



ASPE
ASSISTANT SECRETARY FOR
PLANNING AND EVALUATION

Health Care Workforce: Key Issues, Challenges, and the Path Forward

U.S. Department of Health and Human Services
Office of the Assistant Secretary for Planning and Evaluation

October 2024

FOREWORD FROM THE SECRETARY

The nation's health is stronger when we have a well-trained and supported health workforce.

In recent years, and especially during the Biden-Harris Administration, the United States has made strides in boosting health care access and affordability, as well as improving health outcomes — especially in rural and underserved communities. But without continued support for a robust health workforce, that progress is at risk.

We know that the more we expand and diversify the health workforce, the more people will see themselves pursuing health care as a career. We also know that a more diverse health workforce helps to build trust with patients and generally improve health outcomes. That's why the Biden-Harris Administration continues to invest in our health infrastructure, training programs, continuing education, and professional development with a focus on ensuring everyone has an opportunity to work in the field. We are working so that we have the best health workforce to serve all Americans.

From the American Rescue Plan - the largest investment in the care economy in history – to new rules increasing pay, extending benefits, and providing mental health and other support to our nation's health workers, this Administration has helped to grow and sustain the nation's health workforce. We are making progress on recruiting and retaining health workers, and working so that all communities have access to the care they deserve. But without continued support for a robust health workforce, that progress is at risk.

This report identifies some of the persistent challenges affecting our health workforce, highlights the work that we have done at HHS in response and lays out key actions to ensure the health workforce is well-supported and accessible across America moving forward.

What is clear is this: we need more health workers. We especially need health workers who bring with them experience that helps them better serve their communities. We are committed to achieving this goal in the years to come.

Xavier Becerra
Secretary of Health and Human Services

OVERVIEW OF THE REPORT

- The nation’s health care workforce is the foundation of our health care system, yet long-standing and significant challenges face the millions of Americans who work in this sector of our economy. This report describes, at a high level, some of these persistent challenges including undersupply, maldistribution, lack of racial/ethnic diversity in its composition, burnout, and administrative burden. The COVID-19 pandemic exacerbated some of these challenges.
- This report summarizes information about the supply and distribution of several major components of the health care workforce including physicians, nurses, direct care workers, behavioral health workers, and oral health care providers. The report identifies challenges in supply and distribution of health care workers, especially in rural communities, as well as the need to train, recruit, and retain a more diverse workforce. Looking forward into the next decade, direct care workers will be one of the largest groups of workers in the entire U.S. economy, yet they face a number of challenges including low pay and part-time hours without benefits, which contributes to high turnover and lack of job satisfaction at a time when the aging of the population will require more such workers.
- The pending FY 2025 budget and accompanying legislative proposals offer ways the Department of Health and Human Service proposes to address these continuing challenges. This report notes additional actions that can be taken by the Department, states, professional associations, and other stakeholders.
- The Department’s workforce agenda builds on an existing foundation of federal grant and payment programs, regulatory policy, and other actions. The last section of this paper summarizes what HHS agencies are doing to address health care workforce challenges.

INTRODUCTION

This is a time of challenge and change for the health workforce in the United States. Health care workers are vital to the health and well-being of the population and play a critical role in everyone’s life addressing both acute and chronic conditions, sometimes under pressing circumstances, such as in areas affected by Hurricane Helene where health care workers at all levels, many of whom have been personally affected by the storm, have been caring for the needs of others. Unfortunately, in the U.S., longstanding shortages of primary care physicians,¹ behavioral health professionals,² nurses,³ direct care workers,⁴ and more have persisted and the COVID-19 pandemic further increased strains on the health care workforce in recent years.⁵ Research suggests that turnover in the health workforce increased during the pandemic and remains at high levels.⁶ While challenges of inadequate health workforce supply and uneven distribution have existed for many years, there are other questions and concerns that have been garnering additional attention recently including: health worker concerns about administrative burden and impacts on both care delivery and their well-being; the systemic drivers of workplace stress and burnout on health workers;^{7*} and the need for renewed efforts to bolster the health workforce to achieve health equity. The U.S. Department of Health and Human Services (HHS) is

* In addition to lower salaries, primary care specialists report higher levels of burnout. An American Medical Association survey found that while reported burnout was decreasing in 2023 from 2022, four of the six specialties reporting highest levels, internal medicine, obstetrics and gynecology, family medicine, and pediatrics, were involved in primary care delivery.

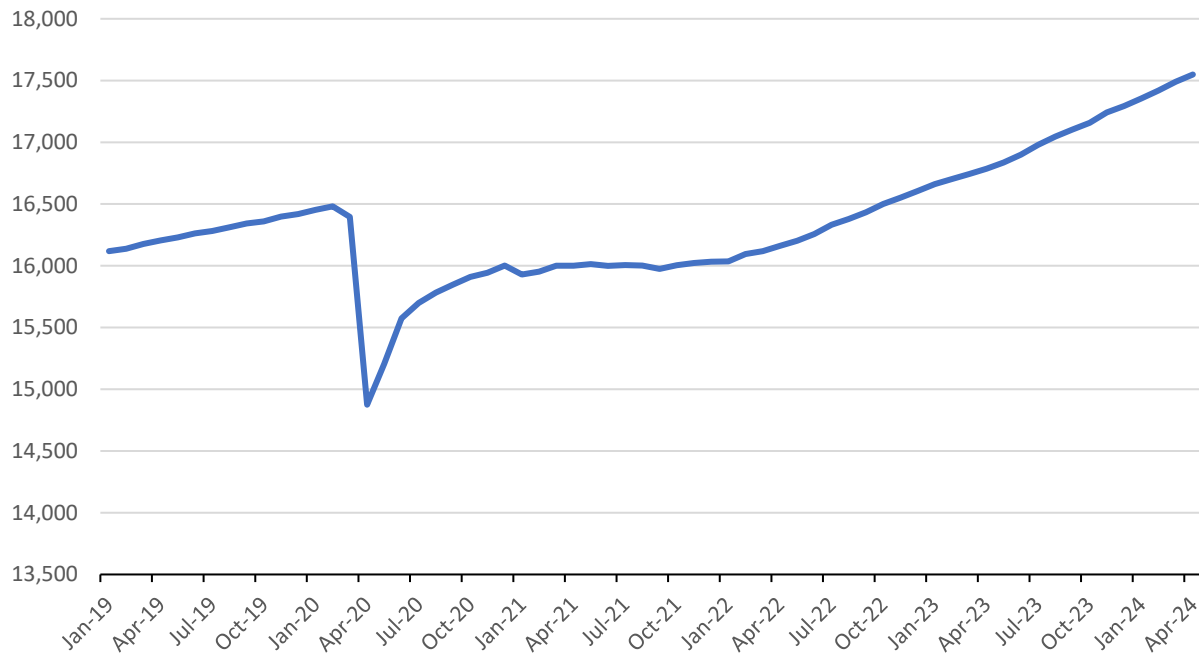
committed to meeting the moment using its programs and authorities to strengthen the nation’s health workforce.

KEY ISSUES AND CHALLENGES FACING THE HEALTH CARE WORKFORCE

This section discusses key issues and challenges facing certain groups of health care workers such as physicians, registered nurses, licensed practical nurses and licensed vocational nurses, direct care workers in long-term care, and behavioral health providers. This section does not address all segments of the broader health workforce, which includes workers such as community health workers, peer support specialists, doulas, emergency medical services personnel, and technicians, among others, that play critical roles in coordinating services, serving as advocates for the individuals they serve, and supporting the provision of care. Although these members of the health care workforce are not directly addressed in this report, the roles they play improve the functioning of the health care system and ensure care is patient-centered, and many of the issues discussed for other segments of the health workforce also apply to these types of workers.

As Figure 1 illustrates, total employment in health care took a significant dip early in 2020 but has since recovered and now exceeds pre-pandemic levels.

Figure 1: All Health Care Employees (in Thousands, Seasonally Adjusted), January 2019-April 2024



Note: Data is from the Bureau of Labor Statistics' Current Employment Statistics (Establishment Survey), retrieved July 2024 here: <https://www.bls.gov/ces/>. These data include all individuals working in health care, including both clinical and administrative staff.

Supply of Health Care Professionals

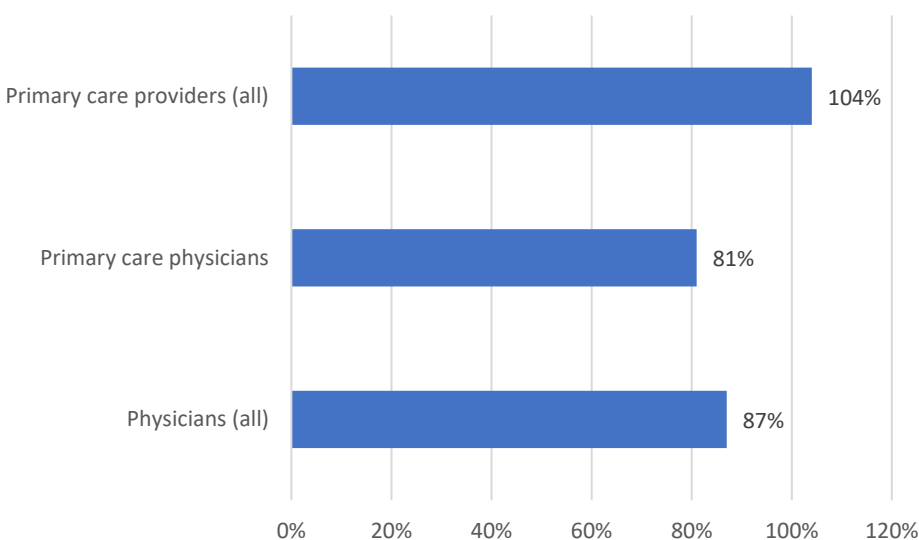
In projecting the adequacy of the nation's health care workforce, the Health Resources and Services Administration (HRSA) has developed estimates of workforce supply and demand by workforce category for the years 2021-2036.⁸ Among other factors, these estimates account for projected changes over time in the distribution of various characteristics of the population that can affect the demand for health care services. For instance, one important factor is the aging of U.S. population with a greater percentage of Americans being in the oldest age groups over time. Older adults are more likely to have chronic conditions and have greater utilization of healthcare services.⁹ Such estimates involve a variety of assumptions, such as birth and mortality rates and cannot account for unforeseen future changes in the way care is delivered brought on by technological innovations, new care delivery models, or unforeseen challenges such as the COVID-19 pandemic. As such, these projections are not intended to provide precise predictions of future adequacy of the health care workforce, but they do provide helpful information about future directions in adequacy given current knowledge and trends. HRSA provides these projections to assist government, academia, and other stakeholders as they plan for future workforce needs and design health workforce policy. These estimates and the underlying data are disseminated through HRSA's workforce projection tool as well as through reports that analyze particular types of workers.* Estimates of the predicted supply for a few key health professions and workforce types are presented below.

* HRSA's workforce projection tool is available here: <https://data.hrsa.gov/topics/health-workforce/workforce-projections> and their reports based on these projections are available here: <https://bhw.hrsa.gov/data->

Physicians*

HRSA projects that in 2026, the overall physician workforce will be adequate to meet 90 percent of the estimated demand, further eroding to 87 percent of estimated demand in 2036 (Figure 2). HRSA estimates nationally, across all physician specialties in the United States, a projected shortage of 139,940 full-time equivalent (FTE) physicians in 2036.¹⁰ However, HRSA also estimates that the percent adequacy of the supply of primary care providers overall (including not just primary care physicians, but also nurse practitioners and physician assistants working in primary care) will be 104 percent in 2036. This speaks to the important role of non-physician provider types in providing primary care and the potential to expand capacity in the system by having all clinicians practice at the top of their licensure. Figure 2 displays projected demand versus supply for physicians overall in 2036.

Figure 2: National Estimated Percent Adequacy by Provider Type, 2036



Note: These estimates were taken from the Health Resources & Services Administration’s workforce projections on July 17, 2024 (available here: <https://data.hrsa.gov/topics/health-workforce/workforce-projections>). The categories are not always mutually exclusive. Primary care physicians include family medicine physicians, general internal medicine physicians, geriatrics physicians, and pediatrics physicians (excluding those who work primarily in hospitals). Primary care providers include primary care physicians as well as nurse practitioners and physician assistants working in primary care specialties who do not primarily work in hospitals. Supply and demand presented here are full-time equivalents (defined as working 40 hours a week) which may differ from the headcount of the health care workforce.

While physicians overall, and certain specialties, are projected to have significant shortages in future years, this is not the case for all specialists. For instance, as displayed in Table 1, there is expected to be an adequate supply of six specialties (colorectal surgery, critical care and pulmonology, dermatology, emergency medicine, endocrinology, and neonatology). Table 1 lists the projected adequacy of physician

[research/projecting-health-workforce-supply-demand](#) Projections are revised annually in the fall. Projections in this report will be updated when they become available.

* The Social Security Act defines at [Social Security Act §1861 \(ssa.gov\)](#) “physician” as a doctor of medicine or osteopathy, oral surgeon or doctor of dentistry. This section addresses doctors of medicine and osteopathy. Oral surgeons and doctors of dental medicine are addressed later in this report in the section discussing oral health providers.

specialties among those reported by HRSA in 2036. The percentages speak to the extent/adequacy to which demand is projected to be met by the supply of providers. Vascular surgery is the specialty with the lowest projected adequacy. Other specialties with low projected adequacy include those that provide primary care including general internal medicine (76 percent), family medicine (78 percent), and geriatrics (81 percent).

Table 1: Projected Percent Adequacy by Physician Specialty from Highest to Lowest Projected Adequacy, 2036 *

Physician specialty	Projected adequacy†	Physician specialty	Projected adequacy†
Emergency medicine	123%	Orthopedic surgery	89%
Critical care medicine & pulmonology	112%	Infectious diseases	88%
Endocrinology	110%	Radiology	87%
Neonatology	110%	Allergy & immunology	87%
Colorectal surgery	100%	Obstetrics/gynecology	87%
Dermatology	100%	Pathology	85%
Gastroenterology	98%	Urology	83%
Hematology & oncology	97%	Cardiology	83%
Physical medicine & rehabilitation	97%	Geriatrics	81%
General Surgery	95%	Nephrology	78%
Pediatrics	95%	Family medicine	78%
Neurology	94%	Hospital medicine	77%
Rheumatology	90%	General internal medicine	76%
Radiation oncology	90%	Plastic surgery	74%
Otolaryngology	90%	Ophthalmology	71%
Neurological surgery	90%	Thoracic surgery	70%
Anesthesiology	90%	Vascular surgery	64%

* This table does not include projected adequacy for adult psychiatrists (45 percent) and child and adolescent psychiatrists (75 percent). <https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/Behavioral-Health-Workforce-Brief-2023.pdf>. Additional discussion of the behavioral health workforce follows later in this section.

† Projected adequacy is calculated as projected supply over projected demand and can be over 100% when supply is projected to exceed demand. The projection model does not take into account changes in future decision making and other dynamics such as fewer medical school graduates choosing a given specialty over time if there were decreasing demand for that specialty.

Note: These estimates were taken from the Health Resources & Services Administration’s workforce projections on July 17, 2024 and the data as well as a description of their projection model are available here:

<https://data.hrsa.gov/topics/health-workforce/workforce-projections>

*While 94 percent of estimated demand for physician services will be met in metro areas in 2036, it is important to note that **less than half of estimated demand (44 percent) will be met in non-metro areas.***

While 94 percent of estimated demand for physician services will be met in metro areas in 2036, it is important to note that less than half of estimated demand (44 percent) will be met in non-metro areas.^{11,*} Some of the physician shortage may be offset by increased roles for advanced practice nurses and physician assistants.

Care must be used in considering these projections. For example, while projections suggest a more than adequate supply of emergency physicians in 2036 at both the national and sub-national levels, it is important to consider that over the past 3 years, the number of emergency medicine

residency program applications (per-program) has [decreased by 30 percent](#). Emerging trends, such as this, illustrate why regular updates of projections are important. Further, national aggregates mask regional shortages of many specialties. Monitoring trends in obstetrician/gynecology supply and distribution across the country will be especially important given the nation's maternal morbidity and mortality challenges and shortages of such providers in certain areas, particularly rural areas.

