The Moral and Ethical Implications of Framing Global Health as a Security Concern

Batsheva Honig

Poverty and Human Capability Studies Capstone

Winter 2017

The Moral and Ethical Implications of Framing Global Health as a Security Concern Global health and security concerns were not always presented as two sides to the same coin. In recent years, global health security has been understood as the focus on identification, prevention and treatment of infectious diseases. In light of increased globalization, trade between countries and travel of peoples, health concerns have spread from one continent to the next, sometimes at an alarming rate. While boarders are built to contain or prevent entry of man, the same cannot be applied to diseases that do not abide by a higher governing body that prevents them from crossing these borders (Farmer, 1996). Doctors, vaccines and preventative medicine act to police diseases with varied success. However, resource mobilization, including funding, personnel and research to understand and development of vaccines does not extend to all diseases equally.

These reasons justify and necessitate international cooperation in order to detect diseases within nations to prevent their spread before they travel across boarders (Rushton, 2011). A failure to mitigate the spread of an infectious disease is both a global health and a security concern. Rational governments will therefore see the need to prevent the spread of disease in other countries in order to protect their own national interests and prevent the disease from spreading to their own boarders. However, in viewing global public health as a security concern this poses ethical and moral implications about which diseases take priority in the global health agenda and whose health interests truly matter. Many infectious diseases thrive in pockets of poverty where explains health systems tend to be weak, especially in remote and border areas (Narain et al., 2010). Many of these diseases go undiagnosed and untreated, leading to the potential spread of diseases across borders. Populations living in poverty often times lack the necessary tools or resources to seek treatment or prevention services to avoid an infectious

disease. Once these individuals become infected, they also lack resources for treatment and care, further worsening their own health and the potential health of those around them.

Although framing global health as a security concern leads to a number of positive outcomes such as increased allocation of resources, this comes at the expense of individual human rights by prioritizing the health of some nations and some illnesses over others. In order to contextualize the case of global health security functions, I will use the three neglected tropical diseases of Zika, Ebola and Chagas as case studies. Neglected tropical diseases are infectious diseases that primarily impact populations living in poverty. In turn, I aim to show how achieving equitable health for all requires the subordination of security to human rights in global health discourse.

Securitization & Global Health Security

Securitization is the framing of a phenomena as a national security concern (Weaver in DeLaet, 2014). In recent discourse, the term has been used to talk about topics such as terrorism and immigration (DeLaet, 2014). Health is the latest issue to be framed in a security context. In combination, health and security form "health security" which advocates for: the updating of international law to ensure early detection of diseases that can impact global trade and travel; updating disease surveillance programs; and governments accumulating health technologies and vaccines in order to act in times a global health emergencies (Stevenson & Moran, 2014). Health security acknowledges that diseases do not abide by man-made boarders and therefore requires an international collaborative response.

The introduction of security to the global health dialogue is relatively new and began in the early 1990's. In 1994, the United Nations created the United Nations Development Programme (UNDP) to prioritize human security. Security, labeled here as global human

security, prioritized individual interests above state interests (United Nations Development Programme, 1994). In 1997, the World Health Organization (WHO) coordinated the Global Outbreak Alert and Response Network (GOARN), linking over 120 nations with the intent of combating the international spread of outbreaks (WHO, 2017). This network was, in part, created as a response to the pneumonic plague in India in 1994 and the Ebola hemorrhagic fever in former Zaire In 1995 (Rodier, Greenspan, Hughes & Heymann, 2007). In 2001, in response to the terrorist attack on 9/11, the Global Health Security Initiative (GHSI) was formed in an effort to promote global health security international collaboration (GHSI, 2017). The revisions made to the International Health Regulations (IHR) in 2005 added a legal framework to global health rhetoric (Rodier et al., 2007; CDC, 2017; WHO, 2017). In the IHR regulations 193 WHO member states agreed to invest in their pubic health systems and notify the world of global health threats. WHO and each member state agreed to improve disease prevention, detection and response to diseases. While there have been other efforts conducted to promote global health security, the most recent initiative is the Global Health Security Agenda (GHSA) in 2014. This international collaborative effort brings together over 50 countries to present a united front against the global health threats posed by infectious diseases (Ingelsby & Fisher, 2014; Quinn and Kumar, 2014; GHSA; The White House, 2015). The GHSA was in part created as a response to the Ebola outbreak in West Africa in 2014. One trend that emerges from these initiatives is that global health collaboration usually stems as a product of a diseases outbreak or threat. Global health security requires international collaboration long before a large health threat presents itself in order to effectively use resources and avoid life lost.

For many, understanding global health as a security concern is unclear due to the lack of definitional consensus. To some, health security serves the role of promoting health as a means

to protect people from infectious diseases and bioterrorism (Benatar & Upshur, 2011). In this case, protecting national interests comes above the protection of human rights. Examples of reasons for state intervention may include: a health crises that impacts the global economy; migration due to poverty and poor health which can lead to the spread of diseases and destabilization within a region; increased risk of militaries due to some diseases; and risk of diseases impacting troops sent on peacekeeping missions (McInnes, 2014). Another model, promoted by WHO, is to use the security framework as a strategic tool to increase awareness and action for change (Balzacq and Vuori in McInnes, 2014). The objective of global health security thereby being to elevate and promote health threats to a global platform with increased urgency (McInnes, 2014). Some members of the public health community have even used the security language to gain greater political attention and resources (Rushton, 2011). In this light, the securitization of global health can be seen as a call to action. However, it must be noted that there is no universally agreed upon definition of global health security which may hamper international collaboration due to the uncertainty of a primary objective of the health security agenda.

