

Health Workforce Projections Dashboard

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Introduction

The Workforce Projections Dashboard is an interactive Tableau Dashboard that shows projections of the supply of and demand for healthcare workers across the United States. These projections are from the National Center for Health Workforce Analysis (NCHWA), which is part of the Health Resources and Services Administration (HRSA) at the U.S. Department of Health and Human Services.

The projections are based on the Health Workforce Simulation Model (HWSM). This is an integrated microsimulation model that estimates the current and future supply of and demand for health care workers by occupation, geographic area, and year. The HWSM incorporates factors like the changing population size, demographics, and location of the U.S. population; new entrants and exiting providers in various occupations; and differing levels of access to care. The key data presented on the dashboard include:

Supply, which is the number of workers active in the workforce, which consists of people working and people actively seeking employment.

Demand, which is the number of workers required to provide a level of services that will be utilized given patient health-seeking behavior and the ability and willingness to pay for services.

Percent Adequacy, which is the relationship between the projected future supply and projected future demand. It is the quotient of supply divided by demand. For many occupations, the estimated supply and estimated demand in the base year are assumed to be roughly in equilibrium. For all occupations, a percent adequacy of greater than 100% does not account for potential maldistribution at smaller geographic areas.

Data are presented at both the national and state levels (state data are available only for selected occupations). To view the national data and the state data on the dashboard, simply select the “Supply & Demand Trends” and the “U.S. Map” tabs, respectively. In the ‘What if? Scenarios’ tab, a user can choose from predefined scenarios that show how a particular change would affect the supply and demand in an occupation. For example, one scenario models what would happen if 10% fewer graduates enter the workforce annually. The different types of What if? Scenarios available are outlined later in this document.

The next section details the steps in accessing the different data within the dashboard.

Accessing Data from the Dashboard

- Data in the dashboard is organized by occupation. Choose one of the following occupation groups and then an occupation. For certain occupations, you can also select the rurality classification as metro or non-metro.
- Click on one of the following three tabs to access different types of data:
 - **Supply & Demand Trends** shows the national projected supply and demand estimates
 - **U.S. Map** shows the supply and demand projections by state
 - **What if? Scenarios** show various predefined scenarios of how changes to specific inputs would affect supply and demand projections
- Select a data year or a range of years for the projection estimates.
- Hover over charts and states to see tooltips with more information.
- Repeat the above steps to access data on different occupations and/or years.
- Click on 'Download' on the right-hand side of the dashboard to download the data in the format of an image, PDF, or PowerPoint.
- Click on 'Workforce Projections' at the bottom of the dashboard to download the raw data in an excel sheet.

What if? Scenarios

The alternative scenarios described below are intended to be deviations from the Status Quo and are not provided as "likely to occur" scenarios. They illustrate what would happen in the event of changes in the U.S. healthcare landscape.¹

Supply Scenarios

Status Quo Scenario: The Status Quo supply projections model the continuation of current numbers of newly-trained health care workers and current patterns of labor force participation including attrition, being temporarily out of the workforce, and hours worked patterns.

Retire Early: This hypothetical supply scenario is modeled to quantify what the supply of the health workforce would be if providers retired two years earlier, on average, relative to the Status Quo.

Retire Late: This hypothetical supply scenario is modeled to quantify what the supply of the health workforce would be if providers delayed retirement by two years, on average, relative to the Status Quo.

¹ More information on these alternatives can be found in the technical document at <https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/technical-documentation>.

Fewer Graduates: This hypothetical supply scenario is modeled to quantify what the supply of the health workforce would be if 10% fewer new graduates entered the workforce annually than the Status Quo.

More Graduates: This hypothetical supply scenario is modeled to quantify what the supply of the health workforce would be if 10% more new graduates entered the workforce annually than the Status Quo.

Demand Scenarios

Status Quo Scenario: The Status Quo demand projections extrapolate current national health care use and delivery patterns by personal characteristics to the projected populations in the future.

