



State of the U.S. Health Care Workforce, 2023

May 2024

High-quality health care starts with a well-trained, adequately supplied, and well-distributed health care workforce. This brief provides detailed data on the occupations within three major health care disciplines in the U.S. health care workforce: medicine, nursing, and oral health. For these critical occupations, this brief presents the most recent data on adequacy, distribution, and the educational pipeline of these future health care providers. It also provides summary data for additional health care disciplines, including behavioral health, allied health, and health support occupations.

Finally, this report examines recent changes in the U.S. health care system and care delivery, such as the rise of telehealth and other technological innovations, and how these changes have impacted the health care workforce.

Highlights include:

- There are over 4 million registered nurses (RNs), licensed practical nurses (LPNs), and advanced practice registered nurses (APRNs) as of 2022. The number of RNs increased by 3% between 2018 and 2022. During that period, the number of nurse practitioners (NPs) and nurse midwives (NMs) grew by about 38% and 21%, respectively, while the number of licensed practical nurses (LPNs) declined by over 9%.
- A total of 897,151 physicians are professionally active, of which 777,143 are reported as patient care practicing physicians.¹ Internists and family medicine physicians together constitute almost a quarter of all patient care practicing physicians.
- About 38% of practicing physicians identify as female. In medical schools, female students now comprise a larger proportion of total enrollment than males.
- Across all physician specialties in the United States, there is a projected shortage of 139,940 full-time equivalent (FTE) physicians in 2036. Nonmetro areas will experience greater shortages of physicians than metro areas.
- The nation's oral health workforce, comprised of dentists, dental hygienists, and dental assistants, totaled nearly 714,000 workers in 2021, up from 696,000 in 2017.
- A shortage of 23,320 FTEs dental hygienists and 8,790 FTEs general dentists is projected for 2036.

About the National Center for Health Workforce Analysis

The National Center for Health Workforce Analysis informs public and private sector decision makers on health workforce issues by expanding and improving health workforce data, disseminating workforce data to the public, and improving and updating projections of the supply and demand for health workers.

For more information, visit the [Health Workforce Analysis](#) webpage.

Describing the Health Care Workforce

The health care industry employed 16.3 million people in 2022, making it the largest employment sector in the United States.² It comprises a wide range of skilled professionals with varying levels of education and training. In 2021, the United States spent \$12,914 per person on health care, which amounts to 18.3% of its gross domestic product (GDP).³ Health care spending in the United States is higher than in any other major economy, both in absolute dollar terms and relative to GDP.

Challenges Facing the U.S. Health Care Workforce

Current Shortages

As of November 20, 2023, approximately 102 million people live in a primary care Health Professional Shortage Area (HPSA), and 77 million people live in a dental health HPSA. A total of 167 million people, almost half of the United States, live in a mental health HPSA.⁴ In addition, the maldistribution of the health care workforce results in severe shortages in rural communities.

Burnout and Mental Health

High stress and burnout have long been issues for the health care workforce.⁵ The COVID-19 pandemic further exacerbated the issue as frontline workers experienced long hours, exhaustion, increased exposure to death and suffering, and fear for their own health and safety.⁶ A survey of more than 20,000 U.S. health care workers between May and October 2020 found high levels of burnout across a range of health care professions. Overall, 49% of respondents reported feelings of burnout, while 43% felt overworked.⁷

A Mayo Clinic survey found that nearly 63% of physicians experienced burnout in 2021, a significant increase in the share of physicians experiencing burnout from 2017 (44%) and 2020 (38%).⁸ Similarly, a recent survey found that 23% of physicians reported feelings of depression compared to 15% in 2018.⁹

A 2022 survey by the National Council of State Boards of Nursing (NCSBN) found that 45% of RNs and 45% of LPNs experienced feelings of burnout at least a few times a week during 2022.¹⁰ A 2021 survey found that 71% of dentists reported an increase in feelings of burnout since the start of the pandemic, with 58% indicating they experienced feelings of burnout at least a few times a week.¹¹

Job and Career Satisfaction

The high levels of stress and burnout have led many health care workers to question their career choice. A Mayo Clinic survey revealed that physicians' satisfaction with work-life balance and professional fulfillment declined during the COVID-19 pandemic. As a result, in 2021, only 57.1% of physicians said they would become a physician again if given the chance to revisit their career choice, down from 72.2% in 2020.¹²

Physicians were not the only health professionals with declines in job or career satisfaction due to the COVID-19 pandemic. More than one-quarter of health care workers surveyed (28.7%) and 41% of nurses intended to leave their jobs within two years.¹³ Another survey found that 55% of health care workers and 41% of first responders indicated that the COVID-19 pandemic had decreased their likelihood of remaining in their current profession.¹⁴ This attrition could further exacerbate existing shortages and maldistributions of providers and place further stress on the health care system.

Aging of the Workforce and Population

The trends of an aging workforce and population raise concerns of worsening shortage of the workforce. The average age of RNs in the United States is 43.6 years old¹⁵, and 47% of all active physicians in 2021 were age 55 or older.¹⁶ This circumstance creates shortages as more professionals retire and many other reduce their working hours, while the demand for medical care accelerates as the population ages.

In 2022, 17% of the U.S. population (58 million) was aged 65 and older. In 2050, about 23% (82 million) of the U.S. population will be age 65 and older.¹⁷ Providers will need to have the skills and training to serve this older population and the type of care that they will be seeking.

While the U.S. health workforce faces a number of challenges, there are also encouraging signs. Medical school enrollment has increased nearly 6% between the 2018-19 and 2022-23 academic years and the number of female medical students increased by 15% over this same period. Similarly, the number of newly licensed RNs each year increased by 18% between 2018 and 2022. These numbers suggest continued interest in health care careers and continued growth in the workforce.

This report provides extensive data on the current state of nurses, physicians, and dentists in the United States. The data are for 2021 unless indicated otherwise.

Medicine

A total of 897,151 physicians were professionally active in 2021 of which 777,143 were reported as providing patient care.¹⁸ Internists and family medicine physicians together constitute almost a quarter of all patient care physicians (Tables 1a-1d).

Table 1a. Enumeration of Physicians in Primary Care Specialties, 2021

Specialty	Total Professionally Active Physicians	Total Patient Care Physicians
Family Medicine	104,054	98,429
General Internal Medicine	101,397	93,966
Geriatrics	5,320	4,810
Pediatrics	57,526	54,040
All Primary Care	268,297	251,245

Source: HRSA's calculations using data from the 2021 American Medical Association (AMA) Masterfile.
Note: Data includes both MDs and DOs and excludes residents. In 2021, there were 151,792 residents.

Table 1b. Enumeration of Physicians in Medical Specialties, 2021

Specialty	Total Professionally Active Physicians	Total Patient Care Physicians
Allergy and Immunology	5,050	4,389
Cardiology	31,794	28,400
Critical Care Medicine	15,465	13,035
Dermatology	12,194	11,262
Endocrinology	10,250	8,292
Gastroenterology	17,497	15,520
Hematology and Oncology	19,631	15,971
Infectious Diseases	11,559	8,882
Neonatology	6,296	5,337
Nephrology	12,613	10,986
Pulmonology	5,844	5,114
Rheumatology	6,771	5,686
All Medical Specialties	154,964	132,874

Source: HRSA's calculations using data from the 2021 American Medical Association (AMA) Masterfile.
Note: Data includes both MDs and DOs and excludes residents. In 2021, there were 151,792 residents.

