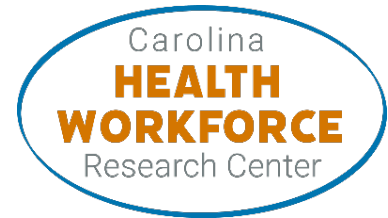


Health Care Workforce Playbooks and the COVID-19 Pandemic



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Background

The COVID-19 pandemic thrust healthcare workers across the nation into rapidly changing care environments without adequate support or sufficient training tools for most. The lack of a systematic approach to workforce planning necessary to optimally deploy healthcare human resources during the pandemic endangered these workers and their families as well as their communities, healthcare systems, and patients. Rapid viral spread combined with an unpredictable disease course challenged the health system to adequately care for rising patient loads, that rate of increase continues to reverberate through the system. States and health systems were overwhelmed by surges of patients and had to make difficult decisions regarding resource allocation and capacity building. COVID-19 reinforced the fact that that the healthcare workforce must be flexible and able to continually adapt to rapidly changing environments. Access to guidelines, training tools, and other support for proper patient care, staff safety, and innovation are needed to enable our healthcare system to properly respond to the current pandemic as well as future public health challenges and natural disasters.

This paper describes how the North Carolina Area Health Education Centers (NC AHEC) Program developed guidelines for training and information on accessing training resources to “surge” healthcare workforce professionals during the COVID-19 pandemic and beyond. These documents are called “Playbooks” and are meant to provide health care

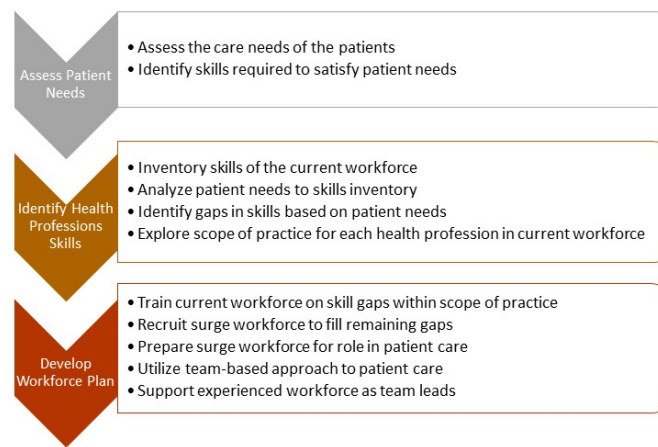
systems, states, the federal government and other stakeholders with updated, state-of-the-art resources to promote local flexibility to respond to workforce challenges and shortages.

Methods

The development of these Playbooks was informed by the principles of patient-centered care where the individual’s health needs and goals drive all health care decisions (NEJM Catalyst 2017). In this project, the targeted skillsets of the healthcare workforce are matched to patients’ needs and goals no matter who delivers the care or support. Focusing on the skillsets needed by patients instead of the skill sets of healthcare professionals allows for creativity in role delineation and teamwork, leading to a more efficient and effective workforce. In a crisis like the pandemic in which shortages of various health professions have emerged due to repeated surges in patient volume, this type of innovation is essential to assure that the system is flexibly and optimally using the capacity and competencies of the workforce, making use of their full potential, and, ultimately, meeting the needs of the patients.

We identified the highest-need settings during a healthcare surge workforce based on both the trends of COVID-19 and the cascading effect that a surge in patient volume in one setting has on other parts of the healthcare system. Then, we identified the most essential skillsets needed to meet the needs of the patient in each of those settings. We recognized that front-line administrators and workers need easy-to-access resources to train in those skillsets, to enable the practitioner or worker to be effective. Therefore, we identified and reviewed multiple resources that describe best practices in training that bolsters

Figure 1.
 Planning for Workforce Surge in Healthcare



needed skillsets. While we suggest potential sources of each skillset by profession, we purposefully developed each Playbook to emphasize that skillsets and resources transcend professional boundaries and are consistently patient-centered in nature. The model that was used to develop each Playbook is included as Figure 1.

