 2016, p. 55), but due to similarities to the virus that causes Dengue fever, it is possible that the number of Zika infections was underreported. The WHO has created a visual representation of Zika’s global spread and outbreaks since its discovery in 1947, up until 2016:
Until recently, it was thought that two main strands of Zika existed, but further genetic studies and analyses of phylogenetic tree lineages have revealed a third strain. Viral sequencing from samples in Brazil revealed that the Asian genotype was responsible for both the most recent epidemic, and for the outbreak in French Polynesia in 2013, suggesting that the virus was carried across the Pacific Ocean to South America (Abushouk et. al., 2016). Recent studies have revealed that the Asian and African strains of the virus have potentially different levels of virulence, with evidence from experiments with human neural cells showing that the African strain displayed a higher infection and viral reproduction rate, as well as stronger cell death and antiviral response (Simonin et. al., 2016).

Like many other arthropod-borne viruses, Zika is carried and transmitted by the various species of mosquito from the Aedes genus, including the Aedes aegypti, and Aedes albopictus. Viral composition and pathogenesis of Zika virus (ZIKV)
infection received very little attention until the most recent outbreak, so there is still a
great deal of research necessary to understand precise mechanisms of host cell
infection, replication, signaling pathways, and the antiviral response of the host. To
date, no vaccine or therapeutic agent for Zika exists. Compared to other members of
the Flaviviridae family, relatively little is known about host-virus interactions. While
it is understood that Zika infection occurs within skin cells initially, there is not yet
sufficient research to explain the nature of the skin cells that are permissive to
infection, the entry receptor used by the virus, or the precise mechanism by which
the virus crosses both the placenta and the fetal blood-brain barrier (Hamel et. al.,
2015). However, research has shown that epidermal keratinocytes (the outermost
layer of the skin,) dermal fibroblasts (cells within the dermis layer of the skin
responsible for generating connective tissue,) and dendritic cells (components of the
immune system responsible for communication between the innate and adaptive
immune systems) are permissive to viral infection (Olagnier et. al., 2016).

   It is by means of these discoveries that researchers are able to estimate that
the virus has an incubation period between four to five days, replicates at the site of
inoculation, and then spreads to the bloodstream and the lymph nodes. Signs of Zika
infection may include a rash, with two or more of the following symptoms: fever,
conjunctivitis, muscle pain (arthralgia, myalgia,), and periarticular edema (PAHO
2018). It is estimated, however, that 80% of cases of Zika infection are asymptomatic
(WHO, 2016), which presents further difficulties surrounding diagnosis. Most
significantly for the newborn population, the Zika virus is capable of disrupting the
natural functions of genes involved in neuronal development and apoptosis
(programmed cell death) within neural progenitor cells of developing fetuses
(Olagnier et. al., 2016), which may lead to varying degrees of underdevelopment of
the brain. The fetus is vulnerable to infection as early as the first trimester of development, when the brain cells are just beginning to form.

The 2015 epidemic is particularly significant, not only because of the dramatic increase of confirmed and suspected cases of ZIKV, but also due to recent clinical discoveries of the virus’ pathology and transmission. Until the South American outbreak, the connection between ZIKV and neurological manifestations such as Guillain-Barré Syndrome and microcephaly in infants had not formally been drawn. In 1954, when the first case of Zika virus infection in a human subject was identified in Nigeria, the virus was initially reported as causing a self-limiting infection with mild symptoms that cleared within a few days, including mild fever, skin rash, conjunctivitis, muscle and joint pain, general malaise, etc. It was not until the 2013 outbreak in French Polynesia that “the documentation of 73 cases of Guillain-Barré Syndrome [...] raised concerns about a possible association between the virus and serious neurological complications” (Abushouk et. al., 2016, p. 53).

Similar concerns of ZIKV’s association with severe neurological abnormalities arose in the summer of 2015, when the Brazilian Ministry of Health informed the WHO of a 20% increase in cases of microcephaly among the newborn population (WHO).

Adding to the significance and severity of this most recent outbreak, it was not until 2011 that a clinical study first suggested a non-vector-borne route of viral transmission through sexual contact. Since this discovery, several studies have been published confirming the lengthy presence of ZIKV in semen (WHO, 2016), revealing evidence of sexual transmission, which includes transmission from asymptomatic males to their female partners, and symptomatic transmission from females to their male partners. Viral shedding has also been detected in other bodily fluids, including saliva and urine (WHO 2016).
Although there are many factors which led to an outbreak of this magnitude in Latin America, many environmental scientists argue that it is highly likely that climate change has greatly contributed to the rapid spread of *Aedes* mosquitos across the globe (Yang and Sarfay, 2016). Historically limited to tropical and subtropical climates, the *Aedes* genus of mosquito is now found in every continent except Antarctica. It is hypothesized that human activity, especially that which exacerbates global warming, has greatly contributed to the spread of certain mosquito species, which thrive in hot, humid climates. As global temperatures increase, therefore, mosquito species capable of carrying vector-borne diseases like Zika, including the *Aedes aegypti* and *albopictus*, are able to spread and thrive in climates which were previously inaccessible. The 2015 epidemic began during the hottest recorded year in South America and globally, since recording began 136 years ago (Yang and Sarfay, 2016). The epidemic also followed a humid El Niño summer, with severe flooding “that was predicted by the Intergovernmental Panel on Climate Change as a development related to global warming” (Yang and Sarfaty, 2016). Increased global temperatures, as well as wet and humid conditions, produce the ideal climate in which the *Aedes* populations are able to proliferate. Higher temperatures have also been correlated with an increase in the development and transmission rate of viruses in mosquitoes, as warmer temperatures enable the insects to live longer and optimize body chemistry.

According to the WHO’s most recent Zika Strategic Response Plan, it is likely that the virus will continue to spread in all geographic areas where *Aedes aegypti* are found, but it is also possible that other *Aedes* mosquitoes would also be “competent vectors” with a “much farther geographical reach” (p.11). The majority of European countries have been pegged as either at low or moderate risk of virus
transmission. The map below, from the WHO’s updated Zika Strategic Response Plan, details the predicted distribution of the Aedes aegypti mosquito, and potentially, the Zika virus.

![Fig. 3. Predicted distribution of the Aedes aegypti mosquito](image)


The recent research outlined thus far represents significant progress towards a better understanding of the clinical manifestations and geographical spread of the virus; what remains missing is an understanding of the social implications of the virus, especially surrounding sexual and reproductive health. Links between the Zika epidemic and social determinants of health that create vulnerable populations have been alluded to in many popular press articles. However, the connection between Zika, poverty, and gender remains a relatively understudied area of research,
especially where vaccination research is taking the centre stage. This thesis makes an important contribution to these gaps in social science Zika-related literature.

In order to situate my research, it is important to review underlying theoretical assumptions concerning international organizations more broadly. These ideas are explored in the literature review, revealing the significant gaps in Zika research to date. From there, my own theoretical framework is outlined and explored in chapter three, detailing the ways in which feminist IPE and structural violence can be merged to address a health crisis that is both gendered and structural. Chapter four outlines my methodology, and details the process of policy and Zika response analysis, examining all of the WHO’s core Zika technical papers, public health guidelines, and publicly-distributed infographics. Chapter five analyzes the significance of the WHO’s Zika-related policies; in particular, the response is characterized by a lack of engagement with social determinants of health, leading me to argue that the silences which permeate global health policy and practice are structural, creating a cycle in which the health needs of vulnerable populations are consistently marginalized. Finally, the concluding chapter reflects upon the findings and implications of this research, reviews some limitations of this study, and explores how future research might expand upon my own.
2.0 Literature Review: Critique of the Theoretical Approaches That Dominate Global Health Governance

Global health, as a field of study, is a “political work in progress” (Biehl, 2016), which is reflected by its interdisciplinary elements, including theories and methodologies from sociology, anthropology, public health, clinical medicine, and political science. In the wake of recent shortcomings in global health governance (in particular, the response to the Zika virus outbreak,) scholars often call upon theories from the social sciences to create a critical framework within the field. The evolution of global health as a field, especially the increasing emphasis on critical, interdisciplinary approaches, demonstrates its diversity, its ability to evolve and adapt beyond its original mandates, and its potential to explain institutional global health failures in the contemporary context. Tracing back the conceptual origins of the field allows one to analyze how global health institutions function, whose interests they ultimately serve, and why these many of these institutions continue to reflect structural power imbalances, which are manifested in health care inequalities on an international scale.

The dominant bodies of literature explored in this chapter include global health governance, international organizations, and Zika-specific literature. This chapter also provides a critique of theoretical approaches that dominate global health governance literature, working towards a theoretical framework that is better-suited to understand the Zika response. Although these schools of thought illuminate the actions of international organizations in global health delivery generally, they are insufficient to specifically explain the WHO’s underperformance in the context of Zika. Likewise, none of the existing Zika literature analyzes the WHO’s lack of engagement with social and structural determinants of health in their outbreak.
response. These gaps in the Zika literature present a unique opportunity to explore the ways in which the WHO’s Zika policies do a disservice to vulnerable populations, which is elaborated upon in chapters three and five.

2.1

Global Health Governance

Lee and Kamradt-Scott provide an overview of the theoretical frameworks which compose the discipline, in particular, the idea of global health governance. The term “global health governance,” which stems from international relations theories, originated in the 1990s as a way of re-imagining health and illness in the context of globalization. For global health, governance involves both state actors (such as the World Health Organization) as well as many non-state actors (including pharmaceutical companies, non-governmental organizations, and other private actors such as the Bill and Melinda Gates Foundation). As Lee and Kamradt-Scott argue, the influence of non-state actors has continued to grow, especially in the “anarchic” international system, where agreements and regulations are not (for the most part) legally binding. Most significantly, global health governance is deeply embedded in normative frameworks, which shape how we identify both the “problems” within global health practice and their potential “solutions” (Lee and Kamradt-Scott, 2014). I argue that normative framework is crucial for shedding light on the persistent and fundamental inequalities and injustices within global health. The inequalities embedded within global health “present compelling moral imperatives,” (Ruger, 2008, p. 4) and as such, normative theories of global health justice allow researchers to “propose principles, policies and tools to address these inequalities and threats and to frame international and national collective action” (Ruger, p. 5). These
introductions to the discipline itself allow for a better understanding of the central questions explored in this field, and how one is able to apply these frameworks to specific research questions.

Studying the origins of global health is essential for understanding some of its foundational questions and theories, as well as explaining the origins of critical approaches in global health in the contemporary context, which are explored by Biehl, Adams, and Farmer. Each of these authors, though their backgrounds differ greatly, all emphasize “people-oriented” approaches to global health practice, with particular emphasis on biosocial theory and ethnographic research techniques drawn from anthropology. Most significantly, a critical perspective in global health allows the researcher to expand the analytic gaze from the level of the individual to the structural drivers of health and illness. This practice identifies the root causes of inequalities in global health. It is not enough to simply demonstrate that these inequities exist; the practice of expanding the analytical gaze beyond the level of the individual allows one to see the global *patterns* of inequalities, and how they are shaped by powerful social and institutional structures.

In global health governance literature, a common theme or central question has predominated. As Gill notes, a critical perspective in the field asks, “global governance of what, for whose benefit and why?” (2015, p. 3). A critical perspective is necessary to examine global power dynamics, and investigate why many global health governance responses have failed to meet the needs of marginalized populations. Several different theoretical approaches may be used to address these overarching questions, including intersectional feminism, and feminist political economy. Gill, as well as Benatar et. al., analyse why global health governance serves populations unevenly; their theories use a similar lens to explain how
dominant power projects shape global governance, in particular, by means of neoliberal capitalist structures. Essential to the understanding of global power dynamics is the study of how and why power is unevenly shaped. Gill states that uneven global power dynamics were created in the post-Cold War world order, and that these dynamics are sustained by military and economic power, mechanisms of global governance such as NATO, the IMF, the World Bank, and economically dominant nations. Following this perspective, it is because of this uneven distribution of power among international players that global structural crises are experienced unevenly according to populations. As Gill articulates, these crises “have hierarchical effects that are racialized and gendered as well as structured along lines of social class and caste, but ultimately, they tend to hit the weakest, poorest and most vulnerable members of society the hardest, and the majority of the poorest tend to be women” (p.9).

Benatar et. al., in “Global Health and the Global Economic Crisis,” articulate the relationship between global economic patterns (especially neoliberal capitalism) and inequality as a means of explaining uneven power distributions in global health governance. Despite unprecedented growth in real world annual income and technological advances, the ability to use these advances has become more, rather than less, socially stratified. According to the 2017 Credit Suisse Global Wealth Databook, only 1% of the global population now owns half of the world’s wealth. Likewise, improved human health, being driven increasingly by market forces, has benefitted only about 20% of the world’s population (Benatar et. al., 2011). Therefore, in order for global health policies and practices to be most effective, attention to patterns of inequality must be at the core of focus. Without taking into account the structures of injustice and inequality which influence health and disease,
an effective solution to specific global health issues may not be possible. This concept is central to this thesis, and provides the normative framework for the argument in chapter three.

Among the global health and global governance literature, many authors urge that global health must move beyond a biomedical model to incorporate varied and nuanced perspectives, as a means of balancing these patterns of inequality. For example, Bakker, et. al. point to the HIV/AIDS crisis not only as a sign of biomedical and clinical shortcomings, but also as a sign of social and political entropy within a complex global system, revealing the need to develop sustainable health at the population level. Within this complex system in which global health operates, the benefits of health and economic progress are predominantly enjoyed by less than 20% of the world's population who consume over 80% of annual global economic output (Benatar et. al., 2009). This divide permeates social, political, and health systems alike, which a biomedical approach in itself may not be sufficient to manage. The need, therefore, to infuse global health approaches with social and political understandings of the ways in which inequality influences disease is especially urgent. In order to be most effective, and to acknowledge global inequalities, Benatar et. al. argue that social justice must lie at the core of public health (p. 647). The fact that there are very few pieces of academic scholarship devoted to the social and political influences on the Zika epidemic speaks to significant gap in the literature; this also speaks to the lack of engagement with qualitative forms of research within global health. The relationship between poverty, patriarchy, and the Zika epidemic is an area of study which my research will help to expand.
Many critical scholars in the field of global health have pointed to the need to broaden research beyond biomedical models, and to include more nuanced approaches from the social sciences that examine structural and social determinants of health; for the study of the Zika outbreak, this trend is of particular importance. As Petryna and Biehl observe, far too often, major global health actors have “overemphasized individual risk factors that ignore how health risks are shaped by law, politics, [...] violence, and lack of access to justice” (2013, p. 3). For example, there are no doubt many benefits to be gained from informing women and their partners of the individual risks associated with sexual transmission of ZIKV, and how one can stay safe in areas of active transmission, as the WHO’s Interim Guidance reports have outlined. Crucial to controlling the spread of the virus is an informed and equipped public health system, and a general public with sufficient education regarding mosquito population control in the home, risks associated with the virus, methods of transmission, etc. However, if global health actors are to seriously engage with the underlying social and structural causes of disease burden and develop long-term solutions to health crises, these kinds of individualized policy guidelines must be thought of as initial, surface-level responses, rather than the primary (or in this case, only) policy guidelines.

