



Supporting the Healthcare Workforce in Response to the COVID-19 Pandemic

Healthcare Workforce Impact Group

At the request of President Tim Killeen, IGPA has assembled more than four dozen interdisciplinary faculty experts from all three System universities to assess COVID-19's effects on the state. Assessments focus on three impact groups: Economic and Fiscal and Impact, Community and Family Resilience, and the Healthcare Workforce. Each group is collaborating on a series of economic modeling activities, data analyses, and syntheses of impact.

This report from the Healthcare Workforce Impact Group draws on the strength of 21 signatories.

As of this writing, confirmed cases of COVID-19 and deaths continue to grow daily in Illinois cities, suburbs, and rural areas. Physical distancing efforts instituted by the governor of Illinois in March have been modified, but the stay-at-home order has been extended through May.

EXECUTIVE SUMMARY

SARS-CoV-2, a new coronavirus disease first identified in 2019 (COVID-19), is responsible for the pandemic that is presently straining the Illinois' healthcare workforce and is expected to continue doing so for the next several years. Prior pandemics and disasters have demonstrated that the scope of responsibilities for all types of healthcare workers evolves as a disaster unfolds, from meeting surging needs by prioritizing patient care, to re-balancing activities as each surge waxes and wanes, to recovery and mitigation, and finally to preparing for future disasters.

This report presents a high-level summary of the current and expected impact of the COVID-19 pandemic on the healthcare workforce and makes a series of recommendations about how to minimize the adverse impact of the COVID-19 pandemic on healthcare workers and their families in Illinois, now and over time. The report draws on well-established frameworks for response to pandemics and disasters distilled from a body of research and practice.

We conclude that focused supportive actions are necessary to facilitate work responsibilities under new pressures—people, information,

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process, technology, equipment, space—and to promote personal wellness—physical and psychosocial. Many steps taken to ensure public and workforce safety have also introduced economic challenges that must be addressed in order to sustain these efforts to support the workforce throughout the response and recovery phases of the pandemic.

Key supports for individual providers, such as hazard pay provided by employers or government¹ and free hotel rooms or meals provided by private companies,² have already begun in many places across the country, but applying these at scale remains a challenge. We include two case studies showing it is possible to respond to real needs of workers even in the midst of a pandemic, if institutions are committed, creative and nimble.

DEFINING THE CHALLENGES FACING THE HEALTHCARE WORKFORCE

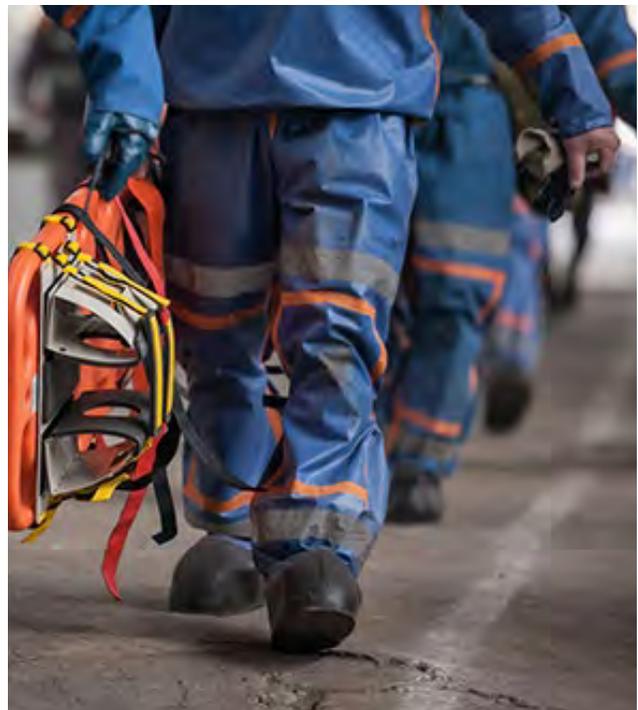
The healthcare workforce refers to all the people who deliver or assist in the delivery of health services, including pre-hospital providers (e.g., EMS, fire, police), physicians, nurses, dentists, social workers, medical assistants, home healthcare workers, mental health counselors, and administrative staff working in hospitals, urgent care centers, nursing homes, rehabilitation centers, and outpatient care facilities, as well as trainees who will become the workforce for future pandemics and disasters. In this report, we address the following questions about the impact of and recovery from COVID-19 in Illinois:

1. What are the lessons learned from prior epidemics and disasters regarding the key domains of impact on the Illinois healthcare workforce?
2. How will the impact on those key domains of the healthcare workforce change over time during the Response phase as well as the subsequent phases of Recovery, Mitigation, and Preparedness?
3. What key activities are needed in each disaster phase to support and strengthen the Illinois healthcare workforce and how do their needs change as the pandemic unfolds?
4. What are specific recommendations for key stakeholders in order to support and strengthen the Illinois healthcare workforce during the immediate disaster response and after?