Registered and Advanced Practice Nurses

There were approximately 4.3 million FTE registered nurses (RNs) in the United States in 2022, including more than 465,000 advanced practice registered nurses (APRNs).¹² The number of registered nurses exiting the profession increased temporarily during the pandemic. There was a reduction of 1.8 percent of the RN workforce in 2021, disproportionately accounted for by nurses under the age of 35.^{13,14} However, these numbers rebounded in 2022 and 2023, although competition for registered nurses remains strong.¹⁵ Recent registered nurse workforce growth has occurred in non-hospital settings.¹⁶ While the supply of registered nurses is projected to grow by 14 percent by 2036, demand is projected to grow by 18 percent over this period resulting in 91 percent adequacy.¹⁷ A subset of registered nurses are nurse practitioners who have advanced clinical education and training allowing them to provide a greater scope of care and serve as primary care and specialty providers. Unlike registered nurses overall, there is projected to be a surplus (192 percent projected adequacy) of nurse practitioners by 2036 and a surplus of 188 percent adequacy for nurse practitioners working in primary care.[†]

The Bureau of Labor Statistics identifies nurse practitioners (a type of advanced practice nurse) as one of the most rapidly growing professions nationally, with a projected growth of 45 percent between 2022 and 2032. Surpluses in the number of nurse practitioners may help offset physician shortages noted above.

Licensed Practical Nurses and Licensed Vocational Nurses

Licensed practical/licensed vocational nurses (LPNs) provide direct patient care under the direction of registered nurses, advanced practice registered nurses, and physicians. LPNs work in a variety of

* The metro and non-metro classification is based on the NCHS urban-rural classification scheme. Information on this classification scheme is available and its development is available here:

<https://pubmed.ncbi.nlm.nih.gov/24776070/>

† Note that these projections are based on a “status quo” scenario that evaluates whether the nation’s future APRN workforce is sufficient to provide at least the current level of care.

settings, including nursing and residential care facilities, hospitals, physicians' offices, and private homes; however, the largest employers of LPNs (35 percent) include nursing and residential care facilities.¹⁸

Employment for LPNs is projected to grow 3 percent from 2023 to 2033. About 54,000 openings are projected each year, on average, over the decade.¹⁹ HRSA projects the demand for LPNs will grow faster than supply between 2021 and 2036, resulting in a projected shortage of 99,070 LPN FTEs in 2036. Nationwide, the projected supply of LPNs in 2036 is sufficient to meet just 88 percent of the demand for LPNs, compared to 93 percent in 2026.²⁰

Direct Care Workers

Direct care workers encompass many types of workers, with different job titles and duties. They assist older adults and persons with disabilities with activities of daily living such as eating, dressing, and bathing, and instrumental activities of daily living such as managing money and shopping in a range of long-term care settings: nursing facilities, hospitals, facilities for persons with intellectual and developmental disabilities, community-based residential settings (that is, group homes and assisted living facilities), many non-residential day programs (for example, adult day programs), and in the consumer's home.

*By 2032, jobs providing direct care to assist older adults and people with disabilities will account for nearly one in every six jobs, **making it the largest occupational category in the economy.***

According to the U.S. Bureau of Labor Statistics (BLS), the number of personal care aides (PCAs), home health aides (HHAs), and nursing assistants more than doubled between 2000 and 2022 from approximately 2.4 to 5.1 million, and demand for these workers is expected to continue to grow to more than 5.9 million jobs in the next decade as the United States population ages and more people seek services in home and community-based settings.^{21,22} HHAs and PCAs are projected to experience the largest increase in new jobs of any occupation between 2022 and 2032. These occupations are projected to gain 804,600 new jobs and account for

approximately one of every six new jobs by 2032, *making them the largest occupational category in the economy.*²³ Because there are currently high vacancy rates, these numbers likely underestimate the true need for these workers. One projection that accounts for current vacancies, estimates there will be 8.9 million direct care jobs available between 2022 and 2032.²⁴

Behavioral Health Workforce

The traditional behavioral health workforce comprises several different occupations, each with different education, training, and licensure requirements, many of which vary state-to-state. A 2023 report from HRSA's Bureau of Health Workforce's National Center for Health Workforce Analysis described the current supply of the behavioral health workforce for 2021 for many professions: addiction counselors (86,794), marriage and family therapists (26,763), mental health counselors (112,948), psychiatric aides (30,590), psychiatric NPs (22,023), psychiatrists (50,376), psychologists (95,865), and social workers (552,890).²⁵ As stated above, this report is limited to a subset of the provider types that make up the behavioral health workforce. For instance, peer support specialists, prevention specialists, and community health workers are critical parts of the behavioral health continuum but are not within the

scope of the report. It is also important to note that a significant proportion of the behavioral health services delivered in the U.S. are delivered by primary care providers, or through a partnership between primary care providers and behavioral health specialized workers, and there is often co-location/integration between primary care and behavioral health care providers.

According to SAMHSA's National Survey on Drug Use and Health (NSDUH), only 23.6 percent of people who needed substance use treatment in 2023 received any treatment. The NSDUH also found that of the 58.7 million adults with any mental illness in 2023, nearly half did not receive mental health treatment and almost 30 percent of the 14.6 million adults with a serious mental illness did not receive treatment.²⁶ Provider shortages are exacerbated by other factors like providers not accepting insurance, high out-of-pocket costs, and coverage gaps that contributed to the difficulty faced by many Americans in accessing behavioral health services.²⁷

Furthermore, there have been significant increases in the number of children diagnosed with mental health conditions between 2016 and 2020. The number of children ages 3-17 years old diagnosed with anxiety grew by 29 percent and those with depression grew by 27 percent.²⁸ In addition, only 58 percent of children with mental or behavioral conditions receive mental health treatment or counseling²⁹ and research highlights significant geographic and racial and ethnic disparities in receipt of behavioral health care.³⁰ The U.S. has a widespread workforce shortage for providers who serve youth and children; 70 percent of U.S. counties do not have a single child/adolescent psychiatrist.³¹

Over the next 15 years (through 2036), HRSA's National Center for Health Workforce Analysis (NCHWA) projects shortages in many key behavioral health occupations, including: 87,630 addiction counselors FTEs, 69,610 mental health counselor FTEs, 62,490 psychologist FTEs, 42,130 psychiatrist FTEs, 27,450 marriage and family therapist FTEs, and 21,030 school counselor FTEs. These projections are based on current use of behavioral health services and do not account for the large amount of unmet need for behavioral health services. To meet current and unmet service need, the NCHWA projects needing far more behavioral health providers across all occupations.³²

Oral Health Workforce

The oral health workforce consists of dentists (general and pediatric dentists, endodontists, orthodontists, periodontists, oral surgeons) and allied professionals, including dental hygienists, dental therapists, dental assistants, dental laboratory technicians, and community dental health coordinators (CDHCs). HRSA projects that the demand for general dentists, periodontists, and dental hygienists will grow faster than the availability of these professionals by 2036 (see Table 2). One study estimated that approximately 8 percent of dental hygienists left the workforce at the beginning of the pandemic and a follow-on study found continued hesitancy among hygienists about re-entering the workforce persisting for over a year and half into the pandemic.^{33,34} The oral health industry is also facing a critical shortage of dental assistants, with as many as 88 percent of dentists encountering considerable difficulties in recruiting dental assistants.³⁵ Enrollment in dental assistant programs has declined since 2015 and this trend is expected to continue.³⁶ Aging of the oral health workforce is one factor that likely contributes to declines in supply. One survey found that approximately one-third of dental assistants and hygienists are [expected to retire within five years](#) and other research estimates the [median dentist age to be 51.5](#).^{37,38}

Table 2: Projected Percent Adequacy by Oral Health Provider Type, 2036

Oral Health Provider	Projected adequacy*
General dentists	95%
Pediatric dentists	144%
Endodontists	104%
Orthodontists	114%
Periodontists	88%
Oral surgeons	100%
Dental hygienists	88%

* Projected adequacy is calculated as projected supply over projected demand and can be over 100% when supply is projected to exceed demand. The projection model does not take into account changes in future decision making and other dynamics such as fewer medical school graduates choosing a given specialty over time if there were decreasing demand for that specialty.

Note: These estimates were taken from the Health Resources & Services Administration’s workforce projections on July 17, 2024 and the data as well as a description of their projection model are available here:

<https://data.hrsa.gov/topics/health-workforce/workforce-projections>

Recruitment and Retention in the Indian Health Service

The Indian Health Service (IHS) supports the provision of a range of clinical services and health-related supports to approximately 2.8 million American Indians and Alaska Natives (AI/ANs) who are members of 574 federally recognized tribes in 37 states. These services may be provided directly by the IHS or by tribes who have entered self-governance agreements. The IHS also operates a grant program for Urban Indian Organizations that provide public health services and support to AI/ANs living in urban areas. This collection of efforts is referred to as I/T/U. In many cases, I/T/U health professionals face more extreme versions of the difficulties encountered by the health care workforce more generally.

These professionals serve a population with many health challenges. AI/AN populations have shorter lifespans, are disproportionately affected by certain health conditions, and have worse health outcomes compared to the overall U.S. population. These conditions and health outcomes include high rates of infant mortality, alcohol and substance use disorder, mental illness, suicide, diabetes, obesity, smoking and tobacco use, and HIV/AIDS.³⁹

IHS provides services in remote parts of the country where recruitment and retention are difficult. Chronic underfunding for AI/AN health services hampers the comprehensive delivery of care which contributes to the stress of professionals serving these populations. In FY 2021, vacancy rates for health care professionals systemwide were 26 percent for medical officers, 20 percent for physician assistants, 15 percent for pharmacists, 29 percent for nurses, 25 percent for advanced practice nurses, and 19 percent for dentists.⁴⁰

The Indian Health Service operates a scholarship program which provides tuition, fees, and a monthly stipend for AI/AN students from federally recognized Tribes enrolled in health profession or allied health profession programs. It also operates a loan repayment program where participants agree to serve two years at an Indian health program in exchange for up to \$25,000 per year in loan repayment funding and up to an additional \$6,000 per year to offset tax liability. Collectively these two programs are funded at \$81 million in FY 2024.⁴¹ In addition, a portion of the National Health Service Corps (\$15.6 million in FY 2024) is restricted to providers at I/T/U facilities.

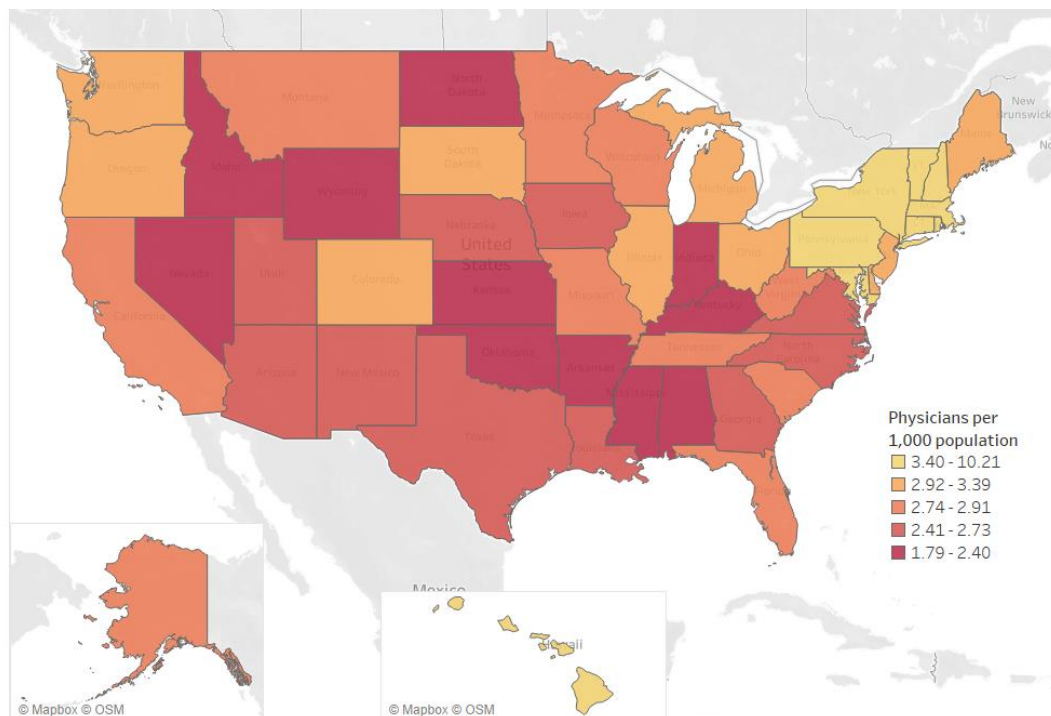
To address its high vacancy rate in its FY 2024 budget submission the IHS is seeking expanded hiring authorities that would allow them to pay its health workforce more competitive salaries. It is also seeking tax treatment of its scholarship and loan repayment programs parallel to that of the National Health Service Corps.⁴²

Distribution of Practitioners

Physicians

Figure 3 displays the per capita density of physicians across the United States in the period from 2017 to 2021 and illustrates that the health care workforce is unevenly distributed across the country. States with fewer physicians per capita are scattered through the south, Midwest, and western parts of the country.

Figure 3: Physicians per 1,000 Persons by State, 2017-2021

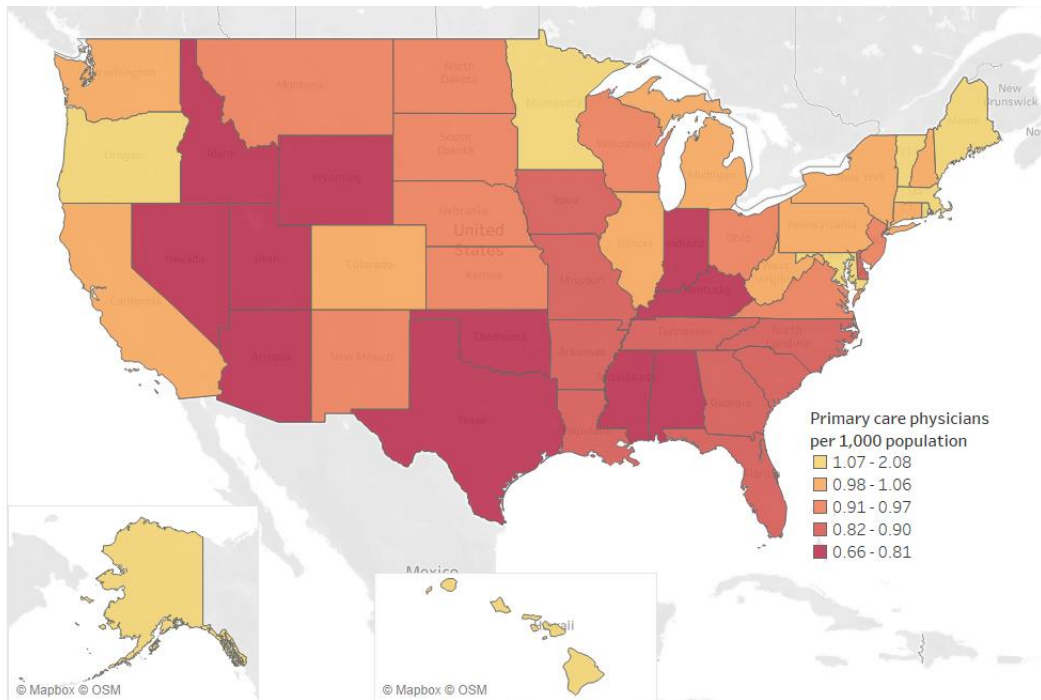


Note: Data for this figure were taken from the Area Health Resources Files (2022-2023), which pulls the information from the 5-year American Community Survey (2017-2021). Darker colors indicate greater need (in this case, fewer physicians per 1,000 persons). These data are available here: <https://data.hrsa.gov/topics/health-workforce/ahrf>

In terms of primary care, the number of primary care physicians per capita range from a high of 202 per 100,000 population in the District of Columbia to a low of 55 per 100,000 in Oklahoma.* Rural areas are especially affected, and large portions of the country are designated as geographic primary care, dental, or mental health professional shortage areas (HPSAs).⁴³ Figure 4 displays the density of primary physicians across the country and Figure 5 displays the location of geographic HPSAs across the country. With a few exceptions, the pattern of the distribution of primary care physicians below is similar to that of physicians overall in Figure 3. The number of primary care physicians relative to the population is one input used by HRSA to calculate unmet need.

