

Health Care Employment Projections:

An analysis of Bureau of Labor Statistics Settings and Occupational Projections, 2010-2020



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The Center for Health Workforce Studies

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The Center for Health Workforce Studies is a not-for-profit research organization whose mission is to provide timely, accurate data and conduct policy-relevant research about the health workforce. The Center's work assists health, professional, and education organizations; policy makers and planners; and other stakeholders to understand issues related to the supply, demand, distribution, and use of health workers.

PREFACE

This report, prepared by the Center for Health Workforce Studies (the Center), provides a summary of labor projections for the period 2010 through 2020 for health care settings and health care occupations. The report is designed to provide information about projected trends to help health industry, educators, policy makers, and other stakeholders better understand which health occupations and professions will be in greatest demand over the next 10 years and how to better allocate resources to meet the need for those health workers.

The Center is based at the School of Public Health, University at Albany, State University of New York and is dedicated to studying the supply, demand, education, distribution and utilization of the health workforce. This report was prepared by Robert Martiniano, Jean Moore, and Sandra McGinnis. It is based on analyses of the BLS data that was completed by the Center. The Center would like to acknowledge the National Center for Workforce Analysis for its assistance in developing this report.

EXECUTIVE SUMMARY

This study analyzes projected national growth in the health sector and in health occupations and is based on an analysis of the federal Bureau of Labor Statistics (BLS) 10-year occupational and industry projections for employment in the United States, which are released every two years. The Center's analysis focused on the most significant data related to health sector and health occupations employment and highlights the increasing importance of the health sector to the U.S. economy.

The Center found that despite the recent economic downturn, jobs in health care grew while jobs in other sectors declined. Between 2010 and 2020, jobs in the health care sector are projected to grow by 30%, more than twice as fast as the general economy and consistent with findings from previous analyses of BLS projections conducted by the Center.¹

Other key findings:

While total U.S. employment dropped by over 2% between 2000 and 2010, health care employment grew by more than 25% during the same period.

Growth of U.S. Employment, 2000 - 2010 (in thousands)

		Number						Change 2000-2010	
	2000	2002	2004	2006	2008	2010	Number	Percent	
Total Employment	146,236.0	144,014.0	145,612.3	150,620.1	150,931.7	143,068.2	-3,167.8	-2.2%	
Health Care Employment	11,231.0	11,887.0	12,406.7	12,948.2	13,626.6	14,069.2	2,838.2	25.3%	
Ambulatory Care (total)	4,320.0	4,634.0	4,946.3	5,282.9	5,660.8	5,975.9	1,655.9	38.3%	
Offices of Health Practitioners	3,099.0	3,190.0	3,337.0	3,508.3	3,713.3	3,818.2	719.2	23.2%	
Home Care ²	633.0	680.0	773.2	867.1	958.0	1,080.6	447.6	70.7%	
All Other Ambulatory Care	588.0	764.0	836.1	907.5	989.5	1,077.1	489.1	83.2%	
Hospitals (private, state, and local)	4,919.0	5,148.0	5,300.9	5,437.6	5,667.2	5,695.9	776.9	15.8%	
Nursing Care Facilities ³	1,992.0	2,105.0	2,159.5	2,227.7	2,298.6	2,397.4	405.4	20.4%	

Sources: U.S. Department of Labor, Bureau of Labor Statistics: Employment Outlook 2010 – 2010, 2008 – 2018, 2006 – 2016, 2004 – 2014, Employment Outlook, 2002 – 2012, and 2000 – 2010; Employment and Output by Industry, Table 2.7; Current Employment Survey, 2000 – 2010.

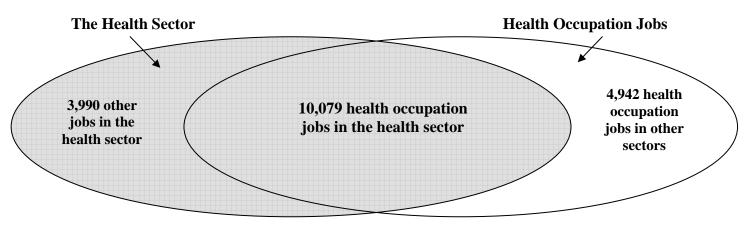
The previous reports based on the Center's analyses of BLS data can be found at the Center's Web site: http://chws.albany.edu.

² Home care numbers for 2000 and 2002 from Current Employment Statistics.

