The Council of State Governments

Healthy States

NATIONAL TASK FORCE

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Foreword

As co-chairs of The Council of State Governments' Healthy States National Task Force, we are pleased to release this framework. It is the result of two years of intense discussion and research on the state-level policies and practices that may help advance health outcomes in the COVID-19 era and beyond. The report represents a collaborative effort of leaders from the states and territories.

In this report, we highlight a number of suggested strategies and state examples to help guide government officials in each of the policy areas explored by the task force. The goal is to improve the way the public sector serves and engages its communities. While we encourage you to read and consider the full report as you seek bipartisan solutions in your state, we wish to acknowledge both the unique pressures on the health system and the fiscal pressure on state revenues during this unprecedented time.

CSG is uniquely poised to highlight the leadership being exemplified by the states in the various areas explored by the Healthy States National Task Force: What's Next? Leveraging Innovation; State Health Systems: Return on Investment; Capacity, Preparedness and Resiliency; and Interventions to Save Lives.

Task force members were divided into four subcommittees that included knowledgeable stakeholders from the private sector and/or academia who shared their expertise. We wish to commend the subcommittee leaders and members of the National Task Force for your dedication to the work and for all you have accomplished. Through your efforts we have identified policy options and practices to help advance the work not only in your state but in others across the nation.

Sincerely,

SEN. BRYAN TOWNSEND
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A Note *from* CSG

In January 2019, The Council of State Governments (CSG) created the CSG Healthy States National Task Force with the purpose of bringing state leaders from across the country together to examine state best practices in the field of health. The task force divided its focus into categories: Leveraging Innovation; State Health Systems Return on Investment; Capacity, Preparedness and Resiliency; and Interventions to Save Lives. At that time, no one could know or truly understand the significance and fortuitousness of this bipartisan initiative and the identified topics.

It would be an understatement to say that the COVID-19 health crisis has created new challenges; but in these unprecedented times, state leaders have been resilient, flexible and have renewed their commitment to work together. In the wake of the global pandemic, as states continue to work to identify and implement policies that will improve health outcomes across their communities, the work of the task force has also continued.

The fifty members of the task force represent 35 states/territories and both the legislative and executive branches of government. Each member has brought not only their time and commitment to the two-year initiative, but also unique expertise and experience. Led by Sen. Bo Watson from Tennessee and Sen. Bryan Townsend from Delaware, the CSG Healthy States National Task Force met in-person, over video and via email to discuss a variety of topics including vaccines, mental health, access to care, emergency management, urban/rural health issues, cost-management, telehealth and delivery of services.

Enclosed, you will find a framework of recommendations that came as result of those discussions. The framework, given much consideration and analysis by both task force members and CSG staff, serves as a guide for all state leaders in understanding strategies with proven success and promising results that can be customized and to serve communities across the nation. We also encourage continued contributions to this document. Comments, questions, stories, recommendations and feedback can be sent directly to healthystates@csg.org.

The mission of CSG is to champion excellence in state government. Efforts like those of this task force, where a diverse groups of state officials from across the country gather to discuss and build consensus around bipartisan solutions to the most pressing issues of our time, both make me proud to serve our states and give me great hope for the future of our democracy and the ability of our states to overcome current and future challenges.

As always, CSG stands ready to serve the states.

David Adkins

DAVID ADKINS | *Executive Director/CEO*

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Introduction

When the members of the CSG Healthy States National Task Force began work in January 2019, they could not have predicted the arrival of the COVID-19 virus. However, the task force did anticipate that states should begin to prepare themselves in the areas of health innovation, technology, affordability, capacity, preparedness and access to ensure that state health systems were prepared to meet any challenge. With the arrival of 2020, these topics already being explored by the task force members became not only policy areas that required future planning, but became vital, critical and immediate. The ultimate impacts of the COVID-19 virus on state health systems likely will not be fully known for some time. We do know one thing for sure: state leaders will be able to use lessons learned through innovation and from one another to guide the recovery process and maximize preparedness for future events.

The recommendations in this report reflect two years of the thoughtful work of our task force members studying best state practices in areas of health while also navigating a global pandemic. The task force concentrated efforts into four specific areas of health:

What's Next? Leveraging Innovation;

State Health Systems Return on Investment;

Capacity, Preparedness and Resiliency (CPR); and

Interventions to Save Lives Subcommittee

Each of these identified subcommittee areas had a bipartisan and diverse composition of state leaders within both the legislative and executive branches who provided both personal and professional insights.

The first of the four subcommittees, The What's Next? Leveraging Innovation Subcommittee, focused on analyzing policies aimed at removing barriers to health care access by encouraging and supporting the adoption and implementation of emerging innovations. Telehealth was one of the most discussed innovations and it became even more relevant during the pandemic. State and federal actions helped to increase access to telehealth during a time in which Americans were being encouraged to stay home. Other topics of discussion included policies related to health data and records, the application of 5G networks to improve services, rural health availability and medical education and licensure.

The State Health Systems Return on Investment Subcommittee also recognized the potential that telehealth has in overcoming the social determinants of health that can create inequities and in improving care delivery. Additionally, the subcommittee suggested that enhanced

linkages between clinicians and communities, the removal of barriers to treatment for underserved populations and evidence-based initiatives to prevent chronic disease were keys to improving health outcomes and reducing costs.

Preparedness for events like the pandemic was central to the work of the Capacity, Preparedness and Resiliency (CPR) Subcommittee, which examined how better research, planning and communication can help states build resilient communities capable of preventing, mitigating, responding to and recovering from weather-related disasters and public health crises alike. Topics of discussion also included crisis communications, vaccine education and investment in public health infrastructure.

The Interventions to Save Lives Subcommittee prioritized barriers and outcomes related to mental health as well as physical health. Its focuses included bloodborne diseases, substance use disorders and chronic diseases such as diabetes. The subcommittee also considered behavioral health issues such as parity, treating and preventing adverse childhood experiences and suicide prevention.

The work of this task force started before the onset of a global pandemic, and while its findings and recommendations are applicable now more than ever, it also provides a comprehensive look at the state of health care across the U.S. and the potential for problem solving and improvement. The themes of this report extend far beyond the country's current health crisis and seek to examine the full scope of the nation's health care system and the state policy considerations that can help guide it in the years ahead. In considering innovative technology-enabling strategies, investment-worthy protocols, resiliency-building practices and life-saving interventions, the members of the CSG Healthy States Task Force hope this report and its findings will serve to inform state policymakers on the universe of possibilities as they seek to build a healthy future for all their citizens.

CSG Healthy States

NATIONAL TASK FORCE REPORT

Executive Summary

The CSG Healthy States National Task Force began its work in June 2019 with the goal of establishing a national framework for state officials to build the best possible framework for health care in their states. Coming together in an inclusive, nonpartisan space, the state officials on this task force were selected for their knowledge and work in health care and workforce related issues. They convened in person and virtually across a two-year term to work together across geography and political ideology to focus on data and build a consensus about how to move forward in solving problems that all states face.

America spends more money on health care than any other industrialized nation. But when it comes to outcomes, the U.S. isn't at the top of the heap. This task force knew there was work to be done and set out to help states reduce costs and improve outcomes to help communities across the country exist in a more healthy state.

The task force established four subcommittees:

What's Next? Leveraging Innovation

State Health Systems Return on Investment

Capacity, Preparedness & Resiliency

Interventions to Save Lives

These subcommittees convened for the first time in June 2019 in Lexington, Kentucky. They met for a second time in December 2019 at the 2019 CSG National Conference in San Juan, Puerto Rico. When task force members departed Puerto Rico, no one could have anticipated how drastically priorities would shift in the first months of 2020 and how important the work of a group of state official examining the state of health in the U.S. could become. The COVID-19 health crisis prevented an in-person convening in 2020, but the task force doubled down on its commitment and the subcommittees met virtually in June 2020 and approved a slate of 44 recommendations for states. These recommendations are listed below and are further detailed in the report that follows.

Following the novel coronavirus pandemic, the task force added a special section to its report covering the topic of telehealth, which emerged as an important tool for states as citizens were asked to stay home to prevent the spread of the virus.

The following are recommendations from the CSG Healthy States National Task Force:

Special Section: Telehealth

The task force recommends that states consider:

- Enacting policies that seek to extend and maintain access to telehealth services. (Leveraging Innovation Subcommittee)
- Advancing telehealth and telemedicine to meet the needs of rural communities that are often isolated from specialists. (State Health Systems Return on Investment Subcommittee)
- Helping to ease access to telehealth, including tele-mental health, for frontline workers and others who need it during a crisis. (Capacity, Preparedness & Resiliency Subcommittee)
- Utilizing tele-mental-health as both a cost-saving and life-saving measure. (Interventions to Save Lives Subcommittee)

What's Next? Leveraging Innovation Subcommittee

The subcommittee recommends that states consider:

- Seeking to enact policies that remove barriers to access to care which encourage and support the adoption and implementation of emerging health care innovations.
- Working to resolve issues around health care data — such as quality, interoperability, privacy and data sharing — in order to enable the advancement of innovations including artificial intelligence, electronic health records and value-based care.
- Enacting policies that seek to expand affordable broadband access to more people in both rural and urban areas.
- Enacting small cell legislation that seeks to speed the installation of equipment to make possible fifth-generation wireless systems (5G) offering faster speeds, greater capacity and better reliability.
- Enacting policies that address medical workforce needs, licensure requirements and medical education.
- Enacting policies that address the challenges faced by rural health care facilities and providers.
- Enacting policies that seek to fill the void on consumer education on health care.
- Working to identify and understand inequities, social determinants and disparities in the health care system that may limit access.
- Seeking to encourage the development of artificial intelligence and algorithm-driven products to guide clinical decision making and other functions that are thoughtfully designed, clinically validated, that enhance the patient care experience and patient outcomes, improve population health, reduce the overall cost of care, support the professional satisfaction of health care professionals and don't exacerbate inequities in health care.
- Encouraging the adoption of electronic health records that are standardized, interoperable, usable and provider-friendly and that do not inhibit the practice of clinical care.
- Encouraging discussions around the adequacy and relevancy of privacy provisions under the Health Insurance Portability and Accountability Act (HIPAA) and enacting data privacy laws that provide enhanced protections.
- Encouraging the transition of data-rich health care systems to a value-based care model that can provide greater accountability and lower health care costs.

State Health Systems Return on Investment Subcommittee

The subcommittee recommends that states consider:

- Addressing social determinants of health through enhanced clinical-community linkages that improve health outcomes and reduce costs.
- Identifying opportunities for public private partnerships to address unmet needs, including social determinants of health.
- Applying evidence-based initiatives to prevent chronic disease such as obesity and diabetes.
- Addressing health equity by removing barriers to treatment for underserved populations.
- Managing Medicaid, including any expansion of Medicaid, to improve individual outcomes and population health
- Leveraging §1115 demonstration waivers to improve health outcomes while increasing value to the patient and the state.
- Engaging health care providers and other stakeholders to identify opportunities for patient-centered innovation that are cost effective and show a return on investment.
- Promoting payment models that provide incentives to patients and providers based on health outcomes.
- Integrating community health care workers into primary care.
- Investing in adequate and ongoing emergency preparedness.

Capacity, Preparedness & Resiliency Subcommittee

The subcommittee recommends that states consider:

- Committing to and prioritizing investment in their public health infrastructure, including through establishing public health emergency funds or emergency relief and assistance funds.
- Creating permanent positions and temporary offices to study and implement best practices, to build community resilience, as well as to support disaster planning and coordination of information and resource sharing.
- Developing proactive plans to combat misinformation/disinformation and to build trust in and strengthen state systems.
- Prioritizing transitions to next generation technologies and ensuring access to broadband for all who want it.
- Educating their populations about vaccines and working with public health partners in supporting broad policies and robust measures to administer vaccines, therapeutics and diagnostics.
- Developing and implementing plans for increasing diversity in emergency management, including opportunities for volunteerism and service at the community level, in order to increase outcomes for all community stakeholders.
- Developing more inclusive, stronger policies surrounding such things as health care, sick leave access and unemployment insurance access.
- Simplifying or suspending regulations and clarifying risks in order to support private sector resiliency during emergencies.
- Investing in better tracking capabilities for infectious diseases, supply chains and emergency stockpiles, as well as in research and creative strategies that allow for the monitoring and mitigation of disasters.
- Strengthening emergency alert and communications systems.

Interventions to Save Lives Subcommittee

The subcommittee recommends that states consider:

- Collaborating with health care or health plan providers and funders to promote integrated or coordinated policies that improve education, quality of care and parity among the physical and behavioral ailments associated with substance use disorders (SUDs).
- Educating and improving accessibility to testing and treatment options for SUDs by engaging multiple stakeholders and allowing innovative practices, such as syringe exchanges, as a potential best practice.
- Recoding SUDs as a behavioral health issue that can be treated rather than as a criminal act to be punished in order to not only promote a better quality of life for someone suffering from a SUD, but also to reduce recidivism.
- Tailoring emergency services and other government responses to a period of crisis through innovative methods of crisis response.
- Realizing the negative behavioral health effects sustained by people in stressful professions and working to ensure they have access to treatment.
- Improving the quality and access of behavioral health in schools by intervening in the core curriculum or rules each school district follows to promote better, more informed practices around behavioral health access for students.
- Preventing adverse childhood experiences (ACEs) on two fronts: by seeking to understand and mitigate the social determinants that may breed them in childhood, and by promoting cultures of detection and growth in cities, workplaces and schools to identify and heal their lasting effects.
- Advocating for patient-focused diabetes identification and management to help people identify and/or manage their diabetes.

SPECIAL SECTION

Telehealth Policies

As the COVID-19 global pandemic impacted almost every sector of public policy in early 2020, the four subcommittees working within the CSG Healthy States National Task Force emphasize the role telehealth was playing throughout the health crisis and its importance moving forward. The subcommittees offered the following recommendations on telehealth policy:

01 RECOMMENDATION: States consider enacting policies that seek to extend and maintain access to telehealth services. *(Leveraging Innovation Subcommittee)*

02 RECOMMENDATION: States consider advancing telehealth and telemedicine to meet the needs of rural communities that are often isolated from specialists. *(State Health Systems Return on Investment Subcommittee)*

03 RECOMMENDATION: States consider helping to ease access to telehealth, including tele-mental health for frontline workers and others who need it during a crisis. *(Capacity, Preparedness & Resiliency Subcommittee)*

04 RECOMMENDATION: States consider utilizing tele-mental health as both a cost-saving and live-saving measure. (Interventions to Save Lives Subcommittee)

The COVID-19 pandemic caused a disruption to traditional health care delivery, which had a huge impact on demand for telehealth and telemedicine services.

The research and consulting firm Frost & Sullivan predicted a 64% increase in virtual doctor visits in 2020.[1]

Analysts at Forrester Research predicted in April such visits could top 1 billion by the end of 2020.[2]

The Centers for Medicare & Medicaid Services (CMS) reported in July that more than 9 million Medicare beneficiaries used telehealth during the pandemic's early stages.[3]

Teladoc Health, the multinational telehealth services provider — and a private sector partner on the Leveraging Innovation Subcommittee — reported an 85% uptick in revenue for the second quarter of 2020 from the same period in 2019 and a 203% increase in visits.[4]

This increased usage at a critical time was made possible in large part by the actions of federal agencies and state governments to deploy strategies, relax regulations and provide funding to allow more Americans to access such services.

At the federal level, CMS moved to

- Increase the types of providers who could provide telehealth
- Allow them to use different kinds of telehealth modalities, including phone-based services
- Update coverage rates to pay the same rate to providers as for in-person visits
- Expand the kinds of originating sites for telehealth visits

At the same time, state governments

- Expanded Medicaid coverage of telehealth services
- Required private insurance to cover telehealth services
- Allowed out-of-state providers to use telehealth to treat their residents[5]

While many of these changes were considered temporary and tied to the nationwide public health emergency that was declared in late January, there appeared to be significant support for making many of the new processes permanent. As of July 2020, members of Congress had proposed several bills to continue telehealth freedoms and programs enacted during the pandemic beyond the expiration of the emergency.[6]

In a July 2020 issue brief, the U.S. Department of Health & Human Services offered more evidence that CMS was moving toward permanently expanding telehealth coverage under Medicare, arguing that "new telehealth flexibilities played a critical role in helping to maintain access to

EXPLAINER

What *is* Telehealth?

There are four main types or categories of telehealth:

Live Video Conferencing

Perhaps the most well-known form of telehealth in which a patient has a live, two-way videoconference with their health care provider. It can also include a specialist assisting a primary care physician with a diagnosis using such communication.

Asynchronous Video (AKA Store-and-Forward)

This involves a provider acquiring a patient's documented health history (diagnostic images, vital signs, data, video clips), reviewing them offline and making diagnosis and treatment recommendations at a convenient time.

Remote Patient Monitoring

Health data is collected from a patient or nursing home resident and sent to a health care professional for real-time monitoring and review.

Mobile Health (mHealth)

The use of smart devices (smartphones, tablets, etc.) and health-based software apps to monitor a patient's health stats and encourage healthy behavior.

primary health care services — when many beneficiaries and providers were concerned with transmission of COVID-19. Future research could examine whether these flexibilities were effective and if telehealth may have improved access to care and health outcomes among underserved beneficiaries."[7]

In early August 2020, President Donald Trump signed an executive order that issued a proposed rule to make permanent Medicare payment of telehealth services for certain health providers. Congress would likely need to approve a more sweeping extension of telehealth policies.[8]

As of early August 2020, it was unclear what private insurers, many of which followed Medicare's lead on telehealth coverage, would do once the public health emergency is over. Also as of August, UnitedHealthcare and Anthem, two of the nation's biggest insurers, hadn't decided beyond September or October on whether to extend telehealth policies. Others such as Cigna and the BlueCross plan in North Carolina said they would continue to cover telehealth services at pandemic rates through the end of 2020. Still, some providers expressed concern that insurers could revert back to paying doctors for telehealth visits at a fraction of the cost for office visits. When BlueCross BlueShield of Tennessee announced it was the first major insurer to make telehealth coverage permanent, the company did not say how much it will eventually reimburse for virtual visits.[9]

Some insurers surveyed as part of a study from the Robert Wood Johnson Foundation and the Urban Institute, argued that while payment parity might make sense during a public health emergency, reimbursement rates should ultimately reflect services rendered, and services delivered over the phone and computer versus in-person can be significantly different. Insurers also commented that there is a risk that telehealth drives up costs and further contributes to overutilization.[10]

AHIP, the advocacy group representing America's Health Insurance Plans, which served as a private sector partner to the CSG Healthy States Task Force, advised in a July 2020 policy brief,

"State legislatures can encourage the growth of telehealth by allowing health insurance providers to have flexibility in the way in which plans design benefits including … maintaining cost saving potential of telehealth by not mandating brick-and-mortar payment parity between virtual and in-person visits; telehealth visits do not always require the same level of intensity, same amount of time or the same equipment as in-person visits and thus should not be required to be reimbursed equally."[11]

Another important thing to consider when looking at telehealth policy is the return on investment (ROI). Telehealth ROI should consider all the benefits of telehealth, including both quantifiable and nonquantifiable benefits. Quantifiable benefits include transportation cost savings, lost wages savings, hospital cost savings and increased revenues to local labs and pharmacies. The Rural Broadband Association also includes nonquantifiable benefits in it's ROI calculations, including access to specialists, timeliness, comfort, transportation, provider benefits and improved outcomes.[12] Both quantifiable and nonquantifiable benefits should be taken into account when considering telehealth from a return on investment perspective.