Table 1c. Enumeration of Physicians in Surgical Specialties, 2021

Specialty	Total Professionally Active Physicians	Total Patient Care Physicians
Colorectal Surgery	2,372	2,153
General Surgery	27,540	23,623
Neurological Surgery	5,626	5,102
Obstetrics and Gynecology	43,706	40,554

Specialty	Total Professionally Active Physicians	Total Patient Care Physicians
Ophthalmology	17,822	16,506
Orthopedic Surgery	26,223	24,688
Otolaryngology	9,896	9,179
Plastic Surgery	9,087	8,644
Thoracic Surgery	4,493	4,116
Urology	9,738	9,133
Vascular Surgery	4,892	4,479
All Surgical Specialties	161,395	148,177

Source: HRSA's calculations using data from the 2021 American Medical Association (AMA) Masterfile.
Note: Data includes both MDs and DOs and excludes residents. In 2021, there were 151,792 residents.

Table 1d. Enumeration of Physicians in Other Specialties, 2021

Specialty	Total Professionally Active Physicians	Total Patient Care Physicians
Anesthesiology	49,550	45,134
Emergency Medicine	53,360	48,434
Neurology	18,485	15,323
Pathology	19,531	12,782
Physical Medicine and Rehabilitation	10,284	9,324
Psychiatry	46,326	40,373
Radiation Oncology	5,150	4,663
Radiology	37,363	32,609
Other Specialties	72,446	36,205
All Other Specialties	312,495	244,847

Source: HRSA's calculations using data from the 2021 American Medical Association (AMA) Masterfile.
Note: Data includes both MDs and DOs and excludes residents. In 2021, there were 151,792 residents.

Approximately 38% of practicing physicians identify as female. Male physicians are more likely to be age 55 and older than female physicians. While 48% of male physicians are age 55 and older, only 31% of female physicians are in that age range. Overall, the average age of physicians was 51.6 in 2021. Compared to the U.S. population, a greater percentage of physicians are Asian (21% compared to 6%). In contrast, the share of Hispanics (7%) and Black and African Americans (5%) in the physician workforce is lower than in the U.S. population. See Tables 2a, 2b, and 2c.

Table 2a. Distribution of Physicians by Gender, 2021

Group	Male	Female
Physician Workforce	61.8%	38.2%
Overall U.S. Population	49.5%	50.5%

Source: HRSA calculations using data from the U.S. Census Bureau and AMA Masterfile.
Note: Excludes physicians with unknown gender. Data excludes residents.

Table 2b. Distribution of Physicians by Age, 2021

Gender	Less than 35 Years Old	35 to 44 Years Old	45 to 54 Years Old	55 to 64 Years Old	65 or Older
Male	5%	22%	25%	27%	21%
Female	8%	33%	28%	21%	10%

Source: HRSA calculations using data from the U.S. Census Bureau and AMA Masterfile.

Note: Excludes physicians with unknown gender. Data excludes residents.

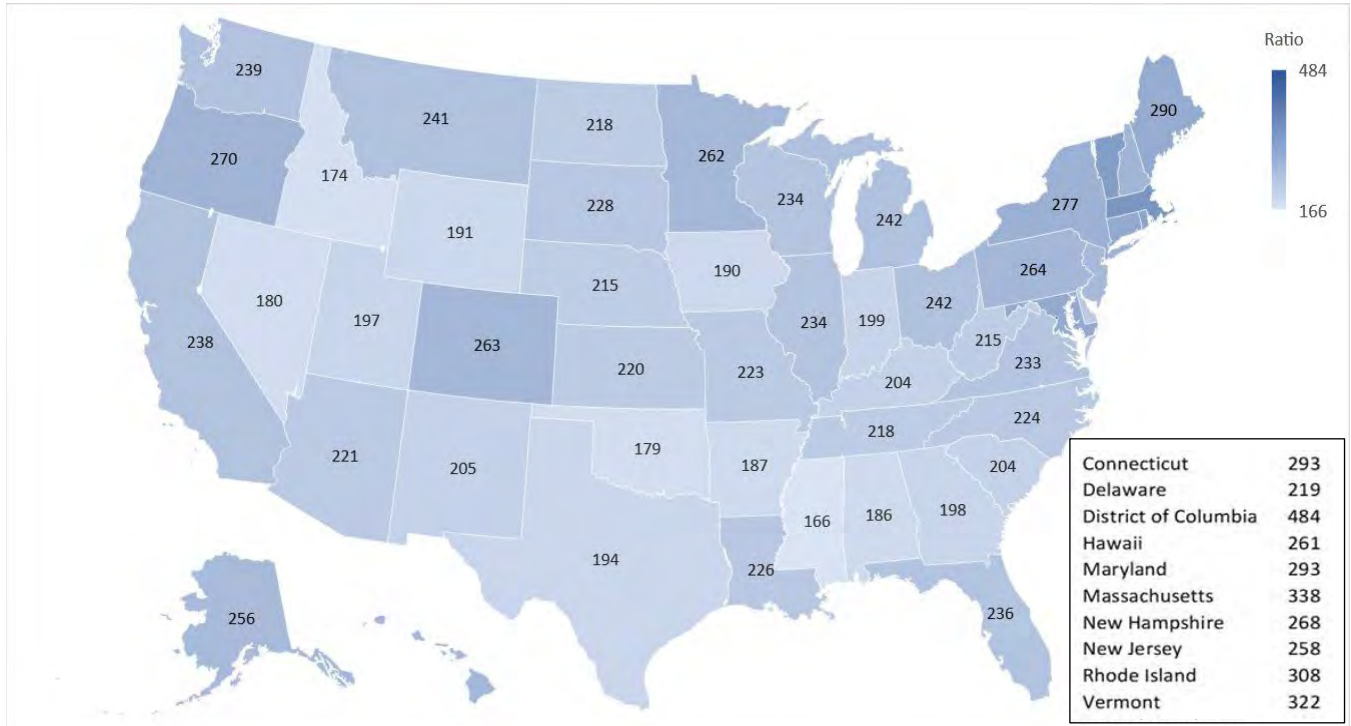
Table 2c. Distribution of Physicians by Race/Ethnicity

Race/Ethnicity	Physician Workforce	U.S. Population
Hispanic	7%	18%
White, Non-Hispanic	63%	59%
Black or African American, Non-Hispanic	5%	12%
Asian, Non-Hispanic	21%	6%
Other or Multiple Races, Non-Hispanic	3%	4%

Source: HRSA calculations using data from the U.S. Census Bureau, *American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files*.

The supply of physicians varies significantly across states, even after adjusting for the differences in population size among the states. The highest concentration of physicians exists in Washington, DC, followed by Massachusetts and Vermont. Mississippi, Idaho, and Oklahoma have the lowest number of practicing physicians per capita.

Figure 1. Distribution of Patient Care Practicing Physicians per 100,000 Population by State, 2021



Source: HRSA calculations using data from the U.S. Census Bureau and AMA Masterfile.

Note: Data includes both MDs and DOs and excludes residents. In 2021, there were 151,792 residents.

Approximately 72% of professionally active physicians work in office-based patient care settings, while 15% work in hospitals.¹⁹

Nationally, across all physician specialties in the United States, there is a projected shortage of 139,940 FTE physicians in 2036. Nonmetro areas will experience greater shortages of various types of physicians than metro areas. See the brief on [Workforce Projections for Physicians](#) for more details.

The number of medical students has increased by about 6% over the past five years. The growth varies considerably by gender (Table 3). While the number of female medical school students has grown by approximately 15% between 2018 and 2023, the number of male medical students decreased by over 3%. As a result, female students now constitute 54% of medical school enrollment in 2022-2023.