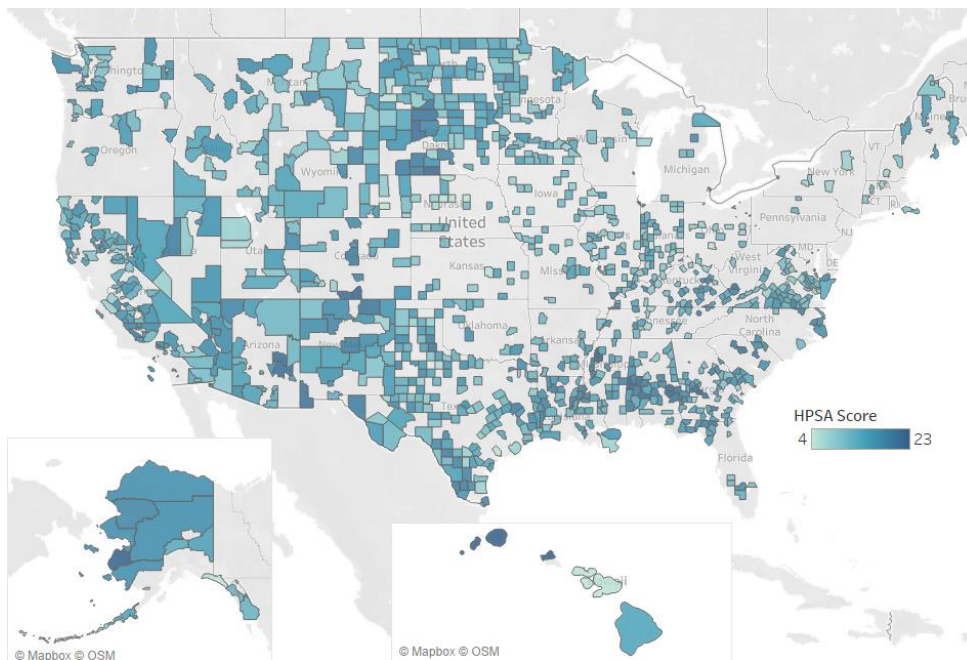
* The District of Columbia is an outlier; the state with the highest rate is Vermont with 135 primary care physicians per 100,000 population. Data for this figure were taken from the Area Health Resources Files (2022-2023) which pulls the information from the American Medical Association Physician Masterfile 2021 and the Census Bureau 2021.

Figure 4: Primary Care Physicians per 1,000 Persons per State, 2021



Note: Data for this figure were taken from the Area Health Resources Files (2022-2023) which pulls information on primary care physicians from the American Medical Association Masterfile 2021 and pulls population information from Census data as of 2021. Darker colors indicate greater need (in this case, fewer primary care physicians per 1,000 persons). These data are available here: <https://data.hrsa.gov/topics/health-workforce/ahrf>

Figure 5: Primary Care Geographic Health Provider Shortage Areas

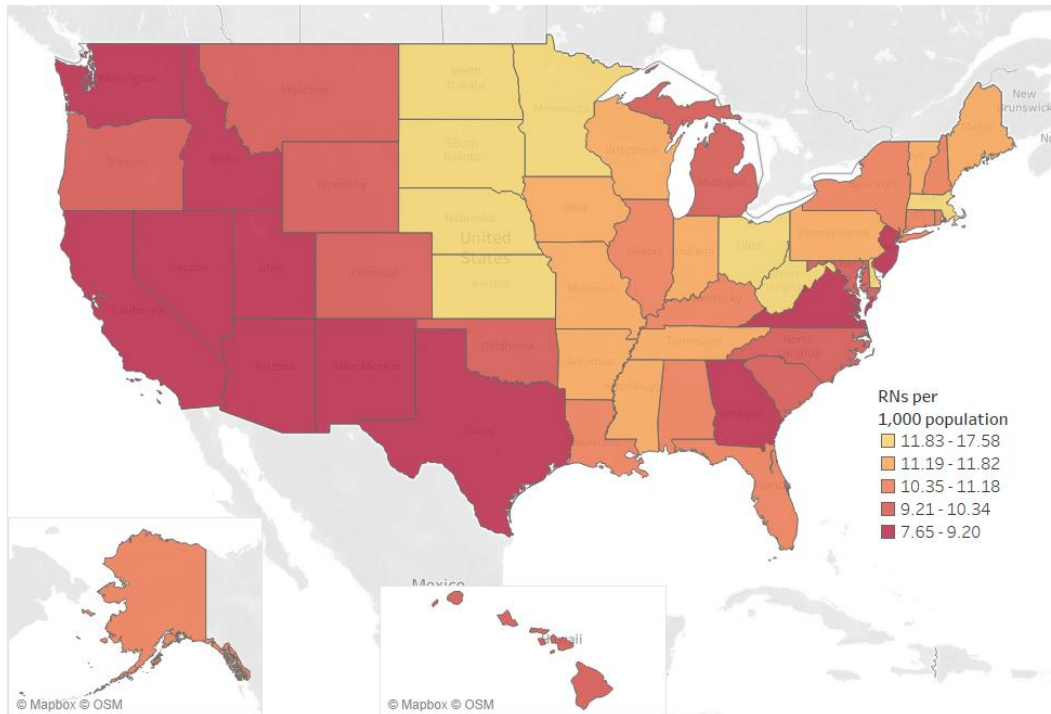


Note: Data on health provider shortage areas were provided by HRSA, through its online data tool, downloaded July 2024. Available here: <https://data.hrsa.gov/data/download>. This map does not display population and facility HPSAs.

Registered and Advanced Practice Nurses

Similar to physicians, the density of registered nurses across the United States varies considerably by state. Figure 6 displays the per capita density of registered nurses across the United States and shows that states with lower densities of registered nurses are largely located in the west.

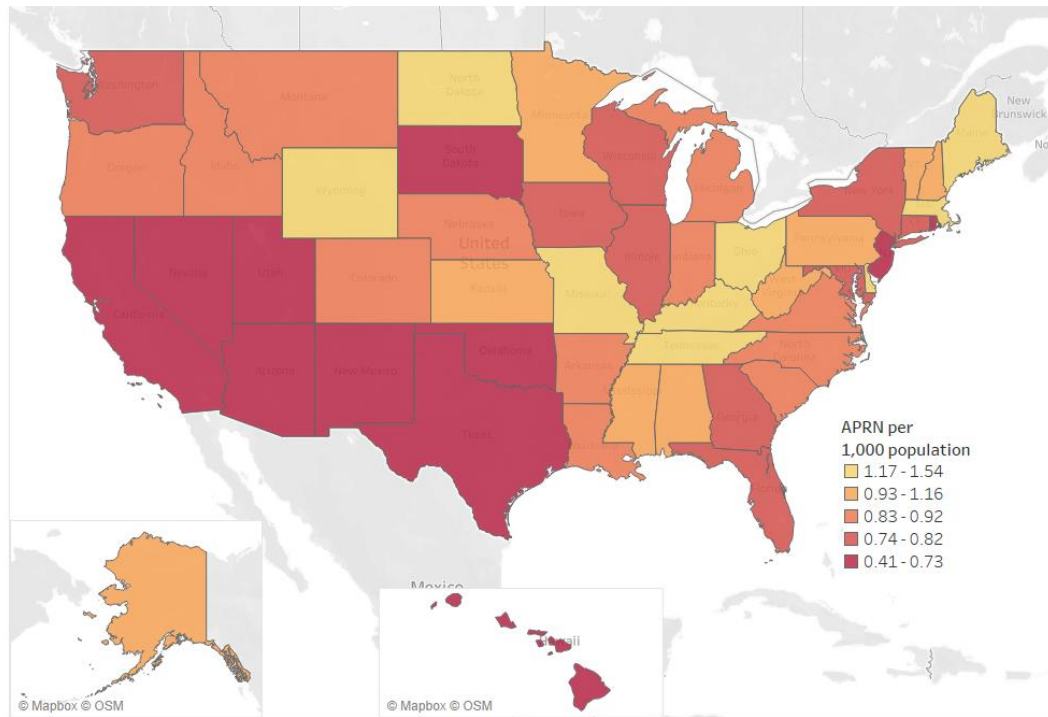
Figure 6: Registered Nurses (RNs) per 1,000 Persons by State, 2017-2021



Note: Data for this figure were taken from the Area Health Resources Files (2022-2023), which pulls the information from the 5-year ACS (2017-2021). All registered nurses (RNs), including advanced practice registered nurses (APRNs) are included. Darker colors indicate greater need (in this case, fewer RNs per 1,000 persons). These data are available here: <https://data.hrsa.gov/topics/health-workforce/ahrf>

Figure 7 displays the per capita density of advanced practice nurses across the United States. This figure shows that some of the states with the lowest per capita number of physicians are among the states with the highest densities of advanced practice nurses. This is important, because advanced practice nurses can perform many of the same services as physicians depending on state licensure laws. As noted earlier the Bureau of Health Workforce projects an adequate supply of nurse practitioners through 2036.⁴⁴

Figure 7: Advanced Practice Registered Nurses (APRNs) per 1,000 Persons by State, 2017-2021



Note: Data for this figure were taken from the Area Health Resources Files (2022-2023), which pulls the information from the 5-year ACS (2017-2021). Darker colors indicate greater need (in this case, fewer APRNs per 1,000 persons). These data are available here: <https://data.hrsa.gov/topics/health-workforce/ahrf>

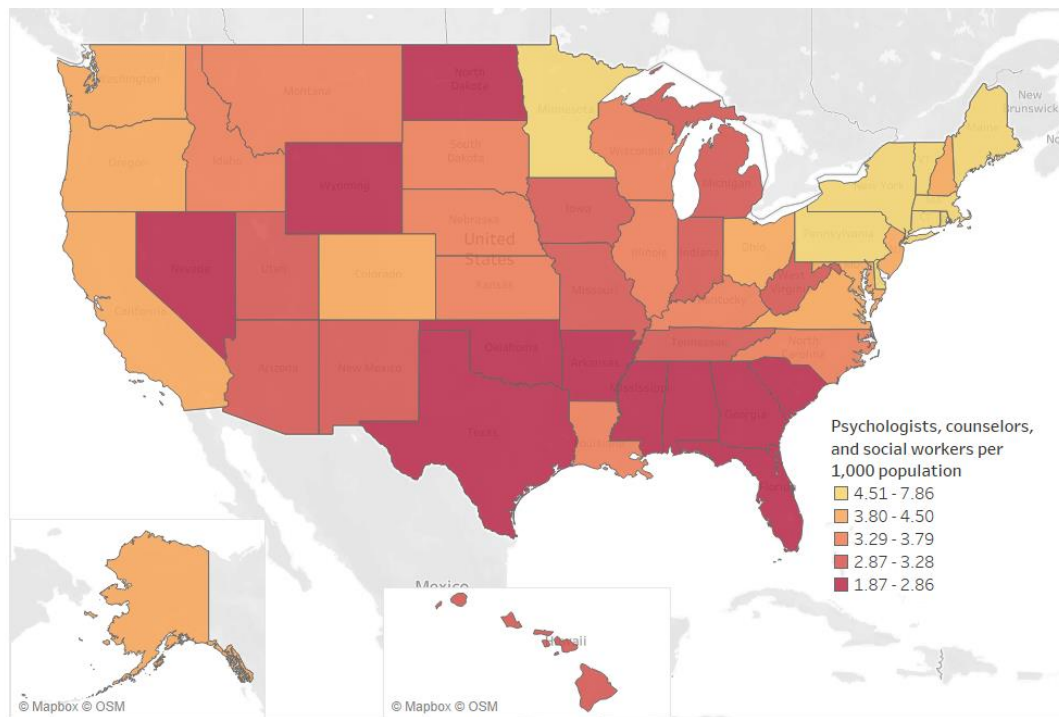
Licensed Practical Nurses and Licensed Vocational Nurses

As with RNs, HRSA reports the projected adequacy of supply for LPNs varies considerably across states, ranging from 25 percent (a 75 percent shortage) in Maine to 165 percent (a 65 percent oversupply) in Oklahoma in 2036.⁴⁵

Behavioral Health

Figure 8 shows the number of psychologists, marriage and family therapists (MFTs), substance use and mental health counselors, and social workers per 1,000 persons in each state. While these three common provider types are only examples of the entirety of the behavioral health workforce, the figure illustrates that behavioral health providers are unevenly distributed across the United States. Northeastern states and Minnesota have the highest number of these behavioral health workers per capita relative to the rest of the country. States in the south and North Dakota, Wyoming, and Nevada have the fewest practitioners per capita. This figure demonstrates disparities in supply at the state level, but does not show known disparities in access to behavioral health treatment even within individual states due to concentrations of providers in urban settings and few rural providers or rates of providers who accept Medicaid, Medicare, or commercial insurance.

Figure 8: Psychologists, Marriage and Family Therapists, Mental Health and Addiction Counselors, and Social Workers per 1,000 Persons by State, 2017-2021



Note: Data for this figure were taken from the Area Health Resources Files (2022-2023), which pulls information from the 5-year ACS (2017-2021). Darker colors indicate greater need (in this case, fewer psychologists, MFTs, counselors, and social workers per capita). These data are available here: <https://data.hrsa.gov/topics/health-workforce/ahrf>

Oral Health Workforce

More than 57 million Americans reside in areas with a shortage of oral health professionals.⁴⁶ Similar to other segments of the health workforce, there are disparities in access to dentists in rural areas. For instance, 67 percent of dental HPSAs are in rural or partially rural locations.⁴⁷ In addition, one survey found that over 68 million adults lack dental insurance, a potentially important barrier to accessing care for certain populations.

Investment in Training

Workforce supply is in large part a function of the number of individuals receiving training in each field. Certain types of training support can also affect the distribution of health care workers. HHS supports health care professional training, education, and deployment programs designed to expand and strengthen the health care workforce and improve access to care in underserved areas. The largest source of HHS workforce support is Graduate Medical Education (GME) funding provided by the Medicare and Medicaid programs. Medicare GME largely supports the hospital-based training of resident physicians and has two components: direct GME (DGME) and indirect medical education (IME). DGME reimburses hospitals on a cost per resident basis for Medicare’s share of operating a residency program, such as resident salaries.⁴⁸ IME is a Medicare payment adjustment made to account for the additional patient care costs associated with training.⁴⁹ In 2020, total Medicare GME payments were an estimated \$16.2 billion, with \$4.5 billion in payments for DGME and \$11.7 billion in payments for IME.⁵⁰

Medicaid GME also focuses on support for hospitals providing training for residents although some states have extended their support to other practitioners and other service locations.⁵¹ Total state and federal spending on Medicaid GME in 2022 was an estimated \$7.4 billion.

Most of the Department's other investments in health care workforce training are found in the Health Resources and Services Administration's (HRSA's) Bureau of Health Workforce, whose enacted appropriation for FY 2024 was \$2.1 billion.⁵² The Bureau maintains a diverse portfolio of workforce development and deployment programs. It manages two programs directed at resident training, the Children's Hospital Graduate Medical Education Program that supports residency training in free-standing children's hospitals and the Teaching Health Center Graduate Medical Education program that supports residency training in community-based settings. These two programs account for roughly 27 percent of the Bureau's appropriations. It also supports two major programs within the National Health Service Corps and the Nurse Corps where participants receive scholarship or loan repayment in exchange for service in a HPSA, a facility with a critical shortage of nursing, or as nurse faculty in an accredited school of nursing. An increasing focus of HRSA workforce programs has been the training of behavioral health professionals and support for nursing programs, largely through grants to health professions schools and programs.

As the budget numbers presented above suggest, investment in the health care workforce has been dominated by support for medical residency training.* HRSA supports the behavioral health workforce supply through several programs, such as the [Behavioral Health Workforce Education and Training \(BHWET\) Program for Professionals](#); [BHWET for Paraprofessionals](#); [Opioid-Impacted Family Support](#); [BHWET – Children, Adolescents, and Young Adults Program for Professionals](#); [Graduate Psychology Education Program](#); and the [SUD Treatment and Recovery Loan Repayment Program](#). HRSA's National Health Service Corps (NHSC) also provides loan repayment to qualified behavioral health providers through the [NHSC Substance Use Disorder Loan Repayment Program \(LRP\)](#), NHSC [Rural Community LRP](#), and [NHSC LRP](#). The Substance Abuse and Mental Health Services Administration (SAMHSA) supports over [29 Training and Technical Assistance \(TA\) centers and 14 Centers of Excellence \(COE\)](#) providing clinical, organizational, and policy training, resources, and support for organizations and providers. Each TA center and COE focuses on a different organization, population, or provider type. Additionally, the SAMHSA Minority Fellowship Program (MFP) aims to increase the knowledge of behavioral health professionals on issues related to prevention, treatment, and recovery support and harm reduction for individuals from racial and ethnic minority populations.

One barrier to entry into a health profession is concern over student debt. Seventy-three percent of medical students graduate with debt and the average medical school graduate owes \$250,995 in total student loan debt.⁵³ In 2021, average student loan debt for registered nurses with a Bachelor of Science in Nursing was \$23,711.⁵⁴ Service-obligated scholarships and loan repayment programs like the NHSC, Nurse Corps and similar programs in the Indian Health Service help address this problem while simultaneously encouraging locating in under-resourced areas.