Consider the return on investment (ROI) when looking at telehealth policy.

QUANTIFIABLE BENEFITS

- TRANSPORTATION COST SAVINGS
- LOST WAGES SAVINGS
- HOSPITAL COST SAVINGS
- INCREASED REVENUES TO LOCAL LABS AND PHARMACIES

NONQUANTIFIABLE BENEFITS

- ACCESS TO SPECIALISTS
- TIMELINESS
- COMFORT
- TRANSPORTATION
- PROVIDER BENEFITS
- IMPROVED OUTCOMES

From the Leveraging Innovation Subcommittee

SUGGESTED STRATEGIES

States could consider the following strategies for implementing recommendations:

- Allowing originating sites for telehealth visits to include a patient's home, school or workplace
- Reducing restrictions around the types of providers allowed to treat patients through telehealth
- Enacting telehealth policies that are technology neutral and allow for asynchronous technologies, remote patient monitoring and store and forward services
- Enacting telehealth legislation that considers the applicability of the written word (e-mail and text), particularly in behavioral health interactions
- Supporting telehealth programs that offer services to seniors, which can allow them to age in place and reduce health care costs
- Supporting telehealth applications to train and provide professional development opportunities to health care providers
- Enacting policies that provide parity in reimbursement for telehealth providers under both private insurance and Medicaid

EXAMPLES IN ACTION

A number of states moved to make permanent regulatory changes that increased access to telehealth during the pandemic:

New Hampshire enacted a new law to permanently extend telehealth coverage provisions, including reimbursement parity, phone-based care and telehealth use in substance abuse treatment. The measure also ended restrictions on originating sites for telehealth services and expanded the list of telehealth care providers.[13]

Colorado Gov. Jared Polis signed legislation in July to permanently expand telehealth coverage and access with payment parity, expanded coverage for various therapies and allowing home health care providers to supervise their own telehealth services.[14] The legislation also eliminated a requirement that patients have a pre-existing relationship with a provider to participate in telehealth and prohibited insurers from establishing extra certification or licensure requirements for telehealth providers.[15]

Idaho Gov. Brad Little issued an executive order asking state agencies to make permanent waivers of telehealth rules in that state, including those impacting broadened telehealth technology, drug prescribing and out-of-state providers.[16]

Some states were able to quickly remove barriers to access and ramping up telehealth services during the pandemic thanks to recent consideration of new regulatory schemes. **Florida,** for example, approved legislation in 2019 that created a registration process for out-of-state health care professionals to use telehealth to deliver health care services to in-state patients.[17]

Despite the efforts that have increased access to telemedicine during the pandemic, challenges remain, especially since many Americans don't have access to reliable, affordable Internet service or smartphones that would allow them to participate in more advanced kinds of virtual visits. As telehealth grows and expands in the years ahead, it will be important for policymakers to address this digital divide and the health disparities it can exacerbate.

From the Capacity, Preparedness & Resiliency Subcommittee

SUGGESTED STRATEGIES

States may consider finding ways to expand tele-mental health services before the next pandemic or other disaster. Several states have taken a variety of different steps to ease access, including through establishing mental health hotlines for specific groups like frontline workers, mental health professionals and essential workers.[18]

EXAMPLES IN ACTION

Nevada established a group of volunteer psychiatric physicians sponsored by the Nevada Psychiatric Association and Nevada State Medical Association to provide a COVID-19 mental health hotline for clinicians and first responders on the front lines.[19]

Maine offers Front Line Warm Line, a confidential and professional resource for healthcare providers who may need some help or guidance.[20]

Kentucky lawmakers passed SB 123 to create a cabinet-level department that will oversee and support all telehealth-related programs.[21]

From the Interventions to Save Lives Subcommittee

SUGGESTED STRATEGIES

States could consider the following strategies for implementing recommendations:

- Utilizing tele-mental health or telepsychiatry for hard-to-reach populations
- Utilizing tele-mental health or telepsychiatry via state-sponsored video or smartphone app
- Creating options for tele-mental health that police can utilize when called to address a medically stable individual

EXAMPLES IN ACTION

Telepsychiatry or tele-mental health can be a resource states use to bring behavioral health treatment options to harder-to-reach populations, like rural citizens in **New Hampshire**[22] or incarcerated populations in **Virginia.**[23] Pending legislation in **Oklahoma**[24] would allow a medically stable individual suffering from a behavioral health ailment to be assessed by a licensed mental health professional via telemedicine rather than be transported to a medical facility when an officer of the law is called to respond.

Did You Know?

During the pandemic, the Centers for Medicare & Medicaid Services announced it would expand Medicare coverage to include a range of audio-only (telephone-based) telehealth services. While the move was critical in terms of benefitting patients who have only landline phones, audio-only phones or who have limited access to cellular, broadband and video communication capabilities, it is not seen as optimal long-term for most telehealth applications due to the limitations audio-only communication places on the patient-provider interaction.

Sources: Renae Rossow. "The Different Types of Telehealth," iSalus Healthcare, August 15, 2018. Accessed from: https://isalushealthcare.com/blog/the-different-types-of-telehealth/

"Telehealth Basics," American Telemedicine Association. Accessed from: https://www.americantelemed.org/resource/why-telemedicine/

SECTION I

What's Next? Leveraging Innovation Subcommittee

Key technological innovations such as artificial intelligence, electronic health records, telehealth and 5G are revolutionizing health care. But as events during the coronavirus pandemic demonstrated, public policy decisions can go a long way toward speeding up the innovation.

The Leveraging Innovation Subcommittee suggested that those policy decisions can fall into two areas:

- Removing barriers to access to care
- Resolving issues around health care data

Each recommendation from this subcommittee is listed below in relation to its barriers to access to care and how it is possible to resolve issues around relevant health care data.

05 RECOMMENDATION: States consider enacting policies that remove barriers to access to care which encourage and support the adoption and implementation of emerging health care innovations.

06 RECOMMENDATION: States consider working to resolve issues around health care data — quality, interoperability, privacy and data sharing — in order to enable the advancement of innovations such as artificial intelligence, electronic health records and value-based care.

Removing barriers to access to care and speeding the advancement of these innovations in the health care space will require a variety of strategies, including:

Expanding broadband

Building out the infrastructure for 5G

Addressing medical workforce needs including licensure requirements and medical education

Addressing the challenges faced by rural health facilities, which the pandemic has made more acute

Educating consumers on accessing the health care system

Eliminating inequities

Data issues to be resolved include:

The quality of data incorporated into the algorithms that drive artificial intelligence and whether biases exist in that data

The interoperability of the data contained in electronic health records — both whether the health care system can accurately identify a patient from one visit to the next and whether data can be shared between proprietary systems

The need to update federal and state privacy laws to address the voluminous amounts of health data being generated today

The use of data to establish value-based care models which can improve the quality and reduce the costs of health care

Removing Barriers to Access to Care

07 RECOMMENDATION: States consider enacting policies that seek to expand affordable broadband access to more people in rural and urban areas alike.

BARRIER TO ACCESS: BROADBAND

Ensuring access to broadband internet service around the country could go a long way toward removing one barrier to access to care. This lack of sufficient internet access was perhaps never more apparent than in Spring 2020 when millions of Americans were confined to their homes and seeking bandwidth for Zoom meetings, virtual classrooms, Netflix binge sessions and telehealth visits with doctors. Yet despite a multitude of federal programs to expand broadband[25] — including several that received cash infusions during the pandemic — and a variety of state initiatives that aimed to do the same, some parts of the country still deal with limited internet service that can be poor quality, unaffordable or both.

The home confinement brought on by this global pandemic sparked interest in bridging the

EXPLAINER

What *is* Broadband?

The Federal Communications Commission (FCC) defines broadband as reliable high-speed internet having download speeds of at least 25 megabits per second (Mbps) and upload speeds of at least 3 Mbps. It can be delivered via multiple technologies, including fiber, fixed wireless, digital subscriber line or cable. Some states have defined broadband in statute using different download and upload speeds or other parameters.

Source: Federal Communications Commission. "2019 Broadband Deployment Report," Accessed from: https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf

digital divide — the gap between those with access to internet and those who lack access — at both the state and federal levels. Between April and June of this year, state legislatures introduced more than 40 bills addressing some aspect of broadband access.[26] State officials in Pennsylvania[27] and Maine[28] were among those who called for making broadband access more of a priority.

This summer, Maine voters approved a ballot measure that called for borrowing $15 million to invest in high-speed Internet in communities that lack broadband or have limited connectivity. The bond money is being matched by up to $30 million in federal, state, private and local funds.[29]

SUGGESTED STRATEGIES

States may consider working with broadband providers to identify and address shortcomings and inequities in broadband coverage and reliability brought to light by the coronavirus pandemic.

EXAMPLES IN ACTION

Many states are expanding access to broadband through legislation. In 2011, **Minnesota** established a broadband task force which then led to the establishment of a broadband office within the state's Department of Employment and Economic Development in 2013. Minnesota also started a grant program in 2014 that invested $85 million in expanding broadband access to over 40,000 sites.[30] Even with this framework and plan in place, Minnesota faces challenges. An estimated 140,000 — or 16% — of rural households in the state still don't have high-speed internet. That prompted Minnesota's senior U.S. Sen. Amy Klobuchar to propose legislation this year that would invest $100 billion in broadband infrastructure in unserved and underserved communities around the country.[31]

Funding is still one of the biggest hurdles for most states. In **South Carolina**, where nearly 500,000 residents live without high-speed internet, it's estimated that statewide connectivity could cost $800 million.[32]

Percentage *of* U.S. Population *with* Broadband Providers

Broadband is defined here as >25/3 Mbps in the form of ADSL, Cable, Fiber, Fixed Wireless or Satellite

NO PROVIDERS **0.04%**

0.02%	OF URBAN POPULATIONS
0.12%	OF RURAL POPULATIONS
0.02%	OF NON-TRIBAL POPULATIONS
1.46%	OF TRIBAL POPULATIONS

1 OR MORE PROVIDERS **99.96%**

99.98%	OF URBAN POPULATIONS
99.88%	OF RURAL POPULATIONS
99.98%	OF NON-TRIBAL POPULATIONS
98.54%	OF TRIBAL POPULATIONS

08 RECOMMENDATION: States consider enacting small cell legislation that seeks to speed the installation of equipment to make possible fifth-generation wireless systems (5G) offering faster speeds, greater capacity and better reliability.

BARRIER TO ACCESS: 5G

Broadband is not the only communications infrastructure technology that experts say is needed to bring health care delivery into the future. The fifth-generation technology standard for cellular networks — better known as 5G — is expected to offer faster speeds, greater capacity and better reliability. In health care, those requirements are expected to allow for enabling things like the streaming of patient data, which could make reliable, real-time remote monitoring and mobile triage of patients possible.[33] Additionally, 5G is needed to enable augmented and virtual reality applications, and allow for the fast transfer of large data imaging files and

EXPLAINER

What *is* a Small Cell?

The small cells that enable 5G cellular networks are pieces of radio equipment and antennas that can be placed on other structures such as streetlights, buildings or utility poles. About the size of a pizza box or a backpack, they must be installed every few blocks because in addition to transmitting on the low-band spectrum as traditional cell towers do, they can transmit data using mid- and high-band spectrum and those airwaves cannot travel as far. The added frequencies allow 5G networks to send larger quantities of data at higher speeds.

Source: Anderson Sullivan, "What is a Small Cell? A Brief Explainer," CTIA, Accessed from: https://www.ctia.org/news/what-is-a-small-cell

expanded telemedicine. In 2019, it was reported that doctors in China used a 5G connection to perform remote brain surgery on a Parkinson's patient who was thousands of miles away.[34] Experts believe such capabilities could resolve many health care access issues in the U.S. and across the globe.

But while scattered deployments of 5G are currently available in some cities, widespread adoption is likely still three years away. In August 2020, the White House and the U.S. Department of Defense announced a plan to make a portion of the wireless spectrum available to the wireless industry, which is expected to help carriers offer 5G more broadly across the country with fewer cell towers.[35]

EXAMPLES IN ACTION

States have made a concerted effort in recent years to pave the way for the installation of short range "small cell" infrastructure on other structures to enable 5G. More than half of the states have enacted small cell legislation that streamlines applications to access public rights of way, puts caps on costs and fees and streamlines timelines for the consideration and processing of cell siting applications.[36]

09 RECOMMENDATION: States consider enacting policies that address medical workforce needs, licensure requirements and medical education.

BARRIER TO ACCESS: WORKFORCE NEEDS

The COVID-19 pandemic has severely tested the nation's health care workforce in numerous ways. It is a workforce that was already facing significant challenges, including provider and staff shortages, work overload, inadequate training, access to technology and administrative tasks that limit time spent with patients.[37]

Many states took temporary actions in 2020 to shore up health care workforces and create surge capacity to help them deal with the coronavirus' devastation. These actions included:

More than 40 states modified occupational licensure rules, requirements or processes in response to the pandemic. These included expedited licensure processing times (Ohio, Texas), temporary suspension of licensing fees (Montana, Pennsylvania) and extending license renewal deadlines (Indiana, Minnesota, Wisconsin).

States opened up licensing reciprocity to allow nurses, doctors and others to volunteer across state lines if they are licensed and in good standing in their home states.[38]

Many states temporarily modified scope of practice requirements for nurse practitioners, physician assistants and others either by executive order or board rules. Massachusetts, for example, allowed nurse practitioners and

nurse anesthetists to give physicals and prescribe medications.[39] Twenty-eight states already grant full practice authority for nurse practitioners to practice without physician supervision as soon as they earn their licenses.[40]

States granted temporary licensure for out-of-state health professionals, retired professionals, those still in training and those with lapsed licenses.[41] States like New Jersey, New York and Nevada allowed medical professionals with training from another country to be eligible for temporary licenses.[42]

As noted in the special section, states also modified telehealth policies during the pandemic to increase access to virtual care.

SUGGESTED STRATEGIES

States may consider the following strategies in removing this barrier to access:

- Studying the loosening of medical licensure restrictions and other actions taken during the pandemic.
- Enacting policies to allow physician's assistants and nurse practitioners to practice to the highest level of their licensure to help improve access to quality health care.
- Extending full practice authority to non-physician providers, as 28 states now do. The American Medical Association has traditionally opposed this, arguing instead for physician-led care teams.[43]
- Encouraging the alignment of higher education institutions and occupational licensure to ensure development of common goals including reduced costs and ease of employment for graduates.
- Enacting loan repayment programs that can help convince medical school graduates to practice in rural areas.
- Reviewing payment policies and methodologies which discourage health care providers from choosing to practice in rural and economically deprived areas.
- Encouraging the development of new curricula and training for current physicians and those in medical schools now to become more comfortable with remote provider-patient interactions.
- Considering working toward evidence-based or competency-based credentialing that standardizes or reconsiders post-graduate practice hours as the primary criteria for credentialing.

10 RECOMMENDATION: States consider enacting policies that address the challenges faced by rural healthcare facilities and providers.

BARRIER TO ACCESS: RURAL HEALTH CARE CHALLENGES

The precarious condition of rural health care was already near the top of the policy agenda in many states as the 2020 legislative sessions began, before COVID-19 reached pandemic levels. Pew's Stateline in January 2020, noting that at least 163 rural hospitals had closed since 2005, suggested that states were focused on strategies to address deficiencies. Those strategies included the creation of private-public partnerships to increase access to care, the expansion of telemedicine and various efforts to encourage young people in rural communities to go into health professions.[44]

As the coronavirus hit rural communities in the South, many predicted catastrophic results for the short- and long-term health of a population that tends to be older, poorer, less insured and less healthy. A requirement that hospitals designated as "critical access" under Medicare — as many rural hospitals in the South are — can't have more than 25 inpatient beds was waived in response to the pandemic. But many facilities still faced considerable challenges in trying to ramp up their capabilities to meet the demands of the crisis.[45]

A study in the journal Health Affairs, found that more than half of all rural low-income communities in the U.S. have no intensive care unit (ICU) beds, forcing local hospitals to rely on transfers to wealthier communities for their sickest COVID-19 patients.[46]

In another study, a team of researchers examined hospital mortality rates in more than 2,200 critically ill coronavirus patients in 65 hospitals around the country and found that patients admitted to hospitals with fewer than 50 ICU beds — smaller hospitals — were more than three times more likely to die than patients admitted to larger hospitals.[47]

In April 2020, the consulting firm Guidehouse released an analysis indicating 25%, or 354 rural hospitals spread across 40 states, were at high risk of closing. Of those hospitals, 287 are considered highly essential to the health and economic wellbeing of their communities. The analysis pointed to factors like declining inpatient volume, clinician shortages, payer mix degradation and revenue cycle management challenges as drivers of the crisis and suggested that the pandemic could significantly worsen the situation.[48]

For rural hospitals in the Pacific Northwest and elsewhere, it wasn't an upsurge of COVID-19 patients that threatened their existence at the start of the pandemic, at least not initially. The problem was empty emergency rooms as patients fearing exposure to the virus stayed away, and inactive operating rooms as governors halted most elective surgeries that typically pay the bills for many rural hospitals in order to preserve supplies.

With facilities facing cash shortages and imminent closure, governors including Washington Gov. Jay Inslee requested grant funding for hospitals in extreme financial distress and Congress stepped in to provide funding.[49] The Coronavirus Aid, Relief and Economic Security (CARES) Act included $10 billion in targeted funding allocated based on operating expenses. The U.S. Department of Health and Human Services also announced an additional $1 billion targeted to certain hospitals that serve rural populations. Additional federal aid came from the Payment Protection Program, Small Rural Hospital Improvement grants and increased Medicare payments for the treatment of COVID-19 patients.[50] Oregon, for example, received $50 million from the rural hospital grant program to keep doors open at struggling facilities.[51] Washington received $200 million as part of another round of federal funding, enough for every rural hospital in the state to get $3 million.

But while the funding was expected to keep some at-risk hospitals afloat temporarily, it was unclear whether it would be enough to sustain facilities through the pandemic.[52] The American Hospital Association estimated that hospitals and health systems lost more than $200 billion between March and June and projected additional losses of $120 billion through the end of 2020.[53]

An executive order issued by President Trump in August was expected to allow the Centers for Medicare & Medicaid Services to test new pilot projects offering financial incentives for rural providers who deliver higher-quality care to patients, which administration officials said would help keep rural hospitals open. But the program was expected to be optional and it was unclear if it would be operational before the November 2020 election.[54]

Some rural health facilities have been able to ramp up telehealth services to serve patients who were unable to come for an in-person visit during the pandemic and to enable provider-to-provider support for facilities that were shorthanded or lacking in specialists. But as noted previously, a lack of broadband access and affordability is often a problem in rural areas. Ultimately, health experts say, rural hospitals will need more than telehealth to survive long-term. They'll need systemic changes, added flexibility, more equipment and personnel and community investments that can help them weather not just this storm but future health care challenges they may face in the years to come.