For purposes of this paper, we will use the definition of global health security provided by WHO, specifically that "...global public health security is defined as the activities required, both proactive and reactive, to minimize vulnerability to acute public health events that endanger the collective health of populations living across geographical regions and international boundaries" (WHO, 2007 p.:ix).

Whose Interests Matter?

The lack of a universally agreed upon definition of global health security has lead to a debate over whose interests truly matter when it comes to global health security. While I am in

agreement with McInnes (2014) that different definitions reflect different interests and agendas, I am not wholly satisfied that the global health community has not come to a consensus on an agreed upon definition of global health security. William Aldis (2008) agrees with my claim, and even asserts that the lack of definition poses a threat for the potential danger it poses in promoting national security interests above global health. However, he concedes that reaching a definitional consensus may be challenging as it will require the disclosure of hidden national security agendas (Aldis, 2008). In response to Aldis, I would argue that while it may be difficult, the transparency of disclosure is important to the aid process. When international aid asserts itself under the banner of health security, but truly advocates a national interest policy, this can create distrust among the communities most impacted by illness (DeLeat, 2014). In fact, the lack of a clear definition and understanding of 'health security' may "allow[s] states to adopt rights-limiting actions under broad claims of poorly defined threats to public health or order (Amon, 2014). In seeing people with diseases as a threat rather than a person in need of help, this violates upholding an individual's human rights, a responsibility of all nations.

Other proponents support the idea that specific health threats should be the priority, above and beyond, the definitional dilemma (Rushton, 2011). Evidence suggests that while the international community may be unable to come to a consensus on a clear definition for global health security, there is agreement on what health issues should take precedence. Health issues such as rapidly spreading infectious diseases, HIV/AIDs, and biological weapons/bioterrorism are at the heart of the global health security discourse (Rushton, 2011). Here we see that the main concern of health security is the cross-border spread of infectious diseases and any major health crisis that impacts security or stability both nationally and internationally (Rushton, 2011).

Putting the definitional concerns aside, an unintended consequence of the securitization of health may promote Western and developed nations interests over the interest of developing nations (Rushton, 2011). One example of this is neglected tropical diseases, many of which are endemic to the Global South, but are not promoted to global health concerns or given abundant funding until they reach the Global North or it is in the Global North's interests to intervene (see figure 1, 2). This claim comes from the lack of global reaction and response to health concerns that are endemic in developing nations until they present a threat to developed nations (Rushton, 2011). In this way, securitization prioritizes the health of the most advantaged nations over the health of the least advantaged nations, many of which exist in the Global South.

Looking more closely at international collaboration against health threats, we can see a number of potential ethical concerns. One example of this is the Global Health Security Initiative (GHSI). This organization was created to promote global health security; however, it must be acknowledged that its' member nations are primarily developed countries.² Some would say, the unintended or otherwise, exclusion of developing nations from this initiative shows that the real mission of this group is to protect developed Western states from disease threats, many which originate in developing countries (Rushton, 2011). However, in the exclusion of countries in the Global South and other developing nations, this initiative lacks a crucial piece to international collaboration: the voices of the people who are most immediately facing and most impacted by health threats.

Despite these concerns, recent efforts at international collaboration have been more promising in the inclusion of voices and perspectives of developed nations in the global security agenda discourse. After the Ebola endemic, the international community rallied around initiates

More specific examples and evidence will be presented in the case study section of this paper.
 Members of GHSI include Canada, France, Germany, Italy, Japan, Mexico, the United Kingdom, the United States and the European Commission

to protect domestic and international health security (The White House, 2015). This resulted in a global body tasked with preventing, detecting and responding to global health concerns, now known as the Global Health Security Agenda (GHSA). Although founded by developed nations such as the United States, it meets the criteria of true international collaboration by partnering with developed and developing nations. The GHSA maintains the goals of preventing, detecting and mitigating the impact of natural, accidental and intentional infectious disease outbreaks (GHSA, 2017). Overall, in creating a global community that can respond to infectious diseases, they hope to limit the spread of disease outbreaks and reduce human suffering and negative economic impacts caused by infectious diseases (GHSA). According to the GHSA, the success of global health security depends on a shared responsibility that can only be achieved when governments, NGOs, the private sector and all other parties work together.

One limitation of the GHSA is that is does not recognize mitigating health inequalities and the social determinants of health as a key objective of their organization (Quinn and Kumar, 2014). Poverty, race, social marginalization and the comorbidity of diseases all play important roles in influencing the course and outcome of an illness. Poverty contributes to the conditions that cause diseases and prevents access to health care once a disease is contracted (the report of the Special Programme for Research and Training in Tropical Diseases in Quinn and Kumar, 2014). Quinn and Kumar (2014) propose that:

Reductions in the disease burden among the poor in these countries would enhance global health security by reducing the likelihood of disease persisting among poor subpopulations and spilling over country borders. Yet, to date there has been inadequate attention to underlying inequalities and social determinants in pandemic planning.

Reducing poverty within nations and improving the standards of living to all people has the potential to decrease the spread of disease and benefits all nations worldwide.

One way to understand the costs and benefits of using a security framework for global health and address the concern of "Whose interests matter?" is to look at specific case studies. For this paper, I have chosen the neglected tropical diseases of Zika, Ebola and Chagas to demonstrate this point.

Case Study: NTDs

In this section, I aim to contextualize the framework of global health security through the case study of three neglected tropical diseases: Zika, Ebola and Chagas³. Briefly, neglected tropical diseases (NTDs) are a group of communicable infectious diseases that primarily impact populations living in poverty in low- and middle- income countries in tropical and subtropical regions (Bethony et al., 2011). According to WHO (2015), NTDs have low mortality and high morbidity and they are the fourth most devastating group of communicable diseases, ranking higher than malaria or tuberculosis (WHO in Kaiser Family Foundation, 2015). High morbidity levels include aspects of life such as impaired work abilities, impaired social life, and stigmatization and discrimination due to the disease. A large proportion of global disability and human suffering can be attributed to these diseases and living conditions they result in (Bethony et al., 2011). Neglected tropical diseases are labeled as neglected due to the minimal financial incentives in place for wealthier developed nations to prioritize these health concerns and provide resources to addressing the needs of some of the people living in the worst conditions globally. Nearly one billion people in the world suffer from NTDs (CDC, 2016).