* Presenting meaningful information on the number of physicians trained in various residency fields is challenging because of the degree of sub-specialization that occurs. For instance, many residents in general internal medicine programs go on to become primary care physicians. However, many other general internal medicine residents go on to pursue further training in subspecialties such as gastroenterology, critical care medicine, or cardiovascular disease (among several other subspecialties), in which case they will not be practicing as primary care physicians. Hence, depending on the specialty, it is not possible to predict what types of medicine a given physician will actually practice based on their specialty.

Another barrier to entry into direct care jobs is the cost of training. Training programs for direct care workers remain widely available from providers (nursing homes, home health and home care agencies) seeking to recruit employees as well as from vocational schools and community colleges, but students are increasingly required to pay upfront for the training required to qualify as a certified nursing assistant, home health aide, or other state-specific personal care aide credential. They are also often expected to cover transportation to and from the training, child care, and attend unpaid trainings during traditional work hours. Providers are increasingly requiring trainees to front the costs with the understanding that they may be reimbursed via retention bonuses added to their pay if they remain employed by the agency that trained them for a specified time period. Many low-wage direct care workers cannot afford the upfront costs of training.

In addition to training individuals newly entering the health care field, it is important for health care systems and providers to consider ways in which they can support career development for their existing staff. Career ladders, which support workers to get training and certification towards a more advanced role, can help both retain health care workers by providing them with a potential path toward career advancement and help expand the number of workers available to fill more advanced roles. For example, a healthcare facility can help a Certified Nurse Aide become an LPN with training and support. These ladders should also be pathways to higher wages for the worker.

Burnout and Burden

The supply of health care workers is not only affected by the number of individuals entering the workforce after training but also by whether existing workers elect to remain in the field. Many health care settings experience significant rates of turnover that can have a detrimental impact on provider staffing levels. This section discusses the role of provider burnout and burden, and the next section addresses the role of compensation in recruitment, retention, and workforce wellbeing.

Prevalence of Burnout

The health and well-being of the health care workforce has been a long-standing concern that was exacerbated during the COVID-19 pandemic. As discussed in greater detail below, the delivery of health care can involve long hours and stressful workplace conditions while trying to address some of the most pressing concerns individuals will face in their lifetime. These conditions are not isolated to one type of health care professional. Burnout, in particular, has been highlighted in an advisory published by the U.S. Surgeon General, the National Academy of Medicine, and by numerous academic researchers and the popular press, in part, because of the added strain placed on the health care workforce stemming from the COVID-19 pandemic.^{55,56,57,58} Burnout is characterized by exhaustion, loss of a feeling of professional efficacy or accomplishment, and depersonalization or cynicism.⁵⁹ Burnout, as well as some mental health conditions such as depression and suicide, are often found to be higher among health care workers than among the general public.^{60,61,62,63} Even before the pandemic, for instance, more than half of physicians and residents in the United States reported at least one symptom of burnout, according to one study.⁶⁴ Another study looking at family medicine physicians just before the pandemic (December 2019 to January 2020) found that depressive symptoms, loneliness, and burnout were reported by more than 40 percent of the survey respondents.⁶⁵ Burnout also seemed to be increasing prior to the pandemic. Between 2011 and 2014, the prevalence of burnout increased 9 percent among doctors while remaining essentially stable among other workers.⁶⁶ Similarly high rates of burnout have also been found among nurses.^{67,68}

Research and data on burnout among primary health care providers and workers tends to focus on nurses, physicians, and medical students, with a few exceptions (there is some limited evidence of similar rates of burnout among physician assistants and nurse practitioners compared to nurses).⁶⁹ More research and measurement of burnout in other groups of health care workers is needed to understand the scope of the issue and address it. In the long-term care sector, the factors most often associated with direct care employee burnout are difficult working conditions and the level of staffing. Insufficient staffing and work overload results in employee burnout, dissatisfaction, and turnover.^{70,71}

General Factors Contributing to Burnout

There are many factors that have contributed to the high rates of burnout observed in health care workers even prior to the pandemic. For instance, many health care workers work long hours and have heavy workloads and insufficient work-life balance, particularly when accounting for various administrative tasks they must address beyond the clinical care they provide. There are also systemic and societal challenges such as worker shortages, the regulatory and policy contexts, insufficient support by employers and the health care system, poor workplace culture and leadership, payer requirements, administrative burden, and the evolving challenges of adopting new technologies.⁷²

The Contribution of the Pandemic

For many health care workers, the COVID-19 pandemic exacerbated these existing issues. In addition to the emotional and mental load of dealing with such a challenging, frightening, and unprecedented situation, the sheer number of patients overwhelmed existing resources and staff in many places, leading to an even greater workload and potential exhaustion and mental health consequences. Other possible contributors to burnout during the pandemic were seeing coworkers, family, and friends getting sick or dying or getting sick themselves and potentially bringing COVID-19 back to their families and communities.^{73,74} A survey of physicians early in the pandemic found, for instance, that doctors who spent a higher portion of their day treating COVID-19 patients had greater levels of anxiety and depression and higher PTSD scores.⁷⁵ Using data from the National Sample Survey of Registered Nurses, a HRSA study found that feelings of burnout increased for nurses working during the pandemic with more than half experiencing feelings of burnout at least a few times a week.⁷⁶ Some health care workers reported being pulled from their normal work to treat COVID-19 patients or to treat patients and fill roles that were outside their usual work and experience.⁷⁷ Violence in the workplace for health care workers is another potentially contributing factor to burnout that increased during the pandemic.^{78,79,80} In addition to the challenges confronted by all health care professionals during the pandemic, in a number of states, direct care workers were not considered essential workers and did not have prompt access to personal protective equipment to protect against exposure to COVID, testing, or vaccines like other health care professionals.⁸¹

Underlying pre-pandemic conditions were exacerbated during the COVID-19 Public Health Emergency and have had a significant impact on the health care workforce. CDC has found more than double the number of health workers reported harassment at work in 2022 than in 2018. Nearly half of health workers reported often feeling burned out in 2022, up from 32 percent in 2018. Nearly half of health workers intended to look for a new job in 2022, up from 33 percent in 2018. In addition, the American Medical Association reported that burnout among physicians reached a record high of 62.8 percent in 2021 before declining slightly to 53 percent in 2022 and falling to 48.2 percent in 2023, approaching pre-pandemic levels which were already high.⁸²

There are many reasons to be concerned about the high rates of burnout among health care workers, and about any lasting effects of the pandemic. Burnout has been found, for instance, to be associated with greater likelihood of mental health concerns such as anxiety, depression, and suicidal ideation, as well as other adverse outcomes such as occupational injury and harmful behaviors such as problematic alcohol use.^{83,84} Burnout and mental health concerns among the health care workforce also have implications beyond workers themselves. Providers experiencing burnout may not provide the same quality of care for their patients, leading to potentially more medical errors and lower patient satisfaction.^{85,86,87} Burnout is also associated with absenteeism and lower productivity.⁸⁸ It may also contribute to people leaving the profession, reducing their hours, or retiring or to people choosing not to enter the health care workforce to begin with further compounding the situation for those currently employed in the health care sector. Studies have shown, for example, that burnout among physicians and nurses is associated with higher reported intention to leave their current practice or their field.⁸⁹ A number of studies found evidence that health care workers, particularly nurses, were considering or planning on leaving their profession during the pandemic, and the reasons provided usually related to insufficient staffing, workload, the pandemic and its emotional toll, and burnout.^{90,91,92,93,94,95} There are also financial costs to the system from burnout. One analysis (from 2019) suggested that at least \$4.6 billion in costs were attributable to physician turnover and reduced clinical hours from burnout.⁹⁶ The American Medical Association estimated (in 2018) that when physicians leave or reduce hours due to burnout it can cost their organization between \$500,000 to \$1 million per doctor.⁹⁷ In addition, burnout may contribute to loss of empathy and increased bias. One study found an association between increased symptoms of burnout and heightened racial bias in medical residents.⁹⁸

Compensation

Health care workforce wages can vary substantially by professional and within profession with some professions, such as direct care workers, receiving very low wages and few benefits resulting in them experiencing personal financial challenges.

Physicians

As displayed in Table 3, compensation for physicians varies widely across specialties, with primary care specialties like internal medicine, family medicine, and pediatrics near the bottom of the distribution. Ensuring those involved in primary care are adequately compensated is important because evidence suggests a strong link between the availability and utilization of primary care and population health outcomes and health equity.^{99,100,101,102}

Table 3: Average Annual Earnings by Selected Physician Specialty (\$ thousands), 2024

Specialty	Average annual earnings (Top 10 in \$ thousands)	Specialty	Average annual earnings (Bottom 10 in \$ thousands)
Orthopedics	\$558	Nephrology	\$341
Plastic Surgery	\$536	Physical Medicine & Rehabilitation	\$341
Cardiology	\$525	Allergy & Immunology	\$307
Urology	\$515	Rheumatology	\$286
Gastroenterology	\$512	Internal Medicine	\$282
Radiology	\$498	Family Medicine	\$272
Dermatology	\$479	Public Health & Preventive Medicine	\$263
Anesthesiology	\$472	Infectious Diseases	\$261
Oncology	\$464	Pediatrics	\$260
Otolaryngology	\$459	Diabetes & Endocrinology	\$256

Note: These statistics were taken from <https://www.medscape.com/sites/public/physician-comp/2024> ; psychiatrist compensation included below in discussion of behavioral health workforce compensation.

Registered and Advanced Practice Nurses

The median pay per year across all employment settings (health care and other sectors) for a registered nurse was approximately \$86,070 in 2023. This amount varies by place of employment with registered nurses in nursing and residential care facilities making approximately \$79,280, on average, those in ambulatory health care services making \$81,000, on average, and those in hospitals making \$88,430, on average. The amount also varies by role, for instance, registered nurses that diagnose and treat patients make approximately \$98,760, on average.¹⁰³ Registered nurses who continue their training to become advanced practices nurses such as nurse practitioners can also earn higher wages. The median annual wage for a nurse practitioner in the U.S. was \$126,260 in 2023.¹⁰⁴

Licensed Practical Nurses and Licensed Vocational Nurses

The median pay across all employment settings for licensed practical and licensed vocational nurses was approximately \$60,790 in 2023. This amount varies by place of employment. Industries with the highest levels of employment include skilled nursing facilities (\$63,730), hospitals (\$55,380), home health care services (\$61,050), physician offices (\$53,580), continuing care retirement communities and assisted living facilities (\$61,390). The national median pay for licensed practical nurses and licensed vocational nurses was \$28.72 per hour (\$59,730) in 2023.¹⁰⁵

Direct Care Workers

The COVID-19 pandemic generated unprecedented awareness of the value and vulnerability of the U.S. long term care system and its direct care workforce.^{106,107} Many direct care workers left their jobs during the COVID-19 pandemic, underscoring the importance of this workforce in maintaining the health and well-being of older adults and people with disabilities.^{108,109,110} Despite the high, and increasing, demand for these workers and the important services they perform for individuals, families, and society, these jobs are persistently challenging, often with part-time hours and unpredictable scheduling, wages lower than other comparable entry-level jobs, limited access to training, few benefits, and high rates of injury.²⁰

As a result, job turnover is high, recruitment and retention are challenging for both families and service providers, and people often cannot get the care they need.¹¹¹

Inadequate compensation (wages and benefits) is consistently cited as the primary factor causing direct care workers to leave the long-term care sector for other jobs. Low wages are thought to contribute to direct care workforce shortages because wages for these workers are often not enough to make jobs competitive with entry level positions in other industries with similar requirements. Many direct care workers are lost to other sectors that offer similar or better wages and more flexible schedules, more hours, and other benefits.¹¹² Higher wages have been found to reduce separations and increase stable hires, which both benefits workers and improves patient health and safety.¹¹³ In 2023, national median wages were \$16.12 per hour (\$33,530 per year) for home health and personal care aides; \$18.36 per hour (\$38, 200) for certified nurse aides.¹¹⁴

In 2023 median wages of home health and personal care aides were lower than the wages of other entry level jobs in all states, with an average difference of \$3.15 per hour. Median wages of nursing assistants were lower than the wages of other entry-level jobs in 40 states and the District of Columbia, with an average difference across all states of \$0.76 per hour.

Despite the growing need for direct care workers and their essential place in the health care system highlighted during the COVID-19 pandemic, a 2023 study revealed that median wages of home health and personal care aides were lower than the wages of other entry level jobs in all states, with an average difference of \$3.15 per hour. Median wages of nursing assistants were lower than the wages of other entry-level jobs in 40 states and the District of Columbia, with an average difference across all states of \$0.76 per hour. The wage gap between nursing assistants, home health aides, and personal care assistants who provide direct care and workers in other entry-level jobs vary widely across states.¹¹⁵

workers work multiple jobs and rely on public assistance; few workers qualify to receive comprehensive benefits through their employer because many work part-time.¹¹⁶

Low wages also means that many direct care workers struggle financially. Many direct care

Behavioral Health Workforce

Compensation for behavioral health workers also varies widely based on the profession and employment setting. Table 4 shows average annual salaries for common behavioral health professions derived from 2023 BLS data. Behavioral health professions are less likely to take insurance and may face lower rates of reimbursement compared to other types of specialty care. For instance, one study found that 55 percent of psychiatrists accepted private insurance compared with 89 percent of other specialty physicians; 55 percent of psychiatrists accepted Medicare compared with 86 percent of other specialties; and 43 percent of psychiatrists accepted Medicaid compared with 73 percent of other specialties.¹¹⁷

Table 4: Mean Annual Salary for Behavioral Health Professions, May 2023

Profession	Average Annual Salary
Psychiatrists	\$276,080
Clinical and Counseling Psychologists	\$80,400
School Psychologists	\$89,410
Psychologists, All other	\$102,670
Marriage and Family Therapists	\$65,150
Mental Health and Substance Use Social Workers	\$48,410
Substance Use, Behavioral Disorder, and Mental Health Counselors	\$56,090

Note: These data are derived from BLS Occupational Employment and Wage Statistics, May 2023. Occupation Profiles. Accessed August 2024. https://www.bls.gov/oes/2023/may/oes_pa.htm#19-0000

Health Workforce Diversity

There is substantial evidence that having a skilled health care workforce that is diverse and representative of the patients they serve is not only associated with better health outcomes, but with improved access to care as well as a better patient care experience and improved satisfaction with the care received.^{118,119,120,121} Having a diverse team also improves the outcomes and learning of the clinicians working in those environments. However, lack of diversity and representativeness has been a long-standing challenge. Table 5, for instance, compares certain demographic characteristics of a selection of provider types compared to the full population and the employed population. It shows, for instance, that physicians are more likely to be male, older, and non-Hispanic White or non-Hispanic Asian compared to the general population, and less likely to be non-Hispanic Black or African American, non-Hispanic American Indian or Alaska Native or to be Hispanic or Latino. Registered nurses are much more likely to be female than the general population and are also more likely to be non-Hispanic White or non-Hispanic Asian and less likely to be Hispanic or Latino than the general population. Personal care aides, however, while also being more likely to be female, are less likely to be non-Hispanic White and more likely to be non-Hispanic Black or African American, non-Hispanic Asian, and Hispanic or Latino.

This is consistent with a pattern others have also noted of underrepresentation of people of color among health care provider types requiring extensive training and schooling (particularly among physicians) and an overrepresentation among entry-level health care workers, who often receive far lower rates of compensation.¹²² There are many potential contributing factors to these patterns, including the many systemic and structural barriers as well as immigration policy and high financial costs of accessing and receiving medical training.^{123,124} HRSA maintains a suite of programs aimed at helping the health care workforce and its pipeline support diverse individuals. These include the Centers of Excellence program, Scholarships for Disadvantaged Students program and Health Careers Opportunity Program.

