

The Massive Spreads and Fatalities of COVID-19 Pandemic in the United States Symptoms of Leadership Failure

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ABSTRACT

This paper examines the massive spreads and fatalities of the COVID-19 pandemic in the United States, the country with the most advanced medical technology in the world. We assert that the massive spreads and fatalities of the COVID-19 virus are symptoms of leadership failure at the federal, state, and local government levels. To quantify our assertion, we employ a theoretical framework linking the massive spreads and fatalities of the COVID-19 virus to political leaders such as President Trump and the group of obsequious state governors and city mayors who utilized conspiracy theories to propagate disinformation nationwide in order to diminish the severity of the virus. We posit that the conspiracy theories and disinformation about the pandemic hampered collaboration and coordination at the federal, state, and local levels, thus the inability to curtail the spreads and fatalities of the virus. We contend that when political leaders employed conspiracy theories and disinformation to achieve their political goals, they contributed to the massive spreads and fatalities of the virus; and they also undermined the credibility of the Centers for Disease Control and Prevention and the health care system in providing the pertinent control guidelines and information. We compare the outcomes of the COVID-19 in United States to those of other advanced countries where the political leaders are not obsessed with spreading conspiracy theories and disinformation about the health risks of COVID-19. We conclude that leaders in some advanced countries did not downplay the severity thus their ability to curtail the spreads and fatalities of the COVID-19 pandemic.

Massive Spreads, Fatalities, COVID-19 Pandemic, Political Leaders, Conspiracy Theories, Disinformation

Introduction

The outbreaks of global infectious diseases, such as the current COVID-19 pandemic, dated back to the bubonic plague, which originated in China in 1334. The establishment of the World Health Organization (WHO) on April 7, 1948 shortly after World War II made WHO the world body designed to ensure collaboration and coordination within the global health care systems required to provide the necessary bulwark against anticipated and unanticipated infectious diseases threats. During the 1948-2000 period, the world experienced prominent outbreaks of epidemics and pandemics such as the 1957-1958 influenza (Asian flu) associated with one to two million deaths; the 1968-1969 influenza (Hong Kong flu), which resulted in 500,000 to two million deaths; the human immunodeficiency virus-acquired immunodeficiency syndrome (HIV-AIDS), which since 1960 has resulted in over 35 million deaths, the ongoing cholera since 1961 continued to cause between 21,000 and 143,000 deaths annually; the 1974 smallpox, which resulted in over 26,000 deaths; and the 1994 plague that led to roughly 60 deaths.

In the past two decades of the 21st century, the world also experienced the outbreaks of both epidemics and pandemics including the 2002-2003 severe acute respiratory syndrome (SARS with over 774 deaths), the 2009 influenza (Swine flu or H1N1 with over 284,000 deaths), the 2014-2016 Ebola (with over 12,000 deaths), the ongoing Zika since 2016 (with unknown fatality), the 2017 dengue (with 38,000 deaths), the 2017 plague (with roughly 209 deaths), and the current 2020-2021 COVID-19 pandemic (with over 2.01 million deaths). Comparing the fatalities of the epidemics and pandemics that occurred in the last half of the 20th century with those of first two decades of the 21st century, one can argue that the WHO became more experienced and proficient in using collaboration and coordination with the global health care systems to mitigate the outbreaks of both known and unknown infectious disease threats. For instance, according to the Division of Global Migration and Quarantine, the public health risks associated with the Madagascar pneumonic plague of 2017 led the WHO to request for technical assistance from the CDC because of its substantial expertise in how travel can spread infectious diseases to other countries. Given that WHO's global partnership engagement is rooted in many years of infectious diseases preventions, border health protection practices, and the lessons learned from the coordinated global responses to the recent outbreaks of Ebola and Zika epidemics, the massive spreads and fatalities of the COVID-19 since 2020, which presently exceeds the fatalities associated with the 1957-1958 Asian flu and the 1968-1969 Hong Kong flu combined, raises pertinent questions about the roles political leaders at the national and/or international levels play in mitigating global infectious disease threats.

This paper contributes to the theoretical literature and the ongoing debates in academic and political circles about global infectious disease threats by analyzing the roles that political leaders play at the federal, state, and local government levels in the United States in curtailing the spreads and fatalities of global infectious diseases under the presidential leaderships of Obama and Trump. Since both presidents experienced global pandemic outbreaks during their tenure, this study is intended to show that President Trump's inability to curtail the massive spreads and fatalities associated to COVID-19 pandemic could easily be construed as the symptoms of leadership failure. To understand the basis of President Trump's leadership failure in curtailing the widespread negative outcomes of COVID-19 pandemic, it is important to provide answers to the following research questions. What strategies did President Obama use to curtail the spreads and fatalities associated with the H1N1, Ebola, Zika, and Dengue¹ during his presidency? Given that President Trump knew about the COVID-19 as early as January 2020, the other pertinent research question is: Why was the United States unable to curtail the massive spreads and fatalities of the COVID-19 pandemic?

