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## **I. Introduction**

It has been a year since SARS-CoV-2 was first detected in the United States. In just 12 months, our nation has experienced immense suffering: over half a million Americans have died from this virus and more than 28 million have been infected. While pandemics are complex phenomena and no single solution can contain them, we have missed many opportunities to contain the virus and save lives, from the failure to test adequately and reduce viral transmission to the failure to protect hospitals from reaching capacity. Based on our research, in the second week of January during this winter's surge, 39% of hospitals across the U.S. had reached ICU capacity. Similarly, we missed the opportunity to administer vaccines efficiently as soon as they became available. The Food and Drug Administration (FDA) has authorized two vaccines for emergency use and on February 26, the day of this testimony, it will be considering a third with an analysis supporting its authorization for emergency use. Yet here we are, at the end of February 2021, reaching the initial goal of the Trump Administration to fully vaccinate 20 million Americans by December 2020.

In my testimony, I will briefly illuminate how we got here, what we can learn from these failures, and how we must move forward to quickly get Americans immunized over the next two months, as variants are threatening to undermine the remarkable scientific achievement of developing several highly effective vaccines in less than a year. Our bipartisan goal, in this crucial last stretch of the pandemic, must be to bring our country back from illness and economic suffering as quickly as possible. Over the next few months, we must use all available measures -- continued screening testing, social distancing, masking and others -- until we have reached the level of virus control that allows us to relax measures and build back lives and livelihoods.

## **II. A Slow Vaccination Roll-Out: How Did We Get Here?**

The success of any vaccine depends on how well they work and how widely they are accepted and used. All vaccines currently FDA authorized, and soon to be authorized, such as the Johnson & Johnson vaccine, demonstrate remarkably high efficacy rates -- they are nearly 100 percent effective at preventing hospitalizations and death. It is in the efficient and equitable distribution of these vaccines where there are many shortcomings, but also over past weeks, some success stories.

The Trump administration invested [\\$12.4 billion](#) in the development and manufacturing of vaccines for COVID-19 through Operation Warp Speed (OWS). While these significant investments ultimately led to the Emergency Use Authorizations for the Moderna and Pfizer-BioNTech vaccines (although the Pfizer/BioNTech vaccine was not part of OWS), the Administration largely ignored the role that the federal government must play in translating vaccines into vaccinations. Instead, the Trump Administration took an excessively narrow approach as developers and deployers of COVID-19 vaccines, failing to either directly invest in key distribution infrastructure or in supporting states' efforts to do so. In this way, the vaccination efforts are similar to what we saw with federal failures around testing and protective equipment for healthcare personnel.

What should have been done? As soon as we started to see promising data from both the [Pfizer-BioNtech](#) and [Moderna](#) vaccine candidates last summer, the federal government should have immediately turned its attention to establishing plans for vaccine prioritization and distribution. While the Centers for Disease Control and Prevention (CDC) did work with states to develop plans, the Trump Administration failed to prioritize getting resources to states and getting those plans implemented.

Inaction by the federal government left state governments without the essential resources required to distribute vaccines and vaccinate their residents. In September, former CDC director Dr. Robert Redfield advocated for Congress to provide [\\$6 billion](#) to states from Congress for vaccine distribution. But the Trump Administration did not take up the job of getting these monies from Congress, resulting in substantial delays in allocating funds to states. It was not until late December, after EUAs had already been issued for both the Moderna and Pfizer-BioNTech vaccines, that Congress approved [\\$9 billion](#) to help states administer their vaccines. This delay left states vastly underprepared - short on staff, with an exhausted public health workforce and no concrete plan for implementation.

The roll-out of vaccines was a mess through much of December and early January, until Congress stepped in and authorized resources, and states started implementing distribution plans. Since then, vaccine distribution and administration have started to improve. As of February 24th, 2021, roughly 79 million doses have been delivered and 66 million doses administered. About [19 million](#) individuals have been fully vaccinated, representing [6%](#) of the population. These numbers fall far short of the Operation Warp Speed [targets](#) of 20 million fully vaccinated Americans by the end of December of 2020.

At its core, our country's public health system relies on a partnership between state and federal governments. State governments take the lead, with the federal government providing technical and financial support. Historically, this system has worked. But successful partnerships require commitment and contribution from both sides. Throughout the Trump Administration, the federal government failed to uphold its side of the partnership. At the beginning of the pandemic, the Trump Administration neglected to provide adequate diagnostic testing to states, leaving local governments to fend for themselves in securing tests. Later on, they failed to issue a nationwide mandatory mask order. And throughout, they repeatedly failed to communicate clear and consistent national guidelines for reopening and in fact, undermined governors who were trying to follow the White House's own reopening guidelines. This resulted in a patchwork of policies and responses across our country, which hindered our ability to mount a coordinated and effective effort against this pandemic.

