



## Allied Health Workforce Projections, 2016-2030: Occupational and Physical Therapists

This factsheet presents national-level supply and demand projections for occupational and physical therapists from 2016 through 2030 using HRSA's Health Workforce Simulation Model (HWSM).<sup>1</sup>

**Occupational therapists (OTs)** work with people across the lifespan who have an injury, illness, or disability. Using therapies that involve everyday activities, OTs help individuals maximize their performance and functioning.<sup>2</sup> OTs may assess patients and develop treatment plans designed to improve motor skills, dexterity, and strength. Typically, OTs earn a master's degree or complete a doctoral program in occupational therapy, followed by completion of supervised fieldwork to help further develop clinical skills. All states require OTs to be licensed.

**Physical therapists (PTs)** are licensed health professionals who help patients with injuries or illnesses restore function, improve mobility, relieve pain, and prevent or limit permanent disability.<sup>3</sup> They conduct patient assessments and plan and implement treatments designed to increase strength, agility, coordination, range of motion, and flexibility. PTs must complete a Doctor of Physical Therapy degree, which is typically three years in length. Some PTs may also complete a clinical residency program. All states require physical therapists to be licensed.

### About the National Center for Health Workforce Analysis

The National Center for Health Workforce Analysis informs public and private sector decision-makers on health workforce issues by expanding and improving health workforce data, disseminating workforce data to the public, and improving and updating projections of the supply and demand for health workers. Visit the website: <https://bhw.hrsa.gov/national-center-health-workforce-analysis>

### METHODS

While the nuances of modeling workforce supply and demand differ for individual health occupations, the basic HWSM framework remains the same across all occupations. For supply modeling, the HWSM's major components include common labor-market factors like unemployment and new entrants to the workforce (e.g., newly trained OTs and PTs), demographic and geographic characteristics of the existing workforce, and workforce participation decisions (e.g., patterns in retirement and hours worked). The model assumes that current supply patterns for OTs and PTs remain the same throughout the forecast period and projects forward in one-year increments. Each annual supply estimate becomes the starting point for the subsequent year, with the process repeated through 2030.

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<sup>1</sup> This model uses a micro-simulation approach where supply is projected based on the simulation of career choices of individual health workers. Demand for health care services is simulated for a representative sample of the current and future U.S. population based on each person's demographic and socioeconomic characteristics, health behavior, and health risk factors that affect their health care utilization patterns. For more information on data and methods, please see: <https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/hwsm-technical-report-to-dea.pdf>

<sup>2</sup> Composite descriptions of health occupations examined in this report are sourced from: Bureau of Labor Statistics. Occupational Outlook Handbook, Occupational Therapists [online]. 2018. Accessed at: <https://www.bls.gov/ooh/healthcare/occupational-therapists.htm>.

<sup>3</sup> Composite descriptions of health occupations examined in this report are sourced from: Bureau of Labor Statistics. Occupational Outlook Handbook, Physical Therapists [online]. 2018. Accessed at: <https://www.bls.gov/ooh/healthcare/physical-therapists.htm>.

For demand modeling, the HWSM assumes that demand equals supply in 2016,<sup>4</sup> and applies health care utilization patterns across future population demographics. The model provides demand projections under two scenarios: a “status quo” scenario (Scenario One) and an “evolving care delivery” scenario (Scenario Two).

Under **Scenario One**, the model assumes that 2016 health care use and delivery patterns for services provided by OTs and PTs remain the same over the forecast period, and accounts for changes in population demographics and the commensurate shifts in OT and PT usage. This status quo scenario does not reflect potential changes in care utilization patterns in future years resulting from advancements in medicine and technology or shifts in health care delivery and payment models (e.g., team-based care, telemedicine).

**Scenario Two** builds upon Scenario One by incorporating the potential impact of evolving health care system trends and goals on services provided by OTs and PTs. This includes assumptions related to improvement in population health (e.g. improved control of diabetes, modest reduction in excess body weight) and implementation of team-based care and continuum of care. Detailed information on the modeling of the evolving care delivery scenario can be found in an accompanying technical documentation report.<sup>5</sup> Both supply and demand are reported as full-time equivalents (FTEs). FTE estimates may differ from actual counts of persons who are employed or providing care.

These estimates do not capture changes in health care delivery patterns or disparities between supply and demand at localized geographic levels. Quantifying changes to demand due to innovations in health care delivery models, payment reform, team-based care, health-seeking behaviors, and other health system-level factors presents many challenges. HRSA will continue incorporating such factors into its future workforce projections as the evidence-base evolves and reliable data sources become available.