Table 3. Total Enrollment in Medical School by Gender, 2018-2023

Academic Year	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2018-2023 Percent Change
Men	46,058	45,791	45,588	45,043	44,565	-3.2%
Women	45,166	46,840	48,472	50,292	51,890	14.9%
Total Enrollment	91,225	92,635	94,086	95,379	96,520	5.8%

Source: AAMC data tables. Students who declined to report gender are only reflected in Total Enrollment. Therefore, the sum for men and women may not equal to counts shown in the Total Enrollment row.

Nursing

Nursing is the nation's largest health care profession, with more than four million RNs, LPNs, and advanced practice registered nurses (APRNs) in the workforce in 2022. The nursing workforce increased by 2.6% over the past five years (Table 4). Over that period, the number of APRNs, particularly NPs and NAs, grew faster than the number of RNs. The number of LPNs declined each year and by 9.1% over the past five years.

Table 4. Enumeration of Nursing Workforce, 2018-2022

Nurse Type	2018	2019	2020	2021	2022	% Change 2018-22
Registered Nurses*	2,982,370	3,014,280	3,001,270	3,047,530	3,072,700	3.0%
Licensed Practical/Vocational Nurses	695,280	687,930	672,710	641,240	632,020	-9.1%
Advanced Practice Registered Nurses						
Nurse Practitioners	187,500	206,800	221,890	234,690	258,230	37.7%
Nurse Anesthetists	45,120	44,110	44,500	43,950	46,540	3.1%
Nurse Midwives	6,580	7,160	7,080	7,750	7,950	20.8%
Total Nursing Workforce	3,916,850	3,960,280	3,947,450	3,975,160	4,017,440	2.6%

Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, various years. Available at: <https://www.bls.gov/oes/tables.htm>. Does not include self-employed nurses.

Note: Beginning with the May 2021 release, Occupational Employment and Wage Statistics estimates were produced by a model-based estimation method using three years of OEWS data (MB3). For consistency, the data for 2018-2020 presented here were produced using the same methodology and can be downloaded at <https://www.bls.gov/oes/oes-mb3-methods.htm>.

*Includes Clinical Nurse Specialists.

Compared to the U.S. population, a greater percentage of nurses are Black or African American (14% compared to 12%) and Asian (8% compared to 6%; Table 5). These numbers vary considerably by type of nurse, with LPNs having the highest percentages of Hispanics (13%) and Blacks (26%).

Table 5. Nursing Workforce by Race/Ethnicity

Nurse Type	Hispanic	White (Non-Hispanic)	Black or African American (Non-Hispanic)	Asian (Non-Hispanic)	Other or Multiple Races (Non-Hispanic)
Overall Nursing Workforce	8.8%	66.0%	13.7%	8.3%	3.2%
Registered Nurses*	8.1%	68.0%	11.5%	9.2%	3.2%
Licensed Practical / Vocational Nurses	12.6%	52.7%	26.2%	4.9%	3.5%
Advanced Practice Registered Nurses	6.1%	77.5%	7.2%	6.3%	2.9%
Overall U.S. Population	18.4%	59.4%	12.2%	5.6%	4.3%

Source: HRSA calculations using data from the U.S. Census Bureau, *American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files*.

* Includes Clinical Nurse Specialists.

The majority of nurses of all types are women (Table 6). In fact, 88% of the nursing workforce is female, compared with 51% of the overall U.S. population.

Table 6. Nursing Workforce by Gender

Nurse Type	Male	Female
Overall Nursing Workforce	12.0%	88.0%
Registered Nurses*	11.7%	88.3%
Licensed Practical/Vocational Nurses	12.2%	87.8%
Advanced Practice Registered Nurses	15.7%	84.3%
Overall U.S. Population	49.5%	50.5%

Source: HRSA calculations using data from the U.S. Census Bureau, *American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files*.

* Includes Clinical Nurse Specialists.

The average age of RNs in the United States is 43.6 years, compared to 44.5 for APRNs and 43.1 for LPNs (Table 7). LPNs are relatively younger than RNs and APRNs. This is not surprising as many LPNs go on to become RNs and many RNs go on to become APRNs.²⁰ Overall, 42% of the nursing workforce is under the age of 40.

Table 7. Nursing Workforce, Average Age and Age Distribution

	Average Age	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 or Older
Overall Nursing Workforce	43.6	16.7%	25.7%	23.2%	20.4%	14.0%
Registered Nurses*	43.6	16.8%	25.6%	23.0%	20.5%	14.0%
Licensed Practical / Vocational Nurses	43.1	20.1%	22.9%	22.2%	20.5%	14.2%
Advanced Practice Registered Nurses	44.5	5.6%	34.5%	27.5%	18.8%	13.5%
Overall U.S. Population	38.9	38.6%	13.5%	12.5%	13.0%	22.4%

Source: HRSA calculations using data from the U.S. Census Bureau, *American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files*.

* Includes Clinical Nurse Specialists.

Nurses work in several roles in the U.S. health care system, ranging from administration and education to a variety of patient care roles. According to the 2022 National Sample Survey of Registered Nurses (NSSRN), approximately 85% of RNs (including APRNs) had patient care responsibilities in 2021.²¹ RNs with patient care responsibilities work in a variety of settings and specialties (Table 8).

Table 8. Clinical Specialties of RNs, Including APRNs, 2021

Clinical Specialty	Count of RNs	Percentage
General Medical Surgical	399,864	13.7%
Surgery, Pre-Operative, or Anesthesia	302,775	10.3%
Critical Care or Intensive Care	302,463	10.3%
Emergency or Trauma Care	224,047	7.7%
Ambulatory Care - Primary Care	182,927	6.2%
Cardiac or Cardiovascular Care	177,117	6.0%
Home Health or Hospice	160,647	5.5%
Labor and Delivery or Neonatal Care	130,785	4.5%
Psychiatric or Mental Health	126,175	4.3%
Ambulatory Care - Specialty Care	125,365	4.3%
Oncology	106,370	3.6%
School Health Service (K-12 or Post-Secondary)	84,304	2.9%
Obstetrics and Gynecology	65,790	2.2%
Community or Public Health	64,403	2.2%
Rehabilitation	63,829	2.2%
Renal or Dialysis	57,520	2.0%
Chronic Care	52,419	1.8%
Gastrointestinal	36,047	1.2%
Neurological	33,803	1.2%
Orthopedics	33,737	1.2%
Infectious or Communicable Disease	19,705	0.7%
Pulmonary or Respiratory	16,445	0.6%
Occupational Health	15,422	0.5%
Substance Use Disorder	14,571	0.5%
Other	132,141	4.5%

Source: Health Resources and Services Administration, National Center for Health Workforce Analysis, <https://bhw.hrsa.gov/data-research/access-data-tools/national-sample-survey-registered-nurses>.

The National Center for Health Workforce Analysis (NCHWA) projects a 9% shortage of RNs nationwide and a 14% shortage in nonmetro areas in 2036. The demand for LPNs is projected to grow faster than supply between 2021 and 2036, resulting in a projected shortage of 99,070 LPN FTEs (a 12% shortage) in 2036.²²

A strong pipeline of new graduates is crucial to ensuring the future of the nursing profession. The number of candidates taking the National Council Licensure Examination for RNs (NCLEX-RN), the national licensure examination for RNs, has increased in each of the last five years, from 236,226 in 2018 to 321,556 in 2022 (Table 9). Despite declining pass rates, the number of newly licensed RNs has increased from 172,705 in 2018 to 203,834 in 2022.

