Prediction Plus Patchwork Equals Pandemic

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What do the Taliban, gangs in South America, and the New England Patriots Football team have in common? They all purchased facemasks to support their communities in the fight against the COVID-19 pandemic. A hodgepodge pandemic response from many formal governments, states, agencies, medical intelligence (MEDINT) organizations working in silos, and people in power ignoring bio-threat recommendations created this opportunity for unlikely humanitarian bedmates. There is a disparity in how countries and US states are handling the crisis, and there are challenges in addressing the spread and reopening of states and businesses. Yet, looking back at the Spanish flu and listening to the forewarnings and recommendations by the intelligence community provides policy- and decision-makers an opportunity to improve bio-surveillance and bio-threat management. COVID-19 is a bellwether for change.

Introduction

For many Americans and the global community who are living in the dystopian reality that the pandemic has created, it seems unbelievable that in March 2020 we watched drone footage and images of burial crews in freshly dug muddy trenches burying body after body in bare wooden boxes in New York. This is one of many searing illustrations of the pandemic's ghastly mortal toll, along with those of field hospital tents in Central Park, a Navy hospital ship off Manhattan, and refrigerated trailers parked outside hospitals to handle the overflow of bodies. This happens in developing countries, not the City on a Hill. America ended up at this gruesome juncture because predictions of a bio disaster, which were voiced as early as the Bush administration, continued through the Obama administration, and went unnoticed by the Trump administration, were disregarded by key decision-makers. Additionally, because the numerous and far-reaching bio-threat players exist in silos, there is a delay in reporting information, and the Big Data that has to be sorted through to derive MEDINT analysis is like piecing together an Appalachian crazy quilt. Additionally, with the politicization of data, data integrity may be compromised.

From a military perspective, just like, SIGNIT, MASINIT and other intelligence collections, MEDNIT encompasses the processes of collection, evaluation, analysis, and interpretation of medical, bio-scientific, and environmental information. Part of MED-

INT preparation involves analyzing information on medical and disease threats; enemy capabilities; terrain; weather; local medical infrastructure; potential humanitarian and refugee situations; transportation issues; and political, religious, and social issues for all types of operations for both military and civilians (Department of Defense 2013). However, MEDINT is not just comprised of military entities, but also contains numerous and far-reaching players in the civilian sector and at the Centers of Disease Control (CDC). Yet, the issues of MEDINT during the COVID-19 pandemic, and its forecasting and challenges, run parallel to the intelligence issues before the 9/11 catastrophe, and just like the aftermath of 9/11, there will need to be an overhaul of how America, and much of the world, manages and monitors bio-threats.

9/11, COVID-19 Forecast, and Financial Fiasco

On September 11, 2001, before most Americans even knew there was a Wuhan, China, a large-scale unprecedented terrorist attack changed the intelligence security landscape, and American bio-surveillance is now at the same juncture for change. Four planes were the catalyst for reinventing the siloed intelligence community into the centralized Director of Intelligence and the Department of Homeland Security. COVID-19 has the same potential to transform how MEDINT will be managed and coordinated for future bio-threats. America was teetering on the edge for both

the terrorist attack and the pandemic, with evidence and briefings given by knowledgeable agencies and researchers well before a wet market virus or a mastermind in Al Qaeda had exhibited the predilection for disaster. For example, in the spring of 2001, the Central Intelligence Agency (CIA) repeatedly and urgently warned the White House that an unmatched terrorist attack was coming. By May 2001, Cofer Back, former chief of the CIA's counterterrorism center stated, "It was very evident that we were going to be struck, we were gonna be struck hard and lots of Americans were going to die" (Whipple 2013). Cofer's former boss, George Tenet concluded, "The world felt like it was on the edge of eruption [before 9/11]" (Whipple 2013).

Similarly, MEDINT voices echoed in the halls of silence regarding a large-scale probable pandemic that had the power to stop America in its tracks. As early as 2005, Health Secretary Mike Leavitt was mocked as Chicken Little by political rivals and late-night comics. "In advance of a pandemic, anything you say sounds alarmist," Leavitt explained. "After a pandemic starts, everything you've done is inadequate" (Whipple 2013). While the easy way out is to blame the current political situation in the United States for COVID-19's toll in America, the cycle of inattention has roots far deeper than the current administration, according to top policymakers from three administrations covering twenty years.