The Playbooks for five domains of care are accessible via <https://www.ncahec.net/covid-19/training-and-literature-for-health-care-professionals/workforce-surge-planning-playbooks/>. They cover: 1. Home-Based Care, 2. Ambulatory Care, 3. Inpatient medical care, 4. Long-Term Care., and 5. Critical Care. Two of the Playbooks are supplemented by a free-standing “checklist” to further assist in planning.

Long-Term System-Level Effects

The long-term impact of COVID-19 on the U.S. healthcare system will be broad and enduring. Changes in the healthcare system in response to virulent pathogens are not uncommon, dating back centuries to the donning of leather gloves, aprons, and the characteristic “plague mask” in response to the “Black Death”—a pandemic plague of the 14th Century. More recently, healthcare systems have required systemic changes to prevent spread of flu, HIV(Centers for Disease Control and Prevention

1987), MRSA and/or Vancomycin Resistant Encephalitis (VRE) (Morgan, Wenzel, and Bearman 2017). The response of the healthcare system to COVID-19 is likely to change not only infection mitigation protocols, but also result in alterations to the structure of the system as a whole. Each of the Playbooks focuses on four elements of the context of caregiving that require attention in a pandemic:

1. Team-Based Care:

Team-based care has been shown to be an effective and efficient healthcare delivery model applicable for use in response to a pandemic (American Hospital Association 2021). In team-based models of care, health care professionals work at the top of their scope of practice and patients have a wide range of expertise to draw on to address their health, social care and behavioral health care needs. Team-based care serves as the foundation for many of our guidelines and the guidelines are most effective when deployed within team-based models of care. Additionally, the Playbooks provide some insight into what team-based care may look like within each care setting but recommend that national organizations for each care setting develop models for team-based care that can be broadly applied across the US. While not specifically the goal of this effort, the Playbooks may facilitate national organizations in their efforts to

develop national, team-based practice guidelines that align with the Core Competencies for Interprofessional Collaborative Practice (Interprofessional Education Collaborative (IPEC) 2016)

2. Scope of Practice Guidelines:

Scopes of practice for healthcare professionals are set by individual states and thus vary widely across the United States. Taking this into consideration, our recommendations are intended to be as broadly applicable as possible given the diversity of these laws. In response to the pandemic, many states temporarily suspended or modified scopes of practice to allow health care systems to flexibly deploy their workforce in the most effective way to address patient health care needs. Up to date information regarding scope of practice considerations during the COVID 19 pandemic can be found through the Department of Health and Human Services Technical Resources, Assistance Center, and Information Exchange (TRACIE) (Assistant Secretary for Preparedness Response US DHHS 2021).

3. Interstate Collaboration and Licensing:

Many states have looked across their borders to recruit health professionals during surges. This required changes to regulations governing interstate practice, including licensing reciprocity to allow clinicians to lawfully practice across state lines. For example, the Federation of State Medical Boards (FSMB) and the National Council of State Boards of Nursing (NCSBN) have organized a system to provide up-to date information regarding the licensing landscape (Federation of State Medical Boards 2021; National Council of State Boards of Nursing 2021) and are capable of coordinating responses in times when adaptation and modification of licensing and practice rules needs to occur.

4. Telehealth and Payment Models:

For many of the care-delivery settings addressed during this project, telehealth has been used as a way to provide patient care during the pandemic when in-person visits were not possible and to provide

workforce mobilization and relief. The Playbooks recommend that wherever possible and appropriate, care teams and healthcare systems incorporate telehealth into their structure. For many organizations, this has and will continue to require significant up-front investment. Telehealth companies and healthcare organizations can work together to identify mutually beneficial methods of rapidly implementing telehealth. Affordable and reasonable options should be made available to all providers serving patient populations who lack access to in-person care. The Centers for Medicare and Medicaid Services' has made changes to reimbursement that allow for pay parity for telehealth visits under Medicare and these changes have been instrumental in encouraging telehealth provision by new types of providers and in different settings (Medicare.gov 2021) However, this attempt at pay parity fell short for some of the most important players in the COVID-19 workforce, notably home health agencies (Donlan 2020b). The Playbooks recommend that states follow suit with pay parity for telehealth services under Medicaid and CHIP, as well as private insurers if these rules do not already require this.