Multiple Challenges

Given the current and [projected rates of COVID-19 confirmed cases in Illinois](#), the Illinois healthcare workforce is facing, and will continue for the foreseeable future³ to face, more and different work than it would ordinarily be expected to handle. The impact of working with COVID-19 patients in a pandemic are many:

- The [direct health risks](#) to providers themselves, with multiple reported COVID-19 positive healthcare workers in Illinois;
- Challenges with transportation, housing, childcare, other family responsibilities;
- For some healthcare workers, mastering new ways of delivering care via telemedicine and for others, the economic and emotional strain of being furloughed or suffering wage cuts during the pandemic as revenues contract;
- The strains on families and loved ones,⁴ which span the actual risk of infection to one's family to separation from family due to work demands or the need to reside outside the home; and
- The emotional and mental health consequences for healthcare workers,⁵ including exhaustion, stress, post-traumatic stress disorder, depression, anxiety, suicidality, domestic violence and substance abuse.



Over and above the strains of caring for an increasing number of patients who are critically ill and dying, healthcare workers are contending with depleted resources.⁶ These deficits affect patients (e.g., potentially a lack of needed life-sustaining equipment) and providers (e.g., a shortage of protective garments to shield them from the spread of COVID-19). *Due to all these difficulties, the risk of healthcare workforce traumatization and burnout must be an essential consideration for supporting healthcare workers during and after the COVID-19 response.*

Approach

Lessons learned from the extensive research on past pandemics and other disasters⁷ should be applied to the unprecedented COVID-19 pandemic. These lessons can inform how to mitigate the impact on public health and healthcare and prevent traumatization and burnout of the very providers caring for us during this crisis.

Supporting the Illinois healthcare workforce should be considered using two complementary lenses:

- **The Emergency Management Cycle**,⁸ which describes disasters as having four phases that are each associated with distinct activities: Response, Recovery, Mitigation, and Preparedness (see Table 1). This lens also incorporates the comprehensive pandemic flu plans developed by the World Health Organization⁹ and the Obama administration.¹⁰
- **Human-centered design**,¹¹ meaning processes that attempt to ensure that any response to COVID-19 accounts for the impacts on well-being and daily life of Illinois' healthcare workforce and their families.

We expect there to be four phases of COVID-19 in Illinois (Table 1). The timelines for each of these phases is difficult to define with precision, as they depend on the implementation of public health measures, the potential for subsequent waves of COVID-19 in the fall of 2020 and beyond, and the capacity of existing healthcare systems to absorb the expected increase in confirmed cases and provide care to other patient populations in Illinois. The timelines for the various phases are provisional estimates and will need to be updated as the pandemic unfolds in Illinois and elsewhere.

At the time of writing (April 2020), Illinois healthcare workers are in the Response phase, but in time they will progress into the Recovery, Mitigation, and Preparedness phases. Determining when a community has moved from one phase of the

Table 1

Phase 1. Response (months, possibly to July 2020): Response occurs in the immediate aftermath of a disaster when business and other operations do not function normally. This phase consists of two sub-phases: response surge (acceleration in the number of new COVID-19 cases and its impact on the healthcare workforce) and response decline (deceleration of the number of new COVID-19 cases and its impact on the healthcare workforce).

Phase 2. Recovery (6 months, possibly July 2020 to December 2020): Recovery involves restoration efforts that occur concurrently with regular operations and activities.

Phase 3. Mitigation (6 months, possibly December 2020 to July 2021): Mitigation involves actions taken to prevent or reduce the cause, impact, and consequences of the COVID-19 pandemic. These activities should include evaluating the response, developing metrics, and formulating playbooks for responding to future pandemics.

Phase 4. Preparedness (on-going, possibly July 2021 onwards): Preparedness encompasses planning, training, and educational activities for events that cannot be mitigated. The COVID-19 pandemic is likely to have subsequent waves. There could also be other pandemics or disasters, such as tornadoes or floods. An infrastructure is needed to help healthcare workers to respond to subsequent pandemics or disasters.