In answering these research questions, we draw on the theory of leadership² in asserting that leadership failure is a reflection of various characteristics of leadership, especially those leaders who repetitively engage in self-aggrandizements, self-projections, and self-deceptions.³ When leaders possess these traits, they tend to focus more on the processes of self-promotions as being the most powerful and knowledgeable about everything around them and relegate their responsibilities to their subordinates in order to avoid been held accountable for their missteps. As the 45th POTUS, Trump displayed self-aggrandizements, self-projections, and self-deceptions thus the inability to listen to the advice given by medical experts and health professionals about how to collaborate and coordinate with governors and city mayors in all states with respect to the handling of the COVID-19 pandemic. President Trump's engulfment in self-projections and self-deceptions was amplified by the utilization of baseless conspiracy theories and disinformation with which he deceptively projected his leadership failure in curtailing the spreads and fatalities on some state governors and city mayors, and this culminated in the unnecessary politicization of the COVID-19 pandemic.

The politicization of the COVID-19 pandemic led to the division of Americans into two groups, basically, along the two party lines: the believers and the nonbelievers in the health risks associated to the COVID-19 pandemic, and this seriously undermined the credibility of the Centers for Disease Control and Prevention and the entire health care systems in providing the medical guidelines and correct scientific-based information necessary to curtail the pandemic. In our comparative analysis of the outcomes achieved by President Trump in handling of the COVID-19 in the United States to the outcomes achieved by the leaders in other advanced countries, we observe that these leaders did not downplay the seriousness of the pandemic right from the onset; and they did not engage in self-aggrandizements, self-projections, and self-deceptions. Furthermore, they were not engulfed in baseless conspiracy theories and disinformation that would have undermined the guidelines provided by their medical experts and health care professionals. Simply put, the extensive spreads and fatalities of the COVID-19 in the United States were the symptoms and/or results of President Trump's leadership failure.

¹ See Bloom and Cadarette (2019) for detail explanations regarding the pathogen, geographical locations, and the cases/mortalities of the prominent outbreaks of epidemics and pandemics since the Spanish flu of 1918-1920.

² See DuBrin (2013) for detailed discussions about the traits, motives, and characteristics of leaders, especially the personality traits of effective leaders and leadership motives.

³ For more on the theories of self-projections and self-deception, see Gur et al. (1979) and Mele (1998).

The rest of this paper is organized as follows. In section 2, we provide a brief review of the relevant studies with respect to the global infectious disease threats. In section 3, we use theoretical analysis to show how the baseless conspiracy theories and disinformation employed by political leaders in the United States at the federal, state, and local government levels hamstrung the ability to curtail the known and unknown global infectious disease threats or shocks, thus the significant negative ramifications on all aspects of the economy. In section 4, we discuss how President Obama was able to mitigate the spreads and fatalities associated with the H1N1, Ebola, Zika, and Dengue and compared to President Trump's handling of the COVID-19 pandemic. The paper concludes in section 5 with policy and political implications.

1. Background Studies

The world has experienced several episodes of global infectious diseases since the most deadly Spanish flu of 1918. According to Bloom and Cadarette (2019), no other global pandemic has approached the magnitude of the Spanish flu of 1918 in terms of fatality over such a short period in which there were 500 million recorded cases and fatality ranging between 30 and 100 million deaths. In Bloom and Cadarette's (2019) viewpoint, "Humanity's relatively good fortune with respect to infectious disease can be attributed, in part, to the elaborate global health system the world has gradually developed as a bulwark against infectious disease threats, both known and unknown." In their study, they discussed prominent infectious disease outbreaks, epidemics, and pandemics of the last century. In doing so, they raised several pertinent issues including the fact that infectious disease threats pose economic and social risks, and that there are a number of complicating and challenging factors when it comes to managing the risk of infectious diseases.

According to both authors, several ongoing demographic trends point toward an increased potential for transmission of pathogens. In this regard, Bloom and Cadarette (2019) identified several factors such as population growth, especially in developing countries where there is a rapid growth in urbanization; climate change that could be an important factor in driving pathogen transmission; human interactions with animal populations, which can lead to producing pathogen spillovers; civil (political and social) conflicts that can result in new disease outbreaks or the exacerbation of ongoing outbreaks; and globalization, which enables many diseases with epidemic and pandemic potential to be transmitted domestically and across countries worldwide.

