# HEALTHCARE PROVIDER SHORTAGES: RESOURCES AND STRATEGIES FOR MEETING DEMAND

*November 2021*

Staff shortages have been a primary challenge in the management of patient surge during the COVID-19 pandemic and other disasters. Healthcare providers may become ill, family concerns may decrease the ability of staff to work extra hours, school closures may inhibit staff from performing normal duties, and physical and emotional fatigue causes burnout. Many healthcare workers are reducing hours, leaving the field, or taking contract jobs, further depleting the workforce, and increasing the stressors on remaining employees. In a recent survey of leaders from 100 large and private sector hospitals, nearly half of respondents had to reduce inpatient capacity due to nursing shortages. Ongoing and close coordination with local, county, state, territorial, and tribal public health agencies, and coordination among healthcare facilities to ensure staffing remains at functional levels are vital throughout the course of the COVID-19 pandemic and other disasters.

ASPR TRACIE worked with healthcare workforce subject matter experts to identify resources and strategies that decision-makers can use to optimize healthcare workforce assets, assess ongoing staffing needs, and identify resources to meet these needs. Practical considerations and resources are categorized into four actions critical to healthcare workforce planning:

1. Quantify Healthcare Workforce Needs

2. Implement Strategies to Maximize the Workforce

3. Supplement the Healthcare Workforce

4. Support the Healthcare Workforce

Links to additional resources are included in the COVID-19 Workforce Virtual Toolkit: Resources for Healthcare Decision-Makers Responding to COVID-19 Workforce Concerns.

## 1.    Quantify Healthcare Workforce Needs

**Practical Considerations**

- Project healthcare workforce needs by cadre, type, and skill level. Access these sample workforce staffing calculators:

    » COVID-19 Health Workforce Surge Planning (UCSF)

    » COVID-19 Clinical Staff Projection Calculator (Providence St. Joseph Health)

    » COVID-19 Staffing Needs Calculator (COVID Staffing Project)

    » COVID-19 Staffing Projections Calculator (COVID Staffing Project)

- Reassess regularly as the situation evolves by monitoring several factors:

    » How many additional staff are needed due to current census and acuity?

    » How many staff members are unavailable due to factors such as COVID-19 illness, health concerns (e.g., pre-existing conditions precluding them from high-risk work), and childcare needs?

    » How many additional healthcare providers are available from immediately accessible temporary staffing solutions?

    » How are different categories of staff affected? Can some duties be shifted safely to other staff members to reduce the burden on specific groups?

**Resources**

Hospital Surge Capacity Tools

The General Surge Capacity Model provides 1- to 30-day ahead projections of an individual hospital's demand for medical and intensive care unit beds, ventilators, personal protective equipment (PPE), medication, and staffing. The Advanced Model offers expanded functionality.

Hospital Preparedness for a COVID-19 Surge: Assessment Tool

This 11-page checklist focuses on systems and processes for monitoring and improvement. Topics include staffing, space, supplies, infection control, staff well-being, and structures for planning, decision-making, and communications. Free registration required to access the tool.

## 2.    Implement Strategies to Maximize the Workforce

**Practical Considerations**

- Enable the expansion of clinician-to-patient ratios by assigning clinical providers to the most specialized care (e.g., medication administration, ventilator management) and delegating non-specialized and personal care provision (e.g., feeding, bathing) to supporting staff.

- Reassign staff from within the system/facility (e.g., from outpatient clinics and surgery services) to units with pressing staffing needs.

- Temporarily supplement with staff from contracted staffing agencies.

**RELATED ASPR TRACIE RESOURCES**

- COVID-19 Workforce Solutions from the Field

- Hospital Intensive Care Unit (ICU) Surge Training Resources

- Hospital Operations Toolkit Capacity: Staffing

- The Role of Support Services during COVID-19: Experiences from the Field

- Up-Training Resources for Healthcare Staff during COVID-19 Surge

- Consider adopting The Society of Critical Care Medicine's Tiered Staffing Model for COVID-19. Under this model, hospitals augment critical care staffing utilizing a tiered strategy whereby non-ICU staff augment experienced ICU staff. Non-ICU-trained staff from all disciplines (e.g., physicians, nurses, and advanced practice providers) and experienced perioperative clinical staff (e.g., surgeons, anesthesiologists, certified registered nurse anesthetists and assistants, operating room and post-anesthesia care unit nurses) can support critical care services with and without intensivists.