Table 5: Demographic Characteristics of a Selection of Types of Health Care Workers, Compared to the Full Population, 2018-2022

Provider types	Female	Age 50 +	White	Black	Asian	American Indian/ Alaska Native	Hispanic	Multiple/ Other
Physicians	37.9%	41.5%	61.8%	5.3%	21.6%	0.2%	7.4%	3.8%
Registered nurses	87.9%	33.8%	66.8%	11.7%	9.3%	0.3%	8.6%	3.3%
Personal care aide	82.1%	42.3%	41.1%	24.5%	8.3%	0.7%	21.2%	4.1%
Total population	50.4%	35.7%	58.9%	12.1%	5.7%	0.6%	18.6%	4.1%
Employed population	46.9%	32.5%	69.9%	11.8%	6.1%	0.5%	18.2%	3.6%

Note: All race/ethnicity groups are non-Hispanic, except the category of Hispanic (i.e., White is non-Hispanic White). Data were pulled from the Area Health Resources Files, which pulled data from the 5-year ACS (2018-2022). These available here: <https://data.hrsa.gov/topics/health-workforce/ahrf>

The behavioral health workforce is predominantly female and non-Hispanic White.¹²⁵ Although a diverse health workforce has demonstrated increasing access to care and improved quality, and people report preferring to be served by a behavioral health worker from their community, the behavioral health workforce lacks needed representation from different communities. SAMHSA’s TA centers develop and disseminate training and technical assistance for healthcare practitioners and organizational and community leaders on issues related to addressing behavioral health disparities, including the [African American Behavioral Health Center of Excellence](#), [American Indian and Alaska Native Behavioral Health Center of Excellence](#), [Tribal Training and Technical Assistance Center](#), [Asian American, Native Hawaiian, and Pacific Islander Behavioral Health Center of Excellence](#), [Hispanic/Latino Behavioral Health Center of Excellence](#), [Historically Black Colleges and Universities Center of Excellence in Behavioral Health](#), and [LGBTQ+ Behavioral Health Equity Center of Excellence](#).

The long-term care sector direct care workforce is primarily composed of women, Hispanic or African American, and immigrants with limited educational attainment and training who work inconsistent or part-time hours for multiple employers.¹²⁶ Gender and racial equity are central concerns for these workers. Direct care workers are often marginalized in the U.S. labor market. This is reflected in their low wages, limited advancement opportunities, and poor job quality. Persons of color make up 40 percent of the nationwide workforce, but account for 64 percent of home care workers, 60 percent of residential care aides, and 58 percent of nursing assistants in nursing homes. Immigrants comprise 16 percent of the total U.S. workforce but represent 31 percent of home care worker, 22 percent of residential care aides, and 22 percent of nursing assistants in nursing homes.

Incorporating Telehealth and other Innovations into Care Delivery

The COVID-19 pandemic ushered in a major change in health care delivery that is likely to be permanent and which has implications for the education and training, as well as the supply and distribution of the health care workforce. Before 2020, service delivery through telehealth existed but was not commonplace. For example, in Medicare fee-for service, care through telehealth was limited by statute to care provided in specified medical settings in mostly rural areas. To ensure that access to health care would be maintained during the pandemic, CMS used emergency waiver authority enacted by Congress to establish flexibilities that removed geographic requirements and expand where and how care could be provided.¹²⁷ Telehealth visits in fee-for service Medicare increased to 37 million in 2021. Some of these flexibilities have been extended permanently; others will expire at the end of 2024 absent Congressional action.¹²⁸ Among the most significant permanent telehealth changes are several related

to behavioral health: Medicare beneficiaries can receive telehealth services for behavioral health care in their homes wherever they reside, without geographic restrictions for the originating site for behavioral health telehealth services and these services can be delivered using audio-only communication platforms under certain circumstances¹²⁹ In 2024, SAMHSA made permanent COVID-10 public health emergency flexibilities allowing opioid treatment providers (OTPs) to screen patients for initiation of buprenorphine via audio-only or audio-visual telehealth technology and screen patients for initiation of methadone via audio-visual telehealth technology. OTPs now have additional flexibilities to provide take-home medications, making methadone treatment easier to access.¹³⁰

States also lifted state-specific limitations related to the provision of telehealth services and commercial payors adopted coverage for telehealth services during the pandemic to address access challenges. Of the respondents to the U.S. Bureau of the Census Pulse Household Survey, reporting on behalf of themselves and children within their households during the period April 2021 to August 2022, 26.8 percent of Medicare beneficiaries, 28.3 percent of Medicaid beneficiaries and 20.2 percent of those with private insurance reported a telehealth visit within the previous four weeks.¹³¹

Telehealth has become an accepted mode of care delivery in part through actions taken by the Department during the pandemic. It has the potential to alleviate some of the problems of workforce maldistribution and its impact on availability and quality need to be carefully assessed. Maximizing its usefulness and appropriateness is an ongoing challenge, with implications for workforce training, the organization of care delivery, and related data collection and research. In particular, expanding tele-behavioral health care access requires interstate licensure portability models that allow clinicians in one state to provide services to a patient in another.¹³² As other innovations in health care delivery emerge, such as incorporation of artificial intelligence into health care delivery, careful attention and ongoing research will be needed to assess their impact on the health care workforce. Such technologies and how they are used should be designed to help, not hamper, the efforts of health care workers to deliver high quality care.

ADDRESSING WORKFORCE CHALLENGES: MOVING FORWARD

The federal government, state governments, professional societies and foundations all contribute to addressing workforce issues. While not the only federal department with programs addressing the health care workforce, HHS has a critical role to play in developing the health care workforce and working towards its equitable distribution.

Recognizing the benefit of pursuing a whole-of-government approach, there are several issues within HHS authority where additional progress can be made, and there are also actions that those in the private sector can take to support progress in addressing the challenges outlined in this report. The below describes funding and legislative proposals in the President's FY 2025 budget, as well as other opportunities for progress.

Health Care Workforce Supply, Distribution, Diversity, and Compensation

Many of the challenges facing the health care workforce, and their solutions, are linked closely together (for instance, HHS training programs are often designed with the goals of both increasing the supply and improving the distribution of health care workers). Given this interconnection, the below outlines some

of the opportunities that potentially influence the supply, distribution, and/or diversity of the health care workforce.

The President's fiscal year (FY) 2025 budget proposes:

- \$150 billion over ten years in Medicaid home and community-based services (HCBS), which are services enabling older adults and people with disabilities with long-term services and supports needs to remain in their homes and integrated into their communities. This proposal expands access to quality care and promotes better pay and benefits for HCBS workers. This investment builds on the HCBS funding that passed as part of the American Rescue Plan Act of 2021 (ARP; P.L. 117-2).
- \$916 million for the National Health Service Corps (NHSC), including \$790 million in mandatory funding. The FY 2025 budget extends and increases mandatory funding for NHSC through FY 2026. This is \$497.7 million more than the FY 2023 final amount. Supplemental COVID-19 funding allowed the NHSC field strength to grow in FYs 2021 and 2022 to its highest levels ever, cresting at 20,215 in at the close of FY 2022. However, as supplemental COVID-19 funding has expired, field strength numbers declined in FY 2023 to 18,335. The pending budget request would return field strength to its higher level and allow for growth to an anticipated field strength of over 24,800.
- \$253.6 million for Behavioral Health Workforce Development Programs, which is \$56.5 million more than FY 2023.¹³³ There are several programs included in this group of programs, and the grants that would be funded through this budget request will support the training of approximately 15,500 individuals.
- \$320 million in mandatory funding for the Teaching Health Center Graduate Medical Education (THCGME) program. The budget extends and increases mandatory funding for THCGME through FY 2026. This is \$200.7 million more than in FY 2023 and would support over 1,800 full-time equivalent slots. In contrast to the support CMS provides for hospital-based residency training, this program supports primary care training in community-based ambulatory settings. Participants in the program have been found to be significantly more likely than graduates of other programs to practice close to their training sites and in rural areas, and to care for underserved patients.
- \$105.6 million for the Advanced Nursing Education programs, a suite of grant programs directed at advanced practice nurses, (\$10 million more than FY 2023). This funding level will train approximately 8,200 nurses in FY 2025 and supports, among other activities, 10 new awards for the Maternity Care Nursing Workforce Expansion Program, to expand and diversify the maternal and perinatal health nursing workforce.
- \$10 million to expand the Administration for Community Living's (ACL's) Direct Care Workforce Strategies Center and fund capacity-building grants to states to support building partnerships among state Medicaid, aging, disability, and workforce agencies; coordinating and leveraging programs and funding streams; and developing and testing strategies to attract, train and retain direct care workers.

- \$25 million for the SAMHSA Minority Fellowship Program (MFP) to support fellowships for students receiving post-baccalaureate training in mental health and substance use fields Who are dedicated to serving individuals from racial and ethnic minority populations. The Budget also includes funding to continue support for a prevention fellowship program which develops and sustains a well-trained and knowledgeable cadre of prevention professionals.¹³⁴

The FY25 President’s Budget also proposes several changes to workforce programs addressing the issues of workforce supply and distribution that require action by Congress. The Budget proposes:

- To extend the 10 percent incentive payment for physicians’ services provided in geographic Health Professional Shortage Areas (HPSAs) to a broader range of clinicians, including nurse practitioners, physician assistants, and certified nurse specialists, as well as behavioral health practitioners, including clinical psychologists, licensed clinical social workers, mental health counselors, and marriage and family therapists.
- To allow legal permanent U.S. residents to participate in the National Health Service Corps.
- That the tax-exempt status afforded to the NHSC scholarship and loan repayment programs be extended to other scholarship and loan repayment programs operated by HRSA such as the Nurse Corps scholarship and loan repayment program, and to scholarship and loan repayment programs operated by the IHS, thereby extending their reach.
- To establish new programs that would be administered by CMS and HRSA, to support nurse training, education, recruitment and retention and loan repayment specifically for long term care facilities. The proposal would also authorize a summit to be convened by HHS to seek public and private solutions in resolving the workforce shortages and retention concerns in long-term care.
- To require that graduating professionals who have received a fellowship from one of the Minority Fellowship Program grantees serve in low-income, underserved communities including racial, ethnic, sexual and gender minority populations for a minimum of 2 years. Additionally, SAMHSA proposes that the addiction medicine field be an eligible profession under the Minority Fellowship Program. Lastly, the agency proposes inclusion of sexual and gender minority populations as populations served by this program.

There are a host of other federal opportunities, beyond those in the President’s Budget, to address the supply, distribution, and/or diversity of the health care workforce. Examples include:

- CMS issued the *Medicaid Program; Ensuring Access to Medicaid Services* final rule, which appeared in the Federal Register on April 24, 2024 (the “Access Rule”). The Access Rule is an important step in addressing compensation concerns of some direct care workers. Among the new requirements for Medicaid Home- and Community-Based Services (HCBS) programs, states generally must ensure each provider spends 80 percent of total Medicaid payments the provider receives for furnishing homemaker, home health aide, and personal care services on total compensation for the direct care workers providing these services, as opposed to administrative overhead or profit, subject to certain flexibilities and exceptions. States must comply with this requirement beginning July 9, 2030.^{135,136}

- HHS launched a Health Workforce Initiative in 2023 to identify challenges and opportunities to improve the health workforce pipeline, recruitment and retention, and career advancement with a focus on equity. The initiative will inform actions focused on the workforce pipeline, retention, and professional development/career advancement and will focus on ways to maximize existing policy and grantmaking across HHS, as well as identify new initiatives, partnerships, and gaps to address.
- An important development in GME has been the recent increase in residency slots supported by Medicare. The Consolidated Appropriations Act, 2021 provided 1,000 new CMS supported GME positions to be phased in over five years. This has been the first major expansion of Medicare-supported residency positions in over 20 years. In the first allocation of these new slots in January 2023, CMS awarded 200 residency positions to teaching hospitals across 30 states, the District of Columbia and Puerto Rico, the first major increase since imposition of the 1997 cap. CMS allocated 125 to primary care and 20 to psychiatry and prioritized new slot placement in high need areas as determined by HPSA status. A second allocation of 200 residency slots was announced in November 2023.^{137,138} CMS will continue to award 200 new GME slots each year through 2026.¹³⁹ Further, the Consolidated Appropriations Act of 2023 (Public Law 117-328) provided 200 partially Medicare-funded residency slots and dedicated at least one-half of the positions to psychiatry or psychiatry subspecialty residencies.¹⁴⁰
- The Department will continue to support multi-pronged efforts to help address the shortage of maternal health care providers in underserved areas through training or encouraging regionalized approaches to delivery of maternal health services and providing support for care providers such as doulas and community health workers, including through state Medicaid programs. These professionals provide one-on-one support through the pregnancy, childbirth, and postpartum periods including by providing referrals to health care providers to address specific needs.
- The Department is committed to expanding the Health Center Program. Its FY 2025 request consists of \$1.9 billion in discretionary resources and \$6.3 billion in mandatory funding would put HRSA on a pathway to doubling the program. As the program grows, health centers have important roles to play in health workforce development. They serve as sites for the Teaching Health Center Graduate Medical education program, an important source of new primary care physicians. Moreover, HRSA supports technical assistance training for health center staff that also helps them to grow professionally. Sharing promising practices of health centers that “grow their own” can help the program as a whole provide better care, while improving the lives of their employees.¹⁴¹

Workforce Burnout and Burden

Health care systems, in partnership with federal and state government, can take steps to address provider burnout.

- Violence against health workers: Support can be provided for the implementation of workplace safety training programs that emphasize zero-tolerance for physical, verbal, and/or cyber-based

violence, and that provide guidance on how to improve processes for health care staff to express workplace safety concerns without risk of punitive consequences. Training should be provided to increase awareness of while helping leadership and staff respond to and prevent/address racism and implicit bias.

- **Mental health care access and support:** Health care staff need to be provided with access to affordable, confidential, and convenient mental health and substance use care and staff should not be penalized for proactively addressing their mental health and substance use needs, either currently or in the past. Support can be provided for evidence-based training and practices that support prevention, early intervention, and treatment of an array of conditions including burnout and mental health challenges including suicide, depression, and secondary trauma to promote true workplace wellbeing.
- **Wellbeing metrics:** Health care systems can survey their staff to assess the well-being of their staff and identify opportunities to improve well-being. CDC 's National Institute of Occupational Safety and Health (NIOSH) has developed and validated the NIOSH Worker Well-being Questionnaire which can be used to measure worker well-being over multiple domains and help organizations prioritize interventions and supports.¹⁴²
- Hospitals and health care system can remove intrusive and often discriminatory mental health questions from credentialing applications.¹⁴³
- Health care systems can support adequate staffing levels to enable health care workers to take rest breaks, earned leave, and sick leave. Family-friendly policies such as childcare and care for older adults can be made available to support health care workers needs outside of the workplace.
- Health care leaders and systems need resources to start making organizational-level changes to address burnout and improve the mental health of their employees. The [NIOSH Impact Wellbeing™ campaign](#) gives hospital leaders evidence-informed tools to reduce healthcare worker burnout, sustain wellbeing, and build a system where healthcare workers thrive.¹⁴⁴
- Health care workers should be trained in team-based care models that promote approaches encouraging collaboration, sense of purpose, and constructive group accountability, while guarding against the emergence of workplace cultures that can contribute to counterproductive, negative relationships, role-based arrogance, and isolation.

Incorporating Telehealth and other Innovations into Care Delivery

- A systematized way of identifying technological innovations as they develop could be established to inform assessments of their safety and potential impact on the health care workforce, identify regulatory barriers that could be removed, and identify best practices in related issues, such as interstate licensure of health professions, and suggest incentives for their use.
- Innovations in technology and associated workflows can increase the amount of time that health care staff spend with patients and aid in clinical decision-making. The potential benefits of new technologies such as artificial intelligence to reduce administrative burden related to EHR record

taking and to support advanced clinical decision making such as recognizing patterns in symptoms and health care utilization to predict the need for preventive interventions needs to be assessed as new technologies emerge.

- Assistive technologies and home modifications can be used to assist with direct care worker lifting, transferring, and repositioning tasks to help reduce the load and strain from conducting manual client-handling and mitigate worker injuries.

HHS EFFORTS TO ADDRESS KEY ISSUES AND CHALLENGES

Strategic Planning and Monitoring Trends to Inform Policymaking

Administration for Community Living

- ACL awarded a five-year grant totaling over \$6 million to establish a national center to expand and strengthen the direct care workforce across the country. The [Direct Care Workforce Strategies Center](#) delivers training and technical assistance to state cross agency teams to build capacity and drive systems change in the recruitment, training, and retention of the direct care workforce. The Strategies Center also facilitates collaboration with stakeholders to improve recruitment, retention, training, and professional development of the direct care workforce who provide the critical services that make it possible for people with disabilities and older adults to live in their own homes and communities.

Centers for Disease Control and Prevention

- In 2023, CDC created a new [Office of Rural Health](#). ORH is work across the agency to coordinate and improve rural public health efforts; including addressing workforce needs. In service of this goal, ORH collaborates with external partners to ensure that rural public health needs and strategies are integrated into CDC's public health programs at the outset. This office will continue to work closely with HRSA and the U.S. Department of Agriculture on rural health projects and initiatives to benefit individuals living in rural areas.