Perhaps nowhere have we seen the consequences of these failures more clearly than in vaccine rollouts. We have seen stark variability across the country in the distribution of vaccines, with each state operating as a separate island of authority. Some states have been more successful than others in their vaccine rollout. In Connecticut, 7.6% of the population is now fully vaccinated and 16.3% has received at least one dose. But in other states, like Utah, only 4.6% of residents are fully vaccinated and about 11.1% of the population has received one dose (data for February 24, 2021, [Brown/Microsoft Covid Vaccination Tracker.](#)) States also vary in how efficiently they are using their vaccine supplies. In New Mexico, over 98% of doses delivered have been

administered and in West Virginia, over 96% of delivered doses have been administered -- compared with Alabama, which has only administered 73% of doses delivered.

The most successful states have promoted clear and consistent public health guidance and have leveraged existing relationships and infrastructure to develop successful vaccine distribution strategies. But these states tend to be the exception. Support and coordination from the federal government has been inconsistent, though clearly getting much better under the Biden Administration. Since January 20, the federal government has begun to take an active role in supporting and overseeing this monumental undertaking and each day, we have seen the number of people getting vaccinated increase. As we continue to develop and distribute vaccines for COVID-19, three factors will be critical for our success: 1) strengthening federal and state partnerships; 2) ensuring equitable distribution; and 3) maintaining robust safety monitoring.

### **III. State Allocations: Lessons from Vaccine Distribution Campaigns**

Federal vaccine strategy and state collaboration should be guided by experience with vaccine rollout over the past two months. Two data points are particularly important:

1. Where has vaccine rollout been accomplished quickly and effectively?
2. Where has vaccine rollout been broadly accessible and inclusive of at-risk communities?

The data suggest a clear pattern. States that have been successful in distributing vaccines have: 1) invested in distribution infrastructure, including mobile clinics and other innovative approaches 2) balanced state-led decision-making with local agencies and 3) streamlined user access to vaccination.

#### *Vaccine Distribution Infrastructure*

Some states have invested heavily in vaccine distribution infrastructure to ensure broad accessibility for residents. For example, in January, West Virginia (with a population of less than 2 million) [opened 250 vaccination sites](#). At the same time, Pennsylvania (with a population of almost 13 million) was operating only 274 clinics, indicating a slower pace of vaccine administration. To accelerate rollout across all states, the federal government should allocate increased funding and support for staff and operations at additional vaccination sites, particularly in disadvantaged communities, rural communities, and other areas where access is especially challenging.

Successful states also developed innovative approaches to reach more isolated communities. In West Virginia, 40% of residents lack access to broadband and a large share of residents live in rural areas. In response, state officials [introduced mobile vaccination clinics](#) to reach remote neighborhoods, reaching older, at-risk individuals who would have otherwise had to travel up to an hour to the nearest pharmacy. Now, [other states](#) have also started to introduce mobile clinics to reach their most vulnerable and isolated citizens. Similarly, officials in Alaska have used [planes, amphibious vehicles, and snowmobiles](#) to deliver vaccines across their broad and geographically complex landscape. Both Alaska and West Virginia prioritized innovative, community-based solutions, and both have consistently ranked among the top in the nation in vaccines administered over the past weeks.

### *Balancing State-Led Decision Making and Local Agency*

Community-led vaccination efforts are powerful tools to overcome hesitancy and build trust in the safety and efficacy of vaccines. Since the beginning of the pandemic, some states have done a better job engaging with and empowering local health departments, facilitating such community-led vaccination campaigns. However, there is a key difference between supporting local agencies in this way, and devolving responsibility entirely to underfunded and overburdened local county and town health departments. The absence of robust federal leadership under the previous administration has highlighted the critical importance of centralized coordination to provide direction and support local implementation of effective vaccination campaigns in every community across the nation.