SUGGESTED STRATEGIES

States could consider the following strategies in implementing proposed recommendations:

- Studying what the coronavirus pandemic revealed about the importance and vulnerability of rural health facilities.
- Seeking to ensure the future of the community hospital as the health care safety net, particularly for those in rural areas.
- Adopting telehealth policies like those described earlier that help ensure access to providers and specialists that patients in rural areas wouldn't have otherwise.
- Ensuring that rural hospitals have additional graduate medical education slots and access to residents to help increase the number of physicians in rural areas.
- Encouraging programs at rural hospitals that position advanced-practice registered nurses or other non-physician providers in designated roles with chronic care patients in emergency rooms, substance use disorder patients or other special patient populations.
- Supporting education and other essential infrastructure in rural areas that can encourage more providers to locate in those areas.

EXAMPLES IN ACTION

Prior to the pandemic, **Minnesota**, **North Carolina** and **Pennsylvania** were among the states that enacted legislation in 2019-20 to provide funding for rural health care facilities and services.

Hawaii is among the states that enacted bills to provide incentives, such as income tax deductions and education loan forgiveness for physicians, nurses and other health care professionals that practice in rural areas. **Washington** approved legislation last year to increase medical assistance payments for certain rural hospitals under Medicaid.

Georgia, **Illinois**, **South Carolina** and **Washington** are among the states that have considered legislation in recent years to provide certificate-of-need or other regulation exemptions for emergency departments and other healthcare facilities in rural areas.

States like **Minnesota**, **Nebraska** and **Washington** have considered measures that deal with rural training programs for physicians and nurses. **Utah** enacted such a measure this year.[55]

Arkansas passed legislation last year to create a student loan and scholarship program for osteopathic rural medical practice and identify medically underserved areas. The program complements the state's rural medical practice student loan and scholarship board, established in 1949.

Missouri lawmakers approved legislation in 2019 to establish a task force on licensure for radiologic technologists charged with developing a plan to address the need for those professionals in rural areas.[56]

Other states to consider rural health care bills in recent years include western states like **California**, **Colorado, New Mexico** and **Wyoming**; midwestern states like **Illinois**, **Iowa**, **Kansas**, **Michigan** and **Wisconsin**; southern states including **Florida**, **Kentucky, Tennessee**, **Virginia**; and eastern states like **Delaware**, **Maine** and **Rhode Island**.[57]

11 RECOMMENDATION: States consider enacting policies that seek to fill the void on consumer education on health care.

BARRIER TO ACCESS: LACK OF CONSUMER EDUCATION ON HEALTH CARE

Unnecessary, preventable visits to hospital emergency departments account for an estimated $8.3 billion in health care costs each year.[58] According to a 2019 survey, 37% of Americans said they did not know if telehealth was offered by their health care provider or health system while 29% said it was not.[59] In both cases, patients might be able to benefit from dedicated health care consumer education efforts.

Evidence suggests that educated consumers who have the knowledge, skills and confidence to become actively engaged in their care have better outcomes and can help contain health care costs.[60] But according to a 2018 report from the professional services company Accenture, half of U.S. consumers are unable to navigate the complexity of the health care system on their own, and this low level of health literacy accounts for an estimated $4.8 billion annually in administrative expenses alone.[61]

SUGGESTED STRATEGIES

States can consider the following strategies when implementing the recommendations:

- Supporting efforts to provide consumer information on the value of telehealth in providing access to services particularly among seniors and other vulnerable populations that stand to benefit most.
- Studying whether increased public awareness and use of telehealth during the pandemic are sustainable trends.
- Supporting efforts to reduce the use of hospital emergency rooms for primary care and encouraging more patients to find a medical care home.
- Encouraging the development of community partnerships that assure access to care by identifying and addressing barriers to access for every citizen.
- Recognizing the important roles of social workers, pharmacists, patient advocates, public health nurses, school nurses and others as part of an interdisciplinary team that can bridge the gap between those in the community and health care providers.
- Supporting programs that encourage kids from specific communities to attend medical school and consider other career possibilities in health care and return to those communities to practice

12 RECOMMENDATION: States consider working to identify and understand inequities, social determinants and disparities in the health care system that may limit access.

BARRIER TO ACCESS: INEQUITY

Barriers to access to care may also reflect long-standing societal impediments. In the years ahead, it may be particularly important to study data from the coronavirus pandemic, which has brought to light disparities in care and acute impacts to already vulnerable populations.

Available data has suggested that Black Americans were at higher risk of death and infection.[62] One in every 1,625 Black Americans has died from the novel coronavirus, a California pediatrician told a Congressional committee in June. The virus has also had a disproportionate impact on other racial minorities.[63]

But determining the racial breakdown of the pandemic has proven challenging in some places since many state, city and county health departments were not releasing race data on cases or deaths, at least early on.[64] Still, the fact that the disproportionate impact on people of color could be seen in the data available provides plenty of cause for concern and should provide policymakers plenty to ponder as they assess the pandemic and its effects in the months and years ahead.

Examples *in* Action

Ohio Gov. Mike DeWine created a minority health strike force to fight racial disparities in public health that emerged during the pandemic. The panel issued a final report in August 2020 with 34 recommendations aimed at dismantling racism to advance health equity, reducing discrimination and increasing diversity in the health workforce, increasing access to health care, improving access to high-quality education, reducing poverty and increasing investment and employment, improving work conditions, decreasing arrest and incarceration rates, increasing safe and affordable housing, increasing access to transportation, decreasing the digital divide and strengthening data collection to better track disparities. The recommendations include:

- Acknowledge racism as a public health crisis
- Apply a health equity lens to policy
- Develop community understanding, health literacy and trust
- Recruit and retain people of color in health professions.

Source: COVID-19 Ohio Minority Health Strike Force, "Blueprint: More Than a Mask," August 13, 2020. Accessed from: https://coronavirus.ohio.gov/static/MHSF/MHSF-Blueprint.pdf

EXPLAINER

What *is* artificial intelligence in the health care industry?

The use of artificial intelligence (AI) in health care involves the creation of computer algorithms to analyze, classify and base predictions on health care data, typically at speeds much faster than human intelligence is capable of.

But some have suggested that the role that artificial intelligence has played during this pandemic may have been overstated and overhyped.[72] Its promise may not be fully realized until the more complete data is available to fully assess COVID-19 and all of its impacts. That information could make AI far more impactful on the next pandemic that it was through the coronavirus.

Indeed, some health data experts said the pace with which the COVID-19 pandemic overwhelmed health care systems combined with the lack of quality data available and a lack of testing time, may have limited the applications for artificial intelligence during the pandemic. Which isn't to say that data itself did not play a significant role.

The primary regulator of AI and algorithm tools for health care at the federal level is the Food and Drug Administration (FDA), the agency charged with regulating interstate commerce in medical devices where action is taken automatically — such as pacemakers or ventilators. The algorithms they approve come from a universe of creators that includes both health researchers and tech companies with limited experience in health care.[73]

Resolving Issues Around Health Care Data

13 RECOMMENDATION: St ates consider encouraging the development of artificial intelligence and algorithm-driven products to guide clinical decision making and other functions that are thoughtfully designed and clinically validated, as well as enhance the patient care experience and patient outcomes, improve population health, reduce the overall cost of care, support the professional satisfaction of health care professionals and don't exacerbate inequities in health care.

HEALTH CARE DATA ISSUE: ARTIFICIAL INTELLIGENCE

The use of artificial intelligence (AI) in health care involves the creation of computer algorithms to analyze, classify and base predictions on health care data, typically at speeds much faster than human intelligence is capable of.

Artificial intelligence was expected to play an important role during the coronavirus pandemic in everything from predicting outbreaks to the search for treatments and vaccines, and there were more than a few examples of the deployment of AI and big data in 2020. These include:

- AI algorithms developed by New York's Mount Sinai Health System and New York University's (NYU) Langone Health can predict whether a COVID-19 patient is likely to suffer adverse events in the near future and determine when patients are ready for discharge, allowing hospitals to better manage the flow of supplies and personnel.[65]
- AI has allowed an estimated 200 million physicians, scientists, nurses, technologists and engineers around the world to share information and learn from tens of thousands of experiments with a transparency and at speeds never seen before.[66]
- AI systems showed promise in diagnosing COVID-19 patients based on CT scans.[67]
- AI systems in use at medical facilities associated with the University of Chicago, Stanford University and Johns Hopkins University helped doctors predict outcomes, triage patients and manage clinical workflows.[68]
- The biotech industry explored the potential for artificial intelligence to help them develop new drugs or repurpose existing treatments for COVID-19.[69]
- The health IT company Gero announced in March that a drug discovery platform powered by artificial intelligence technology had identified 18 potential treatments for COVID-19 based on uncovering molecules with potential effect on the virus.[70]
- A public-private research consortium made up of top research universities and software and AI companies formed to put scientists

to work on big social problems with the help of AI made the pandemic its first challenge. As The New York Times reported: "The new institute will seek new ways of slowing the pathogen's spread, speeding the development of medical treatments, designing and repurposing drugs, planning clinical trials, predicting the disease's evolution, judging the value of interventions, improving public health strategies and finding better ways in the future to fight infectious outbreaks."[71]

SUGGESTED STRATEGIES

States may consider utilizing the following strategies when implementing proposed recommendations:

- Examining the role that AI has played during this health crisis in both the clinical and research settings, the challenges it presented for AI-driven systems and what it may mean for regulation and oversight of AI going forward.
- Creating artificial intelligence task forces and commissions that consider such issues as regulation, oversight, ethical considerations, economic effects, education needs and workforce impacts.
- Seeking to ensure that both providers and innovators are at the table when the use of AI in medicine is considered.
- Supporting research into the quality of data used in AI and the impact of algorithmic bias on exacerbating inequities in health care.

EXAMPLES IN ACTION

Before the COVID-19 pandemic, states were just starting to take tentative steps to guide the development of artificial intelligence. **Vermont's** Artificial Intelligence Task Force, which issued its final report in January 2020, placed AI in an economic context, recognizing that the technology was already impacting major sectors of the state's economy, including health care.

"In health care, artificial intelligence applications already examine patient x-ray and skin images to advise health professionals on whether particular areas warrant closer examination for the presence of cancer," the panel's report read.

AI applications are also used to process large volumes of patient data to optimize the diagnosis and care of patients and to better map the efficacy of medical therapies, the report noted.

While recognizing the importance of AI to medicine and other sectors, the task force ultimately decided not to recommend new state regulation of AI but instead to recommend a permanent AI commission to study and monitor its development.[74]

The states of **Alabama** and **New York** also had begun to organize state AI commissions as 2020 got underway.[75]

14 COMMENDATION: States consider encouraging the adoption of electronic health records that are standardized, interoperable, usable and provider-friendly and that do not inhibit the practice of clinical care.

HEALTH CARE DATA ISSUE: ELECTRONIC HEALTH RECORDS

The health care industry has long pointed to the digitization of health records as a game-changing innovation with the potential to optimize care, reduce medical errors, improve coordination between providers and empower patients to participate in their own care. The federal government spent $36 billion over a decade helping health care providers make the switch from dog-eared files of paper records to electronic health records. There may be no greater test for electronic health records (EHRs) than a pandemic in which the tracking of thousands of individual patients and their symptoms could be essential to understanding the disease and its spread.

There were significant examples where EHRs played an important role during the COVID-19 pandemic, including:

Researchers at NYU Langone Health analyzed data from electronic health records and discovered that low levels of blood oxygen and markers of inflammation were strongly associated with poor outcomes among COVID-19 patients.[76]

Researchers at Boston-based Mass General Brigham engaged in a painstaking, time-consuming process of combing through patients' medical records, including EHRs, for key data about why some patients become far sicker than others that they could share with an international consortium of genetics researchers known as the COVID-19 Host Genetics Initiative.[77]

The collection of data into EHRs on patients with pneumonia and hypoxemia who were sent home from hospital emergency departments due to limited capacity allowed providers to keep tabs on who was doing well at home and who needed to be brought back in.[78]

The Regenstrief Institute in Indianapolis partnered with health organizations to gather COVID-19 patient data into COVID EHR dashboards that helped them learn about potential hot spots and surges across the state of Indiana.[79]

The University of Massachusetts (UMass) Memorial Medical Center in Worcester, Massachusetts, incorporated a new EHR function allowing clinicians to message an infection control provider with medical questions. The messages could be attached to patient EHR data that would help the infection control provider suggest treatment recommendations.[80]

The Cerner Corporation updated its EHR platform by expanding its telehealth capabilities for clients.[81]

A small, non-profit hospital in rural Missouri was able to use its EHR to connect with several health information exchanges, increasing interoperability, enhancing patient data exchange in its region and allowing for the tracking of COVID-19-positive patients even if they were tested by other providers.[82]

But as the coronavirus spread in 2020, many of the issues that had long challenged EHRs were either still unresolved or just starting to receive attention.

According to a 2019 survey by eHealth Initiative and Nextgate, many hospitals and health information exchanges struggle with patient matching issues, citing data quality problems including data entry errors and inadequate matching algorithms.[83]

The Pew Research Center has been studying the areas in which opportunities may exist to improve patient matching, including an idea that has been discussed for more than 20 years: a unique patient identifier.

In August, the U.S. House of Representatives approved an amendment to an appropriations bill that would remove the federal ban on a national patient identifier. It is the second year in a row the House has done so. While the measure failed to make it through the Senate in 2019, some were hopeful that pandemic-related

concerns would produce a different result in 2020.[84]

Another way to improve patient matching could involve biometrics, such as facial recognition or fingerprint scans, which has become increasingly controversial in recent years despite its ubiquity.

On the issue of interoperability, 2020 saw some progress made. Early in the year, just as the pandemic was about to disrupt American life, the Trump administration issued two final rules related to the interoperability of health records. The first rule requires health plans in Medicare Advantage, Medicaid, CHIP and on the federal health insurance exchanges to share claims data electronically with patients. The second rule, issued by the Office of the National Coordinator for Health Information Technology, implements the clinical interoperability provisions of the 21st Century Cures Act (approved by Congress in 2016 to "accelerate the discovery, development and delivery of 21st century cures"). These provisions deal with EHRs, requiring hospitals and doctors to provide software access points so patients can download records to their smartphones, allowing the patients to connect their data with various apps to promote health.

However, some in the EHR industry did not support the interoperability rules. Judith Faulkner, the CEO of the nation's largest EHR company EPIC, wrote a letter to hospitals opposing provisions of the Cures Act, which some said was an effort to scuttle the new rule and block the flow of data out of its software and into apps for doctors and patients in an effort to double down on "its monopolistic hold on American health care" and protect the competitive edge of the company's proprietary software. EPIC and some other EHR companies explained their reluctance to support the interoperability rule and the implementation of the 21st Century Cures Act by saying they fear that poorly conceived smartphone apps that are able to access sensitive health care data from their software could experience leaks. But other players in the EHR space — in addition to tech giants Microsoft and Apple — have given the rule strong support.[85]

Analysts say fully interoperable patient data exchange will only be possible if EHR vendors and providers work together to implement the new rule and application programming interfaces (APIs) are deployed across the industry. These APIs, such as JavaScript, Python, PHP and XML, let a product or service communicate with other products and services without having to know how they are implemented. One issue that could stand in the way of accelerating the use of APIs in the years ahead is data ownership, something that has been of significant interest to state governments.

In addition to who owns the data, states also face the issue of how health data is defined. Some believe the COVID-19 pandemic has shown that the definition should be expanded to include other types of data compiled inside and outside the clinical setting and to consider an increasingly interconnected world with individuals traveling long distances and no longer confined to their home regions. In March, infectious disease specialists suggested that integrating patients' recent travel histories directly into their EHRs might be one way to establish greater interconnection.[86]

While some health systems were able to draw on EHR data during the pandemic to spot coronavirus trends and potentially beneficial treatments, many others experienced technical nightmares in trying to pool data from digital records systems. Some say what's needed is more of a national database, but so far government has not required technology companies to open up and eliminate silos that can segregate medical data sources from each other.[87]

There were other concerns when it came to the sharing of data during the pandemic as well. In July, the Trump administration ordered hospitals to stop sending data to the Centers for Disease Control and Prevention (CDC) and instead send it to a private data firm hired by the U.S. Department of Health and Human Services, whose secretary reports to the President.[88]

SUGGESTED STRATEGIES

States may consider implementing the following strategies when assessing the relevant recommendations:

- Working with partners to study the utility of EHRs during this pandemic and whether it could be improved in the future by incorporating additional patient data that has proven relevant during this crisis including a patient's recent travel.
- Encouraging the adoption of EHRs that incorporate billing to help eliminate bureaucracy.
- Encouraging the establishment of unique patient identifiers to avoid redundancies in the health care system and assist with the continuity and quality of care.

15 RECOMMENDATION: States consider encouraging discussions around the adequacy and relevancy of privacy provisions under the Health Insurance Portability and Accountability Act (HIPAA) and enact data privacy laws that provide enhanced protections.

Examples *in* Action

After realizing it had its first case of COVID-19 in January, Providence Health in Renton, **Washington**, developed an electronic health record screening tool that asked patients detailed questions about their symptoms and recent travel experiences to help identify potential cases of COVID-19.[89]

HEALTH CARE DATA ISSUE: DATA PRIVACY

When Congress passed the primary federal law that speaks to health data, the Health Insurance Portability and Accountability Act (HIPAA) of 1996, there was no way it could have foreseen the sheer volume of patient data that is now regularly shared outside the clinical setting by individuals using medically related smartphone apps, wearable tech like watches and other gadgets. While the privacy law regulates data shared between health care professionals and patients, it does not regulate un-identified data of the type shared via such apps, data that can nevertheless create a picture of a person's health-related issues. Moreover, while data shared between a patient and their physician from a Bluetooth-connected blood pressure cuff or other device is protected, sharing that same data with a fitness trainer or nutritionist is unprotected, health experts say.

Some believe it will likely be necessary for Congress to address HIPAA's narrow scope in the future and urge an approach taken by the European Union's General Data Protection Regulation, which was passed in 2016 and took effect in 2018. The law embraces a broad and inclusive definition of health-related data and the entities that handle it. Among other things, the measure requires data processors and controllers to provide users with their own data, clearly disclose data collection and set high-privacy defaults.[90]

Stacey Gray, senior counsel to the Future of Privacy Forum, said during a Congressional hearing in April, "In comparison to the European Union and other governments with comprehensive data privacy laws, the United States does not currently have a baseline set of legal protections that apply to all commercial data about individuals, regardless of the particular industry, technology, or user base. Instead, the United States has taken a sectoral approach that provides strong privacy and security protection for information collected in certain contexts, while leaving equally sensitive information about those same individuals largely unregulated."[91]

As the pandemic brought with it calls for effective contact tracing and digital monitoring technology to combat the spread of the coronavirus, privacy and consumer advocates began to renew concerns about data security. President Trump announced March 17, 2020, that his administration would not enforce HIPAA penalties related to violating a patient's right to request privacy restrictions, confidential communications and more to make information sharing about COVID easier for health care organizations.[92]

Democratic and Republican members of Congress introduced competing consumer data privacy measures, both of which would require companies to obtain consent before collecting health information for COVID-19 tracking and mandate transparency in the use of such data.[93]

But while there has been common ground, there is also continuing disagreement on a couple of key areas and data privacy legislation appeared to stall on Capitol Hill this year.[94]

Meanwhile, some said jurisdictional conflicts between HIPAA and state privacy laws have hampered the exchange of patient data during the pandemic as often disjointed care processes for patients (think a hodgepodge of telehealth, drive-through testing, remote testing, field hospitals, etc.) challenged the health care system in new ways to keep up with it all.[95]

Experts say that while HIPAA was intended to be a federally preemptive law, the measure has allowed for stricter state laws to supersede it. As those laws have been written and rewritten, it has resulted in a tangled mess that has made identifying and complying with health information exchange and consent laws challenging.[96]

16 RECOMMENDATION: States consider encouraging the transition of data-rich health care systems to a value-based care model that can provide greater accountability and lower health care costs.