The 381-page Pandemic and All-Hazards Preparedness Act that Leavitt, Azar, and other health officials

announced in November 2005 included tactics, models, and other details that eerily resemble today's coronavirus crisis. One scenario, cut from the final report, even described how a respiratory disease would swiftly move from sickening dozens in an Asian village to killing as many as 1.9 million Americans, a framework that foreshadowed future discussions about the COVID-19 outbreak (Hodge 2007). In June 2005, then-senator Barack Obama wrote in the *New York Times*, "We must face the reality that these exotic killer diseases are not isolated health problems half a world away, but direct and immediate threats to security and prosperity here at home" (Obama and Lugar 2005). But as president four years later, Obama promptly forgot what he had said. He initially abolished the White House's dedicated Office on Global Health Security—the same move that Bush made before him and that Trump followed years later. Additional hurdles were an Obama-era improvement plan created post-H1N1, which offered suggestions that were batted back by the Republican-led Congress. The Republican-led Congress refused to invest in the nation's hospital preparedness program, which has continued to undergo years of winnowing by congressional appropriators, but would have ensured a sufficient supply of ventilators and masks in the stockpile, a devastating problem that has haunted the response to COVID-19 (Diamond 2020).

Additionally, the US Health Department and Homeland Security Department cut preparedness funding by nearly $900 million between fiscal years 2010 and 2011 (Department of Homeland Security 2015). Columbia University's National Center for Disaster Preparedness (NCDP 2011) experts warned, "The preparedness budget cuts may make it difficult for the nation, and the country's public health agencies and workforce to achieve the goals set by the White House and the CDC for national health security. The New York metropolitan area, in particular, is at greater risk for large-scale catastrophic events, and cannot afford to be less than maximally prepared." Weighing in from a very personal perspective, Lisa Monaco, Obama's Homeland Security Adviser between 2013 and 2017, stated that she was often disquieted in the dark hours of the night worrying about an emerging infectious disease (NYLaw 2020).

The 2017 outgoing Obama team warned the Trump administration of a potential infectious disease with COVID-19's reach and devastation, which was built on the playbook and lessons learned from their experience with Ebola, H1N1, and other health crises. The Trump team was walked through hypothetical scenarios of a respiratory illness that was framed as the worst pandemic since the 1918 flu, and they were told how to prepare for challenges like ventilator shortages and insufficient personal protective equipment (PPE) (Budrick 2020). The Obama officials also warned their successors to be ready to act fast. In a handout given to the Trump team, they were told, "in a pandemic scenario, days—and even hours—can matter" (Sofier 2020). Top health preparedness

official, Robert Kadlec, continued with a warning of the financial constraints that would lead to the shortages of PPE and medical devices at a Senate hearing in January 2018. "We don't have a sustained level of funding—a line item for pandemic influenza, for example—that would give us great confidence in long-term planning" (US Senate 2018). In just two years, this was a projection that the world would face head-on with fatal consequences.

COVID-19

The *New York Times* reported, "It started small. A man near Seattle had a persistent cough. A woman in Chicago had a fever and shortness of breath…. By mid-February, there were only 15 known coronavirus cases in the United States, all with direct links to China" (Watkins 2020). Yet, alarms were sounding at a MEDINT unit situated on a US Army base at Fort Detrick, in Frederick, Maryland. Intelligence, science, and medical professionals at the National Center for Medical Intelligence (NCMI) were monitoring and tracking global health threats that could endanger US troops abroad and Americans at home. At least one hundred epidemiologists, virologists, chemical engineers, toxicologists, biologists, and military medical experts, all schooled in intelligence tradecraft, work at this MEDINT unit. The center's intelligence targets are medical and scientific issues. Its products, like those of the rest of the intelligence community, are predictive analysis and products for warning, produced in four divisions, whose ex-

perts follow developments in infectious disease, environmental health, global health systems, and medical science and technology. According to NCMI former Director Air Force Col. Dr. Anthony M. Rizzo, the organization's mission is not to tell the public what is happening. "It is our responsibility to tell policymakers and planners … what we believe is going to happen" (Pellerin 2012). On February 25, 2020, NCMI did just that. They alerted policymakers and federal officials that within thirty days the coronavirus would progress from WATCHCON 2—a probable crisis—to WATCHCON 1—an imminent one (Reichman 2020).

