

## The U.S. Health Workforce Chartbook – In Brief

### HRSA/National Center for Health Workforce Analysis

November 2013

This brief provides summary data on the size and characteristics of 35 health occupations. The information is from *The U.S. Health Workforce Chartbook*, which includes data on a wide variety of health workers, from physicians, nurses, and dentists to counselors, physical therapists, laboratory technicians, nursing assistants, and others.<sup>1</sup>

The health occupations discussed in this brief are classified based on the U.S. government's Standard Occupational Classification (SOC) system and included more than 14 million individuals in 2010.<sup>2</sup> These individuals represent approximately 10 percent of the nation's workforce.<sup>3</sup> The vast majority are employed in what the U.S. Office of Management and Budget defines as the "health sector," which includes health settings such as hospitals, clinics, physician offices, and nursing homes. Individuals in health occupations may also work outside the health sector in settings such as local governments, schools, or insurance companies. The information provided in this brief includes individuals in health occupations that are both within and outside the health sector.

The table below includes the estimated total number of individuals in the occupation or occupational grouping, the percentage of females, the percentage of health workers older than age 55, and the highest and lowest number of workers per 100,000 in the working-age population across the 50 states.<sup>4</sup> For most occupations, the data are based on an analysis of the U.S. Census Bureau's ACS three-year file for 2008 to 2010, which uses self-reported occupations.<sup>5</sup> Also included in the table are data on the number of graduates for 2010 from educational programs commonly associated with the reported occupations. These data are from the U.S. Department of Education Integrated Postsecondary Education Data System (IPEDS). No graduate data are presented for occupations in which formal educational requirements are completed in institutions not reporting to IPEDS or vary substantially by state.

The largest health occupations or groupings in 2008 to 2010 were Registered Nurses (approximately 2,825,000); Nursing, Psychiatric, and Home Health Aides (2,329,000); Personal Care Aides (1,023,000); Physicians (861,000); Medical Assistants and Other Healthcare Support Occupations (845,000); and Licensed Practical and Licensed Vocational Nurses (690,000).

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<sup>1</sup>Some important components of the health workforce are not included or fully represented in the Chartbook because of data limitations. These components include occupations in which data are either not collected or are reported separately by the U.S. Census Bureau. For example, data from public health nurses are not collected separately from those of other types of nurses. The report also does not include important health occupations because of the small size of the occupation, such as epidemiologists and other public health-oriented disciplines like laboratorians and environmental health professionals.

<sup>2</sup>HRSA analysis of the U.S. Census Bureau, American Community Survey (ACS) Public Use Microdata Sample (PUMS), 2008-2010.

<sup>3</sup>HRSA analysis of the U.S. Bureau of Labor Statistics, Employment Projections, 2010-2020.

<sup>4</sup>Occupations in the Chartbook are limited to the occupations as defined by the SOC as well as how the ACS collects and reports occupational data. For example, although the SOC has separate codes for "medical and clinical laboratory technologists" and "medical and clinical laboratory technicians," the ACS reports them as a single occupational grouping.

<sup>5</sup>Self-reported data have limitations. Some individuals may report the occupation for which they are trained or licensed even when they are not currently working the majority of their time in that occupation. For example, a physician who is spending a majority of the time as an administrator may be recorded as either a physician or an administrator depending on his/her self-report. The ACS does not collect data on licensure or professional certification. See the Technical Documentation for additional details on ACS reporting and limitations.

More than half of the 35 occupations or occupational groupings are greater than 70 percent female, with Dental Hygienists, Dental Assistants, Medical Secretaries, and Speech-Language Pathologists being more than 95-percent female.

There are significant variations in age across occupations, from Dentists and Psychologists with more than 30 percent over age 55 to Emergency Medical Technicians and Paramedics, Dental Assistants, and Physical Therapist Assistants and Aides with fewer than 8 percent over age 55.

Detailed information on demographics (including race and ethnicity data), workforce settings, and geographic distribution of the U.S. health workforce, as well as more information about the data, methods, and findings in this brief, can be found in *The U.S. Health Workforce Chartbook* and the Technical Documentation for the Chartbook at <http://bhpr.hrsa.gov/healthworkforce/index.html>.

