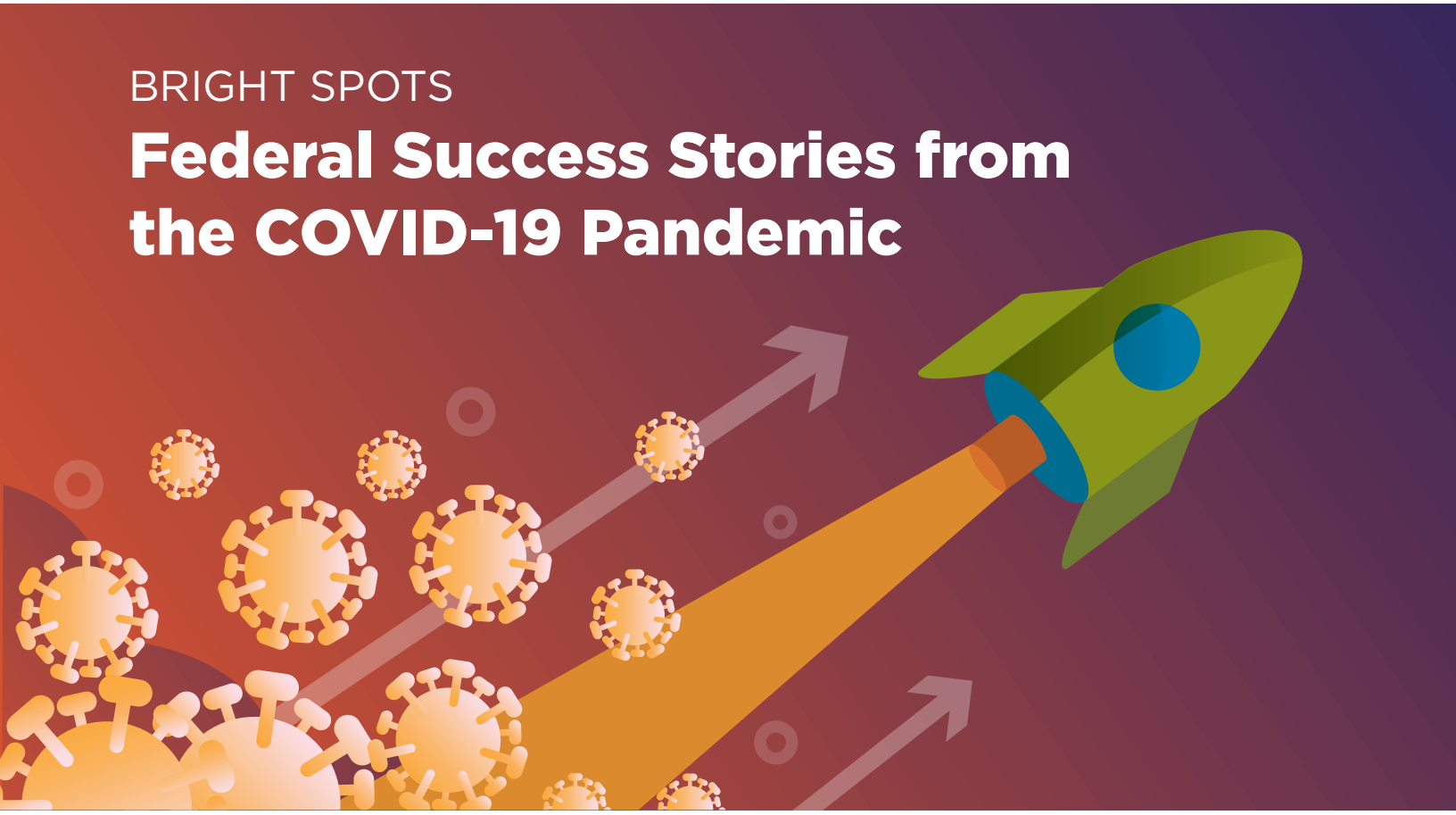
PARTNERSHIP FOR PUBLIC SERVICE

BRIGHT SPOTS

Federal Success Stories from the COVID-19 Pandemic



Despite the multitude of challenges federal agencies faced in 2020, ranging from the COVID-19 pandemic to a racial inequality reckoning to a deep economic recession, federal agencies found ways to continue their work and even shine. As the crises churned, agencies developed innovative tools to carry out their missions, took care of constituents in new ways, and rapidly modernized processes—all to better serve the public during a difficult time.

