

Biopolitics: Power, Pandemics and War

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Abstract

COVID-19 and the subsequent global response has had a profound impact on the public health, economic health, and political health in nearly every country. The impact of the pandemic has been particularly acute in active warzones where the ability to enforce public health recommendations, to provide for the care of patients, to secure supplies, and transmit information are all undermined. This paper examines the biopolitics of power and pandemics in war. The paper is rooted in three case studies, the Spanish Influenza Outbreak of 1918-1920 and the COVID-19 outbreak and response in Syria, and Eastern Ukraine. The central question posed is how does war influence the biopolitics of public health in active warzones?

Keywords: Ukraine, Syria, Spanish Flu, COVID-19, healthcare, war zone, biopolitics, power

Introduction

War and disease are intimate bedfellows and have been for as long as humans have engaged in conflict. Decades after the arrival of antibiotics, vaccines, and other forms of modern medicine, the relationship between armed conflict and disease remains as strong as ever. This relationship is defined by complex socio-political-technical factors derived from biopolitics uniquely shaped by conflict. This paper focuses on the biopolitics present in times of conflict, specifically, the exercise of power, by state and sub-state actors over the health of subjects within and at times beyond their jurisdictional boundaries. The exercise of power over the body, the subject of the analysis, is a deliberate act, an act enmeshed in geopolitical and domestic relations.

Decisions and power governing life and death are more than a simple biological process. They combine to form biopower the outcome of biopolitics constituting the combination of political, social, technical, scientific, and economic decisions. When these decisions are constrained or enabled by the presence of conflict, its impact is felt most by those with the least say in its application. The constraints of conflict are multifaceted and enable the deleterious asymmetry of power over the health of the subject. While the relationship of disease and conflict is greatly influenced by the prevalence, incidence, case fatality, and R^0 of a given pathogen, each of these factors are impacted by the biopolitics of the conflict itself. This paper examines the biopolitics and subsequent biopower surrounding the control and management of disease for H1N1 influenza A virus (Spanish Influenza) and SARS-COV-2 (Covid-19). Both are pandemic diseases and were

chosen because of their global reach and the challenges presented to both domestic and geopolitical environments.

The impact of biopolitics in this analysis hones its focus on three countries, the United States (U.S.), Syria, and Ukraine, impacted by pandemic disease during periods of conflict. The U.S. case constitutes a historical control to compare and contrast with two SARS-COV-2 cases involving Syria and Ukraine. This paper seeks to provide further insights into how war influences the biopolitics of public health in active warzones and posits that while there are nuances associated with each conflict there are several key attributes present irrespective of the time and location. The work proceeds with a discussion of methodology and the structure of the comparative case analysis. This is followed by an examination of the biopolitics present in each case and an assessment of the impact of conflict on the provision of public health services. The cases lead to the development of a framework for contextualizing the impact of conflict on the biopolitics of public health services during conflict.

Biopolitics and Public Health in Conflict Zones During a Pandemic.

The term biopolitics is complex and connotes multiple different meanings in different literatures. Notably the term has two historical branches, among which multiple and often contradictory definitions are used (Liesen and Walsh, 2012). This paper dispenses with pre-Foucauldian uses of biopolitics and adopts the term in a manner closely related to that elucidated in Foucault's 1978-1979 lectures on the topic (Foucault and Senellart, 2011). Biopolitics, defined as the politics associated with the life of subjects, is used to constrain the analytical scope of analysis (Esposito, 2008). Biopolitics is situated as influencing the associated concept of biopower, which Foucault defines as the form of governmentality that establishes control over the knowledge-power-subjectivity complex (Foucault et al., 2003). The focus below emphasizes actors both directly in conflict zones and those external to them that influence the public health of persons (subjects) geographically located in countries involved in conflict. Central to this analysis is the impact of governmental or quasi-governmental entities influence over the public health of those over whom they exert either *de jure* or *de facto* sovereign power. The result is the creation of a hierarchy in which biopower, the exercise of power over the life and death of the subject, is the result of biopolitics occurring within governmental or quasi-governmental levels at varying degrees of distance from the subject. Figure 1, below, illustrates the structure of our argument.

