Roadmap to Recovery:

A Public Health Guide for Governors

April 21, 2020

EXECUTIVE SUMMARY

The global pandemic of COVID–19 poses an unprecedented challenge to the health and well-being of every state and territory across the country. In the absence of treatments and vaccines proven to be safe and effective, states and territories have turned to social distancing to avoid a spike in serious illnesses and deaths that could overwhelm the healthcare system. While there is significant evidence that social distancing is effective at blunting the full force of COVID–19, these actions have come with significant economic and social costs.

With the paramount aim of keeping individuals and communities safe, governors are committed to reopening states in a manner that preserves public safety and confidence. Opening prematurely—or opening without the tools in place to rapidly identify and stop the spread of the virus—could send states back into crisis mode, push health systems past capacity, and force states back into strict social distancing measures. This scenario would repeat the negative economic consequences of pandemic response and reduce public confidence, further deepening a recession and protracting economic recovery.

There is substantial consensus among national experts that significant preparation will be required by state and national leaders to scale up the required public health infrastructure to limit outbreaks. States will also need to develop plans for a careful, staged reopening that protects the public's health while laying a strong foundation for long-term economic recovery. This report synthesizes and expands upon these expert recommendations by outlining ten key steps and related operational considerations for governors to guide critical decisions in support of the public's health and well-being in the weeks and months ahead.

Building the Public Health Infrastructure

1. Expand testing capacity and make testing broadly available

2. Strengthen public health surveillance to understand the spread of the disease and rapidly detect outbreaks

3. Dramatically scale capacity for isolation, contact tracing, and quarantine

4. Ensure the healthcare system can respond to potential surges

5. Protect essential workers and at-risk populations

Creating and Executing a Plan to Gradually Reopen the Economy

6. Develop a strong and clear communication and public engagement plan

7. Create a framework for reopening

8. Set the criteria and define the stages for reopening

9. Build partnerships between public and private sectors to implement the plan

10. Prepare to reassess and improve the plan frequently

INTRODUCTION

The global pandemic of COVID-19 poses an unprecedented challenge to the health and well-being of every state and territory across the country. In the absence of treatments and vaccines proven to be safe and effective, nations around the world have turned to social distancing to avoid a spike in serious illnesses and deaths that could overwhelm the healthcare system. In the United States, the federal government, states, territorial and local governments have done the same. Fortunately, there is evidence that social distancing is effective at blunting the full force of COVID-19, saving lives and sparing the healthcare system from worst case scenarios.

At the same time, the pandemic itself -- together with the measures taken to reduce its spread -- have led to abrupt social and economic changes with serious consequences. More than 700,000 people have been diagnosed with COVID-19 in the United States, and more than 40,000 have died.[1]School closures, travel restrictions, and mass unemployment have altered the landscape of cities and towns, threatening the long-term viability of many businesses, and the livelihood of many Americans. With over 22 million Americans filing unemployment claims since social distancing measures began in March, fear of COVID-19 is likely to further depress economic activity for as long as the infection continues to spread.[2]

On April 16, the White House Coronavirus Task Force released _Guidelines for Opening Up America Again_. This document acknowledges the governors' role in making locale-specific determinations, while setting forth criteria and preparedness steps that would enable governors to take a phased approach to relaxing social distancing measures and reopen businesses.

With the paramount aim of keeping individuals and communities safe, governors are committed to reopening their economies in a manner that preserves public safety and confidence. Opening prematurely—or opening without the tools in place to rapidly identify and stop the spread of the virus— could send states back into crisis mode, push health systems past capacity, and force states back into strict social distancing measures. This scenario would repeat the negative economic consequences of pandemic response and reduce public confidence, further deepening a recession and protracting economic recovery.

In recent days, the federal government as well as a number of experts, including those from American Enterprise Institute (AEI), Center for American Progress (CAP), Johns Hopkins University (JHU), the Duke-Margolis Center for Health Policy, Harvard Safra Center for Ethics, Vital Strategies Resolve to Save Lives and others, have released plans or resources to support state and national leaders in developing long-term COVID-19 responses. (See **Appendix A** for a side-by-side comparison of key recommendations from these reports). There is substantial consensus among national experts that significant preparation will be required to scale up the required public health infrastructure to limit outbreaks. States will also need to develop plans for a careful, staged reopening that protects the public's health while laying a strong foundation for long-term economic recovery.

This roadmap synthesizes and expands upon these recommendations and adds key operational considerations for governors to inform critical decisions in support of the public's health and well-being in the weeks and months ahead.

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[1] Johns Hopkins University. COVID-19 United States Cases by County. Retrieved from: https://coronavirus.jhu.edu/us-map (April 20, 2020).
[2] U.S. Department of Labor. Unemployment Insurance Weekly Claims. April 16, 2020.Retrieved from: https://www.dol.gov/ui/data.pdf.

RECOMMENDATIONS

From the beginning of the pandemic, governors have played a central role in leading the response to COVID-19. With the number of infections beginning to plateau, governors now must guide their states to reopening gradually and safely.[3]

A successful strategy for reopening requires states to build the public health infrastructure needed to slow the spread of COVID-19, while developing and implementing a staged plan for bringing the economy back to life. These steps require the full participation of the federal government, state health agencies, other state agencies, local governments, the private sector, and the public.

Governors will make a plan for recovery possible by communicating frequently and candidly with the public, assigning clear responsibility for key steps, building partnerships across and outside of government, and by mobilizing the support of the private sector. Governors also clear the path for critical actions by identifying funding, adapting regulations, and issuing emergency orders. State and territorial health officials will be critical components of the recovery plan, as the primary lead on public health policy and program matters, with expertise in public health emergencies such as the COVID-19 global pandemic, natural disasters, bioterrorism events, and others.

The following 10 steps for action fall into two broad categories: building the public health infrastructure and creating and implementing a plan to reopen the economy.

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[3] For purposes of this report, the term "states" includes states and territories.

BUILDING THE PUBLIC HEALTH INFRASTRUCTURE

There is consensus among public health experts and federal leaders that preparing for the next phase of COVID-19 containment will require significant preparation by states to scale up testing, surveillance, and the public health workforce necessary to identify active cases and limit the risk of outbreaks as economic functions gradually resume. Such preparation will require federal support, including federal efforts to expand testing capacity and federal resources to support dramatic expansion of current public health infrastructures in states. Governors are working with their state health officials to identify gaps and where expansion is needed. This work should begin as soon as possible to put states in the best position to assess their unique circumstances and take steps forward with confidence.

The following five steps should be implemented simultaneously.

STEP 1: EXPAND TESTING CAPACITY AND MAKE TESTING BROADLY AVAILABLE

Widespread testing is necessary to both treat and control infection. It is also essential for early detection of any increases in COVID-19 cases. However, testing capacity remains inadequate. Barriers to testing include:

- Shortages of critical supplies, including reagents, swabs, lancets, and machines;

- Insufficient personal protective equipment (PPE) for healthcare workers performing specimen collection;

- Maldistribution of supplies, owing to an uncoordinated supply chain; and

- Mismatch between existing testing efforts and the most urgent needs, such as testing during outbreaks at nursing homes or of essential workers.

TO EXPAND TESTING CAPACITY, GOVERNORS SHOULD CONSIDER:

- Continuing to request that the federal government rapidly build testing capacity and coordinate distribution to states.

- Partnering with the federal government, commercial and academic entities to acquire testing equipment and supplies such as reagents, swabs and PPE.

- Exploring cooperative purchasing and distribution approaches.

- Directing state health agencies and other relevant agencies to identify and coordinate various testing efforts in the state across public, academic and private partners to determine capacity, match to need and deploy to areas of greatest need.

- Expanding access to multiple forms of tests and laboratory capacity to process tests through public and private laboratories.

- Pursuing public-private partnerships to establish drive-through and walk-up testing sites for wider access across communities.

KEY OPERATIONAL CONSIDERATIONS:

What groups are priorities for testing?

As testing capacity remains limited, prioritization protocols have been established by the federal government, states and local jurisdictions to ensure availability to those most at-risk first. As capacity increases, priority groups will shift, and perhaps be eliminated when widely available. Current CDC recommendations for priority testing are:

- Priority 1: Hospitalized patients; symptomatic healthcare workers.

- Priority 2: Individuals with symptoms in long-term care facilities, who are 65 years of age or older, or who have underlying conditions, and first responders with symptoms.

- Priority 3: Critical infrastructure workers with symptoms, other individuals with symptoms, healthcare workers and first responders without symptoms, and individuals with mild symptoms in communities with high COVID-19 hospitalizations.

How many tests will be necessary?

States need a sufficient number of tests for all priority populations. Testing needs to be widely available for states to move to later phases of a reopening strategy. Estimates of the number of tests needed nationally range from 750,000 to tens of millions per week. (See **Appendix A** for comparisons of estimates for testing need). Currently the U.S. is able to test approximately 12.1/1,000 people. Germany has tested 20.9/1000 people, Italy is testing 23.6/1000, and Iceland is testing 125.6/1000.[4] Higher levels of testing in South Korea, Taiwan and Singapore have been a critical element in their ability to control the spread of the disease. Equally important to increasing the number of tests is ensuring access to key priority populations.

How can states address supply chain challenges for test kits and supplies and PPE?

On April 16, 2020, the National Governors Association (NGA) released Capacity for COVID-19 Testing – Current Status and Considerations, a memo to governors explaining the supply issues and outlining strategies for pursuing additional testing supplies.

