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A Snapshot of the Healthcare Workforce Addressing COVID-19 in South Carolina



The South Carolina Office for Healthcare Workforce (OHW) within the South Carolina AHEC Program Office provides data and information on healthcare professionals to support planning and policy decisions. South Carolina has more than 150,000 physicians, nurses and other healthcare workers available to serve the COVID-19 response (Table 1). This brief provides a snapshot of selected data and policy examples to inform other questions relating to the workforce needed to address COVID-19 in the state.

Table 1. Number of selected healthcare workers in South Carolina and the United States

Type of provider	SC	US
Physicians (MDs and DOs) * †		
<i>Anesthesiology</i>	652	41,762
<i>Emergency medicine</i>	841	42,348
<i>Geriatric medicine</i>	62	5,598
<i>Infectious disease</i>	70	9,136
<i>Ob/Gyn</i>	608	41,656
<i>Primary care ^a</i>	3,876	292,628
<i>Pulmonary disease and critical care</i>	223	16,824
<i>Total physicians</i>	12,741	892,856
Nurses		
<i>Certified nursing assistants (CNAs) ‡</i>	20,950	1,450,960
<i>Certified registered nurse anesthetists (CRNAs) * ‡</i>	1,091	43,520
<i>Licensed practical nurses (LPNs) * ‡</i>	8,880	701,690
<i>Nurse practitioners (NPs) * ‡</i>	2,568	179,650
<i>Registered nurses (RNs) * §</i>	40,365	3,957,661
Allied health and other professions		
<i>Clinical Laboratory Technologists and Technicians ‡</i>	4,580	321,220
<i>Emergency medical services (EMTs, paramedics) ‡</i>	5,240	257,210
<i>Home health aides ‡</i>	9,600	797,670
<i>Medical assistants ‡</i>	9,800	673,660
<i>Personal care aides ‡</i>	18,040	2,211,950
<i>Pharmacists * ‡</i>	4,827	309,550
<i>Pharmacy Technicians * ‡</i>	7,009	417,860
<i>Physician assistants (PAs) * ‡</i>	1,276	114,710
<i>Respiratory care practitioners * ‡</i>	2,126	129,600
<i>Respiratory therapy technicians ‡</i>	140	9,090
Behavioral and mental health professionals		
<i>Clinical, counseling and school psychologists ‡</i>	1,230	110,490
<i>Marriage and family therapists ‡</i>	100	48,520
<i>Psychiatric NPs * </i>	30	17,534
<i>Psychiatrists * †</i>	533	38,205
<i>Social workers * ‡</i>	2,362	284,940
<i>Counselors ‡</i>	1,760	267,730

^a Family medicine, general internal medicine, med/peds and general pediatrics.

Data Sources: * OHW, 2019 (2016 nurses, 2017 other professions); † AAMC, 2018;

‡ BLS, May 2018; § HRSA, NSSRN, 2018; ^{||} Beck et al, 2020. See source notes for information and limitations.

Key Policy Implications

The state has already implemented some measures to address surge capacity for COVID-19 triage and treatment. Additional measures to consider include:

1. Implement further temporary measures to relax licensing requirements and to relax scope of practice restrictions for non-physician providers.
2. Increase critical care capacity by approving respiratory care students and certain health professionals to work as respiratory care extenders.
3. Approve health professions students to assist in screening, triage and other supervised support roles.
4. Redeploy furloughed healthcare workers to roles, departments and facilities in greatest demand; develop essential training resources to retool workers for these different roles.
5. Develop a clearinghouse to match available healthcare workers to where they are most needed.
6. Use alternate sites, such as surgery centers, closed rural hospitals, field hospitals or mobile testing units for dedicated COVID-19 or non-COVID-19 care.