In addition, Bloom and Cadarette (2019) pointed out come economic and political challenges that can impede the implementation of measures needed to prepare for and respond to infectious disease threats. Among some of the political challenges is the lack of a reliable mechanism for incentivizing international collaboration and coordination in the development of new biomedical countermeasures wherein manufacturers from high-income countries could rely on developing countries to provide biological samples needed for research and development. Towards that end, the authors recommended the formation of a multi-disciplinary "Global Technical Council on Infectious Disease Threat" to address emerging global challenges related to infectious diseases and the associated social and economic risks. This recommendation is premised on the assumption that a newly created "Global Technical Council on Infectious Disease Threat" would strengthen the global health systems by improving collaboration and coordination across organizations such as the WHO, national CDCs, and pharmaceutical manufacturers; fill the knowledge gaps with respect to infectious disease tracing/surveillance and treatment; provide the needed funding for research and development, financing models, and the social and economic impacts of potential threats; and make high-level but medical evidence-based recommendations for managing global risks associated with infectious diseases.

The spreads and fatalities associated with global infectious diseases have also brought attention to the use of different types of personal protective equipment including the use of face shields, facemasks, gloves, goggles and glasses, gowns, head covers, respirators, and shoe covers. At the forefront of these personal protective equipment is the use of facemasks by the general public to prevent or reduce the transmissions of respiratory pathogens. In the face of the global COVID-19 pandemic, many countries mandated the wearing of facemasks in public areas along with social distancing to prevent further spread and fatality. The ongoing debate is about the efficacy of wearing facemasks as the preventive measure for the COVID-19 pandemic.

In a recent study, Vainshelboim (2021) documented several experimental studies, which provided the scientific basis to question the efficacy of using facemasks. Vainshelboim's (2021) "evolution of hypothesis" with respect to medical and non-medical facemasks covered the "breathing physiology, efficacy of facemasks, physiological and psychological effects of wearing facemasks, and the long term health consequences of wearing facemasks." Vainshelboim (2021) concluded that wearing facemasks has been demonstrated to have substantial adverse physiological and psychological effects and that the long term consequences can cause health deterioration, the development and progression of chronic diseases and premature death; therefore, governments, policymakers, and health experts or professionals should utilize proper and scientific-based evidence and approach when wearing facemasks is considered as the preventive intervention for public health. Other studies such as Baryck *et al.* (2020), Konda *et al.* (2020), Salam *et al.* (2020), Leung *et al.* (2020), Chu *et al.* (2020), MacIntyre *et al.* (2015), and Fisher

et al. (2014) have mixed views regarding the efficacy of wearing facemasks as prevention for infectious pathogens. Some of these studies do not have sufficient data to definitively determine whether N95 facemasks are superior to medical masks in protection against transmissible acute respiratory infections.

Other studies such as Parida *et al.* (2020) acknowledged that the use of different types of masks based on the risk of exposure should be taken seriously and should therefore be used judiciously. Furthermore, Parida *et al.* (2020) pointed out that since this is a novel disease, everyone should expect the guidelines to change daily and that:

one needs to be updated with correct information so that one can protect themselves and their families from this extreme level of the crisis faced by the world now. The use of facemasks should not be discouraged as there has been substantial evidence that its use can help reduce the spread of infection. "Mass masking" along with hand hygiene and social distancing are the only effective recommended measures to prevent the spread of the disease.

In a study by Chu *et al.* (2020), they identified 172 observational studies across 16 countries and six continents, with no randomized controlled trials and 44 relevant comparative studies in health-care and non-health-care settings, and they found out that the transmission of viruses was lower with physical distancing of one meter or more when compared with a distance of less than one meter and that protection increased as distance lengthened. They also concluded that face mask use could result in a large reduction in the risk of infection with stronger associations with N95 or similar respirators compared to disposable surgical masks or similar respirators, and that eye protection was associated with less infections [see also Stutt *et al.* (2020)].

2. Theoretical Analysis of Conspiracy Theories-Disinformation and COVID-19 Pandemic

This section uses theoretical analysis to highlight how some political leaders in the United States including the 45th POTUS, some state governors, and city mayors utilized conspiracy theories⁴ and disinformation, propagated through different social media platforms (Fox News, Twitter, Facebook, Instagram, One America News, etc), which hampered the collaboration and coordination necessary in curtailing the massive spreads and fatalities of the COVID-19 virus. Essentially, the actions of these political leaders at the federal, state, and local levels culminated in the politicization of the COVID-19 pandemic, and it further divided Americans into believers and nonbelievers in the health risks associated to the COVID-19 pandemic.