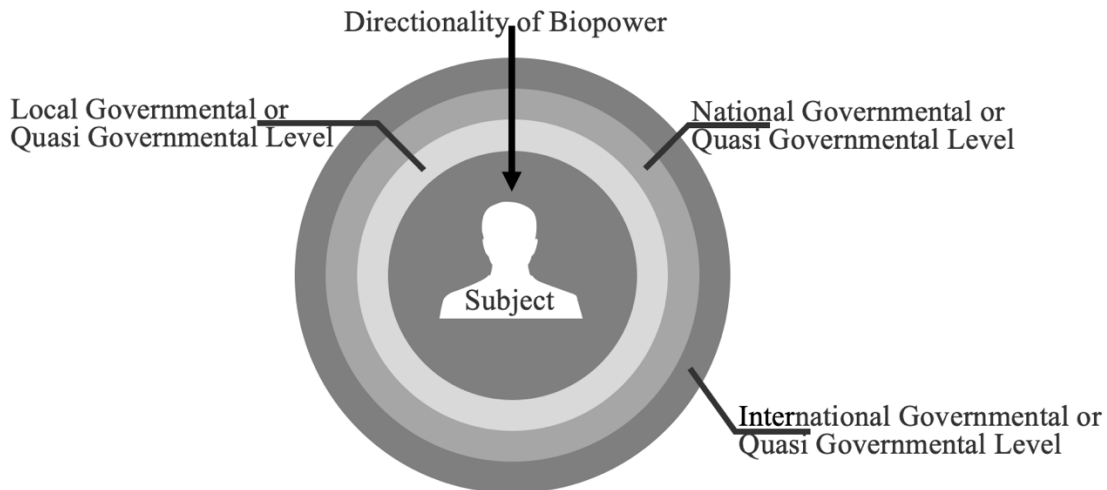


Figure 1: Biopower Relationship of Institutions to Subject

Although Figure 1 indicates the subject has no agency, this is not entirely the case. The subject in many public health settings does have agency. However, conditions of conflict place limits on subject agency. Yet, as will be demonstrated below, the agency of the subject relative to the biopower of the actors arrayed around them during times of conflict makes assessing this agency of limited consequence to public health outcomes.

Levels of governmentality (Dugdale, 2017) and the unique biopolitics present at each level, result in the creation of biopower that can, particularly in times of conflict, be deleterious to the public health of subjects. The exercise of biopower from one level to the next can have cascading impacts through successive levels of governmentality. Likewise, biopower imposed from one level to the next level of governmentality can result in conflict between levels leading to divergent applications of biopower across and within governments. Governmentality is defined as conduct of a government to secure the “welfare of the population, the improvement of its condition, the increase of its wealth, longevity, health, et cetera” (Foucault et al., 1991 100). History provides ample evidence of the uneven application of governmentality among and within and across levels for a variety of reasons, including, cultural, religious, ethnic, gender, sexual orientation, and geographic differences.

To assess the impact of biopolitics on the subject in conflict zones a most similar systems design (MSSD) (Przeworski and Teune, 1970) is used. Although there are many potential pitfalls present in using MSSD (King et al., 1994), it is important to note that the focus is not on the governmental systems of the states or quasi-governmental entities themselves, but rather the context of the subject, the unit of analysis - the entity being acted upon, that constitutes the center of the study. The focus emphasizes factors of conflict that lead biopolitics across levels of governmentality to result in a biopower that negatively (resulting in adverse public health outcomes) impacts the subject. Each conflict setting is unique both in its root causes, its geography, its climate, and many other factors that impact the public health of the subject. However, there are structural similarities in the conditions of conflict across time, space, and circumstance that this analysis hypothesizes as leading to increasing biopower that negatively impacts public health.

All wars result in negative externalities irrespective where they occur, the focus below is on the primacy of three “meta-variables” heavily influenced by conflict: resources, information, and mobility. These three variables are critical to the conduct of public health campaigns and are represented in a number of different ways in different research on epidemiological responses to epidemics and pandemics (Madhav et al., 2018). Adequate resources are the essential basis on which public health interventions are built (Brandeau et al., 2003). Accurate information is essential for the effective and efficient use of resources and the enabling of positive public health outcomes (Revere et al., 2007). Mobility improves access to resources and affects the flow of information and can constrain or enable the spread of pandemic disease (Tognotti, 2013). These three factors work in unison to enable or restrict public health campaigns to combat pandemic disease.

Resources are defined as those items necessary to satisfy basic human needs ranging from water and food access to sanitation, basic hygiene, shelter, and access to healthcare. Satisfaction of these basic needs facilitates disease prevention and increases the health of the general population and requires substantial planning and coordination (Maire et al., 2012). In addition to resources that meet basic needs, access to innovations and technologies to diagnose, prevent and treat health conditions including diagnostic testing, immunization programs, and access to pharmaceuticals, are required for the base levels of health care to be effective (O’Donnell, 2020). Human capital resources are also important in the context of public health and include medical and healthcare professionals who play a critical role in the treatment and prevention of disease. Resources are essential for health interventions and lack of resources can impede the implementation public health programs.

Effective communication between the public, healthcare providers, decisionmakers and non-governmental organizations are critical for ensuring the accurate and timely dissemination facts necessary to educate populations and coordinate and mobilize resources. Information flows can be fostered through partnerships where public and private organizations are allowed to work together and often include rigorous and accurate collection and reporting of data necessary to address health emergencies (Chaudhri et al., 2019). Effective communication can alter behavioral, legal and policy, public health program, and individual decision-making (Frieden, 2014). When information is corrupted either deliberately or not as in the case of Ukraine, mistrust of public health interventions can negatively impact the health of subjects (Varenikova, 2021) and those who are charged with providing care (Holt, 2021). It can also result in resource waste (AP, 2021). Information system breakdowns can hinder critical partnerships between and among organizations, governments, medical providers, and the subject (Telleen and Martin, 2002).