The NCMI warning was shared with numerous defense and health officials, including the Secretary of Health and Human Services. Its February 25 warning was included in an intelligence briefing provided to the Joint Chiefs of Staff. It is uncertain if this warning was shared with the President. But, as early as January 2020, the US intelligence community included a detailed explanation of the potential cataclysmic disease in Wuhan, China, based in part on wire intercepts, computer intercepts, and satellite images, in the President's Daily Brief (PDB). The PDB is a summary of all-source information and analysis on national security issues produced for the President, key cabinet members, and advisers (Just Security 2020). In use since 1946, this classified document is meant to be read and is now coordinated by the ODNI. According to *ABC News* (2020), "That same day [of being given pandemic information], Trump, who was in New Delhi, India, tweeted:

"The Coronavirus is very much under control in the USA." Why there was a disconnect between data and action continues to be debated.

The Spanish Flu

The Spanish Flu followed the same pattern of infections and controversial mismanagement as COVID-19, demonstrating how quickly an infectious disease can spread and establishing that hours are critical in managing the increase of infection and that affective public awareness is mandatory for consensus and public health. Like COVID-19, the Spanish Flu started with what was perceived as an isolated incident that would not harm the larger population. By September 1918, the Spanish Flu had been spreading through the army and naval installations in Philadelphia, but Wilmer Krusen, Philadelphia's Public Health Director, assured the public that the stricken soldiers were only suffering from "the old-fashioned seasonal flu" and that it would be contained before infecting the civilian population (Roos 2020). A parade to honor veterans was held on September 28, 1918, in Philadelphia, despite numerous health officials' warnings calling for quarantine. Infectious disease experts warned Krusen that a parade would be "a ready-made inflammable mass for a conflagration" (Malsevic 2020). On September 30, 1918, the Philadelphia Inquirer reported that 200,000 people had attended the parade. Just 72 hours after the parade, all thirty-one of Philadelphia's hospitals were full, 45,000 people were sick and 2,600 people were dead (Panjawani 2020). Both the College of Physicians Philadelphia Medical Library and the Pennsylvania School of Nursing archives confirmed these numbers (Barbara Bates Center n.d.).

In Figure 1, the newspaper clipping indicates the lukewarm response by Philadelphia health officials. Health officials "warn against the results of fright and urge a calmness from which the best results of public and individual cooperation may be obtained," which clearly contradicts the evidence that even in 1918, infectious diseases spread quickly and decisive action would be needed within hours to curb the rise in infection and fatality. In places where facemasks and lockdowns were ordered to contain the Spanish Flu, a slowdown of the infection rate occurred. An article from the *Proceedings of the National Academy of Sciences* concluded, after careful study of the Spanish Flu incidents, spread of infection, mortality rates, and recorded evidence of public behavior, that public awareness and changes in behavior had a major role in the slowdown of the first wave of Spanish Flu. Not surprisingly, Philadelphia's response was considered the worst in the nation (Goldstein 2009).

