

MARCH 2021

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AUTHORS
Mark F. Cancian
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A Report of the
CSIS Commission on Strengthening America's Health Security &
CSIS International Security Program

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THE CSIS COMMISSION ON
Strengthening America's
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Acknowledgments

This report is a product of the CSIS Commission on Strengthening America's Health Security, generously supported by the Bill & Melinda Gates Foundation.

The authors thank Stephen Morrison, Anna McCaffrey, Thomas Cullison, and Raquel Bono for feedback and support throughout the drafting of this report, as well as members of a CSIS roundtable of experts that reviewed an early draft of this report.

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Preface

Two Questions for Investigation

Military metaphors suffuse discussions of the Covid-19 pandemic. It is a “wartime effort.” Many commentators, particularly at the beginning of the pandemic, wanted to “send in the military” and appoint a “military czar.”¹ It is therefore worth taking a close look at two questions. First, how has the military coped with ensuring its own readiness during the pandemic? Second, how do militaries best support the civilian response to the pandemic? Answers to these questions will not just help the United States prepare for the next public health emergency—natural, accidental, or intentional—but they will have global applications as well.

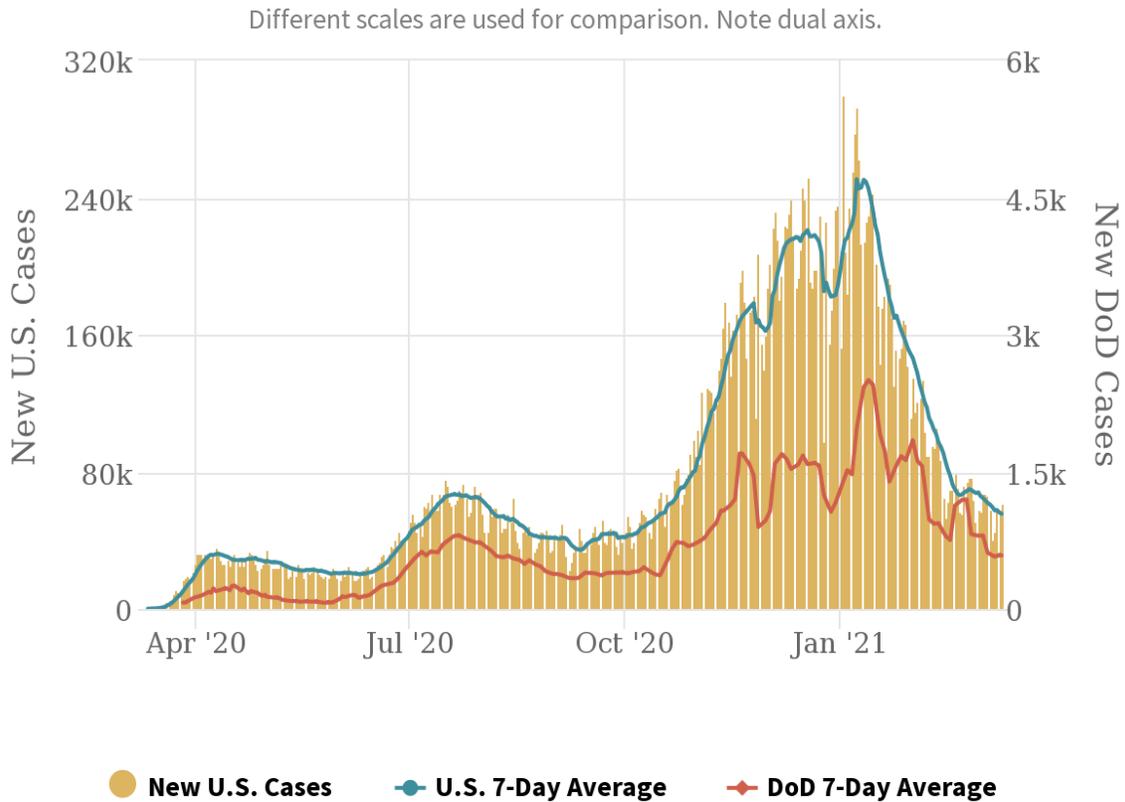
Overall, after an initial stutter step, the U.S. Department of Defense (DoD) was largely successful in coping with the pandemic in its first year.

DoD's Experience Maintaining Readiness, Training, and Operations

The military experience parallels that of U.S. society

Although militaries have mechanisms to isolate themselves from the broader society—separate and restricted places of work (bases), separate housing, and separate medical establishments—they cannot fully escape the effects of pandemics. As the chart below shows, DoD has experienced the same three waves of infection as U.S. society and with the same increasing levels of intensity.

Figure 1: Comparing New U.S. and DoD Case Trends



CSIS Defense360
 Source: Johns Hopkins Coronavirus Resource Center
 & Coronavirus: DoD Response

Source: “Covid-19 Response Updates,” as part of the *Combating Covid-19* series on Defense 360, <https://defense360.csis.org/series/combating-covid-19/>.

That DoD pattern in 2020 parallels the history of the 1918–1919 influenza, which also had three waves affecting both the military and civilian society.² Although these experiences provide only two data points, a general rule in pandemics may be that the military cannot avoid what is happening in the broader society.

USS *Roosevelt*’s early missteps triggered a pause followed by new procedures

DoD recognized that core activities such as training and deployments need to continue during a pandemic. As General David Berger, commandant of the Marine Corps, noted, the military cannot take a knee.³ Initially, however, DoD did not fully appreciate what was needed to continue operations in a pandemic environment. The experience of the USS *Roosevelt* (CVN-71) captured these early missteps. The crew was initially infected during either a port visit to Vietnam or by visitors flying out to the ship. The virus then spread rapidly, and it was later found that the Navy had not been adequately implementing existing policies, plans, and procedures for minimizing the spread of infectious diseases. The outbreak became so bad that the ship had to stop at Guam, offload the crew, and take steps to

contain the virus. Eventually, over 1,200 crew members became infected, of whom about 20 percent were asymptomatic. Twenty-three were hospitalized, four needed intensive care, and one died. During this experience, the commanding officer was relieved after public disagreements with the secretary of the Navy, heightening media attention.⁴

Across the department, the military services cancel exercises and halted the deployment of units, the transfer of personnel, and the input of new recruits into basic training (those already in training continued).⁵

These changes were not sustainable. The lack of new recruits caused military end strength to decline at a rate of about 2 percent per month, though it would take several months before this decline would appear in operational units. Stopping ship deployments would lead to a reduced U.S. global presence and create power vacuums in volatile areas of the world. Pausing personnel transfers would disrupt the plans of hundreds of thousands of military families and leave some families overseas for extended periods of time.

DoD implemented a broad set of new procedures

In response to the pandemic, DoD implemented a broad set of new procedures, paralleling those in U.S. society. Earlier than other elements of society, however, DoD accepted that these conditions would be “the new normal,” as former secretary of defense Mark Esper said, until a vaccine was developed.⁶

Precautions included extensive telework, the provision of personal protective equipment (PPE) (including masks), the distribution of sanitizer, deep cleaning of workspaces, social distancing, and restrictions on gatherings.

In addition, DoD was able to take actions that are not available to most civilian organizations.