Health Resources and Services Administration

- HRSA's [Health Workforce Strategic Plan 2021](#) provides a forward-looking framework for health workforce improvements, focused on four key goals: expanding supply, ensuring equitable distribution, improving quality, and enhancing the use of data and evidence to improve program outcomes. This plan was required by the Coronavirus Aid, Relief, and Economic Security (CARES) Act (Public Law No. 116-136), which directed the Secretary of HHS to develop a "comprehensive and coordinated plan with respect to HHS health workforce development programs, including education and training programs." The plan contains high level goals and objectives for agencies across the Department, addressing many of the challenges discussed in this paper. It also describes programs and activities across the Department that can contribute to meeting these goals and objectives.

- HRSA’s Bureau of Health Workforce has produced [data tools and dashboards](#) illustrating key aspects of some of its programs. Its dashboard illustrating retention of its participants over time in providing care in HPSAs and in rural areas is an excellent illustration of how data can be used to track significant results.¹⁴⁵ Data it provides on its workforce grant programs provides counts of the number of participants, training sites and courses developed.¹⁴⁶

Office of the Assistant Secretary for Planning and Evaluation

- On April 25, 2024, an ASPE led HHS-DOL workgroup released recommendations, in the form of an [issue brief](#), to improve data infrastructure on the direct care workforce delivering home and community-based services (HCBS) in response to President Biden’s [Executive Order 14095: Increasing Access to High-Quality Care and Supporting Caregivers](#). The importance of direct care workers to the United States economy, combined with the increasing demand for services and persistent job quality, recruitment, and retention challenges in the sector make it critical that policymakers have data that can be used to support the workforce and track the impacts of policy changes over time. Implementing these recommendations will drive data-informed policy decisions to improve the quality of and access to HCBS for the millions of Americans who are receiving or need these services.¹⁴⁷

Substance Abuse and Mental Health Services Administration

- SAMHSA funded the first-ever national substance use prevention workforce assessment to inform the composition, stability, training, challenges, and needs of this critical specialty workforce. Assessment results will identify needs associated with substance use prevention workforce capacity and clarify opportunities for strengthening the substance use prevention workforce.
- The Interagency Coordinating Committee on the Prevention of Underage Drinking will incorporate substance use prevention workforce-focused questions into future iterations of the annual STOP Act governor’s survey. Inputs to these questions will inform important aspects of substance use prevention workforce-related metrics and help highlight annual trends across states throughout the nation.
- On February 27, 2024, members of SAMHSA’s Center for Substance Abuse Prevention (CSAP) National Advisory Council (NAC) authorized the formation of a subcommittee to focus on substance use prevention workforce issues and generate possible recommendations for consideration by the full CSAP NAC.
- SAMHSA and HRSA fund a [behavioral health workforce research center](#) at the University of North Carolina at Chapel Hill to improve the data and research on the workforce responsible for providing mental health and substance use services. The research is intended to inform policies that support the workforce and increase access to quality behavioral health services.

Health Care Workforce Supply, Distribution, and Diversity

Agency for Healthcare Research and Quality

The Agency for Healthcare Research and Quality (AHRQ) and Patient-Centered Outcomes Research Institute (PCORI) fund Learning Health System Embedded Scientist Training and Research (LHS E-StaR). These centers are dedicated to enhancing the healthcare workforce by training clinicians and research scientists in patient-centered comparative clinical effectiveness research (CER). They address the issues of shortages and the need for specialized skills among primary care physicians, behavioral health professionals, nurses, and direct care workers through this work.

Centers for Disease Control and Prevention

- CDC, in partnership with the American Hospital Association (AHA) and the League for Innovation in the Community College, launched an initiative to integrate infection control content into community college classrooms with the goal of helping healthcare workers start their careers with the infection control knowledge and realities of practice they need to keep themselves and their patients safe. As part of this initiative, which was funded through a cooperative agreement with the AHA, Project Firstline worked with 16 community colleges representing diverse, intergenerational healthcare students. Project Firstline's investment in community colleges seeks to begin to address healthcare quality disparities by focusing on an educational setting that is racially, geographically, and socioeconomically diverse, for instance, these community college programs support a student population that is an average of 16 percent African American, higher than the national program average of 12 percent. In FY22-23, CDC and partners developed an interactive webinar series for community college faculty to provide information on infection control topics such as PPE and hand hygiene and educational tips for presenting the content to support faculty to better prepare their students to be infection control leaders upon graduation.

Centers for Medicare and Medicaid Services

- In September 2023, CMS announced that the agency would be investing over \$75 million to launch a national nursing home staffing campaign, including loan forgiveness and other supports, to increase the number of nursing staff in nursing homes, thereby enhancing residents' health and safety.
- Provisions in the American Rescue Plan provided expanded access to home- and community-based services (HCBS) for people with disabilities and older adults through a temporary 10 percentage point increase to the federal medical assistance percentage for certain Medicaid expenditures for HCBS. Nearly all state spending plans indicate funds have been used to include workforce development initiatives including provision of recruitment and retention bonuses, pay increases and student loan forgiveness for direct support professionals, including behavioral health providers, as well as developing certification and training programs for direct support professionals.¹⁴⁸

Health Resources and Services Administration

- In September 2024, HRSA awarded almost \$100 million in workforce grants: more than \$19 million over four years to five schools, including two community colleges, to increase the nursing workforce practicing in acute care settings and long-term care facilities; nearly \$12 million to three medical schools to help increase the number of primary care physicians in medically underserved rural and tribal communities; more than \$63 million to 32 organizations to train and increase the number of peer support specialists and other community-based providers and to provide mental health services and family support to children whose parents or guardians are impacted by opioid use disorders and other substance use disorders; and an additional \$4.6 million to existing grantees to expand their efforts to provide pediatricians mental health training and to support them in conducting tele-consultations with psychiatrists to provide real-time behavioral health support to their child and adolescent patients.¹⁴⁹
- In June 2024, HRSA [awarded](#) more than \$11 million to 15 organizations to establish new residency programs in rural communities. One program will create the first obstetrics and gynecology Rural Track Program in the country, and six others will develop new family medicine residency programs with enhanced obstetrical training in rural communities. Funding can be used to support accreditation costs, curriculum development, faculty recruitment and retention, resident recruitment activities, and consultation services for program development. Among the 16 awardees, they proposed to create 148 new residency positions. HRSA also provided \$11 million in similar support to [145 awardees](#) in FY 2023.
- In 2023, HRSA made \$100 million in funding available to grow the nursing workforce including registered nurses, nurse practitioners, certified nurse midwives, and nurse faculty. These funds are being used to help licensed practical nurses become registered nurses, training nurses to deliver primary care, mental health care, and maternal health care, and addressing bottlenecks in nurse training by supporting more nurse faculty.*
- In 2022, HRSA invested \$8.4 million through the Nurse Education, Practice, Quality and Retention- [Clinical Faculty and Preceptor Academies Program](#) to support academic-clinical partnerships to train clinical nursing faculty and preceptors, which will help increase the capacity of program to train more nurses.
- In 2022, HRSA made \$4.5 million in funding available to hire, train, certify, and compensate community-based doulas in areas with high rates of adverse maternal and infant health outcomes. The funding was provided through HRSA's [Healthy Start](#) Initiative, which increased the total number of Healthy Start doula programs from 25 to 44 nationwide. Healthy Start works to improve health before, during, and after pregnancy and reduce racial and ethnic disparities in rates of infant deaths and adverse maternal health outcomes.
- In 2022 HRSA awarded \$225 million to 83 organizations for training for community health workers.¹⁵⁰

- In 2022, HRSA invested nearly \$60 million to expand the health workforce and increase access to quality health care in rural communities. Nearly \$46 million of this amount went to [expanding health care capacity in rural and tribal communities](#) through health care job development, training, and placement. The funding supports key critical areas in community health support workers, health IT, community paramedicine and case management staff or respiratory therapists. Nearly \$10 million supported [residency medical residency programs in rural communities](#). In addition, nearly \$4 million support awards to improve patient health outcomes and quality and delivery of care throughout [rural counties](#) and improve access to care for [rural veterans](#).
- HRSA’s Health Professions Pipeline and Diversity programs include the Centers of Excellence Program, Scholarships for Disadvantaged Students program, and the Health Careers Opportunity Program. Collectively, they are funded in FY 2024 at \$99 million. These programs: provide grants to academic institutions, including to support Historically Black Colleges and Universities and other educational institutions with proven track records in matriculating and graduating underrepresented health professions students; provide scholarships to students with high financial need; and support pipeline programs to encourage young people to pursue a health career.¹⁵¹ The Scholarships for Disadvantaged Students program directs funds to educate midwives to address the national shortage of maternity care providers. Additionally, up to 25 percent of this program’s funding is designated for graduate programs in behavioral health.¹⁵²
- HRSA awarded \$2.5 million to 4 organizations to carry out programs under which licensing boards of various states cooperate to develop and implement state laws and policies related to licensure that reduce barriers to telehealth and make it easier for health care providers to practice across state lines.¹⁵³
- HRSA provides funding to the [Rural Recruitment and Retention Network](#) to link providers interested in working in rural and underserved communities with job opportunities. The Network supports primary care and behavioral health clinicians. Since 2021 the Network has placed 7,498 professionals at sites.

Substance Use and Mental Health Services Administration

- SAMHSA’s Historically Black Colleges and Universities Center of Excellence in Behavioral Health provides training, recruitment, and preparation for students to obtain advanced degrees in the behavioral health field. With this program, SAMHSA aims to increase the number of students prepared to enter the behavioral health field and provide culturally competent services; increase student awareness of careers in behavioral health; assist students with continuing their education in behavioral health; and establish partnerships among HBCUs and other organizations to share resources and strategies to strengthen their capacity to recruit and train students for careers in substance use, mental and co-occurring disorder treatment.
- SAMHSA also aims to improve the distribution of the health workforce to reduce shortages through several grant and centers of excellence, including: 1. The Rural Emergency Medical Services Training Grant and Rural Opioid Technical Assistance Center to conduct targeted recruitment, training, and retention investments to improve access to a high-quality health care workforce in rural and underserved areas; 2. The Expansion of Practitioner Education and

Providers Clinical Support System-University programs to increase the supply and capacity of the behavioral health workforce to provide evidence-based treatment in primary care settings; and 3. The Center of Excellence for Infant and Early Childhood Mental Health Consultation to provide targeted investments to reduce disparities in access to specialized health care services, including behavioral health and maternal and child health services.

Health Care Workforce Burnout and Burden

Agency for Healthcare Research and Quality

- AHRQ’s Center for Quality Improvement and Patient Safety (CQuIPS) has launched the National Action Alliance for Patient and Workforce Safety (NAA). This is a public-private collaboration that is focused on obtaining an interim goal of a 50 percent reduction in patient and workforce harm while working to achieve, Safe Care Everywhere, Zero Preventable Harm for All. As it relates to workforce safety, the NAA seeks to make healthcare safer by design, by identifying key interventions that if engineered differently would result in safer patient and workforce safety. The NAA also seeks to strengthen safety competencies across all disciplines serving patients to improve both patient and workforce safety.

Centers for Disease Control and Prevention

- CDC’s National Institute of Occupational Safety and Health released an evidence-informed guide for the nation. This Guide is the newest addition to the *Impact Wellbeing™* campaign launched in October 2023. It provides a step-by-step process for hospitals to start making organizational-level changes to improve the mental health of their employees.¹⁵⁴

Centers for Medicare and Medicaid Services

- In January 2024, CMS released a final rule intended to improve the exchange of electronic information and streamline the prior authorization process.¹⁵⁵ While prior authorization can help ensure medical care is necessary and appropriate, it can sometimes be an obstacle to necessary patient care when providers must navigate complex and widely varying payer requirements or face long waits for prior authorization decisions.¹⁵⁶ Beginning primarily in 2026, payers impacted by this rule will be required to send prior authorization decisions within 72 hours for expedited (i.e., urgent) requests and seven calendar days for standard (i.e. non-urgent) requests for medical items and services. For some payers, this new timeframe for standard requests cuts current decision timeframes in half. Payers will also have to include a specific reason for denying a prior authorization request and will be required to publicly report certain prior authorization metrics. The rule additionally requires impacted payers to implement and maintain application programming interface (API) technology that can be used to facilitate a more efficient electronic prior authorization process between providers and payers by automating the end-to-end prior authorization process. These requirements will help address administrative frictions that can contribute to burnout and enable clinicians to spend more time on direct care.

- In November 2023, CMS hosted the inaugural *Conference on Optimizing Healthcare Delivery to Improve Patient Lives*, for which over 2,500 people registered. The conference focused on opportunities to reduce administrative burden, strengthen access to quality care, and make it easier for clinicians to provide that care. CMS has hosted several roundtable discussions with patients and providers to follow-up on specific issues raised during the conference and is planning a second conference for December 2024.

Health Resources and Services Administration

- [In 2022](#), HRSA awarded \$103 million in funding from the American Rescue Plan to improve the retention of health workers and help respond to the nation’s critical staffing needs by reducing burnout and promoting mental health and wellness among the health care workforce. These awards funded evidence-informed programs, practices, and training, with a specific focus on providers in underserved and rural communities.

Office of the Surgeon General

- In 2022, the Office of the U.S. Surgeon General published: [Addressing Health Worker Burnout: The U.S. Surgeon General’s Advisory on Building a Thriving Health Workforce](#). In addition to providing contextual information to draw the public’s attention to this important issue, the Advisory provided policy and program areas that specific stakeholders can take to address the systems-level drivers of health worker burnout. Health worker well-being continues to be a priority of the Office of the Surgeon General.¹⁵⁷

Substance Use and Mental Health Services Administration

- In 2022, SAMHSA developed a guidebook, [Addressing Burnout in the Behavioral Health Workforce through Organizational Strategies](#), highlighting organization-level interventions to prevent and reduce burnout among behavioral health workers.

Incorporating Telehealth and other Innovations into Care Delivery

Indian Health Service

- President Biden’s Bipartisan Infrastructure Law provided \$2 billion in funding, through the Tribal Broadband Connectivity Program, to fill the infrastructure gap and aid adoption efforts to Tribes. This funding was in addition to \$2 billion for ReConnect funding, a program for high-speed infrastructure projects on rural and tribal land. This will be especially useful in the delivery of telehealth services. To further support access, IHS partnered with digital navigators to come to local rural health care facilities to sign up tribal members for the Affordable Connectivity Program which provides a discount for internet bills.

Health Care Workforce Research

Agency for Healthcare Research and Quality

- AHRQ is leading a cross-Department effort to develop a primary care research agenda, which if successful, may be a prototype for similar efforts to study the broader health care workforce. There is a need for rigorous evaluation of emerging service delivery models, issues like provider resiliency, and best practices in adopting new technologies such as artificial intelligence. Learning from provider impacts of the COVID-19 emergency can also provide helpful insights when the next major challenge occurs.
- AHRQ is supporting a conference series “Developing a research agenda for wellness within the LHS framework” aimed at tackling burnout and burden among healthcare workers by focusing on the development of a workforce protection research agenda for Learning Health Systems (LHS) programs. This series will address the critical shortages in the healthcare workforce, with a special emphasis on enhancing the wellness of healthcare workers, including primary care physicians, behavioral health professionals, nurses, and direct care workers.

Centers for Disease Control and Prevention

- The CDC’s National Center for Health Statistics and ASPE are collaborating to conduct a direct care workforce pilot study using the National Post-Acute and Long-Term Care Study (NPALS) infrastructure. The pilot will design and test a protocol to sample direct care workers, obtain their contact information from NPALS respondents, and design and test questionnaire and contact strategies. Findings will inform the feasibility of conducting a future national direct care workforce survey. National federal surveys of direct care workers occurred more than 15 years ago. Since then, long-term care providers have been significantly impacted by the COVID-19 pandemic, and many providers have increased their use of contract workers to address workforce staffing deficits. A new national survey of direct care workers is needed to understand what has changed since the last national surveys were conducted and to track the impacts of policy changes over time.