Discussion

- 1. Primary care, emergency medicine and telehealth are gateways to COVID-19 diagnosis and treatment.**
 - a. In Table 1, primary care physicians include family medicine, general internal medicine, medicine/pediatrics and general pediatrics. Not all PAs and NPs are engaged in primary care. For pregnant women, OB-GYNs and certified nurse midwives (CNMs) can be an important source of primary care.
 - b. Telehealth is being used to screen for COVID-19 symptoms and provide routine visits to protect patients and providers from exposure. The federal and state governments have developed temporary regulations making it easier for providers to engage in and bill for telehealth services during the public health emergency.
- 2. Pulmonologists and respiratory care practitioners have specialized training in treating lung conditions.**
 - a. In severe cases, COVID-19 can cause respiratory failure requiring mechanical ventilation.
 - b. Pulmonologists are physicians that diagnose and treat lung issues.¹ Respiratory care practitioners, also known as respiratory therapists, provide emergency care, help patients manage chronic lung issues, set up and operate devices such as ventilators, and monitor response to therapy.²
 - c. Anesthesiologists and certified registered nurse anesthetists (CRNAs) administer anesthesia for surgery and other medical procedures. They have training to provide airway management and ventilation support³ and could be used to augment critical and intensive care for COVID-19 patients.
- 3. Infectious disease physicians play a role in COVID-19 response.**
 - a. Infectious disease physicians help diagnose, treat and manage infectious disease, and develop strategies to track and prevent the spread of disease, often in collaboration with the public health sector.
- 4. Behavioral health providers are a critical resource to help patients and healthcare workers in public health emergencies.**
 - a. Beyond the conditions that individuals struggle with in normal times, public health emergencies can increase fear, stigma, mood disorders and post-traumatic stress disorders in the population and contribute to similar conditions and burnout in healthcare workers.
 - b. Behavioral health professions are difficult to count in South Carolina. Many are unlicensed, and with the exception of psychiatrists, nurses and social workers, data are not collected from behavioral health professionals during licensure renewal.
- 5. The health community addressing COVID-19 goes beyond the data presented here.**
 - a. There are many other workers both on the front lines and behind the scenes who are part of the COVID-19 response. These include, but are certainly not limited to, palliative care providers, clinical lab technicians, pharmacists and pharmacy technicians, community health workers, hospital administration/food/custodial/security staff, social services and public health practitioners.

Policy Strategies and Resources

The rapid spread of COVID-19 is straining the nation's health resources. Federal, state and local governments are implementing policies and laws to increase health workforce capacity and support healthcare workers. South Carolina has already implemented temporary policy changes to support the state's response to this public health emergency, and is continuing to consider additional measures.

Examples Enacted in South Carolina

- a. [Executive Order No. 2020-08](#),⁴ declared a public health emergency due to COVID-19 and allowed the South Carolina Board of Medical Examiners and the South Carolina Board of Nursing to issue orders waiving licensing requirements for physicians, physician assistants (PAs), advanced practice registered nurses (APRNs), registered nurses (RNs) and licensed practical nurses (LPNs) so long as the applicant is licensed and in good standing in other states^{5,6}.
- b. [Public Health State of Emergency Order 2020-BON-PH-02](#),⁷ temporarily suspended Board of Nursing enforcement of the requirement that a nurse practitioner licensed in good standing in Georgia or North Carolina enter into a practice agreement with a physician physically located within South Carolina.
- c. [Executive Order No. 2020-15](#)⁸ directs the South Carolina Department of Health and Environmental Control (DHEC) to exercise emergency powers as set forth in the [Emergency Health Powers Act](#).⁹ Such powers include appointing in-state and out of-state healthcare providers in coordination with the Department of Labor, Licensing and Regulation (LLR) and licensing authorities, which may waive licensing requirements.
- d. The South Carolina Hospital Association has developed a [Help Now site](#)¹⁰ for healthcare volunteers to sign up to be matched with a hospital in need. In particular, the site seeks to recruit healthcare workers that may be furloughed as health systems struggle with revenue and seek to protect administrative and clinical staff not involved in COVID-19 response.