Improved Access Scenarios: These hypothetical demand scenarios are modeled to quantify what demand for health care services and providers would be if population groups that historically faced barriers to receiving health care services had improved access and reduced barriers to care. These scenarios first identify a population group that faces the least access barriers to care. They then simulate demand if people not in this population group had care utilization rates equivalent to this group. See the following three scenarios:

- **Geographic Parity:** This hypothetical demand scenario is modeled to quantify what demand for health care services and providers would be if the entire population had care utilization rates equivalent to people living in a metropolitan area.
- **Increased Insurance Coverage:** This hypothetical demand scenario is modeled to quantify what demand for health care services and providers would be if the entire population had care utilization rates equivalent to people with insurance.
- **Demographic Parity:** This hypothetical demand scenario is modeled to quantify what demand for health care services and providers would be if the entire population had as high care utilization rates as the non-Hispanic white population.

Improved Access (Combination Scenario): This scenario is modeled to quantify what demand for health care services and providers would be if the entire population had care utilization rates equivalent to that of the non-Hispanic, white population with insurance, living in a metropolitan area. Due to nonlinear modeling, the sum of effects of the individual improved access scenarios is close to, but not equal to, the effect of the improved access combination scenario.

Income Effect: This scenario estimates demand for oral health professionals if everyone used oral services at the same rate as individuals with household income of at least \$75,000.

Unmet Need Scenarios: For a select group of behavioral health occupations, HWSM also modeled unmet need scenarios.

- **Unmet Need 1:** This scenario increases demand by 12.3% to reflect an estimate of the nation’s current behavioral health unmet needs among adults with any mental illness (AMI) or adolescents with a major depressive episode (MDE).
- **Unmet Need 2:** This scenario increases demand by 19.9% to reflect an estimate of the nation’s current behavioral health unmet needs among adults and adolescents with mental health and substance abuse issues.
 - The percent figures in Unmet Need 1 and Unmet Need 2 are calculated based on data from the 2021 National Survey on Drug Use and Health (NSDUH).²
 - See the “Demand Scenarios modeled” section of Section VIII in the Technical Documentation for HRSA’s Workforce Projection Model for more detail on the derivation of these scenarios.³
- **Elevated Need:** This scenario combines the increase in demand estimated by the improved access combination scenario with the increase estimated by the Unmet Need 2 scenario.

Available Occupational Groups

Allied Health professionals deliver health or related services pertaining to the identification, evaluation, and prevention of diseases and disorders; dietary and nutrition services; and rehabilitation and health systems management, among others. The following occupations are modeled:

Audiologists; Cardiovascular Technologists and Technicians; Community Health Workers; Diagnostic Medical Sonographers; Dietetic Technicians; Emergency Medical Technicians; Magnetic Resonance Imaging Technologists; Medical and Clinical Laboratory Technicians; Medical and Clinical Laboratory Technologists; Medical Assistants; Medical Transcriptionists; Nuclear Medicine Technologists; Occupational Therapists; Occupational Therapy Aides; Occupational Therapy Assistants; Ophthalmic Medical Technicians; Opticians, Dispensing; Optometrists; Paramedics; Pharmacists; Pharmacy Aides; Pharmacy Technicians; Phlebotomists; Physical Therapist Aides; Physical Therapist Assistants; Physical Therapists; Radiation

² <https://www.samhsa.gov/data/release/2021-national-survey-drug-use-and-health-nsduh-releases>

³ <https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/technical-documentation/behavioral-health-care-provider#demand>

Therapists; Radiologic Technologists; Recreational Therapists; Registered Dietitians; Respiratory Therapists; Speech-Language Pathologists; and Surgical Technologists.

Behavioral Health professions address any behavioral problem, including mental health and substance abuse conditions, stress-linked physical symptoms, patient activation and health behaviors. The following occupations are modeled:

Addiction Counselors; Adult Psychiatry; Child & Adolescent Psychiatry; Child, Family, and School Social Workers; Healthcare Social Workers; Marriage and Family Therapists; Mental Health and Substance Abuse Social Workers; Mental Health Counselors; Psychiatric Aides; Psychiatric Nurse Practitioners; Psychiatric Physician Assistants; Psychiatric Technicians; Psychologists; and School Counselors.