Setting and Discipline-Specific Considerations

The COVID-19 pandemic has placed significant burdens upon the U.S. healthcare system at all levels of care, increasing demand in many sectors and services well past the capabilities of the system. Beyond the surges of COVID-19 patients, there will continue to be increased demand from patients whose care was delayed in order to avoid coronavirus exposure in healthcare settings.

In each section below we summarize the rationale for developing alternative structures for practice and caregiving. Following that, we identify training resources targeted to practitioners who work in each defined medical care settings. Our guidelines and collected resources allow individuals and teams to enhance their available workforce skills. This approach relies on team-based care to enhance the

ability for all providers to “flex” staff, to meet increased care needs.

These recommendations are grounded in the specific conditions and health workforce needs faced in different health care settings. These settings are summarized below and in the individual playbooks. The Playbooks’ guidelines and collected training resources are appropriate for the care of patients requiring (1) ICU and critical care, (2) general inpatient care, (3) ambulatory care, (4) long term care, and (5) home care. We have also developed resources for pharmacists, but these were not included in the Playbooks.

Patient and Setting-Specific Conditions and Demands

1. ICU and Critical Care:

Initial calculations projected that as many as 4.8 million people would be admitted to a hospital for COVID-19 care and 40% of those patients (1.9 million) would require ICU-level care. Of those admitted to the ICU, 960,000 were expected to require ventilatory support (Halpern and Tan 2020). The incidence of COVID-19 in the US peaked in January 2021 with many hospitals and health systems reporting they had run out of ICU beds (Leatherby et al. 2020). The number of hospitalizations has fallen but it demonstrated the vulnerability of the system to rapid rises in demand from novel infectious disease (Institute for Health Metrics and Evaluation 2021). National baseline ICU occupancy rates tend to be around 67% in adult care settings, meaning that even relatively small increases in patients in the ICU due to COVID will continue to strain resources (Ma and Vervoort 2020). Providing adequate staff to use these resources to deliver care proved a challenge during the period of peak incidence; shortages of intensivists, critical care advanced practice nurses, pharmacists, and respiratory therapists were problematic throughout the pandemic (Halpern and Tan 2020). Attrition and increased demand persisted after the peak January 2021 to the point where 159 counties would still need “crisis” workforce strategies to meet demand in June 2021 (GWU Fitzhugh Mullan

Institute for Health Workforce Equity 2021). Even without attrition, nine states were expected to have insufficient healthcare workers for COVID-19 according to the George Washington Fitzhugh Mullan Institute for Health Workforce Equity. Given the persistence of the problem, the existing workforce must adopt creative critical care strategies to adequately care for COVID-19 patients (Halpern and Tan 2020). Hospitals have had to consider alternative sources for staffing and ask all their healthcare workers to modify and integrate their skillsets across professions. To do this, workers and healthcare systems need guidance for implementing these changes during the pandemic.

2. General Inpatient Medical Care:

As the healthcare workers in general inpatient settings are asked to transition to the ICU and other critical care settings, gaps in staffing for other services emerge. Thus, healthcare workers across systems who typically do not care for this patient population were asked to now assume direction of their care. For example, in late 2020, sixteen states were expected to have only 50% or less of their remaining hospital workforce available for non-COVID care before accounting for attrition (GWU Fitzhugh Mullan Institute for Health Workforce Equity 2021). Additionally, outpatient care settings saw declines in patients engaging in preventative care out of fear of exposure to COVID-19. The effects of these delays will continue to be seen in both ambulatory and inpatient care settings as people present with more severe disease than if they had sought help earlier. Because of this, the surging workforce in general medicine needs to be equipped to handle shifting roles in response to a pandemic as well as after it subsides, as there will be attrition throughout the system due to burnout and competing opportunities for health care workers. Therefore, healthcare workers need access to essential training tools to appropriately “flex” their skills under changing demands.