³ My analysis of each case study will primarily focus on the Americas and the Western Hemisphere. Although Ebola originated in West Africa, it is included in this analysis for the impact it had on U.S. soil and the resulting funding it generated. Details to follow in subsequent sections.

WHO has identified 18 NTDs that particularly impact poor and marginalized populations and cause significant morbidity and/or mortality (WHO, 2017). However, this is not an exhaustive list. Among the diseases listed are Dengue, Soil-transmitted helminthiases, and Chagas disease. While being on this list provides more information and global attention towards these 18 diseases, this does not necessarily result in more funding directed towards these diseases. A good example of this is the funding allocated from the USAID for international NTD programs in the President's budget request. Beginning in 2014 to 2016, NTDs received \$100 million yearly. This was more money than any other year, and exists in sharp contrast to the \$25 million allocated in 2009 (see figure 3). It is not a coincidence that funding for NTDs increased in 2014, as this year coincided with the creation of the GHSA and the Ebola outbreak in West Africa. One explanation why funding has remained strong is the re-emergence of neglected tropical diseases such as Ebola in 2014 and 2015 and Zika in 2015 and 2016 that prompted international health response respectively. The proposed 2017 budget for NTDs is \$87 million, a 14% decrease in funding compared to the previous three years. One explanation for this decrease could be a decreased prioritization of NTDs in the global health security discourse. Continual funding is necessary to developing vaccines, promoting health systems and mitigating the impact of these diseases.

In recent years, Zika and Ebola have been predominant health threats framed as security concerns. In comparison, Chagas is also a health concern, but it has not been given the same securitization backing. In the next few paragraphs, to gain a better understanding of Zika, Ebola and Chagas, we will look at the cases reported of each disease, the health burden of each disease in the form of Disability-Adjusted-Life-Years (DALYs), and the total U.S. budget allocated to each disease. I argue that in framing Zika and Ebola as global health concerns this has resulted

in an increased allocation of funding and resource mobilization towards the mitigation, treatment and research of these diseases

Background

In following paragraphs, I will provide brief contextual backgrounds on the neglected tropical diseases of Zika, Ebola and Chagas.

Zika is an infectious virus transmitted primarily by *Aedes* mosquitos. While the disease is usually mild and requires no specific treatment, rest and fluids are recommended to patients. There is currently no vaccine for Zika (WHO, 2016). The greatest concern with Zika patients is the potential for microcephaly in infants born to Zika-infected women and the association between Zika and and Guillain-Barré Syndrome (Alfaro-Murillo et al., 2016; WHO, 2017). Microcephaly is a birth defect where the baby's head is smaller than normal which can result in an underdeveloped brain (CDC, 2017). From 2015-2016, 1,465 cases of microcephaly and/or Central Nervous System malformations were suggested as being potentially associated with Zika virus infection in the Americas (2016, WHO, May 26). Guillain-Barré syndrome is an uncommon sickness of the nervous system that causes muscle weakness and sometimes paralysis (CDC, 2017). Symptoms can last from a few weeks to months, but most recover fully, and few people die from this disease (CDC, 2017).

Ebola is a neglected tropical disease that is often fatal in humans (WHO, 2016). Transmission occurs through human contact with bodily fluids of infected animals and then spreads through human-to-human transmission with direct contact of bodily fluids or secretions of infected peoples (WHO, 2016). Diagnosis can be difficult to distinguish form other infectious diseases such as malaria, typhoid fever and meningitis (WHO, 2016). Symptoms include: fever, severe headache, weakness, fatigue, diarrhea, and vomiting to name a few. There is no proven

treatment for the Ebola virus disease. However, rehydration with oral or intravenous fluids improves survival. Two vaccines are currently undergoing testing (WHO, 2016)

Chagas disease is a potentially life-threatening illness caused by the transmission of a parasite to humans via the triatomine bug, also known as the 'kissing bug.' (WHO, 2017).

Chagas has both an acute and chronic phase and if left untreated, the infection is life-long and life threatening (CDC, 2013). Symptoms usually remain dormant, making it hard to initially identify. Twenty to 30% of those infected display chronic phase symptoms. In the chronic phase, Chagas can result in cardiac and intestinal complications (CDC, 2013). Additionally, the disease can spread from a pregnant woman to her baby (CDC, 2013). Comorbidity of Chagas in people with suppressed immune systems (e.g. AIDS/HIV etc.) may result in more severe disease course and lead to negative health outcomes. Prevention includes spraying insecticides to eliminate the triatomine bugs and avoiding sleeping in a mud, thatch or adobe house where these bugs often live (Mayo Clinic, 2014; CDC, 2013). Treatment focuses on killing the parasite in the acute infection stage and managing later stages. Once Chagas reaches the chronic stage, medications will no longer cure the disease (Mayo clinic, 2014). In the past few decades, triatomine bugs and Chagas have spread to the U.S (See figure 4).

Disease Comparison

This section will compare these three infectious diseases by examining disease outcome (e.g. confirmed cases and health burden), recent resource allocation and global prioritization.

Cases Reported. From 2015-2017, there were 223 confirmed autochthonous cases of Zika in Florida and Texas and 5,393 imported cases from travelers returning from infected areas.

⁴ Chagas has been reported in Texas, California, Tennessee, and Louisiana to name a few. It is believed that many other cases are unreported (Bern, Kjos, Yabsley & Montgomery, 2011).