Mobility constitutes the movement/portability of subjects, healthcare providers, and resources and includes organizations (including military organizations), pathogens, and information portability in the zone of conflict and to the zone of conflict. High mobility allows for an effective implementation of public health interventions through continuous monitoring, evaluation and ongoing program improvements, but it can also result in the introduction of hindering factors such as variants of disease or confounding movements of soldiers, misinformation, and even the removal of resources. Lowered mobility can result in the reduction of resources such as food, fuel, health services and medical supplies (CDC, 1993). Multiple factors influence mobility including

physical and economic blockades, reinforcements, weak or strong borders, and many more. While some forms of mobility might improve public health interventions, others might make them worse.

All three meta-variables (mobility, information, and resources) reviewed above are fundamental building blocks in ensuring any territory has all available tools at its disposal to tackle a health crisis such as a pandemic. All three are included in a report on the ten greatest public health achievements outlined by the U.S. Centers for Disease Control (CDC, 2011). Although each meta-variable encompasses many sub-variables, the binning of principal levels of control for public health interventions serves as a useful analytical construct for assessing the biopolitics of pandemics and war. These meta-variables are important regardless of the disease or conflict type.

Diseases such as Typhus, Smallpox, Measles, Yellow Fever, Tuberculosis and other have a recurrent and pernicious history of invading human populations when they are most vulnerable. The analysis below focuses on the relationship of biopolitics and disease on two respiratory viruses, Influenza (H1N1) and SARS-CoV-2. These two viruses share some similarities (both are respiratory RNA viruses), but also differ. Influenza is more complex in its structure and function than SARS-CoV-2 (Hagen, 2020), yet both primarily attack the respiratory system. Influenza comes in 198 potential subtype combinations. The focus of this paper is on H1N1 A variant from the 1918-1920 influenza pandemic and the 2019 SARS-COV-2 variant from the 2019 to present pandemic.

Biopolitics and Case Analysis

Below are three brief cases each highlighting the way in which resources, mobility, and information impact the quality and success of public health interventions. Each case could rightly be expanded, yet the intent below is to draw attention to the unique circumstances of conflict and the resulting biopolitics that constrain the three factors under examination.

United States Experience with the Spanish Flu: Brief Conflict History

The numbers that represent WWI are astounding. More than 65 million people fought in the war, 8.5 million soldiers and 13 million civilians are thought to have died, and 21 million soldiers were injured in the war (BBC 2018). The scale and scope of the war make it difficult to broadly examine challenges to resources, mobility, and information across all combatants. Therefore, this case focuses on the constraints of these variables within the U.S. The U.S. was chosen for several reasons. First, the U.S. was a late entrant into the conflict. Second, fighting did not occur on any territory belonging to the United States. Yet, the participation of the United States in WWI had significant impact on each of the meta-variables, in particular the war altered the biopolitics of different levels of governmentality in such a way that it exacerbated the 1918-1920 pandemic and led to an estimated 50-100 million global fatalities.

On April 2, 1917, President Woodrow Wilson sent a letter to congress outlining a request for a declaration of war against the Central Powers. Two days later he received authorization from the United States Senate and the House of representatives. Once approved, the United States' process of mobilization was total and encompassing. On April 6, 1917 the day the final declaration of war

was approved the United States Army was a constabulary force of 127,151 soldiers and the National Guard had 181,620 soldiers. The U.S. Congress authorized \$3 billion (\$61.6 billion in 2021 equivalent) to mobilize the nation and build a million-man army.

Mobilization for war was not isolated to the mobilizing, arming and equipping of a military force. The U.S. entry into the war also included the passage of a number of laws ostensibly to safeguard the nation. Among those laws were the Espionage Act of 1917 (18 U.S.C. § 792 et seq.) and the Sedition Act of 1918 (Pub.L. 65–150, 40 Stat. 553, enacted May 16, 1918), the War Revenue Act of 1917 and the Revenue Act of 1918, the 1st-5th Liberty loan acts, the Selective Services Act of 1917, Food and Fuel Control Act (Pub.L. 65–41, 40 Stat. 276). In addition to legal statutes passed to radically alter the powers and status of the federal government, a number of policies were implemented at the national and local level to control and manage the everyday lives of citizens. None of these was more damaging than the creation of the American Protective League in March 1917.

Haskell, Kansas has been identified by epidemiologists as the most likely point source of the Spanish Influenza Outbreak of 1918-1920 (Barry, 2020). This of course begs the question as to why the Spanish Influenza is not called the American Influenza or the Kansas Influenza. It also begs the question of how a virus outbreak in a relatively remote corner of Kansas could spread around the world and bring death to so many millions. The answer to both questions is that U.S. wartime biopolitics enabled the spread of disease because of an increase in the biopower exerted on American life and made the pandemic far worse than it likely needed to be.