- **Quarantine before deployments, whether going aboard ship or on exercises.** Typically, these periods (called “restriction of movement”) last two weeks, although services have experimented with shorter periods. The services do this by isolating units and crews at dedicated facilities and testing them regularly so that they are infection-free upon deployment or the beginning of training. For example, before recruits arrive at the Navy recruit training depot in Great Lakes, Illinois, they spend two weeks in isolation, previously at an unused theme park and now at Fort McCoy, Wisconsin.⁷
- **Quarantine after arrival overseas.** Individual military personnel and families moving overseas have to quarantine for two weeks and test negative before they can move into the general population.
- **Isolation while deployed.** Ship crews are not permitted ashore and ground units are not allowed to mix with local communities. This has kept local infections from affecting military personnel and assured host nations that U.S. military personnel would not infect local populations. However, the isolation has also constituted a significant hardship since one of the benefits of deployments is the opportunity for personnel to get off the ship or off the base and experience a foreign country.
- **Tight social controls.** The military is able to impose more effective restrictions on personal conduct because of the discipline instilled in the workforce and, if necessary, penalties under the Uniform Code of Military Justice. Thus, when the military specified restrictions on personal behavior, such as avoiding groups, dining outside only, and limiting travel, these restrictions were more likely to be observed.

Success followed

Precautions allowed deployments, training, and personnel movement to recommence without the collapse of readiness, the fraying of alliances, or the emboldening of adversaries that some had predicted.⁸

Input of recruits into basic training resumed after a pause of about three weeks. Recruitment itself made a successful transition to going fully remote as the services met their recruiting targets for FY 2020.⁹ Personnel movement (“permanent change of station” in military terms) recommenced in June 2020 after a three-month pause.

The Army began major collective training exercises in mid-July, after a test rotation in June. Precautions were elaborate, including individual PPE (e.g., eye protection, gloves, and N95 masks and face shields), two bottles of hand sanitizer a day per person, one no-touch thermometer for every 10 soldiers, temperature checks twice a day, social distancing on transportation, and isolation at home station for two weeks before deployment.¹⁰

Navy ship deployments began earlier. Learning from the USS *Roosevelt* debacle, the *Nimitz* strike group and the USS *America* were able to deploy in April using new protocols, which have been continually updated since.¹¹ In September, when a small group of sailors tested positive on the USS *Ronald Reagan*, the Navy was able to limit infections and continue operations.¹² After imposition of the protocols, only one ship had to cancel or curtail a deployment because of the pandemic.¹³

The large Baltic BALTOPS and Rim of the Pacific naval exercises were still held but took place entirely at sea. The Army conducted Exercise Saber Junction with North Atlantic Treaty Organization (NATO) allies in August with a variety of mitigation efforts that included social distancing, masks, and rotational shift work.¹⁴

In May, Marines restarted deployments to Darwin, Australia, after a late March delay due to the pandemic. The Marine Corps’ deployment included a smaller force of 1,200 (down from 2,500 last year) and was subject to a 14-day quarantine upon arrival.¹⁵

Overseas deployments have been particularly sensitive since the United States has a higher, sometimes much higher, level of infection than other countries. This was particularly an issue for the government of South Korea, which has been quite successful in stopping the spread of the virus. In response, the U.S. Forces Korea command took aggressive action to prevent infection, especially into the host country, and to limit the spread when it occurred. Its aggressive actions were described as “the gold standard.”¹⁶ Similarly, when several individuals tested positive at the Marine Corps Air Station Futenma in Okinawa, Japan, all personnel were ordered to shelter in place.¹⁷ As a result of this and other precautions, the deployment of U.S. forces overseas during the pandemic has not engendered significant pushback from host countries.¹⁸

An adverse effect of the pause in new deployments was that some deployed ships and military units extended their deployments for much longer than originally planned, to avoid gaps in overseas presence. For example, the *Eisenhower* strike group left port in February for a one-month pre-deployment exercise but rolled into its deployment and ended up being away for seven months. One ship of the group, the USS *Stout*, was away for 215 days.¹⁹ The *Truman* battle group had a similar experience, extending its deployment to seven months. The deployments were particularly difficult because there was no shore or off-base leave. A lesson for the future is that deployment extensions can only fill a gap for a limited time.

While there has been little near-term effect on readiness, the long-term effect remains unknown

DoD proved in year one of the pandemic that by adopting best practices military organizations can maintain their operational readiness. They can both sustain security missions and support civil authorities. It is unknown whether there are long-term readiness declines as a result of limitations on training.

DoD has been emphatic that U.S. forces remain capable of meeting all national requirements. General Mark Milley, chairman of the Joint Chiefs of Staff, stated early on: “I can report to you that our readiness is still high, our readiness is still strong, and we are able to deter and defeat any challengers that may try to take advantage of these opportunities at this point of crisis.” Senior officials have continued to make similar statements. For example, former secretary of defense Mark Esper stated in October: “If called upon the fight tonight, are we ready? . . . The answer to that question is a resounding yes!”²⁰

However, the military services have said little about whether or how the pandemic may be affecting elements of readiness. For example, when the secretary of the Navy, the chief of naval operations, and the commandant of the Marine Corps testified to the Senate Armed Services Committee about readiness, they did not list the pandemic as a cause for any readiness problems. The only mention of the pandemic was in relationship to a possible decline in the DoD budget.²¹

General Charles Brown, in his confirmation hearing to be chief of staff of the Air Force, did say that “the full impact of Covid-19 to overall Air Force readiness is not fully known, but there will be a negative effect.” However, he also said, “the Air Force is manned, equipped, and trained to execute the NDS . . . Our front-line units required in the first 30 days of Combatant Command war plans are ready and postured to respond in crisis.”²²

Because deployments, exercises, and major training events have restarted and are major drivers of military proficiency, operational readiness might well continue at a high level. Nevertheless, there have been training restrictions. Basic training has lost some events, and many training exercises have been curtailed or limited. For example, Defender Europe 2020, originally slated to be the third-largest exercise since the Cold War, was scaled back, cancelling some linked training events and reducing the number of U.S. personnel involved.²³

Maintenance of equipment does not seem to be affected since that environment—workshops and motor pools—is more easily controlled. Indeed, equipment availability seems to have improved, mainly as a result of recent budget increases.