³ Information cited in this report on total health care employment and employment in nursing care facilities includes nursing care facilities and continuing care retirement communities but excludes mental retardation, mental health, and substance abuse facilities and other residential care facilities.

More than 13% of the U.S. labor force worked in the health sector or in a health occupation (19 million jobs out of 143 million jobs in U.S. labor force).

The U.S. Health Workforce, 2010 (in thousands)



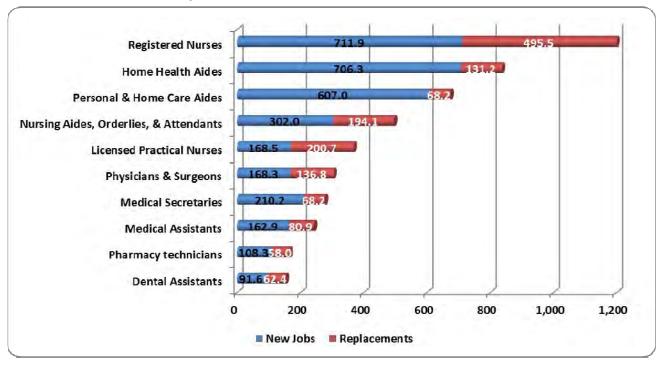
The health care sector is projected to add over 4.2 million jobs between 2010 and 2020, with 63% of those in ambulatory settings (offices of health practitioners, home health, and other non-institutional settings).

Job Increase by Setting in the U.S. Health Sector, 2010 and 2020 (in thousands)

	Number	of Jobs	Job
	2010	2020	Increase
Total Employment	143,068.2	163,537.1	20,468.9
Health Sector Employment	14,069.2	18,274.4	4,205.2
Ambulatory Care	5,975.9	8,633.2	2,657.3
Offices of Health Practitioners	3,818.2	5,209.6	1,391.4
Home Health Care	1,080.6	1,952.4	871.8
Other Ambulatory Care	1,077.1	1,471.2	394.1
Hospitals (private, state, & local)	5,695.9	6,638.4	942.5
Nursing Homes	2,397.4	3,002.8	605.4

Registered nurses, home health aides, and personal care aides are among the occupations nationally projected to have the largest job growth between 2010 and 2020, adding more than 2 million jobs and with another 700,000 job openings due to vacancies from attrition.

Selected Health Occupations with Greatest Need for New Workers between 2010 and 2020



BACKGROUND

Every two years, the federal Bureau of Labor Statistics (BLS) publishes 10-year occupational and industry projections for employment in the United States. These projections are a count of jobs, not people. They are based on a number of factors, including current employment and employment trends; labor force participation by age, gender, and race/ethnicity; population projections; and macroeconomic trends, such as gross domestic product growth, labor productivity, business investments, and the housing market. Projections for the period 2010-2020 were released in February of 2012. The Center analyzed these projections and summarized the most significant findings related to health sector and health occupations employment.

This report presents projections for health sector employment⁴ and health occupations employment.⁵ Health occupations employment includes jobs within the health sector, such as registered nurses (RNs) working in hospitals, as well as jobs outside the health sector, such as RNs working in schools or for insurance companies. Health sector projections and counts indicate only new jobs between 2010 and 2020. Counts of jobs by health occupations indicate new jobs and, in some cases, replacement of existing workers due to attrition.

The BLS projections are national in scope and do not include projections by state or region. State projections by occupation lag by about one year and should be available in late 2013 on the New York State Department of Labor Web site. Factors that influence demand for health services nationally, such as an aging population and economic conditions, are likely to have similar effects on demand at the regional, state, and local levels, although geographic variation is possible. It is difficult to accurately predict health care employment because many factors influence the demand for and use of workers (e.g., the nation's economy, reimbursement policies, health workforce shortages, changes in scope of practice, etc.). Nevertheless, the BLS projections represent the most comprehensive forecast of future jobs in the country. Data from the Current Employment Statistics from the Bureau of Labor Statistics were also used to prepare this report.

⁴ Health sector employment includes all jobs in the various health settings (hospitals, home health care, private practitioner offices, etc.), including those jobs not considered health occupations, such as computer technicians and food service workers. ⁵ Includes 85 health occupations as identified by the Center for Health Workforce Studies.

KEY FINDINGS

A. Health Sector Employment

Since 2000, employment in the health sector nationally has grown 25% while total employment declined by more than 2%.