In the absence of federal guidance, some states have taken it upon themselves to organize effective vaccination programs through clear and consistent [messaging](#) and community-based clinics and information campaigns. West Virginia and Connecticut, two outliers in vaccine rollout, have attributed much of their success to [strong state guidance](#) and constant communication between local and state health officials. Connecticut, for example, has relied on a strong partnership with communities that was established earlier in the pandemic to make testing easily accessible and available to all, but especially hard to reach populations. The state has also mobilized coordination efforts across the state's numerous hospital systems, and prioritized expanding the agency of local public health workers to assist in the establishment of vaccination clinics. [Vermont has taken a similar approach](#), establishing a robust partnership with their Association of Hospitals and Health Systems to improve coordination efforts across healthcare systems. West Virginia has [leveraged connections with local, trusted pharmacies](#) to serve as vaccine clinics. And in Alaska, state officials have [partnered with remote Native communities](#) to ensure broad and equitable vaccine distribution across the state. In all of these examples, states have prioritized community engagement and local campaigns while maintaining state-wide guidance on distribution and allocation practices. These efforts have led to high vaccination rates and [reduced hesitancy](#).

### *Streamlining User Access to Vaccination*

As states have adopted different vaccination strategies, a consistent trend has emerged among those most successful in their vaccine rollout: simplicity. State governments must streamline the process of getting vaccinated as much as possible, from registration, to clinical experience, to follow-up. Scheduling an appointment for a vaccine should take minutes, not hours. It should involve a few clicks on a webpage or a quick phone call, not crashing web portals or endless phone calls with five different healthcare providers. States that have successfully streamlined access are already seeing benefits: New Mexico was one of the first states to create an online vaccination process, [making the process of scheduling vaccines fast and intuitive](#). New Mexico now ranks among the top in the nation for total vaccines administered. Washington D.C. introduced a similar platform with similar success. New Hampshire [leaped twelve places in the national vaccination rankings](#) in one week as a result of introducing a user-friendly online portal for scheduling vaccinations. Connecticut was able to increase vaccinations in hard-to-reach populations by making an easily accessible, centralized Vaccine Appointment Assist phone line available.

Vaccine rollout has also been accelerated where states have adopted a flexible and forward-looking approach to eligibility, rather than insisting on scrupulous adherence to strict phases. During the first phase of vaccinations (Phase 1A and 1B), most states followed the CDC Advisory Committee on Immunization Practices (ACIP) guidance on prioritizing health care workers and residents in long-term care facilities. However, some states expanded eligibility, giving more residents access sooner. In many cases, these states had already developed robust rollout strategies, and were confident in their ability to vaccinate a larger number of residents. For example, South Dakota [expanded eligibility](#) in Phase 1 to include law enforcement and corrections staff, while neighbor North Dakota recently began [vaccinating school staff and essential workers](#). By expanding eligibility, these states have ensured their supply doesn't go to waste, an important first step towards recovery.

Access to vaccines has been simplified by working to ensure consistent and flexible supply chains. Many states have also leveraged local partnerships to overcome gaps in vaccine distribution. North Dakota has encouraged their long term care facilities to partner with trusted public health organizations outside of the CDC's predefined listings, allowing for flexibility in rapid vaccine distribution and reducing the bureaucratic burden of partnerships. Many of the state's long term care facilities have been able to [leverage existing health organization relationships](#), often formed during the development of testing infrastructure in these communities. This familiarity with local organizations has made vaccine rollout simpler and more effective.

States have also found success in working with military offices to facilitate distribution efforts. North Dakotan officials decided early in the vaccine rollout to [store vaccines in central state warehouses](#), with centralized teams making allocations to localities based on their needs. This has prevented competition amongst jurisdictions for limited doses. West Virginia has asked the National Guard to provide logistical support for scaling allocations, aiding the state in making rapid decisions in response to shifts in supply.

These are some examples of promising distribution strategies that are efficiently converting vaccines into vaccinations. But one area where nearly all states have struggled is equity -- inequitable distribution has meant that people of color and those from poorer communities are less likely to have been vaccinated. We need to remember that it is possible to achieve both efficiency and equity. But in order to increase vaccine confidence, especially in marginalized populations, and ensure equitable access for all, we must address the underlying social roots of disparities in the vaccine rollouts.

#### IV. Disparities in Vaccine Rollouts

The COVID-19 pandemic has disproportionately [affected](#) racial and ethnic minorities, such as the Black and Latino communities. Sadly, these disparities persist with vaccine distribution. While we don't have data from all states -- to this day, states are not required to collect and report vaccination data by race/ethnicity -- the latest CDC numbers illustrate the ongoing disparities: More detailed demographic data is available for about 50% of all administered doses, and it shows that only [5.8%](#) of vaccinations have been administered to members of the Black community despite their [12.7%](#) share of the U.S. population. In contrast, [65%](#) of vaccinations have been administered to non-Hispanic whites.