(2017 PAHO, April 6; CDC, 2017). In Brazil, there are 131,643 confirmed cases. Total confirmed autochthonous Zika cases in the Americas is 207,557 (2017, PAHO April 6).⁵

From 2014-2015, 28,616 total cases of Ebola were reported in Guinea, Liberia and Sierra Leone with 11,310 deaths (WHO, 2017). Four cases and one death were reported in the U.S (WHO, 2016)^{6,7}. In comparison, Chagas disease has infected 6-10 million people (PATH, 2015; Lee, Bacon, Bottazzi & Hotez, 2013; WHO, 2017). An average of 12,000 deaths are caused each year due to this disease (PAHO, 2017). Over 70 million people are burdened by the disease (PATH, 2015). While each disease has different symptoms and severity, understanding the impact in terms of lives lost or infected helps put these diseases into better perspective.

Health Burden. For this paper the health burden will be measured by Disability-Adjusted-Life-Years (DALYs). DALYs quantify disease burden of a disease from the mortality and morbidity of that illness (WHO, 2017). A DALY can be seen as one lost year of a "healthy life."

Although Zika was not added to the Global Burden of Disease (GBD) Study 2015, preliminary research has calculated DALYs for potential outcomes associated with Zika such as Microcephaly and Guillain-Barré Syndrome. Microcephaly has been calculated to have a loss of 29.95 DALYs per case (Alfaro-Murillo et al., 2016). Taking into consideration the number of reported Zika cases associated with Microcephaly in the Americas (1,465 of 207,557 total cases)

⁵ In the Americas, a total of 554,479 Zika cases are suspected, but only 207,557 confirmed (2017, PAHO April 6). 5,827 cases have been imported, suggesting travel has spread the disease to other countries.

⁶ This number does not include the number of cases contracted in West Africa and then transported back to the U.S. Ten to 11 cases of Ebola were treated on U.S. soil from 2014- 2015 (CDC, 2016; NYTimes, 2015)

⁷ One case of Ebola occurred in each of the following counties: Italy, Spain, the United Kingdom and Senegal. Twenty cases were found in Nigeria and eight deaths. Eight cases were reported in Mali and six deaths. The total number of world cases from 2014-16 is 28,646 and 11,323, with deaths (WHO, 2016, May 26)

⁸ This number takes into consideration the number of people living in places where Chagas is endemic and therefore, at risk of infection (PATH, 2015; Uniting to Combat NTDs, 2015)

⁹ DALYs are calculated from the sum of Years of Life Lost (YLL) based on expected standard of life expectancy and number of deaths in the population and Years Lost due to Disability (YLD) for people living with the disease.

this translates to 43,876.75 total DALYs. Direct medical costs for Latin America and the Caribbean were estimated to be \$91,102 per case (Alfaro-Murillo et al., 2016). Guillain-Barré Syndrome results in a loss of 1.25 DALYs per case (Alfaro-Murillo et al., 2016). Direct medical costs for Latin America and the Caribbean were estimated to be \$28,818 (Alfaro-Murillo et al., 2016). Interestingly, due to high global interest in the Zika virus, Zika is expected to be added to the GBD 2016 analysis (Global Burden of Disease Study, 2015).

Both Ebola and Chagas were included in the 2015 GBD Study. Ebola was seen as averaging 295,400 DALYs with an estimated direct medical cost plus productivity lost between \$480-18,929 per case (Bartsch, Gorham & Lee, 2015). Whereas, Chagas averaged 231,100 DALYs globally (Global Disease Burden, 2015). Using another model, Chagas has been reported to have a global annual burden of 806,170 DALYs (Lee et al., 2013). In this model global annual cost for individuals with Chagas was \$4,660 with a lifetime cost off \$27,684 per case. 12

The highest annual health-care costs were from Brazil with a mean cost of \$129,211,209, followed by the U.S. (mean \$118,179,806) and Argentina (mean \$108,809,439) (Lee et al., 2013). The highest net present value (NPV) was from the U.S with a mean cost of \$6,745,512,938, followed by Brazil (\$4,543,280,792) and Argentina (mean \$3825,920,667) (Lee et al., 2013).

The limitations of using DALYs should be noted. While this measure allows for comparison between health losses due to different diseases, DALYs do not include multiple causes of illness, long latency periods, and other burdens that come with a disease such as

¹⁰ This number fluctuates based on the severity and outcome of the case.

¹¹ The estimated global health burden for Ebola ranged between 238,300-353,800 DALYs. The estimated global health burden for Chagas ranged between 211,800- 268.3 DALYs (Global Disease Burden, 2015).

¹² Global annual cost includes health care plus productivity lost (Lee et al., 2013). Additionally it must be noted that costs vary based on region of world where the burden of disease differs in different countries.

stigmatization, and social and economic consequences of the disease discrimination (e.g. burden of maternal health to household and communities) (Zou, 2001). Furthermore, using mortality or life expectancy to reflect disease burden may not be accurate for all chronic infectious diseases, such as Chagas.