According to the American Association of Colleges of Nursing (AACN), most individuals enter the nursing profession with a Bachelor of Science in Nursing (BSN) degree. Despite strong growth in enrollment in recent years, the latest AACN survey found that enrollment in entry-level BSN programs declined 1.4% in 2022.²³ This was the first time that enrollment in BSN programs has declined since 2000.²⁴

Table 9. NCLEX-RN Candidates and Pass Rates, 2018-2022

Candidate Type	2018	2019	2020	2021	2022
First-time U.S. Educated	163,238	171,387	177,407	185,062	188,005
Repeat U.S. Educated	38,225	40,022	44,983	55,192	69,715
First-time International	16,812	21,041	11,903	18,495	35,074
Repeat International	17,951	19,861	18,106	20,066	28,762
Total	236,226	252,311	252,399	278,815	321,556
Overall Pass Rates	73.1%	72.8%	72.4%	68.9%	63.4%
Estimated number of newly licensed RNs	172,705	183,682	182,611	191,964	203,834

Source: National Council of State Boards of Nursing (NCSBN), *NCLEX Pass Rates*, various years and HRSA calculations.

In contrast to the estimates of new RNs, the estimates of the number of candidates passing the NCLEX-PN and obtaining their LPN license has declined by 3.4% since 2018, from 46,311 to 44,720, despite an increase of 5.1% of candidates taking the exam over this period (Table 10).

Table 10. NCLEX-PN Candidates and Pass Rates, 2018-2022

Candidate Type	2018	2019	2020	2021	2022
First-time U.S. Educated	47,031	48,234	45,661	46,356	47,635
Repeat U.S. Educated	14,424	14,163	14,620	17,420	17,686
First-time International	611	523	560	435	408
Repeat International	993	843	711	660	562
Total	63,059	63,763	61,552	64,871	66,291
Overall Pass Rates	73.4%	73.7%	70.9%	66.9%	67.5%
Estimated number of newly licensed LPNs	46,311	47,000	43,634	43,412	44,720

Source: National Council of State Boards of Nursing (NCSBN), *NCLEX Pass Rates*, various years and HRSA calculations.

Oral Health

The nation's oral health workforce, comprised of dentists, dental hygienists, and dental assistants, totaled nearly 714,000 workers in 2021, up from 696,000 in 2017 (Table 11). Overall, the number of dentists increased by 2.2% over the past five years. Despite strong growth between 2017 and 2019, the number of dental hygienists and dental assistants declined in 2020 and 2021.

Table 11. Enumeration of the Oral Health Workforce, 2017-2021

Provider Type	2017	2018	2019	2020	2021	% Change 2017-21
All Dentists	199,667	200,816	201,387	202,241	204,013	2.2%
General Dentists	156,742	157,448	157,252	157,446	158,386	1.0%
Orthodontists	10,361	10,474	10,508	10,592	10,660	2.9%
Pediatric Dentists	7,720	7,955	8,183	8,475	8,730	13.1%
Oral Surgeons	7,235	7,185	7,171	7,200	7,156	-1.1%
Periodontists	5,738	5,681	5,664	5,629	5,596	-2.5%
Endodontists	5,575	5,609	5,609	5,651	5,655	1.4%
Other Dentists	6,296	6,464	7,000	7,248	7,830	24.4%
Dental Hygienists	194,435	186,945	202,927	198,941	198,259	2.0%
Dental Assistants	301,887	309,018	343,903	318,309	311,695	3.2%
Total	695,989	696,779	748,217	719,491	713,967	2.6%

Source: Data on the count of licensed dentists is from the American Dental Association's Year-End Master File, various years. Data includes active dentists located in the 50 states, Washington, DC, Puerto Rico, and Guam, as well as overseas military personnel. Licensed dentists over the age of 80 were excluded to account for dentists that have retired but still have an active license.

Data for dental hygienists and dental assistants is from the Census Bureau's American Community Survey 1-Year Public Use Microdata Sample (PUMS) Files for various years.

Overall, compared to the U.S. population, a greater percentage of dentists are non-Hispanic White (67% compared to 59%) and Asian (19% compared to 6%) (Table 12). While the share of dentists and hygienists who are Hispanic is lower than in the overall population, the share of dental assistants who are Hispanic is higher (27% compared to 18%).

Table 12. Oral Health Workforce by Race/Ethnicity

Provider Type	Hispanic	White (Non-Hispanic)	Black or African American (Non-Hispanic)	Asian (Non-Hispanic)	Other or Multiple Races (Non-Hispanic)
Oral Health Workforce	17.1%	65.1%	5.3%	9.2%	3.2%
Dentists	6.9%	67.4%	4.1%	19.2%	2.4%
Dental Hygienists	9.9%	77.8%	3.9%	5.3%	3.0%
Dental Assistants	27.2%	56.0%	6.8%	6.1%	3.9%
Overall U.S. Population	18.4%	59.4%	12.2%	5.6%	4.3%

Source: HRSA calculations using data from the U.S. Census Bureau, American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files.

The majority (67%) of dentists are men (Table 13). However, according to the American Dental Association (ADA), the share of dentists who are female has grown in recent years, increasing from 24% in 2010 to 37% in 2022.²⁵ In contrast, most dental hygienists and dental assistants are women (both 94%).

Table 13. Oral Health Workforce by Gender

Provider Type	Male	Female
Oral Health Workforce	21.8%	78.2%
Dentists	67.4%	32.6%
Dental Hygienists	5.7%	94.3%
Dental Assistants	6.5%	93.5%
Overall U.S. Population	49.5%	50.5%

Source: HRSA calculations using data from the U.S. Census Bureau, *American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files*.

The average age of dentists in the United States is 48.6, compared to 42.7 for hygienists and 37.4 for dental assistants (Table 14).

Table 14. Oral Health Workforce, Average Age and Age Distribution

Provider Type	Average Age	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 Years and Older
Oral Health Workforce	41.8	23.2%	25.7%	20.6%	17.4%	13.1%
Dentists	48.6	6.2%	25.5%	22.3%	19.9%	26.1%
Dental Hygienists	42.7	18.0%	27.5%	22.3%	20.5%	11.6%
Dental Assistants	37.4	35.6%	24.8%	18.6%	14.2%	6.8%

Source: HRSA calculations using data from the U.S. Census Bureau, *American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files*.

NCHWA projects shortages for general dentists (8,790 FTEs) and dental hygienists (23,320 FTEs) (Table 15). Supply adequacy also varies considerably between metro and nonmetro areas.

Table 15. Projected Surplus or Shortage for Selected Oral Health Occupations and Specialties, 2036

Provider Type	Surplus/(Shortage)	Percent Adequacy
All Dentists	(3,480)	98%
Endodontists	220	104%
General Dentists	(8,790)	95%
Oral Surgeons	0	100%
Orthodontists	1,410	114%
Other Dentists	740	116%
Pediatric Dentists	3,610	144%
Periodontists	(670)	88%
Dental Hygienists	(23,320)	88%

Source: Health Resources and Services Administration, National Center for Health Workforce Analysis, <https://data.hrsa.gov/topics/health-workforce/workforce-projections>.

Notes: Demand and supply estimates and projections are in full-time equivalents (FTEs), defined as working 40 hours a week. FTE estimates may differ from estimates of the head counts of the health workforce.

Percent adequacy is calculated as projected supply divided by projected demand.

The number of dental graduates increased by 7% between 2018 and 2022. In contrast, the number of individuals graduating from dental hygiene and dental assistant programs has declined since 2018 (Table 16).