States such as California and Connecticut have formed task forces to lead the development, sourcing and distribution of COVID-19 tests. States can also partner with local academic institutions. For example, the University of Virginia, Stanford University and New York University have leveraged and shifted internal resources to be able to manufacture needed reagents for their own tests.
to key priority populations.

Additionally, NGA released Governor Actions to Address PPE and Ventilator Shortages, a memo highlighting steps governors have taken or may consider to expand access to preserve and repurpose PPE, procure new resources, build manufacturing capacity and prioritize allocation of PPE.

Among other efforts, states such as Massachusetts are partnering with academic and industry stakeholders to provide funding and technical assistance to help manufacturers pivot production to PPE and other in-demand items. States such as New York are turning to 3D printing to produce PPE and working with other states to address shortages.

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[4] Our World In Data. Total Tests for COVID-19 Per 1,000 People. Retrieved from: https://ourworldindata.org/covid-testing. (April 20, 2020). (Note Germany's data was only through April 12, 2020).

What are promising models for expanding testing capacity?

Promising models could expand access to testing in community settings, reducing the demand on hospital emergency departments. Examples of these models—including drive-through and walk-up locations—are featured in the April 16 NGA memo to governors. Key considerations are also outlined in a guide from the Association of State and Territorial Health Officials (ASTHO).

Emerging technology may also help expand testing capacity. New technologies that should be available in the future include point-of-care antigen testing and self-administered tests. Their use will become more clear as evidence becomes available. As with current tests, understanding the quality of testing will be important to balance rapid scaling and accurate information.

What is the role of antibody testing?

Antibody testing (also referred to as serology testing) offers the promise of identifying individuals who are immune to COVID-19 for a period of time. Antibody testing is already being used in certain studies to inform the extent of community exposure and infection. With careful selection of tests and protocols to balance accuracy with expediency, this could be scaled statewide. In theory, this information could help to identify people safe to return to the workforce and those lower on the triage list for vaccinations in the future.

However, many key scientific questions have yet to be answered. These questions include the accuracy of the many tests on the market, as the U.S. Food and Drug Administration (FDA) has yet to review data on the vast majority of marketed tests. In addition, it is still unknown the extent to which a measured antibody response corresponds directly to immunity to disease and the duration of such immunity.

Given these uncertainties, states should continue partnerships with academic institutions on studies that can pave the way to greater clinical use of these tests and should support the development of guidance or standards for reliable tests. On April 11, the Trump administration published guidance determining that the Coronavirus Aid, Relief and Economic Security (CARES) Act requires insurers to cover antibody testing free of charge, noting that the FDA advises that these tests should not be used as the sole basis for diagnosis of COVID-19. Additionally, given the novelty of antibody testing, a variety of legal issues may emerge as states consider potential applications of serology testing for resumption of activities in populations that may have acquired immunity to the virus.

For more information:

- NGA Memo: Capacity for COVID-19 Testing – Current Status and Considerations

- NGA Memo: Use of University Laboratories to Produce Necessary Reagents for COVID-19 Testing

- ASTHO 16 Key Considerations for Drive-Through and Mobile Testing

- Duke-Margolis Achieving Widespread Availability of Timely and Efficient COVID-19 Testing

- FDA Emergency Use Authorizations

STEP 2: STRENGTHEN PUBLIC HEALTH SURVEILLANCE TO UNDERSTAND THE SPREAD OF THE DISEASE AND RAPIDLY DETECT OUTBREAKS

The federal government as well as multiple expert reports call for evidence of declining transmission for at least 14 days before states can move to gradual or staged reopening of their economies. Because reopening society—even through incremental steps—will bring the risk of increased transmission, states must continue to closely monitor signs of COVID-19 spread. States that fail to do so, or without adequate test and trace capability in place, will only notice problems when individuals begin to crowd emergency departments and outbreaks among the most at risk are reported. By that point, it may be too late to avoid larger scale community spread which would bring another wave of critically ill patients that could overwhelm the healthcare system and require a return to much more extensive "stay in place" measures.

Test results for COVID-19 are an important way to monitor spread. However, testing is limited in many areas and may be particularly difficult to access for some high-risk populations. As a result, states should work closely with existing state and federal surveillance systems and expand state capacity to assess for potential COVID-19 spread, utilizing a broad range of data sources. These data must be consolidated, analyzed and reported rapidly to provide real-time intelligence on the pandemic.

TO STRENGTHEN SURVEILLANCE SYSTEMS, GOVERNORS SHOULD CONSIDER:

- Charging state health agencies with building on foundational surveillance systems to coordinate multiple channels of data for decision making on COVID-19.

- Requiring COVID-19 data reporting that is needed but not already mandated for this system from laboratories, hospitals, ambulatory care settings and other locations.

- Supporting the technology needs for collection, analysis and reporting of time-sensitive testing and other clinical data to state health agencies with adherence to existing privacy and security frameworks.

- Developing other surveillance methodology such as obtaining information on employee absenteeism due to illness from the private sector.

KEY OPERATIONAL CONSIDERATIONS:

How can states build a strong surveillance capacity?

COVID-19 surveillance capacity can be built on the foundation of existing systems at the Centers for Disease Control and Prevention (CDC) and in state health agencies. States generally require laboratory and provider reporting of infectious diseases, outbreak reporting, and sentinel surveillance for influenza-like illness and other diseases of interest.

The CARES Act requires the reporting of both positive and negative tests for COVID-19, in order to monitor the change in percentage of positive tests over time, which is a quantitative indicator of disease activity. States can add to reporting requirements to collect more standardized data on age, gender, race, and location in order to monitor the spread of disease in different populations.

Beyond testing, states can expand sentinel surveillance of target populations and syndromic surveillance to include indicators of COVID-19 activity, such as emergency department visits and hospital admissions for confirmed and COVID-19-like illnesses. Surveillance should also include other high-risk settings, such as nursing homes, assisted living, senior housing, jails, and prisons.

How can states facilitate the sharing of COVID-19 data with state health agencies for surveillance?

States can facilitate the sharing of COVID-19 data by requiring new reporting, reiterating existing requirements or refining guidance where necessary to:

- Increase the number of entities reporting (e.g., laboratories, hospitals, ambulatory care setting);

- Increase and standardize electronic reporting;

- Standardize data collection;

- Improve timeliness of data reporting;

- Leverage existing data networks and available data;

- Leverage private/public partnerships; and

- Ensure privacy and security of all data.

States should also explore whether they have a health information exchange that can repurpose existing tools to quickly collect and share data. For example, health systems may be able to report information to a health information exchange, which can then aggregate the information to pass to the state health agency.

How can states expand syndromic surveillance for conditions related to COVID-19?

Syndromic surveillance allows for early identification of illness clusters, before diagnoses are confirmed and reported to public health agencies and the mobilization of a rapid response, thereby reducing morbidity and mortality. The National Syndromic Surveillance Program includes data from over 70% of U.S. hospitals and other reporting entities and maintains data security and privacy protections.[5] State health agencies can use information from this platform in constructing their own surveillance system for COVID-19.

Is antibody testing appropriate for COVID-19 surveillance?

As reliable antibody tests and testing protocols are identified, states can conduct population-based surveillance studies to better understand the population exposure to the virus. (See additional information on antibody testing in the testing section).

For more information:

- [Duke-Margolis A National COVID-19 Surveillance System: Achieving Containment](#)

- [Council of State and Territorial Epidemiologists Driving Public Health in the Fast Lane](#)

- [CDC National Syndromic Surveillance Program (NSSP)](#)

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[5] Centers for Disease Control and Prevention. National Syndromic Surveillance Program. Retrieved from: https://www.cdc.gov/nssp/overview.html (April 20, 2020).

STEP 3: DRAMATICALLY SCALE CAPACITY FOR ISOLATION, CONTACT TRACING, AND QUARANTINE

Strict social distancing has been effective at decreasing the rate of infection, yet has resulted in significant economic and social consequences. As states plan for potential loosening of social distancing orders and a gradual, phased reopening of economic sectors or geographic areas within them, a targeted approach to (i) isolate and monitor actively infected persons, (ii) identify and test (if needed) contacts of infected persons, and (iii) quarantine and monitor those contacts for 14 days will be needed.

State and local health agencies already have significant experience in employing case-based strategies to reduce the spread of infectious disease like tuberculosis, sexually-transmitted infections, and measles. Scaling these efforts to the unprecedented levels needed to respond to COVID-19 will require an expanded, well-trained workforce that builds on existing state disease investigation capacity; adequate systems to monitor and support infected individuals and contacts; consultation and technical assistance from CDC; and social resources for cases and contacts to ensure compliance with public health guidance.

TO SUPPORT DRAMATIC SCALING OF ISOLATION, CONTACT TRACING, AND QUARANTINE, GOVERNORS SHOULD CONSIDER:

- Directing state health agencies to determine what contact tracing and disease investigation capacity already exists at the state and local level to determine what will be needed for expansion.

- Removing barriers and mobilizing resources, under public health emergency authorities if necessary, for directly hiring staff or collaborating with private sector entities (such as health systems) to hire staff and coordinate outreach activities.

- Working with public and private sector leaders to identify sources of contact tracing staff (e.g., municipal workers such as librarians or other technical professionals; healthcare professionals; census workers; students; and others).

- Developing policies for monitoring isolated COVID-19 cases or quarantined contacts and providing wrap-around services to support individuals in isolation and quarantine. These resources may include alternative housing if needed, food and medication delivery, and other services.

- Ensuring the right technologies and data tools are in place to provide case management services, monitor isolation and quarantine activities and measure outcomes of large-scale contact tracing.