Between 2000 and 2010, the overall economy lost over 3 million jobs while jobs in health care increased by more than 2.8 million. Jobs in ambulatory care increased by more than 1.6 million between 2000 and 2010, including 720,000 in offices of health practitioners and nearly 450,000 in home care. Hospitals added almost 780,000 jobs and nursing homes added 400,000 jobs during the same period (Exhibit 1).

Exhibit 1
Growth of U.S. Employment, 2000 – 2010 (in thousands)

		Number					Change 2000-2010	
	2000	2002	2004	2006	2008	2010	Number	Percent
Total employment	146,236.0	144,014.0	145,612.3	150,620.1	150,931.7	143,068.2	-3,167.8	-2.2%
Health Care Employment	11,231.0	11,887.0	12,406.7	12,948.2	13,626.6	14,069.2	2,838.2	25.3%
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Hospitals (private, state, and local) ⁸	4,919.0	5,148.0	5,300.9	5,437.6	5,667.2	5,695.9	776.9	15.8%
Nursing Care Facilities ⁹	1,992.0	2,105.0	2,159.5	2,227.7	2,298.6	2,397.4	405.4	20.4%

Sources: U.S. Department of Labor, Bureau of Labor Statistics: Employment Outlook 2010-2010, 2008-2018, 2006-2016, 2004-2014, 2002-2012, 2000-2010; Employment and Output by Industry, Table 2.7; Current Employment Survey, 2000-2010.

Health care employment comprises a growing share of the total U.S. workforce.

In 2010, there were more than 19 million jobs either in the health sector or in health occupations outside of the health sector, accounting for over 13% of the total U.S. workforce. Of those 19

⁶ Includes offices of physicians, dentists, chiropractors, podiatrists, and other community-based providers.

⁷ Home care employment numbers for 2000 and 2002 from Current Employment Statistics. Health care employment was not listed separately in Employment Outlook reports until 2004.

⁸ State and locally operated hospitals projected separately between 2000 and 2006 but combined for purposes of this report. Federally operated hospitals are excluded from this analysis.

⁹ Information cited in this report on total health care employment and employment in nursing care facilities includes nursing care facilities and continuing care retirement communities but excludes mental retardation, mental health, and substance abuse facilities and other residential care facilities. Numbers for the excluded facilities between 2000 and 2006 are from Current Employment Statistics.

million jobs in 2010, more than 14 million jobs, or nearly 11% of U.S. employment, were in the health sector, including both health and non-health-related occupations. The remaining 4 million jobs, or 2.8% of U.S. employment, were in health occupations outside of the health sector (Exhibits 2 and 3).

Exhibit 2
The U.S. Health Workforce, 2010
(in thousands)

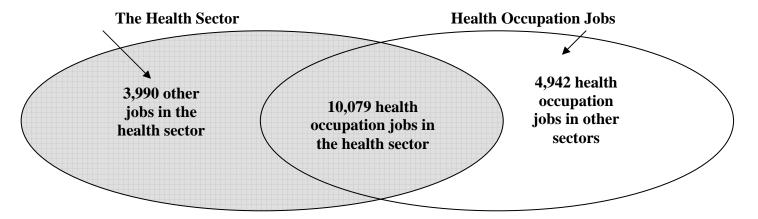


Exhibit 3
The U.S. Health Workforce, 2010 (In thousands)

	Health Occupation Jobs	Other Jobs	Totals
Health Care Settings	10,079.1	3,990.1	14,069.2
Other Work Settings	4,942.2	124,056.8	128,999.0
Totals	15,021.3	128,046.9	143,068.2

	Number	Percent of Civilian Labor Workforce
Health occupation jobs in health care settings	10,079.1	7.0%
Other jobs in health care settings	4,942.2	3.5%
Health occupation jobs in other settings	3,990.1	2.8%
Total U.S. Health Care Jobs	19,011.4	13.3%

Between 2008 and 2010, jobs in health occupations both within and outside of the health sector increased, while "other jobs" in the health sector declined.

While employment in the health sector grew overall between 2008 and 2010, the growth was only in health occupations. "Other job" categories showed reductions in employment in the health sector, including financial clerks, food preparation workers, laundry workers, and housekeepers. In contrast, while 8.2 million "other" jobs were lost in other work sectors, nearly 130,000 jobs were created for health professionals in those same settings (Exhibit 4).