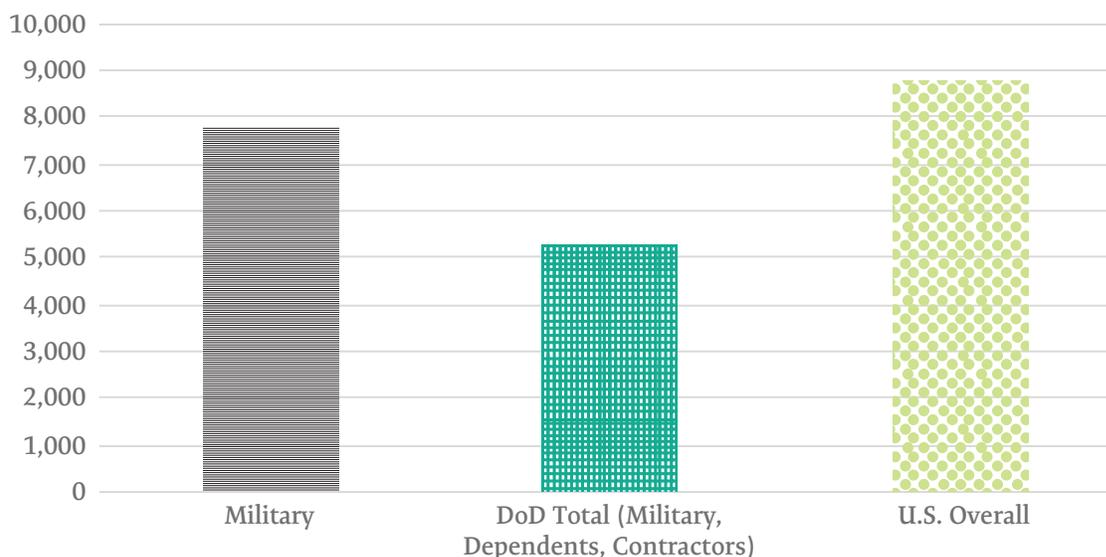
The military’s infection rate remains lower than that of society

Many observers expected that the military would be a hot spot for infection.²⁴ Militaries have historically been plagued by disease, and the continuation of operations made military personnel and those who support them particularly vulnerable. This has not been the case, however. Military personnel have an infection rate about 15 percent below that of U.S. society as a whole, and the rate for DoD personnel is about 40 percent below, measured by cumulative cases from the beginning of the pandemic.

It is important to note, however, that these are averages. DoD has about 150 major bases worldwide.²⁵ There will be variation around the average for both DoD and individual communities. As a result, a few bases will have higher rates than the surrounding community even as most bases have lower rates. (When thinking about effects on local communities, “DoD total” is the appropriate measure since bases contain a mix of military, dependents, government civilians, and contractors.)

It is worth noting here how limited DoD’s data are on the pandemic. DoD provides no local, unit, or regional data and, as noted elsewhere in this paper, has ceased publishing other kinds of data as well.

Figure 2: Cumulative Covid Incidence per 100,000 People (as of 3/14/2021)



Source: U.S. population case data is from Johns Hopkins Coronavirus Resource Center, <https://coronavirus.jhu.edu/map.html>; and U.S. population data is from the U.S. Census Bureau, <https://www.census.gov/topics/population.html>. DoD data comes from the Department of Defense, “Coronavirus: DOD Response,” <https://www.defense.gov/Explore/Spotlight/Coronavirus/>. Military personnel includes both active and Guard/reserve. The total number of military personnel is 2.143 million. DoD overall includes military personnel, dependents, government civilians, and contractors. Total number is 4.8 million.

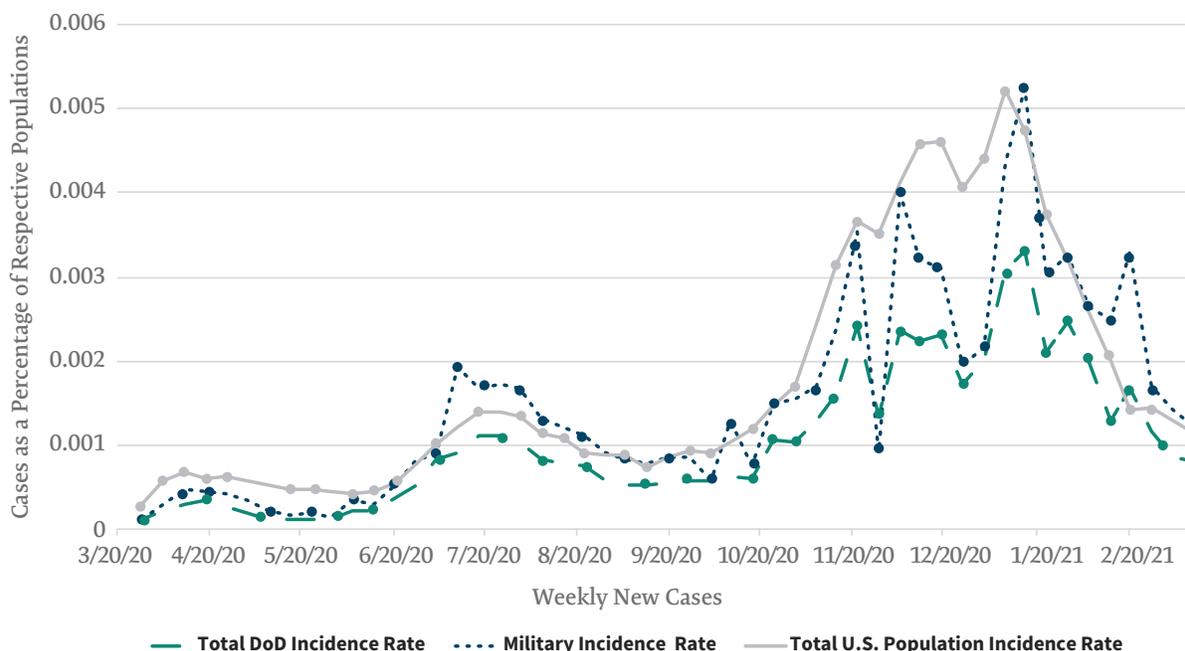
The different infection rates between DoD and the United States overall do not appear to be the result of differences in testing rates. Although DoD does not routinely publish the number of tests conducted, officials did provide a set of numbers in October 2020. The number of military tests, stated as about 40,000 per week, was a rate of 0.39 percent per day. This was equivalent to what was happening in U.S. society at the same time, with 1.1 million tests per day, or 0.33 percent of the population.²⁶

Infection rates have varied over time, however. As the chart below indicates, the rate for DoD overall has been relatively constant at about 50 to 60 percent of the rate for the United States as a whole. The military rate has shown much more variation, for reasons that are not entirely clear. It may be that the resumption of training and deployments after May 2020 pushed rates up.

The spikes in January and February 2021 are worrisome. The cause of the military spikes is not clear since there have been no apparent changes to deployments or operating procedures. The initial spike may have been caused by travel over the Christmas holiday since many military personnel are separated geographically from their immediate and extended families. The spike after Thanksgiving lends some credence to this. It is worth noting, however, that even with the resumption of operations

and the recent increase, the military has not been a hotspot, experiencing infection rates at least comparable to society as a whole.

Figure 3: Comparing U.S. Population with Total DoD and Military Incidence Rate



Source: Johns Hopkins Coronavirus Resource Center and DoD, “Coronavirus: DOD Response.” DoD case data was collected as it was released as part of our weekly “Covid-19 Response Updates” found on CSIS’s Defense 360, <https://defense360.csis.org/series/combating-covid-19/>.

Fatalities are much lower for DoD and the military

The fatality rate (measured as deaths divided by confirmed cases) for military personnel is only 1/130th what it is for U.S. society as a whole (0.014 percent vs 1.82 percent). Fatalities for military personnel are much lower than even an age-adjusted rate for U.S. society (weighting statistics for U.S. society by the military age demographics): 0.013 percent vs 0.085 percent.