- Provide necessary training to support the return of clinical providers in administrative positions to clinical positions.

  » The ASPR TRACIE Topic Collection Training and Workforce Development and Modules for Nurses in Acute Care Settings includes resources to bolster clinical staff capacity.

  » The Society of Healthcare Epidemiology of America and SHEA/CDC Outbreak Response Training Program (ORTP) developed a toolkit for epidemiologists, infection control preventionists, infection control teams, and others working in outbreak preparedness and response.

- Rapidly up-train staff with similar skill sets to those needed for specialized care.

  » The American College of Chest Physicians provides on-demand e-Learning Modules relevant to COVID-19 pandemic.

  » The University of California, San Francisco provides links to COVID-19 Health Workforce Surge Planning resources for frontline workers.

  » The Society for Critical Care Medicine provides on-line training resources for non-critical care providers.

- Be aware of workforce trends and begin planning to mitigate predicted shortages in specific job categories.

- Consider Strategies to Mitigate Healthcare Personnel Staffing Shortages provided by the Centers for Disease Control and Prevention (CDC). Recommendations are provided as a continuum of options for addressing shortages and meant to be implemented sequentially.

  » Contingency capacity strategies include:

    - Consider adjusting staff schedules to support healthcare personnel (HCP), hire additional HCP, and rotate HCP positions that support patient care activities.

    - Collaborate with human resources and other departments to provide ancillary support.

    - Develop regional plans to identify designated healthcare facilities or alternate care sites (ACS) with adequate staffing to care for patients with COVID-19.

    - Implement return to work criteria that do not require work restrictions for asymptomatic HCP who have had a higher-risk exposure if they have been fully vaccinated or if they have recovered from SARS-CoV-2 infection in the prior 90 days.

  » Crisis capacity strategies include:

    - Implement regional plans to transfer patients with COVID-19 to designated healthcare facilities or ACSs.

    - Return to work criteria should exclude HCP at higher risk of exposure and who are unvaccinated and not wearing recommended PPE from work for 14 days after last exposure with SARS-CoV-2. Perform testing not earlier than 2 days after exposure and retest 5-7 days after the exposure if negative. HCP should monitor themselves for fever or symptoms consistent with COVID-19.

## Resources

[A Nursing Staffing Model for an Unprecedented Event](#)

The authors describe the implementation of a tiered model to support critical care and medical-surgical units during the COVID-19 pandemic at Beth Israel Deaconess Medical Center.

[Adapting Radiology Operations to the COVID-19 Pandemic](#)

Massachusetts General Hospital Radiology Department shifted its operations to meet staffing challenges during the pandemic to include:

- Instituting a work-from-home policy

- Redeploying radiologists to inpatient units responding as clinicians

- Having interventional radiologists (IRs) provide procedures at the bedside of COVID-19 patients

- Redeploying technologists from magnetic resonance imaging, computerized tomography (CT) and breast imaging to Emergency Radiology

- Having IRs hold weekly virtual meetings with 15-20 patients

[Best Practices for Managing Staff Shortages](#)

Expert healthcare professionals shared how they managed staff shortages in this webinar conducted by the Society of Critical Care Medicine.

[Bracing for the Storm: One Health Care System's Planning for the COVID-19 Surge](#)

The authors describe practice changes during the first COVID-19 outbreak in the State of Washington and how the University of Washington Medicine implemented staffing plans to meet the influx of patients.

[COVID-19 Pandemic Creates New Roles for Advanced Practice Providers (APP)](#)

The authors describe how a hospital redesigned their response delivery system that relied heavily on its APP workforce (consisting of nurse practitioners, physician assistants, certified midwives and certified nurse anesthetists) into new roles to meet the emerging needs of its patients.