KEY OPERATIONAL CONSIDERATIONS:

How many individuals and what level of skill are needed for contact tracing?

A significant increase in the existing contact tracing public health workforce is needed to address the anticipated numbers of infected persons in the U.S. and effectively control and decrease infection rates. In a recent report, Johns Hopkins and ASTHO estimated a need between 4 and 81 tracers per 100,000 population, based on level of illness. This estimate is based on robust contact tracing efforts underway in Massachusetts, Seattle, and internationally in South Korea, Iceland, and Taiwan. The level of skill and composition of contact tracing teams will depend on a state's geography, existing local and state

assets and expertise, the available workforce and recruiting efforts, and disease burden. Generally, states can consider deploying teams of varying combinations of three groups: (1) entry-level, "lay" and paraprofessional contact investigators, (2) professional disease investigation specialists (DIS), and (3) advanced response professionals, including epidemiologists, clinical and medical specialists and potential federal service officers or members.

What is the estimated cost to implement this testing, isolation, contact tracing and quarantine effort?

ASTHO requested $3.6 billion in emergency funding from Congress for an estimated 100,000 person workforce nationally, using a $17 per hour base pay rate. Beyond the additional workforce, funding will be needed for wrap-around support services for individuals who may require assistance to comply with isolation and quarantine, such as health, housing and nutrition services. Funding will also be needed for any technology or data tools, as well as interface costs, to support contract tracing.

Where can states look for people to serve in an expanded public health workforce?

One option for states is to partner with organizations experienced in contact tracing. Massachusetts has partnered with local agencies and the non-profit organization Partners In Health to rapidly scale up training and hiring of 1,000 contact tracers. When fully staffed, Massachusetts will hire about 14 contact tracers per 100,000 residents.

An alternative is to partner with colleges and universities. Florida hired 100 workers for contact tracing over a single weekend by reaching out to its varied Schools of Public Health and hiring faculty and graduate students.

States may also consider hiring competent, trained individuals from within heavily affected communities, which may include furloughed or laid off workers, to serve as community health workers. These individuals can enhance trust in the public health response, conduct contact tracing, and link people to critical resources. Because of the nationwide public health emergency and national emergency declarations, state workforce agencies can apply to request funding for Disaster Recovery Dislocated Worker Grants (DWGs) and Economic Recovery DWGs. Several states have submitted emergency funding requests for training activities related to COVID-19 response and recovery needs, in addition to leveraging certain other existing Workforce Innovation and Opportunity Act (WIOA) funding streams.

States can take additional steps to support hiring for COVID-19 response occupations, such as facilitating virtual hiring events and matching workers to fill health care and other emergency response and supply chain workforce needs. For example, Indiana hosted a virtual job fair focused specifically on job openings in the healthcare industry within five hospital systems in Northeast Indiana. Governor Newsom partnered with the technology platform, OnwardUS, to launch a portal that links displaced workers with employers across the state, including those with jobs related to COVID-19 response needs.

What is the role of technology in supporting isolation, contact tracing and quarantine?

While manual contact tracing, with its personal outreach and direct case and contact engagement, is considered the bedrock of highly effective contact tracing, technology can play a critical role in managing workflow activities in case/contact engagement, monitoring symptoms and effectiveness in isolation or quarantine actions, as well as increasing the efficiency and effectiveness of these widespread efforts at the community level. These technologies should be effective at advanced analytics and visualization to monitor and optimize contact tracing activities.

States may consider how smartphone apps and web-based tools can securely and confidentially help to notify individuals who come into contact with COVID-19 positive individuals and help them monitor their own symptoms to identify the potential need for testing. For example, Governor Burgum recently

announced a new mobile app, Care19, that allows users testing positive for COVID-19 to consent to sharing accurate real-time data with the North Dakota Department of Health to support contact tracing and forecasting the pandemic's progression.

States will need to consider both privacy concerns and people's willingness to participate with this type of technology. Issues such as mobile phone app ownership, implementation, and data storage will also be important considerations for states in the weeks and months to come. Ensuring there is clear communication to and understanding of the public on how information is kept, used, and deleted is critical. Data used for contact tracing should be maintained for tracing purposes only, not shared for research or other purposes, and should be purged after appropriate use.

How can states offer support for those in isolation and quarantine and provide alternative isolation locations?

Contact tracers who identify positive cases and their contacts must facilitate rapid isolation and quarantine of these individuals. States have a vital role to play in making critical services that enable isolation and quarantine possible. These may include providing:

- Relocation to alternative locations—such as repurposed hotels, dormitories, or military barracks— for individuals in need of stable housing or unable to isolate or quarantine effectively at home;

- Access to medical care, food, childcare and other needs; and

- Basic financial support for the period of isolation and quarantine.

How can states best encourage compliance with isolation and quarantine policies

States should work with local officials to develop policies to encourage compliance with isolation and quarantine and explain these policies to the public early and transparently. Public trust and understanding is critical for successful implementation. States should continue to evaluate the effectiveness of these policies and how they may need to be modified.

For more information:

- ASTHO/JHU A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US

- ASTHO A Coordinated, National Approach to Scaling Public Health Capacity for Contact Tracing and Disease Investigation

- JHU Review of Mobile Application Technology to Enhance Contact Tracing Capacity for COVID-19

- World Health Organization Implementation and Management of Contact Tracing for Ebola Virus Disease

- Vital Strategies Resolve to Save Lives Contact Tracing Protocol

STEP 4: ENSURE THE STATE'S HEALTHCARE SYSTEM CAN RESPOND TO POTENTIAL SURGES

As healthcare systems grapple with the first wave of COVID-19 infections, governors have played central roles increasing the surge capacity of the healthcare systems in their states. Steps have included obtaining PPE, securing ventilators, redistributing the healthcare workforce, and establishing additional workforce and hospital capacity. To prepare for the gradual reopening of the economy, states must ensure that their healthcare systems are out of crisis mode and able to handle potential new surges in patients, along with non-COVID-19 related services.

TO ENSURE SURGE CAPACITY, GOVERNORS SHOULD CONSIDER:

- Developing metrics to assess the healthcare system's ability to safely treat both COVID-19 patients and all other patients requiring care without resorting to crisis standards of care.

- Requiring healthcare providers to continuously report on numbers of healthcare worker infections, number of hospital beds, and levels of PPE and other medical equipment (such as ventilators) across the healthcare system.

- Partnering with industry and academic institutions to support PPE manufacturing.

- Removing regulatory barriers to establishing alternative sites of care or repurposing existing sites to serve COVID-19 patients in a surge.

- Expanding the pool of in-state and out-of-state licensed health care providers, expanding the use of telehealth, and ensuring appropriate liability protections.

- Expanding support for healthcare workers, including services such as childcare and eldercare.

KEY OPERATIONAL CONSIDERATIONS:

What levels of hospital surge should states prepare for?

As noted in the report from the American Enterprise Institute (AEI), recommended minimal surge capacity in hospitals to respond to increasing incidence of COVID-19 disease includes the ability to expand critical care beds in hospitals from 2.8 to 5-7 beds per 10,000 adults with accompanying staffing, PPE, equipment, oxygen and medication. Likewise, hospitals must be able to expand access to ventilators from 3 to at least 5-7 ventilators per 10,000 adults, accompanied by adequate staffing and supplies. During this time, hospitals must also maintain access to acute care hospital beds of at least 30 per 10,000 adults with planning for flexible use of these beds. Mobile health care infrastructures such as tent structures and temporary use of alternate sites, with state and federal support, are other solutions for surge capacity needs.

Examples of field hospitals and tent structures can be seen in New York, Washington, and Florida. Repurposing of entertainment venues have been done in states like Maryland, with the creation of a Federal Medical Station, through federal-state and public-private partnerships with local hospital systems.

How can states assess hospital capacity?

States can partner with healthcare systems, hospital associations and emergency management agencies to determine hospital capacity, including bed availability, staffing limits, equipment, medication supplies and PPE. States can use electronic monitoring databases and calculators, such as HavBed for hospital bed availability and the CDC PPE Burn Rate Calculator. States may also consider implementing processes to ensure that hospitals and healthcare systems have bed capacity, PPE for workers and are collecting complete data including self-reported racial and ethnic status.

States should also consult with their boards of pharmacy and other pharmaceutical supply chains to assess the potential of critical shortages of medications and to develop plans to prevent them.

How can states assess the ability of their healthcare systems to care for patients with cancer, mental illness, addiction and other conditions besides COVID-19?

States can partner with their local medical societies and other groups of community-based providers to track access to core health services over time. For example, governors can engage behavioral health organizations to identify challenges in maintaining support for people with mental illness and/or substance use disorders and prepare for an increase in volume resulting from the pandemic. Using existing state, local and provider networks, providers can report on the number of visits in different categories in primary care and by specialty, including mental health and addiction services. This reporting can also include identifying financial vulnerabilities of specific providers, access to necessary PPE and other supplies, access to testing for healthcare workers, and changes made to support social distancing. States can use this information to identify gaps in key services for specific patient populations and develop initiatives to address them.

How can states build an adequate healthcare workforce for a surge?

States can identify different ways to recruit healthcare providers. Strategies include expanding access to out-of-state licensed health care providers and telehealth, maintaining and increasing the number of providers by easing in-state licensure requirements and expanding the pool of clinical and non-clinical health care workers by expanding scope of practice, reducing supervisory requirements, providing reimbursement to providers serving in new capacities, letting providers practice at the top of their license, and credentialing veterans and foreign trained providers. States also may partner with the federal government, through the Federal Emergency Management Administration (FEMA) or the Veteran's Administration for potential deployment of medical personnel. NGA has released a memo on Gubernatorial Strategies for Healthcare Workforce and Facility Capacity with additional recommendations on building workforce capacity.