Following Ellenburg's (2001) argument that a mathematical or "a statistical method is fundamentally sound only if it tells you things you already know;" therefore, we put our assertions succinctly in composite linear forms as:

$$SF_O = (PL_O \cdot CC_O)^{-\alpha} (PL_O \cdot CIN_O)^{-\varphi} (PL_O \cdot CPHR_O)^{-\phi} (Z_O \cdot CC_O)^{-\beta} \quad (1)$$

$$SF_T = (PL_T \cdot CT_T)^{\sigma} (PL_T \cdot DIS_T)^{\mu} (PL_T \cdot CPHR_T)^{-\lambda + \Omega} (Z_T \cdot CC_T \cdot DIS_T)^{\delta} \quad (2)$$

and

$$SF_{AC} = (PL_{AC} \cdot CC_{AC})^{-\eta} (PL_{AC} \cdot CIN_{AC})^{-\psi} (PL_{AC} \cdot CPHR_{AC})^{-\theta} (Z_{AC} \cdot CC_{AC})^{-\pi} \quad (3)$$

where SF_O represents the spreads-fatalities of H1N1, Ebola, Zika, and Dengue under President Obama, while SF_T and SF_{AC} capture the spreads-fatalities of the COVID-19 pandemic under President Trump, and the leaders in advanced countries, respectively; PL_O , PL_F , and PL_{AC} stand for the combination of political leaders at the federal, state/regional, and local levels of government in the United States under Obama and Trump, and in advanced countries, respectively; CC_O , CC_T , and CC_{AC} capture the magnitude of collaboration and coordination under the leaders as identified earlier; $CPHR_O$, $CPHR_T$, and $CPHR_{AC}$ represent citizens' perceptions or concerns of the health risks from infectious diseases under the leaders as identified; CT_T and DIS_T represent the baseless conspiracy theories and disinformation propagated by political leaders; and Z_O , Z_T , and Z_{AC} represent the catch-all term for the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), and other health care systems in the United States and other advanced countries. Equations (1)-(3) serve to provide the theoretical answers to the questions we posed earlier in this paper. For example, equations (1) and (2) enable us to compare how President Obama handled the spreads and fatalities (SF_O) in four different episodes global infectious diseases with how President Trump handled the spreads and fatalities (SF_T) during the COVID-19 pandemic. Equations (1) and (3) allow us to compare how President Trump handled SF_T to how leaders in advanced countries handled SF_{AC} during the COVID-19 pandemic. To fully comprehend the entire concepts laid out in equations (1)-(3), we transform them into logarithm linear⁵ forms:

$$sf_O = -\alpha pl_O \cdot cc_O - \varphi pl_O \cdot cin_O - \phi pl_O \cdot cphr_O - \beta z_O \cdot cc_O \quad (4)$$

$$sf_T = \sigma pl_T \cdot ct_T + \mu pl_T \cdot dis_T + (-\lambda + \Omega) pl_T \cdot cphr_T + \delta z_T \cdot cc_T \cdot dis_T \quad (5)$$

and

$$sf_{AC} = -\eta pl_{AC} \cdot cc_{AC} - \psi pl_{AC} \cdot cin_{AC} - \theta pl_{AC} \cdot cphr_{AC} - \pi z_{AC} \cdot cc_{AC} \quad (6).$$

⁴ According to Prooijen et al. (2017), "many conspiracy theories that citizens believe are unlikely in the light of logic or scientific evidence, including theories that 9-11 was an inside job, that the pharmaceutical industry deliberately spreads diseases, or that climate change is a lie fabricated by scientists."

⁵The variables in equations (4) - (6) are expressed in lower cases because they are in logarithm forms.

To provide a clear interpretation of equation (4), the partial differentiations of sf_O with respect to the explanatory variables on the right hand side yield:

$$\frac{\partial sf_O}{\partial pl_O} = \frac{\partial sf_O}{\partial pl_O} \cdot \frac{\partial pl_O}{\partial cc_O} = -\alpha \quad (7)$$

$$\frac{\partial sf_O}{\partial pl_O} = \frac{\partial sf_O}{\partial pl_O} \cdot \frac{\partial pl_O}{\partial cin_O} = -\varphi \quad (8)$$

$$\frac{\partial sf_O}{\partial pl_O} = \frac{\partial sf_O}{\partial pl_O} \cdot \frac{\partial pl_O}{\partial cphr_O} = -\phi \quad (9)$$

and

$$\frac{\partial sf_O}{\partial z_O} = \frac{\partial sf_O}{\partial z_O} \cdot \frac{\partial z_O}{\partial cc_O} = -\beta \quad (10)$$