[Critical Care Surge Response Strategies for the 2020 COVID-19 Outbreak in the United States](#)

The authors of the article conducted a review of literature from past outbreaks and the COVID-19 pandemic in collaboration with the American College of Emergency Physicians. They provide a list of strategies for creating critical care surge capacity, including staffing.

[Duty to Plan: Health Care, Crisis Standards of Care, and Novel Coronavirus SARS-CoV-2](#)

This National Academy of Medicine article discusses how decision-makers can incorporate crisis standards of care principles into workforce strategies.

[Increased Workforce Turnover and Pressures Straining Provider Operations](#)

This survey of hospitals found that higher wages and increased recruitment efforts were the most commonly reported strategies to maintain the healthcare workforce, followed by one-time bonuses, cross-skilling/upskilling nurses, and implementing a flexible schedule.

[Increasing Demand for Critical Care Beds-Recommendation for Bridging the RN Staffing Gap](#)

The authors of the article note challenges of COVID-19 and how nurses are restructuring traditional workplace practices, including isolation, use of personal protective equipment (PPE), specimen collection, safety optimization, and direct patient care.

Innovations in COVID-19 Patient Surge Management

To mitigate some of the nursing shortage, partners from the Utah Hospital Association and the "Big 4" healthcare systems created a nursing apprentice program where fourth year students applied for early transition to clinical practice.

Mass Critical Surge Response during COVID-19: Implementation of Contingency Strategies-A Preliminary Report of Finding from the Task Force for Mass Critical Care

The authors of the article suggest staff-to-patient ratios with consideration to experience level, resources, and patient acuity to optimize contingency care and avoid crisis care. Resilience strategies during surge capacity are discussed based on the Health Work Environment Framework.

Rapid Expert Consultation on Staffing Considerations for Crisis Standards of Care for the COVID-19 Pandemic

The authors provide the following recommendations to supplement healthcare staff to address patient surge:

• Move staff among facilities in healthcare system networks

• Move staff from outpatient to inpatient

• Have education and administration staff with clinical backgrounds return to clinical practice

• Have staff "step up" the level of care they provide to a higher level

• Have staff "step over" applying knowledge to a different group of patients than normal

Staffing Up For The Surge: Expanding The New York City Public Hospital Workforce During the COVID-19 Pandemic

The authors of this article provide strategies that NYC Health + Hospitals implemented to expand capacity across its health system, such as: creating a multidisciplinary team made up of departments that traditionally did not work together; redeploying staff; redesigning recruitment by creating on-line training/onboarding resources and a central credentialing process; and streamlining training.

Deployment of Surgeons for Out-of-Specialty Care

The American College of Surgeons provides links to resources for surgeons who wish to or who are deployed to work out of their specialty to care for patients with COVID-19.

## 3.    Supplement the Healthcare Workforce

These considerations and resources can help healthcare facilities supplement their workforce:

**Practical Considerations**

• Local level

    » Hire needed staff through staffing agencies with which a relationship already exists.

    » When limitations exist, identify additional agencies able to provide the necessary cadres.

    » Refer to and implement healthcare coalition (HCC) staff sharing plans.

    » Consider hiring furloughed or underutilized staff from other local providers who may have reduced/discontinued nonessential medical procedures.

• State level

    » Exercise contractual agreements with state health departments or other agencies to address staffing shortages. In some cases, states have executed the contracts with staffing firms and then allocated staff to hospitals based on need to maintain a consistent level of care.

» Reassign staff under [Section 319 of the Public Health Service (PHS) Act](#).

- This provision allows a state governor, tribal leader or designee to request the temporary reassignment of state and local public health department or agency personnel funded in whole or in part through programs authorized under the PHS Act to immediately address a public health emergency.

» Determine available licensure waivers and flexibilities.

- The COVID-19 Licensure section of the ASPR COVID-19 Workforce Virtual Toolkit provides information on license reciprocity for healthcare professional during a disaster or public health emergency. The Federation of State Medical Boards provides a directory of states waiving licensure requirements and expanding licenses for retired physicians.

