

The Physical Therapist Workforce in the U.S.:

Supply, Distribution, Education Pathways, and State Responses to the COVID-19 Emergency

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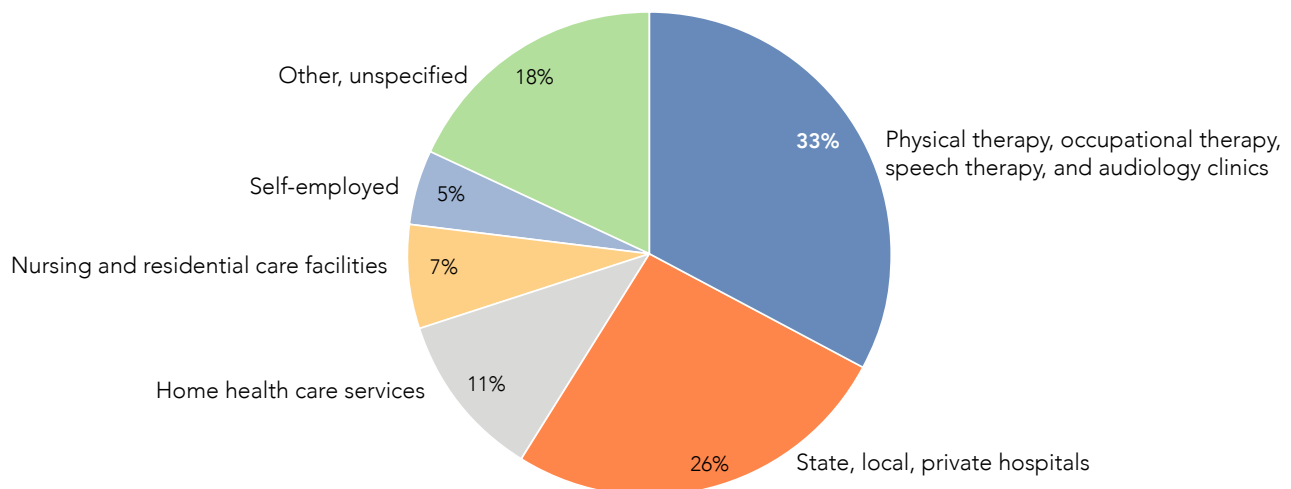
Practice Scope and Settings

The traditional role of physical therapists is to prescribe exercises and provide hands-on care to help patients develop, maintain, and restore functional ability that may be limited by injuries, aging, and chronic or progressive diseases.¹⁻³ For example, physical therapists prescribe range-of-motion and muscle-strengthening exercises after orthopedic surgery, assist patients in regaining coordination and balance after a stroke or brain injury through exercises aimed at relearning specific tasks, and develop treatment plans for athletes after sports-related injuries and surgeries. Physical therapists may also provide preventive care, rehabilitation, education, and treatment for those with chronic conditions including scoliosis, arthritis, obesity, amputations, and cerebral palsy.^{1,2}

Physical therapists practice in a broad range of settings.

Figure 1 shows the distribution of practice locations for physical therapists according to the U.S. Bureau of Labor Statistics: 33% work in physical therapy, occupational therapy, speech therapy, and audiology clinics, 26% in hospital settings, 11% in home health care services, 7% in nursing and residential care facilities, and 5% are self-employed.¹ The remaining 18% work in academic, educational and research centers; health insurance, health policy and health care administration; sports training facilities; on professional sports teams; and in school settings.¹⁻³

Figure 1. Work Locations of Physical Therapists, 2018



Data source: U.S. Bureau of Labor Statistics, Occupational Outlook Handbook; American Physical Therapy Association, Career Handbook; Mayo Clinic. Explore Health Care Careers.