In terms of scholarly work which addresses the evolution of global health, the theoretical framework introduced by Hankivsky et. al. is especially useful for my research, as it addresses the incorporation of both biomedical and intersectional research to the field of global health. Above all, the integration of these different approaches, which are “often thought to be in opposition,” (Hankivsky et. al., 2017), is especially useful for research of this kind; chapter six draws upon the theories present by Hankivsky et. al to outline the ways in which social science and
biomedical research might be combined to form a more effective method of public health delivery. Hankivsky et. al. offer not only an explanation of how to apply an intersectional approach in health research, but also what this practice looks like, and the benefits it can bring to identifying health inequalities. As the authors explain, incorporating intersectional approaches into biomedicine expands the analytic lens from an individualized, reductionist stance, and reveals how various social axes produce unequal health outcomes. The concept of intersectionality, which has its roots in critical feminist theory, also allows researchers to trace social constructions of power, and how these are manifested in physical and mental health. I follow these authors by arguing that advancements in the social determinants of health, as well as effective biomedicine, can be achieved by the merging of these fields and research methodologies. This thesis draws on Hankivsky et. al. to demonstrate how biomedical and intersectional approaches can be combined to reveal why certain populations experience unequal health outcomes, and to explore why the current strategies of global governing actors (such as the WHO) are often ineffective at addressing both the biomedical and structural drivers of health and disease.

2.2

**International Organizations**

The second body of literature explored in this review are the theoretical approaches to international organizations (IOs) more broadly, which inform the normative claims that constitute global health governance and international health organizations. A constructivist approach helps to explain why and how IOs are able to construct certain social relations of power, by creating new interests, actors, and social activities (Barnett & Finnemore, 2004). The involvement of IOs in post-
conflict and nation-building demonstrates the extent of their reach, which is, arguably, growing in the contemporary context. Despite an overall consensus of the centrality of IOs, several prominent authors in the field contest these ideas, including Ronald Labonté. Labonté argues that the most important actors to consider when examining global governance are states, rather than IOs, which “remain largely creations of or dependent upon nation-states for their existence” (2008, p. 468). However, as Barnett and Finnemore articulate, the ability of IOs to evolve beyond their original mandates demonstrates their significance for global governance.

Barnett and Finnemore have several suggestions as to why IOs fail, including features of their bureaucratic qualities. Some suggestions proffered are that IOs are given unrealistic mandates with limited funding, designed to satisfy political agendas rather than specific criteria. Other ideas the authors suggested involve the “pathologies” or dysfunctions inherent to bureaucratic culture which subvert the IO’s original goals. Although the WHO may certainly be subject to bureaucratic dysfunctions, it cannot be said that the organization is lacking sufficient resources to carry out its mandates; bureaucratic shortcomings alone do not explain why the Zika outbreak response of such a powerful global health actor appeared to have overlooked the impacts of gender and socioeconomic status on the crisis. I therefore draw on other theoretical approaches to address my questions, specifically looking at whose interests global health governance (and international organizations) ultimately serve, and why the needs of vulnerable populations continue to be overlooked in policy and practice.

There are, no doubt, many reasons why the WHO’s role in addressing global health issues has become diminished, which are not necessarily unique to this case study. From a global governance theoretical standpoint, there are many institutional
shortcomings which convolute the WHO’s mandates. As Harman and Fidler both argue, global health has moved beyond a purely humanitarian concern into the realms of international security, as well as economic and social development; as such, the number of relevant global health actors has increased. This has resulted in a complication of the WHO’s role. As the number of global health actors has increased, the objectives of global health have expanded as well. While an expansion may include examination of the social determinants of health, the growing agenda has also created pressure to prioritize responses based on the level of perceived threat. Hence, part of the reason why neglected tropical diseases remain neglected, for example, is due to how they are prioritized, rather than necessarily because of clinical research barriers.

The overall consensus in global health/governance work is that the role of IOs (specifically, the WHO) is complicated in the contemporary context, to the extent that they often fall short of their mandates. However, there is some discrepancy in the field with regards to the reasons for inequalities in global health, and the reasons for these failures. Aside from arguments founded in state-centrality (Labonté) many of the explanations (Benatar et al.) point to the influence of powerful economic forces such as neoliberal capitalism, which help to sustain poverty and gender inequality. Other theoretical approaches, such as feminist political economy, point to structures of patriarchy which are so deeply ingrained into public policy that the ways in which genders experience health crises differently is pushed into invisibility (Harman).
2.3 Zika Literature

In a relatively short amount of time, there have been many advances in clinical and pathological knowledge of the Zika virus. As more is understood about Zika virology, as well as phylogenetic history, more is discovered about how the virus is transmitted to a fetus, how long the virus may potentially remain active in the body, etc. Significant research progress has been made against what was formerly considered an obscure disease, bringing researchers closer to developing a treatment method. However, despite the very recent developments in clinical research, there remains a gap in the literature concerning the social and political conditions in which the epidemic took place; the role of structural conditions influencing the impact of the outbreak, including poverty and patriarchy, has not been examined by other authors.

To date, the majority of research related to the Zika outbreak and the virus itself has been in the biomedical and clinical fields. Until the 2015 outbreak, the Zika virus had remained relatively understudied since its discovery in 1952. It was not until 2011 that a clinical study first suggested a non-vector-borne route of viral transmission through sexual contact (Abushouk et. al., 2016). Additionally, it was not until the 2015 epidemic that the connection between ZIKV and neurological complications such as Guillain-Barré Syndrome and microcephaly in infants had been discovered. These findings represent significant progress towards a better understanding of the pathology and transmission of the virus; however, several questions concerning the social implications of ZIKV remain unexplored in the current literature devoted to the epidemic. Links between the Zika epidemic and social determinants of health that create vulnerable populations have been alluded to
in many popular press articles, including several written by the Guardian, and the New York Times (Vittor, 2016; Pettker, 2016; Watts, 2016). However, the connection between Zika, poverty, and gender remains a relatively understudied area of research, especially where vaccination research is taking the centre stage.

Thus far, a trend has emerged among the few academic articles examining social issues surrounding the epidemic. The majority of these articles focus on how the WHO and other public health agencies’ responses have failed to meet the needs of affected populations; however, there seems to be no consensus concerning why these global health actors have overlooked the gendered nature of the crisis, or how this impacts women specifically. Why did the WHO’s response to the epidemic, especially the Interim Guidance Updates regarding sexual transmission of ZIKV, fail to acknowledge gender relations and structures of patriarchy which increase the difficulty of adhering to guidelines? Why is the burden of avoiding ZIKV infection placed disproportionately on the shoulders of affected vulnerable populations?

Although several scholars have pointed to the WHO’s inability to address social and structural determinants of health, none have examined the WHO’s lack of engagement with the effects of gender dynamics in the context of Zika.

When examining some of the infectious diseases and PHEICs (public health emergencies of international concern) which have received significant funding, as well as military intervention in the 21st century, it is unlikely that the Zika virus will receive the same amount of international attention. For example, where other PHEICs such as Ebola were perceived to immediately threaten international health and security, Zika is not associated with high mortality rates, and its effects are only visible in a portion of the population. By November 2016, the WHO declared Zika was no longer a public health emergency, despite the virus remaining far from under
control. Based on the pattern of how global health concerns are typically framed, the virus’ disproportionate effect on women (especially of lower socioeconomic backgrounds) is unlikely to garner as much international attention and funding as other infectious diseases with high mortality rates, which are perceived to threaten international security.

Although many authors have studied why IOs fall short of their mandates, no academic articles have yet examined why the WHO’s response to the Zika epidemic failed women specifically. However, several authors, including Colleen O’Manique, Sandra J. MacLean, etc., have pointed to the ways in which other global health crises have overlooked the needs of women and other vulnerable populations; the theoretical traditions of these bodies of literature may also be applied to the Zika context. O’Manique, for example, has written extensively on the “securitization” of the HIV/AIDS crisis in Sub-Saharan Africa, and how a feminist analytical lens offers the possibility of broadening and deepening the understanding of the relationship between HIV/AIDS and insecurity by shifting focus from the ways in which the crisis poses threats to security at discrete levels (individual, national, military, etc.) and turning attention to the ways in which gender power dynamics influence human security and disease vulnerability (O’Manique, 2005, p.45). Like Gill and Benatar et. al., Bakker et. al. also address the powerful economic and political forces which help to sustain poverty and gendered inequality in health crises. For example, as neoliberal economic influences cause cuts to national budgets allocated towards health care and other areas of social spending, this burden is “deflected to households in which women have traditionally carried a large burden of caring work and have become the principal shock absorbers of this individualized risk” (Benatar et. al., 2011, p. 649). These analyses help explain why women’s
needs, as well as their social and financial barriers to public health guideline adherence, were essentially excluded in the WHO’s Zika grey literature. A feminist political economy lens has also been used by several other prominent authors in the field, including Sophie Harman, whose intersectional approaches entail a multidisciplinary methodology.

The lack of analyses of the structural drivers of the Zika burden represents a significant gap in the literature devoted to the epidemic. As Petryna and Biehl would argue, any sustainable global health development initiative requires integrated approaches to “improve the conditions of the poorest and most vulnerable groups carrying the highest burden of ill health” (p. 4). Petryna and Biehl elaborate on this point, by highlighting the importance of including qualitative research techniques in global health. The use of ethnography, for example, can be thought of as an early warning system to articulate the empirical evidence of the most significant problems individuals or communities face “on the ground.” Often, ethnography is able to produce a new set of empirical data “that is sometimes more truthful, proposing alternatives to the evidence-making from metrics work” (Adams, 2016, p. 11). In the case of communicable disease epidemics, the combination of ethnographic and biomedical research may prove to be a highly effective means of accurately identifying the underlying causes of disease burden, and the best treatment methods in specific sociopolitical contexts. In the context of the Zika outbreak, one such ethnographic study which stands out was published in June of 2017, in Population Development and Review Journal. Combining the analytical lenses of gender and socioeconomic status, this report assesses the social and political conditions in which the WHO’s interim guidance was given. Marteleto et. al. employ ethnographic research methods (including extensive one-on-one interviews and similar qualitative
data) to reveal how the first eighteen months of the Zika epidemic affected Brazilian women’s reproductive decisions, including the use of contraceptives, as well as fertility intentions and outcomes.

In public health emergencies such as Zika, it is also crucial to recognize, as Marteleto et. al. have done, that gender alone does not define the magnitude of one’s risk. As Farmer articulates, “simultaneous consideration of various social “axes” is imperative” (Farmer, p. 42, 43) as it is often “poor women who are least well defended” against these crises (p. 44). Ultimately, ethnographic evidence compiled by Marteleto et. al. revealed that socioeconomic status (as well as racialization) has a profound impact on women's access to reproductive services, and is likely to determine which women face the greatest risk of viral exposure, unintended pregnancy, and thus, the threat of Zika-related congenital abnormalities. Although Brazil’s free public health care system envisions health as a “right of all, and a duty of the state” (Valente, 2016, p. 1376), the ability of women to actualize these rights is confounded by restrictive abortion laws, socioeconomic status and systems of patriarchy; the cumulative effects of these social structures restrict women’s reproductive autonomy, and make it difficult to adhere to many of the WHO’s Zika-related guidelines.

In all of the national and global health recommendations made during the epidemic, qualitative data analysis such as this was perhaps one of the most important elements missing from Zika research and responses. The kinds of social questions asked in the review by Marteleto et. al. begin to explain where the WHO and other public health agencies’ responses to the epidemic are lacking. However, as this study was intended to examine conditions of women facing Zika-related concerns on the ground, its primary focus does not engage with global governance
theories as an attempt to explain why public health policies do not appear to recognize the socially-stratified nature of reproductive health care access, as well as the unequal burden of disease that women of lower socioeconomic status face. Thus, there is an obvious gap in the social and political science literature related to the Zika epidemic; my work explores several critical theories to show how the WHO, one of the most significant global health actors, seemingly overlooked the effects of gender dynamics and socioeconomic status when creating Zika-related guidelines.

When reviewing many of the WHO’s policies for Zika containment (WHO, May & June 2016,) especially interim guidance updates regarding sexual transmission, it is clear that many of the recommendations do not take into account structural inequalities which limit the ability to follow guidelines. This point is further developed in chapters three, four, and five. As there are so clearly multiple structural drivers of disease burden in the context of Zika, including conditions of poor urban waste management (which provide ideal mosquito breeding grounds), the effects of global climate change (allowing mosquito populations to thrive in areas which were previously inaccessible), etc., it is unreasonable and counter-productive to place the majority of the disease response on affected individuals. Ideally, these initial responses might be more beneficial if they were followed with longer-term solutions addressing causes of underlying disease vulnerability.