Unlike Philadelphia, St. Louis flattened the curve by clear and unwavering public awareness campaigns and definitive mandates demanding changes in public behavior. Even before the first case of the Spanish Flu had been reported in St. Louis, Health Commissioner Dr. Max Starkloff had local physicians on high alert and wrote an editorial in the *St. Louis Post-Dispatch*
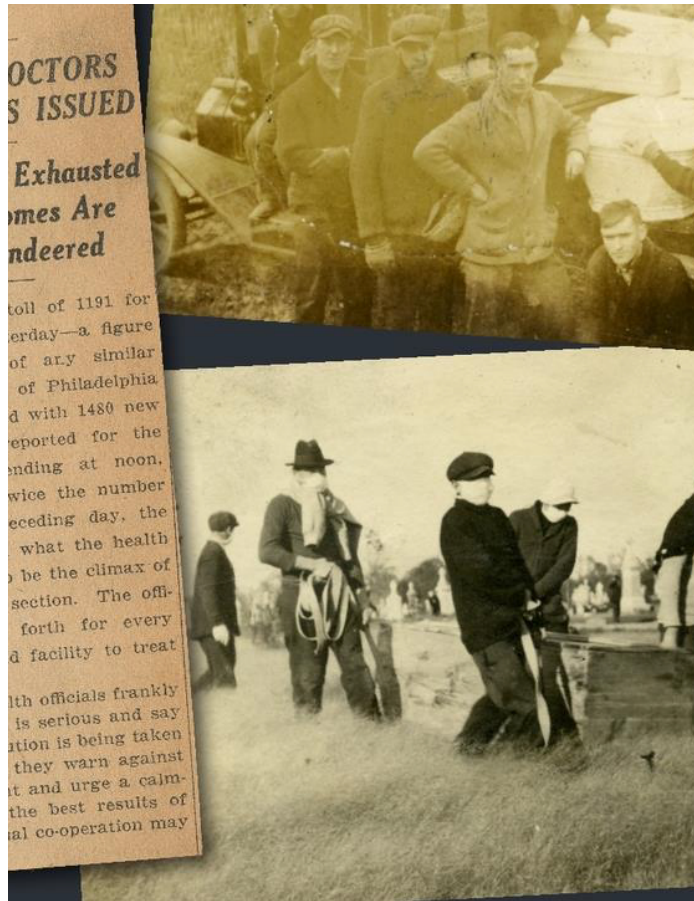
Figure 1. This 1919 photo from the Pennsylvania Historical Society is analogous to the 2020 COVID-19 news coverage. C/o Pennsylvania Historical Society.
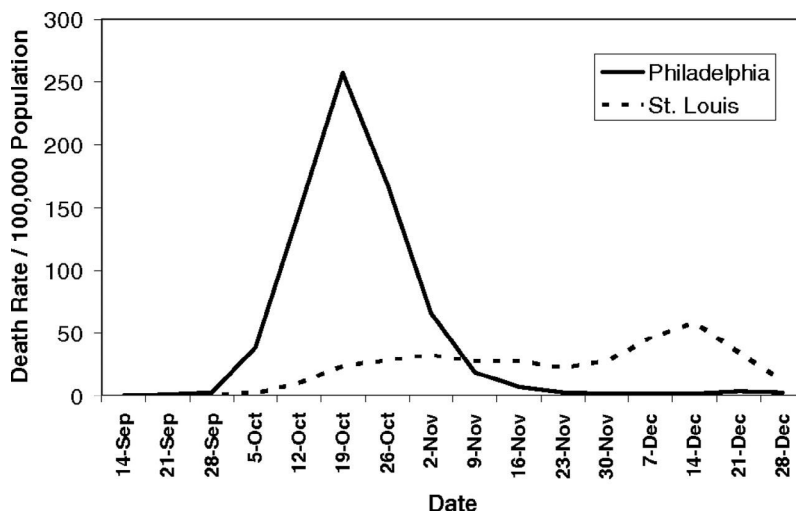
Figure 2. Hatchett (2007).

directed to the public about the importance of avoiding crowds. Also, he made decisions resolutely and quickly. After the Spanish Flu outbreak at a nearby military barracks first spread into the St. Louis civilian population, Starkloff wasted no time closing the schools, shuttering movie theaters and pool halls, and banning all public gatherings. There was pushback from business owners, but Starkloff and the mayor held their ground. As shown in Figure 2 and according to a 2007 analysis of the Spanish Flu death records, the peak mortality rate in St. Louis was only one-eighth of Philadelphia's death rate (Little 2020). According to the National Institute of Public Health (2007), "In cities where public health officials imposed multiple social containment measures within a few days after the first local cases were recorded, this cut peak weekly death rates by up to half compared with cities that waited just a few weeks to respond."

In addition to public awareness campaigns, San Francisco, like other western cities, got behind the wearing of facemasks, and most people complied. California Governor William Stephens declared that it was the "patriotic duty of every American citizen" to wear a mask and San Francisco eventually made it the law. Citizens caught in public without a mask or wearing it improperly, referred to as "mask slackers," were arrested, charged with "disturbing the peace," and fined $5. Another punishment also included having your name printed in the newspaper, which, for most people, was embarrassing. Unlike in 2020, in 1918 most people felt that your name

should only appear in print for your birth, death, and marriage. Similar to COVID-19, mask-wearing rules were difficult to enforce, but most citizens complied. In one documented incident, a special officer for the San Francisco board of health shot a man who refused to wear a mask (Little 2020).