Budget Allocated. In 2016, the Obama Administration requested \$1.9 billion in supplemental funding to respond to the Zika virus (Epstein & Lister, 2016). Congress approved \$1.1 billion to be allocated to Zika. The Zika Response and Appropriations Act of 2016 provided an additional \$350 million in funding to the CDC (CDC, 2016). In December of 2016, the CDC awarded \$184 million in funding to U.S. states and universities to fund initiatives to "protect Americans from Zika virus infection and associated adverse health outcomes, including microcephaly and other serious birth defects" (CDC, 2016). From 2016-2017, WHO/PAHO received \$24.9 million in direct contributions from 13 donors to support rapid response to Zika (WHO, 2017). Primary areas for funding included investment in research and development, prevention of adverse health outcomes associated with the disease, and support of health systems in Zika infected countries (WHO, 2017). An additional \$3.8 million was allocated from WHO's Contingency Fund for Emergencies for the Zika Response (WHO, 2017). These findings are evidence that the response to health threats was supported through contributions from nations,

¹³ This sum was designated as an emergency response. The request included over \$1.5 billion for the Department of Health and Human Services (HHS), \$335 million for the U.S. Agency of International Development (USAID) and \$41 million for the Department of State (Epstein & Lister, 2016)¹³

¹⁴ Donors include: The African Development Bank; Australia Dept. of Foreign Affairs and Trade; Bill and Melinda Gates Foundation, Canada Foreign Affairs, Trade and Development; UK Department of Development; Global Affairs Canada; Inter-American Development Bank; Japan Ministry of Foreign Affairs; New Zealand; Norway Ministry of Foreign Affairs; Public Health Agency of Canada; Spanish Agency for International Development Cooperation, USAID and Misc. (WHO, 2017)

non-profits, and private donors, who have acknowledged the international responsibility and necessity to prevent and mitigate the effects of infectious diseases.¹⁵

Although Ebola and Chagas share similar DALY values, the funding for the two diseases varies drastically. From 2015-2019, the Consolidated and Further Continuing Appropriations Act, 2015 (H.R. 83) provided \$1.77 billion to the CDC as part of the Ebola Response Funding (CDC, 2017). A further \$25.3 million was given by the HHS Public Health and Social Services Foundation Fund (PHSSEF) to the CDC for the Ebola response (CDC, 2017). An additional \$459 million in direct and in-kind donations was given from over 60 donors to WHO in 2016 to fund Ebola-related activities (WHO, 2017). Both government and other organizations donated to the fight against Ebola. 17

In contrast, U.S. funding for Chagas has been lumped together with the general funding allocated to all Neglected Tropical Diseases (Kaiser Family Foundation, 2015). 18 Interestingly, the U.S. President's Fiscal Year Budget for NTDs rose dramatically from 2014-2016 (see figure 3). During this period, \$100 million was allocated to NTDs per year, more money than any other fiscal year (Kaiser Family Foundation, 2015)¹⁹. What makes this period interesting is that it coincides with the emergence of Ebola in West Africa in 2014 and Zika in Latin America in 2015 & 2016. However, the proposed budget for 2017 is \$87 million. As noted previously, this is a sharp decrease to the money allocated to NTDs. In framing Ebola and Zika as security threats, I

¹⁵ The figures included in this paragraph are by no means a reflection of all aid given to the response to Zika. However, they represent a sample of funding allocated.

¹⁶ \$576 million was allocated to domestic preparedness and response; \$603 million was allocated for international response; and \$597 million was allocated for Global Health Security

¹⁷ The largest donors included: the U.S.; the World Bank; The African Development Bank; the Ebola Multi Partner Trust Fund; and Japan.

¹⁸ Although Bangledesh, Barbados, Bolivia and Suriname (2009) proposed a \$250 million prize to be allocated to the development of new treatments, diagnostics and vaccines for Chagas, it is uncertain if this funding request was approved.

This money represents funding for international NTD programs. Specified funding is then allocated by USAID.

would argue that this has elevated the global status of other NTDs and the resulting funding serves as partial evidence for this claim.

Global Platform. The securitization of both Ebola and Zika has led to an increased mobilization of people and resources to fight these diseases. Despite impacting more people than Zika and Ebola combined, Chagas has not prompted a similar global emergency response to Zika and Ebola (UN, 2017; Who, 2017). This is puzzling, for as demonstrated earlier, Ebola and Chagas have similar health burdens. One way to understand this disproportional response, is in the media response to Zika and Ebola. In agreement with Amon (2014), while some health threats and infectious diseases pose real health concerns, "...the media often sensationalizes health security threats and inaccurately promotes them as indiscriminately threatening all individuals" (Amon, 2014). One example of this was in 1994 when New Yorker journalist Richard Preston released a book called *The Hot Zone* in which he sensationalized the most visual and shocking symptoms of Ebola and the potential for the disease to be used as a biowarfare (Honigsbaum, 2017).²⁰ The combination of this popular novel and the second emergence of Ebola in 1995 prompted a large media interest and a large amount of funding for vaccine research. However, and more importantly, Rushton's book contributed to Ebola's inclusion on the list of emerging infectious diseases by the Institute of Medicine (IoM) that contained threats such as HIV (Honigsbaum, 2017). In turn this raised Ebola's global and political status to higher global health prioritization. After the outbreak, funding fluctuated, until, in response to an anthrax attack, the Bush Administration allocated \$4.7 billion to the National Institute for Allergy and Infectious Diseases (NIAID) to research Ebola and other diseases (Honigsbaum, 2017). After the Iraq war, funding decreased and when Ebola re-emerged in 2014, no vaccines

²⁰ One example of this is in the way he emphasized the later stages of the disease in graphic detail (e.g. The way patients 'bled out' from multiple parts of their body (Honigbaum, 2017)

were created to respond to the disease.²¹ Ebola is one of the first examples of an infectious disease being regarded as a security threat.

One potential ethical concern between linking diseases to security is the possibility of an "epidemic-induced fear" (Labonte and Gagonm in Rushton, 2011 p.784). This fear can infect both governments and citizens who then respond in ways that promote self-protection above effectiveness in response to a particular issue (Amon, 2014). One example is the focus on containment above the prevention of a disease (Aldis, 2008; Rushton, 2011). The security language of "protection" and "fighting against" has the tendency to also be used to describe the people infected with or most impacted most by these diseases. Security responses may target minority populations in order to isolate the disease, and in turn, prioritizes state interests above human rights. The usage of health as a national security concern may be warranted in certain cases; however, one nation's health should not come at the expense of another's. The security framework of health initiatives has "lead marginalized groups to develop a rational suspicion of public health endeavors" (DeLeat, 2014). It is possible to treat people and contain diseases without denying people their rights or seeing them as the threat rather than a person who is struggling to overcome an illness.