Exhibit 4 Changes in The U.S. Health Workforce, 2008-2010 (In thousands)

	Health Occupation Jobs	Other Jobs	Totals
Health Care Settings	479.6	-236.8	245.2
Other Work Settings	128.9	-8,235.2	-8,108.7
Totals	601.6	-8,472.0	-7,863.5

Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020; National Employment Matrix, employment by industry, occupation, and percent distribution, 2008 and projected 2018.

Between 2010 and 2020, employment in the country's health sector is projected to grow at a significantly higher rate than all other employment sectors.

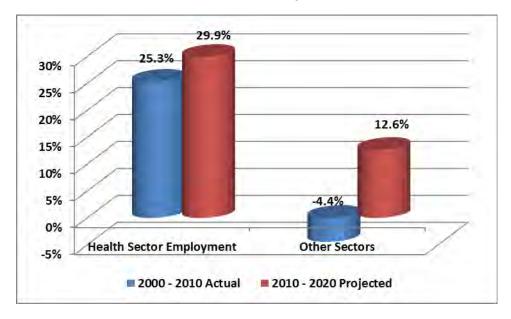
Health sector employment is projected to grow from over 14 million jobs in 2010 to nearly 18.3 million jobs in 2020, an increase of 30%, compared to only 13% growth for jobs in all other employment sectors (Exhibits 5 and 6).

Exhibit 5

Job Growth in the Health Sector Compared to All Other Employment Sectors in the U.S. 2000-2010 and Projected 2010-2020 (in thousands)

				Employment Increase		
	2000	2010	2020	2000-2010	2010-2020	
Other Sector Employment	135,005.0	128,999.0	145,262.7	-6,006.0	16,263.7	
Health Sector Employment	11,231.0	14,069.2	18,274.4	2,838.2	4,205.2	
Total Employment	146,236.0	143,068.2	163,537.1	-3,167.8	20,468.9	

Exhibit 6
Percentage Job Growth in the Health Sector Compared to All Other Employment Sectors in the U.S., 2000-2010 and Projected 2010-2020



Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020; Employment and Output by Industry, Table 2.7; Current Employment Survey, 2000-2010.

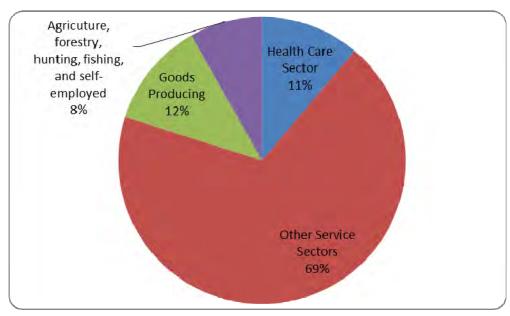
By 2020, nearly one in nine jobs in the U.S. is projected to be in the health sector.

Between 2000 and 2010, the health sector added the most jobs, outpacing job growth for all other service sectors combined. During the same period, jobs in goods producing and in agriculture, forestry, hunting and fishing, and the self-employed declined. Health sector employment is expected to comprise a larger share of total U.S. employment by 2020 than it has in the past. By 2020, that proportion is projected to increase to more than one in nine jobs (11%), and 80% of employment in the U.S. will be in service sectors ¹⁰ (Exhibits 7 and 8).

Exhibit 7 Change in U.S. Employment by Job Sector, 2000-2010

			Change in Jobs			
	2000	2010	2020	2000-2010	2010-2020	
Health Care Sector	11,230.9	14,069.2	18,274.4	2,838.3	4,205.2	
Other Service Sectors	96,624.4	98,660.9	112,405.6	2,036.5	13,744.7	
Goods Producing	24,569.7	17,705.5	19,496.7	-6,864.2	1,791.2	
Agriculture, forestry, hunting,						
fishing, and self-employed	13,811.0	12,632.6	13,360.8	-1,178.4	728.2	
Total Employment	146,236.0	143,068.2	163,537.5	-3,167.8	20,469.3	

Exhibit 8
Projected Percent Distribution by Job Sector, 2020⁵



Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020; Employment and Output by Industry, Table 2.7; Current Employment Survey, 2000-2010.