The negative “spreads-fatalities curtailment coefficients” ($-\alpha$, $-\varphi$, $-\phi$, and $-\beta$) depicted by these equations show how President Obama used effective collaboration and coordination at all levels of government in conjunction with scientists, medical experts, and professionals at the WHO, the CDC, and other health institutions in the United States to mitigate the spreads and fatalities associated with H1N1, Ebola, Zika, and Dengue during his two-term tenure as the POTUS. The coefficient ($-\varphi$) of equation (8) is particularly important because it shows the degree to which correct information [see Parida *et al.* (2020)] provided by political leaders can help curtail the spreads and fatalities linked to global infectious diseases. For instance, when Americans were afraid and distrustful of the resources devoted to curtailing Ebola, President Obama came out to allay the fears of the public by delivering a strong statement in acknowledgment that “People were understandably afraid. And, if we’re honest, some stoked those fears. But we believed that if we made policy based not on fear, but sound science and good judgment, America could lead an effective global response while keeping America people safe, and we could turn the tide of the epidemic.” This was intended not only to reassure the nation of his handling of the Ebola epidemic but also to build national unity in the fight against Ebola. Furthermore, equation (9) shows that when political leaders (especially the POTUS, state governors, and city mayors) share the same perceptions with citizens or show some level of compassion and understanding when citizens show trepidations about the health risks linked to the spreads and fatalities due to global infectious diseases, the citizens will view the health risks from the same lens and not two lenses. Similarly, the partial differentiations of sf_T in equation (5) with respect to the explanatory variables on the right hand side yield:

$$\frac{\partial sf_T}{\partial pl_T} = \frac{\partial sf_T}{\partial pl_T} \cdot \frac{\partial pl_T}{\partial ct_T} = \sigma \quad (11),$$

$$\frac{\partial sf_T}{\partial pl_T} = \frac{\partial sf_T}{\partial pl_T} \cdot \frac{\partial pl_T}{\partial dis_T} = \mu \quad (12),$$

$$\frac{\partial sf_T}{\partial pl_T} = \frac{\partial sf_T}{\partial pl_T} \cdot \frac{\partial pl_T}{\partial cphr_T} = -\lambda + \Omega \quad (13),$$

and

$$\frac{\partial sf_T}{\partial z_T} = \frac{\partial sf_T}{\partial z_T} \cdot \frac{\partial z_T}{\partial cc_T} \cdot \frac{\partial cc_T}{\partial dis_T} = \pi \quad (14).$$

The “spreads-fatalities upsurge coefficients” ($\sigma + \mu - \lambda + \Omega + \pi$) depicted by equations (11)–(14) show how Trump contributed to the spreads and fatalities (sf_T) of the COVID-19 through the inability to collaborate and coordinate with the state governors, city mayors, and different health care agencies at the national and international levels. The coefficients for the baseless conspiracy theories (σ) and disinformation (μ) are as important as the coefficients of the citizens’ perceptions of the health risks ($-\lambda + \Omega$) linked with the COVID-19 pandemic. President Obama relied on the advice from medical doctors, nurses, and other health care professionals to curtail the spreads and fatalities related to Ebola rather than engage in the politicization and the division of the citizens’ perceptions of the health risks associated with the disease. In contrast, President Trump managed to politicize the COVID-19 pandemic, and in the process, this divided Americans into two groups along party lines. Essentially, we take $-\lambda$ as the coefficient that captured the behavior of the risk averse citizens who believed in the health risks posed by COVID-19 pandemic; and they followed the guidelines provided by the medical experts in order to curtail the spreads and fatalities. In addition, we take Ω as the coefficient that captured the behavior of risk-loving nonbelievers regarding the health risks associated with COVID-19 pandemic. Unlike President Obama who relied on sound science in making good judgment, President Trump showed contempt for science and medical doctors; therefore, π is the coefficient with which we gauge the extent to which President Trump contributed to the spreads and fatalities of the COVID-19 through the use of reckless conspiracy theories and disinformation to undermine the medical guidelines provided by infectious diseases experts at the WHO, the CDC, and all the related health institutions in the United States.

Similarly, we take the partial differentiations of sf_{AC} in equation (6) with respect to the explanatory variables on the right hand side to highlight how some leaders in advanced countries handled the spreads and fatalities of the COVID-19 pandemic in their countries. That is:

$$\frac{\partial sf_{AC}}{\partial pl_{AC}} = \frac{\partial sf_{AC}}{\partial pl_{AC}} \cdot \frac{\partial pl_{AC}}{\partial cc_{AC}} = -\eta \quad (13)$$

$$\frac{\partial sf_{AC}}{\partial pl_{AC}} = \frac{\partial sf_{AC}}{\partial pl_{AC}} \cdot \frac{\partial pl_{AC}}{\partial cc_{AC}} = -\psi \quad (14)$$

$$\frac{\partial sf_{AC}}{\partial pl_{AC}} = \frac{\partial sf_{AC}}{\partial pl_{AC}} \cdot \frac{\partial pl_{AC}}{\partial cphr_{AC}} = -\theta \quad (15)$$

and

$$\frac{\partial sf_{AC}}{\partial z_{AC}} = \frac{\partial sf_{AC}}{\partial z_{AC}} \cdot \frac{\partial z_{AC}}{\partial cc_{AC}} = -\pi \quad (16)$$