Over the past several months, federal agencies, collaborating with one another and with partners around the globe, have strived to sidestep obstacles to governing and are serving the public in new, and often better, ways. The Partnership for Public Service found many innovations and examples of public service leadership emerging from the challenges of 2020. Below are case studies from six federal agencies: the departments of Energy, Transportation and Veterans Affairs, and the Centers for Disease Control and Prevention, the National Institutes of Health and the Small Business Administration.

DEPARTMENT OF ENERGY AND THE WHITE HOUSE OFFICE OF SCIENCE AND TECHNOLOGY POLICY

The urgency involved in fighting the novel coronavirus required scientists worldwide to make scientific advancements in record time. To that end, in March 2020, the White House Office of Science and Technology Policy, the Department of Energy and IBM launched the COVID-19 High Performance Computing Consortium, a network of organizations that operate the world's fastest supercomputers. Never before has this much computing capacity been combined to work toward a common goal, according to an IBM press release.

The consortium aimed to accelerate scientific research into the coronavirus and quickly find treatments and a vaccine. By January 2021, it included dozens of organizations from around the world, including federal agencies, private companies, universities and international partners.

Computers help scientists analyze huge amounts of information, and supercomputers, built to analyze millions of pieces of data every second, are often the fastest path toward scientific discovery. They complete their analyses of scientific information in hours and days, as opposed to the weeks or months it would take using traditional computers, according to the consortium.

Researchers around the world can submit proposals to the consortium for review. Once experts from the organizations in the consortium select promising projects, the people working on those projects can use the supercomputers to test theories and answer questions about the virus. Supercomputers are made available free to the world scientific community for COVID-19 projects when, in the past, users paid to use these resources. Additionally, submitters bypass the typically lengthy proposal writing and evaluation process.

The projects chosen have the broad goal of combating the virus. A May 2020 project, for example, simulates contact-tracing mechanisms to build better systems for tracking the virus. Some projects are targeted at the spread of COVID-19 in different environments, including ones that model the virus' spread in California counties, Philadelphia and even Nepal.

Other projects are more clinical, such as investigations of the genetic makeup of the virus, how it spreads and how it might respond to various treatments, according to the website. One seeks to identify the genes that scientists believe may result in worse health outcomes for African Americans who get the virus.

Some projects are already showing results. Scientists and researchers found that the virus responsible for COVID-19 penetrates cells faster than SARS, another coronavirus—which has implications for how the current coronavirus is treated. They also addressed the shortage of ventilators by designing, testing and submitting to the Food and Drug Administration for approval a device that would enable doctors to more easily use one ventilator for multiple patients. And they proved that aerosol droplets from people speaking and breathing remain in indoor air longer than previously thought, helping us better understand how people become exposed to the virus.

Since November of 2020, the consortium has advanced to a new stage of research with a narrower focus. Projects will now more closely study patient treatments and outcomes, which are especially important as death tolls and infections continue to rise both in the U.S. and globally. The ongoing work of the consortium will continue to forward scientific progress on vital issues stemming from the pandemic.

DEPARTMENT OF TRANSPORTATION

When faced with stay-at-home orders in March 2020, the Department of Transportation successfully transitioned to 100% telework-ready in just five days, thanks to forward-thinking agency leaders who quickly distributed laptops and other resources. They also were able to rely on upgraded information technology systems the department had been modernizing prior to the pandemic.

The department's important mission became more critical when the pandemic hit, even though the number of travelers in the U.S. had plummeted. The agency had to maintain critical national infrastructure to support the delivery of essential food, supplies and medical equipment, while shifting much of its workforce to remote operations.

Other important DOT functions include supporting the transport of COVID-19 vaccines, distribution of masks and other protective equipment to travelers, continuity of air traffic control operations, and regulatory changes in response to the evolving coronavirus situation. The FAA, for example, authorized airlines to carry critical cargo on empty passenger flights, and developed guidance to ensure that air traffic control services were available around the clock while limiting the risk of virus exposure for air traffic control staff. The department also took on additional responsibilities assigned under the CARES Act, such as distributing billions in funding across the department's subcomponents and state and local transit agencies.