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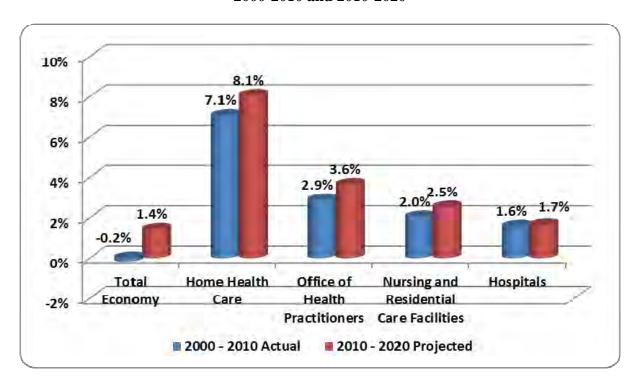
¹⁰ Besides health, other service sectors include retail and wholesale trade, information technology services, banking, education, government, transportation, and utilities. Other sectors include manufacturing, construction, mining, and agriculture, forestry, fishing, and hunting.

Between 2010 and 2020, the fastest job growth in the health sector nationally is projected in home health care, followed by offices of health practitioners.

Home health care is projected to experience the fastest job growth across all health settings, with an average annual growth of more than 8% between 2010 and 2020 (87,000 new jobs per year), surpassing the average annual growth for home health care between 2000 and 2010.

Additionally, jobs in offices of health practitioners are projected to grow by over 3% annually (139,000 new jobs) and jobs in nursing homes are projected to increase by more than 2% (60,000 new jobs) annually between 2010 and 2020. Jobs in hospitals are projected to grow by nearly 2% annually during the same period (94,000 new jobs) (Exhibit 9).

Exhibit 9
Average Annual Job Growth for Selected Settings within the U.S. Health Sector, 2000-2010 and 2010-2020



Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020; Employment and Output by Industry, Table 2.7; Current Employment Survey, 2000-2010.

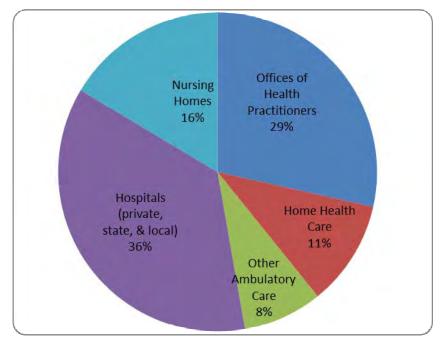
Between 2010 and 2020, offices of health practitioners in the U.S. are projected to add almost 1.4 million new jobs and, by 2020, comprise more than 29% of jobs in the health sector by 2020.

Employment in offices of health practitioners is expected to increase by nearly 1.4 million new jobs between 2010 and 2020. By 2020, jobs in offices of health practitioners will represent 29% of total health sector jobs. Hospitals are projected to add over 940,000 jobs between 2010 and 2020, and jobs in home health care are estimated to increase by nearly 900,000 over the same period (Exhibits 10 and 11).

Exhibit 10 Job Increase by Setting in the U.S. Health Sector, 2010 and 2020 (in thousands)

	Number	of Jobs	Job
	2010	2020	Increase
Ambulatory Care	5,975.9	8,633.2	2,657.3
Offices of Health Practitioners	3,818.2	5,209.6	1,391.4
Home Health Care	1,080.6	1,952.4	871.8
Other Ambulatory Care	1,077.1	1,471.2	394.1
Hospitals (private, state, and local)	5,695.9	6,638.4	942.5
Nursing Homes	2,397.4	3,002.8	605.4

Exhibit 11 Projected Percent of Jobs by Setting in the U.S. Health Sector, 2020



Offices of physicians are projected to add nearly 760,000 new jobs nationally between 2010 and 2020.

Offices of physicians are projected to grow by nearly 33% between 2010 and 2020, adding almost 760,000 new jobs, representing more than 54% of all new jobs in ambulatory care settings. Offices of other health practitioners, such as chiropractors or podiatrists, and offices of dentists are each projected to grow substantially between 2010 and 2020 (369,000 and 265,000 jobs respectively) (Exhibit 12).

54.8% 60% 50% 40% 32.7% 32.0% 29.9% 30% 20% 10% 0% **Health Sector** Offices of Offices of Office of Other **Physicians** Dentists Health **Practitioners**

Exhibit 12 Job Growth for Offices of Health Practitioners in the U.S. between 2010 and 2020

Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020.

B. Health Occupations Employment

Between 2010 and 2020, nearly 7.5 million health workers will be needed nationally to fill new jobs and to replace workers who leave their jobs across all employment sectors.

The total number of health workers across all employment sectors will increase by more than 4.7 million between 2010 and 2018 (Appendix 1). In addition, another 2.7 million health workers will be needed to replace individuals expected to leave their jobs (e.g., retirements, attrition from the profession, etc.) over the same period.