Security vs. Human Rights

In framing global health as a security concern this has elevated certain diseases to a global platform which has, in turn, has led to increased resources, such a funding and health mobilization, given to a disease. However, securitization also has the tendency to prioritize the health of advantaged nations over least advantaged nations and widens disparities between infectious diseases, especially those that impact the most vulnerable populations. The disproportionate funding allocated to health security threats diverts funding from general health

²¹ As noted earlier, two vaccines are currently being created.

care and health systems (DeLaet, 2014). If we agree with the WHO (2015; 2017) that the highest attainable standard of health is a right to every human being, then the usage of a security framing for global health is concerning.

In fact, 'security,' sometimes interpreted as the need to contain the developing world, does not necessarily address the root causes of these diseases (Rushton, 2011). For instance, Chagas can be prevented though the avoidance of sleeping in a mud, thatch or adobe house, using netting and using insecticide-soaked netting over your bed (Mayo Clinic, 2014). However, for individuals living in poverty, they may not be able to afford preventable measures such as mud house or a mosquito netting. In lacking prevention materials these individuals are at an increased risk of contracting a disease. This disadvantage is compounded when, once infected, many are unable to access or afford treatment. Without health people, people are unable to attain the highest standard of self and achieve their true potential in other aspects of their lives.

Diseases can be debilitating in the human impact of lives lost, but also in the considerations for once an individual survives. People living with diseases such as Chagas and other NTDs are highly stigmatized and discriminated against, even within their own communities. These diseases impact employment opportunities, but also the quality of life one maintains personally and socially.

Recommendations & Conclusion

While the securitization of health results in positive short-term outcomes such as resource allocation, this framing neglects individuals' human rights. Therefore, in order to prioritize the health of all, the security framework should be subordinated to human rights in global health discourse. Diseases that have high mortality and/or morbidity should be prioritized without

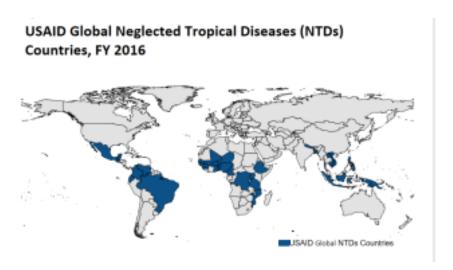
exception to global location. The treatment of people as people and not as threats needing to be eliminated or contained, will only serve international collaboration efforts.

Along those lines, it may be challenging, but there is a need for increased transparency of global health agendas. As it stands currently, "the health security agenda is a significantly skewed one, reflecting the concerns of the most powerful actors in the international system" (Abraham in Rushton 2011 p. 784). In order to incorporate the voices of all nations and parties involved in global health initiatives, acknowledging state's interests is key to international cooperation. There is a need for comprehensive and inclusive international collaboration in order to make sure everyone's voices are heard and the rights of the few are not diminished.

Finally, I am not suggesting the complete removal of security dialogue. I acknowledge that framing health as a security concern allows needed funding to be allocated towards certain areas and diseased. Some have even suggested that if health security a national security, funds should be pooled from security budgets in order to support the joint initiative of health and security sectors working together (WHO, 2007 in Aldis, 2008). What I recommending is the creation of a global definition of global health security that advocates for rights above security in the health dialogue. By changing the rhetoric used, this will acknowledge the limitations of the current security framework as furthering the interests of the advantaged few, and work to prevent and mitigate diseases through collaborative efforts of all global communities.

Figure 1

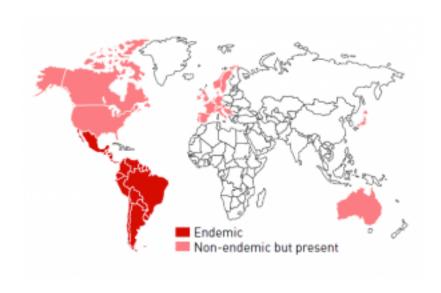
NTDs in the Global South



Note. This figure shows the geographical location of most NTDs. Many are located and endemic to the Global South. Retrieved from: http://kff.org/global-health-policy/fact-sheet/the-u-s-government-and-global-neglected-tropical-diseases/

Figure 2

Chagas: Endemic vs. Non-Endemic World Regions

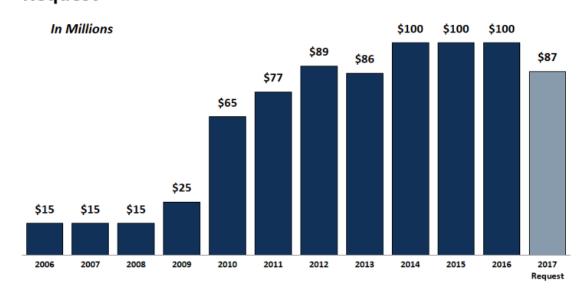


Note. This figure shows the spread of Chagas, and NTD that is endemic to the Global South, but has been found in the Global North in the past few decades. Retrieved from: https://www.dndi.org/diseases-projects/chagas/