We are able to see these disparities in the case study of healthcare workers, who were identified as the first priority group for COVID-19 vaccination by [ACIP recommendations](#). This group includes not only physicians, who are [majority white](#), but also hospital support staff and other aides, who are [largely from communities of color](#). In a case study at The [Mass General Brigham Hospital](#) System in Boston, the hospital system had vaccinated 70% of their healthcare workers. But while 77% of white workers have been vaccinated, only 56% of Hispanic workers and 42% of Black workers have been vaccinated.

Some point to individual vaccine hesitancy to explain these disparities. Indeed, although hesitancy has decreased nationally since the start of the vaccine rollout, it has increased among members of the Black and Hispanic communities, with [one poll](#) showing a 9 percentage point increase in Black respondents who do not plan to get vaccinated. However, these disparities in vaccination rates are more reflective of structural inequality than of individual preference. Centuries of poor medical treatment and harm of the Black community have fostered distrust. Some hospital systems are even [providing high-value donors early access to the vaccine](#), further undermining trust in the system. If we as a nation wish to end the COVID-19 pandemic, we must make immediate and large-scale commitments to regaining trust among communities of color. Rather than pathologizing vaccine hesitancy, we must re-frame the conversation around what we, as scientists and policymakers, can do to improve access. We must focus on supporting national and local institutions and organizations in educating, engaging, and increasing access to vaccinations among all communities, with a particular focus on communities of color. Only when we directly address and combat these racial disparities can we bring this pandemic under control.

The complexity of what it takes to actually get vaccinated also undermines equity. Online portals to schedule vaccinations frequently [crash](#), preventing residents with less time or digital skills from scheduling a vaccination appointment despite their eligibility. Also, spots for vaccines often become available at times of day where those who work from home can easily sign up, while many essential workers out packing food or providing essential services cannot. Even more concerning is the impact of [the digital divide](#). A lack of high-speed internet access primarily impacts the elderly, the poor, and racial and ethnic minorities, the very same groups who are most burdened by the harms of COVID-19.

While there is broad agreement on the need for equity in our vaccine distribution, the reality on the ground does not reflect the aspiration. [Actions we can take](#) to ensure that equity remains a key pillar in our rollout efforts include 1) targeting communities disproportionately impacted by COVID-19 through pop-up and mobile clinics, 2) engaging people in their communities by implementing a grassroots education and inoculation program that works with trusted leaders and organizations, and 3) collecting and publicizing racial and ethnic demographic data related to the rollout to better understand our progress and implement solutions. It is possible, and necessary, to achieve a rollout that is both equitable and efficient, without sacrificing either.

## V. The Role of Federal-State Partnerships in a Successful Vaccination Rollout

The federal government can and must play a key role in supporting states in rolling out vaccines in an equitable and efficient manner. The federal government's allocation of vaccines to states and localities should prioritize social and clinical risk, and age has proven to be one of the greatest risk factors.

The Biden Administration has directly delivered vaccine doses within a public-private, federal-pharmacy partnership that focuses solely on long term care facilities, a [larger federal retail pharmacy partnership](#) to administer vaccinations to the eligible public, and direct allocations through Health Resources and Service Administration (HRSA) to [Federally Qualified Health Centers](#) which serve vulnerable communities. These partnerships are an encouraging step in increasing vaccination access as the rollout transitions to the general public, particularly in contrast to threats by the federal government last year to withhold vaccines for political reasons. However, [coordination with states](#) will be an important factor in ensuring a smooth execution of these programs.

The potential impact and implementation challenges of federal partnerships can be assessed by examining the pharmacy retail-long term care facilities (LTCFs) program. This collaboration with CVS and Walgreens has administered more than [6 million doses](#) to both residents and staff of LTCFs, with over 4 million individuals having received one or more doses of the vaccine. [Pharmacies](#) are working to schedule vaccination dates directly with facilities, ensuring cold chain management and adequate supply provision. This has allowed LTCFs to rely on well-established health systems for logistics management and cold chain maintenance. As of February 1, [78% of LTCF](#) residents in the U.S. have received at least 1 vaccine dose through this program.