Mask Wearing, History Lessons, and Public Opinion

Mask wearing is only one part of the effort to slow contagion, along with closing public places. One hundred years have passed since the Spanish Flu. Scientific inquiry, medical advances, and intelligence gathering have outpaced previous generations during the 1900s and through the twenty-first century, yet historical lessons and a playbook from the Spanish Flu show us that humans are reluctant to change behaviors and that history is sometimes doomed to repeat itself. Currently, in the 2020 COVID-19 pandemic, many people do not wear masks and business owners are reluctant to enforce mask-wearing rules. Not enforcing mask-wearing rules might stem from officials who are concerned about the economic implications (or about exercising authority), like the July 2020 edict from Governor Brian Kemp of Georgia overruling Atlanta Mayor Kesha Lance's mandate that people must wear a face covering in Atlanta due to rising COVID-19 cases (Romo 2020). Many officials, frightened by unrest and severe economic uncertainty, are terrified that imposing face-mask restrictions and mandates would

erode the confidence of the American public. Simply put, frightened people do not shop.

Yet, even with scientific data and officials that support mask wearing, many individuals choose not to wear masks. Reasons for not wearing masks include the following: they feel hot and stuffy, masks cause undue fear, people are protecting their first amendment rights, the virus is fake news, the virus is media hype, masks cause medical problems, mask-wearing is a type of oppression, God is in control, and masks are image breakers—i.e., they are not cool or masculine (Lee 2020). Also, many public and political figures, like President Trump, do not endorse wearing masks. President Trump only made two appearances with masks in July 2020.

An important variable in controlling contagion is empathy and ideas of the benefit of the public good, but individual rights and divisiveness have grown exponentially in America, and this growth has been compounded by the mixed messages from political leaders and political parties. According to Pew Research (2020), more Democrats wear masks than Republicans, and more college graduates and people of color wear masks than non-college graduates and white people. Additionally, there is a documented rural vs. urban divide in both politics and mask wearing. According to Kathy Cramer, a University of Wisconsin-Madison Political Scientist and author of *The Politics of Resentment*, "There's general mistrust toward government regulations in rural America ... the idea that the government is not attentive enough to the actual challenges of rural communities is not new ... the pandemic seems to have deepened some of the resentment that's been there for a long time" (NPR 2020).

Science Denialism

Additionally, the distrust of science, which seems to have gained significant momentum in the twenty-first-century, seems to be driving many people's actions, even though science, and its supporting facts, clearly show the right course of action for curbing infection rates. The harm of denying science, which has already been witnessed in the uptake of childhood diseases like measles, has larger consequences than those for one individual and their family. Americans increasingly seem to belong to a society that does not embrace scientific thinking, which is coupled with many of our public officials not incorporating the best scientific evidence and knowledge into their public policies. Some of the myths that abound in treating COVID-19 include drinking bleach as a treatment, taking hydroxychloroquine as a treatment or prevention, or the argument that warm air kills the virus.

Science denialism is also wrapped up in an extreme version of American individualism, and the right to believe what you want to believe regardless if it kills you, your family, or others, which denies expert opinion. Author Ethan Seigel (2020) stated, "All of the solutions that require learning, incorporating new information, changing our minds, or re-evaluating our pri-

or positions in the face of new evidence have something in common: they take effort. They require us to admit our limitations; they require humility. And they require a willingness to abandon our preconceptions when the evidence demands that we do. The alternative is to live a contrarian life where you're actively harming society." And society is being harmed. The United States, as of July 2020, has the highest number of cases of COVID-19 in the world and preventative measures would have saved people's lives and COVID-19 from spiking.