In the case of the Zika response, the burden of avoiding viral transmission appears to rely unequally on the voluntary choices of women at the individual level, drawing attention away from the disempowering economic and social structures that affect the ability of these individual choices to be made. Responses which do not engage with significant structural drivers of ill health are not necessarily sustainable, and often run the risk of doing a disservice to affected populations. Although many
theories explain why IOs fail, as explored in the beginning of this chapter, combining approaches from feminist international political economy and structural violence theory best explain the shortcomings of the WHO in the context of Zika. The merging of these theoretical frameworks is outlined in chapter three, and subsequently explored in chapter five.
3.0

Theoretical Analysis:
Understanding the WHO’s Zika Response

This chapter presents a theoretical framework best-suited to explain the response the WHO took, and how power is shaped through this response. It considers several analytical lenses, showing which are the most and least useful for explaining the WHO’s response. Postcolonial analysis, structural violence theory, Marxism, and feminist international political economy (IPE) are all considered, as all of these theories present slightly different explanations as to who holds intentional power, and how this plays out in global health responses. There is not necessarily one single “correct” way of approaching the research questions presented in the previous chapter, as there are so many different ways of explaining the nature of power within the discipline of political science. There are, however, one or two analytical lenses that are better able to answer some of the unique elements of this global health crisis, in particular, the gendered and socioeconomic elements of disease vulnerability.

There is a general consensus among social science literature and many popular press articles that the initial Zika response was inadequate, and reflected a juxtaposition between public health recommendations and the social, structural contexts in which they were given (Hodge et. al., 2016; Valente, 2016; McNeil, 2016). However, there has been very limited investigation as to why this seems to be the case, and specifically, why the WHO’s guidelines failed to acknowledge how structures relating to gender and socioeconomic status affect disease vulnerability and burden. In order to examine these overarching questions, it is beneficial to employ and develop theories that would help to explain why the WHO’s Zika response largely failed to acknowledge the constraints of poverty and patriarchy on
vulnerable populations, and how these structures limit the ability of affected populations to adhere to public health guidelines. For the purpose of identifying the root causes of such institutional shortcomings, my analysis first turns to Robert Cox’s theories of international relations, institutions, and world order. One of the purposes of theory, as Cox elaborates, is to become aware and reflective of “world systems” currently in place, as a means of giving rise to alternative perspectives. Therefore, a critical theory used in this context, unlike what would be classically understood as “problem solving theory,” is a helpful analytical lens, as it stands apart from the prevailing world order, and calls institutions into question by examining their origins (Cox, 1981, p. 129). Thus, critical lenses may be employed to analyze institutions and their corresponding frameworks. According to Cox’s analysis, institutions reflect prevailing power arrangements “at their point of origin,” and act as a means of stabilizing and perpetuating “a particular kind of social and political order” (Cox, p. 136). Although Cox’s analysis refers to institutions in the broader sense of world organization, as opposed to specific establishments or international groups, these theories may also be applied in the context of the Zika response.

If the same analysis of institutions is applied to organizations such as the WHO, it is important to examine the power dynamics at play, and how these shape policies. What social orders prevail in the WHO, and how are these reflected in their epidemic response systems? A postcolonial analysis would point to the power of Western discourses embedded within the WHO as in institution, which marginalize or silence the needs and voices of vulnerable populations in the Global South (Abrahamsen, 2007, p. 116); while the disparities in wealth and health between the Global North and South do not go unnoticed, postcolonial analysis instead poses a challenge to the conceptualization of Western institutions, “and the political practices
they make possible” (Abrahamsen, p.116). A feminist political economy framework further analyzes these disparities, and points to the power of institutions to reproduce certain gendered and classist social relations, especially how “various institutions [...] interact and balance power so that the work involved in the daily and generational production and maintenance of people is completed” (Bezanson and Luxton, 2013, p. 3). Despite the formal recognition on the part of the 2007 World Health Assembly of the importance of integrating gender analysis into the work of the WHO (WHO, 2007), there is clearly a gap between policy and practice; is it possible that the socially-reproduced structures of patriarchy are so deeply ingrained into institutional structures that the gendered lens of the Zika crisis could go unnoticed by such an important global health actor? Alternatively, is it possible that the WHO perceives the effects of poverty and patriarchy too complex to measure and address in initial policy recommendations? This thesis explores these questions, explaining why and how underlying structural conditions of disease burden continue to remain unaddressed by major global health governance actors. For this purpose, analyses from the social sciences are of the utmost importance, by “showing how things work and don’t work not just in theory but in practice, and by sometimes serving as a witness to and voice for those who are not able to speak back to the overarching demands for certain forms of evidence that are placed on them” (Adams, p. 227).

Whether the problems with the Zika response are best explained by postcolonial analysis, feminist political economy, or structural violence theory, it is certain that imbalances of power between populations and institutions are reflected in public health policies. As Sen elaborates (Farmer, p. xvi), this “asymmetry of power can generate a kind of quiet brutality,” one which prevents the sharing of certain opportunities, and prevents certain voices from being heard. It is also certain that the
world’s vulnerable populations (including the poor, gendered, and racialized groups) are the primary victims of these power imbalances; “the poor are not only more likely to suffer, they are also less likely to have their suffering noticed” (Farmer, p. 50). This thesis explains in what ways the concerns and realities of vulnerable populations were excluded from the WHO’s Zika response, but also, why the WHO seems to have overlooked considerable social structural barriers to guideline adherence.

Post-colonial analysis points to the power of Western discourses embedded in the WHO as an institution, which inherently marginalize the needs and voices of vulnerable populations. Essentially, according to this theory, power is actualized through constructions of social meaning. The politics of recognition (whether it be land-rights, social and political entitlements, or in this case, whose concerns are allowed to predominate in global health responses) are embedded in colonial relationships, which, in the contemporary context, play out in encounters between the Global North and South. Recognition discourses are constructed by economically-dominant world powers (many of which are former colonizers), who hold the power to shape global institutions and international interactions. As such, public health discourses constructed by the Global North are reflected by institutions like the WHO, and have the ability to shape which global health crises are prioritized, and which remain in the sphere of “neglected diseases.” In this establishment of global health priorities, the concerns of affected vulnerable populations in the Global South have the potential to become silenced almost entirely.

Structural violence theory offers a slightly different approach, which is less concerned with the actions of states, and instead focuses on social structures which transcend borders. Power is constructed through social relations and structures (for
example, neoliberalism, colonialism, patriarchy, poverty, legal/political configurations, etc.) which influence how individuals or groups interact within a social system (Rylko-Bauer, B., & Farmer, P, 2016). Injustice and inequality embedded within these structures and institutions incite violence (in various physical and non-physical forms) against marginalized and disempowered groups; in this context, structures of poverty, patriarchy, etc., create unequal health care opportunities among populations, especially the poor, racialized and/or gendered groups. The WHO in itself could simply be considered another structure which replicates unequal socially-constructed power distributions amongst populations, effectively silencing certain voices from being heard, and preventing the sharing of certain opportunities. Although this is done unintentionally, the inability of the WHO to acknowledge the social determinants of health through their policy documents, as well as the structural drivers of health (especially, in this case, poverty and patriarchy), contributes passively and pervasively to the marginalization of vulnerable populations, excluding their needs and realities from global health agendas.

Marxism and Feminist IPE differ from the constructivist theories mentioned, in that they each focus on more specific oppressive political structures and affected social identities. According to Marx, political power is “merely the organized power of one class oppressing another” (Tucker, 1978, p. 490). Power itself is represented in a materialist sense, primarily in the form of capital. A Marxist interpretation presents a socioeconomic and materialist analysis of class systems and social conflict in which the ruling class, who own the means of production, exact their power on the working class, who must sell their labour power to gain access to a small portion of surplus capital in order to survive. Marxist interpretations would point especially to
the ways in which disease burden falls primarily to the poor. Especially in the neoliberal era, economically disadvantageous circumstances also exclude vulnerable populations from certain health care opportunities (in particular, infection prevention measures). A Marxist understanding of alienation as a lived experience of capitalism is especially useful for applications in global health. As Yuill discusses, alienation in a capitalist society manifests itself materially, bodily, and emotionally: “at the heart of Marx’s philosophy is a biological material ontology that starts and proceeds with an understanding of a sensuous human relationship with nature and, within alienation theory, there is an understanding of the emotional and physical pain that life in capitalist society can bring” (2005, p. 129). The working class, having access to the least amount of material power (and therefore, social power) experience alienation and its effect on health crises disproportionally.

Most of the WHO’s grey policy literature regarding Zika focuses on infection prevention; as there is yet no vaccine for ZIKV, there is no doubt that this is the most effective initial strategy for containing the virus. However, conditions of social and economic disempowerment experienced by the working class may prevent certain groups from being able to follow the WHO’s recommendations. For example, poor populations living in favelas may not have the economic power to access mosquito nets, window screens, etc., to prevent vector contact, as recommended in the WHO’s “Vector control operations framework for Zika virus.” People living in poverty may also have limited access to safe and effective forms of contraceptives, which is, currently, the only way of preventing ZIKV transmission from partner to partner. The WHO’s recommendation in the context of the Rio 2016 Olympic Games to “avoid visiting impoverished and over-crowded areas in cities and towns with no piped water and poor sanitation (ideal breeding grounds of mosquitoes) where the
risk of being bitten is higher” (2016) is testament to the fact that the organization recognizes that the risk of contracting Zika may be higher for impoverished populations. Yet, many of the grey policy recommendations remain socially and economically stratified; the poor cannot simply avoid the conditions of their daily lives.

While the Zika outbreak poses long-term burdens for families and public health care systems, the virus is not associated with high mortality rates; it is possible that this factor in itself might affect how the WHO and other institutions rank its level of threat, and how it is prioritized in the international community. The WHO Emergency Response Framework, for example, assesses emerging infectious diseases according to a structured grading scheme to in order to triage resources, and determine the level of threat certain communicable diseases pose. However, as Paul Farmer’s prolific writings have revealed, “the experience of suffering, it’s often noted, is not effectively conveyed by statistics or groups” (Farmer, 2003, p. 31). In the context of Zika, what may be missed by metrics-based classification systems, for example, are the human rights debates and concerns associated with the outbreak. While policy guidelines produced by both the WHO and the Brazilian government evidently aim to reduce the number of Zika-affected births, women and health-care providers may face criminal prosecution if they attempt to terminate Zika-affected (or suspected) pregnancies. While the WHO’s guidelines may provide information regarding the physical manifestations ZIKV and best practices for avoiding infection, they fail to acknowledge the practical difficulties many women face accessing safe and effective reproductive services (especially women of lower socioeconomic status and racialized groups) (Diniz et. al., 2016), as well as the potential violations of women’s human rights in the context of the crisis. As this public health emergency
illustrates, there is a “need to explore new ways of talking about metrics that undo their claims on certainty, on standardization and truth and simultaneously pursue new models that may be worth pursuing” (Adams, 2016, p. 227). Certainly, a critique of metrics goes beyond specific research techniques; especially in the context of this global health crisis, it is essential to re-evaluate what counts as “legitimate” evidence that a public health emergency exists, and to analyse whose voices and concerns are silenced or acknowledged.

As Harman articulates, “women and gender are a space of neglected health” (p.128). This is a concept I will explore in chapters five and six. Although the WHO and many other global health agencies promote gender equality through a human rights framework, there is often a disconnect between some of their gender-specific policy responses and the context in which they are given. This disconnect was especially apparent in the WHO’s interim guidance report, “Prevention of sexual transmission of Zika virus,” released in September 2016. As evidence of ZIKV’s diverse means of transmission grew, the WHO released this update to the June 2016 interim guidance, designed to inform the general public, and to be used as a guideline for public health workers wishing to inform patients about the risks of sexual transmission of ZIKV. Although the educational objective of the guidelines certainly appears beneficial, there also seems to be a disjunction between the advice specific to women in intimate relationships and structural conditions of patriarchy which may influence women’s reproductive autonomy. For example, the report urges women to abstain or practice safer sex throughout the duration of a pregnancy, and encourages delaying plans for pregnancy by at least six months upon returning from areas of active transmission. While condom use is widely promoted by public health programs in Brazil, the country’s high rates of unplanned pregnancies speak to a
disjunction between women’s intentions and reproductive outcomes (Marteleto et. al., 2017). Further to the underlying structural barriers to guidance adherence, Brazil is no exception to the conditions of patriarchy which may influence a woman’s ability to negotiate condom use, or to have full control over when and how often pregnancy occurs. Unfortunately, it appears as if these policies were developed contrary to the structural conditions many women face. The fact that the WHO has failed to acknowledge the inability of many women to adhere to these guidelines speaks to the position of neglect women’s health occupies. The WHO has developed policies that acknowledge how the Zika virus affects men and women differently on a physiological level, but has not explored how gender dynamics may affect guideline adherence.

Feminist IPE, therefore, offers a more specific examination into the gendered aspects of the crisis, as well as opening up the potential for intersectionality, as a means of analysing both the gendered and socioeconomic dimensions of the outbreak simultaneously. Dominant social and material power projects, in particular, neoliberal capitalism and patriarchy, shape the ways in which global health governance is actualized, and whose concerns are either prioritized or marginalized. It is because of the uneven distribution of material and social constructions of power among international players that global structural crises are experienced unevenly according to gendered populations. These power structures create and maintain “strategic silences” which exclude the voices and concerns of women from national and global governance. An intersectional lens further analyses how axes of socioeconomic status and racialization contribute to these uneven power dynamics. The responses to global health crises have often overlooked the needs of women and other vulnerable populations. In the context of the ZIKV outbreak, women’s needs,
as well as their social and financial barriers to public health guideline adherence, were essentially excluded in the WHO’s Zika grey literature. In the formal global responses to the HIV/AIDS crisis, the recent Ebola outbreak, as well as the ZIKV epidemic, there has been a “notable absence of women's voices […] to assist with understanding the events and the social environment in which any research and intervention must take place” (Davies and Bennett, 2016, p. 1060), thus silencing the lived experiences of those most profoundly affected by the public health crisis. The exclusion of a gendered analysis of the crisis explains why the WHO’s response failed to acknowledge the social/structural barriers women may face attempting to follow the grey policy literature, pointing to the need of including varied and nuanced perspectives in global health policy. Combining feminist IPE with structural violence theory further investigates the Zika response, revealing that the WHO’s shortcomings are structural and cyclical; while the Zika response represents a definitive lack of engagement with the social and structural determinants of health, these problems are not unique to the Zika outbreak. The shortcomings of the WHO instead represent a pattern of neglect within global health delivery. The production of neglect within global health is elaborated upon in chapter five.