Table 16. Graduates from Dental Programs, 2018-2022

Provider Type	2018	2019	2020	2021	2022	Percent Change
All Dentists	6,305	6,350	6,609	6,665	6,745	7.0%
General Dentists	4,606	4,595	4,829	4,888	4,961	7.7%
Orthodontists	372	388	391	386	398	7.0%
Pediatric Dentists	453	460	477	479	472	4.2%
Oral Surgeons	241	243	247	249	255	5.8%
Periodontists	176	192	185	185	181	2.8%
Endodontists	211	221	210	215	222	5.2%
Other	246	251	270	263	256	4.1%
Dental Hygienists	7,377	7,311	7,002	7,325	6,857	-7.0%
Dental Assistants	4,688	4,517	4,003	3,943	3,720	-20.6%

Source: The American Dental Association, Survey of Dental Education 2022-2023 Report, Table 10, available online at: <https://www.ada.org/en/resources/research/health-policy-institute/dental-education>. Other dentists include students enrolled in advanced programs for dental anesthesiology, oral and maxillofacial pathology, oral and maxillofacial radiology, oral medicine, orofacial pain, and prosthodontics/maxillofacial prosthetics. Enrollment in general dentistry programs is estimated as total enrollment less enrollment in specialty programs.

The declining number dental hygienists and dental assistants, along with recent declines in the number of new graduates, has raised concerns about the future adequacy of the supply of hygienists and dental assistants. A 2021 survey by the ADA's Health Policy Institute reported that 66% of dentists found recruitment of dental hygienists to be "extremely challenging," while 59% found recruitment of dental assistants extremely challenging.²⁶

Conclusion

The U.S. health care workforce faces a number of challenges. The COVID-19 pandemic changed the way care was provided, and burnout continues to affect workers. Current and future shortages, as well as maldistribution, make it more difficult to provide care. An aging population will require providers who are trained to handle the needs of an aging population. With the health care delivery system rapidly changing, it becomes even more important to have a well-trained and well-distributed health care workforce that can adapt to the changing needs of a population.

Additional Health Care Occupations

Tables 17-20 provide demographic information for additional health care professions, including behavioral health providers, health care diagnosing or treating practitioners, health technologists and technicians, health care support occupations, and others.

Table 17. Selected Additional Health Care Professions by Race/Ethnicity

Behavioral Health Providers

Occupation	Total	Hispanic	White (Non-Hispanic)	Black (Non-Hispanic)	Asian (Non-Hispanic)	Native Hawaiian/Pacific Islander	American Indian/Alaska Native	Multiple/Other Race
Psychologists	236,516	9.0%	78.6%	6.0%	3.4%	**	**	2.8%
Counselors ¹								
Substance abuse and behavioral disorder counselors	86,794	14.5%	59.0%	18.5%	3.9%	**	0.6%	3.4%
Educational, guidance, and career counselors	45,131	11.5%	64.2%	18.4%	3.0%	**	**	2.4%
Marriage and family therapists	26,763	11.7%	70.6%	11.1%	3.3%	**	**	3.0%
Mental health counselors	112,948	13.4%	62.1%	17.7%	2.8%	0.1%	0.2%	3.7%
All other counselors	153,287	11.7%	60.7%	20.7%	2.9%	0.2%	0.7%	3.2%
Social Workers ¹								
Child, family, and school social workers	38,928	14.8%	55.8%	21.7%	3.1%	**	**	4.0%
Health care social workers	78,009	13.2%	54.9%	24.3%	3.0%	**	0.7%	3.8%
Mental health social workers	23,121	12.9%	67.6%	13.4%	1.8%	0.1%	0.3%	4.0%
All other social workers	412,832	14.9%	58.3%	19.7%	3.4%	0.1%	0.5%	3.1%
U.S. Population	329,725,483	18.4%	59.4%	12.2%	5.6%	0.2%	0.6%	3.5%

Health Care Diagnosing and Treating Practitioners

Occupation	Total	Hispanic	White (Non-Hispanic)	Black (Non-Hispanic)	Asian (Non-Hispanic)	Native Hawaiian/Pacific Islander	American Indian/Alaska Native	Multiple/Other Race
Audiologists	19,480	6.3%	83.8%	3.4%	4.0%	0.0%	**	2.5%
Chiropractors	68,919	5.6%	84.2%	2.7%	5.3%	0.0%	**	2.1%
Dietitians and nutritionists	111,772	9.5%	68.8%	12.1%	6.3%	**	0.5%	2.8%
Optometrists	46,679	3.8%	73.0%	1.9%	18.5%	0.0%	**	2.6%
Pharmacists	337,058	4.9%	64.8%	6.5%	21.0%	**	0.1%	2.6%
Physician assistants	141,417	9.6%	73.3%	5.3%	8.3%	**	0.3%	3.2%
Podiatrists	10,955	4.9%	81.5%	**	8.7%	0.0%	0.0%	**

Occupation	Total	Hispanic	White (Non-Hispanic)	Black (Non-Hispanic)	Asian (Non-Hispanic)	Native Hawaiian/Pacific Islander	American Indian/Alaska Native	Multiple/Other Race
Therapists								
Occupational therapists	131,351	5.6%	79.4%	5.2%	6.9%	**	**	2.8%
Physical therapists	276,505	6.5%	74.5%	4.1%	12.2%	**	0.2%	2.4%
Radiation Therapists	16,076	9.9%	72.6%	6.6%	7.0%	**	**	**
Recreational Therapists	17,085	7.2%	70.6%	13.3%	5.6%	**	**	2.9%
Respiratory therapists	121,191	11.4%	65.3%	13.2%	6.9%	**	0.5%	2.6%
Speech-language pathologists	179,615	8.6%	81.1%	4.9%	2.9%	**	0.3%	2.2%
Veterinarians	94,305	4.4%	86.2%	1.5%	4.5%	**	**	3.2%
U.S. Population	329,725,483	18.4%	59.4%	12.2%	5.6%	0.2%	0.6%	3.5%

Health Technologists and Technicians

Occupation	Total	Hispanic	White (Non-Hispanic)	Black (Non-Hispanic)	Asian (Non-Hispanic)	Native Hawaiian/Pacific Islander	American Indian/Alaska Native	Multiple/Other Race
Clinical laboratory technologists and technicians	338,429	13.0%	55.3%	16.1%	11.9%	0.2%	0.4%	3.1%
Cardiovascular technologists and technicians	437,978	11.3%	70.3%	8.2%	7.1%	0.2%	0.4%	2.5%
EMTs and Paramedics	238,742	13.0%	72.8%	6.9%	3.1%	**	0.9%	3.1%
Opticians, dispensing	72,286	15.8%	68.5%	6.3%	6.3%	**	0.3%	2.7%
Pharmacy technicians	395,158	15.8%	57.7%	13.6%	8.4%	0.1%	0.7%	3.7%
Health practitioner support technologists and technicians ²	388,479	14.6%	62.3%	14.2%	4.0%	0.2%	0.5%	4.3%
Medical records specialists	191,300	13.1%	63.6%	14.4%	5.2%	0.3%	1.0%	2.5%
U.S. Population	329,725,483	18.4%	59.4%	12.2%	5.6%	0.2%	0.6%	3.5%