The negative “spreads-fatalities curtailment coefficients” ($-\eta$, $-\psi$, $-\theta$, and $-\pi$) depicted by equations (13) – (16) are in many ways comparable to those indicated by equations (7) – (10) because the overarching objective in both cases is to curtail the spreads and fatalities of known and unknown global infectious disease threats, irrespective of the country of origin. Even though the actions that President Obama took to curtail the spreads and fatalities associated with the H1N1, Ebola, Zika, and Dengue are different from those taken by the leaders in advanced countries to mitigate the current COVID-19 pandemic, but they showed not only compassion, they did not engage in self-aggrandizements, self-projections, and self-deceptions when they addressed their citizens about the deadly coronavirus.

Finally, to comprehend the magnitude of leadership failure as manifested by the massive spreads and fatalities due to the COVID-19 under President Trump compared to the four different episodes of epidemics and pandemics under President Obama, we express the spreads and fatalities (S_O and F_O for Obama; and S_T and F_T for Trump) per year in office ($Y_O = 8$ years for Obama and $Y_T = 4$ years for Trump) as well as the spreads ratio (SR) and fatalities ratio (FR) under both leaders as:

$$AS_O = \frac{S_O}{Y_O} \quad vs \quad AS_T = \frac{S_T}{Y_T}, \quad \text{and} \quad AF_O = \frac{F_O}{Y_O} \quad vs \quad AF_T = \frac{F_T}{Y_T} \quad (17)$$

and

$$SR = \frac{S_T}{S_O} \quad vs \quad FR = \frac{F_T}{F_O} \quad (18)$$

where AS_O and AF_O , and AS_T and AF_T are the annual average spreads and fatalities under Obama and Trump, respectively, while SR and FR are the spread and fatality ratios for comparing Obama to Trump and also for comparing Trump with leaders in other countries identified in this study.

From the data available, we observed the annual average spread ($AS_T = 6,120,512$) and fatality ($AF_T = 101,800$) under President Trump to be remarkably much higher than the annual average spread ($AS_O = 35,260$) and fatality ($AF_O = 1,561$) under President Obama. We also observed the spread ratio (SR) and the fatality ratio (FR) to be 1: 87 and 1: 33, respectively. This means that the spread and fatality of the COVID-19 pandemic under Trump were 87 and 33 times higher when compared to Obama’s handling of four different epidemics and pandemics in eight years.

3. Evidence of Handling Infectious Diseases and General Discussion

In this section, we discuss how Presidents Obama and Trump handled the different episodes of epidemics and pandemics, which they experienced while in office. Their handling of these infectious diseases corroborate the theoretical analysis laid out in equations (1) through (18). In less than six months after inauguration in 2009, President Obama summoned a meeting of the President’s Council of Advisors on Science and Technology (PCAST) to find out what the president must do to prepare for the expected autumn outbreak of swine flu or H1N1. According to Karlawish (2020), this meeting with scientists and other professionals, in preparation for H1N1, formed the basis of Obama’s science-informed policy making in handling not only H1N1, but other infectious diseases such as Ebola, Zika, and Dengue that followed thereafter. By listening to the scientists, President Obama allowed these public health experts to take the lead on messaging. This was aptly captured in President Obama’s statement, “And I can assure you that we will be vigilant in monitoring the progress of this flu and I will make every judgment based on the best science available.” In the process, President Obama facilitated the quick distribution of emergency equipment from the federal stockpile and got the Congress involved by requesting for \$1.5 billion and \$8.0 billion at different times to ensure adequate supply of equipment and vaccines to handle internal outbreaks. In addition, the outbreak of Ebola in 2014 in West Africa, especially in Guinea, Liberia, and Sierra Leone, prompted President Obama to deploy scientists, doctors, and over 3,000 military troops to the virus locations as the preemptive measure to prevent the outbreak of Ebola in the United States. Again, Obama got Congress involved by requesting for \$5.4 billion to fund the provision of vaccines and other medical equipment. Obviously, President Obama’s experience