In 1917 the United States remained a predominantly rural society outside of the Northeast. The mobility of individuals between population centers was possible, but not frequent. Mobilization during WWI and the passage of the selective service act forced thousands of young men into large cantonments. In these cantonments young men were trained and turned into soldiers. The second largest Cantonment in the United States was in Fort Riley Kansas where Camp Funston was located. Camp Funston housed the 89th Infantry and took in draftees from Kansas, Missouri, Nebraska and other surrounding states. The camp was a collection and training point for between 43,000 and 56,000 soldiers (Barry, 2020). Camp Funston is 272 miles from Haskell and following an outbreak of illness in Haskell several of the young men from the town reported for duty at Funston. From Funston soldiers transiting to other military cantonments and later to naval vessels headed to Europe and carried the disease with them. Early on, medical professionals including the chief medical officer of the U.S. Army, William C. Gorgas recognized danger of the disease and begged the Army to isolate infected cantonments, to limit or eliminate the transfer of soldiers into and from infected installations, but the Wilson administration at the urging of the Commander of the U.S. Army General Peyton March refused and prioritized the rapid mobilization of soldiers for military duty (Barry, 2020, 303). The mobilization of the military for war increased the mobility of the virus as a direct result of the biopolitics of the state that privileged wartime mobilization over the health and safety of both the soldiers and the communities they moved between. Between 20-40% of all personnel were sickened with influenza (Byerly, 2010) and the rapid construction and close quarters at the cantonments served as natural experiment on the spread of the virus (Aligne, 2016).

The realities of waging a global war during an emergent pandemic altered the biopolitics of the state and privileged the mobilization and deployment of military forces to Europe over the health needs of the nation and the soldiers themselves. The result was that everyone - soldiers, civilians, and sailors involved in the mobilization became subject to the biopolitics of the state's desire to build a military force. Keeping the manpower of war ever moving towards the battlefield exerted enormous biopower and the laws of the state enacted to facilitate mobilization for the war reinforced this power through the draft. The biopolitics of the state legitimizing the movement of men to war fostered an environment of unhealth and created a potent vector for the spread of pandemic disease.

Despite the importance of mobility on enabling the spread of the disease, the biopolitics of wartime mobilization also undermined the resources necessary to control and combat the disease both at home and abroad. The Lever (Food and Fuel Control) Act (Pub.L. 65-41, 40 Stat. 276) signed into law on August 17, 1917 constituted a large expansion of executive power in the United States into the domestic economy. WWI was believed to necessitate a societal effort and the Lever Act established government regulatory bodies including the United States Food Administration and the United States Fuel Administration that allowed the federal government to control the production, sale, storage, and cost of nearly every product or service in the U.S.. The law gave the President explicit power to requisition anything he deemed necessary at a price he deemed appropriate. The Act itself represented the culmination of resource biopolitics and exerted biopower over every aspect of American life. The act didn't facilitate the spread of disease like the mobility of soldiers, but it did constrain resources. The Act's implementation led to fuel shortages and undermined the ability of many to keep homes and businesses adequately warm. Punishments and collective sociological incentives to shape the dietary habits of Americans in the service of the national war effort were common. The Lever Control Act was not alone in influencing the consumption and production of the United States at this time, seven additional acts including the revenue acts of 1917 and 1918 and the five liberty bond acts all reduced the financial resources available to Americans when the pandemic hit. Each of these laws transformed the nation through the biopolitics of war. The singular focus on the wartime efforts relegated most domestic concerns including the eventual management of influenza secondary.

To mobilize for war the U.S. government also rated every medical doctor in the United States to determine their fitness for duty. The U.S. government found that at the time (a period transformation in American medical education (Starr, 1982)) that many doctors were simply not qualified for service (Barry, 2020). Of those fit for service the Army and Navy would recruit by the more than thirty-eight thousand physicians constituting the majority of trained and capable medical professionals in the US and their absence resulted in physician shortages nationwide (Barry, 2020). A similar story played out for nurses and by 1918 the U.S. experienced widespread shortages of domestic human capital of medical professionals. Again, the biopolitics of wartime privileged the needs to the armed forces and the waging of conflict over public health.

Resource allocations from goods and services to human capital resulting from the biopolitics of war undermined the human security and placed domestic populations in an increasingly precarious position. Entire cities and towns suffered devastating losses from influenza. The biopower of the state resulted in the systematic weakening of domestic medical care. Yet it was the state's exertion of power of the information sphere that likely resulted in the most damage.

To secure the U.S. war effort the Wilson administration and Congress passed both the Espionage Act of 1917 and the Sedition Act of 1918. Both acts sought to control and limit the freedom of information. But it was the chilling effect of the Sedition Act on the public discourse and the freedom of the press that was most damaging when influenza broke out. Despite clear indications of a serious, widespread, and deadly pandemic, official government propaganda downplayed the severity of the crisis and countered the advice of public health experts (Barry, 2020). Large gatherings of people to induce buying of liberty bonds to support the war were held with parades and fanfare. When presses reported on the pandemic, they were quickly chastised, and similar information was not published. As millions of people were sickened and thousands were dying the press remained largely silent. The result is that the Spanish Influenza is not called the American Influenza, because during a growing crisis, only neutral Spain published reports of the influenza.