My research builds on common themes within global health literature to ask questions in a new context: how do structures of the environment (both natural and built), poverty, and patriarchy, influence the effect of the Zika epidemic? Was the response of the WHO effective, and why does the organization not appear to take these structural conditions into account when developing a response? These are complex issues which require an interdisciplinary response. This thesis uses a feminist IPE lens, combined with some of the foundational assumptions surrounding the social constructions of power from structural violence theory, to explore the
effects of poverty and patriarchy on the outcome of the Zika response. This approach can explain how it is possible that the lenses of gender and socioeconomic status are ostensibly missing from the majority of Zika responses to date. Especially as the virus holds significant implications for women’s sexual and reproductive health, feminist IPE offers insight into the grey policy literature the WHO has released thus far, and why much of its content appears to be overlooking how gender relations affect guideline adherence. Structural violence theory amplifies the findings of feminist IPE to show that these shortcomings represent pervasive patterns of inequality within global health.

One of the challenges of applying any of these theories to the Zika context, and in general, one of the challenges of this research as a whole, is that there has been so little written about the Zika epidemic in the social sciences literature. For this reason, I first analyze the Zika policy response in the following chapter, then analyze relevant global health case studies and incorporate some of their overarching questions concerning the gendered and socioeconomic dimensions of health into this context in chapter five. This is an effective analytical strategy for several reasons: because the Zika crisis is so new, and relatively little has been written about it in the political science field, it is useful to study how other authors have approached related global health crises and questions. This comparison is also useful for identifying certain patterns or commonalities in global health responses and disease burdens throughout the years; especially using a feminist IPE analysis, it is possible to view how women’s health needs are treated in the international context and the areas of neglect which persist in global health responses. For the purpose of this research, relevant case studies included in the analysis of chapter five include the HIV/AIDS crisis, and the most recent Ebola epidemic.
4.0

Poverty, Patriarchy, and Absent Perspectives:
Zika Response Analysis

The purpose of this chapter is to carefully and concisely analyse the WHO’s Zika response. This is accomplished by examining the WHO’s core Zika policy documents, with emphasis on close-reading techniques. Despite the organization’s formal recognition of the importance of understanding the gendered and socioeconomic elements of health and illness, the policies that are actualized do little to engage with the social and structural determinants of health. Overall, the WHO’s Zika policies do not sufficiently recognize or address the gendered nature of this crisis, nor do they take into account how socioeconomic status impacts disease vulnerability, and the ability to adhere to public health guidelines. This is elaborated upon in sections 4.2 and 4.3, following a discussion of the methodology used to understand all that is notably absent in the WHO’s Zika technical papers and public communications materials.

4.1

Methodology

Research methods used throughout this project remained fairly consistent, with a focus on close-reading and content analysis. Especially among the policy literature, I focus the analysis on exploring information relating to the social determinants of health in the context of the Zika virus outbreak. As the majority of Zika virus research thus far remains in the clinical and biomedical fields, it is important to determine if the early policy documents include reference to the social dimensions of the crisis, or at least point to this gap in research. Particular attention is
paid to inclusion/mention of the socioeconomic and gendered aspects of the outbreak, as they remain crucial elements of study in what is referred to by global health scholars as areas of neglected health (Harman, 2012).

I began analysis of the policy literature with close-reading to look for mention of, or reference to, some key terms important to socioeconomic and gendered analysis of global health crises. Some key words in the content search and analysis of the documents included “gender,” “women,” “social determinants,” “poverty,” etc. Mention of these terms, however, was treated only as benchmark for reference to social science content, rather than the ultimate determinants of how well policy documents were able to engage holistically with both the biomedical and social aspects of the outbreak in Brazil. Where these ideas were not directly mentioned or referenced, close-reading was employed to analyze the kinds of focus or approaches the documents took. For example, if a document discusses sexual health and Zika prevention, does it also reference social, economic, or political barriers to accessing reproductive services, or adhering to sexual health counselling? If a document’s focus was advice for vector management, were socioeconomic contexts considered? (For example, was reference made to potential shortcomings of urban planning related to waste collection and the removal of *Aedes* breeding grounds?) This practice serves to provide an overview of what is being said about the outbreak, and whose voices are left out of the Zika response discussion.

Some of what my research identifies as “core” Zika-related documents for analysis include the some of the WHO’s Interim Guidance Updates (“Prevention of Sexual Transmission of Zika,” and “Pregnancy Management in the Context of Zika Virus Infection”), as well as documents related to vector management and general action plans: “Vector Control Operations Framework for Zika Virus,” “The Strategic
Response Plan for July 2016-December 2017,” etc. These documents were chosen as they are some of the most prominent core grey policy Zika literature written by an important global health actor, and for their potential to make reference to other thematic areas of the crisis beyond biomedical or clinical research. Thematic keyword searches in some of these documents proved to be an effective research method, but in general, concepts surrounding the relationship between gender and other social determinants of health in the context of Zika were not mentioned explicitly; overall, close-reading was a much more effective method of document analysis. For example, “The Zika Strategic Response Plan For July 2016-December 2017” is one of the few Zika-policy documents that includes mention of the effect of certain social determinants of health in the outbreak, pointing to the need for more research in this area. While it is appropriate that most early stage Zika policy documents will focus on physical protection from the virus (in the form of vector management, infection control and prevention, etc.), a holistic approach to disease management cannot end here; it is essential to highlight where documents reference other important areas of research not yet explored. As is revealed in more detail in the following section, mention or reference to the gendered or socioeconomic dimensions of the Zika outbreak is limited. However, the silences within these documents do more than simply point to where research is lacking: these also highlight the aspects of global health crises which generally receive the least amount of international attention, and reveal whose voices are left out of prioritization of global health concerns.

Naturally, as this project focuses on the response of the WHO specifically, policy literature is drawn primarily from this source; this also represents the most extensive collection of Zika-related policy and planning documents to date. Among
the social science literature, very little has been written on the Zika virus, let alone specific studies of the impact of the outbreak on vulnerable populations (women, people of lower socioeconomic status, etc.). Because of this limitation of primary sources and social science material relating to Zika specifically, close-reading and analysis of the policy literature proved challenging at times; however, this analysis is as comprehensive as possible because it includes all core Zika policy documents to date. As discussed above (and as is explored in greater detail below), most of the documents do not mention or make reference to social determinants of health which may affect the ability to adhere to Zika policy guidelines (gender-based sexual health, negotiating power in intimate relationships, the effect of poverty on the concentration of Aedes breeding grounds, etc.). In these cases, what was required was a thorough analysis of the gaps in Zika literature; I show that the areas of silence reveal the most about which concerns are prioritized in the Zika response. These gaps play an essential role, helping to provide a foundation for the central questions of this research: how it is possible that the lenses of gender and socioeconomic status appear to have been virtually excluded from mainstream Zika responses? Especially as this virus holds significant implications for sexual and reproductive health, why do the initial policy responses of the WHO (which is ostensibly responsible for playing a major global governing role) fail to explore how gender dynamics may affect guideline adherence? Policy analysis is just the first step to tackling these overarching questions, followed by the development of a theoretical framework suitable to explore the deeper structural causes of inadequacy in the Zika response.
4.2 WHO Policy Analysis

First released in June of 2016, and updated in September of the same year, the WHO’s “Prevention of sexual transmission of Zika virus: Interim guidance update” was created to “inform the general public, and to be used by health care workers and policy makers to provide guidance on appropriate sexual practices in the context of Zika virus” (WHO, 2016). Growing clinical evidence has revealed that ZIKV may be transmitted sexually, and that the virus is able to persist in semen for extended periods of time even after initial infection symptoms have cleared (the longest recorded detection being 188 days following initial infection) (WHO, 2016). Based on these understandings, the WHO changed its recommended length of time for safer sex practices from eight weeks to six months.

The report also details recommendations for health programs in areas of active Zika transmission, as well as areas of no active transmission. In areas of active transmission, the report recommends that health programs ensure that men and women receive counselling on safer sex practices, information on the risks of Zika virus transmission between partners, as well as access to a full range of contraceptives. For women in areas of active Zika transmission specifically, the report recommends that women who do not wish to become pregnant have access to emergency contraceptives, that pregnant women should practice safe sex or abstain throughout the duration of their pregnancy, and that both partners should be able to make informed decisions about whether and when to become pregnant. For regions of no active transmission, the report urges that health programs ensure many of the same policies for men and women. These include abstinence or safer sex practices for at least six months upon returning from areas of active transmission, abstinence
during pregnancy, as well as waiting at least six months before trying to conceive. The WHO was not alone in making these potentially problematic recommendations. Similar directives were made by the Brazilian health authorities; though not an official policy, the director of the communicable disease surveillance department at the ministry of health issued an advisory for women to avoid pregnancy indefinitely (Douglas, 2015).

Fundamentally, it appears as if the report presupposes not only universal access to a range of contraceptives (including emergency contraceptives), but also relies on women’s reproductive autonomy and decision-making power in sexual and reproductive outcomes, including contraceptive negotiation with intimate partners, as well as control over if/when pregnancy occurs. Despite fertility rates having dropped significantly in the past few decades (from 5.8 births per woman to 1.9 by 2010), the number of unintended pregnancies remains fairly high; it is estimated that approximately 50% of all pregnancies in Brazil are deemed unplanned, which speaks to a significant disconnect between the fertility intentions and outcomes of many women (Marteleto et. al., 2017, p. 200). Women’s access to particular types and quality of contraceptives, as well as a sense of control over reproductive intentions, is further exacerbated according to socioeconomic status (Marteleto et. al.).

In May of 2016, the WHO also released an Interim Guidance Update pertaining specifically to “Pregnancy management in the context of Zika virus infection” (WHO, 2016). This report offers some of the same or similar information regarding vector control and prevention of sexual transmission of ZIKV as previously discussed, including guidelines for health professionals who are directly providing care to pregnant women (including general practitioners, obstetricians, midwives and nurses) regarding laboratory diagnosis, prenatal testing, amniocentesis,
etc. Some brief, additional information regarding the choice of women to terminate Zika-affected or suspected pregnancies is also included in this document. According to this report, “women who wish to discontinue their pregnancy should receive accurate information about their options to the full extent of the law, including harm reduction where the care desired is not readily available […] All women, whatever their individual choices with respect to their pregnancies, must be treated with respect and dignity” (WHO, 2016). The disconnect between the WHO’s official policies regarding abortion, and laws in Brazil, however, renders this recognition merely aspirational.

Regarding access to safe and legal abortion services, the WHO has made its political stance clear, as reiterated in its 2015 HRP (the UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction) publication “Safe abortion: Technical and policy guidelines for health systems.” This document emphasizes that laws regarding abortion policy should work to protect women’s health and human rights, and that “an enabling regulatory and policy environment is needed to ensure that every woman who is legally eligible has ready access to safe abortion care” (WHO HRP, 2015, p. 1). Most significant in its application for the Zika context, the report recognizes that restrictive abortion laws result in unsafe abortions and unwanted births, and that the effects of these restrictive policies are experienced unequally according to socio-economic status:

In countries where induced abortion is legally restricted and/or otherwise unavailable, safe abortion has frequently become the privilege of the rich, while poor women have little choice but to resort to unsafe providers. This results in a large number of unnecessary deaths and morbidities, resulting in a social and financial burden for public health systems (WHO HRP, 2015).
The WHO’s official stance on abortion access remains at odds with the criminal code of the Brazilian state, resulting in many of the WHO’s recommendations conflicting with the social and political landscape. Recommendations produced by both the WHO and the Brazilian government aim to reduce the number of Zika-affected births (Diniz et. al, 2016, p. 107); however, women risk facing criminal punishment if they attempt to terminate Zika-affected (or suspected) pregnancies. Abortions in Brazil are criminalized except in cases of rape, anencephaly, or if the life of the mother is in danger by continuing a pregnancy to term. Women who induce abortions may face up to three years imprisonment; physicians who perform the procedure may also face imprisonment or other criminal charges. Therefore, in situations where these exceptions do not apply, and where access to emergency contraceptives is not available due to barriers relating to socioeconomic status, there are no safe alternatives for women.

Despite efforts to criminalize and restrict abortions that fall outside the categories of exception, it is estimated that approximately one million abortions occur annually in Brazil, remaining one of the top five causes of death related to pregnancy (Galli, 2011, p.971). Similar to the situations described in “Safe abortion: Technical & policy guidance for health systems,” women from racialized and lower socioeconomic groups are more likely to die or suffer complications from unsafe abortions than women from high socioeconomic status (Galli, p.971). Evidently, illegality does not affect abortion-seeking desires, as reflected by interview participants in the focus groups of Marteleto et. al. Regardless of socioeconomic status, in all focus groups, participants expressed that the threat of Zika was likely to increase women’s desire to seek abortions. Many participants also stated that they would consider seeking an abortion if they become pregnant and tested positive for
ZIKV (Marteleto et. al., p. 211). However, the contrast in abortion experiences between women of high socioeconomic status and women of low socioeconomic status is stark: among women of low socioeconomic status, “references to abortion included knowing of friends or family members who bought abortion pills on the black market or used herbs and teas believed to induce abortion. Low-SES women also mentioned that they or women they knew often had to suffer the consequences of an unsafe abortion such as hemorrhage, secondary infertility, and even death” (Marteleto et. al, p. 218). Women of high socioeconomic status, on the other hand, reported confidence in being able to rely on their private doctors to “perform surgical abortions or to refer them to other trusted private doctors who would perform safe surgical abortions” (Marteleto et. al., p. 218).