with H1N1 in 2009 and Ebola in 2014 led to the formation of the pandemic response team under the auspices of the White House National Security Council Directorate for Global Health Security and Biodefense in 2015. According Karlawish (2020), President Trump was anti-science right from the beginning of his administration and this was manifested by the takedown of the PCAST⁶ website on January 22, 2017. Rather than follow the pandemic response template, which President Obama put in place in 2015, the Trump administration disbanded the White House pandemic response team in May 2018 (Karlawish, 2020). But more importantly, the Trump administration decided to eliminate the position of the CDC epidemiologist stationed in China’s disease control agency after leaving the epidemiologist left the post in July 2019. Zamarripa (2020) provided five ways that the Trump’s leadership failures compounded the coronavirus-induced economic crisis, and these ways included the botched public health response, the failure to help workers retain their jobs, three years of slashing critical safety nets during which the CDC cut its epidemic prevention activities, the failure to prevent layoffs of state and local workers, and the failure to help small businesses to remain open. The studies by Karlawish (2020) and Zamarripa (2020) raise some questions. What was the rationale for eliminating the position of the CDC epidemiologist that could have facilitated international collaboration and coordination with respect to the pandemic from China? Could the United States have been well informed of the pending COVID-19 outbreak had the Trump administration not eliminated the position of the epidemiologist in China’s CDC? Could this have contributed to the fracture in diplomatic relationships with international agencies such as the WHO and China’s CDC? These are difficult questions to answer. However, while the historical data provided in Table 1 may not capture everything that contributed to the massive spreads and fatalities of the COVID-19, it provides visual evidence of the cases and fatalities associated to the H1N1, Ebola, Zika, and Dengue under President Obama in comparison to the cases and fatalities of the COVID-19 under President Trump. In addition, it allows us to compare the United States’ experience to 10 other advanced countries (Australia, Canada, China, France, Germany, Italy, Japan, the United Kingdom, New Zealand, and South Korea) that also experienced COVID-19 in 2020-2021.

We observe that there were more cases (60,807,773) and less fatalities (12,490) associated to the four different episodes of global infectious diseases under Obama’s two-term presidency compared to less cases (24,482,050) and by far more fatalities (407,202) associated to COVID-19

Table 1: Handling Global Infectious Diseases under Obama and Trump

| Leaders and Countries | Years | Pathogen | Origin and Location | Cases (Rank) | Fatalities |
|----------------------------|------------------|------------------|---------------------|------------------------------|---------------------|
| Obama U.S.A | 2009 | H1N1 (Swine flu) | Worldwide | 60,800,000† | 12,469 |
| | 2014-2016 | Ebola | West Africa | 4 | 2 |
| | 2015-present | Zika | Americas | 2,382 | 1 |
| | 2010-2016 | Dengue | Worldwide | 5,387 | 18 |
| Total | | | | 60,807,773 | 12,490 |
| Trump‡ U.S.A | 2017 | Plague | Madagascar | NA | NA |
| | 2020-2021 | COVID-19 | China | 24,482,050 (1)* | 407,202* |
| Total COVID-19 | | | | | |
| Johnson‡ United Kingdom | 2020-2021 | COVID-19 | China | 3,395,209 (5) SR = 1:7 | 89,261 FR = 1:5 |
| Macron‡ France | 2020-2021 | COVID-19 | China | 2,910,989 (6) SR = 1:8 | 70,283 FR = 1:6 |
| Mattarella Italy | 2020-2021 | COVID-19 | China | 2,381,277 (8) SR = 1:10 | 82,177 FR = 1:5 |
| Merkel Germany | 2020-2021 | COVID-19 | China | 2,050,099 (10) SR = 1:12 | 47,440 FR = 1:9 |
| Trudeau Canada | 2020-2021 | COVID-19 | China | 708,619 (22) SR = 1:35 | 18,014 FR = 1:23 |
| Suga Japan | 2020-2021 | COVID-19 | China | 322,296 (39) SR = 1:76 | 4,446 FR = 1:92 |
| Xi Jinping China | 2020-2021 | COVID-19 | China | 88,336 (83) SR = 1:277 | 4,635 FR = 1:88 |
| Jae-in South Korea | 2020-2021 | COVID-19 | China | 72,729 (86) SR = 1:337 | 1,264 FR = 1:322 |
| Morrison Australia | 2020-2021 | COVID-19 | China | 28,708 (104) SR = 1:853 | 909 FR = 1:448 |
| Arden New Zealand | 2020-2021 | COVID-19 | China | 2,262 (167) SR = 1:10,823 | 25 FR = 1:16,288 |
| Total COVID-19 | | | | 11,960,524 | 318,454 |

Sources: World Health Organization (WHO), † obtained from the Centers for Disease Control and Prevention’s “CDC Estimates of 2009 H1N1 Influenza Cases, Hospitalizations and Deaths in the United States, Worldometer’s COVID-19 Data, * indicates the data we obtained at 12:01pm on January 20, 2021, ‡ indicates political leaders who tested positive for COVID-19.

⁶ The PCAST was founded in 1990, by President George H.W. Bush, as an advisory group of scientists and engineers to augment the science advice received from other White House advisors, departments, and agencies. For more on Obama’s actions, see the “Public Papers of the President of the United States,” AE 2.114.2009/Bk.1.

