

The Healthcare Industry and Opportunities for Continuing and Professional Education

According to the U.S. Census, there are approximately 326 million people in the United States¹. In 2016, there were approximately 74 million Baby Boomers, those born between 1946 and 1964. At their peak, there was as many as 79 million in the U.S. To put things in perspective, Millennials, those born between 1981 and 1994, number approximately 71 million.² While life expectancy is now 78.7 years of age on average³, the impact on our healthcare systems are expected to be immense. Currently, and while this number will accelerate over time, approximately 3.5 million Baby Boomers are retiring annually. The UPCEA Center for Research and Strategy estimates further that 33 million Boomers will be retired and 36 million will still be in the workforce by 2020. The remaining two million, unfortunately, will pass away. In the short-run, a million boomers will die each year, and this number will increase as boomers get older. In fact, we estimate that approximately 5 million Boomers will be employed in 2030 and 49 million will be retired.

People are born and people will die, but healthcare will continue to grow over the next two decades and be resilient to major economic downturns. Healthcare will change to accommodate our aging population, as well as meet the needs of aging Gen X'ers and Millennials. New technologies, payment systems, emerging and changing demographics, politics, changing policies, and many other factors will continue to fuel employment in the healthcare industry. Even wearable technologies and the vast amounts of data being stored will also fuel and change employment in the healthcare sector.

For traditional higher education, degrees will need to evolve as demands change. For professional and continuing education, the evolution of new degrees will certainly be an opportunity, but the creation of “bridge” credentials also can be promising as professionals will require new learning to become more secure in their jobs. The data that follows shows where the growth will be in the next decade as a percentage and by volume of new jobs.

¹ U.S. Census

² Pew Research, Millennials Overtake Baby Boomers, 3/1/2018

³ Fortune, U.S. Life Expectancy Dropped Again, 2/9/2018

Table 1 lists the top healthcare-related occupations in the United States by the expected growth in number of jobs from 2018 to 2028. Personal Care Aides are expected to experience the greatest growth over the next 10 years, followed by Registered Nurses and Home Health Aides. This growth is primarily being fueled by the aging of Baby Boomers.

Table 1: Top Healthcare Occupations in the United States by Growth

Occupation	2018 Jobs	2028 Jobs	2018-2028 Change	% Change	Median Hourly Earnings
Personal Care Aides	2,706,257	3,612,016	905,759	33%	\$10.87
Registered Nurses	3,099,965	3,571,530	471,565	15%	\$33.32
Home Health Aides	1,102,740	1,470,900	368,160	33%	\$11.19
Nonfarm Animal Caretakers	1,074,044	1,257,774	183,730	17%	\$11.59
Nursing Assistants	1,567,098	1,743,422	176,324	11%	\$13.23
Medical Secretaries	631,190	766,874	135,684	21%	\$16.59
Licensed Practical and Licensed Vocational Nurses	791,436	912,789	121,353	15%	\$21.29
Secondary School Teachers, Except Special and Career/Technical Education	1,057,173	1,145,045	87,872	8%	\$28.26
Medical and Health Services Managers	421,364	507,535	86,171	20%	\$44.07
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	335,023	402,989	67,966	20%	\$20.82
Physicians and Surgeons, All Other	494,925	557,102	62,177	13%	\$84.25
Nurse Practitioners	189,128	250,163	61,035	32%	\$50.05
Physical Therapists	257,388	317,287	59,899	23%	\$40.64
Middle School Teachers, Except Special and Career/Technical Education	645,740	702,733	56,993	9%	\$27.38
Emergency Medical Technicians and Paramedics	273,547	312,807	39,260	14%	\$16.05
Physician Assistants	118,975	155,844	36,869	31%	\$50.67
Healthcare Social Workers	190,808	226,455	35,647	19%	\$27.21
Medical Records and Health Information Technicians	222,444	254,849	32,405	15%	\$18.90
Occupational Therapists	144,385	173,935	29,550	20%	\$38.59
Health Technologists and Technicians, All Other	145,602	173,773	28,171	19%	\$20.96

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

Table 2 lists the top healthcare-related occupations in the United States by the expected decline in number of jobs from 2018 to 2028. Respiratory Therapy Technicians are the only occupation that are expected to experience a strong decline over the next 10 years, demonstrating the strong growth of health care as an industry. However, the Bureau of Labor Statistics and other forecasting groups disagree on the decline and some expect the profession to recover as our population ages. As can also be seen below, the healthcare industry will grow, some occupations slower than others.

Table 2: Top Healthcare Occupations in the United States by Decline

Occupation	2018 Jobs	2028 Jobs	2018-2028 Change	% Change	Median Hourly Earnings
Respiratory Therapy Technicians	9,840	6,545	(3,295)	(33%)	\$24.28
Epidemiologists	7,519	8,283	764	10%	\$33.64
Career/Technical Education Teachers, Middle School	12,455	13,665	1,210	10%	\$27.63
Nurse Midwives	8,073	9,880	1,807	22%	\$48.49
Occupational Health and Safety Technicians	23,637	26,577	2,940	12%	\$25.27
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	28,968	31,917	2,949	10%	\$42.31
Pediatricians, General	42,604	45,727	3,123	7%	\$73.43
Anesthesiologists	48,549	53,285	4,736	10%	\$101.58
Psychiatric Technicians	71,808	76,687	4,879	7%	\$15.26
Medical Transcriptionists	90,160	95,318	5,158	6%	\$14.27
Environmental Science and Protection Technicians, Including Health	41,206	46,737	5,531	13%	\$22.89
Career/Technical Education Teachers, Secondary School	78,914	84,450	5,536	7%	\$27.75
Healthcare Practitioners and Technical Workers, All Other	43,450	50,360	6,910	16%	\$27.79
Medical Equipment Preparers	58,631	65,829	7,198	12%	\$17.06
Nurse Anesthetists	48,361	56,750	8,389	17%	\$80.39
Health Educators	63,590	73,035	9,445	15%	\$26.19
Environmental Scientists and Specialists, Including Health	94,588	104,055	9,467	10%	\$34.01
Community Health Workers	61,471	72,174	10,703	17%	\$18.57
Occupational Health and Safety Specialists	97,386	108,285	10,899	11%	\$35.61
Occupational Therapy Assistants	44,387	55,752	11,365	26%	\$28.51

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

Table 3 lists the top institutions in the United States in terms of health care related completions in 2017. Western Governors University had the most completions, followed by Chamberlain College of Nursing-Illinois and Ultimate Medical Academy-Tampa.