For more information:

- NGA Memo: Governor Actions to Address PPE and Ventilator Shortages

- NGA Memo on COVID-19 and Medical Surge

- NGA Memo on Strategies for Telehealth

- NGA Memo on Strategies for Health Care Workforce and Facility Capacity

- Electronic database for hospital beds, HavBed

- CDC PPE Burn Rate Calculator

STEP 5: PROTECT ESSENTIAL WORKERS AND AT-RISK POPULATIONS

Opening public spaces will entail an increased risk of community transmission. Certain populations will be more at risk for serious consequences and mortality from contracting the disease. Those most at risk include:

- Healthcare workers, first responders and other essential workers in contact with the public;

- Older adults living in nursing homes, assisted living, and senior housing;

- Racial and ethnic minorities;

- Justice-involved populations;

- People experiencing homelessness; and,

- People with disabilities and living in state institutions, group homes, and other congregate settings.

Given the setting and circumstances of where these populations reside, targeted monitoring and interventions will be critical to protecting these communities. States that develop effective systems and policies that protect these populations will be less likely to experience outbreaks that can interrupt the gradual reopening of society.

TO PROTECT THOSE AT HIGHER RISK, GOVERNORS SHOULD CONSIDER:

- Designating a lead agency to develop and implement a strategy for older adults that includes establishing preventive standards, expanding the availability of home health care, providing wraparound nutrition and mental health services, and standing up a strike team to respond to outbreaks of disease.

- Developing standards for the protection of essential workers in contact with the public, including access to PPE, cleaning supplies, and sick leave benefits.

- Appointing an advisory committee on emerging racial disparities in COVID-19 deaths with representation from affected communities.

- Implementing early release or utilizing alternatives to incarceration consistent with public safety to reduce crowding in correctional facilities, and identify supports in the community, while taking steps to reduce in-person contact points for those inside facilities.

- Appointing an advisory committee to address unique needs of the disabled, homeless, and other communities with access and functional challenges with representation from affected communities.

KEY OPERATIONAL CONSIDERATIONS:

How can states put together rapid response teams for at-risk populations?

Key components of response teams include infection control experts from public health, access to critical testing and supplies, and support for evacuation from the National Guard or other similar resources. As an example, Governor Hogan in Maryland and Governor Gina Raimondo in Rhode Island have established strike teams to respond to critical incidents in nursing homes.

What standards can states set to protect essential workers?

There is a broad range of essential workers who are at increased risk of transmission from healthcare providers and first responders to grocery workers and bus drivers. In partnership with employers and local governments, states can set standards for different categories of workers to ensure their safety such as redesigning the work environment, providing hazard pay, providing supplies for cleaning, access to recommended masks, and sick leave benefits. For example, Governor Mills issued an executive order restricting the number of people allowed at essential businesses at any one time and requires businesses to implement a broad range of workplace hygiene measures and implement physical distance policies, to the extent possible.

How can states assess the need for PPE for high risk settings?

States can assess the need for PPE in different settings, such as nursing facilities, jails and prisons. Obtaining these supplies should be prioritized in order to reduce the potential for major outbreaks. CDC has a published PPE Burn Rate Calculator for facilities to assess ongoing PPE needs. New Hampshire has a PPE Request Form for COVID-19 for its healthcare providers to report PPE needs.

How can states partner with local governments and community-based organizations to build effective policies and provide wrap around services for older adults and individuals with disabilities?

States may provide clear guidance for facilities and providers that serve older adults and individuals with disabilities around safety measures, needed equipment (PPE), handling hospital discharge and overflow, ensuring effective workforce and best practices around early identification and response to outbreaks. Centers for Medicare and Medicaid Services (CMS) recently issued new regulatory requirements that nursing homes inform residents, their families and representatives of COVID-19 cases in their facilities. States may partner with local government and community-based organizations to support providers and caregivers serving these populations as well as meeting increased demands for meals and other wrap around services for those living in the community. Several states have secured additional funding through the Medicaid program to support some of these efforts. For example, 18 states have received approval from CMS to pay family caregivers for care of older adults during this public health emergency. A number of states have also received approval for services such as home-delivered meals (7 states) and additional medical equipment and supplies like PPE (8 states).

How can states address emerging evidence of racial and ethnic disparities in COVID-19 deaths?

Early evidence demonstrates significant disparities in rates of COVID-19 death by race. For example, African Americans are dying at a rate of two to three times the rate for the general population in Louisiana, Illinois, and Michigan, and at substantially higher rates in the District of Columbia, Maryland, North Carolina and Connecticut. Higher rates of death among Latino populations have been reported in New York City and elsewhere.

The reasons for these stark disparities, particularly for lower income populations, include limited access to health care, overrepresentation in jobs with inadequate PPE, unstable or crowded housing arrangements that make it difficult to isolate and quarantine, overexposure to environmental pollutants that may predispose to severe disease, and high rates of chronic illness.

Addressing these disparities starts with a commitment to measure them in a culturally-informed manner that engages communities. According to JHU, many states do not report race and ethnicity in testing, confirmed cases and deaths. States may expand this reporting, including by relying on the healthcare systems in their state that are able to track and provide these data more effectively. Other steps include developing pathways for COVID-19 testing and services to undocumented populations or people without access to healthcare services; setting standards for protection of essential workers; offering support such as food delivery (or even hotel stays) for people who must isolate or quarantine, and partnering with community leaders to ensure strong communication, engagement, and planning. To help address these needs, Michigan Governor Gretchen Whitmer established a task force that includes community members from the most impacted areas to investigate and propose strategies to address disparities in her state.

How can states best reduce the chance of outbreaks among individuals experiencing homelessness?

The CDC has guidance on how to reduce the risk of COVID-19 among individuals experiencing homelessness. The U.S. Department of Housing and Urban Development also maintains a website with guidance and resources. In general, providing housing to individuals who are experiencing homelessness will most rapidly reduce the risk to this population.

States may take steps such as (i) waiving certain regulatory barriers for any shelters or facilities, (ii) directing state, local and private sector partners to transition sheltered homeless individuals into alternative housing that allows for adequate social distancing, (iii) directing social service agencies to continue providing basic food, water, shelter and hygiene needs, (iv) assist localities in partnering with the commercial sector (such as hotels, motels or trailers) to secure temporary housing with a plan for separate locations for people who test positive; and (v) engage underutilized community-based providers (e.g., community mental health centers) to engage the population in mitigation approaches.

How to address increased risk for incarcerated populations?

Governors can work with correctional leaders to reduce risks for justice-involved juveniles and adults. Strategies for reducing crowding in correctional facilities have included implementing early release for individuals who are medically compromised or with low-level, non-violent offenses, as well as utilizing alternatives to incarceration for pre-trial individuals. CDC guidance outlines strategies for reducing the risk of COVID-19 and responding to outbreaks in jails and prisons. The NGA has issued memos on early release from detention and juvenile justice. JHU has released additional recommendations.

For more information:

- NGA Memo: Strategies for COVID-19 Response for Older Adults and People with Disabilities

- NGA Memo: Gubernatorial Strategies for Health Care Workforce and Facility Capacity

- NGA Memo: COVID-19 Responses in the Juvenile Justice System

- NGA Memo: Early Release from Incarceration in Response to COVID-19

- NGA Memo: Child Care Needs During COVID-19 Closures

- CDC Interim Guidance on People Experiencing Unsheltered Homelessness

- CDC Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities

- Department of Housing and Urban Development COVID 19 Prevention and Response for Homeless Providers: Daily Resource Digest

- JHU Recommendations for a Metropolitan COVID-19 Response – Special Emphasis Series – Guidance on Protecting Incarcerated Individuals

CREATING AND EXECUTING A PLAN TO GRADUALLY REOPEN THE ECONOMY

With a strong public health infrastructure in place, states will begin to gradually reopen the economy. Critical decisions on reopening will require a step-by-step process to weigh the risks and benefits. Governors will lead in determining when, where, and how to gradually resume economic activities, when social distancing or other mitigation measures may need to be adjusted or reinstated, and how to clearly and effectively communicate with businesses and the public to reduce the risk of outbreaks.

The following are important steps for governors to protect the public's health on this path to recovery. There are a number of other economic considerations for reopening businesses that are not addressed in this report; however, the steps to develop the plan here may be leveraged in planning for longer term economic recovery.

STEP 6: DEVELOP A STRONG AND CLEAR COMMUNICATION AND PUBLIC ENGAGEMENT PLAN

In a crisis, communication is not simply informing people about actions being taken by state officials. Communication is an integral part of the response itself. Effective communication encourages individuals, families, businesses and neighborhood groups to take actions that protect themselves and their communities.

Communication becomes even more important as states move toward reopening. There is a risk of misunderstanding, confusion, or protest by people who believe that the pace of change should be either faster or slower.

A critical element of communication is public engagement. Different communities will have different needs, risk factors, and resources. Through intensive discussions across their states, governors can forge a path forward with broad public support.

TO COMMUNICATE AND ENGAGE EFFECTIVELY, GOVERNORS SHOULD CONSIDER:

- Regularly holding press conferences to explain the status of the pandemic and key steps being taken to protect the public.

- Creating the opportunity for extensive public engagement about plans for reopening the economy.

- Collaborating with other trusted individuals, including physicians, nurses, business leaders, public health experts, community leaders, non-profit organizations, faith leaders as well as persons from communities who have recovered from COVID-19 infection.