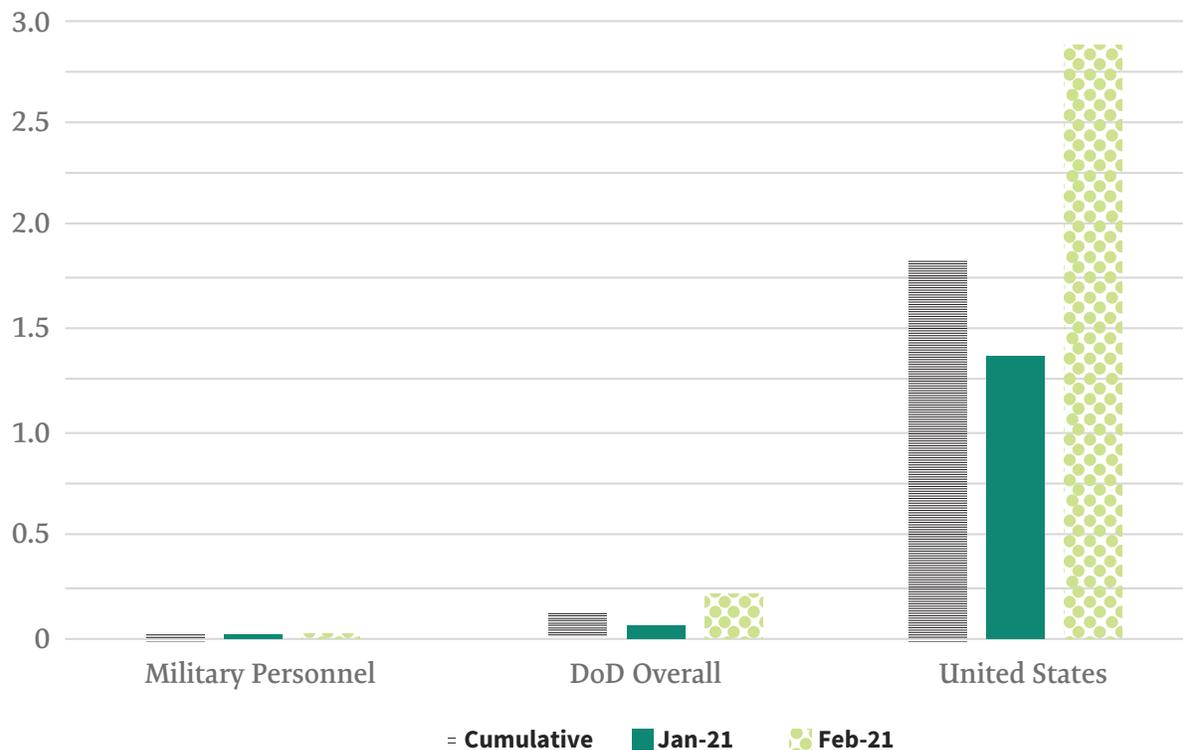
This is not surprising since military personnel are young, healthy, and provided with high quality medical care. It is a substantial difference from the 1918–1919 pandemic, which was relatively more lethal to young people in general and military personnel in particular. In the 1918–1919 pandemic, the number of military deaths from influenza (45,000) approached those from World War I combat operations (53,400).²⁷

DoD personnel overall also have a much lower level of fatality (0.12 percent vs 1.82 percent), which is again not surprising since this group is healthy enough to be working, has access to high-quality medical care, and does not include elderly personnel.

Fatality rates had been quite stable. However, in January 2021 rates went down both for U.S. society overall and for DoD. In February, these fatality rates doubled from their January level. The reasons for this instability are unclear, but possibly due to the interaction of better treatments and new Covid variants. The low infection rate for military personnel means that deploying military personnel to support civilian communities represents a low risk to the population. The low fatality rate means

that, in extremis, the United States could deploy its military globally. Although many servicemembers would get sick, and this would have some effect on operations, the number of deaths would be low compared to what would happen in a conflict.

Figure 4: Covid Fatality Rates



Source: Johns Hopkins Coronavirus Resource Center, U.S. Census Bureau, and DoD, "Coronavirus: DOD Response."

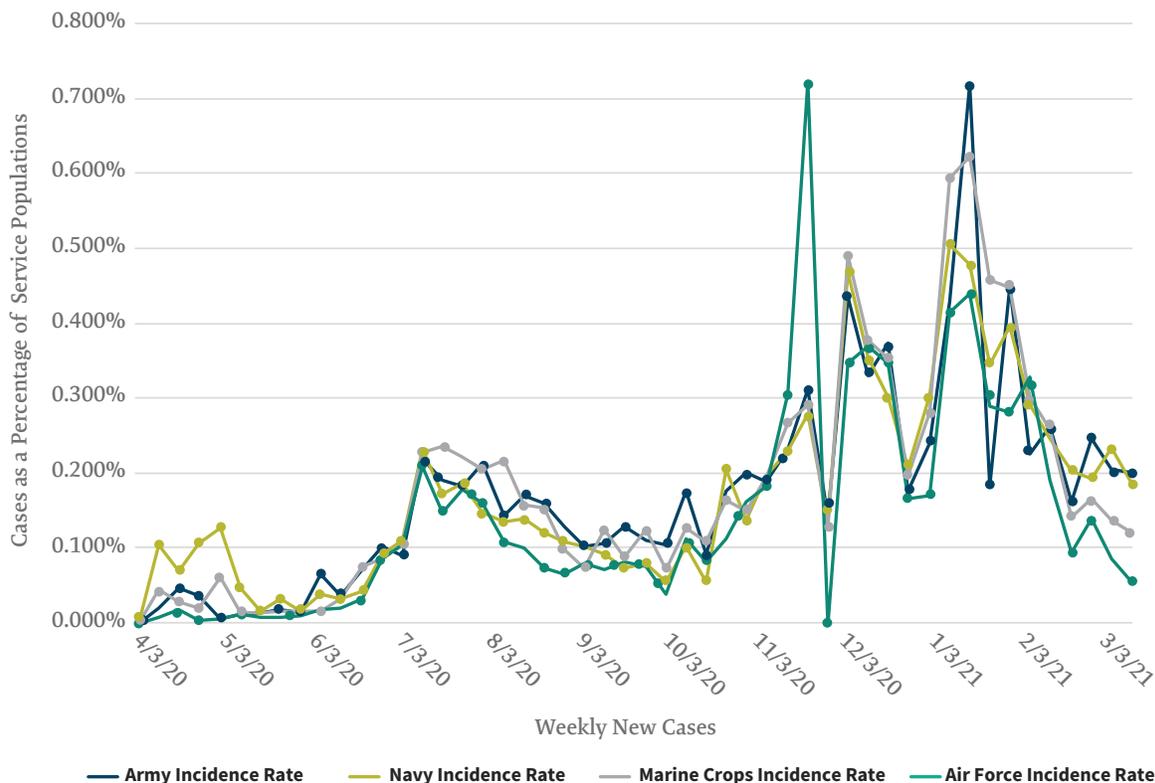
Different service approaches have produced largely the same positive result

The services appear to have taken slightly different approaches as individual bases were given the authority to adjust their procedures based on local conditions.

However, service infection rates have been largely the same since the beginning of the pandemic. The higher Navy rate early on may have been an artifact of the significant outbreak on the USS *Roosevelt* and the more intensive testing on Navy ships that followed. Because infection rates are essentially the same, the number of cases varies according to the size of the military service, with the Army having the most cases because it is larger than the other services.