Health Care Support Occupations

Occupation	Total	Hispanic	White (Non-Hispanic)	Black (Non-Hispanic)	Asian (Non-Hispanic)	Native Hawaiian/Pacific Islander	American Indian/Alaska Native	Multiple/Other Race
Home health aides	576,912	24.3%	32.3%	32.0%	7.4%	0.1%	0.6%	3.3%
Personal care aides	1,572,608	20.9%	42.2%	24.0%	8.3%	0.5%	0.8%	3.3%
Nursing, psychiatric aides, and orderlies	1,554,500	14.8%	41.9%	34.2%	5.0%	0.2%	0.7%	3.2%
Occupational therapy assistants and aides	51,082	11.4%	67.3%	13.7%	3.9%	**	0.7%	2.9%
Physical therapist assistants and aides	113,688	11.7%	73.2%	5.6%	6.3%	**	**	2.8%
Massage therapists	197,515	12.8%	66.1%	7.2%	9.9%	**	0.4%	3.5%
Medical assistants	593,646	29.1%	48.3%	14.0%	4.9%	0.2%	0.5%	3.0%
Pharmacy aides	37,818	19.3%	49.1%	15.4%	11.7%	**	**	3.7%
Veterinary assistants and laboratory animal caretakers	69,142	15.2%	74.0%	4.0%	2.7%	**	**	3.9%
Phlebotomists	123,884	18.9%	49.1%	22.4%	5.6%	**	0.6%	3.2%
Medical transcriptionists	51,856	11.0%	68.3%	5.5%	11.5%	**	**	3.2%
U.S. Population	329,725,483	18.4%	59.4%	12.2%	5.6%	0.2%	0.6%	3.5%

Other Occupations

Occupation	Total	Hispanic	White (Non-Hispanic)	Black (Non-Hispanic)	Asian (Non-Hispanic)	Native Hawaiian/Pacific Islander	American Indian/Alaska Native	Multiple/Other Race
Community Health Workers	26,892	17.4%	55.4%	18.9%	2.5%	**	1.3%	4.2%
U.S. Population	329,725,483	18.4%	59.4%	12.2%	5.6%	0.2%	0.6%	3.5%

Source: HRSA calculations using data from the U.S. Census Bureau, American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files.

** Indicates data withheld due to a high standard error. ¹ Limited to practitioners employed in a medical setting, defined as employed in NAICS sector 62 (health care and social assistance), excluding NAICS 6242 (community food and housing, and emergency services), 6243 (vocational rehabilitation services), and 6244 (child day care services).

² Includes dietetic technicians, psychiatric technicians, surgical technologists, veterinary technologists and technicians, and ophthalmic medical technicians.

Table 18. Selected Additional Health Care Professions by Gender

Behavioral Health Providers

Occupation	Total Count	Male	Female
Psychologists	236,516	26.7%	73.3%
Counselors ¹			
Substance abuse and behavioral disorder counselors	86,794	28.5%	71.5%
Educational, guidance, and career counselors	45,131	24.9%	75.1%
Marriage and family therapists	26,763	21.6%	78.4%
Mental health counselors	112,948	23.2%	76.8%
All other counselors	153,287	29.7%	70.3%
Social workers ¹			
Child, family, and school social workers	38,928	16.0%	84.0%
Health care social workers	78,009	22.9%	77.1%
Mental health social workers	23,121	19.2%	80.8%
All other social workers	412,832	16.7%	83.3%

Health Care Diagnosing and Treating Practitioners

Occupation	Total Count	Male	Female
Audiologists	19,480	16.1%	83.9%
Chiropractors	68,919	69.7%	30.3%
Dietitians and nutritionists	111,772	9.7%	90.3%
Optometrists	46,679	52.7%	47.3%
Pharmacists	337,058	41.2%	58.8%
Physician assistants	141,417	33.5%	66.5%
Podiatrists	10,955	73.3%	26.7%
Therapists			
Occupational therapists	131,351	11.6%	88.4%
Physical therapists	276,505	34.2%	65.8%
Radiation therapists	16,076	31.3%	68.7%
Recreational therapists	17,085	20.1%	79.9%
Respiratory therapists	121,191	35.0%	65.0%
Speech-language pathologists	179,615	4.8%	95.2%
Veterinarians	94,305	35.4%	64.6%

Health Technologists and Technicians

Occupation	Total Count	Male	Female
Clinical laboratory technologists and technicians	338,429	28.0%	72.0%
Cardiovascular technologists and technicians	437,978	33.1%	66.9%
EMTs and Paramedics	238,742	66.0%	34.0%
Opticians, dispensing	72,286	27.4%	72.6%
Pharmacy technicians	395,158	21.2%	78.8%
Health practitioner support technologists and technicians ²	388,479	20.9%	79.1%
Medical records specialists	191,300	10.2%	89.8%

Health Care Support Occupations

Occupation	Total Count	Male	Female
Home health aides	576,912	11.7%	88.3%
Personal care aides	1,572,608	17.5%	82.5%
Nursing, psychiatric aides, and orderlies	1,554,500	13.0%	87.0%
Occupational therapy assistants and aides	51,082	15.6%	84.4%
Physical therapist assistants and aides	113,688	31.5%	68.5%
Massage therapists	197,515	20.0%	80.0%
Medical assistants	593,646	9.5%	90.5%
Pharmacy aides	37,818	23.9%	76.1%
Veterinary assistants and laboratory animal caretakers	69,142	16.1%	83.9%
Phlebotomists	123,884	15.6%	84.4%
Medical transcriptionists	51,856	19.2%	80.8%

Other Occupations

Occupation	Total Count	Male	Female
Community health workers	26,892	21.9%	78.1%

Source: HRSA calculations using data from the U.S. Census Bureau, American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files.

¹ Limited to practitioners employed in a medical setting, defined as employed in NAICS sector 62 (health care and social assistance), excluding NAICS 6242 (community food and housing, and emergency services), 6243 (vocational rehabilitation services), and 6244 (child day care services).

² Includes dietetic technicians, psychiatric technicians, surgical technologists, veterinary technologists and technicians, and ophthalmic medical technicians.

Table 19. Selected Additional Health Care Professions by Age

Behavioral Health Providers

Occupation	Total	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 or Older
Psychologists	236,516	8.8%	24.5%	22.1%	17.6%	27.0%
Counselors ¹						
Substance abuse and behavioral disorder counselors	86,794	29.5%	26.5%	17.9%	15.4%	10.6%
Educational, guidance, and career counselors	45,131	22.8%	24.3%	19.0%	17.3%	16.6%
Marriage and family therapists	26,763	14.4%	28.1%	21.7%	16.0%	19.8%
Mental health counselors	112,948	20.4%	29.4%	21.1%	15.8%	13.3%
All other counselors	153,287	20.9%	24.1%	19.0%	17.4%	18.7%
Social workers ¹						
Child, family, and school social workers	38,928	22.9%	28.7%	21.9%	15.5%	11.0%
Health care social workers	78,009	14.3%	26.4%	22.5%	21.5%	15.3%
Mental health social workers	23,121	12.1%	23.5%	23.4%	18.7%	22.3%
All other social workers	412,832	20.6%	27.8%	23.0%	16.8%	11.9%

Health Care Diagnosing and Treating Practitioners

Occupation	Total	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 or Older
Audiologists	19,480	16.8%	26.4%	26.5%	20.1%	10.2%
Chiropractors	68,919	7.9%	24.5%	26.3%	21.6%	19.6%
Dietitians and nutritionists	111,772	22.8%	25.4%	19.7%	17.5%	14.5%
Optometrists	46,679	8.6%	27.4%	24.7%	19.1%	20.2%
Pharmacists	337,058	18.2%	30.9%	22.4%	16.2%	12.3%
Physician assistants	141,417	20.5%	38.2%	21.8%	12.1%	7.4%
Podiatrists	10,955	4.4%	18.3%	25.3%	24.7%	27.3%
Therapists						
Occupational therapists	131,351	18.7%	31.9%	25.4%	16.2%	7.8%
Physical therapists	276,505	16.7%	31.6%	25.5%	17.6%	8.6%
Radiation Therapists	16,076	13.6%	34.6%	23.0%	22.4%	6.5%