COVID-19 pandemic to the next should be based on facts and, ideally, a consensus across multiple stakeholders. Although responding to the surge of cases is presently the highest priority, a key to supporting the Illinois healthcare workforce is fully committing to engaging in the Recovery, Mitigation and Preparedness phases, which are needed to better protect the public from the future pandemics and disasters.

IMPACT ON THE ILLINOIS HEALTHCARE WORKFORCE

Using the two lenses described above, as well as current field experiences, we developed the Healthcare Workforce COVID-19 Impact and

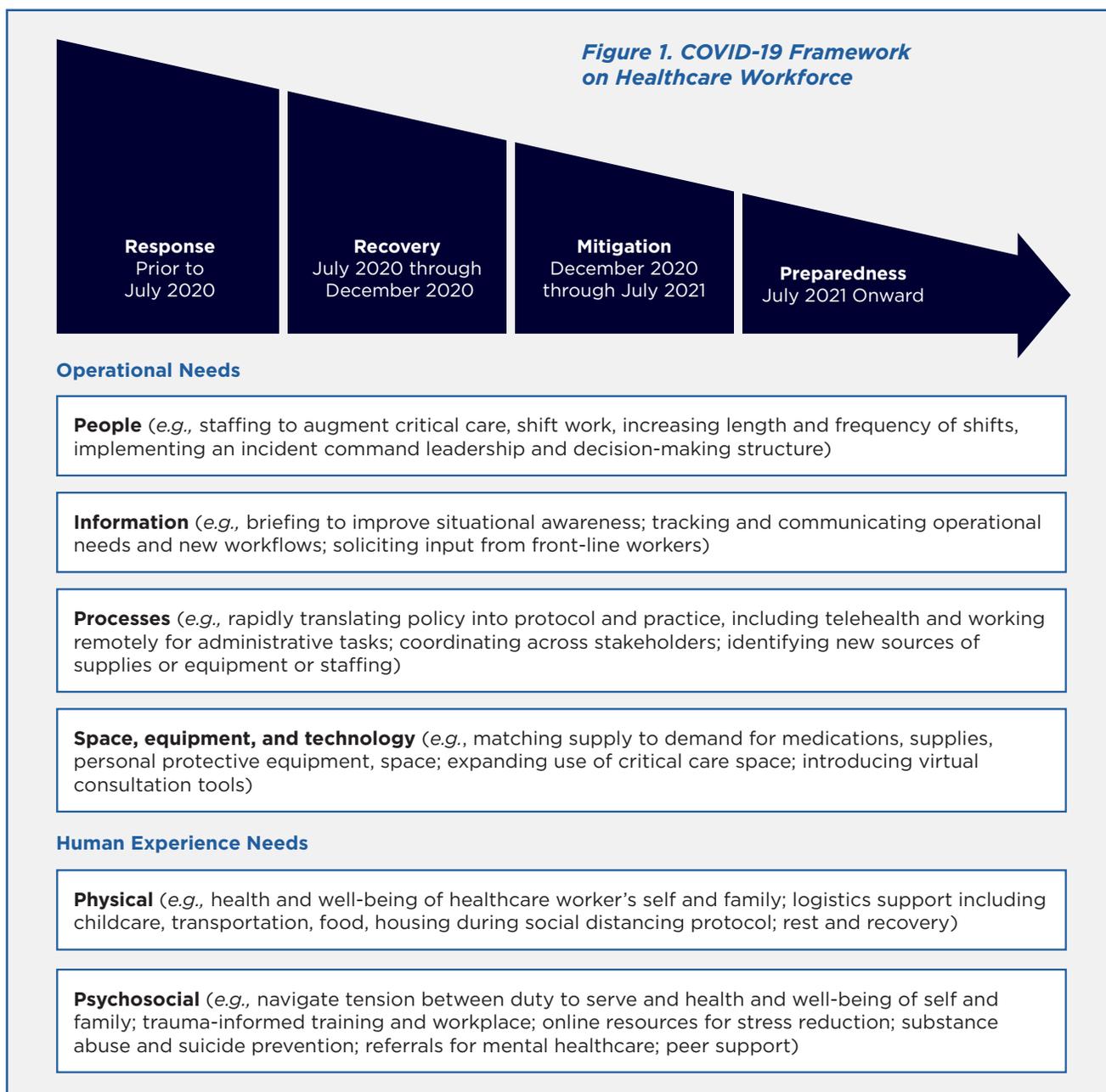
Recovery Framework (COVID-19 Framework) (see Figure 1) to depict the estimated current and future impact.