KEY OPERATIONAL CONSIDERATIONS:

What are core elements of effective communications in a crisis?

According to the CDC's guide to communication in a public health crisis, critical elements of effective communications include timeliness, accuracy, and credibility. Transparency, candor, and the public release of data all foster credibility. So too does the support of healthcare and public health leaders with sterling reputations in their fields and in the community.

Many governors have found success with regular briefings with public health officials that review a consistent set of critical metrics, describe key challenges candidly, explain what is being done to address the challenges, and provide room for hope. Governors can connect with their communities by conveying empathy about loss, acknowledging and responding to the disproportionate impact of the COVID-19 crisis on certain communities, and by appreciating a broad range of efforts to address critical needs. Governors also can acknowledge where uncertainty exists and indicate that new information may bring about changes to recommendations.

What is the role of the private sector in communication?

Governors can build important and influential communication partnerships with the private sector. Media outlets can cover news conferences and provide public service announcements. Faith and community leaders can amplify key messages, including translating critical health information into different languages. Nonprofit organizations can reach a broad diversity of neighborhoods and communities. Governors have also partnered with communications firms to develop media campaigns leveraging paid and donated airtime, billboards, print ads and social media posts to encourage communities to adhere to stay at home orders and practice other safe behaviors. The Ohio Department of Health's 30-second "mousetrap" ad, which visually illustrates the effectiveness of social distancing, was seen by 9 million viewers within its first 24 hours. In Minnesota, Governor Tim Walz launched #StayHomeMN, a marketing campaign to provide information to Minnesotans on how to keep their communities safe.

What is the best way to communicate on difficult topics (such as isolation and quarantine), needed safety measures upon reopening, and when social distancing measures must be reinstated?

Difficult topics should be addressed by a state's most trusted messengers, often the governor and state health officials themselves. It can help to bring together support from trusted validators across the public and private sectors. As the CDC guide to communications recommends, it also helps to map key messages in advance, along with answers to anticipated questions.

What are best practices for public engagement?

Governors can convene formal advisory committees or develop structured opportunities for different sectors to partner with state leaders. These forums should be structured to provide meaningful opportunity for two-way dialogue. Special efforts should be made to engage with at-risk communities, young people, racial and ethnic minorities, individuals with disabilities, and others who may have less access through formal channels. Written public comment on draft documents can provide an opportunity for everyone to have input into key decisions. Governors may also consider specific communication strategies and engagement geared toward front-line healthcare workers, who are experiencing high levels of stress and uncertainty.

How can states discuss the potential for effective treatments and vaccines?

While there are many potential treatments and vaccines for COVID-19, none have yet been demonstrated to be safe and effective. Patients can access experimental therapies through clinical studies, compassionate use with the consent of manufacturers, or for treatments that are already on the market for another purpose, through their physicians as part of clinical practice.

For treatments that are still under investigation, governors and state health officials can explain that it is not known whether the potential benefits exceed the potential harms. Even currently marketed drugs for other purposes can have serious harms for patients with COVID-19. That's why the decision to begin treatment should be left to the individual patient and doctor.

Governors can discuss experimental treatments to emphasize the value of research to communicate which treatments work and which do not. In partnership with academic institutions, states can encourage people to participate in research studies to generate evidence about what works, for which patients, at which stage of illness, and at what dose.

Governors can also communicate that when evidence establishes safe and effective treatments or vaccine, the state will need to develop strategies to provide appropriate access and affordability for those who need them. Looking forward, governors will need to prepare for the later phases of response such as ensuring mass distribution of vaccinations and/or treatments when they are approved and available for the public.

For more information:

- CDC Crisis & Emergency Risk Communication

- ASTHO COVID-19: Simple Answers to Top Questions – Risk Communication Field Guide Questions and Key Messages

STEP 7: CREATE A FRAMEWORK FOR REOPENING

Governors are well underway in developing frameworks that thoughtfully guide decision making on key factors to reopen the economy. These frameworks include important public health factors such factors as:

- Communicating a consistent description of the ongoing challenge of COVID-19;

- Providing evidence on the effectiveness of social distancing to date;

- Collecting data on COVID-19 spread;

- Emphasizing the importance of testing, isolation, contact tracing, and quarantine;

- Defining specific measures to assess readiness for reopening;

- Establishing criteria to be used for moving between phases of response;

- Determining how the state will assess for a resurgence of COVID-19; and,

- Anticipating the potential necessity of returning to tighter community control measures.

Several Governors have announced preliminary guidelines or skeletal plans for reopening, or have appointed task forces composed of state officials and private sector leaders to help guide reopening decisions. For example, Governor Polis has outlined a process for recovery in three stages (urgent, stabilization, and recovery) and released key indicators required for consideration of relaxing social distancing. Governor Parson's "Show Me Strong Recovery" plan includes four essential pillars: expanding testing capacity, expanding PPE reserves, expanding health system capacity, and improving the ability to predict potential outbreaks.

Governors also are forming regional coalitions to coordinate their efforts. Using similar approaches to reopen across regions can provide a cohesive approach and minimize public confusion or frustration. To date, a Western (California, Oregon, Washington), Midwestern (Michigan, Ohio, Wisconsin, Minnesota, Illinois, Indiana, Kentucky) and Eastern (New York, New Jersey, Connecticut, Pennsylvania, Delaware, Rhode Island) coalition of states have been formed to address reopening procedures.

TO DEVELOP A FRAMEWORK FOR REOPENING, GOVERNORS SHOULD CONSIDER:

- Creating a process for ongoing public input and engagement, including the potential designation of a broad-based task force or advisory committee.

- Regionalizing approaches to recovery by collaborating with neighboring states.

- Communicating clearly about the framework and what it means for individuals, businesses, and communities.

- Developing a public facing dashboard of key metrics to inform the implementation of the framework.

- Leveraging the established framework as a foundation for a longer-term economic recovery plan and beginning to identify future goals.

KEY OPERATIONAL CONSIDERATIONS:

Who should be included in efforts to develop and implement the framework for reopening?

Stakeholders include public health officials and other state officials, employers, workforce development leaders, healthcare systems and providers, local governments (including counties and cities), consumers, educators, chambers of commerce, community leaders and others. Representatives from at-risk communities and those who have been disproportionately affected by the disease, such as lower-income African Americans, Latino and Native Americans, are important stakeholders.

What data elements will inform the development and implementation of a framework?

As described in more detail under Step 8, states may consider developing goals and indictors to inform decisions on loosening and tightening social distancing as part of plans for reopening. The categories may cover public health metrics to map the spread of disease, as well as a broad range of preparedness capabilities, including surveillance for signs of illness, testing capacity, hospital surge capacity, progress in isolation, contact tracing and quarantine, and efforts to reduce infections in public with masks, hand sanitizer and other recommendations for employers.

How can states address issues of interstate travel?

Governors and state health officials will need to develop a plan for addressing interstate travel and tourism, including travel to and from one state to another state that may have high incidence of COVID-19.

As mentioned previously, states could establish regional partnerships to address questions of interstate travel and support consistency across metro areas. Several partnerships have formed among West Coast, Midwest and Northeastern states.

STEP 8: SET THE CRITERIA AND DEFINE THE STAGES FOR REOPENING

Two essential elements of state frameworks for reopening the economy are the criteria for moving between levels of social distancing and determining the process by which states and local governments will gradually expand allowable activities. With public input and engagement, and informed by public health evidence and expertise, states, in partnership with local governments, should begin to set these elements in place.

TO SET THE CRITERIA AND STAGES OF REOPENING, GOVERNORS SHOULD CONSIDER:

- Identifying key public health and preparedness capability metrics for initiating the process of reopening.

- Setting a length of time to ensure that there is no surge in cases before proceeding to the next level of social distancing.

- Developing clear public health criteria for when social distancing criteria may be loosened or tightened.

- Prioritizing public and private activities for different stages of reopening.

KEY OPERATIONAL CONSIDERATIONS:

What are key criteria for starting the process of reopening?

Multiple experts have advised that states begin to reopen when the number of COVID–19 infections is in sustained decline, when the healthcare system is able to care for patients and not operate in crisis mode, and when protocols are implemented to protect high risk populations are in place. Experts also recommend that states build the public health infrastructure for effective surveillance, isolation, contact tracing, and quarantine. **Appendix A** summarizes federal and key expert recommendations for reopening and **Appendix B** outlines a list of potential goals and criteria that states may consider when identifying how to determine readiness for gradual reopening.

How can states determine the relative risks of different public and private sector activities in order to define the stages of reopening?

To assess the risk of different activities, state officials may consult expert reports and guidance (such as those summarized in this JHU report) and obtain input directly from affected agencies, businesses and local governments. Key criteria include contact intensity, the number of contacts, and the modification potential of each activity. Potential modifications for discussion include telework, increased number of shifts, curbside customer interaction, hands free technology, the ability to distance customers and the ability to distance staff.

States will need to prioritize certain activities (return to work and school, for example) over other activities (such as large indoor concerts) based on their economic and public health impacts.

How can states identify or define regions with different risk profiles within a state?

Statewide versus regional opening strategies will need to be considered by gauging economic and health impacts that are specific to each state. Governors can work with local officials to support a targeted approach to reopening that recognizes that different counties and jurisdictions have varying risk profiles. Utilization of forecast modeling can help guide disease activity predictions.