## The U.S. Health Workforce

	<b>Total Workforce, 2008-2010</b>	<b>Number Female (%)</b>	<b>Number &gt;55 years old (%)</b>	<b>Range of State-Level Workers per 100,000<sup>6</sup></b>	<b>Total New Graduates, 2010<sup>7</sup></b>
<b>Part I: Clinicians</b>					
<b>Physicians<sup>8</sup></b>	861,463	288,421 (33.5%)	214,043 (24.8%)	169.5-456.3	20,537 <sup>9</sup>
<b>Physician Assistants<sup>10</sup></b>	99,651	67,317 (67.6%)	11,600 (11.6%)	18.8-52.8	5,338
<b>Registered Nurses<sup>11</sup></b>	2,824,641	2,566,957 (90.9%)	558,964 (19.8%)	649.4-1,247.7	161,705 <sup>12</sup>
<b>Nurse Anesthetists</b>	35,570	---	---	3.0-35.2	---
<b>Nurse-Midwives</b>	12,383	---	---	1.1-13.2	---
<b>Nurse Practitioners</b>	110,042	---	---	18.0-69.7	---
<b>Licensed Practical and Licensed Vocational Nurses</b>	690,038	637,420 (92.4%)	136,667 (19.8%)	78.8-420.9	52,211
<b>Oral Health</b>					
<b>Dentists</b>	168,299	40,479 (24.1%)	55,813 (33.2%)	23.3-92.0	5,087
<b>Dental Hygienists</b>	151,933	147,721 (97.2%)	16,858 (11.1%)	32.8-105.3	7,278
<b>Dental Assistants</b>	283,593	272,368 (96.0%)	19,474 (6.9%)	58.2-173.8	---
<b>Pharmacists</b>	256,918	137,211 (53.4%)	51,676 (20.1%)	62.3-155.8	11,873

<sup>6</sup>This category of state-level workers per 100,000 includes individuals in the working-age population. Also, the District of Columbia is not included in this table; as a city, its population numbers may skew the range.

<sup>7</sup>For some occupations, the formal educational requirements vary by state or are completed outside of institutions from which IPEDS collects data; for these occupations, it is not possible to present the number of graduates.

<sup>8</sup>The ACS estimate for physicians includes those providing patient care as well as those in residency training. The ACS data may also include physicians not providing patient care, such as those whose main activity is research and administration.

<sup>9</sup>The number of physician graduates includes those completing medical and osteopathic schools in the United States; it does not include graduates of foreign medical schools who enter the pipeline at the graduate medical education level, also known as residency training.

<sup>10</sup>According to the American Academy of Physician Assistants (AAPA), there were approximately 83,466 physician assistants (PAs) in clinical practice in 2010. Since the ACS relies on self-reported data, the difference in the ACS and AAPA estimates may reflect individual responses on the ACS from persons who may assist physicians, but are not certified physician assistants (PA-Cs).

<sup>11</sup>Registered nurse (RN) data include advanced practice registered nurses (APRNs) such as certified nurse anesthetists, certified nurse-midwives, clinical nurse specialists, and nurse practitioners because the 2008-2010 three-year ACS file does not report data for APRNs separately.

<sup>12</sup>Data on RN graduates include new nurses as well as those who are obtaining a higher-level degree. Data from the National Council of State Boards of Nursing show that about 138,000 individuals became newly licensed RNs after passing the National Council Licensure Examination for Registered Nurses (NCLEX-RN<sup>®</sup>) in 2010.