To further control the population the U.S. Department of Justice established the American Protective League (APL) in March 1917. The American Protective League was by war's end comprised of more than 250,000 members in more than 600 cities (Jensen, 1969). The APL constituted a Stasi-like organization that fostered domestic spying and reporting on anyone or organization that countered the official government narrative. Those who were identified by the APL could be sentenced to serve up to 20 years in prison under the Sedition Act of 1918. The combination of legislative initiatives and the creation of a domestic volunteer intelligence service heavily influenced the biopolitics of wartime America. By constraining the information space, the state disempowered the subject. The biopower of the state resulting from the biopolitics of wartime mobilization meant to empower the state to national defense in foreign wars concurrently weakened its domestic capacity control disease.

Syria: Brief Conflict History

The Syrian conflict began between July 2011 and April 2012 and followed a period of protests and civil uprising demanding increased democratic freedoms and the release of political prisoners that started in March 2011. The Syrian protest movement followed similar events in Tunisia and Egypt and grew following the arrest of several school children for writing anti-regime graffiti on the walls of their school in Dara (Al Jazeera 2018). The protests intensified following the release of the children when it was discovered that one of them was killed in captivity and the others were severely tortured (Al Jazeera 2018). What initially began as protests quickly escalated as violence between protestors and regime forces became increasingly violent.

Although the events in Dara were the catalyst that eventually led to the war in Syria, the origins of the conflict are complex and rooted in the social, political, economic, ethnic, and religious context of Syria itself (Sorenson, 2016). To separate the diverse socio-political-religious-ethnic-economic

attributes of the conflict from present events limits an understanding of the nature of the fragmentation of the state and the subsequent rise of quasi-governmental bodies throughout Syria. The July 2011 defection of members of the Syrian military and the subsequent formation and of the Free Syrian Army demarcates the transition from civil uprising to civil war.

The conflict in Syria, even prior to the outbreak of COVID-19 was extremely damaging to human rights and public health and resulted in 5.6 million refugees, 6 million internally displaced persons, and more than 400,000 people killed (Council on Foreign Relations 2021). Beyond the conventional horrors of war, civilian populations in Syria have suffered the use of irregular weapons such as barrel bombs and weapons of mass destructions (chemical weapons) (Trapp, 2014). Although there have been extremely large outflows of civilian refugees to neighboring countries, the onset of the COVID-19 pandemic has largely brought these flows to a halt or imposed severe mobility restrictions on transborder refugee flows and movements of refugees in seeking shelter in third party nations (Grothe, 2020).

Multiple governmental or quasi-governmental bodies each exert biopower over their subject populations in Syria. The largest territory is controlled by the Assad regime with assistance from the Russian Federation and Iran and constitutes the majority of the southern and western territory of Syria as defined by its pre-2011 borders. The YPG, PKK, Peshmerga, other affiliated fighters control the second largest territory comprised of large swaths of land in the Northeast of Syria. Israel controls a sizeable block of territory along its north western border with Syria known as the Golan Heights. Ahrar Al Sham, Jaish al Islam and several other smaller groups control portions of the Southeastern Deserts of Syria along the Jordanian border. The Islamic State controls a few isolated pockets of territory in the middle of Syrian government-controlled areas and the FSA and Turkish Groups control a portion of Syrian territory along the Syrian Northern border with Turkey.

The resulting fragmentation has severely constrained population mobility over 10 years of conflict. Shifting political borders, combined with new exertions of power of diverse population continues to place millions of Syrians at risk of extreme poverty. Whether unable to travel between or within cities or across borders, the physical freedom of movement for Syrians has been hindered. Displacement has compounded mobility challenges for refugee populations during the Covid-19 pandemic as transborder trade, aid, and migration have been disrupted (OHCA, 2020). These disruptions are often at the behest of domestic or international actors seeking to control various geographical areas or undermine the groups operating within them. Populations of IDPs and foreign refugees have been forcibly displaced from homes and forced to shelter in ever-crowded housing conditions. These displaced populations often consist of multigenerational families that are uniquely prone to the spread of Covid-19 (Munajed and Ekren, 2020). While the mobility of populations to seek healthcare has been disrupted, it is unlikely that the mobility limitations have substantially impacted internal displacement, and instead have placed larger number of at-risk individuals in even closer proximity in refugee camps and in home environments (Gilman et al., 2020). There are two subject-oriented mobility issues that operate in concert with one another. First, mobility to secure medical care is restricted and second, mobility fostering the spread of pandemic disease is necessitated. Conflict borders (frequently changing in geographic location and permissive scope) impose restrictions on mobility that impact the influx of resources into and out of the country. Additional mobility restrictions arise from the sanctioning of the Syrian regime

by multiple countries (Alalwani and Shaar, 2021) and the control of borders by Syrian regime allies.