In March of 2016, a meeting of the WHO Vector Control Advisory Group determined that new and existing tools of *Aedes* vector control programs would be sufficiently effective methods of reducing the spread of Zika. In May of the same year, the WHO released “Vector control operations framework for Zika virus,” which emphasizes that in order to achieve rapid impact, vector surveillance and control efforts must build on existing national structures, such as malaria control programs in African countries, and dengue control programs in the Americas (WHO, 2016). Vector control efforts mentioned in the report can be categorized into three approaches: prevention of mosquitoes in early life stages by disrupting breeding grounds, spraying to target adult mosquitoes, and personal protection measures. Given that *Aedes* mosquitoes favour domestic environments and are especially proliferant in urban areas, the report encourages destruction of mosquito breeding grounds to minimize the population growth. In the urban context, such places include containers used for water storage in the home, blocked gutters, discarded food and beverage
containers, etc. To combat the adult mosquito population, the WHO recommends Targeted Residual Spraying, as well as Space Spraying. Targeted residual spraying is directed to areas of the home where *Ae. Aegypti* are likely to rest, typically, dark and damp areas. The WHO, however, cautions against spraying any containers or household items involved in water storage or cooking, due to the toxicity of effective insecticides. Space Spraying is considered to be a far less effective method of vector control. Applications of Space Spraying are limited to in-flight insects, and are encouraged to be carried out using WHO-PES-recommended insecticides. As for personal protection measures, the report recommends insecticidal mosquito nets, using window and door screens, air conditioning units for inside the home, wearing skin-covering clothing, as well as insect repellents which contain DEET or Picaridin. For pregnant women specifically, the report recommends that countries with active transmission “explore special protection measures for pregnant women,” which may include giving insect-repellent lotion to women visiting clinics for check-ups.

Although this report identifies some of the underlying causes of disease burden in Brazil pertaining to the built environment, the onus of carrying out vector control solutions is placed largely on individuals and families; there is little mention of other structural causes of disease burden in the report. Because of the domestic environment preferences of *Aedes* mosquitoes, the report states that “families and the general community must be actively involved in eliminating mosquito breeding sites” (WHO, 2016). While education regarding the removal of mosquitoes inside the home would certainly have the most benefit if directed to families and communities, it is deeply problematic to place such an enormous and complex global health issue on individuals. In terms of domestic vector-control, the report recommends community waste clean-up campaigns, cleaning roof gutters, cleaning and fitting air-
tight lids to household water storage containers, introducing native larvivorous fish into larger water storage containers, etc. There is no doubt that targeting *Aedes* breeding grounds is a manageable and effective solution to reducing early life stages of mosquitos and Zika transmission risk inside and around the home. However, the guidelines do not offer any advice for large-scale, longer-term solutions, or what individuals can do in situations where they are unable to follow directives. For example, air conditioning units, as well as window and door screens, may not be available in homes, especially in Brazil’s sprawling favelas, where the epidemic appears to have had the most profound effect (Watts, 2016). Although education regarding the elimination of open standing water in containers around the home is significant, families alone cannot be held responsible for mitigating the effects of poor urban planning such as ineffective waste elimination facilities, which a “community clean-up campaign” could not solve alone. If the framework was intended as an initial, community-based strategy to reduce vectors, it is effective to a certain degree. However, apart from these initial suggestions, the document does not specify longer-term solutions, roles of policy-makers and governments, or structural determinants (related to poverty, urban planning, etc.) which increase certain populations’ exposure to the virus over others.

The Zika Strategic Response Plan for July 2016-December 2017 was created as an update to the January-June 2016 Strategic Response Framework and Joint Operations Plan. This plan focuses primarily on infection prevention and managing the biomedical complications of the virus (especially where it concerns pregnant women, their partners and communities), vector management, sexual and reproductive health counselling, and health care and education “in the social and legal contexts of each country” (p. 5). Overall, the strategic objectives of the plan fall
under the categories of viral detection, prevention, care and support, and research, with a proposed funding requirement of $122.2 million USD, and a minimum of sixty global partners. Besides the obvious emphasis on the need for clinical research (with particular attention to the “ethical and regulatory complexities” (p. 33) of studies implicating pregnant women and babies,) the WHO also recognizes the need for research concerning the social determinants of health in the context of Zika, including disability, as well as economic, social, environmental and behavioural considerations with particular attention to gender, to “promote safer sexual behaviours, such as correct and consistent use of condoms to reduce the risk of sexual transmission of Zika virus, and in acknowledgement that some cultural and legal contexts can result in women not being able to control decisions related to their pregnancies” (p. 27).

Where mention of gender and other social determinants of health is scarce in the updated Strategic Response Plan, it is nearly non-existent in the Research Agenda, which was created in October of 2016. The Zika virus research agenda reflects little emphasis on the need for research into social conditions in the context of Zika. Primarily, the research agenda is concerned with characterizing ZIKV infection and arbovirus vectors, analyzing the dynamics of arbovirus epidemics in the Americas, creating new methods of vector controls, and enhancing laboratory capabilities to strengthen surveillance systems.

Evidently, the WHO very much recognizes the need for (and value of) qualitative research in the context of Zika. As part of its Zika risk communication initiative, the WHO has also mapped out areas in Brazil, Columbia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Peru and Suriname where social science research regarding the impact of the Zika virus is taking place. In Brazil alone, the
WHO has identified 14 sites of both quantitative and qualitative social science research, conducted by the Brazilian government in partnership with ActionAid, UNICEF, the United Nations Development Programme, the WHO itself, PAHO, etc. Many of these studies (in particular, those using survey-style methodologies) make use of the WHO’s “Knowledge, Attitudes and Practice Surveys: Zika virus disease and potential complications” resource pack, which was published in March of 2016. This resource was requested by governments and other response partners as a way to “rapidly obtain valuable and insightful information in order to tailor interventions to better address people’s needs at community level, thereby contributing to the overall public health response to Zika virus and its potential complications” (WHO). The KAP resource pack contains questions relating to Zika exposure, general knowledge, and treatment practices, as well as questions relating to religion, pregnancy, and psychosocial conditions for women at risk of Zika infection. Where relevant, the survey answers contain an “other” option, where it is possible for the respondent to fill in their own specific experiences, thus expanding the qualitative data of the study.

In a series of podcasts entitled “Evidence in Action,” the WHO has even dedicated an episode to the importance of qualitative research for “putting a human face to the epidemic,” which was released in May of 2017. During the episode, Dr. Brooke Ronald Johnson, a social scientist at WHO, discussed a study he has been coordinating, which traces the lived experiences of 40 women through their experiences of Zika, and/or pregnancy, in order to better understand their fears, perspectives, and knowledge surrounding Zika; “we want to try and capture all of these different contextual situations that women live in. It’s about understanding their needs, their fears, their concerns, their perspectives, their knowledge about Zika and pregnancy and prevention” (WHO, 2017). The podcast also briefly hears from
Dr. Debora Diniz, an anthropologist and law professor at the University of Brasilia, who has written extensively on bioethics, feminism, health, and recently, women’s human rights in the context of Zika.

It is clear that the WHO, at a minimum, recognizes the social determinants of health and illness in the context of Zika, and has recognized the need for qualitative research to explore, in particular, the gendered aspects of the crisis. Although it was done unofficially (and with some controversy), the WHO has also recognized the connection between poverty and the socially-stratified impacts of the virus since the onset of the epidemic. In May of 2016, the WHO released a statement concerning “Zika virus and the Olympic and Paralympic Games Rio 2016” as part of their online newsletter. The WHO offered advice specifically for athletes and visitors to Rio de Janeiro, and other areas of active virus transmission, including avoiding “visiting impoverished and over-crowded areas in cities and towns with no piped water and poor sanitation (ideal breeding grounds of mosquitoes) where the risk of being bitten is higher.” The updated Zika Strategic Response Plan furthers the investigation into the connection between socioeconomic status and the Zika virus, postulating that the outbreak “is likely to have a more negative impact on poor and marginalized communities, not only due to poor living conditions and infrastructure (e.g. breeding sites in stagnant water), but also insufficient access to information, and resources for prevention and care” (p.11).

Despite recognition of the socio-economic and gendered dimensions of Zika, the WHO’s theoretical and practical approaches to the crisis remain very much the same now as at the onset of the epidemic, when these documents were first created; for example, updates to the somewhat controversial interim guidelines for the prevention of sexual transmission of the Zika virus, pregnancy management in the
context of Zika, as well the research agenda, and Zika Strategic Response Plan (which was intended to be put into effect until December 2017) have not yet been published. There remains a significant disconnect between the WHO’s official stance on the importance of socioeconomic dimensions of health care analysis (especially, in this case, gender in the context of reproductive rights), and many of the policy documents (such as the Interim Guidance Updates) which are actualized. Where the WHO’s policy documents reflect engagement with the gendered and socioeconomic dynamics of the crisis, it is possible that these are further blocked by state policies (for example, the WHO HRP’s stance on reproductive rights remains at odds with Brazil’s criminal code regarding abortions). The unfolding of the Zika crisis is an illustration of the ways in which women’s rights and health concerns fall between the cracks of political agendas, international organizations’ institutional shortcomings, and the broader social and economic forces (including poverty and patriarchy) which work to silence the voices of vulnerable populations in the global community.
4.3 Infographics

The infographics below\(^1\) were drawn from the WHO and PAHO webpages devoted to Zika Communication Materials, as well as the PAHO’s Twitter page, which frequently reposts some of these images. This work examines infographics in an analytical category separate from the rest of WHO/PAHO Zika content intentionally. Not only is the content and accessibility of infographics markedly different from the grey policy literature, but the use of social media for Zika information delivery also significantly changes the distribution and demographic of public health advice. Although the purpose of this analysis is not to examine the audience receiving this public health content, it is important to keep in mind that the majority of social media-circulated advice (especially the Zika-related Tweets) are developed and intended for a younger demographic.

Hansen’s discussion of the use of images, though in the context of international relations and securitization, provides a succinct explanation of the significance of infographics in this context. Images, as she describes, “are capable of speaking to the emotions of individuals and societies in ways that exceed those of words” (p. 599). The emotional quality of infographics creates a sense of community allowing for greater mobilization around a particular cause. As Williams elaborates, the use of images as political communication materials constitutes what Walter

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\(^1\) All infographics were drawn from WHO and PAHO databases, whose images are subject to fair use copyright policies in academic settings. Additionally, I received permission to use these images from WHO Press, following email correspondence.


Benjamin first described as “aesthetic politics,” and is only increasing in proliferation and significance in the contemporary context (p. 880). In the case of the Zika infographics, the emotional message is clear: motherhood and pregnant bodies are at the forefront of the emotional appeal, urging women to protect themselves and their unborn children from the threat of a dangerous disease.

In the same way that this Zika content may be intended to target specific audiences, much of the materials presented here appear to offer advice directed to women specifically. Among the infographics directed to women (especially pregnant women), there is a thematic emphasis on self-protection and self-determination, with messages such as “Protect yourself and your baby against Zika.” Specifically, women are encouraged to protect themselves by means of vector barriers (mosquito nets, screens, insect repellent, skin-covering clothing, eliminating mosquito breeding grounds in and around the home, etc.) and engaging in safe-sex practices (use of condoms, and prevention of unplanned pregnancies by means of contraceptives). Other recommendations presented in the infographics include vector prevention and protection, as well as some very general information regarding infection symptoms and transmission.
If you are pregnant and live in an area without #Zika, avoid travelling to places with the virus.

If your partner travels to an area with Zika, and you want to have sexual relations upon his return, have safe sex for at least 4 weeks.

#FightAedes

Are you pregnant and on vacation? Protect yourself from Zika.

Cover your skin, wear pants, long-sleeved shirts, have safe sex.

Remember: if you don’t get bitten, you won’t get #Zika!

#FightAedes
Is ZIKA a risk if I am PREGNANT?

- Everyone runs the same risk of getting infected by Zika.
- There is a risk that Zika may cause microcephaly in your baby.
- Protect yourself from mosquito bites and see a doctor if you think you have been infected.
- You are advised not to travel to areas where the virus circulates.

#ZikaVirus

Can I catch ZIKA through SEX?

- It is possible that Zika virus is transmitted by sex.
- Do you plan to visit areas where Zika is known to occur?
- Or is your sexual partner returning from an affected area?
- If so, practise safer sex (e.g. use condoms correctly and consistently) or abstain from sex.

#ZikaVirus
Ladies, when it comes to the Zika virus, know your rights!

#ZIKA
#FIGHTAEDES
#ZIKAVIRUS
#WOMENSRIGHTS

The decision to get pregnant is YOURS!

The rumors associating vaccines with microcephaly are false—vaccinations are a preventive measure that promotes and protects health. The recommended vaccines offered by your local healthcare provider are safe and effective.

Condoms prevent possible sexual transmission of Zika—remember that both men and women should practice safe sex by using protection.

Mothers with Zika can also breastfeed—mothers with a suspected, probable or confirmed case of the virus, during pregnancy or after birth, should receive professional support to start and continue breastfeeding, just like all mothers. In cases where the baby is or could become infected, breastfeeding should continue as normal.

Women who are pregnant or of childbearing age should protect themselves from mosquito bites.

To prevent mosquito bites and reduce the risk of infection, PAHO/WHO recommends:

- During the day, rest under mosquito nets.
- Wear clothes that minimize skin exposure, such as pants and long-sleeved shirts.
- Use insect repellent. Repellents with DEET (N,N-diethyl-3-methylbenzamide), IR3535 (3-N-Butyl-N-acetyl-aminopropionic acid, ethyl acetate), or icaridin (1-piperidinopropanecarboxylic acid 2-(2-hydroxy ethyl)-1-methylethyl ester) can be applied to exposed skin and should be used according to instruction. There is no evidence that any of these repellents, when used properly, are unsafe during pregnancy.
- Use mosquito screens on doors and windows.
- Eliminate potential breeding sites for the Aedes aegypti mosquito. Keep receptacles—such as water containers, barrels, tanks and cisterns—completely closed. Eliminate standing water in planters, bottles, tires, cans, roof gutters or anywhere rainwater can collect.
- Seek medical attention if you develop symptoms of dengue, chikungunya or Zika infection.

Pan American Health Organization
World Health Organization
UN Women
UNFPA
Pregnancy is a personal decision!

If you decide that now is not the right time, seek out information and contraceptive methods at your local health center.

If pregnant, protect yourself from Zika, avoid mosquito bites and use condoms.

It’s Your Right!

Prevent Zika

What you and your family can do

Visit www.paho.org

#FightAedes

@WHOAmericas

#Zika

#FightAedes #Zika

Only abstinence or correct use of condoms can protect against sexual transmission of Zika. Pregnancy is your choice.