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<b>Part II: Clinicians and Health Administration</b>					
<b>Chiropractors</b>	56,979	14,556 (25.5%)	10,394 (18.2%)	11.4-41.1	2,601
<b><u>Vision Health</u></b>					
<b>Optometrists</b>	36,858	14,140 (38.4%)	7,945 (21.6%)	7.4-23.4	1,364
<b>Opticians, Dispensing</b>	54,375	38,250 (70.3%)	11,037 (20.3%)	10.3-29.2	---
<b><u>Health Administration</u></b>					
<b>Medical and Health Services Managers</b>	560,870	389,165 (69.4%)	125,496 (22.4%)	126.2-298.2	13,660
<b>Medical Secretaries</b>	652,618	633,496 (97.1%)	142,970 (21.9%)	130.3-409.4	---
<b>Veterinarians</b>	78,875	39,731 (50.4%)	16,416 (20.8%)	16.9-96.7	2,479
<b>Part III: Technologists and Technicians and Aides and Assistants</b>					
<b><u>Technologists and Technicians</u></b>					
<b>Medical and Clinical Laboratory Technologists and Technicians</b>	354,652	261,067 (73.6%)	61,039 (17.2%)	77.8 - 223.8	5,687
<b>Diagnostic Related Technologists and Technicians</b>	314,113	223,411 (71.1%)	41,508 (13.2%)	75.1 - 201.9	16,066
<b>Emergency Medical Technicians and Paramedics</b>	187,686	58,047 (30.9%)	7,958 (4.2%)	27.6 - 105.6	---

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<b>Health Diagnosing and Treating Practitioner Support Technologists and Technicians</b>	527,657	419,353 (79.5%)	43,919 (8.3%)	110.6 - 272.5	17,514
<b>Medical Records and Health Information Technicians</b>	111,297	98,858 (88.8%)	20,762 (18.7%)	23.0-61.4	7,028
<b><u>Aides and Assistants</u></b>					
<b>Medical Assistants and Other Healthcare Support Occupations</b>	845,117	747,698 (88.5%)	91,005 (10.8%)	172.9-406.8	---
<b>Personal Care Aides</b>	1,022,998	874,305 (85.5%)	243,426 (23.8%)	123.4-686.8	---
<b>Nursing, Psychiatric, and Home Health Aides</b>	2,328,702	2,046,684 (87.9%)	355,074 (15.2%)	337.7-1,295.2	---
<b>Part IV: Behavioral and Allied Health</b>					
<b><u>Behavioral Health</u></b>					
<b>Psychologists</b>	188,708	128,124 (67.9%)	70,522 (37.4%)	17.3-139.2	24,345
<b>Counselors</b>	295,263	200,510 (67.9%)	62,399 (21.1%)	47.9-221.3	6,641
<b>Social Workers</b>	517,628	418,615 (80.9%)	93,438 (18.1%)	84.2-313.3	35,955
<b><u>Allied Health</u></b>					
<b>Physical Therapists</b>	188,986	132,437 (70.1%)	18,789 (9.9%)	34.8-110.5	8,948
<b>Dietitians and Nutritionists</b>	92,779	83,358 (89.8%)	17,479 (18.8%)	15.4-81.0	2,601
<b>Physical Therapist Assistants and Aides</b>	70,905	53,018 (74.8%)	5,479 (7.7%)	13.4-38.0	---

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<b>Occupational Therapists</b>	86,728	78,028 (90.0%)	8,379 (9.7%)	13.4-87.7	4,983
<b>Respiratory Therapists</b>	102,117	66,235 (64.9%)	15,631 (15.3%)	16.4-58.7	7,510
<b>Speech-Language Pathologists</b>	121,963	117,213 (96.1%)	19,002 (15.6%)	22.0-72.7	14,161
<b>Massage Therapists</b>	139,215	117,213 (83.2%)	17,572 (12.6%)	14.4-150.2	---

Data Sources:

- Total workforce and sex, age, and per capita range data from the Health Resources and Services Administration (HRSA) analysis of the ACS PUMS, 2008-2010.
- Total graduates from the HRSA analysis of the National Center for Education Statistics IPEDS, 2009-2010.
- Total workforce for nurse anesthetists from the 2011-12 Area Resource File (ARF): 2010 Centers for Medicare & Medicaid Services (CMS) National Provider Identification (NPI) File information. Total number includes nurse anesthetists with an NPI number.
- Total workforce for nurse-midwives from the 2011-12 ARF: 2011 American College of Nurse-Midwives data.
- Total workforce for nurse practitioners from the 2011-12 ARF: 2010 CMS national provider NPI File information. Total number includes nurse practitioners with an NPI number.

Note: "--" indicates that data are not available from the data sources used for this analysis.