However, the federal-pharmacy program has not been without its challenges. As of January 8, weeks after Pfizer and Moderna EUA issuance, only [16%](#) of all vaccines distributed by the government had been administered to nursing home residents. In Indiana, [vaccine clinics](#) did not launch in nursing homes until December 28. Former HHS Secretary [Alex Azar attributed](#) these challenges to difficulties in obtaining consent forms from those living in nursing homes and general bottleneck distribution issues, highlighting the need for further support from the federal government to make this program succeed. The cost of a slow roll-out has been severe, as LTCF residents are [more vulnerable to severe illnesses and death from the virus](#). A more efficient and coordinated vaccination rollout in this population would have saved lives.



The LTCF designation includes both nursing homes, with 24-hour medical supervision, and assisted living facilities, and many facilities operate both programs under one roof. Once states activate the vaccination program, pharmacies facilitate [three total clinic days](#): the first day for first doses of the vaccine, the second day for second doses of the first group and first doses of anyone who did not yet receive one, and the third day for final second doses. States initially activated the program for nursing homes, who had completed all first-dose clinics on [January 25th](#), but many states [did not activate assisted living facilities until weeks later](#). Thus, joint LTCFs were unable to vaccinate all residents quickly; this separation within the LTCF category complicated the rollout. Some states even sought the help of other private companies to assist with vaccination: in Florida, an emergency services company was hired to administer vaccines at [1,900 assisted living facilities](#) that had not yet scheduled first-dose clinics by January 24. Second-dose clinics are continuing to be scheduled, and [CVS estimates](#) that a majority of LTCFs, including assisted living centers, will complete their third visits by mid-March. However, the fate of LTCF residents who were unable to receive a vaccination in the first or second clinic dates is still uncertain.

Some states anticipated these challenges, and made rapid vaccination of their LTCF populations a top priority. In Connecticut, state leaders [met with CVS and Walgreens](#) before the program started to work through logistics and ensure efficiency. Connecticut [completed their first-round doses](#) on January 8 of this year. In [West Virginia](#), state leadership recognized that half of their pharmacies were locally owned and thus chose not to participate in the federal-pharmacy program. Taking advantage of existing relationships within the community, they allocated doses to local pharmacies and are now the first state to have [fully vaccinated](#) their LTCF residents.

However, nationally, only [37.5%](#) of LTCF staff have received at least one vaccine dose. This significant gap between staff and resident vaccination rates reflects larger issues in vaccine and institutional confidence and trust. Coordinated, targeted efforts will be required to fully protect these workers; LTCF leadership should engage their staff in conversation and build trust by actively listening to their concerns and offering support, such as paid time off, to allow for rest from expected side effects.

In addition to public private partnerships, the federal government can shape vaccine rollout through its direct allocations. The Biden Administration has initially allocated vaccines based on population size within the CDC ELC (Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases) Program [jurisdiction](#)s. The 64 jurisdictions, [established in 2012](#), include all 50 states, 8 territories, and 6 major metro areas (Chicago, IL; Washington, DC; Houston, TX; LA County, CA; New York City, NY; Philadelphia, PA). Some metro areas, such as Houston, have allocations consolidated with their states. But others, such as [Chicago](#) and New York City, are considered their own jurisdiction, and are thus [allocated vaccine directly](#) by CDC. This direct allocation can allow city leadership to leverage their better understanding of community-level factors (such as social perceptions, hesitancy, and geography) to support uptake and efficacy. However, the dual allocation of vaccines to both state and local jurisdictions may produce duplicative and conflicting guidelines for distribution and allocation, further complicating the rollout and undermining efficient and broad uptake. While we don't have sufficient data to evaluate the ELC jurisdiction approach, early indications suggest that while

separate supply streams might be beneficial in terms of [population coverage](#), [conflicting and confusing local and state messaging](#) surrounding the rollout persists.

LTCF leaders, and policymakers throughout the nation, should also offer transparent and accessible compensation programs in the rare event of vaccine-induced injury so as to reduce hesitation and instill trust. Thankfully, the federal government already has a robust system in place to address these concerns: The Vaccine Injury and Compensation Program (VICP).

## VI. Vaccine Injury and Compensation

Currently, coronavirus vaccines are covered by the [Countermeasures Injuries Compensation Program \(CICP\)](#) established by the PREP Act (42 USC 247d-6d), not the [Vaccine Injury Compensation Program \(VICP\)](#). To support confidence in coronavirus vaccines, particularly given the likelihood that public health will require coronavirus vaccines for months or even years to come, these vaccines should be [covered by the VICP](#), which allows for longer filing deadlines and more extensive adjudication.