Led by then-chief information officer Ryan Cote, the department quickly adjusted its pandemic operations in the short term by expediting the acquisitions process, distributing 15,000 laptops and focusing on updating technology, which included tripling network bandwidth. The department upgraded its security systems to ensure that employees working from home could access important systems and data to carry out their responsibilities without putting department security at risk. DOT also made adjustments to benefit the public, such as making sure agency websites were accessible via mobile devices and regularly updated with important pandemic-related information.

The department was able to pivot to remote work quickly. Employees continued to deliver mission-critical services because agency leaders had been spearheading a long-term strategy for modernizing technology for two years before workplaces shut down in the late winter of 2020. These ongoing efforts enabled the department to be more technologically nimble when the pandemic hit. In fact, DOT went from 40% telework-readiness to 100% in just days, according to Cote.

The department's efforts demonstrate that agency leaders, with the support of congressional spending committees, benefit from planning ahead and making technology advancements before a crisis hits. Committed agency leadership, along with forward-looking strategies for modernizing IT, gave the department a head start in responding to the COVID-19 pandemic and its challenges. DOT's strides on modernization can be a model for other agencies seeking to prepare ahead of the next crisis.

DEPARTMENT OF VETERANS AFFAIRS

With coronavirus cases rapidly rising in the spring 2020, the Department of Veterans Affairs urgently needed more health care workers to combat the pandemic as increasing numbers of veterans sought virtual and in-person care. To meet this need, the department used a surge hiring strategy to recruit, hire and onboard new employees. In addition to quickly deploying new hiring processes, the VA also aimed to improve the customer experience for individuals using its online services to seek medical and mental health care.

To care for rising numbers of veterans needing its services, the Veterans Health Administration hired more than 55,000 new employees between March and October, about a fifth of whom were nurses or nurse practitioners, according to the Partnership's "Rapid Reinforcements" report. In addition to implementing this surge hiring strategy, the VHA was also able to reduce the average hiring time to 10-12 days, down from 90 days, by revamping the recruiting process and creatively using hiring authorities, along with other strategies.

The agency took advantage of more than 40 hiring authorities to meet its surge hiring needs, including several previously underused ones. These ranged from authorities used for hiring medical professionals to COVID-19-specific authorities to authorities that permit dual-compensation waivers, which allow agencies to rehire former federal employees and pay them a full salary in addition to their retirement benefits.

The agency also adapted its onboarding processes to make them more efficient. To get employees in place quickly, human resources personnel prioritized the elements of credentialing and onboarding that needed to be done before a new employee could begin working at the agency, deferring requirements such as fingerprinting and physical examinations until employees started on the job. The agency also moved online the steps that hiring managers and new employees could complete remotely, such as verifying employment eligibility. All these measures enabled the VA to quickly hire more employees to meet the critical health care needs of veterans navigating the pandemic.

At the same time the VA faced a pressing demand for in-person medical staff, much of the department's other work went virtual. The department's Office of Information and Technology led the transition to telework by distributing more than 200,000 laptops and mobile devices to employees and quadrupling its number of virtual servers. These changes, in addition to increases in virtual private networks and a more than doubling of its network bandwidth, smoothed the unexpected transition to telework and enabled employees to continue delivering on the department's mission.

Rapid hiring and technology modernization proved crucial for meeting veterans' health care needs, but the department also focused externally on improving the customer experience. Because of pandemic-related risks, the VA provided some previously in-person services virtually. For example, the department developed a COVID-19 "chatbot" using a Microsoft technology to triage veterans based on their specific questions and needs. The chat function on the VA website inquired about the user's concerns and symptoms, and then provided users with information on how to seek further medical help or how the users VA benefits may have changed due to COVID-19 legislation.

Another tool, launched when VA facilities began reopening to patients, helps prescreen veterans, caregivers and employees for COVID-19 symptoms via smartphone before they enter those facilities. This tool helped reduce wait times and took pressure off staff to conduct those screenings in person, thus reducing their risk of exposure, while enabling the VA to continue providing in-person services.

The pandemic forced the VA to rethink its health care delivery strategy and quickly hire large numbers of employees to accomplish its mission: caring for veterans and their families.

CENTERS FOR DISEASE CONTROL AND PREVENTION

The Centers for Disease Control and Prevention played a major role in responding to the pandemic, quickly developing tools and systems to overcome the challenges the virus caused. The agency invested considerable energy into building and maintaining a robust database on COVID-19 testing, infection and death rates, which has been vital in tracking and combating the virus. The CDC has also begun implementing a long-term strategy for modernizing its IT systems and is working with the U.S. Digital Service to implement it.