Occupation	Total	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 or Older
Recreational therapists	17,085	29.2%	20.3%	18.4%	17.8%	14.3%
Respiratory therapists	121,191	12.9%	26.5%	23.7%	22.7%	14.2%
Speech-language pathologists	179,615	20.3%	30.3%	24.2%	15.4%	9.8%
Veterinarians	94,305	10.0%	31.2%	23.5%	17.6%	17.7%

Health Technologists and Technicians

Occupation	Total	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 or Older
Clinical laboratory technologists and technicians	338,429	24.5%	22.7%	19.0%	19.3%	14.6%
Cardiovascular technologists and technicians	437,978	16.8%	27.8%	23.6%	20.5%	11.4%
EMTs and paramedics	238,742	39.2%	27.8%	17.7%	11.3%	4.1%
Opticians, dispensing	72,286	21.9%	22.1%	18.2%	20.6%	17.3%
Pharmacy technicians	395,158	38.2%	26.1%	16.4%	12.8%	6.6%
Health practitioner support technologists and technicians ²	388,479	39.2%	25.7%	16.6%	12.5%	6.1%
Medical records specialists	191,300	12.6%	21.1%	24.2%	25.2%	16.9%

Health Care Support Occupations

Occupation	Total	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 or Older
Home health aides	576,912	18.5%	18.0%	20.9%	24.2%	18.3%
Personal care aides	1,572,608	22.3%	17.4%	18.4%	21.9%	19.9%
Nursing, psychiatric aides, and orderlies	1,554,500	32.7%	21.4%	17.9%	17.5%	10.4%
Occupational therapy assistants and aides	51,082	24.0%	26.2%	20.9%	19.7%	9.2%
Physical therapist assistants and aides	113,688	34.3%	24.5%	19.1%	16.1%	6.0%
Massage therapists	197,515	16.6%	25.7%	25.2%	19.5%	12.9%
Medical assistants	593,646	35.3%	28.2%	18.9%	12.1%	5.5%
Pharmacy aides	37,818	40.3%	24.0%	16.0%	11.9%	7.8%
Veterinary assistants and laboratory animal caretakers	69,142	58.5%	22.5%	8.3%	6.4%	4.3%
Phlebotomists	123,884	30.5%	24.5%	21.2%	16.5%	7.3%
Medical transcriptionists	51,856	50.4%	9.9%	8.3%	14.8%	16.7%

Other Occupations

Occupation	Total	Less than 30 Years Old	30 to 39 Years Old	40 to 49 Years Old	50 to 59 Years Old	60 or Older
Community health workers	26,892	24.5%	25.1%	20.5%	17.4%	12.5%

Source: HRSA calculations using data from the U.S. Census Bureau, American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files.

¹Limited to practitioners employed in a medical setting, defined as employed in NAICS sector 62 (health care and social assistance), excluding NAICS 6242 (community food and housing, and emergency services), 6243 (vocational rehabilitation services), and 6244 (child day care services).

²Includes dietetic technicians, psychiatric technicians, surgical technologists, veterinary technologists and technicians, and ophthalmic medical technicians.

Table 20. Selected Additional Health Care Professions by Employment Setting

Behavioral Health Providers

Occupation	Total	Hospital	Ambulatory	Residential – Long Term Care	Other
Psychologists	236,516	9.4%	49.6%	1.2%	39.7%
Counselors ¹					
Substance abuse and behavioral disorder counselors	86,794	7.9%	61.7%	11.1%	19.3%
Educational, guidance, and career counselors	45,131	8.8%	34.8%	13.2%	43.3%
Marriage and family therapists	26,763	4.8%	32.4%	4.8%	58.0%
Mental health counselors	112,948	10.2%	63.7%	3.9%	22.2%
All other counselors	153,287	8.3%	26.0%	13.1%	52.7%
Social workers ¹					
Child, family, and school social workers	38,928	9.1%	9.8%	10.1%	70.9%
Health care social workers	78,009	11.4%	11.7%	27.9%	48.9%
Mental health social workers	23,121	18.5%	47.1%	4.9%	29.5%
All other social workers	412,832	16.7%	18.1%	9.7%	55.6%

Health Care Diagnosing and Treating Practitioners

Occupation	Total	Hospital	Ambulatory	Residential – Long Term Care	Other
Audiologists	19,480	26.9%	45.9%	**	27.0%
Chiropractors	68,919	0.6%	96.6%	**	2.4%
Dietitians and nutritionists	111,772	34.4%	19.6%	12.0%	34.1%
Optometrists	46,679	4.3%	85.3%	0.0%	10.4%
Pharmacists	337,058	29.0%	2.6%	0.3%	68.0%
Physician assistants	141,417	43.2%	45.9%	0.6%	10.3%
Podiatrists	10,955	14.4%	81.0%	0.0%	**
Therapists					
Occupational therapists	131,351	26.7%	35.5%	13.9%	23.9%
Physical therapists	276,505	26.9%	55.7%	8.3%	9.2%
Radiation Therapists	16,076	65.0%	27.1%	**	7.9%
Recreational Therapists	17,085	26.1%	13.3%	35.3%	25.2%
Respiratory therapists	121,191	86.5%	5.6%	2.4%	5.5%
Speech-language pathologists	179,615	11.6%	28.7%	5.4%	54.4%
Veterinarians	94,305	0.5%	**	0.0%	99.4%

Health Technologists and Technicians

Occupation	Total	Hospital	Ambulatory	Residential – Long Term Care	Other
Clinical laboratory technologists and technicians	338,429	50.9%	12.4%	4.5%	32.1%
Cardiovascular technologists and technicians	437,978	63.3%	22.1%	0.3%	14.4%
EMTs and paramedics	238,742	19.7%	4.6%	0.4%	75.3%
Opticians, dispensing	72,286	2.0%	40.3%	**	57.5%
Pharmacy technicians	395,158	18.5%	3.4%	0.5%	77.6%
Health practitioner support technologists and technicians ²	388,479	26.8%	17.4%	8.0%	47.8%
Medical records specialists	191,300	40.9%	24.4%	5.5%	29.2%

Health Care Support Occupations

Occupation	Total	Hospital	Ambulatory	Residential – Long Term Care	Other
Home health aides	576,912	4.0%	71.7%	8.4%	15.8%
Personal care aides	1,572,608	1.8%	25.0%	19.1%	54.1%
Nursing, psychiatric aides, and orderlies	1,554,500	27.9%	18.6%	41.6%	11.9%
Occupational therapy assistants and aides	51,082	11.3%	43.3%	29.9%	15.5%
Physical therapist assistants and aides	113,688	17.7%	61.7%	15.0%	5.5%
Massage therapists	197,515	1.0%	8.5%	0.3%	90.2%
Medical assistants	593,646	24.8%	62.9%	1.6%	10.7%
Pharmacy aides	37,818	13.8%	**	**	83.2%
Veterinary assistants and laboratory animal caretakers	69,142	**	**	**	99.6%
Phlebotomists	123,884	42.7%	12.1%	0.6%	44.6%
Medical transcriptionists	51,856	30.6%	27.2%	**	41.7%

Other Occupations

Occupation	Total	Hospital	Ambulatory	Residential – Long Term Care	Other
Community health workers	26,892	24.6%	19.2%	4.1%	52.1%

Source: HRSA calculations using data from the U.S. Census Bureau, American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files.