» Expand scope of practice.

- The COVID-19 Scope of Practice Expansions Resource Collection provides links to information on specific cadres of healthcare professionals' scope of practice expansions during the pandemic. Additional resources detail novel and innovative ways that healthcare professionals are being utilized to address the services necessary in meeting patient care needs.

» Work with the National Guard

- Identify healthcare providers in non-clinical positions who can be quickly trained to increase staffing.

- Some states have rapidly trained Guard personnel to be healthcare assistants so they can support long-term care and other facilities.

- Ensure you are not pulling individuals currently working in a clinical setting for these types of assignments.

» Request assistance through the [Emergency Management Assistance Compact](#) (EMAC).

- EMAC is a national disaster-relief compact that allows states to send personnel to assist with response and recovery efforts in other states.

- EMAC is implemented within the state emergency management agency on behalf of the governor.

- Federal level

» Note that federal resources should be requested only when other options are not available, as they are limited in availability, short-term, and may complicate billing and reimbursement for local health systems.

» The [Medical Staffing Requests Advisory](#) lists actions that states, tribal, and territorial governments requesting federal healthcare provider staffing lists must consider.

» Federal response teams

- Local authorities should work through existing emergency management (ESF-8) mechanisms to submit a request for assistance through the state.

- The ASPR Regional Emergency Coordinators (RECs) and Administrator (RAs) will work with the requestor to define the requirement and, if approved, identify the type of support needed for the response, such as:

  a. National Disaster Medical System (NDMS) resources (access [Appendix A](#) for more details)

  b. U.S. Public Health Service Commissioned Corps

  c. Military or Department of Defense teams including Armed Forces Reserve Assets

- Regional clinical staff from the Department of Veterans Affairs may be available to support specific state needs.

- International level

  » [Doctors Without Borders](#) worked in key locations throughout the U.S. during the COVID-19 outbreak, reaching out to vulnerable populations and working in nursing homes and long-term care facilities.

- Engage healthcare workforce volunteers

  » Additional volunteer resources that support wrap-around services and public health roles that do not include healthcare facility staffing needs are included in [Appendix B](#).

  » Leverage state-registered healthcare provider volunteers.

    - Available options vary by state.

    - States should encourage interested volunteers to register through [ESAR-VHP](#). This program will verify a volunteer's identity, license(s), credentials, accreditations, and hospital privileges.

  » The [Medical Reserve Corps](#) (MRC) is a national network of volunteers, organized locally to improve the health and safety of their communities:

    - Local units have varying capabilities and mixes of volunteer types and may or may not have providers comfortable or capable of assisting with patient care.

    - Identify whether there is a local unit in your area and the contact information for the unit leader at [MRC](#) [Unit Locations](#) to determine whether the MRC unit may be able to support the need.

    - Note that MRC units primarily respond in their local area.

## Resources

[COVID-19 Volunteer Guide for Health Care Professionals](#)

This American Medical Association guide includes information for physicians and healthcare professionals who want to volunteer their services to support communities severely impacted by COVID-19.

[Hospitals Innovate Amid Dire Nursing Shortages](#)

This article highlights how hospitals are competing with travel/contract nursing services, decreasing the ability for healthcare facilities to supplement their workforce. The authors highlight some strategies healthcare leaders are using, such as providing salary increases and bonuses for employment, rewarding staff for successful referrals, providing contracts that pay close to what traveling nurses make, and compensating nurses who have been at the organization for a set number of years/ worked in certain units.