14

Between 2010 and 2020, 16 of the 30 occupations with the largest percentage increases are in health care, including the top two.

Jobs for both personal care aides and home health aides are projected to increase substantially between 2010 and 2020, by 71% and 69%, respectively. The projected fastest growing health occupations include:

- Personal care aides (71%);
- Home health aides (69%);
- Veterinary technologists and technicians (52%);
- Physical therapy assistants (46%);
- Diagnostic medical sonographers (44%);
- Occupational therapy assistants (43%);
- Physical therapy aides (43%);
- Medical secretaries (41%);
- Marriage and family therapists (41%); and
- Physical therapists (39%).

Between 2010 and 2020, eight of the 30 occupations with the largest numerical increase in jobs are in health care, including three of the top four.

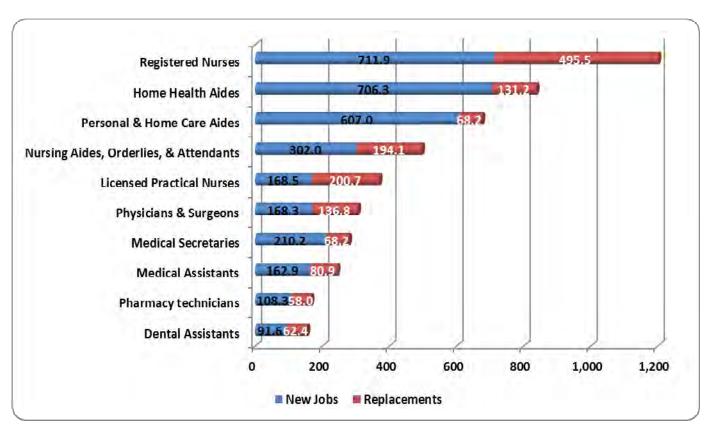
Jobs for RNs are projected to grow by almost 712,000 between 2010 and 2020, the largest growing profession in the U.S., followed by home health aides and personal care aides. The health occupations with the largest projected growth include:

- Registered nurses (712,000);
- Home health aides (706,000);
- Personal care aides (607,000);
- Nursing aides, orderlies, and attendants (302,000);
- Medical secretaries (210,000);
- Licensed practical and licensed vocational nurses (169,000);
- Physicians and surgeons (168,000); and
- Medical assistants (163,000).

Over 1.2 million new RNs will be needed in the U.S. between 2010 and 2020 to fill new and existing jobs.

Between 2010 and 2020, more than 1.2 million new RNs will be needed nationwide, including almost 500,000 to replace RNs leaving the profession. During the same period, nearly 840,000 home health aides; about 675,000 personal and home care aides; almost 500,000 nursing aides, orderlies, and attendants; and nearly 370,000 LPNs will be needed to fill new and existing jobs (Exhibit 13).

Exhibit 13 Selected Health Occupations with Greatest Need for New Workers between 2010 and 2020



RN job growth between 2010 and 2020 in the U.S. is projected to be greatest in hospitals and offices of health practitioners.

Demand for RNs in health care settings is projected to grow between 2010 and 2020, with more than 662,000 RN jobs created. The largest growth in RNs jobs will occur in hospitals (389,000), followed by offices of health practitioners (115,000) and home health care (81,000). Nearly 50,000 new jobs will be created for RNs in employment settings outside of health care (Exhibit 14).

662.3 700 600 500 389.2 400 300 200 114.7 81.2 49.7 44.1 100 29.4 Outside of Health Care Offices of Home Health Other Hospitals Nursing Health Care Health Care **Ambulatory** Homes Care Practitioners

Exhibit 14 Job Growth for RNs by Health Sector Setting, 2010-2020

CONCLUSION

While the recent recession adversely affected employment within the overall economy, jobs for health professionals were not nearly as impacted, both within and outside of the health sector. Between 2008 and 2010, over 600,000 new jobs were created for health professionals, with almost 480,000 added in the health sector. The health sector did experience job loss though, with nearly 240,000 "other jobs" lost in the health sector between 2008 and 2010, such as janitorial and food service workers.

The health sector is projected to continue to grow between 2010 and 2020, adding more than 4 million jobs during that time. Much of that growth is projected in offices of health practitioners and home health care. While the projections indicate that the health sector will continue to grow faster than the overall economy, many of the high growth jobs, such as home health aides; personal care aides; nursing aides, orderlies, and attendants; or licensed practical nurses; will require minimally a high school diploma (or equivalent) or a postsecondary non-degree certificate. Other high growth jobs, such as medical secretaries, veterinary technologists and technicians, physical therapy assistants, and occupational therapy assistants will require an associate degree.