HEALTH CARE DATA ISSUE: VALUE-BASED CARE

Many say that data is also key to completing a long-sought transition from fee-for-service-based health care to value-based care, which experts believe has the potential to provide greater transparency and accountability, lower health care costs and better health outcomes for patients.

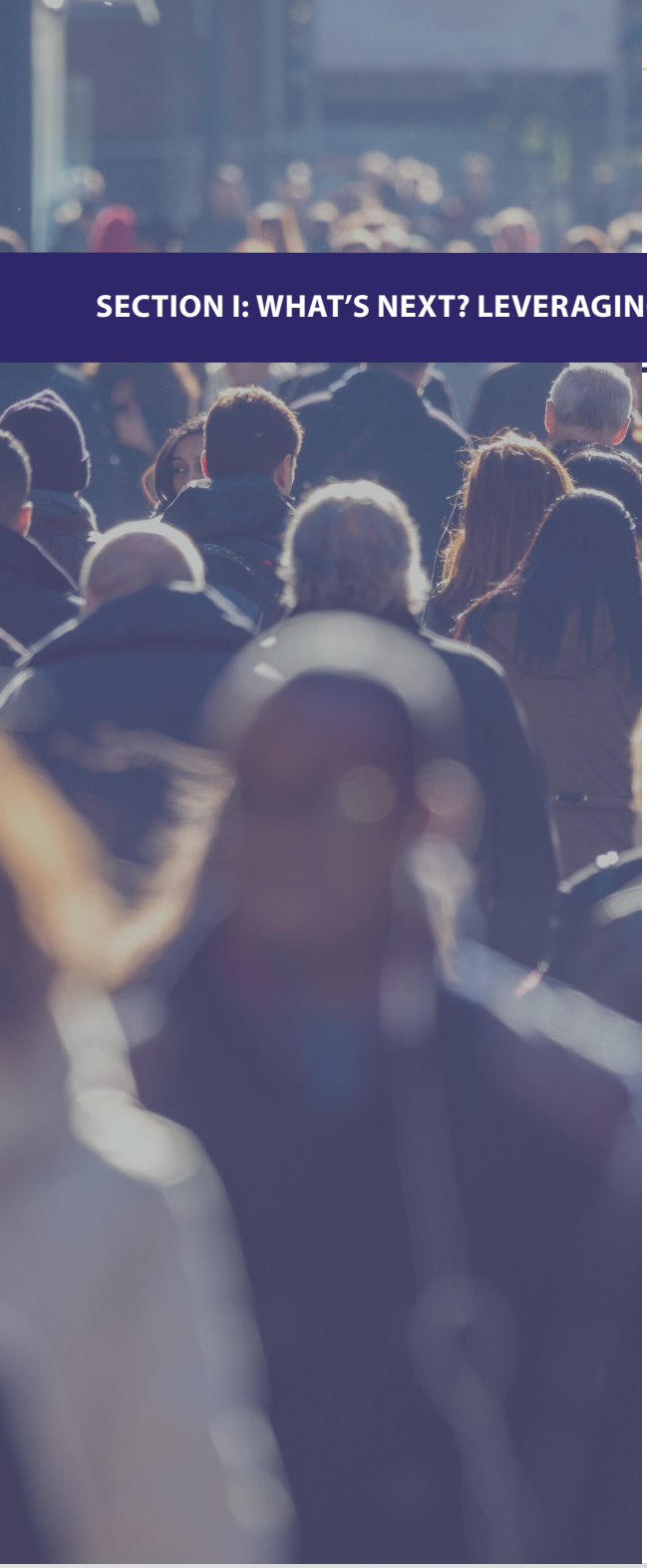
In value-based health care, providers are paid based on patient health outcomes rather than based on the amount of services they deliver, so they are rewarded for helping patients live healthier lives.[101]

Examples *in* Action

Of the recent state laws to take on the issue of privacy, perhaps the most well-known is the **California** Consumer Privacy Act (CCPA) of 2018, which established a consumer's right to know about the personal information a business collects about them and how it is used and shared, a right to delete personal information collected from them (with some exceptions), a right to opt-out of the sale of their personal information and a right to non-discrimination for exercising their rights under the act.[97]

California voters were also expected to decide in November 2020 on a ballot measure known as Proposition 24 that supporters say is designed to improve upon the CCPA. It would add new limits on how businesses can use "sensitive personal information" such as race, sexual orientation and precise location and create a new data privacy enforcement agency.[98]

At least 25 states now have data privacy laws on the books.[99] The CCPA in California inspired at least nine similar regulations in Illinois, Maine, Nevada and other states.[100]



As a private insurer, Blue Cross of Idaho pays 70% of all its claims through a value-based care arrangement. Drew Hobby, the company's senior vice president for health care economics and provider services, said it's led to quantifiable results: millions of dollars a year in reductions in medical expense costs. This type of care and savings are made possible by the company delivering all claims and utilization data to providers who are part of the arrangement.

But it's not just the insurance company-provided data that successful value-based care models are relying on these days. Data contained in electronic health records and gathered by patients using mobile devices and health apps can also factor in. According to a 2019 report by Definitive Healthcare, only 36% of hospitals currently have the IT infrastructure in place to manage all three sources of data for successful value-based care: payors (insurers), providers and patients.[102]

Moreover, some say the electronic health record can be an inadequate source of data when it comes to value-based care. A 2019 whitepaper from the health care analytics firm Geneia found that EHRs don't capture enough information to tell the whole story of individual patients or populations, don't deliver the level of data enrichment required for developing and extracting necessary insights users need and don't make it easy to share data with everyone who needs it. EHRs, the paper concludes, as many are currently configured, are designed for fee-for-service, encounter-based medicine.[103]

In a June 2020 essay for the Harvard Business Review, former Partners Healthcare CIO and former Siemens Health Services CEO John Glaser called for a redesign of the EHR to transition it from an emphasis on a person's medical record to an emphasis on a person's plan for health and from a focus on supporting clinical transactions to a focus on delivering information to the provider and the patient.

Despite those data-related challenges, value-based care models continue to gain popularity. They were expected to account for 59% of health care payments nationwide in 2020, up from 34% in 2017.[104]

EXPLAINER

Value-Based Care

Value-based care is a type of reimbursement that rewards health care providers with incentives based on the quality of care they provide to patients. High cost and volume lead to more opportunities for quality improvement and cost reduction, which ultimately lead to greater savings under value-based care models. In value-based health care, providers are paid based on patient health outcomes rather than based on the amount of services they deliver, so they are rewarded for helping patients live healthier lives.

EXAMPLES IN ACTION

Drew Hobby said value-based care can look very different from state to state or even within the same state. While Blue Cross of **Idaho** is relatively new to the model, a state like **California** has been doing value-based care for almost 30 years, he said.

A 2019 state-by-state study by Change Healthcare indicated that 48 states have implemented value-based care or payment programs. Of those programs, 50% are multi-payer in scope. Just four states have little or no value-based care initiatives. The report points to **New York**, **Pennsylvania** and **Vermont** as being "noteworthy for the broad scope of their breadth of initiatives, embrace of payment models that involve shared risk, and willingness to test innovative strategies."[105]

SECTION II

State Health Systems Return on Investment Subcommittee

The State Health Systems Return on Investment Subcommittee worked to identify innovative solutions that examine how states are effectively managing the demands of their health systems and navigating federal mandates, while simultaneously driving savings and quality of care in state programs.

The subcommittee defined return on investment as the money spent with expected results in measurements of dollars, changed behaviors and/or outcomes. The subcommittee narrowed down to two focus areas:

- Population health
- Care delivery

The population health discussion centers primarily on social determinants of health. The care delivery conversation has a broad focus on finding innovative examples of states that are doing "delivery right" that yield a Return on Investment (ROI).

The Centers for Medicare & Medicaid Services (CMS) estimates that approximately 73.5 million people were enrolled in Medicaid in May 2020.[106] While Medicaid and the Children's Health Insurance Program (CHIP) are the biggest health care cost driver for states, prison system health care, active state employee health insurance and retired state employee health insurance contribute to the overall cost as well. Compounding this issue is the surge on Medicaid rolls due to unemployment as a result of the current public health crisis.[107] States have often used policy to manage health care costs, by lowering reimbursement rates to providers and eliminating services and/or eligibility groups or adding requirements, such as 1115 waivers, with a work requirement.

Population Health

The Centers for Disease Control and Prevention (CDC) defines population health as "an interdisciplinary, customizable approach that allows health departments to connect practice to policy for change to happen locally."[108] This sort of agile approach allows communities to evaluate their current health needs and effect change based on need and resource availability.

As states continue to struggle with the burden of health care costs, growing evidence indicates that failure to address health-related social needs, like inadequate housing or food insecurity, may increase the risk of developing chronic conditions, reduce the ability to manage these conditions and lead to avoidable health care costs.

17 RECOMMENDATION: States consider addressing social determinants of health through enhanced clinical-community linkages that improve health outcomes and reduce costs.

18 RECOMMENDATION: States consider identifying opportunities for public private partnerships to address unmet needs, including social determinants of health.

Social determinants of health are the nonmedical factors that people face in their community. Several studies have examined the role of genetics, health care and social, environmental and behavioral factors in promoting population health.[109] Surprisingly, these studies found that nonmedical factors play a much larger role than medical factors in overall health. Things like where a person lives, works and plays have the

EXPLAINER

What *is* a 1115 Waiver?

1115 waivers give states the opportunity to design and improve their state Medicaid programs through pilot, demonstration or experimental projects.

biggest impact on overall health. Actual medical care plays a very small part — about 10% — in a person's overall health. The remaining 90% is made up of genetics and social, behavioral and environmental factors. This suggests that addressing medical care alone will not significantly impact population health. It also creates an opportunity for interventions that can help contribute to a healthier population, thereby leading to healthier outcomes and decreasing health care costs.

One way that states can address social determinants of health is by partnering with private sector organizations. States may choose to partner with private organizations who are experienced experts in delivering social services. For example, many states work with Managed Care Organizations to provide Medicaid services in their state. Managed Care Organizations contract with states to provide care for Medicaid patients through their network of doctors and specialists. Sometimes called "comprehensive care," these organizations receive a flat rate to care for the patient, providing an incentive to keep patients healthy and avoid unnecessary procedures.

Other public private partnerships have been established by private companies that have stepped up to assist with social determinants like transportation.

The Centers for Medicare & Medicaid Services reports 29 organizations that are currently participating in the Accountable Health Communities Model.[110] The Accountable Health Communities Model is based on evidence that addressing health-related social needs through enhanced clinical-community linkages can improve health outcomes and reduce costs. Growing evidence indicates that failure to address health-related social needs, like inadequate housing or food insecurity, may increase the risk of developing chronic conditions, reduce the ability to manage these conditions and lead to avoidable health care costs.

Addressing social determinants of health requires collaboration across multiple sectors including providers, social services, state and local governments, and nonprofits. By evaluating the nonmedical factors that affect individuals, states can determine how to address and prevent those factors from affecting overall health while reducing health care costs.

EXPLAINER

What *is* a Social Determinant *of* Health?

Social determinants of health are the non-medical factors that people face in their community. Things like where a person lives, works and plays have the biggest impact on overall health. Actual medical care plays a very small part — about 10% — in a person's overall health. The remaining 90% is made up of genetics and social, behavioral and environmental factors. Those factors can include:

- INCOME LEVEL
- EDUCATIONAL OPPORTUNITIES
- OCCUPATION, EMPLOYMENT STATUS AND WORKPLACE SAFETY
- GENDER INEQUITY
- RACIAL SEGREGATION
- FOOD INSECURITY AND INACCESSIBILITY OF NUTRITIOUS FOOD CHOICES
- ACCESS TO HOUSING AND UTILITY SERVICES
- EARLY CHILDHOOD EXPERIENCES AND DEVELOPMENT
- SOCIAL SUPPORT AND COMMUNITY INCLUSIVITY
- CRIME RATES AND EXPOSURE TO VIOLENT BEHAVIOR
- AVAILABILITY OF TRANSPORTATION
- NEIGHBORHOOD CONDITIONS AND PHYSICAL ENVIRONMENT
- ACCESS TO SAFE DRINKING WATER, CLEAN AIR AND TOXIN-FREE ENVIRONMENTS
- RECREATIONAL AND LEISURE OPPORTUNITIES

SUGGESTED STRATEGIES

States may consider implementing the following strategies when assessing the relevant recommendations:

- Identifying and engaging stakeholders, including patients, partnerships and private sector members in the conversation about health.
- Increasing access to social workers at health care facilities.
- Identifying unmet social needs in the community, as well as specifically to the patient.
- Soliciting feedback from stakeholders on progress.

EXAMPLES IN ACTION

Clinical-community linkages have proven to eliminate barriers to health, while netting a return on investment. Investing in housing for the homeless population has shown a 300% return on investment at Montefiore Health System in the Bronx.[111] The program has also reduced emergency department utilization by 26%.

Eskenazi Health, in Indianapolis, saved $1.4 million[112] in avoidable hospital costs by referring patients to wraparound services, non-medical services in conjunction with primary care. The program reduced avoidable hospitalizations and emergency room costs.

Transportation to medical appointments is a huge barrier to low income families. Lyft has partnered with Unite Us to help address transportation as a barrier to health needs.[113] Recognizing that transportation to medical appointments is only one barrier, the partnership includes transportation to job interviews and social services.

19 RECOMMENDATION: States consider applying evidence-based initiatives to prevent chronic disease such as obesity and diabetes.

20 RECOMMENDATION: States consider addressing health equity by removing barriers to treatment for underserved populations.

According to the Center for Medicaid Innovation, 35% of Medicaid recipients have less than a high school diploma. Increased risk of disease, disability and unhealthy behaviors are associated with low educational levels and low income.[114] Individuals with low income are disproportionately affected by unmet social health needs. These unmet social health needs create a barrier to health care access.

Chronic diseases are the leading drivers for the U.S.'s $3.5 trillion in annual health costs.[115] The CDC reports that six in 10 adults have a chronic disease, with diabetes and obesity falling in the top five most common chronic diseases.

SUGGESTED STRATEGIES

States can consider the following strategies when implementing the recommendations:

- Exploring opportunities for shared use agreements with public and private sector members.
- Creating a working group to identify and address health equity issues.
- Identifying root causes of unmet social needs.
- Collecting data and use it to inform decision making.

EXAMPLES IN ACTION

In 2012, **Mississippi** passed HB 540,[116] which created a toolkit for communities and schools who wish to enter a shared used agreement with the Mississippi Department of Health to address social determinants of health. Recognizing that environmental factors play a large role in health, the Best Practices Toolkit for Shared Use Agreements in Mississippi allows schools to make their property available to the community during non-school hours for recreational activities. The shared use agreement helps remove systemic barriers by giving a safe space for community members to exercise and socialize.

Blueprint for a Healthy **Texas** is a framework that outlines initiatives, priorities and a path forward. The plan's goal is to make "Making a positive difference in the lives of the people we serve by improving their health, safety and well-being with good stewardship of public resources." The plan outlines detailed deliverables and target completion dates, as well as strategies to achieve each goal. Using a data driven approach, the plan acknowledges the health disparities that people of color face in comparison to their white peers.

Chronic diseases are the leading drivers for the country's $3.5 trillion in annual health care costs. The Centers for Disease Control and Prevention reports that six in 10 adults have a chronic disease. Diabetes and obesity are among the top five most common chronic diseases.

Recognizing that the rise in chronic disease is often a result of increased risk factors like unhealthy diet, lack of physical activity and other risk factors, the World Health Organization recommends implementing evidence-based approached to managing chronic disease. Evidence-based initiatives use a science-based approach to develop, evaluate and implement effective programs and policies.

21 RECOMMENDATION: States consider managing Medicaid, including any expansion of Medicaid, to improve individual outcomes and population health.

Currently, 39 states have expanded Medicaid since the enactment of the Affordable Care Act in 2010. States that have expanded Medicaid have shown the largest increase in enrollment, with Kentucky reporting a 95% increase in enrollment between 2013 and 2020.[117] Overall, Medicaid enrollment increased by 12.4 million in expanded states.

Budget impact concerns are often raised when discussing expansion. Medicaid expansion was associated with a 4.4%-4.7% reduction in spending.[118] Along with a reduction in state spending, Medicaid expansion has been associated with reductions in food insecurity, poverty and decreased mortality overall.[119]

SUGGESTED STRATEGIES

States can consider the following strategies when implementing the recommendations:

- Streamlining application processes.
- Engaging in outreach and education to promote health literacy.
- Targeting outreach and enrollment efforts to vulnerable populations.
- Engaging providers in screening for eligibility.

EXAMPLES IN ACTION

In 2014, the **Ohio** Legislature required a report on the effects of Medicaid expansion. The Ohio Medicaid Group VIII Assessment Study conducted a telephone survey 7,500 of participants on how the expansion affected new enrollees.[120] The report did not assess costs savings; but it did show that access to care improved for 64.3% of the participants. Similarly, 47.7% reported an improvement in health. Participants also reported a decrease in medical debt and improvement in their financial well-being.

Arizona has implemented the Arizona Health Care Cost Containment System (AHCCCS). In a 2019 study, significant improvements were found in expanded telehealth, targeted opioid response and coordinated care.[121]

Care Delivery

Health care delivery is a large part of our national expenditure, representing almost 18% of the economy.[122] In 2018, Medicaid spending grew to $597.4 billion and represented 16% of the total national health care expenditure.

Care delivery includes all of the components that encompass supplying a population with health care. The World Health Organization encourages a people-centered approach that considers clinical encounters, as well as the health of communities.[123] Care delivery can take place in a multitude of settings from rural hospitals to urban nursing homes to primary care facilities. Safe, effective and equitable health care leads to optimal health outcomes. Health literacy has a profound impact on care delivery.

In March 2020, COVID-19 swept through the U.S., creating additional issues for care delivery. Nursing homes and long-term care centers were hit especially hard. Staff shortages, infection control issues and testing shortages led to increased outbreaks of coronavirus in long term

care facilities.[124] The Alzheimer's Association has issued a call to action for policymakers to protect some of the country's most vulnerable citizens.[125]

Lack of communication and coordinated care between providers, health care organizations and social services present the biggest challenge to care delivery. Organizations are often siloed — each primarily focusing on specific issues — and lack the ability to treat the individual as a whole.

22 RECOMMENDATION: States consider leveraging §1115 demonstration waivers to improve health outcomes while increasing value to patient and the state.

23 RECOMMENDATION: States consider engaging health care providers and other stakeholders to identify opportunities for patient-centered innovation that are cost effective and show a return on investment.