The agency also rethought the customer experience for an increasingly virtual world. Early in the pandemic, the CDC partnered with Microsoft to develop a coronavirus "self-checker" that helps people check their symptoms and instructs them what to do next, reducing the burden on health care systems across the country. Users who list more severe symptoms, such as shortness of breath and a high fever, are directed to seek further medical care, while those with only a slight cough might be instructed to stay home and isolate from others.

This strategy has allowed patients to triage themselves without potentially exposing themselves and others to the virus by standing in long lines at health care facilities where people do not always maintain their distance. It also encourages people who need further treatment to seek it, enabling health care facilities to provide care to those most in need. In March alone, 13 million users took advantage of the self-checker, according to Sherri Berger, the CDC's chief operating officer.

The agency had to manage more than the customer experience, however. Data on infections, deaths, recoveries and demographics is vital during any public health emergency but can be difficult to analyze and understand. The job was even more difficult because states, tribal regions, territories and counties measure and collect health data differently and with varying degrees of success. Using a rapid response team of programmers and data analysts, the CDC built a database that coordinated data, aligned demographic information and navigated legal restrictions of each political unit in the U.S.

The team worked around the clock to produce and update the database to ensure that officials at all levels—whether city, county, state or national—could set policy targeting COVID-19 that was well-informed by what was happening on the ground. Rates of infections and deaths have sometimes spiked unexpectedly over the course of the pandemic, and reliable data has enabled officials to respond appropriately to their situations.

This was not only an example of an effective rapid response team, Berger said, but also of public and private collaboration during a time of crisis. The CDC's rapid response team, as well as the agency as a whole, worked with the U.S. Digital Service to expand the agency's technological capacity. The partnership helps boost a new CDC program called the Public Health Data Modernization initiative. The agency hopes to improve how it handles public health data in the future, with goals ranging from building more integrated and cohesive data-sharing networks across jurisdictions to strengthening its workforce's capacity to analyze data and adopt new technologies.

In areas in which the CDC struggled to respond effectively to the latest coronavirus, the agency was spurred to take further action to prepare for future public health crises. For example, it created a long-term plan for IT and data modernization, taking lessons and successes from the COVID-19 pandemic. As part of this strategy, the agency sought a chief data officer—a role that would formalize the CDC's commitment to data modernization and management, and make a rapid response data management team less necessary during the next crisis.

NATIONAL INSTITUTES OF HEALTH

In what became a closely followed event, the National Institutes of Health collaborated with the biotech firm Moderna, Inc. as part of Operation Warp Speed, to develop a vaccine that protects against the COVID-19 virus. Headlines focused on the speed of this vaccine's development, noting it took less than a year to create a vaccine that is considered to be more than 94% effective, an accomplishment that will save lives and help the country return to normal more quickly.

Another important piece of this story is how the NIH worked with Moderna and other companies—an example of effective collaboration between public investment and private innovation, and one that will speed current and future pandemic responses and move vaccine science forward. The partnership between these two entities, as well as the leadership of Dr. Anthony Fauci, director of the NIH's National Institute of Allergy and Infectious Diseases, and Dr. Francis Collins, the NIH director, make this a remarkable bright spot of 2020.

The purpose of Operation Warp Speed was to create a public network of support for companies seeking to develop a COVID-19 vaccine, and the initiative involved a large group of federal agencies. The departments of Defense and Health and Human Services, the Centers for Disease Control and Prevention, and other federal agencies joined the partnership.

The public-private collaboration was intended to accelerate the vaccine development process by selecting companies with promising vaccine designs and providing them with government support. Some companies, such as Pfizer, opted not to apply for funding—Pfizer knew it could finance vaccine development independently. However, Moderna, a much smaller biotech firm, would not have been able to develop and test a vaccine so quickly had it not received the funding, according to a New York Times story.

Under Fauci's leadership, the Dale and Betty Bumpers Vaccine Research Center, part of the National Institute of Allergy and Infectious Diseases, worked closely with Moderna throughout the process. Both Moderna and the research center had been working on an innovative technique for vaccine creation, one that uses the genetic sequence of the virus to modify a vaccine that can target the virus, and promised a design within days of receiving the virus' genetic information. The technique is well-suited to coronaviruses, but coronavirus outbreaks in the past, such as SARS and MERS, had been too short-lived to fully test the technique's capabilities.