The COVID-19 Framework outlines the set of operational and human experience needs that are required to support front-line staff through all phases of a pandemic disaster. Operational needs are necessary for our healthcare workforce to carry out their work in terms of people, information, processes, and space, technology, and equipment. Human experience needs help our workforce address physical and psychosocial needs.

The COVID-19 Framework posits that the entire set

of resources should be available to the workforce throughout a disaster but recognizes that the utilization of specific resources will vary by phase.

For example, during a Response surge when the healthcare workforce is confronting overwhelming numbers of sick patients, operational resources for staff, equipment, and space are in high demand. As the Response declines, pressure on work-related resources will ease. As the workforce transitions into the Recovery phase, literature on past disasters suggests we would likely see an increased need for specific types of peer and mental health support. We outline some of the needs in Figure 1.



Many present needs far outstrip usual clinical operations. Healthcare organizations have responded to the most urgent needs first. Eventually, the goal should be to develop metrics and measures for collecting data that can be used to:

- gauge and monitor changes in present demands;
- develop empirical models to project future demands; and
- evaluate the impact of new policies and programs.

Formulation

At this writing, Illinois is still moving through the pandemic's course—with the numbers of new cases, severely ill patients, and deaths increasing daily. These metrics are expected to reach peak soon, then slowly diminish over the next months. Front-line healthcare workers and leadership are stepping forward to meet extremely high demands. To maximize their effectiveness—and to manage the enormous strain upon healthcare workers and their organizations—the workforce has needed and will continue to need additional support from multiple stakeholders. These include employees' organizations, employee assistance programs and mental-health resources, local health departments, state and local governments, unions, professional societies, and other private-sector entities. Any initiatives to support healthcare workers should be guided by the emergency management cycle and human-centered design lenses (see Approach).

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Economic Strains on Healthcare Institutions

The compounding challenges posed by providing care for patients that are noted above are the economic shocks of a rapidly changing environment for healthcare institutions. Higher expenses (e.g., purchasing substantially more personal protective equipment, hazard pay for front-line clinicians, setting up forward triaging infrastructure, purchasing tablets for telehealth) and lower revenue (e.g., the postponing of non-time sensitive procedures, declines in non-COVID outpatient visits because outpatient providers have been re-assigned to inpatient work, restrictions on providing non-urgent care due to COVID-19 precautions, or use of "social distancing" to limit the number of outpatient appointments per unit time) have contributed to Illinois



hospitals losing as much as [\\$1.4 billion a month](#), putting aside CARES Act or other federal relief.

The COVID-19 pandemic will exacerbate preexisting fiscal issues for some of the state's hospitals that typically see large numbers of uninsured or underinsured patients.

Many hospitals already had very thin margins with little cash-on-hand. The economic strains will have disproportionately adverse impacts on hospitals with a higher proportion of patients with Medicaid or who have lost health insurance, including critical access hospitals.

As COVID-19 has depleted the revenues of hospitals, some institutional providers across the state have furloughed workers or cut pay.

The downstream effect for the healthcare workforce is troubling. Many lower-paid healthcare workers are struggling financially. In 2017, "1.7 million female U.S. healthcare workers and their children lived below the poverty line," forcing them to rely on public safety nets for health insurance, food supports and housing.¹² Women of color disproportionately occupy low-wage positions in the healthcare workforce.¹³ Gender and racial inequalities going into the pandemic may be magnified coming out of it.

Nearly one in 15 healthcare workers lack health insurance.¹⁴ Cost-cutting efforts by hospitals to remain viable led to the outsourcing of certain services like janitorial services, jobs that sometimes lack benefits. If these workers are on the front line without benefits, that is a need that must urgently be met.

Case Studies of Response Activities that Meet Human Needs

Case Study 1: Providing Temporary Housing for Safety of Healthcare Workers and Their Families

Returning home poses a very real risk to the families of front-line workers, making temporary accommodations one of the most urgent surge needs for the COVID-19 response. Hospitals have long provided short-term space for medical professionals who work shifts, giving them a place to shower or rest.

The University of Illinois Hospital and Health Sciences System (UI Health) identified a need to assist employees working with COVID-19 patients to have housing accommodations so they could feel comfortable working with these patients when they had high-risk people in their household.