This indicates that a centralized and standardized response may not be necessary if components follow general guidelines and emerging best practices. Allowing some local experimentation may also help identify best practices.

Figure 5: Comparing Military Services' Incidence Rates



Source: Johns Hopkins Coronavirus Resource Center, U.S. Census Bureau, and DoD, "Coronavirus: DOD Response."

DoD has a problem of vaccine hesitancy among servicemen and their families, not unlike the broader U.S. society

The military is facing high levels of vaccine hesitancy among servicemen and their families, which has the potential to complicate DoD operations in the future. The military cannot currently require Covid-19 vaccinations for U.S. troops because the vaccines have received emergency use authorizations, as opposed to full authorizations, from the U.S. Food and Drug Administration.

During a hearing before the House Armed Services Committee on February 17, Major General Jeff Taliaferro, the vice director of operations for the Joint Chiefs of Staff, said that approximately one-third of those who had been offered the vaccine turned it down.²⁸ As of February 24, DoD had received 1,296,965 doses, administered 887,091 doses, and vaccinated 249,649 personnel with both doses.²⁹

Earlier surveys suggested even higher rates of hesitancy among the military and military families, reporting that 49 percent of U.S. troops were not planning on receiving the vaccine if offered, and 11 percent were undecided. Among military spouses, 54 percent said they would not get the vaccine and 14 percent were undecided. These alarming figures prompted the federal government to conduct outreach campaigns targeting U.S. troops and their families, including a February 4 virtual town hall featuring First Lady Jill Biden, Director Anthony Fauci of the National Institute of Allergy and Infectious Diseases, and General Mark Milley.³⁰

The Navy has begun using incentives to encourage vaccination. For example, sailors who get vaccinated do not have to quarantine before deployments. That means more days with family, friends, and normal activities. Vaccinated sailors are also able to get off the ship and enjoy liberty in “safe haven” ports. This is a huge benefit. One of the reasons to join the Navy is to “see the world,” but that is impossible when you are confined for months aboard ship because of the pandemic.³¹

The solution to vaccine reluctance may be a combination of education and incentives.

DoD's Experience Supporting the Civilian Response

Militaries have broad capabilities that can usefully be brought to bear as societies struggle to contain a pandemic. In the end, however, that public health response needs to be led by civilian organizations.

DoD's term for such support is Defense Support of Civil Authorities (DSCA). This is defined as "support provided by federal military forces . . . in response to a request for assistance from civil authorities for domestic emergencies, cyberspace incident response, law enforcement support, and other domestic activities or from qualifying entities for special events." It is a long-standing military mission with a well-developed body of doctrine and guidance.³² Other relevant doctrine and guidance covers public health emergencies; chemical, biological, radiological, and nuclear situations; and force health protection.³³

Because of the pre-existing doctrine and the large medical and logistics capabilities resident in DoD, the defense establishment was able to provide substantial support to civil authorities. This was a different situation from the 1918–1919 pandemic. At that time, the situation was reversed. Civil society provided support to the military because the military was so focused on fighting a world war. As military cases proliferated during that earlier pandemic, they overwhelmed the military healthcare system, so civilian hospitals took care of military personnel.

DSCA during the Covid-19 pandemic consists of four basic elements: medical augmentation, logistics and administrative support from the National Guard, rapid contracting capabilities to tap into civilian capabilities, and Operation Warp Speed.

The medical augmentation experience shows that additional personnel are particularly needed

Although the military medical community is large (111,000 active-duty personnel, 68,000 reserve component personnel, and 51,000 civilians), military medical support to civilian communities has had severe limitations. The active-duty medical establishment is fully engaged day-to-day with caring for 9.6 million beneficiaries—military personnel, their dependents, and retirees. This support could not be abruptly terminated.³⁴ Reserve medical support would normally be available for deployment, but these personnel come out of the civilian medical community, and their mobilization would weaken local responses. This is a different situation from other kinds of domestic emergencies, which affect only a single region.

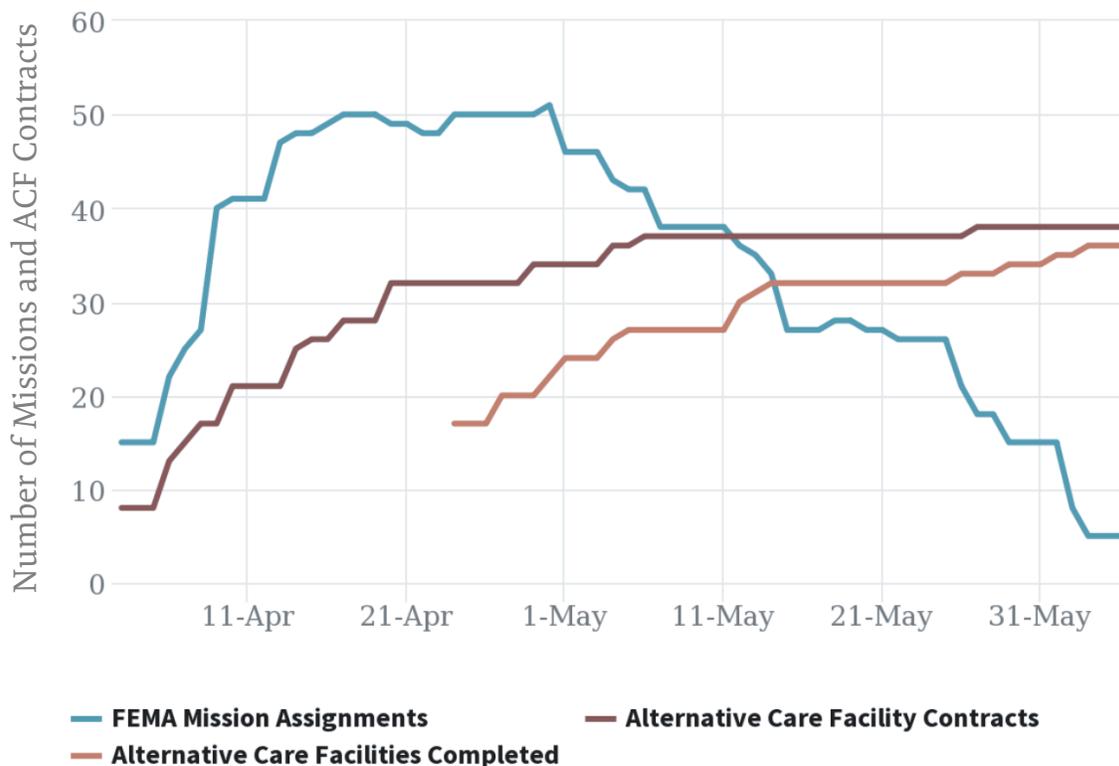
Nevertheless, several highly visible military deployments took place. The hospital ship USNS *Comfort* went to New York, and its sister ship USNS *Mercy* went to Los Angeles. Their psychological impact was immense: large white ships with red crosses moving into the most intense pandemic hot spots at a time when infections were rising and the peak of the emergency was unclear.