Section 1115 waivers pave the way for states to modify state Medicaid programs through demonstration waivers. States can apply to the Centers for Medicare & Medicaid Services to waive provisions of Medicaid law. 1115 waivers give states the opportunity to design and improve their state Medicaid programs through pilot, demonstration or experimental projects. 1115 waivers can be used for states to experiment with programs that provide a return on investment.

A patient-centered approach focuses on the quality of the patient-doctor relationship. The Institute of Medicine defines patient-centered care as "providing care that is respectful of and responsive to individual patient preferences, needs and values and ensuring that patient values guide all clinical decisions."[126]The relationship between a doctor and patient can greatly affect health outcomes. When a patient trusts a doctor, they make health decisions based on that trust. When a doctor listens to the patient, they can take a holistic approach that can significantly impact treatment.

SUGGESTED STRATEGIES

States can consider the following strategies when implementing the recommendations:

- Recognizing that all health system improvements start with health literacy and a relationship with a primary care provider.
- Supporting and encouraging treatment of the individual as a whole.

EXAMPLES IN ACTION

Established by the **Oregon** Legislature in 2009, the Patient Centered Primary Care Home (PCPCH) Program is part of an effort to fulfill a vision for better health, better care and lower costs for all Oregonians.[127] PCPCH is based on the medical community model, utilizing practices that are patient-centered and that promote comprehensive, coordinated care, treating the individual as a whole. The program saved approximately $240 million in the first three years.

24 RECOMMENDATION: States consider promoting payment models that provide incentives to patients and providers based on health outcomes.

Traditional health care has adopted a fee-for-service payment model. Fee-for-service models provide payment for procedures performed, which can lead to higher costs of care. Value-based payment models provide incentives to providers to healthier outcomes for patients and shifts patient care to quality rather than quantity.

SUGGESTED STRATEGIES

States can consider the following strategies when implementing the recommendations:

- Engage key stakeholders including providers, patients and private sector members in discussions.
- Assist providers in building infrastructure to move to value-based care.
- Incentivize personal care for people with disabilities so that they can continue to engage in the workforce.

EXAMPLES IN ACTION

America's Health Insurance Plans surveyed their members to identify potential barriers to alternative payment models.[128] The survey indicated that the biggest barriers to alternative payment models are the risk and lack of infrastructure.

The **Vermont** Blueprint for Health ties payment to service results. In 2016, the Blueprint launched performance payments for providers at "$0.50 per-member per-month for excellence in preventative and chronic care and for appropriate hospital utilization."[129] This, along with Patient-Centered Medical Homes, Community Health Teams and the Blueprint program including its local network, resulted in an estimated overall return on investment of between two and four dollars of expenditures averted for every dollar invested.

Under FL Stat § 413.402 (2016), the James Patrick Memorial Work Incentive Personal Attendant Services and Employment Assistance Program provides funding for a personal care attendant to assist individuals with chronic health issues and has shown return on investment of $1,843,000.[130]

Pennsylvania is the first state to implement an alternative payment model that focuses on rural hospitals. The Pennsylvania Rural Health Model addresses the financial challenges faced by rural hospitals.[131] The Pennsylvania Legislature has introduced legislation to create the Rural Health Design Center, an independent entity that will administer the Pennsylvania Rural Health Model.

EXPLAINER

Value-based Care

According to the Centers for Medicare & Medicaid Services, value-based programs provide incentive payments for health care providers for the quality of care they give to patients.

25 RECOMMENDATION: States consider integrating community health care workers into primary care.

Community health workers are community members who work in either a paid or volunteer capacity to promote community health. These workers are often from the community they serve and have established trust with the community. This gives them the ability to provide culturally appropriate information/education and advocate community health needs. Community health workers can address health equity issue by linking quality health care and traditionally underserved communities.

SUGGESTED STRATEGIES

States can consider the following strategies when implementing the recommendations:

- Implement community health care worker certification programs.
- Define key roles and responsibilities of community health care workers.

EXAMPLES IN ACTION

The University of **New Mexico** launched the Community Health Worker Initiatives Unit in 2014 to help integrate community health care workers into primary care and promote health equity.[132] The Initiatives Unit has several programs that address health issues in primarily low-income communities. The Office for Community Health has created a "Social Determinants Prescription Pad," to address nonmedical needs, along with integrating Community Health Workers directly into primary care.

The **North Carolina** Community Health Care Workers Initiative identifies opportunities to knit "together the healthcare sector and communities."[133] The North Carolina Department of Health and Human Services introduced a report with stakeholder recommendations for creating an infrastructure for sustainability of the North Carolina Community Health Care Workers Initiative.

26 RECOMMENDATION: States consider investing in adequate and ongoing emergency preparedness.

Many states were unprepared for the complications related to COVID-19. Rural health care providers faced increasing shortages in resources, including equipment and trained specialists. Rural hospitals have struggled to keep the doors open for some time now. In fact, The Cecil G Sheps Center for Health Services Research at the University of North Carolina reports that 130 rural hospitals have closed since 2010. These closures have led to a decrease in capacity to treat patients with the virus. The hospitals that remain open are not typically equipped to deal with any influx of patients. Many rural communities do not have infectious disease experts on staff.

Telehealth opens the door for states to have access to infectious disease experts in the event of epidemics or pandemics, but states should also invite health care providers to the table when discussing how to prepare for the next public health crisis.

SUGGESTED STRATEGIES

States can consider the following strategies when implementing the recommendations:

- Invest in response training.
- Create an agile environment for private sector folks to response to material needs such as PPEs, ventilators and hand sanitizer.
- Invest in training for staff who work with the most vulnerable populations such as nursing homes, long term care facilities and schools.
- Engage frontline health care workers in decision making on preparedness.

EXAMPLES IN ACTION

In a recent press release, **Texas** Gov. Greg Abbott announced $9 million in funding to assist nursing homes and long-term care facilities in stopping the spread of COVID-19. The funds can be used to install barriers, purchase N-95 fit-test equipment and implement infection control. Texas also partnered with Omnicare, a CVS health care company, to provide testing at nursing and long-term care facilities.

California Gov. Gavin Newsom announced a program that assists frontline health care workers with little to no cost hotel rooms in close proximity to medical facilities. The program is prioritizing those who come in direct contact with suspected or positive cases of coronavirus. The program is intended to keep health care workers close to medical facilities while lowering the possibility that frontline health care workers will further spread the virus.

In a recent press release, Newsom praised the private sector for its assistance. "It is very encouraging to see our industry leaders step up and lend a hand in this effort to help us meet this moment and support our health care workers to make sure they have resources to get to where they are needed," Newsom said. The program is partly funded through Federal Emergency Management Agency (FEMA) assistance.

In April 2020, **Ohio** Gov. Mike DeWine announced the Ohio Manufacturing Alliance to Fight COVID-19, a partnership of manufacturers, hospitals, nursing homes and JobsOhio. The alliance is exploring manufacturing options to produce products for the health care industry and working with manufacturers to help them reconfigure their facilities for personal protective equipment (PPE) production. The project is funded through the Ohio Office of Budget and Management.

SECTION III

Capacity, Preparedness and Resiliency Subcommittee

This subcommittee worked to identify problems and find solutions in relation to a state's capacity to handle a disaster or crisis, how prepared it is across multiple areas of consideration and how it can build resiliency to recover from these occurrences. The subcommittee primarily analyzed:

- The value of investing in prevention and preparedness ahead of a disaster or crisis
- The best practices for building resiliency

When health crises such as new infectious diseases arise, there is often insufficient funding and capabilities in place to effectively respond. Even before the COVID-19 pandemic, preventable infectious diseases cost the U.S. more than $120 billion annually, and that cost is exponentially compounded when new diseases emerge.[134]

In 2020, the COVID-19 pandemic is occurring alongside more frequent and severe extreme weather events including increased storms, rising sea levels, coastal flooding, heat, drought and wildfires. However, policymaking in the areas of public health and emergency management have remained largely reactionary rather than prevention-focused, despite the fact that the field of emergency management has grown over the past two decades and evolved at both state and local levels in scope and practice to include the capability to manage multiple complex and often simultaneous events.[135]

Some of the impacts of climate change that have long been forecast are now becoming reality across the country. The potential for more than one disaster to strike simultaneously increases the severity of each of them as well as the likelihood of mega disasters — disasters so large that the systems set up to deal with them are incapable of managing the crisis — to form, according to Jeff Schlegelmilch who serves as the director of the National Center for Disaster Preparedness at Columbia University's Earth Institute.[136]

Preparing for and Recovering from Public Health Crises and Natural Disasters

27 RECOMMENDATION: States consider committing to and prioritizing investment in their public health infrastructure, including through establishing Public Health Emergency Funds or Emergency Relief and Assistance Funds.

Funding for public health and health care preparedness measures in the states has been varied and inconsistent for years, according to a recent report on progress in public health emergency preparedness published in the American Journal of Public Health.[137] Preparedness investments have been shown time and time again to save much more than the

Facing *a* Disaster

Surveys indicate that at least 2/3 of American families do not have sufficient preparedness kits or plans in order to face a disaster. To sign up to get FEMA preparedness tips, text PREPARE to 43362.

Source: American Preparedness Project Surveys, National Center for Disaster Preparedness: 2016.

cost of disasters than without prior mitigation investment.[138] Increasing funding for public health at the federal, state and local levels would support basic capabilities to reverse trending epidemics and prevent a variety of diseases from becoming widespread.

The unpredictable and reactionary nature of funding doesn't allow for public health officials to provide comprehensive services nor does it allow for the steady construction of an overall robust health care infrastructure that would allow the health care workforce to both respond to crises and simultaneously improve general health outcomes, concluded a report from the Millbank Memorial Fund.[139]

There are roughly 2,000 school-based health centers operating across the country, approximately 70% of which receive state funding, but these health centers are not yet available in all states.[140] Often a partnership between the school and a community health organization, the services at such centers vary based on community needs and resources. School-based health centers receive financial support from a wide variety of sources, including state government grants and reimbursement through Medicaid.[141] In fact, at least 13 states allow for Medicaid reimbursement for services provided at these school-based centers.[142] According to a School-Based Health Alliance survey, 18 states provided general funds and federal block grant dollars to these centers totaling $85 million in 2017.

School-based Health Centers Capital Program Grantees

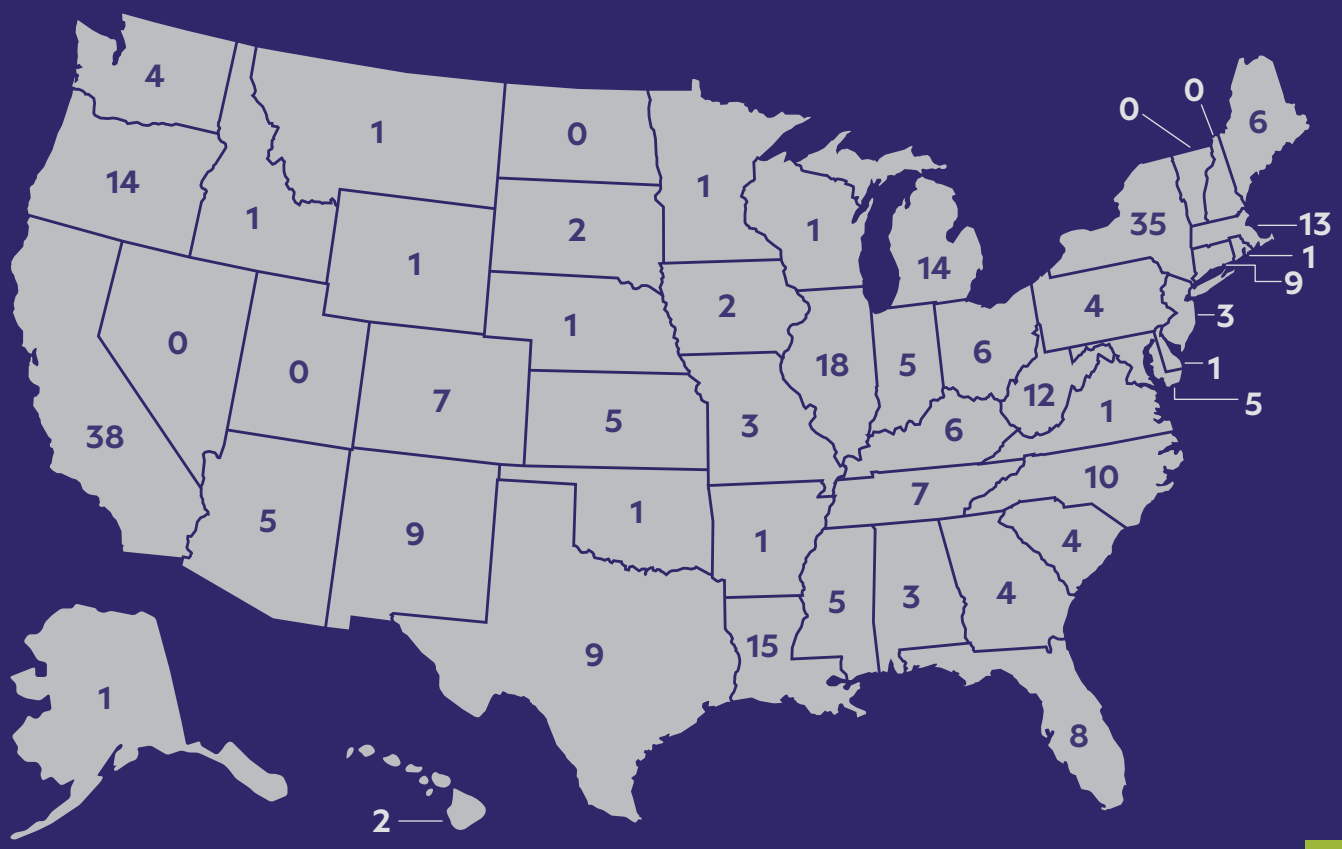
Source: Health Resources and Services Administration, hrsa.gov

School-based health centers are a major component of the country's health care safety net. These centers enable children with acute or chronic illnesses to attend school and improve the overall health and wellness of all children through health screenings, health promotion and disease prevention activities.

The Affordable Care Act appropriated $200 million for 2010-2013 to support capital grants to improve and expand services at school-based health centers. $95 million was awarded to 278 school-based health centers in July 2011, enabling them to serve an additional 440,000 patients. These facilities currently serve approximately 790,000 patients.

With those funds, the school-based health centers modernized or built new facilities, purchased needed equipment and increased access to health services for children.

Number of School-based Health Centers Capital Program Grantees per State



SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- Starting and funding their own Public Health Emergency Funds or Disaster Relief Funds for immediate use when new threats emerge, which isn't meant to replace and maintain ongoing investments in preparedness and response funding. The emergencies and threats that states face as a part of their regular cycle should have a separate stream of funding that must always be in place. To be effective, these funds should be capable of providing a surge of resources for response to new crises.
- Investing in school-based health centers allows students and families access to basic health care, screenings, immunizations and testing. Through investing in school-based health centers, states can be ready to roll out a COVID-19 vaccination and support other public health needs of families, particularly important as more and more rural hospitals close their doors around the country.

EXAMPLES IN ACTION:

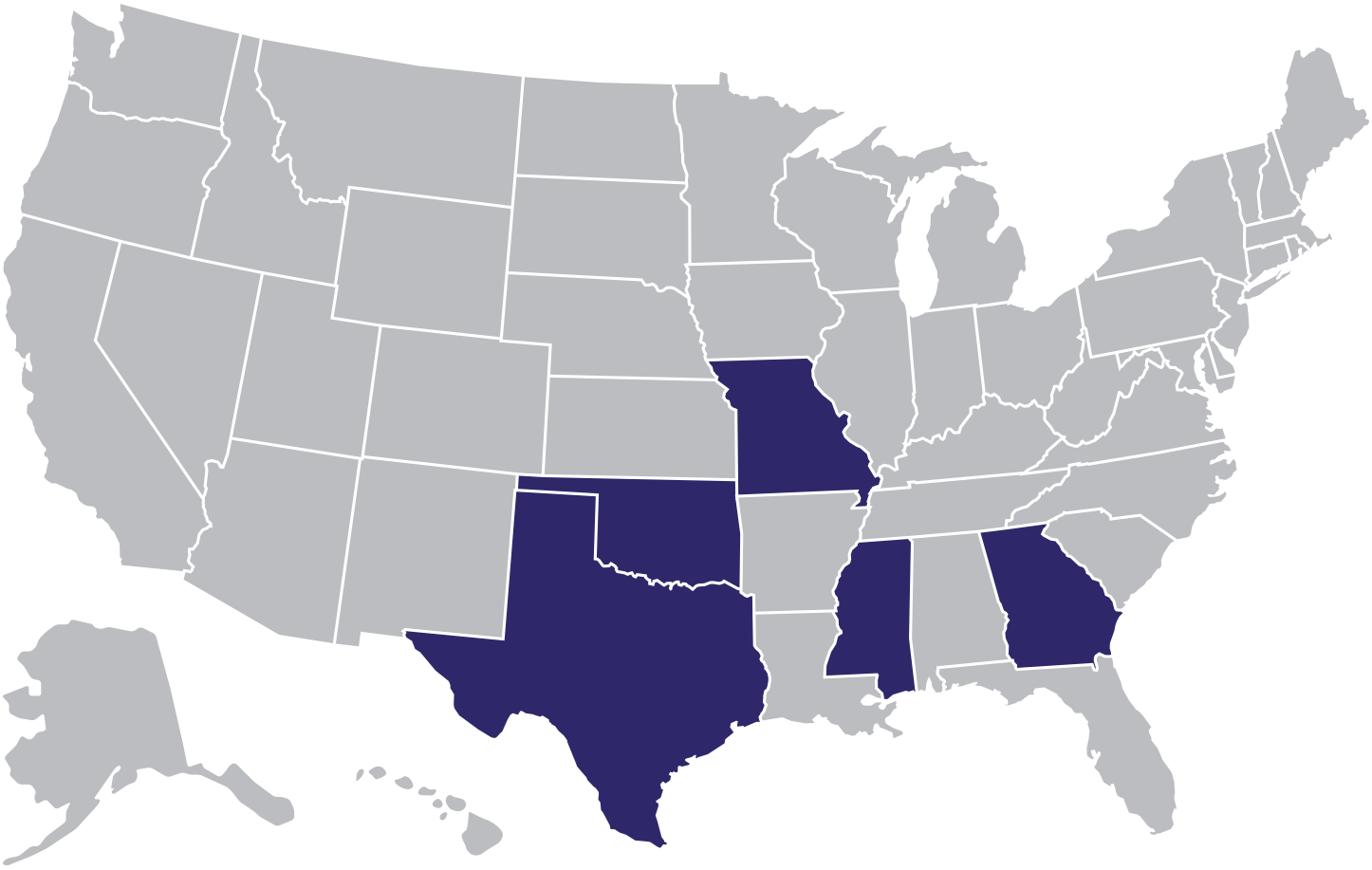
In the first quarter of 2020, **Arizona** appropriated $55 million to its Public Health Emergency Fund to support the state's efforts to combat the continued spread of COVID-19.[143]

Vermont and 26 other states have created Emergency Relief and Assistance Funds, which give more post-disaster assistance to cities and towns that have taken actions to prepare for floods and less to those who haven't and helps citizens and businesses when a disaster or emergency doesn't meet the criteria for a federal declaration.[144] It is believed that when enticed by the promise of more aid, many communities will take steps to lessen the impacts of future vulnerabilities.

