



Risk Mitigation Consulting Inc.

Intelligence and Analysis Division

WHITE PAPER SERIES

February 2021 COVID-19 Update

INTENT

This white paper is designed to provide analysis of relevant, publicly available information on threat and hazard events/trends and their potential impacts to the interests of the United States, both at home and abroad. This product is not intended to be an all-encompassing assessment of the subject.



February 2021 COVID-19 Update

Introduction

In February 2020, RMC’s Intelligence and Analysis Division published a White Paper regarding an emerging virus which was then called the “novel coronavirus” and would ultimately be designated as COVID-19. The COVID-19 outbreak has ultimately become a global pandemic that has fundamentally altered the ways individuals, organizations, and governments operate. This follow-up paper will examine the way the COVID-19 pandemic has evolved since the publication of the paper approximately one year ago, as well as the impacts felt by the Department of Defense (DoD), along with challenges that continue to impede a return to something resembling pre-pandemic normalcy. Furthermore, this paper will briefly examine the vaccine development and distribution that has been a central element of the global strategy to defeat COVID-19.

COVID-19 Situation Update

At the time of publication of the February 2020 White Paper, there were 20,423 confirmed novel coronavirus cases in mainland China, and 190 confirmed cases in other locations around the world. A total of 27 countries had reported cases. As of 09 February 2021, approximately 106,617,769 cases of COVID-19 had been reported worldwide, found in 192 countries. The global death toll was reported to be 2,330,065. The United States accounted for 27,101,604 of the total cases and 465,435 of the total deaths.¹ The image below breaks down total reported COVID-19 cases by country.²

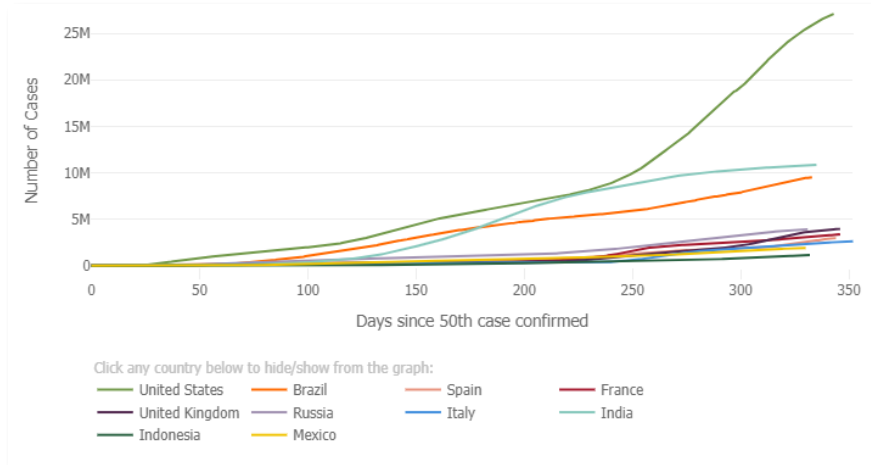


Figure 1
Total Reported COVID-19 Cases by Country²

Examining these cases, a significant variety in the case to fatality ratio is seen. The highest three ratios are found in Mexico (8.6%), Peru (3.6%), and Italy (3.5%). Comparatively, the case to fatality ratio of the United States is 1.7%, ranking 18th globally.³

The following image shows the rate of COVID-19 cases per 100,000 people by country.²