Figure 3

Neglected Tropical Diseases (NTDs), FY 2006-FY 2017

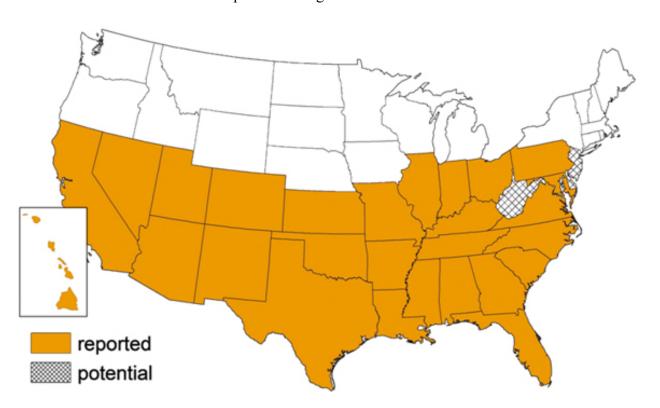
Request



Note. The graph above illustrates an increase in U.S. funding for NTDs from 2006-2017, with the most spending between the years of 2014-16, the same years Zika and Ebola were prioritized as global health security concerns. Retrieved from Retrieved from: http://kff.org/global-health-policy/fact-sheet/the-u-s-government-and-global-neglected-tropical-diseases/

Figure 4

The Spread of Chagas in the U.S.



Note: The figure above shows reported and potential Triatomine Bug occurrence by state in the U.S. This bug helps spread Chagas disease. Retrieved from. https://www.cdc.gov/parasites/chagas/gen_info/vectors/

References

- Aldis, W. (2008). Health security as a public health concept: A critical analysis. *Health Policy* and *Planning*, 23, pp. 369-375.
- Alfaro-Murillo, J.A., Parpia, S.A, Fitzpatrick, M.C., Tamagnan, J.A., Medlock, J., Ndeffo-Mbah, M.L., Fish, D., Avila-Agüero, M.L., Marín, R., Ko, A.I. & Galvani, A.P. (2016). A cost-effectiveness tool for informing policies on Zika virus control. *PLOS Neglected Tropical Diseases*, 1-14.
- Amon, J.J. (2014). Health security and/or human rights. (Eds. Rushton, S. & Youde, J. In Routledge Handbook of Global Health Security. Pp. 293-303.
- Bangladesh, Barbados, Bolivia & Suriname (2009). Chagas disease prize fund for the development of new treatments diagnostics and vaccines.
- Bartsch, S.M., Gorham, K. & Lee, B.Y. (2015). The cost of an Ebola case. *Pathogens and Global Health*, 109, 4-9
- Belluz, J. (2017, March 3). A deadly bird flu is surging in China. *Vox*. Retrieved from: http://www.vox.com/2017/3/2/14478400/deadly-bird-flu-china-h7n9
- Benatar, S. & Upshur, R. (2011). What is global health? In S. Benatar & G. Brock (Eds.),

 Global Health and Global Health Ethics (pp.13-23). New York: Cambridge University

 Press.
- Bern, C., Kjos, S., Yabsley, M.J. & Montgomery, S.P. (2011). *Trypanosoma cruzi* and Chagas' Disease in the United States. *Clinical Microbiology Reviews*, 665-681.
- Bethony, J.M., Cole, R.N., Guo, X., Kamhawi, S., Lightowlers, M.W., Loukas, A., Petri, W., Reed, S., Valenzuela, J.G., Hoetz, P.J. (2011). Vaccines to combat the neglected tropical diseases. *Immunological Reviews*, 239, pp. 237-270.

- Centers for Disease Control and Prevention [CDC] (2013). Parasites: American Trypanosomiasis (also known as Chagas Disease). Diseases. Retrieved from: https://www.cdc.gov/parasites/chagas/disease.html
- CDC (2016). Ebola Virus Disease (EVD) information for clinicians in U.S. Healthcare.

 Retrieved from: https://www.cdc.gov/vhf/ebola/healthcare-us/preparing/clinicians.html
- CDC (2013). Parasites: American Trypanosomiasis (also known as Chagas Disease). Detailed FAQs. Retrieved from: https://www.cdc.gov/parasites/chagas/gen_info/detailed.html
- CDC (2016). Zika and Guillain-Barré Syndrome. Retrieved from: https://www.cdc.gov/zika/healtheffects/gbs-qa.html
- CDC (2016). Facts about Microcephaly. Retrieved from:

 https://www.cdc.gov/ncbddd/birthdefects/microcephaly.html
- CDC (2016) FY 2015-2019 Ebola Response. Retrieved from https://www.cdc.gov/budget/ebola/index.html
- CDC (2016) CDC awards nearly \$184 million to continue the fight against Zika. Retrieved from: https://www.cdc.gov/media/releases/2016/p1222-zika-funding.html
- CDC (2016). CDC announces funds for states and territories to prepare for Zika. Retrieved from: https://www.cdc.gov/media/releases/2016/p0513-zika-funds.html
- CDC (2016). Global Health Security: International Health Regulations (IHR)

 https://www.cdc.gov/globalhealth/healthprotection/ghs/ihr/
- CDC (2017). Case Counts in the U.S. Retrieved from: https://www.cdc.gov/zika/geo/united-states.html

- CDC (2016) Neglected tropical diseases program: Fact Sheet. Center for Global Health Division of Parasitic Diseases and Malaria. Retrieved from:

 https://www.cdc.gov/globalhealth/ntd/resources/ntd_factsheet.pdf
- DeLaet, D.L (2014). Whose interests is the securitization of health serving? (Eds. Rushton, S. & Youde, J. In Routledge Handbook of Global Health Security. 339-348.
- Epstein, S.B. & Lister, S.A. (2016). Zika response funding: Request and congressional action.