For more information:

- NGA Memo: Implementing Effective Social Distancing Policies to Mitigate Spread of COVID-19

- NGA Memo: Overview of State Actions on Business Closure and Personal Movement Restrictions in Response to COVID-19

- CDC Community Mitigation Guidelines to Prevent Pandemic Influenza – United States, 2017

- JHU Public Health Principles for a Phased Reopening During COVID-19: Guidance for Governors

STEP 9: BUILD PARTNERSHIPS BETWEEN PUBLIC AND PRIVATE SECTORS TO IMPLEMENT THE PLAN

To effectively implement their frameworks for reopening, states will need to partner with businesses and local governments in identifying what activities will be permitted at each stage, as well as mitigation measures to reduce the risk of activities in public settings. Clearly communicating next steps, rationale, and guidance as states relax community-wide social distancing policies will encourage individuals, families, agencies and businesses to take necessary action to reduce risks and support a sustained and successful reopening process.

States will also need to combine this public engagement with appropriate tools and mandates to ensure effective implementation. For example, Pennsylvania has required essential employees to wear cloth masks. Idaho is requiring certain businesses to develop preparedness plans.

TO SET THE CRITERIA AND STAGES OF REOPENING, GOVERNORS SHOULD CONSIDER:

- Developing and promoting tools to help public and private organizations reduce their risks of COVID-19 transmission and respond to early signs of outbreaks.

- Setting standards for reporting on the progress of reopening, such as COVID-19 infections and employee absenteeism.

- Reopening key public functions, such as the court system and motor vehicle administration.

- Assigning liaisons to key business groups such as Business Roundtables, Chambers of Commerce, or other key organizations and establishing clear feedback loops to support reopening and ongoing assessment of the reopening process.

KEY OPERATIONAL CONSIDERATIONS:

How can states help businesses reopen safely?

States can create a template or checklist to help agencies and businesses reopening, with space for steps in four key areas as noted by a recent JHU report: physical distancing, engineering controls, administrative controls, and PPE. The White House Coronavirus Taskforce's reopening guidelines also advises businesses to develop appropriate policies to protect workplace safety in accordance with federal, state, and local regulations and guidance, as well as industry best practices.

For example, public agencies and private businesses should identify modifications that are compliant with existing federal and state laws for:

- Physical distancing, such through telework and shift work, employee illness screening, and sick leave and family leave policies;

- Engineering controls, such as hands free technology, the creation of barriers between people, and more frequent cleaning;

- Administrative controls, such as decreased customer/client interactions; and

- PPE, such as masks and other equipment.

The checklist could include sections for more than one response level, with different requirements based on strict, moderate, or low social distancing levels.

For high-risk activities, states can consider requiring the submission and approval of plans for reopening.

The CDC has developed additional guidance for businesses.

What else can employers do to support safe reopening?

States may consider encouraging or requiring both public agencies and private employers to report on the number of known cases of COVID-19, number of workers out for isolation and quarantine, and general employee absenteeism for illness. These data can help inform population-based surveillance and decision making on reopening.

STEP 10: PREPARE TO REASSESS AND IMPROVE THE PLAN FREQUENTLY

The stepwise process of a phased reopening requires continuous examination and reevaluation. While baseline metrics are essential, new circumstances, science, technology, changing epidemiology and societal considerations will emerge that may necessitate recalibration. States should both communicate the need for this reassessment and more formally engage in review and improvement over time.

TO LEAD IN ASSESSING AND IMPROVING PLANS FOR REOPENING, GOVERNORS SHOULD CONSIDER:

- Emphasizing the dynamic nature of the process and the need for recalibration.

- Running through table-top exercises with state agencies to continuously update and test the plan.

- Continuing to engage stakeholders (such as a taskforce or advisory committee) to inform and reassess the plan on a periodic basis and identify needed changes to the plan.

KEY OPERATIONAL CONSIDERATIONS:

How are success and failure defined?

From the perspective of reopening the economy, success will be measured by the ability to move from stage to stage in loosening social distancing requirements. It will also be measured by the long-term trajectory of recovery, and whether moving between stages is done safely and in a way that improves public confidence and supports increased economic activity.

From a public health perspective, success includes the ability to recognize the threat of a resurgence of cases and then acting quickly to prevent significant harm, even if these steps involve a temporary slowing down of the economy.

From a governance perspective, success requires maintaining public confidence in the state's response and inspiring communal action during new challenges and periods of uncertainty.

Characterizing efforts into dichotomous success and failure categories is risky when responding to a multifactorial natural disaster. Rather, setting expectations for each stage can be a more effective way to communicate progress.

How can states partner with other entities to assess the framework

States can work closely with CDC experts and ask leading academic institutions to engage key stakeholders and produce assessments to address specific questions, such as the adequacy of surveillance, the strength of the public health response, the resilience of the healthcare system, and the appropriateness of the stages of the reopening. Then, through public input and engagement with key stakeholders, states can make improvements over time.

CONCLUSION

Communities across the United States continue to grapple with the unprecedented health and economic challenges of the COVID-19 pandemic. While a few states and localities experiencing early outbreaks are beginning to see cases decline from their peak rates, others have not yet reached peak infection levels. With indefinite continuation of community-wide social distancing neither possible nor desirable, governors have the opportunity to lead their states into the next phase of COVID-19 response and recovery by building the critical public health infrastructure necessary to identify and stop the spread of the virus, as well as beginning the process of planning to gradually and safely reopen social and economic activities.

This guide is intended to provide governors with tactical information to inform their rapid decision-making and set a sustainable pathway toward recovery. While this document addresses key public health considerations, governors will also concurrently need to work to support economic relief for businesses and individuals impacted by the COVID-19 crisis. The challenges posed by COVID-19 will continue to evolve, and will require governors to continually assess and adjust plans as they develop data-informed responses that suit their own unique circumstances, challenges and the needs of their communities.

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APPENDIX A: COMPARISON OF RECOMMENDATIONS ON APPROACHES TO PUBLIC HEALTH READINESS AND REOPENING

The table below provides insights from the White House Coronavirus Task Force's *Guidelines for Opening Up America Again* as well as six other plans that provide frameworks and recommendations on the capacity needed to consider reopening state and local economies. While some frameworks identify specific criteria or thresholds that must be met in order to relax current social distancing measures, others offer more general recommendations for national and state leaders in building testing, surveillance, contact tracing, and workforce capacity. While this table provides highlights of each plan, readers should refer to the respective reports for a complete understanding of each framework and their recommendations.

Organization	White House Coronavirus Task Force	American Enterprise Institute	Center for American Progress	ASTHO & Johns Hopkins Center for Health Security	Vital Strategies: Resolve to Save Lives	Duke Margolis Center for Health Policy	Harvard Safra Center for Ethics
Plan or guidance	Opening Up America Again	National Coronavirus Response: A Road Map to Reopening	A National and State Plan to End the Coronavirus Crisis	A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US	Box It In: Rapid Public Health Action Can Box in COVID-19 and Reopen Society	A National COVID-19 Surveillance System: Achieving Containment	Roadmap on Pandemic Resilience
Summary	Outlines gating criteria for three progressive phases of reopening at the discretion of governors, criteria for state preparedness and guidance for individuals and employers.	Outlines a national and regional approach to reopen in four phases.	Identifies six steps states should meet to begin the process for reopening.	Offers a national plan to implement a comprehensive system to conduct contact tracing for COVID-19 cases.	Offers a framework and key considerations for successful contact tracing.	Provides recommendation for establishing a national surveillance system capable of mitigation and containment of COVID-19.	Lays out how massive testing, contact tracing, and social isolation with strong supports can rebuild the economy in four phases.
Threshold for gradual reopening: decline in cases for each state	Reduction of flu-like illnesses AND COVID-like syndromic cases for 14 days. **AND** Reduction in documented COVID-19 cases **OR** reduction in positive COVID-19 tests as a percentage of total tests.	Sustained reduction in COVID-19 cases for 14 days.	Transmission decreases to a rate of 20 new COVID-19 cases per million people per day andSustained decline in positive cases.	Not specified.	Not specified.	Refers to the AEI report.	Not specified.
Threshold for gradual reopening: health system capacity in states	**Gating Criteria:** Hospitals can treat all patients without resorting to crisis standards of care. **Preparedness:** Hospitals have sufficient supply of PPE and critical medical supplies for surge **AND** ability to surge ICU capacity.	Local hospitals have the ability to safely treat all patients without resorting to crisis standards of care.[2]	Ensure health care workers have sufficient PPE, estimated to include 300 million N95 respirator masks.	Not specified.	Not specified.	Refers to the AEI report.	Ensure the health care system has the capacity to safely treat both COVID-19 patients and others requiring care.

[1] PPE refers to Personal Protective Equipment.
[2] Ensuring critical care capacity may include hospitals expanding from 2.8 critical care beds to 5-7 per 10,000 adults; expand access to ventilators from 3 to 5-7 ventilators per 10,000 adults; and maintain access to acute care hospital beds of at least 30 per 10,000 adults. Capacity may be adjusted for decrease in cases or met through mobile healthcare infrastructure.