The mobility restrictions that have arisen since the start of the pandemic are compounded by severe war-induced healthcare challenges. Much of Syria outside of Damascus has been devastated by civil war (Cheung et al., 2020). Data indicate that only approximately 52% of Syrian hospitals were fully functioning in March 2020 (Gharibah and Mehchy, 2020). Often hospitals were subject to military attack, a means of exerting biopower over a place of care and safety (IRC, 2021). Moreover, the United Nations Human Rights Council reports that approximately 70% of all physicians fled Syria since the start of the war (UNHRC, 2020). Since the beginning of the war more than 350 healthcare facilities were attacked and 923 medical personnel were killed (PHR, 2021). These facts alone placed Syria at a severe resource disadvantage when dealing with Covid-19. Adding to these factors was the lack of consistent governance over many areas in the country or inconsistent governance regimes resulting in the inability to provide the basic resources necessary to prepare for an emergent public health crisis.

Initial availability of basic public health measures such as testing capabilities in non-government-controlled areas were extremely limited and often tests had to be sent out of the country (Douedari et al., 2020; Ekzayez et al., 2020). Resources were constrained further through the biopolitics emanating from the decision of the Russian Federation, China, South Africa, and Viet Nam to veto an extension of Security Council Resolution 2165 (2014) extending relief corridors for cross-border humanitarian aid into non-government-controlled areas of Syria (United Nations 2021). Combining the outflow of medical professionals, the destruction of medical facilities, the lack of testing, the cessation and prevention of transborder aid flows, millions of Syrians faced extremely constrained public health resources. This combined with poverty rates into the 80% range in much of the non-government-controlled areas had many organizations fearing a humanitarian catastrophe (ReliefWeb, 2020).

Further constraining human capital resources in Syria is a reversion towards traditional patriarchal social structures. The dissolution of the prior social order and the ongoing conflict has resulted in women being increasingly relegated to the role of traditional housewives (Abbara and Ekzayez, 2021; Meagher et al., 2021). The challenges faced by women have reduced their numbers in health care environments and placed them at a severe power disadvantage relative to men. Even where there are notable exceptions such as Pediatrician Amani Ballour (Abouzeid, 2019), the administration and management of hospitals has been severely impacted due to human and resource capital depletion and flight.

Although biopower has substantially altered mobility and hindered resources available to combat Covid-19 studies have found nationally a broad understanding of the disease itself (Doumani et al., 2020). Data indicate a “good level of awareness” (75.6% \pm 9.4%) of Covid-19 and “adequate level of knowledge” (67% \pm 18.9%) about the Sars-Cov-2 virus (Mohsen et al., 2021). A broad awareness and knowledge of the disease does not however mitigate its potential ramifications or sufficiently protect or inform subjects how to protect themselves. Efforts have been undertaken by many non-governmental actors to provide knowledge to the population of Syria through a variety of digital and non-digital means including Whatsapp, Facebook, Snapchat and other platforms (Doumani et al., 2020). Yet recent evidence suggests a restriction in Covid-19 data

emanating from the Assad government in Damascus – including restrictions on the publication of actual Covid-19 infection and mortality rates (RSF 2020) as well as a general information pertaining to the virus (Watson et al., 2021).

In contrast to the U.S. experience in 1918-19, the Syrian experience with Covid-19 is influenced by the nuance and complexities of the conflict. The result is biopolitics in which inconsistent and often contrasting applications of biopower consistently hinder public health response efforts across multiple vectors. While adapting to the biopower of a consistent constraint might be possible, the Syrian case is particularly complicated as the dynamics of the conflict result in continuously shifting mobility, resource, and information constraints.

Ukraine: Brief Conflict History

Since April 2014 Ukraine has been involved in a quasi-civil/quasi-international war with Russian backed separatists and Russian regular soldiers in large portions of Eastern Ukraine known as the Donbas. The geographic scale of the conflict covers a contact line of more than 500KM (ICG 2016). More than ten thousand civilians and soldiers have been killed in the conflict, thousands more have been injured, and more than two million persons have been displaced (Sakwa, 2016). Among the persons who have been displaced more than 1.5 million are now considered internally displaced persons (IDPs) who reside in different parts of Ukraine. The other half-million persons have mostly relocated to different locations in the Russian Federation (Ministry of Social Policy, 2021).

The conflict in Eastern Ukraine followed the overthrow of the Yanukovich government in Kyiv and the seizure by military force and subsequent annexation of the Crimean Peninsula by the Russian Federation in February 2014. In late March and early April Russian-backed protestors began taking over government administrative buildings in Ukraine's eastern oblasts. These protests quickly devolved into separatist movements and resulted in police and security forces clashing with increasingly well-armed protestors. While attempts at securing territory and support in multiple oblasts failed, the protestors, with substantial support from Russian intelligence and Spetsnaz forces, succeeded in solidifying control in Luhansk and Donetsk oblasts. When the conflict in Ukraine broke out two different groups formed separate quasi-independent states: the Luhansk People's Republic (LPR) and the Donetsk People's Republic (DPR). The two republics formed a military force comprised of approximately 40,000 mixed forces of individuals from Eastern Ukraine and across the Russian Federation. These forces were joined by approximately 4,000 Russian officers and by early 2015 increasingly large volumes of military equipment including tanks, artillery, and multiple launch rocket systems.