After the COVID-19 outbreak in Wuhan, China, Moderna and the NIH were able, as hoped, to use the genetic code of the new coronavirus to create a vaccine within days of receiving the code from Chinese researchers. The more time-intensive part of the process came next: clinical trials. According to Moderna, the time from when researchers received the genetic code to the first human trial was 65 days—a historically fast turnaround.

According to the CDC and the NIH, federal oversight ensured that Moderna's clinical trials were representative of the larger public: 37% of trial volunteers were from racial and ethnic minorities, including from the Black, Native American and Latino communities. Representation of these groups was vital, given their vulnerability to COVID-19, and will help bolster the safety and trustworthiness of the vaccine in the eyes of the public.

Neither Collins nor Fauci, the leaders overseeing the vaccine work from the beginning, are strangers to dealing with crises. Both were working at the NIH during outbreaks of Ebola and swine flu, and Fauci also helped managed the government's response to HIV/AIDS, starting decades ago. Fauci and Collins' decades of experience, commitment to science over politics and devotion to public service helped them lead a federal response to the pandemic that resulted in one of the world's successful COVID-19 vaccines.

SMALL BUSINESS ADMINISTRATION

The Small Business Administration played a central part in the nation's response to the COVID-19 pandemic, by using innovative strategies to rapidly increase its staff capacity to serve small businesses threatened by the pandemic and the economic fallout from it. Small businesses were some of the hardest hit by the pandemic, and the impact rippled out to many other parts of the economy. The CARES Act, a $2.2 trillion economic stimulus bill passed in March 2020, included support for small businesses. The SBA had the task of organizing and distributing the relief targeted at this struggling sector of our economy.

The introduction of these relief programs, and the need to implement them quickly, represented a significant increase in responsibility for the agency, which had the task of carrying out the $350 billion Paycheck Protection Program—a major part of the CARES Act. The program's primary function was to help small businesses continue to pay their employees during the pandemic. Faced with the need to distribute a large amount of money, the agency adapted its hiring processes to increase its staff quickly and respond to customer needs.

From March to September, the agency hired more than 6,000 new employees, more than doubling its original size, according to a Partnership report. On average, it can take about three months to hire new federal employees, but the SBA used a creative mix of new and existing hiring authorities to bring employees on board more quickly.

For example, it used Returned AmeriCorps VISTA and Peace Corps Volunteer hiring authorities, which provide opportunities for former volunteers from those programs to more easily enter into further federal service. It also took advantage of the Military Spouse Noncompetitive Appointing Authority and various Schedule A hiring authorities. These authorities enabled the SBA to speed hiring processes by only opening job announcements to specific groups of people, providing a smaller and more manageable pool of candidates to start, along with a streamlined hiring process to appeal them. The SBA also amped up its recruiting efforts by advertising within the populations targeted by the hiring authorities.

With quick hiring of additional employees, the SBA was better able to implement the loan, debt relief and grant programs under its jurisdiction in the CARES Act—programs that have been key to helping many small businesses, their employees and their customers weather the economic storm the pandemic caused. As of August 2020, the SBA had approved more than five million loans through the Paycheck Protection Program, with a total value of more than $525 billion.

CONCLUSION

Faced with a global pandemic and other simultaneous crises, people needed critical services from federal agencies. The public relied on government to tackle tough challenges and work effectively, from developing a vaccine to distributing loans for small businesses. Leaders and innovators inside government rose to the challenge and found new ways to serve the public.

Many of the successes are the result of long-term strategies, years in the making, that leaders capitalized on during the COVID-19 pandemic. Agencies can strengthen their crisis responses through IT and data modernization plans while also maintaining employee engagement and improving customer satisfaction. These strategies take time, resources and capable leadership, but they pay dividends in the future.

Other innovations occurred in real time, thanks to successful public-private partnerships built during the pandemic that found solutions to emerging problems, demonstrating that both sectors are stronger when working together. Continuation of these partnerships between federal agencies and private sector entities, and others like them, could create more success stories like that of the computing consortium's work on the COVID-19 vaccine.

Above all, the stories here are a testament to what hardworking government employees are capable of during an unprecedented time in American history. Agencies and their leaders can emulate aspects of these situations to improve on their programs and processes and serve the public more effectively. With a strong workforce, creative approaches and the right resources, federal agencies can continue to produce bright spots during dark times.

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