**RELATED ASPR TRACIE RESOURCES**

- [Alternate Care Sites (ACS) Sources of Additional Staff](#)

- [Direct Care Workforce Resources](#)

- [Healthcare Facility Onboarding Checklist](#)

**ASPR TRACIE COVID-SPECIFIC EXPERIENCES FROM THE FIELD: SUPPORT SERVICES**

- [Community Pharmacists' Role in COVID-19](#)

- [Exchange Issue 13: Work of Allied and Supportive Care Providers during COVID-19](#)

- [Occupational Therapy and COVID-19](#)

- [Poison Control Centers Roles during the Pandemic](#)

- [Respiratory Therapy and COVID-19](#)

- [Role of Blood Centers during Disasters](#)

- [The Role of the Physical Therapist in Pandemic Response](#)

- [The Role of Respiratory Therapists during COVID-19](#)

**COVID-19 WORKFORCE VIRTUAL TOOLKIT**

- [Licensure](#)

- [Workforce Surge Planning and Volunteer Matching](#)

[Recruiting Nurses: 8 Tips to Combat Today's Staffing Shortages](#)

A recruiting agency provides eight tips to address the urgent need to find qualified nurses, such as acknowledge that competition is fierce, sell candidates on the quality of the organization, get new RNs to think outside the hospital, and compensate lack of experience with strong supervision.

[The Complexities of Physician Supply and Demand: Projections From](#) [2018-2033](#)

The Association of American Medical Colleges released the June 2020 report on data predicting a significant shortage of physicians in the coming years. The study was conducted prior to COVID-19 pandemic and estimates a shortage of 54,100 to 139,000 with specific shortfalls in primary and specialty care.

## 4. Support the Healthcare Workforce

### Practical Considerations

Consider the following practices to support staff and optimize clinical staff capacity:

- Address PPE concerns through training and practice to increase comfort with use. Resources include:

  » [Personal Protective Equipment (AHRQ)](#)

  » [Using Personal Equipment (CDC)](#)

  » [PPE for COVID-19 (NETEC)](#)

- Consider policies to increase staff ability and availability:

  » Provide childcare, eldercare, and other resources to alleviate caretaking requirements as a barrier to staff availability. If providing these services, ensure safety, security and infection control measures are in place to protect all involved.

  » Peer-to-peer support programs.

  » Additional compensation.

  » Provide alternate housing to address staff concerns of exposing vulnerable family members.

  » Adjust shift schedules and lengths to maximize staffing and prevent fatigue and burn out.

  » Provide support, information, and training on crisis standards of care being implemented as necessary to ensure familiarity with trigger points and adherence with processes.

### Resources

[Caring for our Caregivers during COVID-19](#)

This resource provides nine strategies for healthcare leaders to consider implementing to support physicians and care teams. Strategies include: assess physician stress and identify specific drivers; build a resilient organization; ensure appropriate workload distribution; develop supportive institutional policies; provide meals, childcare, and pet care; provide PPE; pay attention to emotional and mental well-being; and provide staff social support.

[Compiled Resilience Tips](#)

This document highlights resilience tips that were shared on a weekly basis with the Medical Reserve Corps during the winter and spring of 2021; tips are based on evidence-based strategies that build individual resilience and workforce well-being.

[COVID-19: Team and Human Factors to Improve Safety](#)

This article lists factors associated with patient safety and provider satisfaction and recommendations to support those factors (e.g., decision making, task accuracy, civility, mindfulness, situational awareness, and information exchange).

[Creating a Caring Workforce Culture: Practical Approaches for Hospital Executives](#)

This ASPR resource highlights workforce challenges that have emerged during COVID-19 and provides concrete practical approaches that hospital management and executives have utilized during patient surges to support and retain their workforce.

[Creating a Resilient Organization for Health Care Workers During a Crisis](#)

This resource summarizes a [comprehensive guide](#) that lists a 17-step process healthcare organizations can adopt before, during, and after a crisis to promote staff resilience.

[Nursing in 2021: Retaining the Healthcare Workforce When we Need it Most](#)

The article provides four strategies to help healthcare facilities to support the nursing profession based on recent survey data.

[Practical Leadership Tips for Enhancing Staff Behavioral Health During a Crisis](#)

This ASPR webpage provides three key strategies for healthcare leadership: communicate calmly, often, and clearly; establish and maintain clear boundaries between work and rest; and engage in self-care.