However, the hospital ships ended up treating very few patients and attracted criticism. *Comfort*, for example, with 12 operating rooms and up to 1,000 beds, treated only 182 patients; *Mercy* treated only 77. A key limitation was that the hospital ships were designed for combat casualties, so they had many beds but few isolation wards suitable for infectious disease. Initially, it had been envisioned that the hospital ships would take non-Covid patients to relieve stress on local hospitals. However, the transfer protocols were burdensome, and civilian doctors were reluctant to release their patients to a different medical system.³⁵

The experience of land facilities was similar. Field hospitals were established in New York City, Seattle, New Orleans, and Dallas, among other cities, but they treated few patients.³⁶

The Army Corps of Engineers rapidly built a variety of overflow facilities in convention centers, hotels, and dormitories—a total of 38 by mid-June—in response to concerns that hospitals would run out of beds.³⁷ However, hospitals generally had sufficient capacity, so usage of the surge facilities was light.³⁸ For example, the Army Corps of Engineers built a 1,000-bed hospital in the Javits Center in New York, but it treated only 1,100 patients in total.

Figure 6: Army Corps of Engineers: Mission and Alternative Care Facilities



CSIS Defense360 | Source: DoD Covid-19 Updates

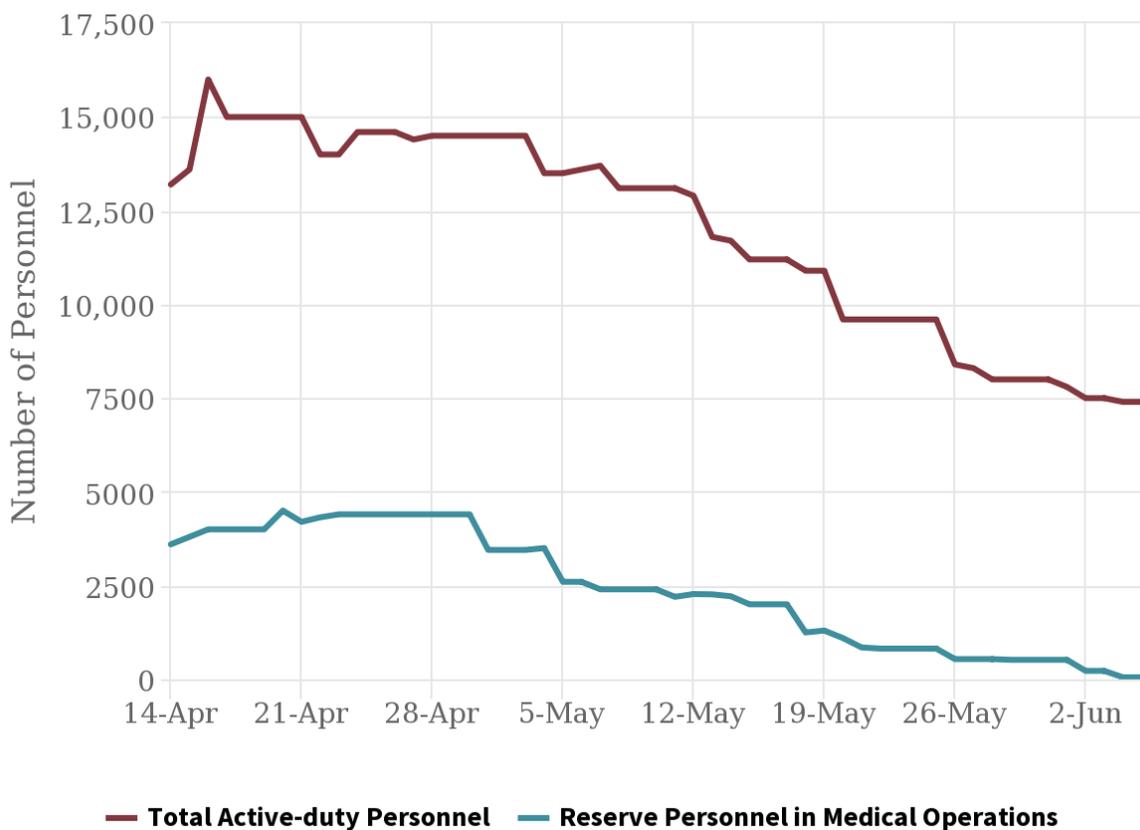
Source: “Covid-19 Response Updates,” as part of the *Combating Covid-19* series on Defense 360, <https://defense360.csis.org/series/combating-covid-19/>.

Instead, the military medical units began sending groups of personnel to augment hard-pressed local hospitals. This was much more successful, allowing doctors and hospitals to continue care for their own patients while being able to handle the surge in workload. Temporary construction attached to existing hospitals, such as pavilions used outside emergency room entrances for triage, was also useful.³⁹

Overall, the total number of active-duty and reserve personnel (non-National Guard) deployed for DSCA operations was relatively small and wound down as the first wave of infections eased. Few active-duty and reserve personnel appear to have deployed during later waves of infection, even though these were more severe than the first wave, likely because the civilian medical establishment had adjusted and could cope with the higher workload. However, lack of public DoD data prevents a definitive judgment.⁴⁰

On February 5, 2021, Secretary of Defense Lloyd Austin directed that 1,110 active-duty servicemembers will support Federal Emergency Management Agency (FEMA) mass vaccination centers. President Biden, in the national strategy for Covid-19 released on January 21, called for 100 such sites to be established across the country to accelerate the speed and scale of the national vaccination campaign. More personnel could be deployed if needed.⁴¹

Figure 7: Active and Reserve Personnel in Covid-19 Response



CSIS Defense360 | Source: DoD Covid-19 Updates

Source: “Covid-19 Response Updates,” as part of the *Combating Covid-19* series on Defense 360, <https://defense360.csis.org/series/combating-covid-19/>.

DoD also provided medical supplies from its war reserve stocks. While such supplies are useful, their limited size must be kept in mind. The United States has a population of about 330 million. DoD’s wartime inventory of medical supplies is designed to support a deployed combat force of about 500,000 troops. Thus, any supplies DoD can provide will be vastly overshadowed by what is available in civil society.

The National Guard provided valuable logistics and administrative support

The National Guard is a uniquely U.S. organization. A successor to the colonial militia, the National Guard comes under the command of the state and territory governors unless federalized. Thus, governors can call on these capabilities without having to go through the federal bureaucracy. Because the troops are local, there is a faster response rate and less feeling of military occupation.