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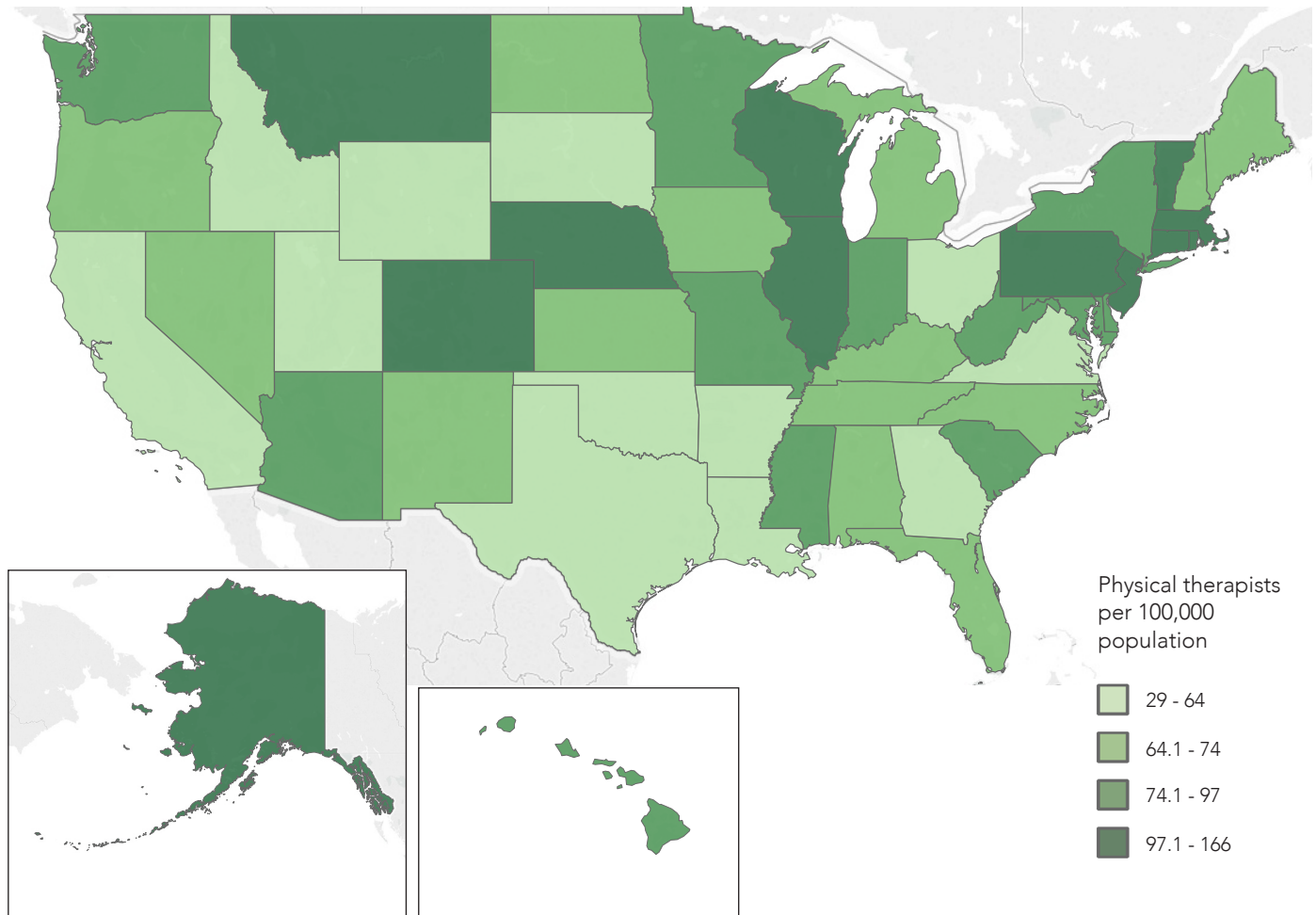
Patients in all 50 states are allowed direct access to physical therapists, although provisions vary across states and may limit access. Twenty states provide unrestricted access and do not require a primary care provider (PCP) referral, 27 states allow access with provisions such as time or visit limitations and referral requirements for treatments such as spinal manipulation, and three states restrict treatments to patients with a previous medical diagnosis or a previous PCP referral.⁴ Regardless of state regulations, insurance plans may still require referrals or limit the number of physical therapy visits for certain conditions.⁵ A growing body of evidence is emerging which demonstrates that direct and/or early access to physical therapists may reduce costs and unnecessary use of health services and opioids, particularly for patients with low back pain.^{6,7}

Supply and Distribution

An estimated 227,700 physical therapists were practicing in the U.S. as of May 2019.¹ **Figure 2** shows the number of physical therapists per 100,000 population in each state and **Figure 3** shows state ranking by the number of physical therapists per 100,000 population in 2017.^{8,9} According to the U.S. Bureau of Labor Statistics, employment of physical therapists was projected to grow 22% between 2018 and 2020,¹ however, the COVID-19 pandemic will likely impact these employment projections.¹⁰