Appendix 1: Health Care Employment by Occupation, 2010 and Projected 2020 (In Thousands of Jobs)						
	Matrix	Emplo	yment	Char	ige	growth and net replacements,
Occupation	Matrix Code	2010	2020	Number	Percent	2010 - 2020
	Code	15,021.3	19,744.0	4,722.7	31.4%	7,428.6
Registered nurses	29-1111	2,737.4	3,449.3	711.9	26.0%	1,207.4
Home health aides	31-1011	1,017.7	1,723.9	706.3	69.4%	837.5
Personal and home care aides	39-9021	861.0	1,468.0	607.0	70.5%	675.2
Nursing aides, orderlies, and attendants	31-1012	1,505.3	1,807.2	302.0	20.1%	
Licensed practical and licensed vocational nurses	29-2061	752.3	920.8	168.5	22.4%	369.2
Physicians and surgeons	29-1060	691.0	859.3	168.3	24.4%	
Medical secretaries	43-6013	508.7	718.9	210.2	41.3%	
Medical assistants	31-9092 29-2052	527.6 334.4	690.4 442.6	162.9 108.3	30.9% 32.4%	243.8 166.3
Pharmacy technicians Dental assistants	31-9091	297.2	388.9	91.6	30.8%	154.0
Medical and health services managers	11-9111	303.0	371.0	68.0	22.4%	141.9
Pharmacists	29-1051	274.9	344.6	69.7	25.4%	
Emergency medical technicians and paramedics	29-2041	226.5	301.9	75.4	33.3%	
Dental hygienists	29-2021	181.8	250.3	68.5	37.7%	104.9
Physical therapists	29-1123	198.6	276.0	77.4	39.0%	100.6
Radiologic technologists and technicians	29-2037	219.9	281.0	61.0	27.8%	95.1
Health care social workers	21-1022	152.7	203.9	51.2	33.5%	87.4
Clinical, counseling, and school psychologists	19-3031	154.3	188.0	33.7	21.9%	82.3
Medical records and health information technicians	29-2071	179.5	217.3	37.7	21.0%	73.7
Mental health counselors	21-1014	120.3	163.9	43.6	36.3%	69.4
Mental health and substance abuse social workers	21-1023	126.1	165.6	39.5	31.3%	
Dentists, general	29-1021	130.7	158.3	27.6	21.1%	66.4
All other health care support workers	31-9799	202.3	237.0	34.8	17.2%	65.8
Rehabilitation counselors	21-1015	129.8	166.4	36.6	28.2%	
Occupational therapists	29-1122	108.8	145.2	36.4	33.5%	57.1
Massage therapists	31-9011	153.7	184.6	30.9	20.1%	55.9
Veterinary technologists and technicians	29-2056	80.2	121.9	41.7	52.0%	
Medical and clinical laboratory technicians	29-2012	161.2	184.9	23.8	14.7%	55.1
Respiratory therapists	29-1126	112.7	143.9	31.2	27.7%	52.7
Speech-language pathologists	29-1127	123.2	152.0	28.8	23.4%	52.3
Medical and clinical laboratory technologists	29-2011	169.4	188.6	19.2	11.3%	52.1
Environmental scientists and specialists, including health	19-2041	89.4	106.1	16.7	18.7%	43.2
Medical scientists, except epidemiologists	19-1042	100.0	136.5	36.4	36.4%	42.6
Substance abuse and behavioral disorder counselors	21-1011	85.5	108.9	23.4	27.3%	41.7
Physical therapist assistants	31-2021	67.4	98.2	30.8	45.7%	41.2
Physician assistants	29-1071	83.6	108.3	24.7	29.5%	40.6
Health care technologists and technicians, all other	29-2799	93.5	115.2	21.7	23.2%	40.4
Health educators	21-1091	63.4	86.6	23.2	36.5%	
Dietitians and nutritionists	29-1031	64.4	77.1	12.7	19.7%	35.4
Veterinarians	29-1131	61.4	83.4	22.0	35.9%	34.2
Surgical technologists	29-2055	93.6	111.3	17.7	18.9%	33.9
Health care practitioners and technical workers, all other	29-9799	60.4	71.9	11.5	19.0%	
Diagnostic medical sonographers	29-2032	53.7	77.1	23.4	43.5%	31.7
Opticians, dispensing	29-2081	62.6	80.7	18.1	28.9%	30.6
Physical therapist aides	31-2022	47.0	67.3	20.3	43.1%	
Occupational health and safety specialists	29-9011	58.7	63.7	5.0	8.5%	25.7
Chiropractors	29-1011	52.6	67.4	14.9	28.3%	25.3
Psychiatric technicians	29-2053	74.9	86.4	11.6	15.5%	24.6
Optometrists Marriago and family therepists	29-1041 21-1013	34.2	45.5	11.3	33.1%	23.4
Marriage and family therapists		36.0	50.8	14.8	41.2%	22.6
Environmental engineers Pharmacy aides	17-2081 31-9095	51.4 50.8	62.7 65.3	11.3 14.5	21.9%	22.6 22.3
Medical equipment repairers	49-9062	37.9	49.9	11.9	28.6% 31.5%	22.3
Cardiovascular technologists and technicians	29-2031	49.4	63.9	14.5	29.3%	22.3
Veterinary assistants and laboratory animal caretakers	31-9096	73.2	83.6	10.4	14,2%	21.6
Health diagnosing and treating practitioners, all other	29-1199	55.6	66.2	10.4	19.0%	21.2
Medical transcriptionists	31-9094	95.1	100.7	5.6	5.9%	
Environmental science and protection technicians, including health	19-4091	29.6	36.6	7.0	23.6%	19.5
Psychiatric aides	31-1013	67.7	77.9	10.2	15.1%	19.0
Occupational therapist assistants	31-1013	28.5	40.8	12.3	43.3%	16.8
Therapists, all other	29-1128	33.1	42.3	9.2	27.9%	16.3
Medical equipment preparers	31-9093	49.2	57.8	8.6	17.5%	
Ophthalmic laboratory technicians	51-9083	29.8	33.6	3.8	12.8%	
Dental laboratory technicians	51-9081	40.9	41.2	0.3	0.8%	