** Indicates data withheld due to a high standard error.

¹Limited to practitioners employed in a medical setting, defined as employed in NAICS sector 62 (health care and social assistance), excluding NAICS 6242 (community food and housing, and emergency services), 6243 (vocational rehabilitation services), and 6244 (child day care services).

²Includes dietetic technicians, psychiatric technicians, surgical technologists, veterinary technologists and technicians, and ophthalmic medical technicians.

Appendix

Table A. Distribution of Patient Care Physicians Per 100,000 Population by State, 2021

State	Ratio
Alabama	186
Alaska	256
Arizona	221
Arkansas	187
California	238
Colorado	263
Connecticut	293
Delaware	219
District of Columbia	484
Florida	236
Georgia	198
Hawaii	261
Idaho	174
Illinois	234
Indiana	199
Iowa	190
Kansas	220
Kentucky	204
Louisiana	226
Maine	290
Maryland	293
Massachusetts	338
Michigan	242
Minnesota	262
Mississippi	166
Missouri	223
Montana	241
Nebraska	215
Nevada	180
New Hampshire	268
New Jersey	258
New Mexico	205
New York	277
North Carolina	224
North Dakota	218
Ohio	242
Oklahoma	179
Oregon	270
Pennsylvania	264

State	Ratio
Rhode Island	308
South Carolina	204
South Dakota	228
Tennessee	218
Texas	194
Utah	197
Vermont	322
Virginia	233
Washington	239
West Virginia	215
Wisconsin	234
Wyoming	191

Source: HRSA calculations using data from the U.S. Census Bureau and AMA Masterfile.

Note: Data includes both MDs and DOs and excludes residents. In 2021, there were 151,792 residents.

¹Practicing physicians excludes those working in administration, research, and other settings that does not involve direct contact with patients.

²United States Department of Labor, Bureau of Labor Statistics. Accessed May 3, 2023. <https://www.bls.gov/ces/data>.

³United States Department of Health and Human Services, Centers for Medicare & Medicaid Services. National health expenditure data: Historical. Accessed May 1, 2023. <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccounts/historical>.

⁴United States Department of Health and Human Services, Health Resources and Services Administration. Health workforce shortage areas – dashboard. Accessed November 16, 2023. <https://data.hrsa.gov/topics/health-workforce/shortage-areas>.

⁵See, for example, The National Academics of Sciences, Engineering, and Medicine. Taking action against clinician burnout: a systems approach to professional well-being, 2019. Accessed November 17, 2023. <https://nap.nationalacademies.org/download/25521#>.

⁶Hendrickson RC, Slevin RA, Hoerster KD, et al. The impact of the covid-19 pandemic on mental health, occupational functioning, and professional retention among health care workers and first responders. *J Gen Intern Med*. 2022;37(2):397-408. doi: 10.1007/s11606-021-07252-z.

⁷Prasad K, McLoughlin C, Stillman M, et al. Prevalence and correlates of stress and burnout among U.S. healthcare workers during the COVID-19 pandemic: A national cross-sectional survey study. *EClinicalMedicine*. 2021;35: 1-9. doi:10.1016/j.eclinm.2021.100879.

⁸Shanafelt TD, West CP, Dyrbye LN, et al. Changes in burnout and satisfaction with work-life integration in physicians during the first 2 years of the COVID-19 pandemic. *Mayo Clinic Proceedings*. 2022;97(12):2248-2258. doi: 10.1016/j.mayocp.2022.09.002.

⁹Medscape. US physician burnout and depression report. Accessed November 17, 2023. <https://www.medscape.com/slideshow/2023-lifestyle-burnout-6016058?faf=1#1>.

¹⁰Smiley, RA, Allgeyer RL, Shobo Y, et al. The 2022 National nursing workforce survey. *J Nurs Regul*. 2023;14(1):S1-S90. doi:10.1016/S2155-8256(23)00047-9.

¹¹CareQuest Institute for Oral Health. Burnout among dental professionals before and during a public health crisis: Causes, consequences, and next steps. Accessed November 17, 2023.

https://www.carequest.org/system/files/CareQuest_Institute_Burnout-Among-Dental-Professionals_8.3.22.pdf.

¹²Shanafelt TD, West CP, Dyrbye LN, et al. Changes in burnout and satisfaction with work-life integration in physicians during the first 2 years of the COVID-19 pandemic. *Mayo Clin Proc*. 2022;97(12):2248-2258. doi:10.1016/j.mayocp.2022.09.002.

¹³Rotenstein LS, Brown R, Sinsky C, Linzer M. The association of work overload with burnout and intent to leave the job across the healthcare workforce during COVID-19. *J Gen Intern Med*. 2023;38(8):1920-1927. doi:10.1007/s11606-023-08153-z.

¹⁴ Hendrickson RC, Slevin RA, Hoerster KD, et al. The Impact of the COVID-19 pandemic on mental health, occupational functioning, and professional retention among health care workers and first responders. *J Gen Intern Med.* 2022;37:397–408. doi: 10.1007/s11606-021-07252-z.

¹⁵ HRSA calculations using data from the U.S. Census Bureau, American Community Survey: 2017-2021 Public Use Microdata Sample (PUMS) Files.

¹⁶ Association of American Colleges. Physician specialty data report. Accessed November 16, 2023. <https://www.aamc.org/data-reports/workforce/data/active-physicians-age-specialty-2021>.

¹⁷ United States Census Bureau. Population projections. Accessed December 19, 2023. <https://www.census.gov/programs-surveys/popproj.html>.

¹⁸ Professionally active physicians include physicians working in administration, research and other settings that may not involve direct contact with patients.

¹⁹ Excludes residents.

²⁰ See, for example, the discussion of nursing career progression in U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. Technical Documentation for HRSA's Health Workforce Simulation Model. Accessed November 17, 2023. <https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/technical-documentation/nursing>.

²¹ United States Department of Health and Human Services, Health Resources and Services Administration. National Sample Survey of Registered Nurses (NSSRN). <https://bhw.hrsa.gov/data-research/access-data-tools/national-sample-survey-registered-nurses>.

²² See the Workforce Projections Dashboard for further detail. <https://data.hrsa.gov/topics/health-workforce/workforce-projections>.

²³ American Association of Colleges of Nursing. 2022-2023 enrollment and graduations in baccalaureate and graduate Programs.

²⁴ Also see American Association of Colleges of Nursing. New data show enrollment declines in schools of nursing, raising concerns about the nation's nursing workforce. Accessed November 24, 2023. <https://www.aacnursing.org/news-data/all-news/article/new-data-show-enrollment-declines-in-schools-of-nursing-raising-concerns-about-the-nations-nursing-workforce>.

²⁵ American Dental Association. Supply of dentists in the U.S.: 2001-2022. Accessed June 2, 2023. <https://www.ada.org/en/resources/research/health-policy-institute/dentist-workforce#:~:text=How%20many%20dentists%20are%20female,percentage%20of%20dentists%20are%20specialists%3F>.

²⁶ American Dental Association Health Policy Institute. Understaffed and ready to hire, dentists face applicant shortages as they emerge from COVID-19 pandemic. Accessed November 16, 2023. <https://adanews.ada.org/ada-news/2021/june/dentists-face-applicant-shortages-as-they-emerge-from-covid-19-pandemic>.