Since the inception of this program in early April, UI Health has arranged housing for over 100 employees for about 2,000 nights. UI Hospital has utilized housing options in the Illinois Medical District as well as hotels through the City of Chicago Housing Healthcare Workers Program. Also offered is transportation using UIC vehicles for those who do not have transportation to these housing locations.

One individual working in an intensive care unit (ICU) caring for critically ill patients with COVID-19 explained:

“My husband is immunosuppressed with prostate cancer and lymphoma. We have a small condo, 850 square feet and only one bathroom. It is becoming increasingly difficult for us to be there together without feeling as though I am putting him at risk.”

After receiving housing for several weeks, with the option to extend if needed, she wrote:

“You are saving my husband’s life. Thank you!”

This rapid ramping up of temporary housing capacity involves an extraordinary supply-chain effort and benefits from a public-private collaboration. UIC, Rush University Medical Center, and the Illinois Medical District provide near-campus housing at no cost to workers in the Illinois Medical District, while the City of Chicago provides accommodations at hotels throughout the City of Chicago, also without cost to healthcare workers.

Sharing the lessons learned from rapidly developing this tangible human support can assist hospitals across the state to meet one of workers’ pressing needs.



Case Study 2: Responding to Psychological Adversity and Trauma

Healthcare workers have suddenly become soldiers on the pandemic front line under tremendous hardships. Nationally, they are repeatedly exposed to the virus and worry about [lack of protective equipment](#) and lack of ventilators. Some sleep in separate rooms at home to [distance themselves](#) from their own family. Some have been [evicted](#) from their apartments. Some worry about facing incredibly difficult ethical dilemmas regarding who should be [ventilated](#) and who should not. To address their needs requires new measures that go beyond traditional mental health services.

One example is that the City of Chicago launched a micro-website that offers resources and supports for healthcare workers at no cost. These include: a mental health resource dashboard with free apps, self-assessments, hotline supports, video tutorials, and fact sheets hosted by the Chicago Department of Public Health; free virtual support groups; and free individual and group psychotherapy.

Another example is that UI Health supplemented its employee assistance program by adding a new hotline for healthcare workers. The hotline

provides psychological first aid using established evidence-based crisis management approaches that help individuals better manage acute challenges and stresses precipitated by the pandemic. The challenges may be financial, interpersonal, work-related, or some combination of the above. The emphasis is on helping the individual develop problem-solving and coping skills aimed at fostering resiliency and successful adaptation. This goal can sometimes be met with only one to three brief phone meetings.

Recommendations

Government and institutional providers have taken important steps to support our healthcare workforce that should continue past the current response phase. Learning from the COVID-19 Response is essential to positioning the healthcare system to effectively navigate new challenges, whether it is a COVID-19 resurgence or other essential healthcare needs.

As the COVID-19 pandemic unfolds from phase to phase, the types and degree of focused supportive actions will vary, and innovation and flexibility is called for. Supportive actions must come from multiple stakeholders including individual healthcare organizations and their leadership; employee-

assistance programs and mental health resources; local health departments; state and local governments; unions; professional societies; academics and researchers, and private-sector entities. Arraying supportive actions along different phases of the pandemic clarifies when particular actions will be the most needed and impactful.

Specific recommendations are offered below. These recommendations should be further developed in ongoing dialogue with stakeholders. Some correspond to specific phases of the Emergency Management Cycle. Because the number and scale of needs can be daunting, superimposing these needs on the emergency management cycle itself can assist policymakers to prioritize.

For Healthcare Delivery Organizations and Leadership

During the Response phase, zones of risk/contamination and isolation/quarantine must be established to prevent transmission of nosocomial infections (that is, infections caught in the hospital). Efforts should be initiated to expeditiously identify and report cases, and to establish a process for screening.

Specifically, leadership should: a) Ensure adequate staffing and space, including repurposing human and other resources to ensure adequate response to patient needs; b) Identify appropriate personal protective equipment (PPE), ensure availability, and determine the allocation of PPE to provide the best possible care for patients and safety of the healthcare workforce given the circumstances and resources available;¹⁵ c) Consider options for forming consortia or networks with peer institutions to learn and share best practices specific to COVID-19.

During the Response and Recovery phases, expectations need to be clearly communicated and the latest recommendations and policies provided to staff as they become available.

During the Recovery phase, personnel can be shifted from areas that were high volume during the Response phase to their previous roles.