World Health Organization

Pan American Health Organization
Overall, it appears as if infographics are intended for women specifically, and the general public; of the Zika communication materials available at PAHO’s website, only one infographic appears to be directed to men specifically. The English translation of the infographic below appears to be directed more generally to the partners of pregnant women. The Spanish and Portuguese translations, however, appear to be directed more specifically to men (where the English translation of the header reads “Parenthood is a unique experience,” the Portuguese translation reads “Men, fatherhood/parenthood is a unique experience,” and the Spanish translation reads "Fatherhood/parenthood is a unique experience.”) Discussions of pregnancy rarely mention the role of male sexual partner; instead, women’s sexual health and pregnancy are discussed as if in a social and political vacuum, with messages that urge women to “take control of your pregnancy and your body,” “prevent Zika,” and “protect yourself and your baby.”
¡La paternidad es una experiencia única!

Protege a las futuras generaciones: todos somos responsables de su bienestar.

Acompaña a tu pareja a las visitas prenatales. Participa activamente en la salud y el bienestar de tu pareja y de tu bebé.

#ConstruyamosElMundo Juntos

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Are you pregnant? Protect yourself and your baby against Zika!

Use condoms during sexual intercourse and protect yourself from mosquito bites.

Schedule prenatal check-ups every month and visit your local healthcare provider. Prenatal care is every woman’s right and is critical for ensuring a safe pregnancy.

#Prep4Zika #Health4All #AdvocatingRights

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Organización Panamericana de la Salud
Organización Mundial de la Salud
ONU Mujeres
UNFPA
Two important thematic aspects are immediately apparent in all of these documents. First, the WHO, to a certain extent, recognizes the social determinants of health in the context of Zika, and how these may affect the ability to adhere to policy guidelines. The WHO also emphasizes the need and value of qualitative research in the same context. The shortcomings of Zika Responses thus far cannot simply amount to a global health actor failing to acknowledge qualitative epidemic data altogether. The second important thematic aspect the document analysis reveals is that despite at least a formal recognition of the gendered and socioeconomic dimensions of the Zika outbreak, there remains a significant disconnect between this recognition and the policy response. The fundamental problem in the Zika response is not as straightforward as an oversight in the response of the WHO; major global health actors already understand the gendered and socioeconomic factors of the crisis, and yet these elements are still not fully reflected in the actualization of policy responses, speaking to a larger system of structural social and economic forces working to silence the concerns of vulnerable populations. Therefore, instead of asking why the WHO’s responses, for the most part, failed to acknowledge the structures of poverty and patriarchy affecting adherence to their guidelines, it is perhaps more critical to ask how is it possible that the lenses of gender and socioeconomic status appear to have been virtually excluded from mainstream Zika responses (especially since it is clear that the WHO recognizes the importance of this qualitative data). What are the structural forces at work which have excluded the voices of vulnerable populations in the epidemic response, and thus, why is the burden of avoiding ZIKV infection placed on the shoulders of affected populations, with minimal consideration to the conditions that may affect guideline adherence? These questions are addressed in the following chapter.
5.0

Case Studies and Conceptualizing Abjection:
Merging Theories Towards an Effective Solution

Analysis of the Zika response has revealed that the WHO’s formal recognition of social determinants of health in the context of Zika is not reflected in their policy response and public health interim guidelines. The gendered nature of the outbreak, as well as the impact of socioeconomic status on ZIKV exposure, is notably absent the WHO’s responses, reflecting a lack of engagement with structural forces such as poverty and patriarchy that heighten disease vulnerability. The problems with the Zika response are structural; they are also not unique to the Zika outbreak, instead representing a more pervasive cycle of neglect within global health delivery, in which the needs of vulnerable populations are consistently marginalized. To analyze the patterns of neglect in global health, this chapter examines two other global health emergencies: HIV/AIDS and Ebola. Building from the theories discussed in chapter three, I merge theoretical traditions from feminist IPE and structural violence theory to examine the production of neglect in global health, as both a facet of the Zika response, as well as part of a larger system of structural inequalities.

Initially, it might appear as if the onset of the HIV/AIDS crisis, the largest Ebola outbreak in recorded history, and most recently, the Zika epidemic, have few similarities. Not only do the pathogens themselves and means of transmission differ greatly, but these global health concerns also differ in terms of geographic scope, disease transmission, as well as social and political responses. However, beyond these surface-level comparisons, what these three public health emergencies have in common are their effects on gendered and socioeconomically-marginalized
populations. Sophie Harman’s explanation of women as an area of neglected health is perhaps the most useful analytical tool for understanding the commonalities in these diverse global health crises. As Harman articulates, the WHO, and other important international health actors, actively emphasize gender-based approaches to global health governance, and “recognize the role and importance of women’s health in the promotion of better health outcomes for all” (Harman, p.129). For example, the WHO’s Gender, Women and Health Network, the United Nations Populations Fund, UNIFEM, the United Nations Sustainable Development Goals, (and even the World Bank) ostensibly recognize the need to invest in maternal and reproductive health, address the prevalence of gender-based violence, and have produced research concerning the gendered disparities of health crises. However, women remain, on the whole, “conspicuously invisible” in global health governance: “people working in global health are aware of and see women in care roles that underpin health systems, yet they are invisible in global health strategy, policy or practice” (Harman, 2016, p. 524).

Harman’s research helps to explain the findings in this thesis thus far: the fundamental problems with the Zika response cannot be conveniently reduced to the WHO’s failure to recognize gender-based health disparities. Similarly, to the case of the WHO’s Zika response, Harman questions the efficacy of global health actors’ recognition of the impact of gender on health; despite this formal recognition, the ways in which women experience health and illness differently from their male counterparts largely goes ignored in practice (p.132). While the intensive international focus on maternal health suggests that women’s health “is far from neglected” overall, this also means that women’s health is primarily understood within the narrow frame of maternal or caregiver capacities, “only in relation to
[their] gender-specific roles” (p. 133). Due to the nature of ZIKV transmission and infectivity, women’s reproductive and maternal health are naturally at the forefront of disease response efforts. However, the fundamental problem with mainstream global health responses to Zika is that pregnant bodies, as depicted in infographics or analyzed in grey policy literature, are discussed as if in a social and political vacuum, with limited consideration of the gendered social structures that affect women’s health and illness.

An understanding of women’s health as an area of neglected health helps explain the outcomes and progress of the HIV/AIDS crisis. Globally, women continue to bear the disease burden (WHO, 2018) with young women aged 15-24 living in Sub-Saharan Africa remaining one of the most vulnerable groups, being almost eight times more likely to come into contact with the virus than their male counterparts (Kharsany and Karim, 2016). Although there are many factors which account for these physical and gendered disease disparities, women’s heightened vulnerability is a direct result of their reproductive roles (O’Manique, 2010) and subordination in a patriarchal context, which is exacerbated by lower socioeconomic status. Despite the disproportionate rates of HIV infection among women in comparison to their male counterparts, the UNAIDS AIDS Epidemic Update did not highlight increasing “feminization” of the pandemic until 2007 (O’Manique); it would take many years until intersectional approaches were included in institutional responses to the crisis.

Perhaps the greatest similarity between the HIV/AIDS and Zika responses can be found in official public health recommendations, disease containment strategies, and interim guidelines. In general, the responses to both global health crises individualize the responsibility of disease prevention and management, with a
lack of recognition of women’s limited sexual autonomy in a patriarchal context. The ABC (Abstinence, Be Faithful, Use Condoms) campaign, like the WHO’s advice for women to simply avoid pregnancy, relies on women’s ability to control and negotiate sex, contraceptives, and conception, disregarding how the structures of poverty and patriarchy work to erode women’s sexual and reproductive autonomy. Though these individualized policies may work on paper, they are created as if in a social and political vacuum, without consideration of the structural forces that may render these guidelines impossible to follow.

Similarly, the international response to the Ebola crisis reflects what Harman refers to as the “conspicuous invisibility to women and gender narratives” in global health policy and practice (2015, p. 524). Exposure to Ebola, as it varied according to gender and socio-economic status, was well understood at the time of the outbreak (Harman, 2015); gendered roles of health care provision (both professionally and in the home), as well as traditional involvement in the preparation of bodies for burial, often increased women’s risk of disease exposure (Davies and Bennett, 2016). However, the overarching narratives in Ebola responses during the outbreak (some of which included ethical debates surrounding vaccine production, militarization of the response from the United States and the Security Council [Burci, 2014], and the shortcomings of global health institutions [Harman, 2015]) failed to encapsulate the gendered aspects of the crisis, beyond focusing on how the disease impacted women’s roles as mothers (Harman, p. 529).

Especially given that HIV/AIDS, Ebola, and Zika carry well-documented and institutionally-recognized implications for sexual and reproductive health (WHO, June 2017), the lack of engagement with the gendered and socioeconomic challenges this outbreak presents is profoundly troubling. In the case of Ebola, it was
a full year into the outbreak before the WHO began collecting sex-disaggregated data (Harman, 2015); although the WHO has made some progress towards recognizing the implications of gender in the Zika outbreak, a gendered lens has failed to become actualized in the official interim guidelines. As Davies and Bennett have explored in their comparison between these global health crises, despite the qualitative and quantitative evidence that “these health emergencies would be gendered and would affect different communities differently, international public health advice rarely engaged with rights language that recognized these challenges” (p. 1059), making it difficult to understand the lived experiences of those affected by the outbreaks, and to apply response solutions that fit the social context in which they were proposed. The fundamental problems with both the Ebola and Zika outbreaks remains, as Davies and Bennett elaborate, that “leaving structural gender inequalities out of the crisis response has further compounded [social and political] inequalities” (p.1044).

Two key observations relevant to the discussion surrounding Zika emerge when analyzing these three global health crises together. The first, which can be observed by studying the quality of international disease responses produced, is that the lessons learned from previous outbreaks are not necessarily applied to emerging crises. For example, in both the Ebola and Zika outbreaks, there remains a significant “disconnect between the international public health advice being issued and the experience of pervasive structural gender inequalities among those experiencing the crises” (Davies and Bennett, p. 1044). Secondly, in all three of these case studies (and, undoubtedly, in the midst of other global health emergencies,) there has been a definite lack of attention in policy response efforts to the ways in which disease outbreaks affect populations differently, according to race, gender, socioeconomic status, and various other social axes. In other words, responses to epidemics are often
created with limited focus on the possibility of intersectional approaches and identities.

“Intersectionality,” first coined by leading critical race theory scholar Kimberlé Crenshaw, presents a promising strategy for global health, and in particular, for addressing the impacts of outbreaks on vulnerable populations. The majority of Zika response efforts have centred around biomedical approaches: disease containment, risk management, and clinical research. Just as biomedical-oriented research was essential in the onset of the HIV crisis and the most recent Ebola outbreak (without it, there would be no life-saving antiretroviral drugs, and limited progress on EVD vaccine research), this type of research is also crucial in the Zika epidemic. However, as several authors have explored, the union of intersectional and biomedical approaches in global health, which are “often thought to be in opposition” (Hankivsky et. al., 2017, p. 73), are an essential addition to the type of research being conducted; not only can these research strategies illuminate the power structures which “produce and sustain unequal health outcomes” (Hankivsky and Kapilashrami, 2018, p. 2589), but this also highlights “new kinds of knowledge and evidence that can be produced when researchers take into account multiple levels of analysis, bridging the biological, interpersonal, institutional, and societal” (Hankivsky et. al., 2017, p. 82).

An intersectional lens was undoubtedly missing in mainstream approaches to the Ebola and Zika emergencies discussed; the addition of nuanced and varied perspectives may have helped create more effective solutions, as shown by the more recent incorporation of intersectional approaches to the HIV/ AIDS crisis (O'Manique, 2010). Incorporating intersectional research into the overall response mechanisms would far from impede biomedical research; instead, the epidemic as a
whole, and as it affects vulnerable populations of varying social identities, may be better understood, and responses may be tailored to unique settings, in order to maximize efficiency and efficacy. After several decades of repeating the same fundamental mistakes and shortcomings within global health policy, finding new and inclusive response strategies is not only logical and preferable, but it is imperative; it is time that new solutions are explored, to which methodologies from the social sciences can contribute.

Going into this project, I had some idea (albeit misguided) of what kinds of themes might be found, based on previous research of gendered health care disparities. The evidence that Zika impacts vulnerable populations differently according to gender, socioeconomic status, and other social axes is overwhelming. The responses of the WHO, however, especially their policy literature, do not appear to sufficiently reflect acknowledgement of the social and political conditions in which the Brazilian epidemic is taking place, instead offering advice as if in a social vacuum, without sufficient regard for how systems of poverty and patriarchy may prevent vulnerable populations from actually adhering to guidelines. This of course begged the question of how such a significant global health actor could seemingly overlook the lenses of gender and socioeconomic status in their epidemic responses. Not only did certain social determinants of health appear to be neglected in mainstream responses, but many of the WHO’s grey policy guidelines were so shockingly at odds with the social and political climate in Brazil and other affected areas, that the efficacy of their recommendations is called into question. The advice, for example, to avoid pregnancy in areas with varying levels of access to effective contraceptives in a political system that criminalizes abortions is particularly disturbing, and provides an illustration of the juxtaposition between outbreak
guidelines and women’s lived experiences in the context of Zika. How was it possible that the WHO’s Zika recommendations could be so fundamentally at odds with the social and political climate in which they were given? Why is the responsibility of attaining an effective solution placed in the hands of disempowered women? As I discovered as the research progressed, the answers to these questions were far more complex and pervasive than I could have imagined.

What I thought might be found at the core of the problems with Zika responses to date is an organization, or at the very least, a set of policies, that reflects limited engagement with the social determinants of health, and in particular, the ways in which gender and socioeconomic status create disease vulnerability in this and other health crises. Instead, one may observe the WHO’s robust research and ostensible attention to the feminization of disease, the gendered burden of health care management, the organization’s imploring for (and acknowledging the benefits of) more social science research devoted to understanding Zika’s gendered impacts, and frequent use of rights-based language to challenge the restriction of women’s reproductive rights and autonomy. Not only does the WHO recognize, in general, how various social axes impact health and disease, but the organization also recognizes specifically how gender and socioeconomic status impact vulnerable populations in the context of Zika. Yet, these acknowledgements do not appear to make it into the grey policy literature and official interim guidelines. Altogether more complex and alarming is the question of where this obvious disconnect between policy and practice arises.