Delaware recently passed legislation requiring all public secondary schools to have a school-based health centers and will finance the establishment and initial operating costs of each new center.[145]

Rural Hospital Closures

One in four rural hospitals are now vulnerable to closure.



States experiencing the most rural hospital closures over the past 10 years

Source: https://www.vox.com/policy-and-politics/2020/2/18/21142650/rural-hospitals-closing-medicaid-expansion-states

28 RECOMMENDATION: States consider creating permanent positions and temporary offices to study and implement best practices, to build community resilience and to support disaster planning and coordination of information and resource sharing.

Chief Resilience Officer was a title first coined by the Rockefeller Foundation's 100 Resilient Cities Initiative, which also outlined its job description.[146] Since then, a number of localities and states including Florida and North Carolina have instituted the role of chief resilience officer — prior to the COVID-19 pandemic — to strategize and holistically look at resilience across departments before a disaster, often working with the emergency manager to implement community resilience plans during a disaster or crisis.[147] In addition to the traditional social determinants of health, we now know that additional factors, such as income and education, have been used to predict health. In fact, vulnerability can often be predicted ahead of a disaster by race, class, income and ethnicity.

While cities are leading the way on resiliency initatives — over 98 cities including New York are now part of the Global Resilient Cities Network — states also have a history of establishing infrastructures to help prepare for disasters and crises, including the distribution of federal aid. Texas has a long history of a General Land Office (GLO), dating from the 1800s, that has helped the state efficiently administer and maximize the use of U.S. Housing and Urban Development (HUD) Community Development Block Grant (CDBG) disaster recovery funding to build back stronger and more resilient communities after disasters.[148]

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- Consider hiring a Chief Resiliency Officer or instituting an office to speed recovery and streamline processes, such as a General Land Office.
- Consider forming an Emergency Preparedness Task Force. The COVID-19 pandemic impacted all aspects of society, revealing weaknesses in state preparedness planning for emergencies. A task force could help prevent future shortages in medical supplies and personal protective equipment.
- Consider plans for implementing robust response teams for deploying financial assistance during an emergency.

EXAMPLES IN ACTION:

Florida's Chief Resilience Officer is tasked with preparing the state for the environmental, physical and economic impacts of sea level rise,[149] an area of concern for Florida where coastal cities like Miami and at least 20 additional cities across the state are at risk of flooding.[150]

Having an organized team in place and on the ground ready to assist goes a long way. The team put in place in **Louisiana** following Hurricane Katrina is thought to have lessened the impact of the subsequent Hurricane Rita, which prompted the largest evacuation in the history of the nation.[151]

Alaska's Health and Disability Program conducted an emergency preparedness needs assessment of Alaskans with disabilities to establish emergency preparedness baseline measures. The program also administers a follow-up survey the following year to measure changes in preparedness levels. Despite a small increase in overall disaster preparedness levels, the Alaska Health and Disability Program will continue to prioritize Alaskans with disabilities' needs in times of disasters.[152]

In **Kentucky**, the state operations center has been activated 125 times since 2008 to address

infectious disease outbreaks such as H1N1, Zika and Hepatitis A.[153] A bill is being considered that would form an Emergency Preparedness Task Force examining state preparedness planning for various emergencies.[154]

Washington's Disaster Cash Assistance Program has been in place for over a decade to provide cash to families or individuals who lack the funds to meet their basic needs during a disaster or other state of emergency declared by the governor.[155]

The **Montana** Department of Commerce is leading the Montana Ready Communities Initiative, a project to support community resiliency in the face of natural, man-made or economic challenges. The department is working across all state agencies to create a Resiliency Framework that is informed and guided by public input and comment.[156]

29 RECOMMENDATION: States consider developing proactive plans to combat misinformation/disinformation, build trust in and strengthen state systems.

Modernizing systems, addressing gaps in critical infrastructure and updating outdated systems and technologies are each becoming increasingly important for states as their residents need to be confident in the reliability of information from official sources, the capacity of government to perform effectively in a crisis and the capability of response systems.[157]

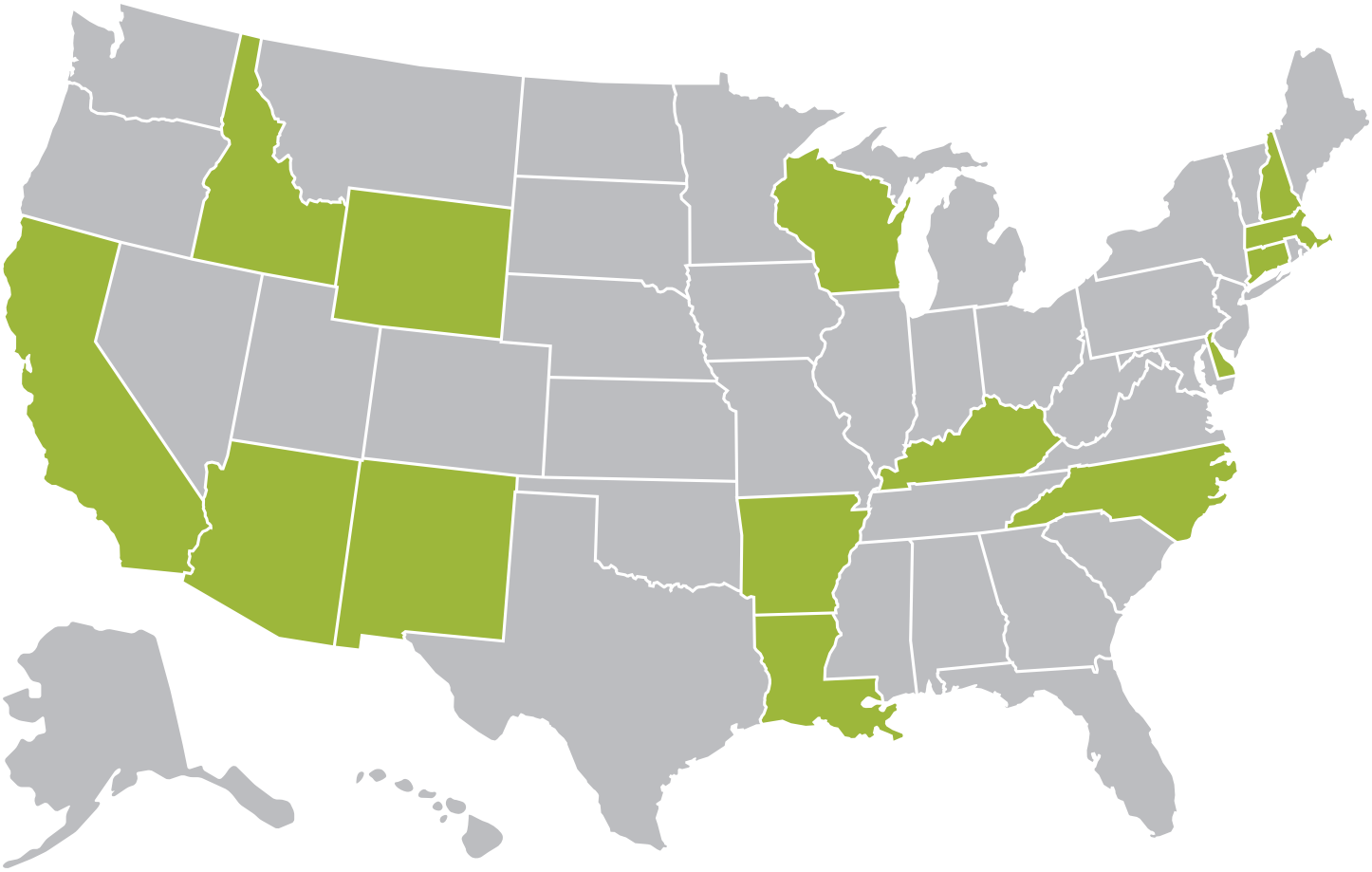
Recent reports of data breaches and fraudulent scams of what were thought to be secure government systems, point to a strain on technology systems during this COVID-19 pandemic as well as to the need for greater cybersecurity measures and monitoring of red flags.[158] [159]

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- A number of states had already passed or begun working on consumer data privacy legislation prior to the pandemic, which is a seemingly necessary component to help build confidence in state systems as they relate to data breaches.
- Creating an emergency support function (ESF) within their state Emergency Operations Center (EOC) dedicated to cyber response, due to the growing cyber threat. At least 16 states currently have dedicated cyber ESFs.
- Developing state cyber disruption response plans to address and help mitigate future incidents.
- Implement trans partisan state initiatives and bipartisan regional pacts as well as state/federal collaborations to combat misinformation and disinformation in order to help strengthen trust in government institutions.

Cyber Emergency Support Functions



Cyber Emergency Support Function (ESF) within the state Emergency Operations Center (EOC), dedicated to cybersecurity.

Source: National Governors Association. "State Cyber Disruption Response Plans," July 2019. Accessed from: https://www.nga.org/wp-content/uploads/2019/04/IssueBrief_MG.pdf

EXAMPLES IN ACTION

West Virginia has undertaken an education campaign to combat misinformation and disinformation.[160]

The Cybersecurity and Infrastructure Security Agency (CISA) put out a fact sheet demonstrating how misinformation and disinformation often comes from foreign actors who want to further divide and confuse Americans on a variety of issues and topics.[161]

30 RECOMMENDATION: States consider prioritizing transitions to next generation technologies and ensuring access to broadband for all who want it.

As is covered extensively in the What's Next? Leveraging Innovation Subcommittee section, the pandemic reinforced the need for states to prioritize access to broadband and other wireless technologies to facilitate effective telehealth, telework and telelearning. These technologies are critical for many services provided during emergencies and are relied upon for communications for residents and first responders alike. When residents have access to essential technologies and the digital literacy skills to be able to utilize them, states can develop and better implement effective telelearning programs for schools and advise telework for businesses, as was done in most states during the pandemic.

States are taking note of access and affordability issues to public Wi-Fi hotspots and private broadband services in rural and urban areas and are implementing broadband task forces, commissions or authorities. These groups coordinate broadband expansion by convening network operators and other stakeholders to explore cost effective broadband solutions that are affordable and make sense in each group's region of the country — there has not yet been a one-size-fits-all solution to broadband access. In order to increase the populations served, states and internet service providers are leveraging a mix of investments and technologies, such as TV white spaces, fixed wireless and satellite coverage, to reduce both the initial capital and the ongoing operating costs of these networks.

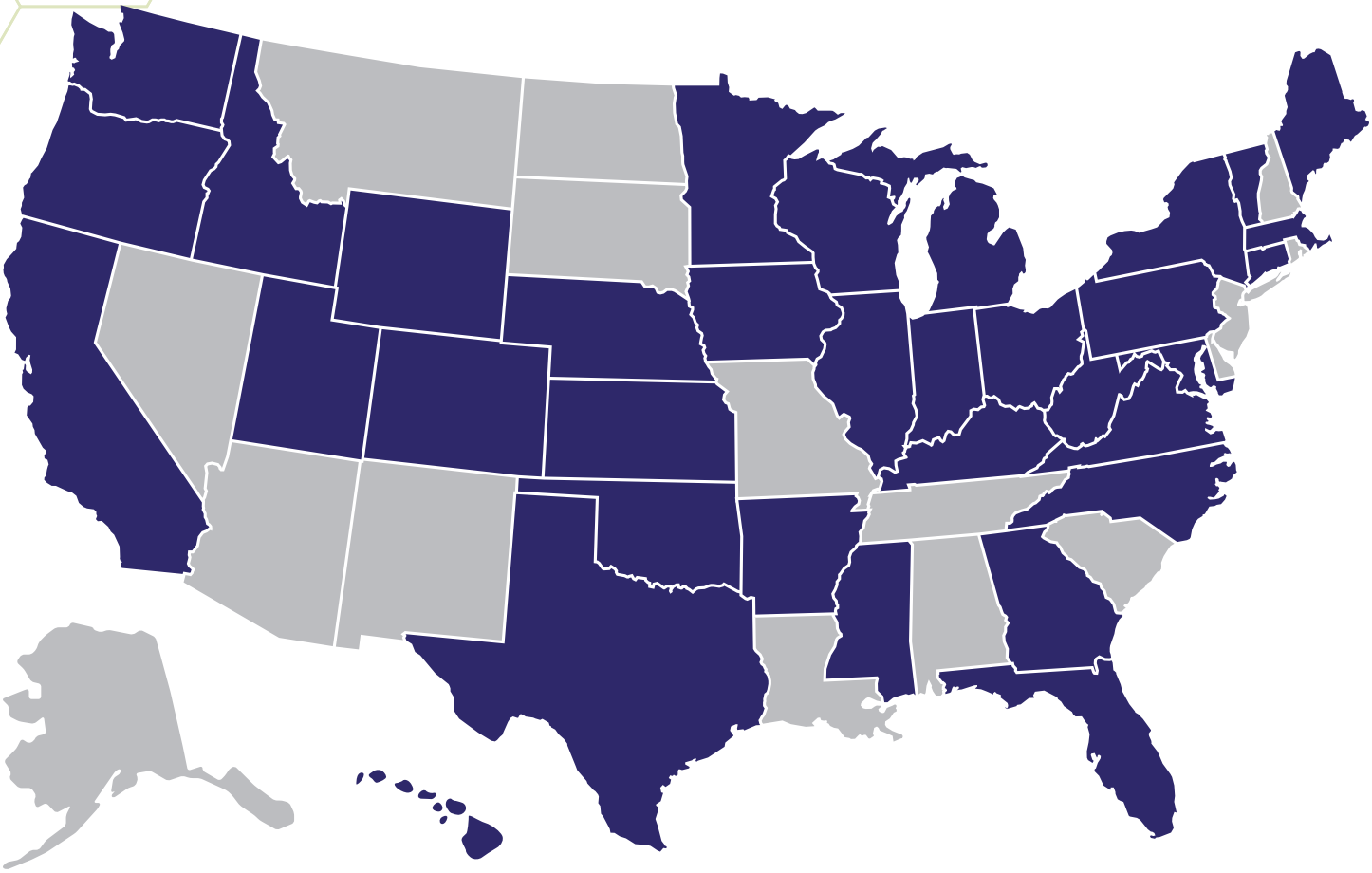
Consumer data privacy legislation:

at least **3** *states have passed privacy laws*

at least **5** *states have privacy-related task forces*

at least **30** *states have introduced privacy laws.*

Addressing Broadband *in the* States



● State has active or current broadband task force, commission or authority

Source: https://www.ncsl.org/research/telecommunications-and-information-technology/state-broadband-task-forces-commissions.aspx

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- New or revitalized broadband task forces could address the most pressing current issues with broadband as well as transitions to other next generation technologies, such as 5G and its future iterations and the unique challenges that come with these transitions.[162]

EXAMPLES IN ACTION

Michigan and a number of other states are prioritizing wireless capacity and services through small cell legislation that streamlines regulations, application processes and timelines to facilitates the deployment of the infrastructure for 5G for applications such as telehealth.

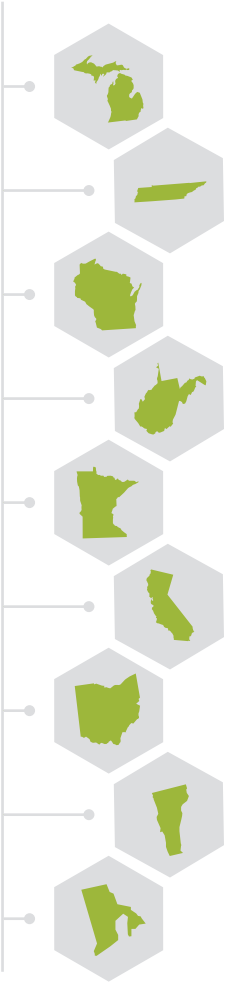
Tennessee and **Wisconsin** are evaluating existing programs and their evolutions to find ways to expand access and address issues such as affordability.

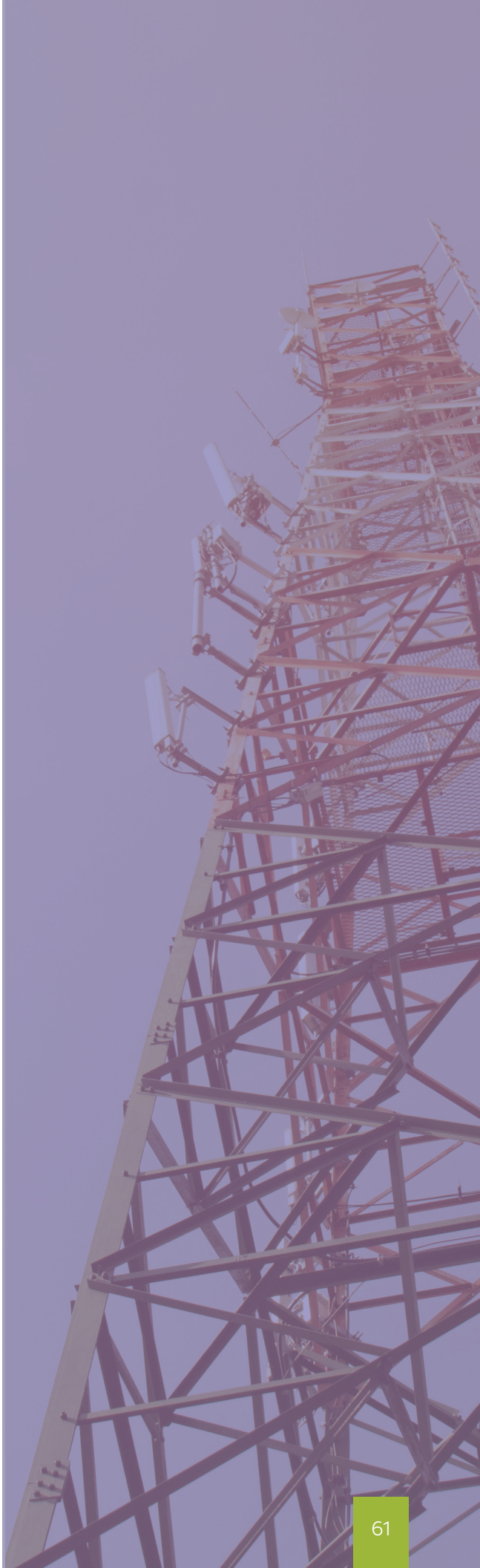
West Virginia, **Minnesota** and **California** are examining barriers to access and clarifying definitions on what it means to be unserved or underserved in terms of minimum acceptable connection speeds.

Microsoft is partnering with local internet service providers through its Airband program.[163] Airband is on target to expand high-speed internet to 3 million Americans living in unserved areas of the states by 2022.[164]

Ohio is launching new rural broadband initiatives to help facilitate the nation's transition to next-generation 911, which will allow first responders priority in communicating even when systems are otherwise overloaded.[165]

Vermont and **Rhode Island** have had success with implementing next-generation 911.[166]





31 RECOMMENDATION: States consider educating their populations about vaccines and work with public health partners in supporting broad policies and robust measures to administer vaccines, therapeutics and diagnostics.