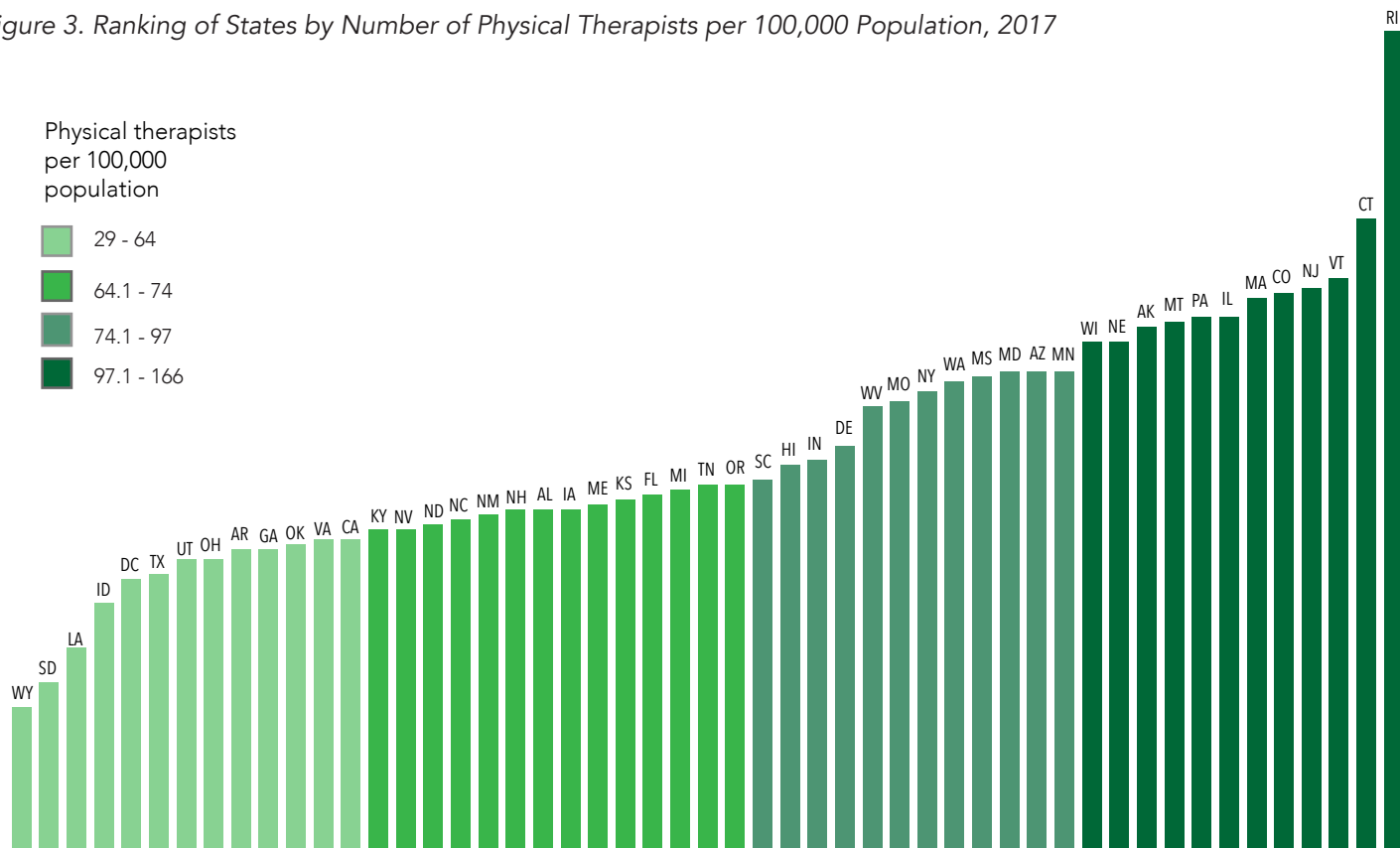
Over the long term, the aging of the U.S. population is expected to contribute to a growing need for physical therapists and rehabilitative care given that older people are disproportionately affected by conditions such as arthritis and stroke which benefit from physical therapy. Additionally, baby boomers – those born between 1945-1965 – are more active later in life than their counterparts in previous generations, leading to more exercise-related injuries and joint injuries and replacements.^{11,12}

Figure 2. Physical Therapists per 100,000 Population by U.S. State, 2017



Data source: American Community Survey (ACS), Integrated Public Use Microdata Series (IPUMS), Version 10.0; ACS Demographic and Housing Estimates, Table DP02. Due to small sample sizes, estimates should be interpreted with caution in 16 states (RI, AL, AR, NV, NE, NH, IA, NM, ID, WV, DE, HI, ME, VT, SD, MT) and are unreliable in 3 states (AK, WY, ND) and the District of Columbia.

Figure 3. Ranking of States by Number of Physical Therapists per 100,000 Population, 2017



Data source: American Community Survey (ACS), Integrated Public Use Microdata Series (IPUMS), Version 10.0; ACS Demographic and Housing Estimates, Table DP02. Due to small sample sizes, estimates should be interpreted with caution in 16 states (RI, AL, AR, NV, NE, NH, IA, NM, ID, WV, DE, HI, ME, VT, SD, MT) and are unreliable in 3 states (AK, WY, ND) and the District of Columbia.