Policy Options to Consider

Governments, health care systems and health policy experts across the world are continually developing ways to address the pandemic. While laws and policies governing scope of practice, payment, licensure and regulation vary, South Carolina can consider additional policy options to maximize the capacity of the state's healthcare workforce. Additional measures to consider include

- 1. Implement further temporary measures to relax licensing requirements and to relax scope of practice restrictions for non-physician providers.**
 - a. Allow physician assistants, nurse practitioners, certified registered nurse anesthetists and others to provide care independent of physician supervision.
 - b. [There Are Not Nearly Enough Nurses To Handle The Surge Of Coronavirus Patients: Here's How To Close the Gap Quickly](#), 3/31/20, *Health Affairs*¹¹
- 2. Increase critical care capacity by approving respiratory care students and certain health professionals to work as respiratory care extenders.**
 - a. [Michigan Executive Order 2020-30](#), 3/29/20: authorizes health facilities to allow med students, PTs and EMTs to volunteer or work as respiratory therapist extenders under supervision of docs, respiratory therapists or others.¹²

- b. The North Carolina Respiratory Care Board is [approving respiratory care students to work as respiratory assistants in hospitals](#).¹³
3. **Approve health professions students to assist in screening, triage and other supervised support roles; provide temporary licenses to students nearing graduation.**
 - a. [Michigan Executive Order 2020-30](#), 3/29/20: authorizes health facilities to allow students to work or volunteer in appropriate roles.¹⁴
 - b. The [Georgia Board of Nursing](#) is working on provisions to issue temporary permits to recent nursing graduates who have not yet taken the national licensing exam (NCLEX).¹⁵
 - c. [‘The Future Is Today’: Medical Students In The COVID-19 Pandemic](#), 3/31/20, *Health Affairs*. Suggests allowing 3rd and 4th year medical students to volunteer to support screening, triaging and support for general medicine teams; further suggest providing a stipend, tuition reimbursement or loan forgiveness for this service.¹⁶
 4. **Redeploy furloughed healthcare workers to roles, departments and facilities in greatest demand; develop essential training resources to retool workers for these different roles.**
 - a. With health systems furloughing administrative and clinical staff not directly involved in COVID-19 care, a pool of health care workers is potentially available to assist the effort. Provide training to get refresh staff on infection control, critical care and other necessary policies and procedures.
 - b. [With Virus Surge, Dermatologists and Orthopedists Are Drafted for the E.R.](#), 4/3/20, *New York Times*.¹⁷
 - c. [Massachusetts hospitals prep for coronavirus surge, convert facilities, reassign docs](#), 4/5/20, *Boston Herald*.¹⁸
 5. **Develop a clearinghouse to match available healthcare workers to where they are most needed.**
 - a. California implemented the [California Health Corps](#), which allows selected health professions, medical residents and nursing students to register to staff additional COVID-19 health care sites.¹⁹
 - b. New York developed the [ServNY volunteer management system](#), a web-based registry of individuals willing to assist the state during an emergency.²⁰
 6. **Use alternate sites, such as surgery centers, closed rural hospitals, field hospitals or mobile testing units for dedicated COVID-19 or non-COVID-19 care.**
 - a. [Could Shuttered Rural Hospitals Reopen to Treat Pandemic?](#) 3/29/20, *Daily Yonder*.²¹
 - b. [More Than 5,000 Surgery Centers Can Now Serve As Makeshift Hospitals During COVID-19 Crisis](#), 3/30/20, *Kaiser Health News*.²²

Additional Resources

National organizations are compiling resources to understand the actions states are taking to address COVID-19 surge capacity. These resources are included for convenience, and contain links to executive orders, legislation and specific policy language.

- a. National Governors Association
 - a. [Coronavirus Resource Page](#): Includes general resources and a state action tracking chart²³

- b. [Gubernatorial Strategies for Health Care Workforce and Facility Capacity](#): Summarizes and provides state examples of strategies governors can implement to increase capacity of healthcare workers and facilities²⁴
- b. National Conference of State Legislatures
 - a. [State Action on Coronavirus \(COVID-19\)](#): Links to state legislation responding to COVID-19; updated daily²⁵
- c. Federation of State Medical Boards (as of 4/2/20)
 - a. [States Waiving In-State Licensure Requirements for Telehealth in Response to COVID-19](#)²⁶
 - b. [States Expediting Licenses for Retired Physicians](#)²⁷
 - c. [States Temporarily Waiving Licensure Requirements](#)²⁸
- d. National Council of State Boards of Nursing, [State Response to COVID-19](#) (as of 4/3/20)²⁹