Organization	White House Coronavirus Task Force	American Enterprise Institute	Center for American Progress	ASTHO & Johns Hopkins Center for Health Security	Vital Strategies: Resolve to Save Lives	Duke Margolis Center for Health Policy	Harvard Safra Center for Ethics
Threshold for gradual reopening: testing capacity in states	**Gating Criteria:** Robust testing program for at-risk healthcare workers, including emerging antibody testing. **Preparedness:** Screen and test those with COVID-19 symptoms. **AND** Test syndromic and influenza like illness indicated persons.	Test all people with COVID-19 symptoms. *Estimated national need for 750,000 tests per week.*	Test those with COVID-19 symptoms and their contacts. *Estimated national need for 2.6 million tests per day.*	Test those with COVID-19 symptoms and those who may have been exposed.	Test those who have been hospitalized, those with COVID-19 symptoms, essential workers, and close contacts of confirmed cases.[3]	Test those with COVID-19 symptoms, those who have been exposed, or those at higher risk of exposure (e.g. healthcare workers). *Estimated national need of 750,000 tests per week.*	Test those with COVID-19 symptoms, those with higher risks of exposure, as well as contacts (including asymptomatic contacts). *Estimated national need range from 5 to 20 million per day to 30 to 100 million per day if initial interventions do not succeed.*
Additional recommendations for expanding testing capacity	**Guidelines for Employers:** Develop and implement appropriate policies regarding testing.	Same-day, point-of-care testing widely available for hospitalized patients, health care workers and workers in essential roles, close contacts of confirmed cases, and outpatients with symptoms. Creation of taskforce to oversee serologic testing in the US.	Expand testing to the sick and the healthy, as guided by conditions on the ground. Serological testing may be necessary to clear people to go back to work.	Make serological testing widely available.	Repeated testing of cases and contacts to identify when it is safe for people to return to society. Accurate, rapid and low cost serological tests should be widely available.	Rapid diagnostic testing for everyone with symptoms and their contacts, those at high risk for surveillance and containment.	Formation of pandemic testing board to support testing supply and infrastructure for deployment. Scale up national and state-level health reserves and integrate into testing programs.[4]
Target for gradual reopening: enhancing surveillance systems	**Preparedness:** Ensure sentinel surveillance sites are screening for asymptomatic cases. Sites should serve older individuals, lower-income Americans, racial minorities, and Native Americans.	Create a comprehensive national sentinel surveillance system, coordinated with local public-health systems and health care providers, akin to ILINet.	Establish a robust surveillance system that includes testing of representative samples of every county to verify the number of new cases. Conduct surveillance testing of a representative sample of households to monitor disease spread.	Data collected during contact tracing and surveillance will need to be organized and communicated effectively both to state and national health authorities. New technologies could be leveraged as an additional data source for surveillance input.	Conduct ongoing surveillance at nursing homes and hospitals and among essential workers.	Develop surveillance systems capable of detecting outbreaks and symptomatic spread. Establish sentinel testing in select populations or high-risk settings. Promote the widespread use of electronic standards and reporting.	Endorses Duke-Margolis recommendations for modernizing disease surveillance.

[3] Minimum number of tests per day depends on the stage of the epidemic and number of outbreaks, hospitalizations, number of cases and contacts identified, and decisions about the frequency and extent of testing in nursing homes, hospitals, and essential services.
[4] With near-universal adoption of a high-precision tracing technology that allowed immediate, accurate identification of 75% of infected contacts, the number of tests could be further reduced to 2.5 million per day.

Organization	White House Coronavirus Task Force	American Enterprise Institute	Center for American Progress	ASTHO & Johns Hopkins Center for Health Security	Vital Strategies: Resolve to Save Lives	Duke Margolis Center for Health Policy	Harvard Safra Center for Ethics
Threshold for reopening: contact tracing	**Preparedness:** Ensure that contacts for COVID+ results are traced.	Must be able monitor all COVID-19 cases and their contacts before any reopening.	Ability to conduct instantaneous contact tracing to limit any outbreaks.	Not specified.	Not specified.	Not specified.	Not specified, although amount of required testing depends on effectiveness in tracing contacts.
Other recommendations for contact tracing	**Guidelines for Employers:** Develop and implement policies and procedures for workforce contact tracing following employee COVID+ test.	Trace close contacts of confirmed cases as defined by the CDC.[5] Surge the public health workforce to conduct case finding and contact tracing. Enable rapid reporting to public health authorities through this workforce and electronic data sharing from providers and labs.	Expand contact tracing teams of state and local health agencies.[6] Leverage mobile technologies to notify people who were proximate to a person with COVID-19.	Build capacity to identify all contacts of confirmed cases and link them to services. Rapidly hire a large workforce estimated at 100,000 contact tracers (paid or voluntary) nationally.[7] Use technology to identify contacts, track symptoms and aggregate data.	Massively expand the public health workforce and develop effective technology to support contact tracing. Employ approximately 100,000 contact tracers nationally. Use trusted leaders and popular figures to promote compliance.	Expand public health workforce to trace close contacts, supported by new technology and community-level collaborations.	Endorsement of Johns Hopkins/ASTHO recommendations for hiring 100,000 new contact tracers. Use of peer-to-peer warning apps with maximal privacy and data protection.
Recommendations for isolating infected individuals	**Guidelines for Employers:** Monitor workforce for indicative symptoms. Do not allow symptomatic people to physically return to work until cleared by a medical provider.	Confirmed case should be isolated at home, in a hospital, or (voluntarily) in a local isolation facility for at least seven days. Field hospitals, dormitories, hotels, and military barracks may be repurposed. Technology approaches can enable and support isolation and quarantine efforts (e.g., home isolation enforced with mobile GPS technology).	States should establish centers to isolate confirmed and suspected cases on a voluntary basis.[9] Fund living and treatment support centers to support individuals isolated at home.	Isolate infected individuals at home or, as necessary and on a voluntary basis, in healthcare facilities or dedicated isolation facilities.	Provide basic services for those who must remain in isolation, including food and shelter if they cannot safely go home. Prevent transmission in hospitals by rapidly finding and effectively isolating all infected patients. Increase compliance by providing stipends to compensate for lost wages, and child or elder care.	Infected individuals should be isolated at home when possible. State and local health departments should, with federal funding, make local facilities for isolation and quarantine available to individuals who need them.	Support for quarantined and isolated individuals in the form of job protections, material support, and access to healthcare.

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[5] CDC defines close contact as those who were within 6 feet of a COVID-19 case for a prolonged period of time; had direct contact with infectious secretions of a COVID-19 case.

[6] Manual contact tracing by itself will not be effective in stopping transmission, and technological solutions will be necessary for instantaneous contact tracing.

[7] Based on the average pay for a community health worker of $17 an hour, the potential overall need for funding for a cadre of 100,000 contact investigators, absent a huge number of unpaid volunteers, would amount to approximately $3.6 billion.

[8] People awaiting test results should be advised to quarantine until their results are returned.

[9] Individuals who test positive for COVID-19 and individuals who have a fever should be isolated in designated, repurposed hotels, college dormitories, or other facilities at government expense. States must also provide hotels for front-line health care workers so that they can protect their families

Organization	White House Coronavirus Task Force	American Enterprise Institute	Center for American Progress	ASTHO & Johns Hopkins Center for Health Security	Vital Strategies: Resolve to Save Lives	Duke Margolis Center for Health Policy	Harvard Safra Center for Ethics
Recommendations for quarantining exposed individuals	None specified.	Close contacts of confirmed cases as defined by the CDC should be quarantined and monitored daily for 14 days. People awaiting test results should be advised to quarantine until their results are returned. Monitor international travelers.	None specified, although support centers would also serve suspected cases in quarantine.	Quarantine exposed contacts in their homes (or other dedicated facilities, if home is not an option) for 14 days after their last exposure to the case, monitoring for symptoms until diagnostic results show they are not infected.	Provide ready access to telehealth services and care for those in quarantine, when needed.[10]	Contacts of confirmed cases should be quarantined rapidly either at home or in local facilities for those who need it. With federal support, make local facilities for isolation and quarantine available to individuals who need them.	Support for quarantined and isolated individuals in the form of job protections, material support, and access to healthcare. Contacts of COVID+ individuals would be repeatedly tested rather than quarantined.
Other recommended mitigation measures	**For Individuals:** Continue to practice good hygiene (e.g. wash hands, sneeze or cough into tissue, strongly consider face coverings in public) and stay home when sick. Maintain physical distancing, avoid large groups, minimize non-essential travel according to phase guidelines. Precautions should be taken for vulnerable individuals. **For Employers:** Develop and implement appropriate policies regarding social distancing and protective equipment, temperature checks, testing, isolating, and contact tracing, sanitation, disinfection of high-traffic areas and business travel. Implement other appropriate guidance according to phase.	Maintain physical distancing precautions after reopening including widespread teleworking, maintaining hand hygiene and respiratory etiquette, wearing a mask in public, regularly disinfecting high-touch surfaces, and initially limiting social gatherings to fewer than 50 people. Implement physical distancing measures for schools and businesses. Maintain a higher level of social distancing for vulnerable populations.	Physical distancing must remain until herd immunity is achieved. Employers must continue to allow telework to the extent possible. Transportation protections (physical distancing, sanitizing) must remain in place. Ban gatherings of more than 50 people.	None specified.	None specified.	Utilize a range of other electronic data systems, once available, for a more sophisticated and effective disease surveillance system.	Milder mitigation measures would remain in place, such as limits on mass gatherings and reduced density on public transportation.

[10] An emerging best practice is testing quarantined contacts for presence of the virus on two occasions toward the end of their quarantine period and obtaining negative results before releasing them from quarantine.

Organization	White House Coronavirus Task Force	American Enterprise Institute	Center for American Progress	ASTHO & Johns Hopkins Center for Health Security	Vital Strategies: Resolve to Save Lives	Duke Margolis Center for Health Policy	Harvard Safra Center for Ethics
Timeline for current social distancing measures	Movement from each phase occurs when there is no evidence of a rebound and the gating criteria is met.	None specified.	A stay at home policy for a minimum of 45 days starting April 5, with high compliance rates.	None specified.	None specified.	None specified.	Widespread testing should be in place by early June.
Criteria for reinstating social distancing	Governors may need to restart or return to earlier phases based on severity of conditions.	If a substantial number of cases cannot be traced back to known cases, if there is a sustained rise in new cases for five days, or if hospitals in the state are no longer able to safely treat all patients.	Cautions states to meet all the criteria to avoid a second wave of the epidemic.	None specified.	None specified.	None specified.	If interventions do not succeed, and we have not developed capacity to test at much higher levels in work and school community settings (e.g., 30 to 100 million a day).