Demographics

In 2017, the mean age of physical therapists was 41.0 years and two-thirds were female (66.6%). Black physical therapists were underrepresented compared to the general U.S. population (3.2% vs. 12.7%). White (81.9% vs. 73.0%) and Asian (11.2% vs. 5.4%) physical therapists were overrepresented compared to the general U.S. population. Only 5.5% of physical therapists were Hispanic regardless of race compared to 17.6% in the general population.^{8,9}

Education and Licensure

A three-year professional degree, the Doctor of Physical Therapy (DPT), is currently the minimum educational requirement for a physical therapy license.² Bachelor's- and master's-level programs were phased out in 2002 and 2015, respectively. Physical therapists with bachelor's or master's degrees in the field prior to those dates can maintain their licenses without additional education, and transitional DPT programs are offered nationally to enhance the knowledge and skills of licensed physical therapists to the doctoral level.¹³

Most DPT programs require a bachelor's degree for admission and are completed in three years. Some universities offer an accelerated path called a "3+3 curriculum" in which students who have fulfilled advanced science and math requirements can complete three years of pre-physical therapy classes followed by the three-year professional DPT program.² The Commission on Accreditation of Physical Therapy Education (CAPTE) requires that all accredited entry-level DPT programs provide a minimum of 30 weeks of full-time clinical education training and students must also pass didactic courses to graduate.¹⁴ In 2019, 10,979 students graduated from 212 accredited DPT programs.¹⁵

To practice in the U.S., physical therapists must pass the National Physical Therapy Examination, administered by the Federation of State Boards of Physical Therapy.^{2,16} After licensure, physical therapists may specialize through **certifications**, **residencies** and **fellowships**, described below.

- Licensed physical therapists with at least 2,000 hours of hands-on physical therapy clinical experience and who meet specialty certification eligibility requirements, may take specialty certification exams through the American Board of Physical Therapy Specialties (ABPTS). Board certification is available in numerous specialty areas including geriatrics, neurology, oncology, cardiovascular and pulmonary, clinical electrophysiology, orthopedics, pediatrics, sports, women's health, and wound management. As of June 2020, 30,041 individuals have achieved board certification as clinical specialists in physical therapy.¹⁷
- **Residencies** are a post-professional learning experience in advanced physical therapy practice that typically take 12 months to complete. Residency programs prepare licensed physical therapists to sit for the board certification examination in their specialty area.^{17,18} Approximately 12% of DPT graduates apply for residencies upon graduation, however, program entry is highly competitive.¹⁹ Between 1999 and 2019, 5,470 physical therapists completed residency programs.²⁰
- **Fellowships** provide additional subspecialty training in nine clinical areas including hand therapy, management of Division 1 athletics, neonatology, and physical therapy of the upper extremity.²¹ Fellowship training takes between 11 and 36 months to complete and further prepares physical therapists for a subspecialized area of clinical practice.²² Approximately 2,300 physical therapists have completed fellowship programs since 1999.²⁰

Impact of the COVID-19 Emergency on Physical Therapists and Their Scope of Practice

A primary impact of the COVID-19 emergency on physical therapists has been an involuntarily reduction of employment due to a decline in elective surgeries and the closure of many sites where physical therapy is delivered.^{10,23,24} There may be opportunities, however, to better engage physical therapists in patient care at a time when many practices are closed or struggling to stay open. Among the ways physical therapists have adapted to the challenges of the pandemic include expanding their use of telehealth and directly participating in the care of COVID-19 patients by, for example, co-developing hospital-based proning teams to facilitate breathing for COVID-19 patients and providing long-term recovery care.

Economic impact of COVID-19

In an effort to limit the exposure of patients and medical personnel to the coronavirus and to conserve critical resources such as ventilators and personal protective equipment (PPE), an estimated 65-72% of elective surgeries were postponed or cancelled in March and April of 2020 compared to the same period in 2019.^{25,26} Orthopedic procedures such as knee and hip replacements, which often require physical therapy, were the most frequently cancelled or postponed procedures.^{25,27}

Several months after the onset of the pandemic, states began allowing elective surgeries to resume as long as certain conditions, such as the availability of PPE and COVID-19 testing, were met.²⁸ National surveys conducted by the American Physical Therapy Association (APTA) report that in April and May 2020, 54% of physical therapists had experienced a decline in work hours since the start of the pandemic. In July 2020, 36% of physical therapists reported a decline in hours and 7% reported they had been laid off, 16% had been furloughed, and 2% had resigned or quit.¹⁰ Nearly three-quarters (72%) of physical therapy practice owners reported revenue losses of greater than 50% early in the pandemic. By July 2020, 34% of owners reported revenue losses of 50% or more, with 40% still seeing reductions of between 26% and 50%.¹⁰