Conclusion

State and federal policies are rapidly evolving to address the needs of the health system in meeting the expected surge of COVID-19 cases. As South Carolina officials and health systems determine how best to respond to the COVID-19 emergency, this brief provides examples of actions in other states and ideas for moving forward. Additional data on the geographic distribution of health professionals across the state and on specialty, role and practice setting are also available to inform discussion. The South Carolina Office for Healthcare Workforce within the South Carolina Area Health Education Consortium is available to support efforts to assess or understand the workforce during this critical time and will serve to facilitate the exchange of information and provide objective workforce data.

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Footnotes: Data Sources and Limitations

It is difficult to accurately estimate the current number of healthcare workers in the state and the number directly involved in COVID-19 care. Data in Table 1 may include individuals engaged in non-clinical activities, such as teaching or administration, and individuals that are not directly engaged with the treatment of COVID-19. The selected occupations may not be the only healthcare positions engaged in addressing COVID-19. As elective surgeries and routine procedures are being postponed and health systems are furloughing staff, clinical providers may have extra capacity and could be reassigned to other setting and other roles to help with COVID-19 response. Additionally, the data do not reflect workforce expansion enabled through recent Executive Orders.^{30,31}

Table 1 Data Sources:

- * South Carolina Office for Healthcare Workforce (OHW), with data derived from the SC Department of Revenue and Fiscal Affairs, collected from the South Carolina licensing boards under the SC Department of Labor, Licensing and Regulation. Data include health professionals licensed and with an active practice location in South Carolina. Physician data exclude residents-in-training and federal physicians. Social work data include licensed clinical social workers with a license designation of LISW-Clinical Practice, LISW-Advanced Practice, and LMSW. Specialty is based on self-reported primary specialty. Nurse data were collected during the 2016 renewal period; all other profession data were collected during their respective 2017 renewal period. Data do not include individuals newly licensed after the 2016 and 2017 renewal periods.
<https://www.scohw.org/docs/2019/SCOHW-Data-Book-2019.pdf>.
- † AAMC, 2018. 2018 Physician Specialty Data Report. Data includes active physicians in the US as of December 2017. <https://www.aamc.org/data-reports/workforce/interactive-data/number-people-active-physician-specialty-2017>. For the US, pulmonary disease and critical care includes “Pulmonary Disease” and “Critical Care Medicine”, which includes the AMA Physician Masterfile specialties of “Critical Care Medicine” and “Pulmonary Critical Care Medicine.”
- ‡ Bureau of Labor Statistics Occupational Employment Statistics. May 2018, https://www.bls.gov/oes/current/oes_nat.htm. Data from self-employed individuals are not collected and are not included in the estimates. Thus counts for some professions, such as psychologists, may be low. Data for social workers include Healthcare Social Workers (211022) and Mental Health and Substance Abuse Social Workers (211023). Data on counselors include substance abuse, behavioral disorder and mental health counselors.
- § U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. 2019. Brief Summary Results from the 2018 National Sample Survey of Registered Nurses, Rockville, Maryland. RSA, NSSRN, 2018.
<https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/nssrn-summary-report.pdf>.
- || Beck AJ, Page C, Buche J, Gaiser M. The Distribution of Advanced Practice Nurses Within the Psychiatric Workforce. *Journal of the American Psychiatric Nurses Association*. 2020;26(1):92-96.
<https://doi.org/10.1177/1078390319886366>.