Even before the COVID-19 pandemic hit the globe, states were busy working to suppress other infectious and communicable disease outbreaks. Children, the elderly and those with chronic conditions are known to be the most vulnerable. For every $1 spent on childhood vaccinations, the country saves $10.90. During the COVID-19 pandemic, is available and has been widely administered, reducing the overall burden of respiratory illnesses is important to protect vulnerable populations at risk for severe illness, the country's health care system and other critical infrastructure.

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- Support information campaigns and education initiatives about the safety and effectiveness of vaccines,[167] as well as on topics such as herd and community immunity.[168]
- Support vaccine initiatives legislatively.

EXAMPLES IN ACTION:

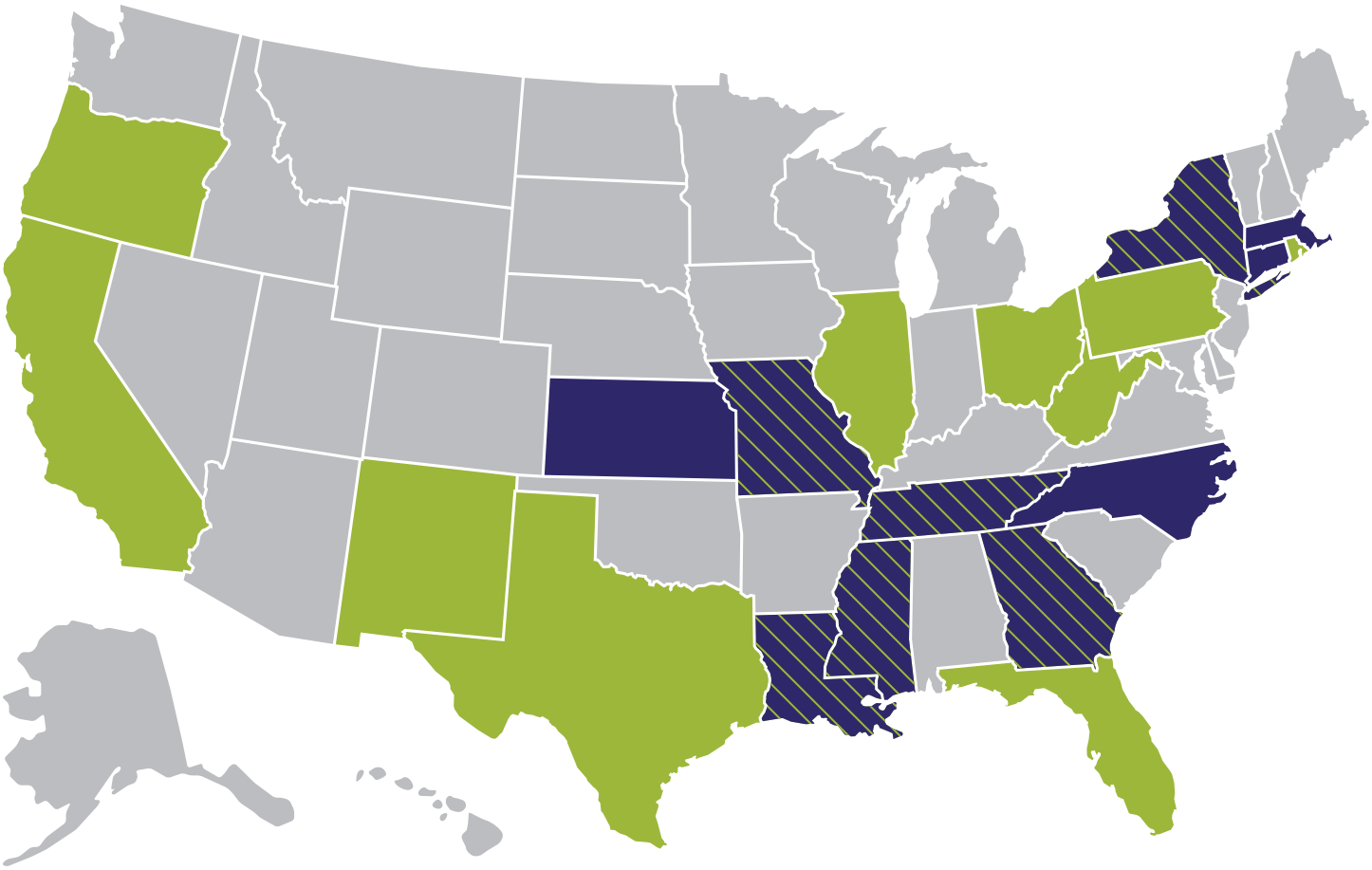
After its 2019 measles outbreak, **New York** passed legislation removing religious exemption and therefore requiring measles vaccination for children attending school, except in cases of medical exemption.[169] It joined **California**, **Maine**, **Mississippi** and **West Virginia** as states without religious exemptions for measles vaccinations for school-aged children.

Sixteen states are now requiring that certain populations, such as the elderly and those with chronic conditions, be offered a flu shot, pneumonia vaccine or other preventative vaccination if admitted to a hospital.

Ten states are requiring that parents/legal guardians of daycare attendees receive influenza education.

Influenza Vaccine *in the* States

Source: Sanofi



Mandatory influenza vaccine offering to seniors, age 65 and older, prior to hospital discharge

Influenza education to parents and/or legal guardians of daycare attendees

Both

32 RECOMMENDATION: States consider developing and implementing plans for increasing diversity in emergency management, including expanding opportunities for volunteerism and service at the community level, in order to increase outcomes for all community stakeholders.

Meaningful engagement in all communities is key for building collective disaster resilience. Research shows that social factors, such as how connected someone is with their community, can be just as important as biological factors at predicting one's resilience.[170] This is seen in how connected the individual is horizontally, or with one another within their communities, which is thought to save lives and improve mental health, and vertically, or within levels of government, which is thought to speed recovery. [171]

States can develop more inclusive and adaptable emergency management agencies in order to be ready for the next disaster or crisis. While first responders and emergency managers are hardworking, talented and dedicated professionals, the field doesn't typically reflect the nation's demographics or the communities they serve. A quick data analysis of first responders including volunteer firefighters and emergency managers reveals an overwhelming majority of those in each of these roles are male[172] — 75% of emergency managers and 90% of volunteer and career firefighters — and white —90% of emergency managers and 82% of firefighters.[173] Some first responders understand the need to diversify and agree that doing so improves outcomes and allows the organizations to provide a higher level of service to all community members.[174]

The Institute of Diversity and Inclusion in Emergency Management (I-DIEM) works to enhance global resilience and improve emergency management outcomes by leveraging diversity, inclusion and equity.[175] Their vision supports the empowerment of marginalized communities within all phases of the emergency management cycle, realizing that too often, decisions, programs and policies are enacted without full participation and consideration of the groups that will be most impacted. It is imperative that states understand where there are vulnerabilities and make plans to address them. I-DIEM recommends the following:[176]

- Commit to and embed equity in decision-making, large and small.
- Focus on the people — identify the most vulnerable, amplify support for community-serving organizations and conduct rapid vulnerability and demographic assessments.
- Equitably distribute resources and invest in women- and minority-owned businesses and services.
- Guarantee equity in public messaging by translating and interpreting information into all of the languages used within

Did You Know?

A recent FEMA study found that cost and not knowing how to prepare for an emergency were each perceived as barriers by 25% of those surveyed. Participants viewed the following social networks as effective channels for preparedness outreach:

- Workplace
- Schools

Volunteer organizations that support community preparedness, safety or emergency response

Source: Federal Emergency Management Agency

Demographics *of* First Responders

75% of emergency managers & **90%** of volunteer and career firefighters ***are male.***

90% of emergency managers & **82%** of firefighters ***are White, Non-Hispanic.***

your community. Conduct targeted outreach to marginalized groups.

- Provide transparency in decisions and data. Conduct after action reports. Gather community feedback.

By utilizing these recommendations, states and communities can find ways to alter current practices in order to incorporate more diverse groups of people into a variety of volunteer and career or temporary service pathways in order to increase community connections, the diversity of trusted experts and overall outcomes during routine emergency and disaster-related situations.

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- Commit to and embed equity in all decision-making and communications initiatives, by incorporating those with varied and diverse perspectives and experiences from community-level volunteer fire departments all the way up through state-level emergency operations centers.
- Place children and their needs at the heart of disaster planning and recovery efforts.

Did You Know?

New Jersey and Virginia have taken similar steps as California with its AB 5 law, classifying more workers as employees rather than independent contractors and entitling them to legal benefits such as minimum wage, business expenses, overtime pay and health care coverage. Additional states including New York are considering similar legislation.

Source: https://www.jdsupra.com/legalnews/is-the-gig-economy-on-life-support-new-20163/

33 RECOMMENDATION: States consider developing more inclusive, strong policies surrounding topics such as health care, sick leave access and unemployment insurance access.

Disasters exacerbate inequality and expose weaknesses that are built into our systems and societies. Socioeconomic factors such as race, often predict access to services during disasters and the quality of recovery measures following these crises.[177]

During the COVID-19 pandemic, the federal government allowed nontraditional, self-employed freelance and gig workers eligibility for unemployment insurance benefits for the first time. States struggled to retrofit sometimes outdated systems to adapt to the change and handle processing the sheer volume of claims. A number of companies began to provide paid sick leave for the first time or expanded family and medical leave for reasons related to COVID-19 after the federal government passed the Families First Coronavirus Response Act (FFCRA).[178] Both of these policies may merit consideration by states for the post-pandemic era, as well.

Early indications point to a number of households losing health insurance or having to switch to COBRA (Consolidated Omnibus Budget Reconciliation Act), Medicaid or an individual-market plan due to being furloughed during the pandemic. At least one in five of these adults remains uninsured.[179] Surveys indicate that the majority of Americans believe they should have the option of purchasing similar coverage, at similar cost, through government-regulated and subsidized health plans as the coverage they had while employed. States can use this opportunity to expand eligibility for existing or emerging benefits to more workers, including setting parameters around which benefits to include, how they will be funded and who will administer them.

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- Implement portable, more inclusive benefits and wage structures.
- Consider expanding unemployment and other benefits to nontraditional workers.
- Broaden sick leave access.

EXAMPLES IN ACTION

Even before the COVID-19 pandemic, states like **New Jersey**[180] were considering portable benefits structures, in part due to the changing nature of careers and the future of work.[181]

Washington is considering legislation to implement portable benefits models that are prorated and universal in order to improve individual and household financial security and create more equity between traditional and nontraditional workers.[182]

New York has started an innovation fund to experiment with different portable benefits including expanding such programs as paid sick leave, family leave, health insurance, retirement savings, workers' compensation, disability insurance, life insurance, childcare assistance and training opportunities.[183]

34 RECOMMENDATION: States consider simplifying or suspending regulations and clarifying risks in order to support private sector resiliency and state economies during emergencies.

A number of state and federal regulations slow and impair the ability to respond to emergencies, leading to chronic failures across multiple sectors at all levels.[184]

States can aid small businesses by working to close the disaster insurance gap prior to the next disaster by educating business owners about risks and ensuring that they are prepared and have contingency plans in place for pandemics and situations not covered by their policies.

Roughly 40-60% of small businesses never reopen their doors following a disaster.[185] Additionally, 90% of smaller companies fail within a year of a disaster unless they can resume operations within 5 days. Of those smaller companies, one in five spends no time maintaining their business continuity plans, while 20% of larger companies typically spend over 10 days per month on their continuity plans.

Did You Know?

Roughly 40-60% of small businesses will never reopen their doors following a disaster.

90% of smaller companies fail within a year of a disaster unless they can resume operations within five days.

However, 1 in 5 of those small companies spends no time on business continuity planning.

Source: https://www.fema.gov/media-library-data/1441212988001-1aa7fa978c5f999ed088dcaa815cb8cd/3a_BusinessInfographic-1.pdf

EXPLAINER

The Internet *of* Things

The Internet of Things is the network of objects that are embedded with sensors, software and other technologies for the purpose of connecting and exchanging data with other devices and systems over the Internet.

How many IoT devices are installed worldwide?

In **2018**, there were ***7 billion*** IoT devices

In **2019**, the number of active IoT devices reached ***26.66 billion***

Every second, ***127*** new IoT devices are connected to the web

During **2020**, experts estimate the installation of ***31 billion*** IoT devices

By **2021**, ***35 billion*** IoT devices will be installed worldwide

By **2025**, more than ***75 biillion*** IoT devices will be connected to the web

Source: https://securitytoday.com/Articles/2020/01/13/The-IoT-Rundown-for-2020.aspx?Page=2

In fact, community development and environmental and economic policy issues are becoming increasingly relevant to emergency managers who are often sought out to provide their expertise. States and their residents could benefit by ensuring that emergency planners are involved in discussions at all levels about sustainable development before disasters occur.

States may also consider expanding good Samaritan laws that may impact businesses, the health care community and others seeking to serve their communities without the risk of being sued. People often want to serve and be helpful during a pandemic or emergency while making efforts to do so in ways that are as safe as possible for all parties involved.

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- Aid small businesses by working to close the disaster insurance gap prior to the next disaster and ensure that contingency plans are in place.
- Consider expanding good Samaritan laws that may impact businesses, the health care community and others.
- Expedite licensing procedures or relax licensing requirements by expanding who is eligible for licensure.

EXAMPLES IN ACTION:

Indiana, **Louisiana**, **Maryland** and **Virginia** have statutes that immunize medical providers immediately upon the declaration of a public health emergency, recognizing that they care for patients to the best of their abilities in the midst of changing regulatory guidance, uncertainty in the standard of care, lack of evidence-based treatment guidelines and shortages of medical supplies.

Massachusetts expedited their licensing process for nurses licensed and qualified to work in other states in order to help alleviate imminent shortages during the COVID-19 pandemic.

Several other states have utilized executive orders and other measures to relax licensure requirements in order to help meet surges or perceived surges in health care demands.[186]

35 RECOMMENDATION: States consider investing in tracking capabilities for infectious diseases, supply chains and emergency stockpiles, as well as in research and creative strategies that allow for the monitoring and mitigation of disasters.

States can use cutting-edge technologies, such as the Internet of Things (IoT), to assist them in a variety of efforts to help with monitoring and mitigation of disasters. With the roll-out of 5G across America and the globalized world, IoT-connected devices in circulation continue to grow in number. Remote tracking allows the monitoring of potential disease outbreaks before they show up. At least three states invested in apps to assist with contact tracing during the pandemic. Individual privacy matters and civil liberties are often cited as a reason for limited use of the apps.

In addition to the ongoing health threat, the availability of food, medical equipment and the personal protective equipment were also concerns during the pandemic. Global supply chains were disrupted, crippling just-in-time systems that were designed for efficiency and steady demand.

Cooperation between state governments and industry leaders is necessary to enhance and track state and regionally held stockpiles of medical countermeasures and personal protective equipment (PPE) in order to enable rapid and equitable distribution during a public health emergency or disaster scenario, whether stemming from a terrorist attack with a biological, chemical or nuclear material, or from a naturally occurring emerging disease. States can explore using blockchain technology to assist with transparently monitoring levels of PPE and staffing for hospitals experiencing surges in patients, monitoring state agricultural products and food supply chains.[187]

The federal government implemented the Defense Production Act during the pandemic to help shore-up medical equipment, such as ventilators. States also worked to build public-private partnerships with companies in order to aid in recovery efforts. States may want to continue to think through what might be needed in a variety of scenarios and consider where those items might be sourced as they work to build relationships culminating in strong public-private plans and/or contracts. States can consider and plan now for how essential corporate capabilities will be leveraged and utilized during a large-scale pandemic or disaster. Contingency planning for potential operational partnerships between government and business are complex with many legal and organizational details that must be addressed. State governments can work to identify the most critical areas of need and reach out to industry players with the goal of finalizing agreements in advance of the next large pandemic or disaster in order to quickly and seamlessly implement the appropriate countermeasures.

States are partnering with research universities and getting creative with issuing grants, loans, buyouts and other funding incentives or levying taxes and other mechanisms to meet capacity building goals as they relate to various unique threats faced by each state.

Studies indicate that the costs of protecting low-lying areas from being submerged due to flooding are not always worth the investment when looking across the economy and recommend instead, that developing at-risk coastal areas should be disincentivized.[188] A variety of investments and financial penalties can be leveraged by states to influence sustainable approaches to development in areas across the country facing a variety of different climate-related risks.

SUGGESTED STRATEGIES:

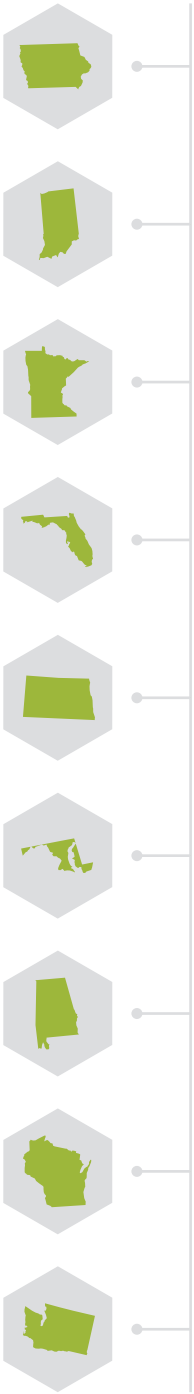
States may consider the following strategies when implementing the recommendations:

- Explore using new technologies and alternative systems, such as blockchain technology, for a variety of different implications.
- Build relationships with the private sector and determine pathways for securing essential supplies ahead of the next crisis.
- Partner with universities, businesses and individuals to achieve a number of goals as they relate to known state-specific threats via a mix of funding strategies.

EXAMPLES IN ACTION:

California is investing in better capabilities to track and manage deadly epidemics, through partnering with artificial intelligence and tech companies who use IoT connected devices and machine learning to monitor outbreaks worldwide and alert their clients regarding irregularities in health outcomes.[189]

North Dakota, **South Dakota,** and **Utah** have invested in contact tracing apps with limited success.[190] [191] [192]



EXAMPLES IN ACTION (CLIMATE/DISASTER SPECIFIC)

Iowa has funded a flood center to use tech tools to monitor disasters and evaluate current strategies in real time.

Indiana has implemented revolving loan programs that provide low or no-interest loans to local entities that can be used for a range of public purposes, such as flood mitigation, land conservation or improvements to drinking water. As the loans are repaid, the fund is replenished, and those dollars are made available for new projects.

Minnesota is using gasoline taxes and bonds to fund infrastructure projects that help upgrade and rebuild aging and deteriorating roads and bridges to ensure long-term sustainability for flood/earthquake prone transportation infrastructure, including creating new culverts and drainage systems to assist in flood-prone areas and to handle changing precipitation patterns.

Florida and **North Dakota** are using oil tax revenues and insurance policy fees to fund catastrophe funds.

Maryland and **Alabama** are investing in "hard and living shorelines" loan programs to incentivize the stabilization of eroding coastlines.

Wisconsin and **Washington** are offering grants and buyouts to restore flood plains, remove levees and relocate residents living in flood-prone areas.

36 RECOMMENDATION: States consider strengthening emergency alert and communications systems.

Many states face challenges with getting residents to subscribe to and understand emergency alerts and their associated color codes and numbers rating systems. These systems haven't traditionally been standardized by counties within a state nor even state to state. As terrifying false alarms in Hawaii and untimely alerts in California have demonstrated, states should make plans to strengthen their emergency alert systems, including specific written details that clarify chain of command, policies and procedures regarding the accuracy and precision of the information being received and then communicated out.[193] [194] [195] Ratings systems should be easy to understand and standardized to the extent possible, across counties and states.