Throughout the Mitigation and subsequent phases, future needs must be critically evaluated and actionable items created based on that needs assessment. There should also be careful phase-out of restrictions on routine healthcare activities through a series of stages, evaluating the impact of each stage before proceeding to the next stage. Preexisting pandemic preparedness plans should be reviewed and revised in anticipation of future pandemics.



For Employee Assistance Plans and Mental Health Services Providers

Plans and providers should provide resources to support employee needs outside of the work environment, especially during the high-demand Response phase. As in prior disasters, these should include childcare and dependent support, meals, temporary housing, and parking or transportation.¹⁶ These services also can provide important online resources in stress management and hotlines for emotional support. During Recovery, online resources can be updated and continue to be available but should be supplemented by increased capacity to screen and refer to mental health services (both online and in person, including for substance abuse) as mental health needs are expected to grow. During the Mitigation and Preparedness phases, employee assistance plans and mental health organizations can strengthen partnerships with mental health providers and further develop web resources, and other training to allow healthcare workers to develop skills and knowledge so they will feel better prepared during future pandemics.

For Local Health Departments

Local health departments fulfill a vital need to coordinate state- and national-level efforts to follow guidelines for limiting transmission of COVID-19, surveillance, testing, risk communication, and maintaining essential health services. During the Response phase, local health departments should facilitate communication and dissemination of key messages in a succinct and clear manner. They should also coordinate with hospitals and the state government to assess hospital capacity as well as personnel and equipment needs but also take care not to duplicate efforts of other levels of government. In the late Response and Recovery phases, local health departments should provide ongoing surveillance for the possible resurgence of cases, report collected data through appropriate channels, and help determine additional resources and capacities that would likely be needed during possible future pandemics.

For State and Local Governments

State agencies like the Illinois Department of Public Health are needed to provide clear channels of communication between governments (federal, state, and local), local health departments and organizations, and hospitals and other healthcare facilities. In the Response phase, state government actions should minimize barriers to telehealth services for patients, secure and distribute stockpiles of supplies, work with industry to ramp

up production of supplies, and make state mental health and social services available to healthcare workers. Government should identify, register, and coordinate voluntary healthcare personnel, retired healthcare workers, and soon-to-be graduated trainees. It also can increase hospitals' access to emergency funding for operational expenses as needed. Coverage of healthcare needs and mental health treatment may be available under the Workers Compensation program for essential workers affected by COVID-19, making available some help with healthcare and mental health services for a specified period of time.¹⁷ But many scars may last long after. Policymakers should assess immediately whether the lowest paid front-line healthcare workers have needed insurance to heal after the surge recedes. In order to avoid shrinkage of jobs and opportunities for Illinois' healthcare workforce, shoring up Illinois' hospitals will be an urgent matter for governments in the Recovery, Mitigation, and Preparedness phases. Throughout the Response and Recovery phases, state government should engage in ongoing data collection, surveillance, and appraisal of information. In the Recovery, Mitigation, and Preparedness phases, state government should analyze data and respond to assessed needs. It should evaluate state-level pandemic response policies and revise as needed, informed by identified gaps. Ultimately, plans for public health emergencies and pandemics prepared by the Illinois Emergency Management Agency before the pandemic should be reviewed and updated in collaboration with the many state agencies that have worked to respond to the challenges posed by COVID-19.

For Unions

Unions have historically played a role in employee health and safety, and they have key roles to play during all phases. Unions and management should work collaboratively during the Response phase to ensure the best care possible for workers. Unions can and should be catalysts for constructive change. Close collaborations are especially important in times of crisis.

For Professional Societies, including those representing hospitals and medical professionals

Professional societies should provide online resources for emerging best practices for COVID-19 testing, placing patient cohorts into COVID-19 positive and negative inpatient units, and decontamination. They also should advocate for professional members, provide public education, and convene webinars and forums. In the Response phase, these societies should maintain open channels of communication with professional schools of medicine, nursing and

the allied health professions regarding guidelines for student involvement in patient care. In Mitigation and Preparedness, societies can be especially helpful in sponsoring forums and reports on lessons learned, building new capacities, developing new protocols or training and ensuring advocacy for providers for improved future responses to pandemics.