Can the shortcomings of the WHO, which is often criticized for underperforming in the face of epidemics, “simply” be attributed to its limited power as an international organization? Whatever the organization’s stance on reproductive
rights may be, the WHO does not have the power to change laws relating to abortion in Brazil or anywhere else. If it is the case that international organizations like the WHO are ultimately powerless to states, how does this explain the Brazilian government’s response to the Zika outbreak, whose recommendations included avoiding pregnancy indefinitely, mirroring policies of the WHO? If it cannot be said that the fundamental problem with the Zika response may be solely attributed to the WHO overlooking the lenses of gender and socioeconomic status in their Zika public health recommendations, how is it possible to explain the response of the Brazilian government, whose policies also so clearly confound the social realities of affected vulnerable populations?

Recommendations from the WHO and other IOs may be rendered aspirational when confronted with the power and ultimate authority of states to determine their political climate, as per many realist, state-centred approaches to international relations theory. These realist approaches would argue that states, and not IOs, are the most significant global actors, with the ultimate power in public health decisions (Barnett and Finnemore, 2004). However, in this case, both states and IOs reflect and maintain similar social and political structures, which often marginalize certain populations more than others. Following a Coxian approach, it is more effective to try to understand the power structures which are reflected by organizations like the WHO, and to analyze the ways in which these IOs stabilize and perpetuate particular kinds of social stratification (Cox, p. 136).

Regrettably, even dangerously, mainstream responses seem to rely on the voluntary choices of disempowered populations, offering little to no alternatives for situations in which it is impossible to follow public health recommendations. The problem, therefore, is far more complex than a single global health actor failing to
understand the significance of certain social determinants of health. It is fairly clear that the WHO, at least theoretically, acknowledges the gendered and socioeconomic dimensions of the Zika outbreak. With this understanding, we must therefore broaden analytical attention beyond specific global health actors themselves to the systems of powerful social structures by which the WHO and other global health actors are influenced. In doing so, the failures of the Zika response, and in fact, the similarities between the failures of past global health emergencies, may be more consistently explained. These powerful structural forces shape not only the health outcomes of different populations, but also the ways in which global health actors passively contribute in silencing of the voices of vulnerable populations.

To examine the Zika crisis and responses from an intersectional perspective, looking especially through a gendered lens, a feminist international political economy is an essential analytical tool for looking beyond the mistakes of an organization itself; this approach points to dominant social and material power projects, especially neoliberal capitalism and patriarchy, and the ways in which they influence global health governance and define whose concerns are either prioritized or marginalized. Following this theory, it is because of the uneven distribution of material and social power among international players that global structural crises are experienced unevenly according to gendered populations. The purpose of employing this analysis, therefore, is not to pick apart the WHO’s Zika response specifically; the shortcomings of the WHO are not unique to this organization. The problems with the Zika response represent a much more pervasive pattern of institutional neglect, in which the health needs of vulnerable populations, including poor, gendered, and racialized groups, remain underrepresented within global health, and more broadly, global governing institutions.
What would a feminist IPE theoretical framework suggest is the fundamental problem with the Zika response? What solutions might this approach provide, and is this an entirely effective means of encapsulating the complex social and structural elements of disease vulnerability? Following this analysis, it is clear that the responses to global health crises have often overlooked the needs of women and other vulnerable populations, whether it be in the context of the Zika outbreak, the Ebola or HIV crisis. In particular, the attention to gender as a social determinant of health often fails to become actualized in public health policy, thus silencing the lived experiences of some of those most profoundly affected by outbreaks. In the context of ZIKV, women’s social, political, and economic barriers to public health guideline adherence were essentially excluded from the WHO’s policy literature; the advice to avoid pregnancy indefinitely ignores the impacts of poverty and patriarchy on women’s reproductive autonomy, and places the onus of disease control on vulnerable populations. Following a feminist IPE perspective, the lack of varied and nuanced perspectives in global health policy-making directly translates to the lack of gender-conscious solutions in global health practice.

Proponents of feminist IPE theory would point to the lack of women involved in high-level global health decision-making as one of the fundamental problems with the Zika response. Harman has frequently drawn attention to the problem that women remain invisible despite their presence within global health governance, which allows global health institutions to replicate “gendered norms of care and social reproduction” (p.524). Davies and Bennett, too, note the “absence of women’s voices and social science methodologies informed by women's perspectives” (p. 1060) in this and other health crises. Indeed, many feminist IPE scholars would argue that increasing women’s presence and power in global health governance would bring
more attention to the gendered dimensions of health and illness, working to produce a more equitable and effective delivery of disease containment and treatment.

But is a liberal feminist-type approach an ideal match for the Zika outbreak and response? Undoubtedly, there are countless benefits to creating a more gender-equitable global health governance administration, and for increasing women’s presence and power at both the level of the state and IOs. However, where I believe this approach may be lacking is in its limited analysis of the structural drivers of ZIKV, Ebola and HIV vulnerability, and how intersecting social identities change the lived experience of the outbreak in Brazil. Including more women in positions of political power in global health may be only the first step to tackling the fundamental problems with the Zika response. Liberal feminist approaches would certainly not be enough to dissect the impact of certain social and political structures on health and illness through an intersectional lens. While feminist IPE offers a much more critical and nuanced lens than these liberal counterparts, this theoretical approach does not sufficiently engage with structural violence, which plays an enormous role in producing disadvantaged and neglected populations.

Most significantly, it is imperative to explain the structures which influence the decision-making processes of organizations like the WHO. How is it possible that the same mistakes are made across the board during global health emergencies, and repeated with each new crisis? What are the social and political structures at work which prioritize the health needs of some groups over others, actively constructing spheres of neglect within global health? I argue that a feminist IPE approach may not be entirely sufficient to investigate the social structures which influence the decision-making processes of powerful global health actors. A feminist IPE lens is useful for showing that gendered inequalities exist within health care delivery systems and
public health responses and advice, which are magnified in the context of Zika. However, it may not be enough to show that these inequalities exist without engaging with global patterns of structural disadvantage, and analyzing the ways in which powerful political, social and institutional forces, like the WHO, reproduce these inequalities. For this reason, it is crucial to merge theoretical lines from both feminist IPE and structural violence literature to form a new approach, not only to help develop potential solutions to the challenges vulnerable populations face during the Zika outbreak, but to also understand why powerful global health actors, like the WHO, appear to make the same mistakes across the board in various global health emergencies.

Paul Farmer’s approaches to structural violence offers the opportunity for adding an intersectional lens to analyzing health crises, and also offer some insight into the ways in which neglect in global health is socially and politically constructed. These two components of structural violence theory are of particular significance for the Zika outbreak; it is not only women in general who will experience the outbreak differently and often more acutely than their male counterparts, but poor women, and women from racialized groups, whose experiences remain the furthest outside the realm of what is prioritized in mainstream public health policy. This theoretical lens helps to highlight that both power and neglect are constructed through social relations of power and structures forces. In this case, poverty, patriarchy, and the legal/ political configurations which guide reproductive and sexual health care, perhaps have the greatest influence over the ways in which individuals or groups interact within social systems in the context of Zika, Ebola, HIV/AIDS, and other infectious disease outbreaks. Injustice and inequality embedded within these structures and institutions incites violence against those most acutely affected by the
virus: marginalized and disempowered groups. These structures of poverty, patriarchy, etc., create unequal health care opportunities among populations, especially the poor, racialized and/or gendered groups.

As Nunes argues, neglect “emerges in the context of power-laden global structures and relations” (p.542) as a structural force, while global health actors seek to govern certain health issues in favour of others. The WHO, both actively and passively, replicates prevailing power structures and social injustices which produce inequality within public health delivery, and more broadly, within global governance systems. At the same time that patriarchy, neoliberal capitalism and poverty work to silence the voices of gendered and economically-disadvantaged populations, the WHO amplifies the power of these structural forces by failing to address social determinants of health in policy and practice.

For the purpose of this analysis, the terms “abjection” and “neglect” are used similarly, though not entirely interchangeably. Abjection, in this context, holds the same connotations as explored in Nunes’ analyses, which is broadly defined as the “act of casting away something or someone, but also as the process of debasing or rendering despicable” (Nunes, 2016, p. 548):

‘Abjection’ refers to the dynamics through which certain groups are framed or emerge as alien (that is, outside the sphere of moral obligation, disgusting (triggering an unpleasant emotional reaction); and beyond any possibility of improvement. Abjection is an unavoidable feature of the cultural context in which certain groups are made invisible and some actors become emotionally desensitized to the needs and suffering of less privileged others. This understanding of abjection allows us to place the focal point squarely on groups: it is not simply about neglected issues, but also about the invisibility of certain groups as they are affected by these issues.

With this understanding, “the neglected, then, is the abject” within the context of global health (Nunes, p. 549) and for the purpose of this analysis. I use the term in
this sense, rather than following other theoretical explorations of abjection in feminist psychoanalysis (such as the use of the term by Julia Kristeva, for example.)

The Zika outbreak response remains yet another demonstration of how the health needs of women, poor, and racialized populations fall between the cracks of state policies and mainstream global health practice. However, similar types of policy responses within the Ebola and HIV/AIDS crises show that the problems with the Zika response are not unique to this particular case. Patterns of neglect are present in countless global health responses; these have evolved into a system of institutional abjection, so much so that this has become a category of reference recognized internationally, in the form of “neglected tropical diseases.” The institutional formation of neglect appears to be two-fold: neglected tropical diseases, for example, became neglected initially due to the forces of structural violence which marginalize the health needs of vulnerable populations, especially the poor. Neglect is sustained and compounded by the policies of global health institutions, whose surface-level responses replicate, rather than revolutionize, global patterns of injustice. Policies that reflect the status-quo of neglect affect just as much damage as the forces of structural violence which create inequality in the first place. It is crucial therefore to understand the Zika response not simply as the failure of one or several organizations, but as a component of a larger pattern of global inequality, in which the specific needs of poor, gendered and racialized populations are neglected and their marginalization structurally sustained. It is through this combination of structural violence and institutional passivity that an organization with ample understanding of the social determinants of health, like the WHO, can still produce policies that fail to engage with gendered or socioeconomic lenses.
With the specific needs of women, especially from poor and racialized groups, remaining unaddressed at both the level of the state and IOs, what will happen to the concerns of these populations in the context of Zika? Will their voices continue to be silenced by structural forces, sustained by the shortcoming of IOs, until neglect of the disease (as it affects these vulnerable populations) becomes institutionalized? Is it possible, therefore, that ZIKV might join ranks with Chagas, Dengue, Chikungunya, and other neglected tropical diseases? The Zika virus, after all, shares many similarities to several diseases officially categorized as neglected. ZIKV is carried by the same vector as Dengue, yellow fever, and Chikungunya, with the highest risk of exposure to the vector found in areas where conditions of the natural and built environments converge to produce ideal mosquito breeding grounds (for example, in hot, humid climates where urban waste facilities are lacking). Similarly, the burden of disease is carried by impoverished populations, with little to no access to preventive or curative health care. Although the impacts of the disease burden on women are much more obviously pronounced in the context of the Zika virus, the gendered burden of health care management in the home remains consistent throughout other neglected tropical diseases carried by the same vector.

To be sure, international media attention to the Zika virus faded with the closing of the 2016 Olympic Games in Rio; not long after, Zika’s international health emergency status was downgraded, despite the virus remaining far from under control. At this point, there is not enough to separate ZIKV from the fate of other neglected tropical diseases. Whether the global health community ultimately decides to designate ZIKV to this category is not as concerning as the present sphere of abjection the outbreak is beginning to enter. As it stands, ZIKV is following the same path as other neglected diseases, in which structural forces assign disease burden to
poor, gendered, and racialized populations, while at the same time, the magnitude of this violence is amplified by the indifference of states and IOs, whose lack of engagement with structural violence allows the construction of neglect to occur.

Especially as no vaccines have yet been developed, it is crucial that the interim Zika guidelines and responses take into account these structural inequalities which affect the health care experiences of vulnerable populations more acutely. As it stands, official guidelines produced by the WHO inadequately address the social determinants of disease exposure and containment, and in some cases, this disconnect between policies and social and political climates renders the guidelines impossible to follow. Just as the concerns of gendered populations and groups of lower socioeconomic status are absent from policies, their voices and lived experiences of the Zika virus become erased from international attention, and the global health agendas.

What would a solution that includes attention to structural violence and drivers of disease look like, one which merges both feminist IPE and structural analyses? By structural drivers, it is not only important to analyze social structures which influence disease vulnerability, but also situational structures of the built and natural environments which may increase the risk of exposure to ZIKV. For example, short term Zika-management solutions cannot be applied without considering the effects of poor urban planning and waste management on *Aedes* breeding grounds, the lack of window and door screens in thousands of homes, varying access to personal protective gear, etc. Similarly, long-term solutions cannot be applied effectively without consideration of the impacts of climate change on the spread of *Aedes*. While the threat of Zika has been downgraded by public health authorities, this certainly does not mean the virus is fully under control. Even when
this particular virus is deemed to be contained, rising global temperatures allow *Aedes* to migrate into previously unexplored territories, with biologically-susceptible populations; whether the threat is ZIKV or any other zoonosis, mosquito-borne diseases are likely to increase if the progress of global warming remains unimpeded (Campbell-Lendrum et. al., 2015).

Appointing more women to positions of power within global health, and in global governing structures in general, would be a crucial first step to addressing some of the gendered inequalities in health policy delivery. But how does this address the social structures (patriarchy, neoliberalism, etc.) which seek to downgrade the importance of universal health care systems, and render invisible the ways in which genders experience health and disease differently? The solution to the current patterns of neglect within global health delivery seems daunting, and perhaps too complex to be politically-realistic. Engaging with the social structural forces which incite violence and inequality requires institutional reflection, varied and nuanced perspectives, and intensive intersectional research. How is it possible to tackle structures of poverty, patriarchy, even global warming, and come up with a policy that addresses the unique concerns these structures produce? While it is unlikely that restructuring the Zika response would trigger a collapse of all oppressive structural forces affecting health and disease, the approach to such a multifaceted problem does not have to be impossible or impractical.