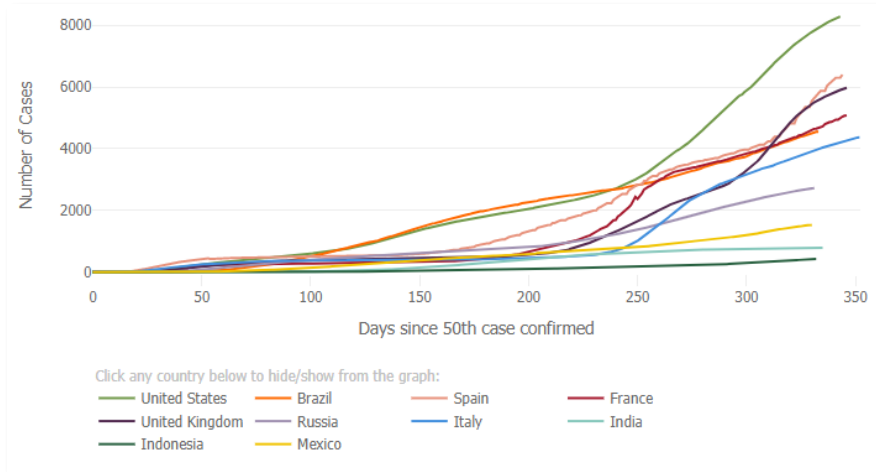


Figure 2
COVID-19 Cases per 100,00 People by Country²

Utilizing the same rate for fatalities, each country can calculate reported deaths per 100,000 people. The highest rates are seen in the United Kingdom (169.97), followed by Czechia (163.12), Italy (151.54), and the United States (142.11).³

These statistics do not include those who contracted COVID-19 and did not receive a positive test. Reasons for this may include asymptomatic or mild cases, a lack of access to testing, a false negative test, or a simple choice not to receive a test. The CDC estimates that from February to December 2020, 1 out of every 4.6 COVID-19 infections were reported, placing the true number of COVID-19 cases in the United States at an estimated 83.1 million for that time frame.⁴ Likewise, the World Health Organization (WHO) reported in October that nearly 760 million people may have already been infected with COVID-19, despite the fact that only 35 million confirmed cases had been recorded as of that time.⁵ Though a clearer picture will likely emerge over time, the total number of COVID-19 cases is definitively under-reported.

Vaccine Progress

In the United States, there are three main types of COVID-19 vaccines that are or soon will be undergoing large-scale (Phase 3) clinical trials in the United States. They are mRNA vaccines (containing material from the virus that causes COVID-19), protein subunit vaccines (containing proteins of the virus that causes COVID-19), and vector vaccines (containing a weakened version of a live virus that has genetic material from the virus that causes COVID-19 inserted in it).⁶

Currently, two vaccines are authorized and recommended to prevent COVID-19 by the CDC: Pfizer-BioNTech COVID-19 vaccine and Moderna's COVID-19 vaccine. As of 08 February 2021,



59,307,800 vaccine doses had been distributed and 42,417,617 of those administered. Distribution rates and targeted groups vary by state.⁷ As of early February 2021, a vaccine produced by Johnson & Johnson was entering the Food and Drug Administration (FDA) approval process, with the vaccine expected to be approved for distribution after a vote scheduled for 26 February.⁸

COVID-19 Impacts to DoD

The DoD has played an integral part in the response to COVID-19 since late January 2020, when March Air Reserve Base first served as a quarantine site for 200 State Department officials evacuated from Wuhan, China.⁹ By late February 2020, the first U.S. servicemember had tested positive for the virus. He later recovered after 49 days of isolation at his duty station in Camp Carroll, South Korea.^{9,10} Since then, the DoD has been tasked with responding to the pandemic within its own ranks, while supporting the nationwide public health response. The Department's own COVID-19 task force was established on 28 February 2020, but it had already issued the first Force Health Protection Guidance on 30 January 2020, with the most recent supplement, the fifteenth, being issued on 19 January 2021. The initial guidance outlined requirements for wearing masks, washing hands, and social distancing. The most recent supplement outlines more detailed testing procedures, as the DoD is increasingly able to test base workers, contractors, and other members of the military health system. The DoD spent much of 2020 navigating the restrictions imposed by the pandemic while maintaining operational readiness. This included restrictions of travel off-base and on-base activity, along with quarantining and targeted lockdowns to mitigate outbreaks. Active duty personnel are also able to telework on a case-by-case basis, depending on their job and their command's requirements.¹¹ On 30 November 2020, the Department issued a memo granting an "Extension of Maximum Telework Flexibilities" for civilian employees, allowing continued telework during emergencies to care for a child or other family member at home.¹² By 05 February 2021, the Secretary of Defense approved 1,110 active-duty service members to support five (5) FEMA vaccination centers.^{9,13} The day before, the Department ordered all personnel on base, military and civilian, to wear masks. There are limited exceptions for base residents in their own home, personnel working in private, enclosed offices, and while eating or drinking.¹⁴