Health Resources and Services Administration

- The National Center for Health Workforce Analysis (NCHWA) supports research that helps decision-makers at the federal, state, and local levels understand health workforce needs. Funded at \$5.7 million, the NCHWA is the primary federal entity that collects, analyzes, and reports on data and information regarding the U.S. health workforce. It provides both high quality data and research-based evidence to help ensure a workforce of sufficient size and skills capable to meet the nation’s health care needs.¹⁵⁸

National Institutes of Health

- The National Institute of Nursing Research (NINR) is supporting a funding opportunity to encourage the development and evaluation of novel organizational interventions that will build new knowledge on how to prevent and mitigate nurse burnout in settings where nurses practice,

including hospitals and clinics, schools and workplaces, homes and long-term care, justice, and other settings. NINR seeks research on novel organizational interventions to prevent and mitigate burnout among nurses working in a wide range of practice settings. Research in healthcare systems and system components that function as safety net providers – such as Federally Qualified Health Centers (FQHCs), Rural Health Centers, Disproportionate Share Hospitals (DSH), and Community Health Centers – as well as other community-based settings such as long-term care facilities, nursing homes, justice settings, workplaces, and schools is encouraged. Interdisciplinary research collaborations including experts in human factors engineering, systems design, and human resources or related fields, and between established and newer investigators, are encouraged. Meaningful nurse engagement at all stages of the research process is strongly encouraged.¹⁵⁹

Office of the Assistant Secretary for Planning and Evaluation

- ASPE is currently conducting a feasibility study to determine the best approach for developing a behavioral health workforce database that could be used for patient centered outcomes research (PCOR), as a provider locator for patients and partner clinicians, and/or for policy analysis and decision making.
- ASPE is replicating prior descriptive analysis of national and state direct care workforce wage trend data (using a post-pandemic reference period) to better understand the extent of the wage gap between direct care workers and other comparable entry-level workers and will make longitudinal comparisons to a pre-pandemic ASPE study that found wages of direct care workers were lower than other entry-level jobs in most states.¹⁶⁰ The COVID-19 pandemic generated unprecedented awareness of the value and vulnerability of the U.S. Long Term Care system and its direct care workforce. It has exacerbated long-standing workforce challenges, including increased staffing shortages and issues linked with poor job quality (low wages, lack of full-time employment, lack of comprehensive benefits, and few opportunities for career advancement). Inadequate compensation is consistently cited as a primary factor causing direct care workers to leave their jobs and the field. Monitoring wage trend data will allow policy makers to better understand the extent of the wage gap and will inform policies to make these jobs more competitive, thereby improving recruitment and retention of these essential workers.

SUMMARY AND CONCLUSION

This report reviews some of the key issues and challenges facing the nation regarding the health care workforce. Some of these challenges, like supply and distribution are longstanding, while others, like burnout, were present but exacerbated by the COVID-19 pandemic. The pandemic also brought attention to the disproportionate burden faced by both the workforce and patients in low-resourced areas where many residents are low-income or racial or ethnic minorities. The aging of the U.S. population will continue to place a strain on the long-term care sector and amplify the need for direct care workers. The COVID-19 pandemic brought unprecedented attention to how vital these workers are and underscored the need to improve the quality of direct care jobs to ensure high-quality care. In addition to reviewing various actions taken by HHS to address these challenges, the report also describes various policy options, including those proposed in the President’s FY 2025 budget, to address these challenges moving forward.

REFERENCES

1. Global Data Plc. The Complexities of Physician Supply and Demand: Projections From 2021 to 2036. Washington, DC: AAMC; 2024. <https://www.aamc.org/media/75236/download?attachment>
2. Health Resources and Services Administration. Behavioral Health Workforce, 2023. December, 2023. <https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/Behavioral-Health-Workforce-Brief-2023.pdf>
3. [nursing-projections-factsheet.pdf \(hrsa.gov\)](#)
4. Bipartisan Policy Center. Addressing the Direct Care Workforce Shortage. December, 2023. [Addressing the Direct Care Workforce Shortage | Bipartisan Policy Center](#)
5. Murthy, VH. Addressing health worker burnout: The U.S. Surgeon General's advisory on building a thriving health workforce. 2022. <https://www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf>
6. Shen K, Edelbuettel JCP, Eisenberg MD. Job Flows Into and Out of Health Care Before and After the COVID-19 Pandemic. *JAMA Health Forum*. 2024;5(1):e234964. <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2814360>
7. Berg S. Burnout Falls, but Still Hits these 6 Physician Specialties Most. American Medical Association. July 9, 2024. Accessed July 2024. <https://www.ama-assn.org/practice-management/physician-health/burnout-falls-still-hits-these-6-physician-specialties-most>
8. Health Resources & Services Administration, U.S. Department of Health & Human Services. Accessed July 2024. [Workforce Projections \(hrsa.gov\)](#)
9. Institute of Medicine. 2008. *Retooling for an Aging America: Building the Health Care Workforce*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/12089>.
10. National Center for Health Workforce Analysis, Health Resources & Services Administration, U.S. Department of Health and Human Services. Physician Workforce: Projections, 2021-2036. October 2023. <https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/physicians-projections-factsheet-10-23.pdf>
11. <https://data.hrsa.gov/topics/health-workforce/workforce-projections>.
12. <https://data.hrsa.gov/topics/health-workforce/nursing-workforce-dashboards>
13. Auerbach DI, Buerhaus PI, Donelan K, Staiger DO. A Worrisome Drop in the Number of Young Nurses. *Health Affairs Forefront*. April 13, 2022. <https://www.healthaffairs.org/content/forefront/worrisome-drop-number-young-nurses>
14. Auerbach DI, Buerhaus PI, Donelan K, Staiger DO. Projecting the Future Registered Nurse Workforce After the COVID-19 Pandemic. *JAMA Health Forum*. 2024;5(2):e235389. [https://jamanetwork.com/journals/jama-health-forum/fullarticle/2815057?utm_source=For The Media&utm_medium=referral&utm_campaign=ftm links&utm_term=021624](https://jamanetwork.com/journals/jama-health-forum/fullarticle/2815057?utm_source=For%20The%20Media&utm_medium=referral&utm_campaign=ftm_links&utm_term=021624)
15. Ibid.
16. Ibid.
17. <https://data.hrsa.gov/topics/health-workforce/workforce-projections>
18. [Strengthening the Direct Care Workforce | ACL Administration for Community Living](#)
19. [Licensed Practical and Licensed Vocational Nurses : Occupational Outlook Handbook : U.S. Bureau of Labor Statistics \(bls.gov\)](#)
20. [HRSA Nurse Workforce Projections, 2021-2036, March 2024](#).
21. U.S. Bureau of Labor Statistics. Employment Projections: Occupational Separations and Openings, Table 1.10 Occupational Separations and Openings, Projected 2022-32. <https://www.bls.gov/emp/tables/occupational-separations-and-openings.htm>
22. Bipartisan Policy Center. 2023. Addressing the Direct Care Workforce Shortage: A Bipartisan Call to Action. Washington, D.C.: Bipartisan Policy Center.
23. U.S. Bureau of Labor Statistics. Employment Projections: 2022-2023 Summary – 2022 A01 Results. <https://www.bls.gov/news.release/ecopro.nr0.htm>
24. <https://www.phinational.org/resource/direct-care-workers-in-the-united-states-key-facts-2024/>

-
25. National Center for Health Workforce Analysis, Health Resources & Services Administration, U.S. Department of Health and Human Services. Behavioral Health Workforce, 2023. December 2023. <https://bhwh.hrsa.gov/sites/default/files/bureau-health-workforce/Behavioral-Health-Workforce-Brief-2023.pdf>
 26. <https://www.samhsa.gov/data/sites/default/files/NSDUH%202023%20Annual%20Release/2023-nsduh-main-highlights.pdf>
 27. Ibid.
 28. Lebrun-Harris, L. A., Ghandour, R. M., Kogan, M. D., & Warren, M. D. (2022). Five-Year Trends in US Children's Health and Well-being, 2016-2020. *JAMA Pediatrics*, 176(7), e220056. <https://doi.org/10.1001/jamapediatrics.2022.0056>
 29. Child and Adolescent Health Measurement Initiative. 2021 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved [07/11/23] from [www.childhealthdata.org].
 30. Hodgkinson, S., Godoy, L., Beers, L.S., Lewin, A. (2017) Improving Mental Health Access for Low-Income Children and Families in the Primary Care Setting. *Pediatrics*, 139 (1): e20151175. 10.1542/peds.2015-1175
 31. [Policy Statement on Behavioral Healthcare Workforce Shortage \(aacap.org\)](#)
 32. National Center for Health Workforce Analysis, Health Resources & Services Administration, U.S. Department of Health and Human Services. Physician Workforce: Projections, 2021-2036. October 2023. <https://bhwh.hrsa.gov/sites/default/files/bureau-health-workforce/physicians-projections-factsheet-10-23.pdf>
 33. Gurenlian JR, Morrissey R, Estrich CG, Battrell A, Bessner SK, Lynch A, Mikkelsen M, Araujo MWB, Vujicic M. Employment Patterns of Dental Hygienists in the United States During the COVID-19 Pandemic. *Journal of Dental Hygiene*. 2021;95(1).
 34. Morrissey RW, Gurenlian JR, Estrich CG, Eldridge LA, Battrell A, Lynch A, Matthew M, Harrison B, Araujo MWB, Vujicic M. Employment Patterns of Dental Hygienists in the United States During the COVID-19 Pandemic: An Update. *Journal of Dental Hygiene*. 2022;96(1).
 35. https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/nov2023_hpi_economic_outlook_dentistry_slides.pdf
 36. https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/dental_workforce_shortages_labor_market.pdf
 37. https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/dental_workforce_shortages_labor_market.pdf?rev=e6025d77df184e6c95dc7cefde4adee3&hash=225FCBBCCB67174AAFC760FE2287322D
 38. https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/dental_workforce_shortages_labor_market.pdf?rev=e6025d77df184e6c95dc7cefde4adee3&hash=225FCBBCCB67174AAFC760FE2287322D
 39. [How Increased Funding Can Advance the Mission of the Indian Health Service to Improve Health Outcomes for American Indians and Alaska Natives | ASPE \(hhs.gov\)](#)
 40. <https://aspe.hhs.gov/sites/default/files/documents/e7b3d02affdda1949c215f57b65b5541/aspe-ihs-funding-disparities-report.pdf>
 41. [FY-2025-IHS-CJ030824.pdf](#), p. 122.
 42. [Fiscal Year 2025 Budget in Brief \(hhs.gov\)](#)
 43. [HPSAs](#) can be geographic areas, populations, or facilities. These areas have a shortage of primary, dental, or mental health care providers. See: <https://bhwh.hrsa.gov/workforce-shortage-areas/shortage-designation>
 44. <https://data.hrsa.gov/topics/health-workforce/workforce-projections>
 45. <https://data.hrsa.gov/topics/health-workforce/workforce-projections>

-
46. <https://www.kff.org/other/state-indicator/dental-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>
 47. <https://data.hrsa.gov/topics/health-workforce/shortage-areas>
 48. Villagrana MA. Medicare Graduate Medical Education Payments: An Overview. CRS Reports. September 29, 2022. <https://crsreports.congress.gov/product/details?prodcode=IF10960>
 49. Ibid.
 50. Ibid.
 51. Henderson TM. Medicaid Graduate Medical Education Payments: Results From the 2022 50-State Survey. Washington, DC: AAMC.
 52. [Division D LHHS.pdf \(house.gov\)](#)
 53. Hanson M. Average Medical School Debt. Education Data Initiative. September 17, 2023. <https://educationdata.org/average-medical-school-debt>
 54. Gotter A. How Much Student Loan Debt is Normal for Nurses? NURSA. September 28, 2022. <https://nursa.com/blog/how-much-student-loan-debt-is-normal-for-nurses>
 55. Murthy, VH. Addressing Health Worker Burnout: The U.S. Surgeon General's Advisory on Building a Thriving Health Workforce. 2022. <https://www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf>
 56. Murthy VH. Confronting Health Worker Burnout and Well-Being. *The New England Journal of Medicine*. 2022;387(7). <https://www.nejm.org/doi/full/10.1056/NEJMp2207252>
 57. Leo CG, Sabina S, Tumolo MR, Bodini A, Ponzini G, Sabato E, Mincarone P. Burnout among Healthcare Workers in the COVID-19 Era: A Review of the Existing Literature. *Front. Public Health*. 2021;9.
 58. Wan, W. (2021, April 22). Burned Out by the Pandemic, 3 in 10 Health-Care Workers Consider Leaving the Profession. *Washington Post*. <https://www.washingtonpost.com/health/2021/04/22/health-workers-covid-quit/>
 59. National Academies of Sciences, Engineering, and Medicine. 2019. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, D.C.: The National Academies Press. <https://nap.nationalacademies.org/read/25521/chapter/1#xiv>
 60. Khullar D. Burnout, Professionalism, and the Quality of US Health Care. *JAMA Health Forum*. 2023;4(3):e230024. <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2802872>
 61. Dyrbye LN, Shanafelt TD, Sinsky CA, Cipriano PF, Bhatt J, Ommaya A, West CP, Meyers D. Burnout among Healthcare Professionals: A Call to Explore and Address this Underrecognized Threat to Safe, High-Quality Care. *National Academies of Medicine*, Discussion Paper. July 5, 2017. <https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>
 62. Andrew LB. Physician Suicide. *Medscape*. August 1, 2018. <https://emedicine.medscape.com/article/806779-overview>
 63. National Academies of Sciences, Engineering, and Medicine. 2019. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, D.C.: The National Academies Press. <https://nam.edu/systems-approaches-to-improve-patient-care-by-supporting-clinician-well-being/>
 64. West CP, Dyrbye LN, Shanafelt TD. Physician Burnout: Contributors, Consequences, and Solutions. *J Intern Med*. 2018 Jun;283(6):516-529. <https://pubmed.ncbi.nlm.nih.gov/29505159/>
 65. Ofei-Dodd S, Mullen R, Pasternak A, Hester C, Callen E, Bujold EJ, Carroll JK, Kimminau KS. Loneliness, Burnout, and Other Types of Emotional Distress among Family Medicine Physicians: Results from a National Survey. *J Am Board Fam Med*. June 4, 2020. <https://www.jabfm.org/content/jabfp/34/3/531.full.pdf>
 66. Dyrbye LN, Shanafelt TD, Sinsky CA, Cipriano PF, Bhatt J, Ommaya A, West CP, Mayers D. Burnout among Health Care Professionals: A Call to Explore and Address this Underrecognized Threat to Safe, High-Quality Care. *NAM Perspectives*. 2017. Discussion Paper, National Academy of Medicine, Washington, D.C.

<https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>

67. Dzaou, VJ, Kirch DG, Nasca TJ. To Care is Human – Collectively Confronting the Clinicians-Burnout Crisis. *New England Journal of Medicine*. January 25, 2018;378:312-214.
<https://www.nejm.org/doi/full/10.1056/nejmp1715127>
68. Dyrbye LN, Shanafelt TD, Sinsky CA, Cipriano PF, Bhatt J, Ommaya A, West CP, Mayers D. Burnout among Health Care Professionals: A Call to Explore and Address this Underrecognized Threat to Safe, High-Quality Care. *NAM Perspectives*. 2017. Discussion Paper, National Academy of Medicine, Washington, D.C.
<https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>
69. Ibid.
70. Yeatts DE, Seckin G, Shen Y, Thompson M, Auden D, Cready CM. Burnout Among Direct-Care Workers in Nursing Homes: Influences of Organizational, Workplace, Interpersonal and Personal Characteristics. *I*. 2018 Oct;27(19-20):3652-3665.
71. Rebecca Green. The Direct Care Workforce Crisis: Factors Affecting Employee Retention and Turnover Amidst a Pandemic. *SPNHA Review*, 1(18), 2022.
<https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1111&context=spnhareview>
72. National Academies of Sciences, Engineering, and Medicine. 2019. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, D.C.: The National Academies Press. <https://nap.nationalacademies.org/read/25521/chapter/1#xiv>
73. U.S. Department of Health and Human Services, Office of the Inspector General. Hospitals Report that the COVID-19 Pandemic Has Significantly Strained Healthcare Delivery: Results of a National Pulse Survey, February 22-26, 2021. March 2021. <https://oig.hhs.gov/oei/reports/OEI-09-21-00140.pdf>
74. Mental Health America. The Mental Health of Healthcare Workers in COVID-19. Accessed July 2024. <https://mhanational.org/mental-health-healthcare-workers-covid-19>
75. Gainer DM, Nahhas RW, Bhatt NV, Merrill A, McCormack J. Association between Proportion of Workday Treating COVID-19 and Depression, Anxiety, and PTSD Outcomes in US Physicians. *Journal of Occupational and Environmental Medicine*. February 2021;63(2):89-97.
76. [Experience of Nurses Working During the COVID Pandemic – Data from the 2022 NSSRN \(hrsa.gov\)](#)
77. U.S. Department of Health and Human Services, Office of the Inspector General. Hospitals Report that the COVID-19 Pandemic Has Significantly Strained Healthcare Delivery: Results of a National Pulse Survey, February 22-26, 2021. March 2021. <https://oig.hhs.gov/oei/reports/OEI-09-21-00140.pdf>
78. Byon HD, Sagherian K, Kim Y, Lipscomb J, Crandall M, Steege L. Nurses' Experience with Type II Workplace Violence and Underreporting During the COVID-19 Pandemic. *Workplace Health Saf*. August 2021;3:21.
<https://journals.sagepub.com/doi/10.1177/21650799211031233>
79. National Nurses United. Workplace Violence and COVID-19 in Health Care: How the Hospital Industry Created an Occupational Syndemic. November 2021.
https://www.nationalnursesunited.org/sites/default/files/nnu/documents/1121_WPV_HS_Survey_Report_FINAL.pdf
80. American College of Physicians. ACP Launches New Advocacy Toolkit for Protecting Physicians and Health Care Workers from Violence. Accessed July 2024. <https://www.acponline.org/advocacy/acp-advocate/archive/april-1-2022/acp-launches-new-advocacy-toolkit-for-protecting-physicians-and-health-care-workers-from-violence>
81. [COVID-19 Intensifies Home Care Workforce Challenges \(hhs.gov\)](#)
82. Berg S. Physician Burnout Rate Drops Below 50% for First Time in 4 Years. American Medical Association. July 2, 2024. <https://www.ama-assn.org/practice-management/physician-health/physician-burnout-rate-drops-below-50-first-time-4-years>
83. National Academies of Sciences, Engineering, and Medicine. 2019. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, D.C.: The National Academies Press. <https://nap.nationalacademies.org/read/25521/chapter/2#2>