After lockdowns expired after phase two and American cities and counties started opening up public spaces in the spring of 2020, about 36,000 deaths nationwide could have been avoided by early May had social distancing begun earlier. As of July 1, 2020, the United States reported 52,789 new coronavirus cases on the largest single-day total since the start of the pandemic. States that eased their restrictions, like Texas, Florida, California, and Arizona, have seen a new surge in cases and increased hospitalizations. America's top infectious disease expert, Anthony S. Fauci, warned that the country could begin to see 100,000 new cases a day "if this does not turn around" (Fox 2020)

Economic and public pressure to reopen businesses, theaters, and public places played a role in the Spanish Flu and caused the infection to rebound, killing 1.5 million Americans from September 1918 to February 1919 (Hatchett 2007). In 1918, San Francisco ended up suffering some of the highest death rates from the Spanish Flu nationwide. If San Francisco had kept all of its anti-flu protections in place through the spring of 1919, it could have reduced deaths by 90 percent (Little 2020). In San Francisco, there were 45,000 total cases, with 3,000 deaths between fall 1918 and winter 1919 (San Francisco Examiner 2019). Similarly, as of July 27, 2020, the US has had 146,546 deaths, with predications of at least a quarter of a million deaths before the year is out (CDC 2020).

The Way Forward and MEDNIT

As the Trump administration and local governments continue to lift restrictions, these may or may not be lessons learned to consider. Many economic experts and statistics point to a depression that may rival another early twentieth-century disaster, the Great Depression. The idea of getting the wheels of the economy rolling is fueling political decisions and judgments, but a recent resurgence of COVID-19 in states that have embraced reopening have shown us that continuing on that path is like encouraging the Titanic to go faster toward the iceberg.

COVID-19 is also proving to be a watershed moment in MEDINT and the intelligence community as a whole with more effort and funds being earmarked for bio-surveillance and bio-threat management of contagions. According to a former senior official at NCMI, the MEDINT unit operated on a "shoestring effort to analyze open-source data, including news media, social media and scientific literature" that

he said was fairly successful (Dalania 2020). NCMI predicated second and third waves of COVID-19 if appropriate measures were not taken in terms of contact tracing, public awareness, quarantines, and lockdowns. While public behavior and cities may not be adhering to guidelines, funding is being directed at new MEDINT initiatives.

The Intelligence Advanced Research Projects Activity (IARPA) has issued a call for research proposals designed to better predict and react to global pandemics. "Technology solutions for COVID-19 will require creative, multidisciplinary methods, paradigm-changing thinking, and transformative approaches," IARPA's Deputy Director for Research Dr. Catherine Cotell stated. "Our goal is to advance ground-breaking technologies that will help the intelligence community and the country prepare for and recover from pandemic events" (Dalian 2020). Despite warnings from NCMI about second and third waves of COVID-19, which are playing out in many US states during the summer of 2020, and pandemic warnings from three administrations, MEDINT has been something of a backwater in the vast $80 billion American spying apparatus. To the extent that germs were seen as a security threat, it was largely related to potential bioweapons, not naturally occurring diseases. COVID-19 is reshaping how the intelligence community manages and responds to bio-threats.

Besides funding and future forecasting of the next pandemic, how MEDINT is codified will need to be revamped for the intelligence and med-ical community to provide threat assessments, evaluations, and recommendations for policymakers. Intelligence analysts need more knowledge about which collection sources and field experts are available in the specialized field of biosecurity and bioterrorism, because there are a significant number of groups and individuals that make up the larger picture of bio-threats. Physicians' offices, hospitals, first responders, law enforcement, signals intelligence, human intelligence, geospatial intelligence, and the scientific community, with its specialized knowledge, all have information that is critical for analysis, improvement, and coordination. Yet sifting through this Big Data is like "looking for needles in a stack of needles," according to Denis Kaufman, who worked at the NCMI before retiring. Additionally, the personnel needed for contact tracing is significant (Dalian 2020).

Unlike organizations such as the World Health Organization, which only have access to open-source materials that have errors or purposeful lapses in data reporting, NCMI has access to classified intelligence collected by the seventeen US intelligence agencies. MEDINT analysts can dig into signals intelligence and intercepts of communications collected by the National Security Agency. It can read information that CIA officers pick up in the field overseas. The National Geospatial-Intelligence Agency can share satellite imagery and terrain maps to help assess how an infectious disease is spreading through a population. As one analyst stated, "Every day, all of us would come

into work and read and research our area for anything different—anything that doesn't make sense, whether it's about disease, health care, earthquakes, national disaster—anything that would affect the health of a nation" (Associated Press 2020). The amount of classified and open source data that needs to be handled in terms of management, access, and analysis is daunting.