States across the country are also beginning to utilize FirstNet, the nationwide, high-speed broadband communications platform dedicated to and built for first responders and the extended public safety community through a public-private partnership with the FirstNet Authority, an independent agency within the federal government.[196] FirstNet's expansion means that communities and first responders can stay connected and that these critical communications receive priority during emergencies.

SUGGESTED STRATEGIES:

States may consider the following strategies when implementing the recommendations:

- Strengthen their emergency alert systems by including specific written details that clarify chain of command, policies and procedures regarding accuracy, precision and how information will be communicated out.
- Ensure emergency levels/ rating systems are simple and standardized across the state or better-yet region or nation.

EXAMPLES IN ACTION:

Experts say **California** has one of the most promising wireless emergency alerts systems in place.[197] Evacuation definitions are clarified on the platform's website, an extensive Q&A section helps users understand the alerts and multilingual information is made available for English learners in at least 18 languages.[198] [199] Users who have the authority to issue alerts are outlined, as well as details regarding the required steps and training one must undergo in order to gain such permissions. The California alert system has the Federal Emergency Management Agency's (FEMA) Integrated Public Alert & Warning System (IPAWS), an online tool federal, state, territorial, tribal and local authorities can use to issue critical public alerts and warnings, embedded within it.[200]


WILDFIRE
EVACUATION
ROUTE

SECTION IV

Interventions to Save Lives Subcommittee

Almost 90% of the nation's $3.5 trillion dollar annual spending on health care is for people suffering from chronic and behavioral health conditions.[201, 202] The Interventions to Save Lives Subcommittee sought to find innovative and proactive solutions so states may serve as a model stakeholder in the comprehensive health of its citizens saving money, resources and improving quality of life. To reflect this in its work, the subcommittee identified two focus areas:

- Redefining disease and management systems
- Behavioral health access for all

The focus on redefining disease and management systems allowed for the consideration of innovative state actions that benefit the physical health of those suffering with chronic health conditions such as diabetes, a condition that affects more than 34 million Americans and accounted for $327 billion in medical costs and lost productivity in 2017.[203] The focus also considered the treatment and prevention of bloodborne diseases, including those associated with substance use disorders (SUDs) such as HIV and Hepatitis C (HCV),[204] as coinfection among the two diseases can be as common 80% among those who were initially infected via injected drug use.[205]

The need for greater behavioral health access across the country is reflected in the fact that only 28.2% of young people with severe Major Depressive Episodes receive consistent treatment.[206] Issues such as suicide prevention, behavioral health services for children in schools and treatment for SUDs are topics the subcommittee was interested in exploring to improve the behavioral health of its citizens.

In 2020, the focus of the subcommittee shifted slightly to include considerations that have arisen due to COVID-19. The pandemic continues to evolve, but results have already shown COVID-19 has a negative impact on the behavioral health of families.[207] Additionally, it has impacted schools that are moving behavioral health services for children online,[208] contributing to the rise of tele-mental health,[209] and has increased risks for professions historically susceptible to Post-Traumatic Stress Disorder. [210]As the virus caused disruptions in treatment[211] for addiction and proved to have a higher risk of complications for those with chronic health conditions such as diabetes[212], best practices were sought for redesigned disease and management systems that could effectively address these issues.

A Vanderbilt Child Health COVID-19 Poll used probability-based address sampling to distribute surveys to families with at least one child younger than 18. The survey was conducted from June 5 -10, 2020 and 1,011 parents responded.

26.9% said their ***mental health had worsened*** since the COVID-19 pandemic

14.3% said their ***children's behavioral health had declined***

9.6% said both their ***mental health*** and their ***children's behavioral health had worsened***

Source: The Vanderbilt Center for Child Health Policy in Nashville, Tennessee

37 RECOMMENDATION: States consider collaborating with health care or health plan providers and funders to promote integrated or coordinated policies that improve education, quality of care and parity among the physical and behavioral ailments associated with substance use disorders (SUDs).

38 RECOMMENDATION: States consider educating and improving accessibility to testing and treatment options for SUDs by engaging multiple stakeholders and allowing innovative practices, such as syringe exchanges, as a potential best practice.

In 2016, 11.5 million Americans reported misusing prescription opioids.[213] States will face much more difficulty if they try to remedy an issue as widespread as this in their health care systems themselves. States can engage with diverse health care stakeholders to find balance between state intervention and private partner action to address something of this magnitude. Several states have passed legislation showing how these relationships can work, mainly as it relates to opioids due to their addictive nature.

Colorado,[214] Washington,[215] Connecticut[216] and New Mexico[217] each passed bills relating to coverage of drugs that treat opioid dependence to address that issue, educating patients on the risk of overdose, annual parity reports and the dispensing and prescribing of naloxone for people released from a corrections facility, respectively. Placing these responsibilities on the private sector illustrates the trust states can have in these partners and recognizes the unique potential of their relationship to patients that can help stop the opioid crisis.

SUGGESTED STRATEGIES:

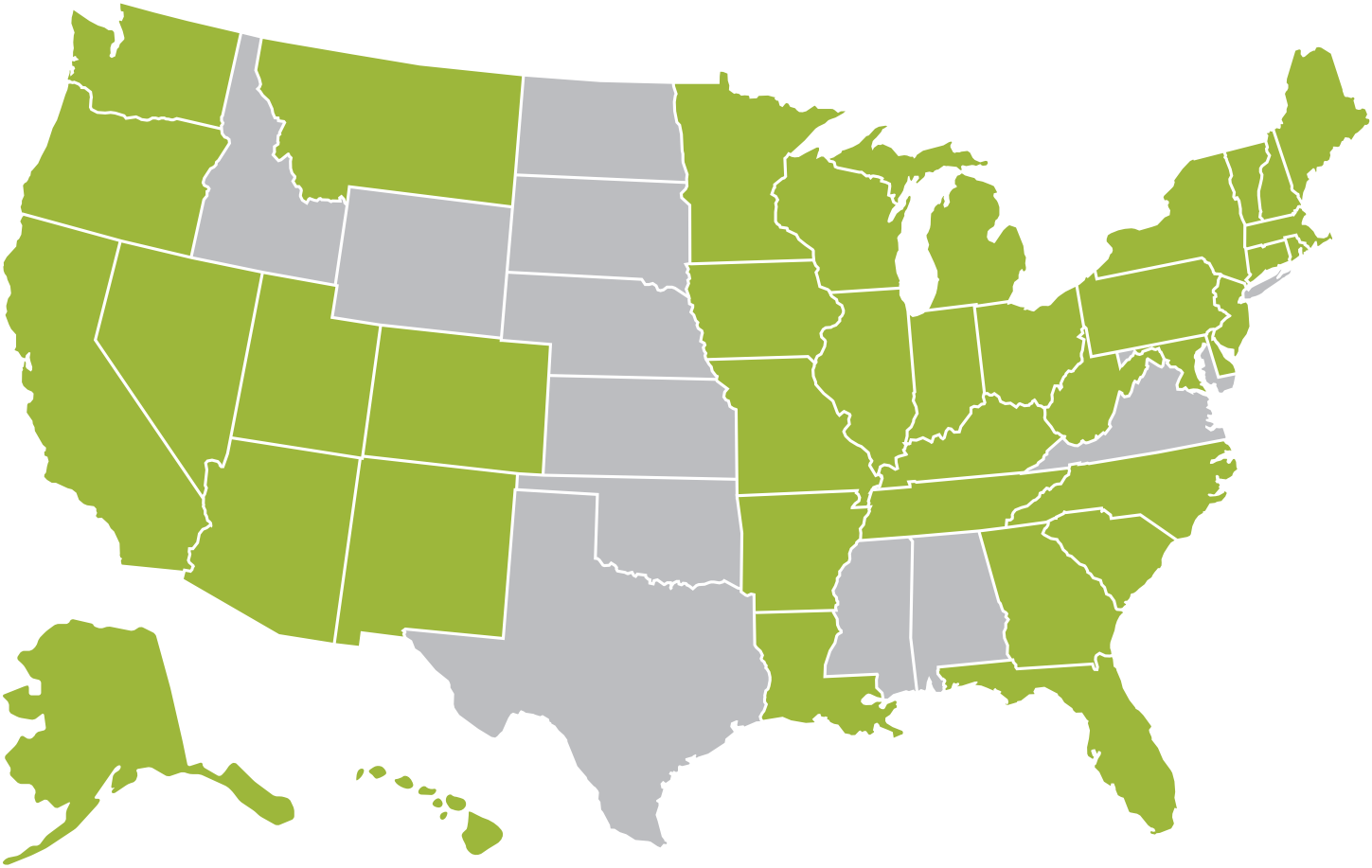
States may want to consider the following strategies when implementing the recommendations:

- Legislate coverage of drugs that treat opioid dependence.
- Require health care providers to educate patients on the risk of overdose.
- Require health carriers to submit annual reports concerning parity for mental health and substance use disorder benefits.
- Require the dispensing and prescribing of naloxone for those diagnosed with opioid use disorder upon discharge from a corrections facility.
- Seek innovative options for SUD management such as needle exchanges.

EXAMPLE IN ACTION

Louisiana,[218] through direct negotiations with pharmaceutical company Asegua Therapeutics LLC, was able to create an innovative payment model for Hepatitis C treatment that saved the state's fiscal resources while increasing the amount of people treated for the disease. DeAnn Gruber, director of the Bureau of Infectious Diseases at the Louisiana Department of Health, likens the deal to a "Netflix model," where the treatment price remains the same even after "binging," meaning the state pays the same amount no matter how many people it sees. It allowed almost 3,000 people to be treated in the first seven months of its implementation when the previous model only treated 1,200 people in a year.[219]

States *with* Needle Exchanges



Yes, state has needle exchange program

No, state does not have needle exchange program

Although the Louisiana model includes needle exchanges as a component of their Hepatitis C treatment plan, such exchanges are still controversial in some areas as a potential solution to the bloodborne diseases associated with SUDs. However, Utah[220] has found them to be a viable solution that has reduced Medicaid costs to the state while educating citizens about testing, treatment and overdose reversal medications.

39 RECOMMENDATION: States consider recoding SUDs as a behavioral health issue in order to promote a better quality of life for someone suffering from an SUD and reduce recidivism.

40 RECOMMENDATION: States consider tailoring emergency services and other government responses to a period of crisis though innovative methods of crisis response.

41 RECOMMENDATION: States consider realizing the negative behavioral health effects sustained by people in stressful professions and work to ensure they have access to treatment.

States need to be able to adapt their responses to health care issues as new information becomes available in order to remain most effective in addressing them. For example, the idea that valuing SUD treatment over criminalization in order to save money — perhaps billions — in criminal justice costs has not always been a considered response.[221] According to the CSG Justice Center, diversion tactics such as court-based behavioral health diversion interventions can not only shorten average length of jail stays, they can also connect people who need help to treatment and support options without causing an additional risk to public safety,[222] therefore improving quality of life for the individual and the community.

Pretrial intervention, such as the RISE Program in Massachusetts,[223] is one potential fiscally responsible option for SUD management since it has the potential to keep people away from incarceration, therefore saving taxpayer funds. But it can also afford a person a new lease on life by connecting them with treatment and support options sooner rather than later. The "recovery pod" method in Illinois[224] offers treatment and therapy to already incarcerated populations struggling with a SUD in the hopes of rehabilitating them to improve overall jail safety and reduce the chance of overdose upon release.

SUGGESTED STRATEGIES

States may consider the following strategies when implementing the recommendations:

- Utilize pretrial intervention programs to save taxpayer funds and give those with a SUD a second chance.
- Offer SUD therapy or treatment to incarcerated populations.
- Utilize Mobile Crisis Outreach Teams instead of relying on traditional emergency services.
- Recognize Post-Traumatic Stress Disorder (PTSD) as a condition that affects first responders.
- Expand disability benefits and other resources to professions most at-risk for PTSD.
- Expand tele-mental health via smartphone wellness apps to first responders, firefighters, paramedics and military personnel.

EXAMPLES IN ACTION

Utah[225] has Mobile Crisis Outreach Teams, units consisting of trained professionals — and in some cases, a peer liaison as well — that respond to a person experiencing a behavioral health crisis rather than relying on traditional, and more costly, emergency services that may not be as prepared to assist with the situation. In a similar fashion, **Indiana**[226] established a pilot program in 2016 called the Mobile Crisis Assistance Team that successfully diverted people experiencing a crisis to behavioral and social services instead of criminal justice services. This also allowed the state to relieve other first response units from the scene of an emergency two-thirds of the time. Both states found that the response teams are cost-effective, well-received by communities and persons in crisis and reduce cost and labor burdens on the criminal justice and health care systems.

Idaho,[227] **Ohio**[228] and **Massachusetts**[229] recognize Post-Traumatic Stress Disorder as a condition that can affect first responders and have expanded disability benefits and other resources to these workers to help them manage their behavioral health (at the time of publication, Ohio's legislation is pending). Utah[230] remains a leader in state action on behavioral health as they also seek to expand tele-mental health via smartphone wellness apps to first responders, firefighters, paramedics and military personnel to help address similar issues.

42 **RECOMMENDATION** 42: States consider improving the quality and access of behavioral health in schools by intervening in the core curriculum or rules each school district follows to promote better, more informed practices around behavioral health access for students.

43 **RECOMMENDATION** 43: States consider measures to prevent adverse childhood experiences (ACEs) on two fronts: by seeking to understand and mitigate the social determinants that may breed them in childhood and by promoting cultures of detection and growth in cities, workplaces and schools to identify and heal their lasting effects.

States can consider schools as a behavioral health resource and engage with them to create cultures that are behavioral-health-friendly but also well-informed. Allowing schools to excuse absences due to "mental health days" as Oregon[231] and Utah[232] do, or requiring behavioral health education as part of school curriculum as Virginia[233] does, are two methods states can use to be an advocate in the behavioral health of children and promote educational cultures that value it.

Examples *in* Action

In some schools in **Washington**,[234] the discipline model has been restructured to value discovery and treatment of the underlying issue causing a student to act out rather than only punishing them. As a result, one school saw an 85% drop in suspensions.

The subcommittee also discussed how states could intervene in the lives of children outside of school by focusing on the social determinants that may cause ACEs. These can be instances of abuse, neglect or living with family members who suffer with behavioral health, addiction or domestic violence. These experiences can have profound effects on a child's emotional and physical wellbeing throughout their life,[235] resulting in poor health outcomes such as depression and even heart disease[236] unless they have the ability to process them. By seeking to understand the social determinants that may cause these home issues and then creating trauma-informed cultures, states can be an advocate for children in these compromising situations throughout their life. For example, Oregon[237] speaks to the familial unit by offering 12 weeks of paid family and medical leave to low-income workers, which in turn may reduce ACE factors such as financial instability, hunger and decreased infant bonding. New Hampshire[238] allows parents completing mental health or substance abuse treatment programs to be eligible for state childcare scholarships.

As adults, ACEs can still manifest as depression, smoking, drinking and even heart disease.[239] States can look to Maryland[240] and Ohio[241] as examples of trauma-informed cultures that seek to help other age groups still suffering from an ACE. While Maryland does not have a statewide example, states can consider expanding city-wide initiatives such as one in Baltimore where employees are trained on trauma-responsive and trauma-informed care and services to encourage adults who may not have processed their ACEs as children to seek help without fear of judgment.

SUGGESTED STRATEGIES

States may consider the following strategies when implementing the recommendations:

- Allow schools to excuse absences due to mental health days.
- Require behavioral health education as part of school curriculum.
- Require school personnel receive trainings on the impact of ACEs on student activities.
- Redefine school discipline to advocate for discovery and treatment of an issue rather than punishment for behavior.
- Offer longer paid family and medical leave.
- Offer childcare assistance to parents enrolled in SUD treatment programs.

EXAMPLES IN ACTION

Ohio's therapeutic interagency preschool (TIP) programs help children who have been victims of the opioid crisis process their trauma through a specialized program focused on providing a stable environment where children can focus on their behavioral health and academic skills as well as reduce exposure to continued trauma. From 2016 to 2017, Ohio's TIP program had a 97% success rate in getting more children enrolled in preschool on time, 72% of them went on to kindergarten after completing the program and saw evidence of decreased anxiety, depression, aggression and PTSD among children who completed the program.[242]

44 **RECOMMENDATION:** States consider advocating for patient-focused diabetes identification and management to help them identify and/or manage their diabetes.

Diabetes is a chronic disease that affects 34.2 million people in the U.S.,[243] and the number of people diagnosed continues to rise along with the cost of insulin, a necessary means to regulate the disease. The cost of the most popular types of insulin has tripled since 2009 and the out-of-pocket costs for patients have doubled, an issue that has proven deadly in some instances as some patients attempt to ration or go without because they cannot afford their medication.[244] Some states took action into their own hands — Utah and Colorado both have legislation that attempts to intervene in the rising cost of insulin. While Utah[245] requires that health plans provide at least one low-cost or no-cost option for enrollees needing insulin, Colorado's[246] $100 per 30-day supply insulin price cap seeks to ensure citizens always have access to their medication regardless of financial status.

An additional 88 million people have prediabetes, meaning they are at risk of developing Type 2 diabetes. But of those 88 million people, over 80% don't know they have it,[247] therefore highlighting the need for accessible testing options.

SUGGESTED STRATEGIES

States may consider the following strategies when implementing the recommendations:

- Create innovative testing options for diabetes.
- Legislate caps on insulin prices.
- Require health plans to provide low-cost options for enrollees needing insulin.

EXAMPLES IN ACTION

New York's[248] "Barbershop Diabetes Screenings" sought to reach a segment of the population that is at risk for diabetes but rarely gets diagnosed[249] — African American men — and was generally successful in increasing testing rates. It had the potential to encourage the men to seek the right resources depending on their needs.

EXPLAINER

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) is the term given to describe all types of abuse, neglect and other traumatic experiences that occur to individuals under the age of 18. The landmark Kaiser ACE Study examined the relationships between these experiences during childhood and reduced health and well-being later in life.

Source: https://vetoviolence.cdc.gov/apps/phl/resource_center_infographic.html

Types of ACEs

- Abuse
  - Emotional
  - Physical
  - Sexual
- Household challenges
- Mother treated violently
- Substance abuse
- Mental illness
- Separation/ divorce
- Incarcerated household member
- Neglect
  - Emotional
  - Physical

CONCLUSION

By bringing together the Healthy States Task Force, CSG continues to fulfill its mission of championing excellence in state government. While the recommendations in this report are not meant as a "one size fits all" set of solutions, it is the sincere hope of the CSG Healthy States National Task Force that other state leaders can glean ideas and principles that can be appropriately translated back to their own states. Whether in the areas of telehealth, resiliency, substance abuse disorders, vaccine education or investments in public health, CSG and our task force members believe we have much to learn from each other.

The COVID-19 pandemic has truly proven that necessity is the mother of invention. There has never been a more appropriate time to examine ways in which state can use innovations to ensure access to health care while also preparing themselves for future obstacles in service delivery and adhering to fiscal responsibility. CSG stands ready to serve the states as it has since 1933. Please contact us with any further questions

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