References

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- ¹ <https://www.lung.org/blog/know-your-providers-pulmonologist>
 - ² <https://www.aarc.org/careers/what-is-an-rt/>
 - ³ <https://www.nursinglicensure.org/articles/nurse-anesthetists.html>
 - ⁴ [https://governor.sc.gov/sites/default/files/Documents/Executive-Orders/2020-03-13%20FILED%20Executive%20Order%20No.%202020-08%20-%20State%20of%20Emergency%20Due%20to%20Coronavirus%20\(COVID-19\).pdf](https://governor.sc.gov/sites/default/files/Documents/Executive-Orders/2020-03-13%20FILED%20Executive%20Order%20No.%202020-08%20-%20State%20of%20Emergency%20Due%20to%20Coronavirus%20(COVID-19).pdf)
 - ⁵ <https://llr.sc.gov/med/pdf/MedicalBoardOrder3-14-2020Signed.pdf>

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- ⁶ <https://llr.sc.gov/nurse/pdf/Nursing%20Board%20Order%203-14-2020%20Signed.pdf>
 - ⁷ https://llr.sc.gov/nurse/pdf/PUBLIC%20HEALTH%20STATE%20OF%20EMERGENCY%20ORDER%202020_BON_PH_2.pdf
 - ⁸ <https://governor.sc.gov/sites/default/files/Documents/Executive-Orders/2020-03-28%20eFILED%20Executive%20Order%20No.%202020-15%20-%20State%20of%20Emergency%20Due%20to%20COVID-19%20Pandemic.pdf>
 - ⁹ <https://www.scstatehouse.gov/code/t44c004.php>
 - ¹⁰ <https://scha.org/helpnow/>
 - ¹¹ <https://www.healthaffairs.org/doi/10.1377/hblog20200327.714037/full/>
 - ¹² https://content.govdelivery.com/attachments/MIEOG/2020/03/29/file_attachments/1413927/EO%202020-30.pdf
 - ¹³ <https://www.usatoday.com/story/news/nation/2020/03/27/coronavirus-hospitals-face-shortages-respiratory-therapists-run-ventilators/2914635001/>
 - ¹⁴ https://content.govdelivery.com/attachments/MIEOG/2020/03/29/file_attachments/1413927/EO%202020-30.pdf
 - ¹⁵ <https://sos.ga.gov/index.php/licensing/plb/45>
 - ¹⁶ <https://www.healthaffairs.org/doi/10.1377/hblog20200326.510173/full/>
 - ¹⁷ <https://www.nytimes.com/2020/04/03/nyregion/new-york-coronavirus-doctors.html>
 - ¹⁸ <https://www.bostonherald.com/2020/04/05/massachusetts-hospitals-prep-for-coronavirus-surge-convert-facilities-reassign-docs>
 - ¹⁹ <https://covid19.ca.gov/healthcorps/>
 - ²⁰ https://www.health.ny.gov/environmental/emergency/roll_up_your_sleeves_and_servny.htm
 - ²¹ <https://www.dailyyonder.com/could-shuttered-rural-hospitals-reopen-to-treat-pandemic/2020/03/29/>
 - ²² <https://khn.org/news/more-than-5000-surgery-centers-can-now-serve-as-makeshift-hospitals-during-covid-19-crisis/>
 - ²³ <https://www.nga.org/coronavirus/#glance>
 - ²⁴ <https://www.nga.org/wp-content/uploads/2020/03/NGA-Health-Workforce-and-Facility-Memo-Final-formatted.pdf>
 - ²⁵ <https://www.ncsl.org/research/health/state-action-on-coronavirus-covid-19.aspx>
 - ²⁶ <http://www.fsmb.org/siteassets/advocacy/pdf/states-waiving-licensure-requirements-for-telehealth-in-response-to-covid-19.pdf>
 - ²⁷ <http://www.fsmb.org/siteassets/advocacy/pdf/states-expediting-licensure-for-inactive-retired-licensees-in-response-to-covid19.pdf>
 - ²⁸ <http://www.fsmb.org/siteassets/advocacy/pdf/state-emergency-declarations-licensures-requirementscovid-19.pdf>
 - ²⁹ https://www.ncsbn.org/State_COVID-19_Response.pdf
 - ³⁰ <https://llr.sc.gov/med/pdf/MedicalBoardOrder3-14-2020Signed.pdf>; <https://llr.sc.gov/nurse/pdf/Nursing%20Board%20Order%203-14-2020%20Signed.pdf>; <https://governor.sc.gov/news/2020-03/south-carolina-medical-and-nursing-boards-issue-emergency-licenses>
 - ³¹ <https://www.scstatehouse.gov/code/t44c004.php>