Appendix 1: Health Care Employment by Occupation, 2010 and Projected 2020 (In Thousands of Jobs)						Total job openings due to growth and net
	Matrix Code	Emplo	yment	Char	nge	replacements,
Occupation		2010	2020	Number	Percent	2010 - 2020
	Code	15,021.3	19,744.0	4,722.7	31.4%	7,428.6
Athletic trainers	29-9091	18.2	23.7	5.5	30.0%	11.9
Recreational therapists	29-1125	22.4	26.3	3.8	17.1%	11.9
Ambulance drivers and attendants, except emergency medical technicians	53-3011	19.6	25.9	6.3	32.1%	10.1
Psychologists, all other	19-3039	17.5	20.6	3.2	18.2%	8.7
Environmental engineering technicians	17-3025	18.8	23.3	4.6	24.3%	8.2
Health and safety engineers, except mining safety engineers and inspectors	17-2111	23.7	26.8	3.1	13.0%	8.2
Dietetic technicians	29-2051	24.2	28.1	3.9	16.0%	8.1
Forensic science technicians	19-4092	13.0	15.4	2.4	18.6%	7.9
Nuclear medicine technologists	29-2033	21.9	26.1	4.1	18.9%	7.5
Radiation therapists	29-1124	16.9	20.3	3.4	20.3%	6.7
Audiologists	29-1181	13.0	17.8	4.8	36.8%	5.6
Podiatrists	29-1081	12.9	15.5	2.6	20.0%	5.1
Occupational health and safety technicians	29-9012	10.6	12.0	1.4	12.9%	5.1
Medical appliance technicians	51-9082	14.2	14.7	0.5	3.7%	5.0
Orthodontists	29-1023	8.3	10.1	1.8	21.1%	4.2
Oral and maxillofacial surgeons	29-1022	8.0	9.7	1.7	21.3%	4.1
Occupational therapist aides	31-2012	7.5	9.9	2.5	33.0%	3.6
Dentists, all other specialistst	29-1029	7.8	8.7	0.9	11.7%	3.2
Respiratory therapy technicians	29-2054	13.8	14.3	0.6	4.1%	3.0
Orthotists and prosthetists	29-2091	6.3	7.0	0.8	12.1%	2.0
Epidemiologists	19-1041	5.0	6.1	1.2	23.6%	1.5
Prosthodontists	29-1024	1.0	1.2	0.2	21.4%	0.5