Lack of information, misinformation, and the weaponization of information also add to the success and accuracy of analysis. Analysts are at the mercy of the information that they have and that they do not have. They do not collect intelligence. They analyze it and produce MEDINT assessments and forecasts and databases for infectious disease and health risks from natural disasters, toxic materials, bioterrorism, and certain countries' capacity to handle them. Their reports are written for military commanders; defense health officials; researchers; and policymakers at the Department of Defense, the White House, and federal agencies, especially the Department of Health and Human Services (HHS). The team's success comes in providing early warnings that prevent illness. That can be difficult if a country does not report or share information out of fear that the news will affect its economy, tourism, or its presidential or public image, as seen in China and Russia during the COVID-19 pandemic.

Information from countries trying to downplay the seriousness of an epidemic cannot be trusted. For example, massive amounts of information came out of China, where the first reports of the novel coronavirus surfaced in Wuhan. However, because an authoritarian government runs the country, the NCMI MEDINT researchers gleaned information from the local level, not Beijing. "Researchers, in some cases, have more success in learning information from the bottom up—not from the central communist government, but from localities," a policy expert stated. "That's where some guy in Wuhan might be saying 'I can't report this because I don't want to look bad to my boss' or there's a guy who says he can't talk about avian flu because his cousin runs the bird market and doesn't want to hurt his business" (Modern 2020). Additionally, many undeveloped countries with poor healthcare systems are not able to compile good data due to a lack of resources, testing, and the ability to report and manage information. All of these variables add another layer to analysis, assessment, and making sound recommendations. Even in the United States, data validity regarding COVID-19 deaths and illness has been questioned. Dr. Danny Neal said that hospitals receive $1,000 for every COVID-19 death and this may lead to inaccurate reporting. Also a variable is the lag time of COVID-19 testing; many deaths may be attributed to COVID-19 when that might not be the case (Neal 2020).

Besides data integrity, there must be intelligence analysts fit for purpose. Just like other technologically enabled threats such as cyber, "no amount of increased investment in analytical capability can produce analysts that will be able to anticipate all possible tra-

jectories of such a complex evolving threat environment as biotechnology," according to Patrick Walsh (2008), author of *Intelligence, Biosecurity, and Bioterrorism*. In his book, he supports the warning in the *Global Trends Report*, produced by the National Intelligence Council. This report forecasted that a "sinister shift could be the wider access to lethal and disruptive technologies such as bioterror weapons and cyber instruments, which could offer a means for individuals and small groups to inflict large-scale violence and disruption" (ODNI 2012). Also, the report states that human and animal health will become increasingly interconnected. Growing global connectivity and changing environmental conditions will affect the geographic distribution of pathogens and their hosts, and, in turn, the emergence, transmission, and spread of many human and animal infectious diseases. COVID-19 is the tip of the iceberg. Unaddressed deficiencies in national and global health systems for disease control will make infectious disease outbreaks more difficult to detect and manage, increasing the potential for epidemics to break out far beyond their points of origin.

Walsh feels there will be a challenge in creating analysts with the ability to work on complex emerging biothreats and risks, which also requires agencies and communities where analysts work to "function more effectively" (Walsh 2018). Walsh asserts there needs to be a paradigm shift in how agencies within the bio-threat community assess and manage bio-threats before a nonstate actor, country against US policies,

criminal agent, unbalanced person, or virus in a wet-market starts a zombie apocalypse. Importantly, there is a need for a centralized bio-threat department similar to the Department of Homeland Security. Also, like the Director of National Intelligence, all of the currently siloed MEDINT needs to be centralized and accessible.