Expansion and reimbursements for telehealth

The APTA reports that 98% of physical therapists did not provide telehealth consults with patients before the COVID-19 emergency. By July 2020, 47% reported using telehealth, a proportion that is likely to rise over the course of the pandemic.¹⁰

Policy changes due to the COVID-19 emergency have facilitated the increase in telehealth usage. In March 2020, legislative changes allowed physical therapists to bill Medicare for telehealth services for the first time and to bill at the same rate as in-person services.²⁹ New policies also allow physical therapists to provide telehealth services from their home while continuing to bill from their office location (to avoid reporting their home address on their Medicare enrollment). These reimbursement structures will remain in place for the duration of the COVID-19 crisis and legislative efforts are underway to make Medicaid telehealth reimbursements permanent.³⁰ Many states additionally require private insurance companies to reimburse for telehealth.³¹

Despite the benefits of telehealth, including the opportunity to receive medical attention without risking exposure to the virus, physical therapists face unique challenges in the use of telehealth. Common evidenced-based physical therapist interventions such as manual therapy, transcutaneous electrical nerve stimulation and hands-on exercise instruction must be delivered in person.^{32,33} Additional evaluation and research can help determine the optimal use of telehealth in physical therapy and inform decisions about its post-pandemic use.^{34,35}

Proning and mobility teams

Physical therapists' expertise in movement and body mechanics enables them to guide general positioning of COVID-19 patients. "Proning and mobility teams" including physical therapists have formed in some hospitals which involve placing COVID-19 patients on their stomach as an alternative to, or in conjunction with, mechanical ventilation. Research suggests that proning helps oxygenate the patient by reducing the pressure on the diaphragm and lungs, aids in draining lung fluids, and improves the effectiveness of the right heart ventricle which supplies the lungs with blood.³⁶⁻³⁹ Moving patients – who are often heavily sedated – onto their stomach takes a team of up to eight people consisting of some combination of nurses, physical or occupational therapists, physical therapy assistants, and a clinician who can reintubate the patient if needed.³⁷⁻³⁹

Physical therapists' role in long-term patient recovery from COVID-19

Physical therapists are routinely involved in rehabilitating patients after lengthy and intense illnesses. COVID-19 patients, however, may face particularly arduous recoveries in part because underlying medical conditions such as diabetes and heart disease often complicate their recovery and because the virus can attack multiple body systems including the kidneys, liver, circulatory system, and lungs.⁴⁰⁻⁴²

Physical therapists around the country are working with COVID-19 patients who were intubated or immobilized for long periods to relearn functional tasks and recover the ability to progress from laying in bed to sitting, standing, and walking.^{40,41} Approximately one-fifth (19%) of patients with known coronavirus are hospitalized, and of these 6% are admitted to the intensive care unit.⁴³ Thus, the size of the pandemic (9.4 million cases as of November 2020⁴⁴) may result in thousands of patients who need physical therapy in order to facilitate a full recovery or manage the long-term sequelae of COVID-19 infections.

Examples of State Approaches for Emergency Increases to Physical Therapist Workforce

Re-activate licenses for physical therapists who have recently left practice

- Pennsylvania,⁴⁵ Nebraska,⁴⁶ New Jersey⁴⁶

Waiver and deferral of continuing education requirements

- Arizona: Continuing education requirements extended for six months unless those requirements can be completed online.⁴⁷
- Arkansas: Requirement of continuing education waived for the 2021 renewal.⁴⁸
- Utah: Temporary suspension of in-person continuing education requirements until October 2020.⁴⁹

Expedite student transition into practice

- Delaware: Students currently enrolled in, or graduates of, an approved physical therapy program who are not yet licensed can practice under the supervision of a licensed physical therapist.⁵⁰
- Pennsylvania: Graduation-before-licensure-examination requirements are suspended for the duration of the COVID-19 emergency. Physical therapy students who have completed their didactic education but have not completed clinical education can take the national licensure exams up to 180 days before graduation.⁵¹

Extend license expiration dates

- Arizona: Licenses which expire between March and August 2020 extended for six months.⁴⁷
- Kansas: Licenses extended for the duration of the pandemic.⁴⁶

Out-of-state reciprocal licenses

- Wisconsin: Physical therapists with a valid and current license in another state may practice in Wisconsin without first obtaining a temporary or permanent license.⁵⁰

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