As of 08 February 2021, the DoD has experienced 231,044 cases of COVID-19, with 147,374 coming from servicemembers, with 21 deaths. The remaining cases are spread across civilian employees (45,106; 178 deaths), dependents (23,782; 9 deaths), and contractors (14,782; 62 deaths). The remainder have either recovered or remain hospitalized.¹⁵ A January 2021 report showed that half of the COVID-19 cases diagnosed in active-duty personnel in FY2020 were in the repair, engineering, communications and intelligence fields. The numbers were similar for Reserve and National Guard personnel.¹⁶

Vaccine Progress

The DoD announced its vaccine distribution plan on 09 December 2020, with a list of distribution sites and plans to prioritize "those providing direct medical care, maintaining essential national security and installation functions, deploying forces, and those beneficiaries at the highest risk for developing severe illness."¹⁷ Official numbers of personnel vaccinated are unavailable as of this writing. The CDC has documented 376,150 doses sent to over 100 installations, with 139,439



having been administered.¹⁸ Open source reporting suggests the numbers may actually be higher, with 872,000 vaccine doses shipped and more than 500,000 administered.¹⁹

However, even as public awareness of safety measures and vaccines increase, vaccination is not mandatory for personnel.¹⁴ About half of personnel and their families have expressed reluctance to receive the vaccine. These numbers mirror those of the general population.¹⁹ Service members usually receive several vaccines upon entering training or prior to deployment. Exemptions are available for certain medical, administrative, and religious reasons and are decided on a case-by-case basis. Personnel will not be required to take the COVID-19 vaccine until the FDA gives its full approval, which could take up to two years. The vaccine was only given conditional emergency authorization last year.²⁰ In a video call with military families in early February, Chief Medical Advisor Dr. Anthony Fauci, First Lady Jill Biden, and other officials fielded questions and encouraged service members and their families to take the vaccine. Open sources have stated that the DoD has vaccinated almost everyone who requested it in the first priority group, including “frontline workers, police, medical personnel, and those caring for patients or military personnel with COVID.”¹⁹

Continuing Challenges

A number of significant challenges remain in the global effort to combat the spread of COVID-19. For example, lockdown compliance is difficult to quantify, but a number of mass, maskless gatherings have been reported in defiance of governmental restrictions, and a number of businesses have openly defied lockdown orders. However, two prominent challenges that will be examined are vaccine-related challenges and misinformation. Vaccines must clear a number of hurdles (to include regulatory, logistical, and public trust issues) in order to be widely distributed. While misinformation can hinder the progress of mass vaccination, matters of logistics and efficacy (among other variables) remain a concern. Misinformation has also complicated many aspects of the public health response to COVID-19, and could potentially be a catalyst for property damage and acts of violence.

Vaccine Challenges

The goal of mass vaccination is to provide herd immunity to COVID-19 in order to allow for a return to relative normalcy, where governmental operations, business and organizational operations, and private social lives can all return while minimizing the health risks associated with the COVID-19 virus. While a number of pharmaceutical firms have developed COVID-19 vaccines, one notable hurdle is the need to obtain an Emergency Use Authorization (EUA) from the FDA. To date, only Pfizer-BioNTech and Moderna’s vaccine have received such approval, with Johnson & Johnson’s vaccine currently under evaluation. Requiring such authorizations is prudent in order to assure that the vaccines are safe and effective, however, it can result in a slight delay as FDA experts assess each vaccine. Typically, vaccines must undergo an even lengthier and more comprehensive FDA approval process, but the circumstances of the COVID-19 pandemic have allowed for an increased use of EUAs.²¹

The Pfizer-BioNTech and Moderna vaccines also present unique logistical challenges, particularly the need for a “cold chain” supply chain approach which allows for the vials containing vaccine



doses to be stored at sub-zero temperatures. Locating appropriate infrastructure to carry the vaccine doses through this “cold chain” has remained a challenge, and concerns remain regarding doses that can “go bad” if they spend too long at inappropriate storage temperatures.²² Johnson & Johnson’s vaccine does not require storage at extremely low temperatures, which will likely facilitate additional progress due to the reduced infrastructure needs should it receive an EUA from the FDA.²³