Trust and Transparency

As of July 15, 2020, the federal government requires hospitals to bypass reporting COVID-19 data to the CDC in an effort to centralize COVID-19 information, but this move has caused considerable controversy with stakeholders (HHS 2020). In the *COVID-19 Guidance for Hospital Reporting and FAQs For Hospitals, Hospital Laboratory, and Acute Care Facility Data Reporting Updated July 10,* hospitals are required to input COVID-19 data daily into TeleTracking™ (https://teletracking.protect.hhs.gov), an independent data tracking firm for the HHS. Some of the twenty-eight variables to be reported include the number of COVID-19 patients each hospital is treating, the demographics of those patients, and the number of available beds and ventilators.

While the HHS insists this will help the COVID-19 taskforce make important decisions and resource allocations, many stakeholders are concerned. Alarmingly, this database will not be accessible to the public or researchers, which has caused many to feel that the COVID-19 information will be distorted and weaponized, since

the numbers will no longer be transparent to the public or the CDC. Four of the CDC's former directors, spanning both Republican and Democratic administrations, stated in the *Washington Post*, "One of the many contributions the CDC provides our country is sound public health guidance that states and communities can adapt to their local context—expertise even more essential during a pandemic, when uncertainty is the norm. The four of us led the CDC over a period of more than 15 years, spanning Republican and Democratic administrations alike. We cannot recall over our collective tenure a single time when political pressure led to a change in the interpretation of scientific evidence. The data collection shift reinforced those fears" (Freiden 2020). According to medical experts, this change resulting in the HHS managing medical data exposes the vast gaps in the government's ability to collect and manage health data, which they feel is an antiquated.

US Senator Patty Murray stated she had, "several questions about the Trump Administration's decision to award a multimillion dollar contract on a non-competitive basis to create a seemingly duplicative data collection system." Senator Murray detailed how the contract seems to duplicate the work done by the CDC's National Healthcare Safety Network (NHSN) by creating a second mechanism through which hospitals can report the same information already collected through NHSN (US Senate 2020). "The whole thing needs to be scrapped and started anew," said Dr. Dan Hanfling, an expert in medical and disaster preparedness and a vice president at In-Q-Tel, a non-profit strategic investment firm focused on national security. "It is laughable that this administration can't find the wherewithal to bring twenty-first-century technologies in data management to the fight" (Lanese 2020). Dr. Hanfling and others agree that information needs to be centralized, but they disagree on how that should happen. Dr. Hanfling is calling for a new "national data coordination center" that would be used for "forecasting, identifying, detecting, tracking and reporting on emerging diseases" (Lanese 2020). Representative Donna E. Shalala of Florida, who served as health secretary under former President Bill Clinton, said the CDC was the proper agency to gather health data. If there were flaws in the CDC's systems, she said, they should be fixed. "Only the C.D.C. has the expertise to collect data," Ms. Shalala said. "I think any move to take responsibility away from the people who have the expertise is politicizing" (Stolerg 2020).

Conclusion

The key takeaways from the Spanish Flu and the tsunami of issues with the COVID-19 pandemic are a need for a collective understanding of believing scientific data and its correlation to disease and that days and hours are critical in response time to emerging bio-threats. Additionally, a proactive approach to medical support in terms of ventilators, treatment facilities, testing, etc. must be paramount so that football teams do not have to

buy medical support equipment for their hometowns. There needs to be a consensus among political leaders, parroted by their constituents and public, that facemasks, social distancing, and the value of the common good is significant and useful. As of July 2020, the United States has a higher coronavirus mortality rate than Brazil. A quarter of the world's COVID-19 deaths are in the United States, and America is a country that has 4.25 percent of the world's population (Menand 2020). Additionally, data integrity and reporting must be streamlined and not politicized, both monumental undertakings.

hhe slogan Make America Great Again and Massachusetts Bay Colony Governor John Winthrop's 1630 sermon, *A Model of Christian Charity,* share some resemblance in they are both a call for action. Winthrop cautioned that the eyes of the world were on America and if people did not hold to a moral, law-abiding, just, and humanistic path, "we shall be made a story and a by-word throughout the world," people will speak "evilly" of Americans and bring about shame and curses "upon us all." Therefore, even with easily accessible data, highly trained analysts, and countries reporting accurate information, all will be useless if political divisiveness and government officials stand in the way of scientific advice and intelligence briefings, disregard recommendations or worse yet, if the people of a country call for liberty and deny science, and like lemmings, run off a cliff.

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