3. Ambulatory Care:

Ambulatory care has faced a number of unique challenges from the COVID-19 pandemic. Many outpatient providers responded to CDC guidance and deferred in-person appointments and converted to telehealth platforms to diminish viral spread within clinical facilities (Centers for Disease Control and Prevention 2021a). Those same ambulatory care settings were often those that perform COVID-19 testing for the community to help determine whether patients should be referred or quarantine at home. Furthermore, hospitals discharged patients without COVID to make space for the surging COVID-19 patient load. These individuals needed adequate ambulatory follow-up. However, there are also patients who chose not to seek ambulatory or preventative care at all due to fears surrounding COVID-19 and the dangers of exposures to infected individuals. For these reasons, ambulatory and outpatient care settings are some of the settings that will see the longest lasting effects of the COVID-19 pandemic.—These changes will require healthcare workers in ambulatory care to perform using the knowledge and skills from their most advanced training and competencies to manage more patients than normal and manage more patients than normal. Providing support and refresher courses for healthcare workers in this setting is essential for months and years to come.

4. Long Term Care:

Long term care settings, like nursing homes and other facilities, often provide care for individuals at highest risk for COVID-19-related morbidity due to age or chronic medical conditions. Additionally, many patients who received hospital-based care for COVID-19 were discharged to long term care facilities because of their need for high intensity supervision and assistance following discharge (Centers for Disease Control and Prevention 2021b). As was seen initially in Washington state and later across the US, long term care facilities are particularly vulnerable to viral spread (McMichael et al. 2020). Traditional staffing models, including cross-staffing of facilities, can quickly lead to outbreaks of respiratory illnesses.

The vulnerability of residents of nursing homes in the COVID-19 pandemic was apparent as nearly one-third of US coronavirus deaths have been linked to nursing homes (New York Times 2021). Guidelines for care delivery, staff and patient protection, and workforce task-shifting will better position the healthcare workforce in long-term care settings to minimize spread, protect lives, and respond to outbreaks in the future.

5. Home Care:

Home-based care will continue to face challenges that parallel long term care facilities and ambulatory care practices during the COVID 19 pandemic. Patients who are medically stable and able to receive care at home, either by a loved-one or by a healthcare worker/agency, will increase the demand for home health (Centers for Disease Control and Prevention 2020). This includes patients without COVID, patients with COVID-19 who do not require hospitalization, and patients who are being discharged home after hospital-based COVID-19 care. These patients, families, and healthcare workers with diverse needs face unique challenges like isolation procedures, infection control practices as health workers visit multiple homes, and mobilizing the already strained home-care workforce to meet these increased demands (Centers for Disease Control and Prevention 2020). While home health agencies experienced an initial dip in patient load at the beginning of the pandemic, they will continue to see demand from patients needing wound care, medication management, post-surgical care and care post discharge from the hospital following COVID-19 (Donlan 2020a). Preparing the existing workforce to deliver appropriate home care and sourcing alternative providers for home care services is central to the future success of the healthcare system and patients.

6. Pharmacy Services:

Pharmacy services face challenges in both hospital and community settings. Caring for patients with hospital-based COVID-19 requires innovative and dynamic pharmacy teams. They must adapt to

unpredictable disease courses, consider novel treatments, and make decisions based on each patient's unique circumstance. They act as a gatekeeper to avoid potentially dangerous pharmaceutical mistakes and inform individuals of the safety and efficacy of drugs that are being suggested as cures or preventatives for COVID-19. Furthermore, community pharmacies are having to consider alternative delivery models because of the importance of physical distancing and community safety (American Pharmacists' Association 2021). As the role of pharmacists and their teams changes throughout the pandemic, they need appropriate guidelines that can be applied swiftly in order to adjust to the ever-changing environment in the wake of COVID-19.

The Utility of Playbooks in Times of Stress:

The NC AHEC and collaborators have developed the Playbooks to work toward optimizing the workforce in response to COVID-19 as well as future public health emergencies and disasters. The Playbook material also provides general guidance for creating a dedicated website to house resources to support hospitals, ambulatory care settings, long term care, home health and general medicine respond to workforce shortages. We also describe a series of steps that can be taken to encourage national healthcare worker associations to utilize this resource and adapt their policies accordingly. To this end, we have developed examples based on the NC experience and other states, and they are included in the Playbooks and web-based resources. Our work further serves as the basis for developing pilot messages and communication materials to encourage national healthcare worker associations to adopt patient-centered, team-based care as the *status-quo*, through and beyond the pandemic.