The conclusion of this research presents some potential approaches to restructuring certain inadequacies in global health delivery, in an attempt to disrupt the cycle of neglect and abjection produced by structural forces and sustained by the status quo of international organizations like the WHO. Although these ideas are by no means the answer to solving all inequalities within global health policy formation,
they offer, at a minimum, a different way of conceptualizing and addressing these problems. The WHO is often criticized for underperforming in the face of emergencies, and is guilty of making the same kinds of mistakes throughout various epidemics; new and varied approaches in global health policy formation may help prevent the same mistakes that were made in the Ebola and HIV responses from being made again. Restructuring policy delivery is imperative; change is imperative. As long as oppressive social structures remain unchallenged, and global health actors repeat the same kinds of policy mistakes, the voices of vulnerable populations will continue to be silenced, and their specific health care needs marginalized.
Conclusion: Building a Future of Better Global Health Care Delivery

Undeniably, there have been serious problems with much of the Zika virus response to date. Pregnant women, and women looking to conceive, remain the most vulnerable group due to the nature of this particular virus, while difficulties surrounding disease prevention are exacerbated by structural conditions of poverty and patriarchy. Despite the overwhelming evidence of the gendered nature of this health crisis, the lenses of gender and socioeconomic status were ostensibly absent from the WHO’s Zika grey policy literature, which is especially apparent in their Interim Guidelines dedicated to advice regarding pregnancy management and sexual/reproductive health in the context of Zika. The political climate in Brazil (especially its strict abortion laws), conditions of poverty, and gender-power imbalances render much of the WHO’s advice difficult or impossible to follow; recommendations to avoid pregnancy indefinitely are particularly troubling, and speak to the WHO’s lack of engagement with the lenses of gender and socioeconomic conditions when forming these responses. The challenges vulnerable populations face in the context of Zika are not addressed, nor even fully acknowledged. Instead, the onus of preventing the disease is placed almost entirely in the hands of disempowered populations, who may not necessarily have the means or ability to adhere to these public health guidelines. Adding to the complexity of the crisis is the WHO’s robust research of the social determinants of health (in particular, the ways in which gender and socioeconomic status affect health and disease), which contradicts their lack of engagement with these structural forces in their Zika response. The lack of engagement with structural violence, intersectional perspectives, and how they affect health, transcends this particular case study, representing a pervasive pattern of...
institutional neglect in which the specific health needs and voices of vulnerable populations are silenced.

The concluding analyses of this work unravel the construction of institutional neglect, which I believe to be at the core of many global health response failures. To that end, this chapter considers the value and purpose of qualitative research which analyzes the social determinants of health, reflects on the limitations of this study, and explores how future research might build off the findings presented here. This research does not claim to have the answers to the Zika crisis, nor is its purpose to criticize the WHO as an organization. Rather, this work may be a step in the right direction towards varied and nuanced approaches in global health delivery, upon which other work may build.

The purpose of this analysis is to point to patterns of institutional shortcomings in an attempt to disrupt a cycle of neglect within global health delivery. As it stands, there is not enough international prioritization of the outbreak to separate Zika from falling into the category of neglected tropical diseases. I hope that this research may contribute to a larger movement of bringing attention to neglected diseases and vulnerable populations in general, and prevent Zika and other emerging health concerns from being added to this category. Simply put, incorporating methodologies from social sciences into disease responses, to build a better understanding of the social determinants of health, is important for strengthening response effectivity, efficiency, and equality within global health delivery. If public health strategies are tailored to the social and political conditions in which they are applied, there is a higher possibility of outbreaks being brought under control more quickly, with less overall resources invested into outdated or ineffective methods. Just as every disease must be treated slightly differently, with nuances according to
biological differences in populations, global health delivery, too, must be tailored to the settings in which it is applied. Research that focuses on analyzing the social and structural determinants of health highlights the unique challenges vulnerable populations may face, both preventing disease and accessing treatment, allowing public health education and delivery of services to fit target demographics, and maximize effectiveness. Simply in terms of maximizing efficiency and effectiveness in global public health care, it is essential to have a holistic understanding of the unique health challenges vulnerable populations face. Most importantly, an intersectional and structural approach to formulating disease responses is imperative for developing a more just and equitable system of health care provision. Improving health and controlling disease on a global scale (which, ultimately, are the core goals of United Nations organizations such as the WHO) is impossible if the specific health needs of certain groups are consistently marginalized, neglected and silenced.

At the core of this analysis, it is crucial to understand what the Zika response says about power, how it is constructed in global health, what groups or structures hold power, and how it is exacted over vulnerable populations. The WHO’s Zika responses, especially its inattention to the ways in which gender and socioeconomic status may impede the ability of affected populations to adhere to public health guidelines, reveals that oppressive structures of patriarchy and class discrimination are still very much present in global health, and the ways in which disease responses are created. Despite the progress the WHO and other actors have made to bring attention to social determinants of health, specially revealing the unique ways in which populations of varying social axes experience health and disease, the effects of these oppressive structures are allowed to dominate because they remain unchallenged. Power, and the uneven ways in which its distributed socially, retains
the same historical structures, allowing some health narratives to dominate over the experiences and voices of marginalized populations. For health care delivery, this often means that the basis of study, the universal human body, is white, cisgendered, and male. Disease responses which fail to analyze how gender, race, socioeconomic status, etc., affect health specifically, assume a type of universality that is exclusionary and disempowering, rather than implicating true equality in global health.

If nothing is done to challenge the oppressive power structures at work in global health, these dynamics proceed unimpeded, pushing vulnerable populations further into a state of abjection and invisibility. These kinds of disease responses, and in fact, any type of policy response that replicates uneven power dynamics, are ultimately as harmful as the forces of structural violence which create inequalities initially. The WHO’s Zika response is not particularly unique in this sense; while it does not encourage inequality, is also does not address or even sufficiently acknowledge the forces of structural violence (gendered power relations, poverty, etc.) which increase disease vulnerability in some groups, and make it difficult to adhere to public health guidelines. Passivity in global governance simply replicates existing power structures; what is needed is an exhaustive restructuring of the ways in which global health responses are formed. At a minimum, attention must be brought to the structural inequalities vulnerable populations face, even if organizations like the WHO with limited binding international power aren’t able to directly enact policy change.
6.1 Research Limitations and Next Steps

The limitations of this research are two-fold: the first limitation appears within the document analysis. Especially in the Introduction, Background, and Document Analysis sections, this work frequently refers to the WHO and PAHO’s Zika data and statistics, including the number of suspected and reported cases, number of countries with active and potential transmission, etc. As this research progressed, I tried to keep the statistics as up-to-date as possible, yet many of the statistical references in the work are from 2016 and 2017. While it is always best to have the most recent data when researching and writing about epidemics, it was simply not possible in this case; as of February 2019, the WHO’s Zika Situation Reports had not been updated since March of 2017. Likewise, the PAHO’s Regional Zika Epidemiological Update for the Americas has not been updated since August 2017. The downgrading of Zika from its Public Health Emergencies of International Concern (PHEIC) status also implicates the removal of International Health Regulations procedures, which might account for the decrease in Zika-related publications and updates. However, the fact remains that there are still many areas of active Zika transmission, which continue to impact international regulations and travel advice concerning these areas (both the Centers for Disease Control and Prevention, and the Government of Canada, for example, still advise pregnant women not to travel to Brazil, and advise other travelers to employ extensive personal protective measures) (CDC and Government of Canada Travel Health Notices, 2019). One cannot help but wonder if the WHO’s Strategic Response Plan for Zika, which was intended to be in effect from July to December 2017, will be the last document of this type produced. The lack of policy updates of this nature speaks
to the WHO’s lack of engagement with the urgent social crises at play in the Zika outbreak.

The second analytical category of limitations this research presents has more to do with the scope and nature of this kind of writing itself. First, this thesis focuses only on English texts. Although the addition of Spanish and Portuguese Zika literature would have provided a unique perspective, the translations required for these documents were not possible for this project. Additionally, it would have been helpful to include interviews with policy-makers, and if possible, perspectives from those living in areas of active transmission in Brazil. These kinds of interviews, as well as the translations necessary to include Zika literature in Spanish and Portuguese, are beyond the scope of this thesis. Overall, it is crucial to analyze the actions of global governing bodies like the WHO through a critical lens. This allows a body of work to shed light on the pervasive dysfunctions of international organizations, and to maintain accountability and transparency for their shortcomings. However, in the case of ongoing global health crises, criticism and exposure of IO’s shortcomings must be paired with new solutions and approaches. In the context of the Zika virus, it is not enough to point out that problems with the WHO’s response efforts exist; it is more effective to apply this understanding to the formation of new responses. The following proposes some ways in which further research might expand upon my own.

Understanding the limitations of a disease response that does not include attention to the social and structural determinants of health is the first step to policy reform. Especially for diseases like ZIKV, which so definitively deal with issues of gendered relations of power and reproductive rights within a patriarchal context, it is crucial that disease responses include a gendered lens. How could research then build
from this understanding and proceed towards the development of new and more effective solutions? Why should clinical research be paired with methodology from the social sciences to develop the most effective system of health care delivery? The research presented in this thesis can be thought of as a framework or starting point beyond which new studies could build; now that the fundamental problems with the WHO’s Zika response have been identified, presented below are some of the practical applications of this type of research, and how other scholars or public health policy analysts might be able to apply these findings to the development of new clinical and policy-based disease response strategies.

Fortunately, there has been significant progress made towards ZIKV clinical research and treatments within the last few years. Vaccine research and development began in Brazil in late 2015, with nonclinical studies commencing in immunocompromised mice and non-human primates (Barrett, 2018). In the United States, the National Institute of Allergy and Infectious Diseases also continues to develop multiple vaccine candidates, including DNA and mRNA vaccines, live-attenuated, and purified/ inactivated vaccines (NIAID, 2019). Pregnant women have historically been excluded from vaccine trials (Schwartz, 2018), but it is hopeful that the lessons learned from the Ebola vaccine trials will be applied to the Zika outbreak; the exclusion and denial of pregnant women to voluntarily participate in EBV vaccine trials resulted in many fatalities (Schwartz, 2018), which should force a re-evaluation of policies surrounding immunization in the context of Zika, where pregnant women remain the most vulnerable group.

Other promising Zika containment methods target the vector, *Aedes aegypti*, which holds promising outcomes not only for Zika, but for other diseases carried by the same mosquitoes (Dengue, Chikungunya, etc.). *Aedes* mosquitoes infected with
*Wolbachia pipientis*, a bacterial endosymbiont of the insect, have been found to be resistant to the Zika virus. Researchers in Brazil are currently studying the effects of circulating *Wolbachia* among mosquito populations in areas of active ZIKV transmission, and are finding that *Wolbachia*-harbouring mosquitoes may prove an effective means of reducing ZIKV transmission. Most significantly, a study conducted by Dutra et al. reveals that the saliva of *Aedes* mosquitoes infected with the wMel strain of *Wolbachia* did not contain infectious ZIKV (Dutra et al., 2016).

Once Zika vaccine research reaches the stage of public distribution, it will be essential to understand not only where the virus is most prevalent, but also why this is the case, as well as which populations carry the disease burden. For example, additional measures may need to be taken to improve access to treatment in Brazil’s remote/rural communities when the time comes. Qualitative research such as the type presented here may be used by public health authorities distributing vaccines to better understand the challenges affected populations face, and consequently concentrate treatment efforts among the most at-risk populations.

The Zika outbreak also presents a unique opportunity to analyze how climate change impacts health, specifically examining the spread of disease-carrying vectors like *Aedes*. If global warming patterns proceed unimpeded, it is likely that the geographical reach of *Aedes* will continue to spread. By the time this happens, it is to be hoped that vaccines or other forms of treatment will be widely available. However, this does not necessarily address the underlying problems with the spread of *Aedes* themselves, which are inexorably linked to acknowledgement and understanding of the effects of climate change on a global scale. Research which includes examination of the structural causes of health and disease, therefore, is crucial. In the same way that oppressive global power structures are experienced
differently among different populations, the effects of climate change are also experienced more acutely by marginalized groups. Conditions of poverty, for example, increase exposure to disease-carrying vectors, the effects of which are magnified in the era of climate change. Especially because the Earth’s climate is so deeply connected to human health, it is essential that climate change is understood as a powerful and pervasive structural force in similar ways that classism, patriarchy, etc. are understood.

The primary purpose of this thesis is to explain how and why the WHO’s Zika response is inadequate. Now that some of the fundamental problems have been identified, there are so many ways in which various social sciences disciplines can build off this work. Methodology from anthropology, for example, could make use of ethnographic techniques to better understand the lived experiences of vulnerable populations carrying the ZIKV disease burden. Undeniably, more research is needed to better understand the challenges women face in terms of pregnancy and reproductive health management, the difficulties populations face preventing and controlling mosquitoes, etc., to which future studies in political science and sociology, for example, can greatly contribute. The ideas presented here were beyond the scope of this research project, but I hope that this project illuminates the magnitude and complexity of problems surrounding the Zika outbreak, and provides a platform for other researchers to expand.

Finally, research of this type holds direct implications for organizations like the WHO, and the ways in which global health policies are created. While international organizations may not have binding legal power to directly influence states, this does not mean they are powerless to enact social awareness of systems of inequality. The WHO itself does not have the power to change individual countries’
abortion laws, for example, but it does have a strong enough international voice to bring attention to the structural challenges women and groups of lower socioeconomic status face with regards to sexual and reproductive health, which are magnified in the context of Zika. Responses that challenge the status quo of structural inequalities, or at a minimum, bring international attention to these power imbalances, are imperative if the cycles of neglect within global health delivery are to be confronted. The ultimate goals of global health (and health care in general) should always be to maximize effectivity and equality, and bringing attention to the challenges vulnerable populations face does just that. A future of global health which defends marginalized groups, works to dismantle structural inequalities, and amends power imbalances, is possible as long as a collective effort is made to examine the pervasive silences within disease responses and global health delivery. Health care equality becomes a possibility when researchers, international organizations, and those committed to health care justice, actively challenge the structural forces which work to silence the voices of vulnerable populations.
7.0

Bibliography


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