Although the initial conflict period saw substantial shifts in the line of contact between Ukrainian and separatist forces and resulted in the destruction of massive amounts of infrastructure, by early 2015 the border between the warring sides solidified and trenches were constructed. Throughout 2020 and into 2021 regular border skirmishes have occurred on a near daily basis with the Organization for Security and Cooperation in Europe (OSCE) reporting between 50 – 100 daily ceasefire violations at various points along the contact line (OSCE 2020). The situation in Eastern Ukraine is currently experiencing an uptick in incidents. Reports indicate that the number of cross border violations of the Minsk II protocols are increasing, and the Russian Federation has

prepositioned upwards of 35,000 soldiers on the Ukrainian-Russian frontier (Kramer 2021). The conflict is defined by substantial information and cyber operations that seek to undermine the integrity of the governments on both sides of the contact line with propaganda, mis-and-disinformation (Brantly et al., 2017; Fitzgerald and Brantly, 2017). Official channels of information dissemination have also been targeted by both sides through artillery barrages aimed at infrastructure.

Approximately 1.5 million persons still reside within the LPR (LPR 2018) and 2.3 million persons still reside in the DPR (DPR 2018). Many of those who reside in the DPR and LPR maintain Ukrainian bank accounts, are pensioners, or have family and friends in Ukraine. Prior to the outbreak of Covid-19 there were an estimated 2.3 million monthly border crossings from the Donbas into Ukraine for basic services including, healthcare, shopping, and banking (Abibok, 2020). That number dropped to less than 50 thousand by February 2021 and returned to 97 thousand crossings as of July 2021, a 92.5% decline from 2019 numbers (UNHCR 2021). In early April 2020, the Ukrainian government decided to implement Covid-19 travel restrictions on DPR and LPR citizens and effectively closed all border checkpoints. Individuals crossing the LPR or DNR border with Ukraine must use the VDOMA (in home) application or seek to route transit through the Russian Federation (HRW 2020). Individuals are also required to take expensive Covid-19 tests and quarantine for 10 days upon entry into the country. Both the use of digital tools and the mandate for Covid-19 tests are substantial applications of biopower against populations of the occupied territories. Reporting indicates individuals traveling across the border have resorted to bribing border guards to avoid public health measures thereby partially countering the biopower of the state (Malofieieva, 2021). The journey which once took only a few hours has increased substantially. On occasion some of those who wished to cross the border were detained between LPR/DPR and Ukrainian checkpoints for any number of reasons, including invalid paperwork, a lack of access to mobile phones to use the VDOMA application or other reasons. Similarly, the transit of goods and services across the Ukrainian contact line with both the DPR and LPR has slowed to a trickle as a result of a 2017 ban on trade between Ukraine and its breakaway regions (ICG 2020).

Neither DPR nor LPR are officially recognized as independent states and are therefore barred from direct commercial transactions with Russian firms. To circumvent these restrictions both territories have engaged in trade with other breakaway territories such as South Ossetia and Abkhazia. Yet, despite a lack of trade West to Ukraine, both states are estimated to be recipients of more than \$5 billion in annual aid from the Russian Federation (Чекис, 2020). Both republics have also substantially increased their transborder coal trade with the Russian Federation from 1.1 million tons in 2015 to an estimated 4.2 million tons in 2017 (Главред 2018). These trade practices are more permissive than those in many parts of Syria, yet severely constrain the economic situation in the breakaway republics and illustrate a form of biopower to constrain resources that impact public health. The transit of goods across borders is difficult and rife with criminality. In Ukraine as in Syria there are mobility restrictions on both persons and goods.

Like the situation in Syria the medical infrastructure of the breakaway territories of Ukraine was severely depleted following civil conflict. Human capital resources, physicians and nurses are in short supply with some estimates indicating that upwards of 40% of all physician positions remained vacant prior to 2019 (Rakovsky, 2019). Recent evidence suggests increasing incidence

and prevalence of HIV and tuberculosis. While a lack of medical resources is most acute within the occupied territories a Medicos del Mundo indicates that the problem persists on both sides of the contact line (Bozhenko, 2021). Reports from inside the occupied territories paint a picture of limited resources both human and medical, with struggles to keep oxygen tanks from freezing, beds filled, and a lack of diagnostic equipment including Covid-19 tests (Malofieieva, 2021). In January 2021, the Russian Federation announced it was defying a Ukrainian ban on its Sputnik V Covid-19 vaccine and began distributing limited doses. Although the Sputnik vaccine was met with initial skepticism its efficacy has been born out and supplies of the vaccine have been distributed in more than 70 countries including Syria and the breakaway republics of Ukraine (Nogrady, 2021).