Long-Term Care professions give long term assistance with activities of daily living (e.g., bathing, dressing, eating) and instrumental activities of daily living (e.g., meal preparation, medication and money management) provided in homes. The following occupations are modeled:

Dietitians and Nutritionists (LTC); Home Health Aides (LTC); Licensed Practical Nurses (LTC); Nursing Assistants (LTC); Occupational Therapists (LTC); Occupational Therapy Assistants (LTC); Personal Care Aides (LTC); Physical Therapist Assistants (LTC); Physical Therapists (LTC); Psychiatric Aides (LTC); Recreational Therapists (LTC); Registered Nurses (LTC); Social Workers (LTC); and Speech-Language Pathologists (LTC).

Oral Health professions include general and specialty dentists and dental hygienists. The following occupations are modeled:

Dental Assistants; Dental Hygienists; Endodontists; General Dentists; Oral Surgeons; Orthodontists; Other Dentists; Pediatric Dentists; and Periodontists.

Primary Care workers include physician assistants (PAs) practicing in primary care as well as physicians in primary care specialties. The following occupations are modeled:

Family Medicine Physicians; General Internal Medicine Physicians; Geriatrics Physicians; Nurse Practitioners (PC); Pediatrics Physicians; and Physician Assistants (PC).

Women's Health refers to the influence of sex on health, wellness, disability, and disease status across the lifespan. The following occupations are modeled:

Nurse Midwives; Nurse Practitioners (WH); Obstetrics & Gynecology Physicians; and Physician Assistants (WH).

All Health Workforce includes all the professions that are not categorized into one of the above six occupational groups. These are mostly physicians and surgeon specialists, as well as a few other professionals such as Physician Assistants who fall into several of the above categories based on areas of specialty, but their total workforce is provided under this category. The following occupations are modeled:

Allergy & Immunology Physicians; Anesthesiology Physicians; Cardiology Physicians; Chiropractors; Colorectal Surgery Physicians; Critical Care Medicine & Pulmonology Physicians; Dermatology Physicians; Emergency Medicine Physicians; Endocrinology Physicians; Gastroenterology Physicians; General Surgery Physicians; Hematology & Oncology Physicians; Hospital Medicine Physicians; Infectious Diseases Physicians; Licensed Practical Nurses; Neonatology Physicians; Nephrology Physicians; Neurological Surgery Physicians; Neurology Physicians; Nurse Anesthetists; Nurse Practitioners; Ophthalmology Physicians; Orthopedic Surgery Physicians; Other Specialist Physicians; Otolaryngology Physicians; Pathology Physicians; Physical Medicine & Rehabilitation Physicians; Physician Assistants; Plastic Surgery Physicians; Podiatrists; Radiation Oncology Physicians; Radiology Physicians; Registered Nurses; Rheumatology Physicians; Thoracic Surgery Physicians; Urology Physicians; and Vascular Surgery Physicians.

Available Data

The table below shows the types of data available on the dashboard. All values are rounded to the nearest ten, with a lower bound publishable value of 10 (all estimated values below 10 are rounded to 10).

Occupational Group	Years Available	Supply	Demand	State data	Metro and Non-metro data*
All Health Workforce	2022-2037	Yes	Yes	Yes	Yes
Allied Health	2022-2037	Yes	Yes	Yes	No
Behavioral Health	2022-2037	Yes	Yes	Yes	Yes
Long-Term Care	2022-2037	No	Yes	Yes	No
Oral Health	2022-2037	Yes	Yes	Yes	Yes
Primary Care	2022-2037	Yes	Yes	Yes	Yes
Women's Health	2022-2037	Yes	Yes	Yes	Yes

Note: Some occupations within an occupation group may not have the data even if 'Yes' is indicated for the group.

*Metro is defined as a Metropolitan Statistical Area (MSA) at the county level as defined in the 2010 Office of Management and Budget (OMB) Standards. Non-metro is defined as all counties that are not part of an MSA as defined in the OMB Standards.

Data Use Notice

All data from this dashboard are in the public domain and can be used freely. Data should be cited as coming from the Department of Health and Human Services, Health Resources and Services Administration, Health Workforce Projections. Please direct questions to NCHWAinquiries@hrsa.gov.