APPENDIX B: IDENTIFYING KEY PUBLIC HEALTH AND PREPAREDNESS METRICS FOR A STATEWIDE MITIGATION DASHBOARD

Steps 7 and 8 of the Roadmap advises governors to create a preliminary framework and identify measures for assessing a state's readiness to begin a gradual re-opening of the economy. Operational considerations in these steps include outlining key metrics for inclusion in a statewide mitigation dashboard, as well as preparedness plans that states may put in place to protect key populations and areas from COVID-19 transmission during a gradual relaxing of social distancing measures.

The following is a list of potential metrics compiled from the White House Coronavirus Task Force's Guidelines for Opening Up America Again and other sources that states may consider using as part of their "Mitigation Dashboards." Although states will identify metrics based on their own unique needs and data-sharing capabilities, the following list provides options for understanding trends and changes in COVID-19 transmission, as well as critical information on the state's preparedness on testing, health system capacity, and other public health functions as social distancing is relaxed.

POTENTIAL STATE METRICS FOR MITIGATION

Case Identification and Trends

Are COVID-19 cases decreasing or increasing? Decreasing positive cases means mitigation is working and should be continued; increasing cases mean transmission still occurring.

GOAL: Decreasing rates of positive cases for at least 14 days.*
METRIC: # positive cases
METRIC: # cases overall

GOAL: Decrease in cases overall for a minimum of 14 days.
METRIC: Trend in # of cases. States may want to monitor at 3, 7, 10, 14, 21, and 30-day trends.

GOAL: Decrease in deaths from COVID-19 for a minimum of 14 days.
METRIC: # of COVID-19 related deaths overall States should consider monitoring deaths by age group, by race/ethnicity. States should consider feasibility of monitoring by facility such as hospital, nursing home, long-term care facility, prison, etc.

Decreasing rates of influenza-like illness (ILI) may mean mitigation is working and should be continued; increasing cases means transmission may still be occurring.

GOAL: Decreasing reports of ILI for at least 14 days.*
METRIC: # of outpatient visits for ILI. States may want to monitor at 3, 7, 10, 14, 21, and 30-day trends.

GOAL: Decrease in COVID-19 like syndromic cases for at least 14 days.*
METRIC: # of outpatient visits for COVID-19 like syndrome for at least 14 days. States may want to monitor at 3, 7, 10, 14, 21, and 30-day trends.

Point of Care Testing Results and Testing Capacity

Does the state have the capacity to test those who need to be tested, and do it safely and quickly? Is the testing being conducted finding fewer positive cases, which would indicate less transmission, or more positive cases, which would indicate more spread, as a percentage of all tests being conducted? Is the state addressing potential differences in testing by different groups?

> **GOAL:** Decrease in "percent positive" tests over a 14-day period.*
> **METRIC:** % of positive tests as a percentage of total tests
> **METRIC:** # of tests conducted
> **METRIC:** # of positive tests of all tests conducted
>
> **GOAL:** All testing sites can screen for asymptomatic cases.*
> **METRIC:** # of sentinel testing sites
> **METRIC:** # of sentinel testing sites that can screen for asymptomatic cases
>
> **GOAL:** Sentinel testing sites operate in key locations serving older individuals, lower-income individuals, racial and ethnic minorities including Native Americans.*
> **METRIC:** # of sentinel testing sites operating in locations that serve older individuals, lower-income individuals, and racial and ethnic minorities including Native Americans.

Do states have what they need to meet the demand for testing and to quickly report test results?

> **GOAL:** Decrease in average time to report COVID-19 test results.
> **METRIC:** Time from specimen to result reported (hours, days).
>
> **GOAL:** State testing capacity, including equipment, supplies, reagents, and staffing meets the demand for testing.
> **METRIC:** # of labs reporting need for additional equipment, supplies, reagents, and staffing.

Health Care Facilities and Health Care Worker Capacity

Does the state have the health care facility capacity and staffing needed to safely treat individuals with COVID-19 and to protect other patients and health care workers from infection?
Do hospital systems have the capacity to treat a surge in cases and are they able to care for COVID-19 patients using recommended guidelines and protections (usual standards of care)?

> **GOAL:** Hospitals can quickly and independently supply sufficient PPE and critical medical equipment and can surge intensive care unit (ICU) capacity.*
> **METRIC:** % of hospitals that can handle a defined increase in patient volume from current census with sufficient PPE and adequate ICU capacity.
>
> **GOAL:** Hospitals can care for all patients without using crisis standards of care.*
> **METRIC:** % of hospitals that care for all patients without using crisis standards of care.
> **METRIC:** % of hospitals reporting sufficient PPE to treat COVID-19 patients and protect health care workers.

Can health care facilities test and protect all health care workers from COVID-19 infection?

> **GOAL:** Ensure robust testing programs for at-risk health care workers.*
> **METRIC:** # of hospitals that have a testing program in place for health care workers

> **GOAL:** Health care worker COVID-19 infections are at or close to zero.
> **METRIC:** % of health care workers testing positive for COVID-19 is at or close to zero.

Public Health System Capacity

Does the state have the public health capacity and staffing needed to safely identify individuals and their contacts who may have been exposed to COVID-19 and to prevent transmission of COVID-19? Are case tracing and disease investigation activities sufficient to contain outbreaks of COVID-19 quickly and safely?

> **GOAL:** The public health system has the ability to trace contacts of every COVID-19 positive case within the state.*
> **METRIC:** % of public health departments reporting sufficient capacity to perform contact tracing of every COVID-19 positive case in their state.

> **GOAL:** The public health system has sufficient capacity to contact at least 90% of all elicited contacts.
> **METRIC:** % of public health departments reporting sufficient capacity to contact at least 90% of all elicited contacts.

> **GOAL:** All symptomatic contacts are tested within 12 hours.
> **METRIC:** % of public health departments that report all symptomatic contacts are tested within 12 hours of contact.

> **GOAL:** The public health system has sufficient capacity to test individuals with ILI-like or COVID-19 like symptoms for COVID-19 and to trace their contacts.*
> **METRIC:** % of public health departments that report all symptomatic contacts are tested within 12 hours of contact.

Can the public health system test and protect all public health workers from COVID-19 infection?

> **GOAL:** Every public health agency has a robust testing program in place for public health workers.
> **METRIC:** # of public health agencies that have a testing program in place for public health workers.

> **GOAL:** Public health worker COVID-19 infections are at or close to zero.
> **METRIC:** % of public health workers testing positive for COVID-19 is at or close to zero.

Ten Key Metrics To Consider

1. # of positive cases, 14-day trend

2. # individuals with ILI symptoms, 14-day trend

3. # of individuals COVID-19 like syndrome cases, 14-day trend

4. # of "percent positive" tests, 14-day trend

5. % of testing sites can screen for asymptomatic cases

6. % of sentinel testing sites operate in key locations caring for vulnerable populations

7. % of hospitals that can handle a doubling of patient volume from current census in one day with sufficient PPE

8. % of hospitals that can care for all patients without using crisis standards of care

9. % of health care facility has a robust testing program in place for health care workers

10. % of public health agencies with sufficient contact tracers and related staffing and equipment to support case investigation of every COVID-19 positive case identified in their State

PREPAREDNESS PLANS IN PLACE FOR REOPENING

The state has plans in place to protect workers returning to work from becoming infected with COVID-19 and to prevent transmission of COVID-19 if physical distancing guidelines and other mitigation efforts are reduced. Plans for key industries and areas are developed and shared broadly. Does the state have the plans it needs to start a gradual return to work?

Essential Plans in Place to Reopen

The state has plans that can be immediately implemented for the following

1. Protecting the health and safety of workers in critical industries*

2. Protecting the health and safety of those living and working in high-risk facilities (e.g., senior care facilities)*

3. Protecting employees and users of mass transit*

4. Monitoring conditions and immediately responding to increases in transmission rates or outbreaks*

5. Advising the public regarding social distancing and face coverings*

6. Protecting employees and the public in essential businesses and public services including law enforcement, fire, emergency medical services, and public health

7. Protecting at-risk individuals such as those experiencing homelessness and racial and ethnic minorities

8. Protecting employees and customers of non-essential businesses and public services

9. Protecting workers and students in educational facilities, including schools and universities

10. Protecting the health and safety of workers in other congregate settings including group housing, places of worship, correctional facilities, etc.

11. Protecting the health and safety of those using public parks, beaches, etc.

12. Protecting travelers, visitors, and employees in the hospitality and tourism sector

METRIC: Plan in place for each of the areas listed above.

* Indicates a goal or plan that is included in the White House Coronavirus Task Force's Guidelines for Opening Up America Again. These goals and plans are mentioned as "Proposed State or Regional Gating Criteria" and "Core State Preparedness Responsibilities." Additional metrics in this document come from other Center for Disease Control and Prevention (CDC) planning guidance, consultation with preparedness experts and public health professionals, and reopening guidance developed by several other organizations including Resolve to Save Lives, the Association of State and Territorial Health Officers, the Johns Hopkins Center for Health Security and the Johns Hopkins University Bloomberg School of Public Health.