Every state and territory called out some National Guard for support during the pandemic. Although most states had limited call-ups, mostly to staff planning and coordination cells, New York, New Jersey, Nevada, Washington, and California had extensive National Guard activations because they were hardest hit by the pandemic.⁴² These activations were done under Title 32 of the U.S. code,

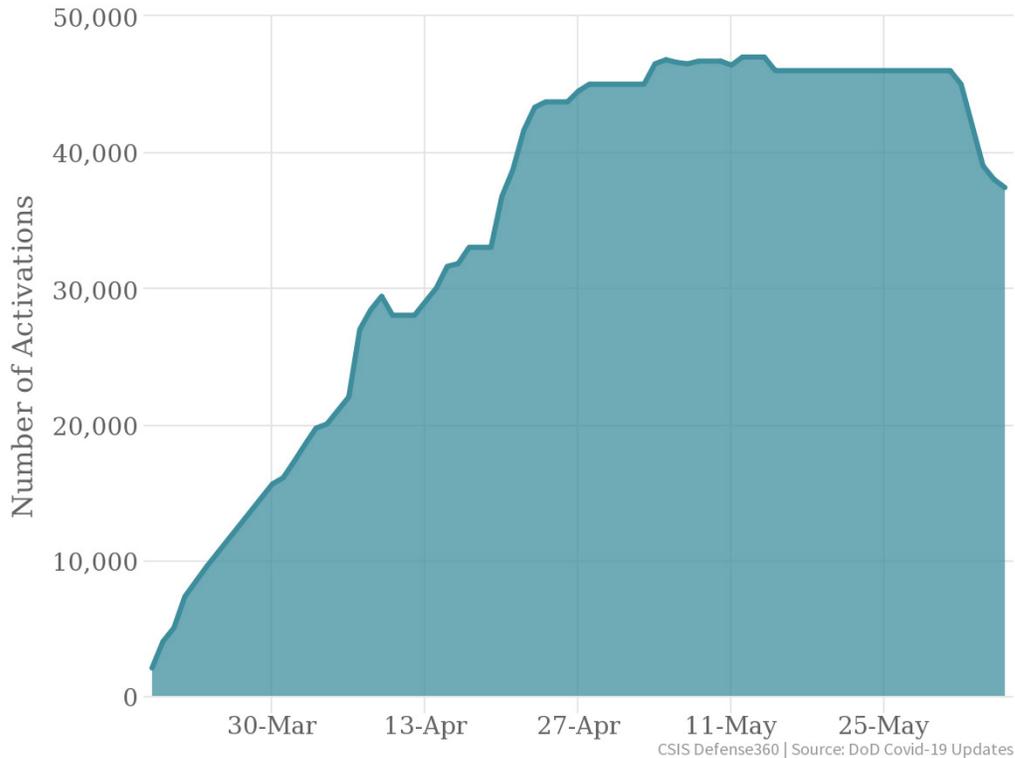
which means that the troops remained under the command of the governor but could be paid for by the federal government.

The troops mainly provided emergency logistics and administrative support until civilian mechanisms could be put into place. For example, they warned residents about the need to quarantine, delivered PPE and food, cleaned spaces, staffed call centers, and ran testing centers.⁴³ Although the nature of the emergency was unprecedented, the functions performed were not fundamentally different from what states do during a natural disaster. Most operations went smoothly, although some unique coordination problems arose.⁴⁴

Activations of National Guard troops for pandemic support peaked at 47,000 in early May 2020. This represented 11 percent of total National Guard personnel (443,700; 336,000 in Army National Guard, 107,700 in the Air National Guard). Thus, the pandemic demands did not overstretch the National Guard, which had large capabilities still available. Although some states used relatively more of their National Guard personnel than other states, regional agreements allowed hard-hit states to call on resources from other states.

However, pandemic activations are only one demand on the National Guard, others being ongoing mobilizations for overseas operations and short-term activations for civil disturbances. Total demands peaked at about 100,000 personnel. Although this still comprised only 23 percent of National Guard strength, the continuous nature of the activations and their often unpredictable timing produce stress and need careful management.

Figure 8: National Guard Activations in Response to Covid-19



Source: "Covid-19 Response Updates," as part of the *Combating Covid-19* series on Defense 360, <https://defense360.csis.org/series/combating-covid-19/>.

Although administrative and logistical support came mostly from the National Guard, some did come from active-duty forces. For example, the Air Force airlifted Covid-19 test kits and transported back to the United States those U.S. citizens who had been stranded abroad due to curtailment of commercial air transportation.⁴⁵ In general, the civil sector can provide most logistical support in an emergency given the vast capabilities of the U.S. economy. However, these are good examples of the limited occasions where the military needs to step in because civilian capabilities are unavailable.

In enumerating the support that DoD provided to local authorities, one element is missing: law enforcement. This is not an accident. DoD and National Guard leadership did not want to have servicemembers taking action against civilians. Early in the crisis, some commentators imagined civil disorder by a panicked populace. This did not happen, and, in fact, rarely happens. Populations in crisis do not descend into disorder but coalesce to build and cope, even if government is absent.⁴⁶

Rapid contracting capabilities—combined with the Defense Productions Act—proved critical

Civil society contains many capabilities that governments need during a pandemic, such as light construction, transportation, and supply. The challenge is getting access to these capabilities, and rapid contracting allows such access. This was the major contribution of the Army Corps of Engineers (ACE). In popular imagination, ACE would bring construction equipment and start building things. In fact, ACE is mainly a contracting organization. For example, contracting could get civilian construction companies to build temporary facilities where needed to handle triage at hard-pressed hospitals. There was no need to bring in military construction equipment when the local civilian firms were immediately available and needed work.

Rapid contracting does not just happen. Prior planning and the existence of deployable contracting capabilities are crucial. Without them, abuses and scandals occur. This was the experience of the U.S. military during the 2000s when it rapidly ramped up contracting in Iraq and Afghanistan without having adequate expeditionary capabilities available.

The rapid contracting response during the pandemic will not entirely avoid mistakes and possible abuses. Some commentators have already raised questions about whether taxpayers have been sufficiently protected through the retention of intellectual property rights that the government has paid for. Others have questioned whether all the purchases have been appropriate.⁴⁷ More questions will certainly arise as contracts are reviewed and audited. Nevertheless, so far, the massive contracting effort seems to have avoided the worst of the scandals of the 2000s. This is a major achievement that may be unrecognized because problems that do not happen are invisible.

Another aspect of rapid contracting was the use of the Defense Production Act (DPA) (50 U.S.C. § 4502 and following). This long-standing legislation, originally passed in 1950 and frequently modified, has two provisions most relevant here. The first (Title I) allows the government to get priority at civilian production facilities during an emergency. The second (Title III) allows the government to support critical industrial capabilities that might disappear otherwise. The Trump administration used DPA authorities several times.⁴⁸ The DPA also appears to have been a useful threat, even when not used.⁴⁹ The American Enterprise Institute cataloged hundreds of pandemic-

related production changes made by individual companies, mostly driven by market forces but also by threats of government action.⁵⁰

However, the DPA became controversial because many observers believed the government was not using it extensively enough. The Congressional Research Service noted, “the [Trump] Administration’s DPA implementation pattern appears sporadic and relatively narrow . . . Most direct Title III funding has been awarded to the defense industrial base [not for health articles].”⁵¹ President Biden has recently pledged to expand its use. He has also committed to using the DPA to establish a more resilient domestic supply chain for key medical supplies.⁵²

A major limitation is that the DPA can only use existing capacity, at least in the near term. For example, it became clear early in the crisis that much of the medical supplies came from overseas, particularly from China. However, China and other countries were reluctant to release supplies that were needed for domestic use. Because U.S. domestic production capacity was extremely limited, more contracts just produced longer backlogs until production could be increased. Thus, the DPA cannot substitute for adequate planning and preparation.⁵³

Operation Warp Speed was essential to accelerated development of vaccines

Operation Warp Speed (OWS), the military/civilian partnership to develop a vaccine on an accelerated timeline, leveraged several military capabilities.⁵⁴ One was rapid contracting, as discussed above. Rapid contracting allowed the federal government to quickly push money out to pharmaceutical companies to develop, test, produce, and distribute vaccines.