 *Congressional Research Service. R44460. Retrieved from:

 https://fas.org/sgp/crs/misc/R44460.pdf
- Farmer, P. (1996). Social inequalities and emerging infectious diseases. *Emerging Infectious Diseases*, 2, pp. 259-269.
- Global Health Security Agenda (GHSA). (2017) Retrieved from: https://www.ghsagenda.org
- Global Health Security Initiative (GHSI) (2017). Retrieved from: http://www.ghsi.ca/english/index.asp
- Honigsbaum, M. (2017). Between securitization and neglect: Managing Ebola at the borders of global health. *Medical History*, 61, 270-294.
- Inglesby, T. & Fischer, J. E. (2014). Moving ahead on the global health security agenda.

 *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science, 12, pp. 63-65.
- Kaiser Family Foundation (2016). The U.S. government and global neglected tropical disease efforts: Fact sheet. Retrieved from: http://kff.org/global-health-policy/fact-sheet/the-u-s-government-and-global-neglected-tropical-diseases/
- Lee, B.Y., Bacon, K.M., Bottazzi, M.E. &Hotez, P.J. (2013). Global economic burden of Chagas disease: a computational simulation model. *The Lancet*, 13, 342-348.

- Mayo Clinic Staff (2014). Diseases and conditions: Chagas disease. Retrieved from: http://www.mayoclinic.org/diseases-conditions/chagas-disease/basics/prevention/con-20030854
- McInnes, C. (2014). The many meanings of health security. (Eds.) Rushton, S. & Youde, J. In Routledge Handbook of Global Health Security . pp. 7-17.
- Narain, J.P., Dash, A.P., Parnell, B., Bhattacharya, S.K., Barua, S., Bhatia, R., Savioli, L. (2010). Elimination of neglected tropical diseases in the South-East Asia Region of the World Health Organization. *Bull World Health Organization*, 88, pp. 206-210.
- The New York Times (January, 26, 2015). How many Ebola patients have been treated outside of Africa. Retrieved from.

 https://www.nytimes.com/interactive/2014/07/31/world/africa/ebola-virus-outbreak-

qa.html?_r=0

- Pan American Health Organization [PAHO] (2017, April 6). Zika cases and congenital syndrome associated with Zika virus reported by countries and territories in the Americas, 2015-
- PAHO (2016). Chagas Disease. Retrieved from:

 http://www2.paho.org/hq/index.php?option=com_topics&view=article&id=10&Itemid=4

 0743
- PATH (2015). Diagnostics for neglected tropical diseases. Retrieved from: http://sites.path.org/dx/files/2012/04/NTD-fact-sheet-July2015.pdf
- Quinn, S. C. & Kumar, S. (2014). Health inequalities and infectious disease epidemics: A challenge for global health security. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science,* 12, pp. 263-267.

- Rodier, G., Greenspan, A.L., Hughes, J.M & Heymann, D.L (2007). Global Public Health Security. *Emerging Infectious Diseases*, 13, 1447-1452.
- Rushton, S. (2011). Global health security: Security from whom? Security from what? *Political Studies*, 59, pp. 779-796.
- Stevenson, M.A. & Moran, M. (2014). Health security and the global distortion of global health agenda. (Eds. Rushton, S. & Youde, J. In Routledge Handbook of Global Health Security. 328-338.
- The White House (2015). Fact sheet: The global health security agenda. Office of the

 Secretary. Retrieved from: https://obamawhitehouse.archives.gov/the-pressoffice/2015/07/28/fact-sheet-global-health-security-agenda
- United Nations Development Programme (UNDP). (1994). Human development report 1994.

 New York, New York: Oxford University Press.
- Uniting to Combat NTDs. (2015) Country leadership and collaboration on neglected tropical diseases: Third progress report of the London Declaration. 2015. Retrieved from: http://unitingtocombatntds.org/sites/default/files/document/
 UTCNTD%20FULL%20REPORT.pdf.
- World Health Organization [WHO] (2016, May 26). Situation Report, Zika virus, Microcephaly, Guillain-Barré Syndrome. Retrieved from:

 http://apps.who.int/iris/bitstream/10665/207281/1/zikasitrep_26May2016_e

 ng.pdf?ua=1
- WHO (2017). Global outbreak alert and response network (GOARN). Retrieved from http://www.who.int/ihr/alert and response/outbreak-network/en/

- WHO (2017). Chagas diseases (American typanosomiasis). Disease Retrieved from: http://www.who.int/chagas/disease/en/
- WHO (2017). Chagas disease (American trypanosomiasis). Fact Sheet Retrieved from: http://www.who.int/mediacentre/factsheets/fs340/en/
- WHO (2017). Constitution of WHO: principles. Retrieved from: http://www.who.int/about/mission/en/
- WHO (2016). Ebola virus disease: Fact sheet, Retrieved from: http://www.who.int/mediacentre/factsheets/fs103/en/
- WHO (2017). Ebola Outbreak 2014-2015. Retrieved from: http://www.who.int/csr/disease/ebola/en/
- WHO (2017). Zika: Response funding. Retrieved from: http://www.who.int/emergencies/zika-virus/response/contribution/en/
- WHO (2015). Health and Human Rights.

 http://www.who.int/mediacentre/factsheets/fs323/en/
- WHO (2017). Health topics: International Health Regulations (IHR). Retrieved from http://www.who.int/topics/international health regulations/en/
- WHO (2017). Neglected tropical diseases. Retrieved from: http://www.who.int/neglected_diseases/diseases/en/
- WHO (2016). Zika Virus: Fact sheet. Retrieved from: http://www.who.int/mediacentre/factsheets/zika/en/

- WHO (2007). The World Health Report 2007: A Safer Future. Retrieved from. http://www.who.int/whr/2007/whr07_en.pdf?ua=1
- WHO (2017). Metrics: Disability-Adjusted Life Year (DALY). Retrieved from. http://www.who.int/healthinfo/global burden disease/metrics daly/en/
- Zou, S (2001). Applying DALYS to the burden of infectious diseases. *Bull World Health Organization*, 79. Plus Editors Comments.