This work has highlighted the need to create a dedicated website focused on surge planning for the health workforce and the need to continually update the resources found within it. The COVID-19 Technical Resources, Assistance Center, and Information Exchange (TRACIE) that was launched by

the Assistant Secretary for Preparedness and Response (ASPR), part of the U.S. Department of Health and Human Services, is an excellent foundation for this information resource. The TRACIE system allows healthcare professionals and educators throughout the U.S. to share training resources in a peer-to-peer format. To enhance the utility of this website, a next step might be a peer review format that deploys team of experts to review and vet the resources, provide standardized summaries, categorize resources into setting-specific training based on patient-centered skills needs, and develop a robust search function with keywords related to skillsets and patient needs. An example of a website model that would efficiently and effectively meet this need can be found in Appendix 1. This includes a search function that learners can use to identify scope and the patient-centered skills within that scope: "I am a _____ (drop down menu for profession) looking for resources to _____ " (drop down menu for patient-centered skill, such as 'care for a patient on oxygen').

The NC AHEC has, as the organization tasked with providing and supporting health professions and health care educational activities in North Carolina, recognized the immediate needs for deploying and retraining the State's health care workers to meet the challenges of the COVID-19 pandemic. The materials included here form part of that response—support that will continue into the foreseeable future and will hopefully benefit other states and the federal government.

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Workforce Surge Planning Playbooks

Home > COVID-19 > Training and Literature for Health Care Professionals > **Workforce Surge Planning Playbooks**

COVID-19

Contact Tracing and Case Investigation Skill Development for COVID-19

COVID-19 News

Health and Safety Recommendations

Practice Support Resources

- Financial Resources for Healthcare Providers

- Immunizations and Well Child Checks

- Patient Education Tools

- Personal Wellness for Healthcare Providers

- Telehealth & Coding Resources

Project ECHO for Nursing Homes

Training for the Community Health Worker Initiative

Training and Literature for Health Care Professionals

- Basic Medicine and Critical Care Skills

- **Workforce Surge Planning Playbooks**

Vaccination Information

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Courses & Events

View and register for NC AHEC courses and events across the state!

Last updated November 24, 2020 at 2:40 p.m.

Ensuring an adequate and appropriately trained workforce in hospitals, health systems, and practices is an essential component of preparation for and management of patients during the COVID-19 pandemic.

To support that work, the NC AHEC Program has prepared a new resource for COVID-19 Surge Planning. The COVID-19 Preparedness Checklists, **Planning Considerations for Acute Care and Long-term Care Populations** and **Planning Considerations for Home-Based Care Populations**, are high-level overviews of guidelines for organizations to consider as they prepare clinical spaces, workforce skills, and patient care supplies for an increase in patient volume in the wake of COVID-19. The CDC has released **guidance on preparations for COVID-19 in outpatient and ambulatory care settings**.

To specifically support workforce planning to meet the surge demands for distinct patient care populations, the overview is accompanied with a series of other guidelines, or *playbooks*, that match strategies for maximizing skill utilization with appropriate resources for training, cross-training, and retraining workers.

At each Basecamp link, there is a download button at the bottom of the page that converts the document to a PDF for viewing. These are living documents and will be updated as additional resources become available. Please send feedback and suggestions to NCAHECworkforcesurge@gmail.com.

Playbooks

[COVID-19 Workforce Skills Surge Planning Playbook for Pharmacy Services](#)

[COVID-19 Workforce Skills Surge Planning for Patients Requiring Critical or ICU Care](#)

[COVID-19 Workforce Skills Surge Planning for Patients in Home-based Care](#)

[COVID-19 Workforce Skills Surge Planning for Patients in Long Term Care](#)

[COVID-19 Workforce Skills Surge Planning Playbook for Patients Requiring General Inpatient Medical Care](#)

[COVID-19 Workforce Skills Surge Planning for Patients Requiring Ambulatory Care](#)

Preparedness Checklists

[Planning Considerations for Acute Care and Long-term Care Populations](#)

[Planning Considerations for Home-Based Care Populations](#)

Funding for Health Care Workforce Playbooks and the COVID-19 Pandemic

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