Another was the DPA, which the military invoked to get priority for vaccine production, for example, for pharmaceutical production vats and glass vials. This ensured that avoidable production bottlenecks would not delay vaccine production and distribution.⁵⁵

The military is also providing logistics and administrative support. For example, National Guard troops will help with distribution in many states.⁵⁶ President Biden’s national Covid-19 strategy specifies a DoD role: “The Department of Defense (DoD) will bring its logistical expertise and staff to bear, with the Federal Emergency Management Agency (FEMA) managing set-up and operations [of community vaccination sites].” This support includes both the National Guard and “the Army and Navy Medical Corps.” DoD, with other government agencies, will help train the public health workforce. However, it appears that the military will not move the vaccine, except in special cases where civilian capabilities do not exist.⁵⁷

Providing a foundation for OWS is the extensive military medical research and development (R&D) establishment. Part of this R&D effort is understanding diseases that might impair military operations. Thus, military medical research focuses especially on exotic diseases that the military might encounter in its overseas operations and that the civilian sector might not pay sufficient attention to. As a result, the military has deep expertise in the identification and treatment of exotic diseases and the development of vaccines and treatments to deal with them.⁵⁸ Military medical R&D also pursues non-warfighting medical research, often by direction of Congress.⁵⁹

Cost of the military response is very affordable

This cost has been modest, at least by national security standards. The CARES Act of March 2020 provided \$10.5 billion for DoD, of which \$1.5 billion was for National Guard operations and smaller amounts were for active-duty and reserve (non-National Guard) operations.⁶⁰ DoD has not asked for any further funds for operations, so this amount was presumably adequate. (DoD has asked for more money to support the industrial base.) There had been some controversy under the Trump administration about reimbursing the National Guard, with some states only receiving 75 percent of their costs. The Biden administration issued an executive order to compensate states and territories for 100 percent of their National Guard costs.⁶¹

The rapidity of this congressional response shows that Congress, although slow and stalemated on many issues, including annual appropriations and authorizations, can move quickly in an emergency.

Closing Reflections

DoD should stay the course into the future, with a few select adjustments

The guiding principle for DSCA still holds: civilians lead, and the military supports. Political leaders should focus DoD on supporting civil authorities, not replacing them. The most valuable intervention came through military medical personnel strengthening the existing civilian medical establishment rather than constructing new hospitals and facilities. Military support was particularly valuable during the early stages of the pandemic, before the civilian establishment had adjusted and could cope. Needs eased as the civilian response adapted.

At the beginning of the pandemic, many observers and local officials asked for the military to take charge, drawn by its massive capabilities and the high level of respect it enjoyed in the public estimation. However, this would not have been appropriate. The civilian side of government has the major organizations for dealing with public health—the Centers for Disease Control, National Institutes of Health, Federal Emergency Management Agency, Biomedical Advanced Research and Development Authority, and Food and Drug Administration. Further, militarizing a response has many downsides, from disrupting traditional civil-military balances, to diverting DoD attention from warfighting medical concerns, to disrupting existing medical delivery systems. Introducing a new medical system into an area during a crisis is unlikely to be successful because it takes time to develop new networks. Further, the local medical establishment will not be comfortable working with this new system.

The boundaries of DoD's role remain a sensitive matter politically. One key communications lesson is to avoid any mention of martial law. This just plays into disinformation campaigns by adversaries. Even the slightest mention will be seized upon.

DoD should continue to apply standard protection procedures and precautions—because they work. DoD and the military had a lower incidence of infection because they strictly followed best practices for containing the pandemic.

The Office of Management and Budget, in conjunction with Congress, should provide funds to cover the extra costs. Incremental costs of military support are relatively low but must be covered. If they are not, the military will hesitate to provide support to civil authorities, calculating the trade-off on other activities.

Finally, DoD should maintain expeditionary contracting capabilities. These were crucial for tapping into the vast capabilities of the private sector. However, these capabilities are often regarded as “overhead” and vulnerable to reductions during management reform efforts. That needs to be avoided, particularly as the Biden administration looks to enhance efficiency within DoD.

Some adjustments are warranted

Sustained proactive efforts are needed internally to engage forces on vaccine hesitancy, answering legitimate concerns and ensuring that forces have access to reliable scientific information. Incentives to get vaccinated, like those the Navy has instituted, should be expanded DoD-wide, as education and exhortations are unlikely to be sufficient in themselves.

Some low-cost enhancements to dual-use capabilities are both possible and needed. These enhancements include potential upgrades to military field hospitals so that at least some of them can provide more isolation for infectious diseases. This would also facilitate deployment to overseas disease outbreaks, such as DoD did for Ebola in 2014. The hospital ships could be reconfigured to contain more isolation beds. Emergency use inventories could include a full set of medical equipment and supplies suitable for dual use. Finally, training for operations in infectious disease environments would prepare military medical units for future pandemics.

However, fundamental restructuring of DoD’s medical establishment to meet domestic public health emergencies would be unwise. DoD’s medical establishment needs to focus on combat care in the first instance and, after that, care for its active-duty personnel, dependents, and retirees. Diverting attention to the civilian sector will diminish its ability to meet these primary missions. DoD should use the DPA in innovative ways to enhance medical supply chain resilience. The DPA provides a mechanism to sustain certain U.S. industries that provide important national security capabilities. This should include having some domestic sourcing of key medical supplies, as the Biden administration has already committed to doing. That commitment needs to be followed through year after year; otherwise budget pressures will gradually drive the federal government and civilian medical institutions to lower-cost, overseas suppliers.

DoD should strengthen transparency through increased publication of data and sharing of after-action reports. Extensive and understandable data are particularly important in an environment where misinformation and disinformation abound. Manipulating the crisis narrative is a hallmark of U.S. adversaries.⁶²

Although DoD does publish some statistics three times a week, it has left many blanks. For example, the DoD website does not explain what is in the various elements of its published statistics or how the calculations are made. For example, there should be a clarifying statement on whether or not

reserve forces are included in the reported military case numbers. This lack of explanation has caused widespread confusion and even resulted in negative stories by observers who did not understand the statistics.⁶³ CSIS was able to connect with the Joint Staff office that produced DoD's pandemic statistics and thus understand how they were calculated. This mechanism is not available to every researcher or readily available to every journalist.

DoD should also recommence publishing data on National Guard and reserve mobilization, along with active and reserve troops deployed (including the number of medical personnel sent in support of domestic hospitals), and return to publishing data daily, instead of on non-holiday Mondays, Wednesdays, and Fridays.

It would be exceedingly valuable for DoD to publish lessons-learned studies on both DoD's support for the civilian sector and on military operations and readiness during the pandemic. DoD already has internal studies underway, and Congress has directed others. These need to be comprehensive, objective, and publicly available to position DoD for success in the next health crisis.⁶⁴

Conclusion

The next medical emergency will be different from the one that the world has just experienced. That emergency might not even come from a naturally occurring pathogen but from a biological weapon. Nevertheless, what has been learned so far in the Covid-19 pandemic can position DoD and the federal government for success in meeting that future crisis. Further, the insights apply not just to the United States but to other nations and their militaries as well.

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