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<sup>4</sup> The assumption that supply equals demand at baseline is a standard approach in workforce projection modelling. Please refer to: Ono T, Lafortune G, Schoenstein M. “**Health workforce planning in OECD countries: a review of 26 projection models from 18 countries.**” *OECD Health Working Papers, No. 62*. France: OECD Publishing; 2013: 8-11.

<sup>5</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. Technical Documentation for HRSA’s Health Workforce Simulation Model. Rockville, MD: U.S. Department of Health and Human Services, 2018. Available from: <https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/hwsm-technical-report-to-dea.pdf>.

## FINDINGS: OCCUPATIONAL THERAPISTS

Nationally, approximately 104,290 OTs were active in the U.S. workforce in 2016. In 2030, the supply of OTs is expected to increase approximately 45 percent to 150,810 FTEs (*Exhibit 1*).

Under **Scenario One**, demand for OTs is expected to increase 22 percent to 127,260 FTEs by 2030. Under **Scenario Two**, demand is also projected to grow 22 percent to 126,850 FTEs in 2030. These estimates suggest the U.S. will have a sufficient supply of OTs to meet projected growth in demand for services in 2030 under both the status quo and the evolving care delivery scenarios.

**Exhibit 1. Projected Supply and Demand for Occupational in the United States, 2016-2030**

	Occupational therapists	
	Scenario One (Status quo)	Scenario Two (Evolving care delivery)
<b>Supply</b>		
Estimated supply, 2016	104,290	104,290
Projected supply, 2030	150,810	150,810
<i>New entrants, 2016-2030</i>	86,670	86,670
<i>Attrition<sup>a</sup>, 2016-2030</i>	-40,150	-40,150
Total growth (%), 2016-2030	46,520 (45%)	46,520 (45%)
<b>Demand</b>		
Estimated demand, 2016	104,290	104,290
Projected demand <sup>b</sup> , 2030	127,260	126,850
Changing demographics, 2016-2030	22,970	22,970
Achieving population health goals	NA	8,910
Increased managed care <sup>c</sup>	NA	-7,340
Avoidable hospitalization and ED use	NA	-1,980
Total growth (%), 2016-2030	22,970 (22%)	22,560 (22%)
<b>Projected Supply (minus) Demand, 2030</b>	23,550	23,960

Notes: All numbers reflect full time equivalents (FTEs). Numbers may not sum to totals due to rounding. NA denotes "not applicable". ED denotes "emergency department".

<sup>a</sup> Includes retirement and mortality.

<sup>b</sup> Demand growth for status quo scenario reflects changing demographics only.

<sup>c</sup> Patients in managed care plans tend to use fewer services from occupational therapists.

## FINDINGS: PHYSICAL THERAPISTS

Nationally, approximately 237,550 PTs were active in the U.S. workforce in 2016. In 2030, the supply of PTs is expected to increase approximately 27 percent to 302,360 FTEs (*Exhibit 2*).

Under **Scenario One**, demand for PTs is expected to increase 26 percent to 298,820 FTEs by 2030. Under **Scenario Two**, demand is projected to grow 24 percent to 295,260 FTEs in 2030. These estimates suggest the U.S. will have a sufficient supply of PTs to meet projected growth in demand for services in 2030 under both the status quo and the evolving care delivery scenarios.

**Exhibit 2. Projected Supply and Demand for Physical Therapists in the United States, 2016-2030**

	Physical Therapists	
	Scenario One (Status quo)	Scenario Two (Evolving care delivery)
<b>Supply</b>		
Estimated supply, 2016	237,550	237,550
Projected supply, 2030	302,360	302,360
<i>New entrants, 2016-2030</i>	135,940	135,940
<i>Attrition<sup>a</sup>, 2016-2030</i>	-71,130	-71,130
Total growth (%), 2016-2030	64,810 (27%)	64,810 (27%)
<b>Demand</b>		
Estimated demand, 2016	237,550	237,550
Projected demand <sup>b</sup> , 2030	298,820	295,260
Changing demographics, 2016-2030	61,270	61,270
Achieving population health goals	NA	20,320
Increased managed care <sup>c</sup>	NA	-18,990
Avoidable hospitalization and ED use	NA	-4,890
Total growth (%), 2016-2030	61,270 (26%)	57,710 (24%)
<b>Projected Supply (minus) Demand, 2030</b>	<b>3,540</b>	<b>7,100</b>

Notes: All numbers reflect full time equivalents. Numbers may not sum to totals due to rounding. NA denotes “not applicable”.

ED denotes “emergency department”.

<sup>a</sup> Includes retirement and mortality.

<sup>b</sup> Demand growth for status quo scenario reflects changing demographics only.

<sup>c</sup> Patients in managed care plans tend to use fewer services from physical therapists.