The VICP was established in 1986 in response to a substantial withdrawal of pharmaceutical companies from the vaccine development market following concerns about costly litigation regarding vaccine-induced injuries. Seeking to encourage continued vaccine innovation while protecting those who receive vaccines, Congress established the VICP within the Department of Health and Human Services (HHS), which prevented lawsuits against companies for vaccine-related injuries while also providing financial compensation to those injured by vaccines. Petitions to the VICP have grown over the past 30 years, and in recent years the program has averaged just over 1,000 annual petitions received. Approximately 70% of these petitions are approved, resulting in roughly \$200 million paid out each year. The VICP maintains [a list of vaccines and related injuries](#) that fall under its purview, and only injuries on this VICP injury table may be compensated. If HHS deems a petition to fall within these medical criteria, the claim is forwarded to the Department of Justice, which assigns the case to a Special Master who determines how much compensation, if any, to award.

Given that [30% of Americans](#) still do not plan to get a COVID-19 vaccine, with most pointing to possible side effects as their largest concern, a robust and reassuring VICP is at least as crucial now as ever. The VICP serves a dual role by protecting and guaranteeing compensation for those harmed by vaccines and by reassuring the broader public that these situations are exceptionally rare. To make the VICP a positive force in the COVID-19 vaccine rollout, however, there are critical shortcomings that must be addressed.

The most immediate need in amending the VICP for the COVID-19 era is adding the COVID-19 vaccines, and any injuries that may result from them, into the VICP injury table. The last major update to the list of covered vaccines was the 21st Century Cures Act in 2016, and this list must be updated to ensure that those receiving the COVID-19 vaccine can do so with the confidence that they are protected in case they are faced with a rare injury. The VICP has also faced complaints regarding the backlog of cases and the delay in adjudication of claims. Though the hope was that the VICP could provide easy and timely compensation, petitions now average [two-to-three years](#) between filing and approval. One key reason for this is that the number of annual

claims has more than doubled since 1986, while the number of Special Masters has remained fixed at eight. By increasing the number of Special Masters to ensure timely processing of claims, Congress can help the VICP make sure that anyone harmed by a COVID-19 vaccine will get compensation without undue burden or delay. Congress can also update the caps on compensation outlined in the original bill to be consistent with inflation since 1986, ensuring that compensation is not only simple and fast, but commensurate with the injury suffered. Lastly, some have expressed concerns that the existence of a body paying out hundreds of millions of dollars a year to compensate for vaccine injuries might undermine confidence in the safety of vaccines. The VICP has attempted to combat this through admirable transparency regarding the number of claims received and paid, and puts these numbers side by side with the number of vaccines administered to highlight that these injuries represent an exceptionally small proportion of vaccinations each year. The VICP should continue to transparently release details of claims received and paid. It can bolster this transparency by independently reporting on the number of claims made regarding COVID-19 vaccines, so as to highlight to the public that harmful effects following vaccination are extremely rare. Ensuring full transparency in adverse event reporting is crucial to earning the trust of the public and to giving Americans the confidence they need to get vaccinated. By putting the number of COVID-19 vaccine claims side by side with the number of vaccinations administered, VICP can simultaneously demonstrate that vaccination is extremely safe and that, in those rare circumstances when something goes awry, there is protection and compensation available.

## **VII. Conclusion**

The COVID-19 pandemic has brought immeasurable and unthinkable loss to our nation and our world. Though the last twelve months have been undoubtedly among the most difficult in our country's history, we are finally beginning to see a light at the end of this tunnel. Thanks to science and data, in just one year, we have designed, tested, and begun to distribute some of the safest and most effective vaccines ever produced. And despite a rocky start, vaccine supply and distribution practices are expanding and improving. We cannot, however, stop our efforts now. In order to end this pandemic, we need to continue to strengthen federal and state partnerships to make sure that everyone who wants to get vaccinated can get vaccinated. We need to ensure that vaccines are distributed and administered equitably and justly, prioritizing those who are at highest risk of severe disease and those in our communities who have been hit hardest. And we need to work with our friends, our families, and our neighbors to encourage trust in what is likely the greatest scientific achievement of our lifetime. We are closer to the finish line than we've ever been, and it is thanks to evidence-based tools that we know work: wearing masks, washing hands, social distancing, and safe and effective vaccines. If we are able to come together as a nation, we will soon end this pandemic and be able to look back on this period as a testament to the unique and powerful strength, ingenuity, and resilience of the American people.