Health information in Ukraine has remained contentious since the outbreak of conflict in 2014. While the actual numbers of Covid cases in both Ukraine and its breakaway republics have been subject to much scrutiny, the data out of the DPR and LPR were, particularly in the early days of the pandemic, inaccurate (OCHA, 2020). Early on information out of the DPR and LPR sought to downplay the extent of the pandemic in their jurisdictions while drawing attention to the spread of Covid-19 in other areas of Ukraine (Ukraine Crisis Media Center 2020). As the number of cases continued to rise the success of hiding the situation from the public in the territories diminished. The DPR Ministry of Health now issues daily Covid counts. The DPR's Covid-19 count as of September 14, 2021 indicated 616 new daily cases of disease and current Covid-19 hospital occupancy of 2,761 patients of which 939 were on oxygen support. The biopolitics of competing jurisdictions between Ukrainian and separatist held territories partially shifted the narrative away from total obfuscation to the presentation of data as a means of demonstrating governmental effectiveness.

The conflict dynamics of Ukraine isolated the populations of the DPR and LPR, restricted the movement both into and out of the conflict zone, reduced the resources available within the territories, and set the stage for disputes over information for surveillance and public health programming. Surveillance data at present on both the DPR and LPR is difficult to discern and inconsistent with both the reporting standards of Ukraine and Russia. The biopolitics of the war and the pandemic collided in Ukraine and Syria fostering conditions that exacerbate the spread and control of disease.

Discussion/Conclusion

The case studies analyzed above demonstrate how the concept of biopolitics can help explain the complexity between politics and human life during times of conflict. Biopower normalizes the intrusion of the state into subject's lives. Under conflict conditions the normalization of biopower privileges the needs of combatants at the expense of noncombatants. This makes the population the target of state power under the rationale of improving security, narrowly defined, at the expense of security defined as health and welfare of the populace. The result is a degradation of both the former and the latter particularly under pandemic conditions. Figure 2 below illustrates our model of the relationship between public health and resources, information, mobility, and political commitment.

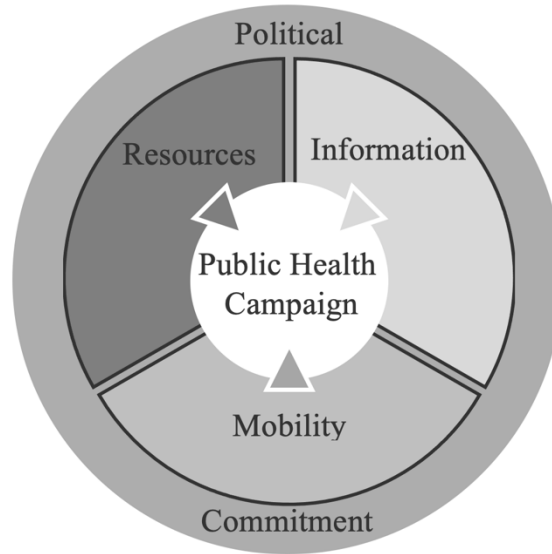


Figure 2: The Impact of the Meta-Variables of Biopower on Public Health

When faced with a pandemic, nations are concerned about the health and safety their residents, economic stability, the integrity of borders and other related issues. Conflict zones tend to be deprived of resources such as the technologies, supplies, and human capital necessary to effectively contain a pandemic. In all three cases above a shortage of medical supplies, physicians and nurses undermined public health efforts. These shortages are a direct result of political decisions in the form of laws, violence against healthcare institutions, limits on mobility and more. Moreover, as illustrated each of the conflicts above had a constrained information environment. Constraints, ostensibly serving the strategic and tactical purposes of the conflicting parties are damaging to the populations under their care. Undermining or restricting information acerbates the spread of disease, prevents the undertaking of basic precautions, and slows public health responses. While restricted mobility can constrain the spread of a pathogen, it can often force populations into non-traditional mobility dynamics that make the spread of disease more likely. Moreover, while constraining the mobility of civilian populations, the movement of soldiers and materials for war can further increase the spread of a given pathogen as illustrated in all three cases. Mobility is a double-edged sword as it is necessary for seeking and providing medical care, yet it also moves potential carriers of a pathogen between population groups thereby further increasing spread.

The biopolitics of pandemics that occur during a conflict can be simplified to decisions pertaining to mobility, resources, and information. Where decisions put the needs of citizens first, public health campaigns are more likely to succeed. Where conflict intervenes and alters the biopolitics of the state or substate entities party to a conflict, public health outcomes are imperiled. The outcome of biopolitics in conflicts is the application of biopower resulting in negative outcomes that acerbate and undermine nearly every attribute of a public health. Without a consistent political commitment centered on the health and safety of a population the result is fragmentation and disorder across all three variables. Whether the country is a rising power (the United States in 1918), a middle-income country in the grips of a civil war (Syria), or a developing country fighting a hybrid civil-international conflict, the impact of biopolitics on the control of a pandemic must

include an analysis of how conflict alters decisions pertaining to mobility, resources, and information. While the unique conditions different war alters the prescriptive responses for each variable, the consideration of each is critical for controlling the impact of biopolitics in such a way as to minimize the harm of a pandemic even under conditions of conflict.

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