**RELATED ASPR TRACIE RESOURCES**

- [Behavioral Health Strategies for Emergency Service Workers](#)
- [COVID-19 and Healthcare Professional Stress and Resilience (Speaker Series)](#)
- [COVID-19 Workforce Resilience Sustainability Resources](#)
- [Disaster Behavioral Health Resources](#)
- [Disaster Behavioral Health Self Care for Healthcare Workers Modules](#)
- [Disaster Mental Health Resources for Healthcare Workers during COVID-19](#)
- [Mini Modules to Relieve Stress for Healthcare Workers Responding to COVID-19](#)
- [Mitigate Absenteeism by Protecting Healthcare Workers' Psychological Health and Well-being during the COVID-19 Pandemic](#)
- [Promoting Healthcare Provider Performance and Well-Being in the Age of COVID-19: Exploring Novel Strategies](#)
- [Self-Care and Resilience Resources for Responders and Healthcare Workers](#)
- [Tips for Retaining and Caring for Staff after a Disaster](#)

# Appendix A: Requesting National Disaster Medical System (NDMS) resources

ASPR Regional Administrators (RAs) and Regional Emergency Coordinators (RECs) can facilitate a request for NDMS support from a state, tribal or territorial authority. Local authorities must make a request for NDMS assistance through the state. The RA or REC will work with the requestor to define the requirement and identifying the type of support needed for the response.

NDMS Teams can perform a wide range of patient-care functions in a variety of mission scenarios, including but not limited to:

- primary, acute, stabilizing emergency care

- emergency department decompression

- inpatient care augmentation

- supporting patient movement

- stabilization and transfer of all patients including ill/injured and nursing home patients

- staffing casualty/patient collection points

- triage services

- mass prophylaxis

- medical site/shelter operations

- monoclonal antibody administration

Similar to the military reserves, NDMS employees have regular jobs, but serve on a rotational on-call schedule and deploy as intermittent federal employees when ASPR activates them in an emergency. Team members commit to staying at the site for up to two weeks.

NDMS teams cannot support missions in state psychiatric facilities or in prisons.

Local and state entities cannot charge for services that are being provided by the NDMS teams at their locations. For example, a hospital that is using NDMS nurses to provide inpatient care is not able to bill those patient services. Therefore, many teams are used for emergency patient screening and other functions unless staffing demands are extreme.

It is important to note that NDMS support is also a limited, stop gap asset and as seen during the COVID pandemic, there are often more requests for this than there are teams. HHS ASPR strongly encourages all jurisdictions to proactively review the other assets and practices included in the main document and embedded resources.

# Appendix B: Examples of Additional Resources

- The Community Emergency Response Team (CERT) program educates volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. CERT offers a consistent, nationwide approach to volunteer training and organization that professional responders can rely on during disaster situations, allowing them to focus on more complex tasks.

  » Requests for assistance must be made to the local jurisdiction.

  » To check to see if there is a CERT in your area: https://community.fema.gov/PreparednessCommunity/s/cert-find-a-program

- The American Red Cross may be able to provide volunteers to support blood donations and deliver other much-needed services to your community.

- Voluntary Agency Liaisons (VALs) are FEMA employees who support the significant contributions of voluntary, faith-based, and community stakeholders active in disaster by building relationships – and coordinating efforts – with and across partner organizations and government agencies. VALs promote information-sharing and mutual understanding among partners and provide guidance on integrating activities across various subject areas and the full disaster life cycle.

- National Voluntary Organizations Active in Disaster (VOAD) mitigate and alleviate the impact of disasters, provide a forum promoting cooperation, communication, coordination and collaboration; and foster more effective delivery of services to communities affected by disaster.  National VOAD includes more than 100 member organizations, which represent national members, state VOADs, local/regional VOADs and hundreds of other member organizations throughout the country. Though members are not clinical, they may be able to provide support for activities such as vaccination and testing sites.

- Public Health AmeriCorps is a partnership between CDC and AmeriCorps to support the recruitment, training, and development of public health leaders.

- The Role of Business in Disaster Response includes examples of how businesses have provided support during disasters.