Under Trump's one-term presidency. We also observe that the 24,482,050 recorded cases of the COVID-19 in the United States more than doubled the combined 11,960,524 cases with respect to Australia, Canada, China, France, Germany, Italy, Japan, the United Kingdom, New Zealand, and South Korea. For these 10 countries listed in Table 1, based on their ranking with respect to cases, the 318,454 combined fatalities resulting from the COVID-19 was roughly 78.2 percent of the 407,202 deaths reported for the United States. These comparisons warrant more explanations as to how and why Obama was able to curtail the cases/spreads and fatalities associated with the H1N1, Ebola, Zika, and Dengue pandemics, yet Trump failed to curtail the massive spreads and fatalities associated with the virus. Using *SR* and *FR* for a one-to-one comparison with the 10 countries identified in Table 1, we observe that the United States – the country with the most advanced medical experts and medical technology in the world an independent legislative body that “plays an important role in determining and shaping the government’s global health policy and programs”⁷ – is ranked number one in the world with respect to the spreads and fatalities associated with the outbreak of the COVID-19 pandemic. The historical evidence showed that President Obama, though not perfect, managed to curtail the fatalities associated with four different episodes of the epidemics and pandemics experienced while in office. This is indicated by or aligned with the negative “spreads-fatalities curtailment coefficients” ($-\alpha, -\varphi, -\phi,$ and $-\beta$) we derived in equations (7)-(10). In contrast, President Trump’s failure to control the COVID-19 pandemic, which he had the knowledge at the beginning of 2020, is depicted by the “spreads-fatalities surge coefficients” ($\sigma + \mu - \lambda + \Omega + \pi$). President Trump’s failure to curtail the spreads and fatalities due to COVID-19 was primarily due to the fact he downplayed the severity of the COVID-19 pandemic from day one. In several recorded interviews with Bob Woodward in February and March of 2020, President Trump admitted to concealing the true threat of the COVID-19 pandemic.⁸ Rather than share the correct information (*CIN*), based on solid scientific evidence, President Trump used every opportunity at his press conferences to peddle baseless conspiracy theories (*CT_T*) and disinformation (*DIS_T*). In the process, President Trump managed to denigrate the pharmaceutical industry, doctors, and other health care professionals as profiteers; and the end result was the division of the citizens into two groups: the risk-averse believers and the risk-loving nonbelievers in the reality of the health risks associated to the COVID-19 pandemic. There is no doubt that the conspiracy theories, disinformation, and the division of the citizens into believers and nonbelievers influenced the wearing of facemasks, which many medical doctors and professional experts recommended as the most effective measure to curtail the spreads and fatalities of the COVID-19 pending vaccine development and vaccination.

4. Concluding Remarks and Policy-Political Implications

The United States is the country that most countries around the world rely upon when it comes to curtailing the outbreaks of known and unknown global infectious disease threats over the past two or more decades. However, this reliance has been increasingly questioned by many European leaders because Trump, the President of the United States, has displayed global leadership failure in many global alliances, including his handling of the COVID-19 pandemic. Throughout his tenure, President Trump was engulfed in self-aggrandizements, self-projections, and self-deceptions. Trump failed to collaborate and coordinate with state governors and city mayors nationwide; therefore, his inability to curtail the spreads and fatalities of the COVID-19 pandemic can be construed as symptoms of leadership failure at the national and international levels. In addition, rather than take responsibility for the mishandling of the COVID-19 pandemic – glaring symptoms of leadership failure, President Trump deflected the blame on China, the World Health Organization (WHO), the pharmaceutical industry, scientists, and other medical experts. These were some of the strategic self-projections and self-deceptions, which President Trump deployed repeatedly to confuse the public as to who is responsible for his blatant leadership failure. Similarly, President Trump’s withdrawal of the United States from the WHO is also a clear signal of global leadership failure. In other words, President Trump’s withdrawal from the WHO in order to avoid taking responsibility for his failure to curtail the raging COVID-19 pandemic while the leaders in other advanced countries succeeded in curtailing the spreads and fatalities tantamount to complete abdication of the United States’ global leadership “role in determining and shaping the government’s global health policy and programs.” In particular, this action questioned the globally perceived “American greatness and exceptionalism.” In terms of policy and political implications in curtailing the spreads and fatalities associated with the known and unknown global infectious disease threats, this study shows that the political leaders at all levels of government, especially the POTUS, are pivotal with respect to how they collaborate and coordinate, share the correct science-based information with the public, and promote national unity based on the provision of true information rather than engage in baseless conspiracy theories and disinformation, which can only lead to partisan division, medical chaos, and untold fatalities. Above all, the massive spreads and

⁷ For more detailed discussion of the role the United States Congress plays in global health efforts, see Moss and Kates (2019) and Kates et al. (2015).

⁸ President Trump’s views about the COVID-19 pandemic were recorded and detailed in Woodward’s (2020) book.

fatalities of the COVID-19 in the United States were symptoms of President Trump's leadership failure at both the national and international levels.

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