For Academics and Researchers

Academia should support the Illinois healthcare workforce by working in partnership with governmental and non-governmental entities in multiple ways. Academic researchers can identify metrics and develop quantitative models for assessing the impact on the workforce over time; develop and disseminate online resources and training to support healthcare workers; and can monitor and evaluate support strategies for their effectiveness so as to inform the development of improved supports and services during Mitigation and Preparedness. Further help can come from collaborating in developing research registries for individuals who undergo COVID-19 testing and conducting clinical trials to establish evidence-based options for primary prevention (preventing SARS-CoV-2 infection), secondary prevention (preventing asymptomatic or mildly symptomatic individuals from deteriorating and needing hospitalization), and treatment of individuals with severe COVID-19 who require hospitalization.

For Private-Sector Entities

The private sector should support the response to COVID-19 in concrete ways, including facilitating technology use, supporting employment, collaborating with the public sector to support financing and drive innovation.¹⁸ More specifically, the private sector can help to mitigate the spread of confirmed cases (situational awareness and social media messaging); scale up the availability of COVID-19 diagnostic testing equipment and supplies (including tests for active SARS-CoV-2 infections and serologic tests to enable broad-based surveillance); manufacture or source personal protective equipment and additional life-saving ventilators in the United States; and conduct clinical trials to identify new therapeutic and prevention strategies. Public-private collaborations also can reduce the burdens placed on social service agencies to provide healthcare workers with goods (e.g., groceries) and services (e.g., childcare, temporary housing, transportation to and from work) immediately and over time. This permits the public sector to conserve resources for other important strategic priorities. The state of Illinois established the Discovery Partners Institute (DPI)¹⁹ to catalyze public-private partnerships. During the Response and Recovery

phases of COVID-19, DPI could support the healthcare workforce across several areas, including data analytics and computing, health and wellness, finance and insurance, transportation, and logistics.

CONCLUSION: EXTEND WHAT WORKS

Some of the innovations highlighted in the case studies above may be promising statewide if they can be brought to **scale, shared** across the industry, and made **sustainable**.

For example, hospitals that have significant human capital have developed protocols for insuring worker safety. By contrast, home healthcare workers, who have been deemed essential in [Illinois](#) and many states, say they [lack sufficient information](#) about ensuring their own safety and the safety of their clients. While trade groups can assist with best practices, adapting detailed protocols developed by hospitals with greater in-house capacity can help workers who work for smaller companies.

Just as reimbursement rules have been modified to allow for telemedicine services, policymakers and insurers should explore whether similar flexibility is possible for community health services. Increasing coverage for their services will help vitally important community health workers to assist persons in need.²⁰

Coordination and sharing of information (e.g., best practices, operational manuals) can reduce the costs to healthcare organizations that face tremendous strain now. The Illinois Department of Public Health (IDPH) promulgates best practices for public health efforts but is actively managing a pandemic. Ideally in partnership with IDPH, the new Illinois Innovation Network (IIN)²¹ with its 15 hubs, drawing on the expertise of 12 universities, provides an existing architecture for transferring knowledge learned at UI Health and other Chicago hospitals to hospitals across the state, including Illinois' vital critical access hospitals. IIN is also helping with development of the healthcare workforce across the state.

Some innovations may improve the way healthcare is delivered going forward. For example, changes in reimbursement for telehealth may provide the necessary conditions to serve as model of care for some patients and some conditions moving forward. Also, the efforts to provide temporary housing to workers seeks to allay the strain from long hours in high-pressure conditions. Policymakers should ask whether each innovation and recommendation above can lead to sustainable change.

We are honored to have the opportunity to harness our collective research and experience to serve our neighbors and the residents of Illinois during a time of great need.

Respectfully submitted,

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ENDNOTES

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²¹Illinois Innovation Network, Office of the Vice President for Economic Development and Innovation, University of Illinois System, <https://vpedi.uillinois.edu/illinois-innovation-network>.

Audience

IGPA Impact Reports are intended to be useful to policymakers and stakeholders, including but not limited to University of Illinois System leaders, state legislators, Governor J.B. Pritzker's office, state agencies, news media, nonprofits, educators, volunteer organizations, and faith leaders.

Photography from istockphoto.com

Pg. 2 - Firemen feet, #1076773108 by S. Salivanchuk

Pg. 3 - Stethoscope, # 1165046681 by ipopba

Pg. 6 - Mom and child, #1215593884 by Juanmonino

Pg. 7 - PPE nurse, #1211341733 by sturti

IGPA TASK FORCE ON THE IMPACT OF THE COVID-19 PANDEMIC

(AS OF May 5, 2020)

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