Additionally, public trust in the vaccine is a continuing challenge due to a number of factors to include misinformation. As of late January 2021, a YouGov poll suggested that roughly 51% of Americans were willing to get a COVID-19 vaccine.²⁴ While healthy skepticism regarding a rapidly developed vaccine for a novel disease is normal and reasonable, individuals should seek advice from reputable organizations and individuals when deciding whether they would like to receive a vaccination. Moreover, individuals may remain concerned about potential long-term side effects associated with a new vaccine. Still, poorly-vetted and outright false information regarding vaccines has proliferated widely online in the form of misinformation (which will be discussed in further detail below) potentially hindering the vaccine rollout process.

Misinformation

In the initial February 2020 White Paper, the only noted misinformation concern was potential speculation regarding the Wuhan Institute of Virology, which is located near the “wet market” tied to the first discovered cluster of COVID-19 cases. Additionally, conspiracy theories were unfolding that suggested that the virus could have been manmade. While reports of a manmade virus emanating from the lab have been widely disputed, as of early February 2021, a WHO team was dispatched to Wuhan to investigate the possibility that the virus accidentally escaped from the facility.²⁵ The WHO team reportedly met with an expert at the laboratory who specializes in bat coronaviruses to investigate whether COVID-19 could have leaked from the facility into the general public.²⁶

Still, a great deal of misinformation continues to proliferate surrounding COVID-19. The Wikipedia page for COVID-19-related misinformation includes various theories regarding the origins of the disease, potential prevention/cure methods, misreporting of case/death numbers, as well as misinformation regarding COVID-19 vaccines. Some of these theories include racial/ethnic aspects, such as blaming coronavirus on Jews or Muslims.²⁷

Such misinformation can erode trust in public health and governmental policies designed to combat the COVID-19 virus and can lead to individuals partaking in riskier behaviors when the potential severity and lethality of the virus is minimized. However, certain theories could also potentially motivate individuals to commit acts of property damage and/or violence. For example, dozens of 5G cell towers were vandalized across Europe after conspiracy theories about 5G signals causing COVID-19 propagated on social media.²⁸ Additionally, a Wisconsin pharmacist reportedly sabotaged over 500 doses of the COVID-19 vaccine after reportedly espousing COVID-19 vaccine-related conspiracy theories.²⁹ The aforementioned theories blaming Jews and Muslims for COVID-19 could potentially motivate white supremacists or other threat actors to commit acts of violence.



Other Challenges

While some threat actors may be motivated to violence based on COVID-19 misinformation, other threat actors are attempting to exploit the pandemic for financial gain. Vaccine hesitancy, and outright anti-vax groups, have resulted in an emerging black market for fake vaccination cards that will allow individuals to pass off fraudulent vaccine cards as legitimate items, therefore allowing the owner to participate in routine activities such as international travel. However, this type of activity potentially allows for the continued spread of the virus, especially as more virulent strains are emerging.³⁰

Additionally, there is increasing talk in the scientific community that COVID-19 will become endemic, meaning regular circulation within the population. Should this scenario become a reality, it will likely bring on its own set of additional challenges as well.^{31, 32}

Conclusion

This paper is intended to serve as an update to the initial February 2020 White Paper which was produced when the novel coronavirus was still not yet formally designated as COVID-19, at a time when there were less than 200 confirmed cases outside of the epicenter in mainland China (which had just over 20,000 cases). It is not intended to be an all-encompassing situation update regarding the COVID-19 pandemic or all of its facets. Rather, this paper seeks to provide a “one year later” follow-up to various issues covered in the initial paper. RMC’s Intelligence & Analysis division has closely monitored developments related to the COVID-19 pandemic, its impacts on the DoD, and potential threats associated with the pandemic such as misinformation and even potential acts of property damage and violence. The Intelligence & Analysis division will continue to publish additional analysis as needed in order to inform readers and clients of relevant developments regarding the COVID-19 pandemic and its various impacts.

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