-
84. Dyrbye LN, Shanefelt TD, Sinsky CA, Cipriano PF, Bhatt J, Ommaya A, West CP, Meyers D. Burnout among Healthcare Professionals: A Call to Explore and Address this Underrecognized Threat to Safe, High-Quality Care. *National Academies of Medicine*, Discussion Paper. July 5, 2017. <https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>
 85. National Academies of Sciences, Engineering, and Medicine. 2019. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, D.C.: The National Academies Press. <https://nap.nationalacademies.org/read/25521/chapter/1#xiv>
 86. Murthy, VH. Addressing health worker burnout: The U.S. Surgeon General’s advisory on building a thriving health workforce. 2022. <https://www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf>
 87. Dyrbye LN, Shanefelt TD, Sinsky CA, Cipriano PF, Bhatt J, Ommaya A, West CP, Meyers D. Burnout among Healthcare Professionals: A Call to Explore and Address this Underrecognized Threat to Safe, High-Quality Care. *National Academies of Medicine*, Discussion Paper. July 5, 2017. <https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>
 88. National Academies of Sciences, Engineering, and Medicine. 2019. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, D.C.: The National Academies Press. <https://nap.nationalacademies.org/read/25521/chapter/2#2>
 89. Dyrbye LN, Shanefelt TD, Sinsky CA, Cipriano PF, Bhatt J, Ommaya A, West CP, Meyers D. Burnout among Healthcare Professionals: A Call to Explore and Address this Underrecognized Threat to Safe, High-Quality Care. *National Academies of Medicine*, Discussion Paper. July 5, 2017. <https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>
 90. Berlin G, Lapointe M, Murphy M, Viscardi M. Nuraing in 2021: Retaining the Healthcare Workforce When We Need it Most. McKinsey & Company. May 11, 2021. <https://www.mckinsey.com/industries/health-care-systems-and-services/our-insights/nursing-in-2021-retaining-the-health-care-workforce-when-we-need-it-most>
 91. Ibid.
 92. Galvin G. Nearly 1 in 5 Health Care Workers Have Quit Their Jobs During the Pandemic: Medical Workers Cited COVID-19, Poor Pay and Burnout as Reasons for Layoffs, Resignations. Morning Consult. October 4, 2021. <https://morningconsult.com/2021/10/04/health-care-workers-series-part-2-workforce/>
 93. American Association of Critical-Care Nurses. Hear Us Out Campaign Reports Nurses’ COVID-19 Reality. September 21, 2021. <https://www.aacn.org/newsroom/hear-us-out-campaign-reports-nurses-covid-19-reality>
 94. <https://www.hearusout.com/>
 95. The Larry A. Green Center. Quick COVID-19 Primary Care Survey: Series 35 Fielded February 25-March 1, 2022. Accessed July 2024. <https://www.green-center.org/covid-survey>
 96. <https://pubmed.ncbi.nlm.nih.gov/31132791/>
 97. <https://www.ama-assn.org/practice-management/physician-health/how-much-physician-burnout-costing-your-organization>
 98. Dyrbye L, Herrin J, West CP, Wittlin NM, Dovidio JF, Hardeman R, Burke SE, Phelan S, Onyeador IN, Cunningham B, van Ryn M. 2019. Association of Racial Bias with Burnout Among Resident Physicians. *JAMA Network Open*. 2(7): e197457.
 99. Shi L. 2012. The impact of primary care: A focused review. *Scientifica*. <https://pubmed.ncbi.nlm.nih.gov/24278694/>
 100. Macinko J, Starfield B, and Shi L. 2007. Quantifying the health benefits of primary care physician supply in the United States. *International Journal of Social Determinants of Health and Human Services*. 37(1):111-126. <https://journals.sagepub.com/doi/10.2190/3431-G6T7-37M8-P224>

-
101. Basu S, Berkowitz SA, Phillips RL, Bitton A, Landon BE, and Phillips RS. 2019. Association of primary care supply with population mortality in the United States, 2005-2015. *JAMA Internal Medicine*. 179(4):506-514. <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2724393>
 102. Van Weel C and Kidd MR. 2018. Why strengthening primary health care is essential to achieving universal health coverage. *CAMJ*. 190(15):E463-E466. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5903888/>
 103. Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Registered Nurses. Visited August 2024. <https://www.bls.gov/ooh/healthcare/registered-nurses.htm>
 104. U.S. Bureau of Labor Statistics. Occupational Employment and Wages, May 2023 – 19-1171 Nurse Practitioners. Accessed July 2024. <https://www.bls.gov/oes/current/oes291171.htm>
 105. U.S. Bureau of Labor Statistics. 2023. Occupational Employment and Wages.
 106. Covid-19 Intensifies Nursing Home Workforce Challenges (2020). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Washington, D.C.
 107. Covid-19 Intensifies Home Care Workforce Challenges (2021). Office of the Assistant Secretary for Health and Human Services, Washington, D.C.
 108. Tyler D, Hunter M, Mulmule N, Porter K. 2021. COVID-19 Intensifies Home Care Workforce Challenges (Issue Brief). Washington, D.C.: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. <https://aspe.hhs.gov/reports/covid-19-intensifies-home-care-workforce-challenges-policy-perspectives-issue-brief>.
 109. Watts M, Burns A, Meghana A. 2022. Ongoing Impacts of the Pandemic on Medicaid Home and Community Based Service Programs: Findings from a 50-State Survey. Washington, D.C.: Kaiser Family Foundation.
 110. Kreider AR, Wener RM. 2023. The Home Care Workforce Has Not Kept Pace with Growth in Home and Community-Based Services. *Health Affairs*. 42(5). <https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2022.01351>
 111. Office of the Assistant Secretary for Planning and Evaluation. 2020. Strengthening the Entry-Level Health Care Workforce: Finding a Path. Washington, D.C. Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. <https://aspe.hhs.gov/reports/strengthening-entry-level-health-care-work-force-finding-path>
 112. Campbell S, Drake AD, Espinoza R, Scales K. (2021). Caring for the Future: The Power and Potential of America’s Direct Care Workforce. PHI, Bronx, NY.
 113. Krista Ruffini (2022). Worker Earnings, Service Quality, and Firm Profitability: Evidence from Nursing Homes and Minimum Wage Reforms. *The Review of Economics and Statistics*, 1-46.
 114. U.S. Bureau of Labor Statistics. 2023. Occupational Employment and Wages.
 115. Khavjou, O., Suarez, G., Tyler, D., Squillace, M., Dey, J., & Oliveira, I. (2023). Wages of direct care workers lower than other entry-level jobs in most states (Issue Brief). Washington (DC): Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services.
 116. Addressing the Direct Care Workforce Shortage: A Bipartisan Call to Action (2023). Bi-Partisan Policy Center, Washington, DC.
 117. Bishop, T.F., Press, M. J., Keyhani, S., et al. (2014). Acceptance of insurance by psychiatrists and the implications for access to mental health care. *Journal of the American Medical Association* 71 (2), 176–181. <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/1785174>
 118. Zephyrin LC, Rodriguez J, Rosenbaum S. The Case for Diversity in the Health Professions Remains Powerful. The Commonwealth Fund. July 20, 2023. <https://www.commonwealthfund.org/blog/2023/case-diversity-health-professions-remains-powerful>
 119. Cooper LA, Roter DL, Johnson RL, Ford DE, Steinwachs DM, Power NR. Patient-Centered Communication, Ratings of Care, and Concordance of Patient and Physician Race. *Annals of Internal Medicine*. 2003;139(11). <https://www.acpjournals.org/doi/10.7326/0003-4819-139-11-200312020-00009>

-
120. HHS Advisory Committee on Minority Health. Reflecting America’s Population: Diversifying a Competent Health Care Workforce for the 21st Century. September 2011. <https://cg-d102dd1b-a880-440b-9eae-e2445148aee9.s3.us-gov-west-1.amazonaws.com/s3fs-public/documents/FinalACMHWorkforceReport.pdf>
 121. Alsan M, Garrick O, Graziani G. Does Diversity Matter for Health? Experimental Evidence from Oakland. *American Economic Review*. 2019;109(12):4071-4111.
 122. Dill J, Duffy M. Structural Racism and Black Women’s Employment in the US Health Care Sector. *Health Affairs*. 2022;41(2). <https://www.healthaffairs.org/doi/10.1377/hlthaff.2021.01400>
 123. Faiz J, Essien UR, Washington DL, Ly DP. Racial and Ethnic Differences in Barriers Faced by Medical College Admission Examinees and their Association with Medical School Application and Matriculation. *JAMA Health Forum*. 2023;4(4):e230498.
 124. Millo L, Ho N, Ubel PA. The Cost of Applying to Medical School – a Barrier to Diversifying the Profession. *N Engl J Med*. 2019;381(16):1505-1508.
 125. <https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/Behavioral-Health-Workforce-Brief-2023.pdf>
 126. PHI.[PHI-Key-Facts-Report-2023.pdf](https://www.phinational.org/resource/direct-care-workers-in-the-united-states-key-facts-3). PHI. Direct Care Workers in the United States, Key Facts 2023. <https://www.phinational.org/resource/direct-care-workers-in-the-united-states-key-facts-3>
 127. Samson LW, Couture SJ, Jacobus-Kantor L, Creedon TB, Sheingold S. Updated Medicare FFS Telehealth Trends by Beneficiary Characteristics, Visit Specialty, and State, 2019-2021, (Issue Brief No. HP-2023-18). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. July 2023. [medicare-telehealth-updated-trends-report.pdf \(hhs.gov\)](https://www.hhs.gov/medicare-telehealth-updated-trends-report.pdf)
 128. U.S. Department of Health and Human Services. Telehealth Policy Changes After the COVID-19 Public Health Emergency. Updated December 19, 2023. Accessed July 2024. <https://telehealth.hhs.gov/providers/telehealth-policy/policy-changes-after-the-covid-19-public-health-emergency>
 129. Ibid.
 130. [The 42 CFR Part 8 Final Rule Table of Changes | SAMHSA](https://www.samhsa.gov/about/budget/budget-justification-fy2025)
 131. Lee, E.C., Grigorescu, V., Enogieru, I., Smith, S.R., Samson, L.W., Conmy, A., De Lew, N. Updated National Survey Trends in Telehealth Utilization and Modality: 2021-2022 (Issue Brief No. HP-2023-09). Office of the Assistant Secretary for Planning and Evaluation, U. S. Department of Health and Human Services. April 2023. The Household Pulse Survey was designed to produce data on how emerging issues are affecting U.S. households.
 129. Rousseau, M., Batts, K.R., Saavedra, L., Aldridge, A., & Jacobus-Kantor, L. Barriers and Opportunities for Improving Interstate Licensure Reciprocity and Portability for Behavioral Health Practitioners: Technical Expert Panel Findings (Issue Brief). Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. August 1, 2024. <https://aspe.hhs.gov/sites/default/files/documents/405ad876b1de337a81b4db0257666586/barriers-opportunities-improving-interstate-licensure.pdf>
 133. www.hrsa.gov/sites/default/files/hrsa/about/budget/budget-justification-fy2025.pdf
 134. Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services. SAMHSA Budget <https://www.samhsa.gov/sites/default/files/samhsa-fy-2025-cj.pdf>
 135. 89 Fed. Reg. 40,542 May 10, 2024. [Federal Register: Medicaid Program; Ensuring Access to Medicaid Services](https://www.federalregister.gov/2024/05/10/40542)
 136. 89 Fed. Reg. 53,497 (June 27, 2024) [Federal Register: Medicaid Program; Ensuring Access to Medicaid Services; Correction](https://www.federalregister.gov/2024/06/27/53497) Corrects Technical and typographical errors in May 10, 2024 publication.
 137. <https://www.cms.gov/newsroom/cms-round-up/cms-roundup-nov-17-2023>
 138. <https://www.cms.gov/newsroom/press-releases/cms-awards-200-new-medicare-funded-residency-slots-hospitals-serving-underserved-communities>
 139. <https://www.cms.gov/files/document/frequently-asked-questions-section-126.pdf>
 140. <https://www.congress.gov/bill/117th-congress/house-bill/2617/text>

-
141. <https://www.hrsa.gov/sites/default/files/hrsa/about/budget/budget-justification-fy2025.pdf>
 142. [NIOSH Worker Well-Being Questionnaire \(WellBQ\) | Total Worker Health | CDC](#)
 143. [Statement on Removing Intrusive Mental Health Questions from Hospital Credentialing Applications from the Dr. Lorna Breen Heroes' Foundation and the National Institute for Occupational Safety and Health \(cdc.gov\)](#)
 144. <https://www.cdc.gov/niosh/healthcare/impactwellbeing/index.html>
 145. [Bureau of Health Workforce Clinician Dashboards \(hrsa.gov\)](#)
 146. [Health Professions Training Programs \(hrsa.gov\)](#)
 147. Improving Data on the Workforce Delivering Home and Community-Based Services (Issue Brief, 2024). Washington (DC): Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services.
 148. [Strengthening and Investing in Home and Community Based Services for Medicaid Beneficiaries: American Rescue Plan Act of 2021 Section 9817 | Medicaid](#)
 149. <https://www.hhs.gov/about/news/2024/09/17/biden-harris-administration-announces-nearly-100-million-grow-health-workforce.html>
 150. [With New American Rescue Plan Funding, HHS Expands and Strengthens the Community and Public Health Workforce | HHS.gov](#)
 151. Health Resources & Services Administration, U.S. Department of Health and Human Services. Justification of Estimates for Appropriations Committee – Fiscal Year 2025. [budget-justification-fy2025.pdf \(hrsa.gov\)](#), p 97-106.
 152. Ibid.
 153. <https://www.hrsa.gov/about/news/press-releases/licensure-portability-grant-program>
 154. [CDC's National Institute for Occupational Safety and Health's Impact Wellbeing™ Campaign Releases Hospital-Tested Guide to Improve Healthcare Worker Burnout | CDC Online Newsroom | CDC](#)
 155. [CMS Interoperability and Prior Authorization Final Rule CMS-0057-F | CMS](#)
 156. <https://www.cms.gov/newsroom/press-releases/cms-finalizes-rule-expand-access-health-information-and-improve-prior-authorization-process>
 157. Murthy, VH. Addressing Health Worker Burnout: The U.S. Surgeon General's Advisory on Building a Thriving Health Workforce. 2022. <https://www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf>
 158. [Health Workforce Research | Bureau of Health Workforce \(hrsa.gov\)](#)
 159. <https://grants.nih.gov/grants/guide/notice-files/NOT-NR-23-012.html> (Released July 2023)
 160. Khavjou, O., Suarez, G., Tyler, D., Squillace, M., Dey, J., & Oliveira, I. (2023). Wages of direct care workers lower than other entry-level jobs in most states (Issue Brief). Washington (DC): Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Assistant Secretary for Planning and Evaluation

200 Independence Avenue SW, Mailstop 447D
Washington, D.C. 20201

For more ASPE briefs and other publications, visit:
aspe.hhs.gov/reports



SUGGESTED CITATION

Health Care Workforce: Key Issues, Challenges, and the Path Forward. Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. October 2024.

COPYRIGHT INFORMATION

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

DISCLOSURE

This communication was produced and disseminated at U.S. taxpayer expense.

Subscribe to ASPE mailing list to receive email updates on new publications:
<https://list.nih.gov/cgi-bin/wa.exe?SUBED1=ASPE-HEALTH-POLICY&A=1>

For general questions or general information about ASPE:
aspe.hhs.gov/about