Table 3: Top 20 Institutions for Healthcare Completions in 2017

<u>Institution</u>	<u>All Program Completions 2017</u>	<u>Market Share</u>	<u>Associate's Completions</u>	<u>Bachelor's Completions</u>	<u>Master's Completions</u>	<u>Doctor's Completions</u>
Western Governors University	9,553	1.8%	0	7,330	2,223	0
Chamberlain College of Nursing-Illinois	8,249	1.6%	0	7,080	870	299
Ultimate Medical Academy-Tampa	7,454	1.4%	4,157	0	0	0
Grand Canyon University	7,397	1.4%	0	5,190	2,119	51
Walden University	5,794	1.1%	0	1,135	4,308	338
University of Phoenix-Arizona	5,760	1.1%	705	2,451	1,228	35
The University of Texas at Arlington	3,882	0.7%	0	3,588	274	20
Ohio University-Main Campus	3,497	0.7%	11	2,862	623	0
Ivy Tech Community College	3,118	0.6%	1,999	0	0	0
Kaplan University-Davenport Campus	3,073	0.6%	827	1,215	604	1
Liberty University	2,731	0.5%	0	608	2,012	6
University of South Florida-Main Campus	2,258	0.4%	0	1,644	553	61
University of Central Florida	2,253	0.4%	0	1,996	251	6
Columbia Southern University	2,001	0.4%	496	1,016	403	0
Capella University	1,981	0.4%	0	696	1,070	169
Johns Hopkins University	1,951	0.4%	0	410	1,006	156
Drexel University	1,852	0.4%	0	1,010	710	58
University of Alabama at Birmingham	1,656	0.3%	0	610	895	151
DeVry University-Illinois	1,565	0.3%	461	63	0	0
Columbia University in the City of New York	1,560	0.3%	0	62	1,010	136

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

Tables 4-7 display the top health-care related programs in terms of completion growth from 2010 until 2017 ranging from a bachelor’s degree to a doctorate degree.

Table 4: Top 20 Healthcare-Related Programs in the United States by Completion Growth (2010-2017)

Description	All Program Completions 2017	Bachelor’s Completions 2017	Master’s Completions 2017	Doctor’s Completions 2017	All Program Completions Change 2010-2017	% Change 2010-2017
Registered Nursing/Registered Nurse	232,526	134,670	16,090	882	61,953	36%
Health/Health Care Administration/Management	24,332	12,008	9,619	257	12,616	108%
Health Services/Allied Health/Health Sciences, General	19,207	11,833	673	227	11,569	151%
Public Health, General	16,687	5,830	9,442	527	9,867	145%
Aesthetician/Esthetician and Skin Care Specialist	17,721	0	0	0	6,912	64%
Sport and Fitness Administration/Management	15,012	10,147	4,106	32	6,178	70%
Bioengineering and Biomedical Engineering	10,650	7,023	2,562	1,015	4,601	76%
Nursing Administration	7,532	726	6,402	321	4,304	133%
Nursing Practice	5,042	958	297	3,529	3,968	369%
Health/Medical Preparatory Programs, Other	5,006	1,741	137	0	3,591	254%
Health Information/Medical Records Technology/Technician	11,119	64	79	0	3,486	46%
Health and Wellness, General	4,013	2,951	248	9	3,437	597%
Mental Health Counseling/Counselor	6,170	9	5,742	28	3,338	118%
Health and Physical Education/Fitness, General	14,212	10,660	1,227	30	3,263	30%
Physician Assistant	9,007	541	8,021	16	3,172	54%
Occupational Therapy/Therapist	8,322	842	6,606	740	2,960	55%
Veterinary/Animal Health Technology/Technician and Veterinary Assistant	8,759	500	0	0	2,857	48%
Public Health Education and Promotion	4,240	3,061	877	79	2,173	105%
Occupational Safety and Health Technology/Technician	3,556	1,720	564	4	1,858	109%
Hospital and Health Care Facilities Administration/Management	4,403	2,773	1,287	1	1,849	72%

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

Table 5: Top 20 Healthcare-Related Programs in the United States by Bachelor's Completions

Description	All Program Completions 2017	Bachelor's Completions 2017	Master's Completions 2017	Doctor's Completions 2017	All Program Completions Change 2010-2017	% Change 2010-2017
Registered Nursing/Registered Nurse	232,526	134,670	16,090	882	61,953	36%
Health/Health Care Administration/Management	24,332	12,008	9,619	257	12,616	108%
Health Services/Allied Health/Health Sciences, General	19,207	11,833	673	227	11,569	151%
Health and Physical Education/Fitness, General	14,212	10,660	1,227	30	3,263	30%
Sport and Fitness Administration/Management	15,012	10,147	4,106	32	6,178	70%
Bioengineering and Biomedical Engineering	10,650	7,023	2,562	1,015	4,601	76%
Public Health, General	16,687	5,830	9,442	527	9,867	145%
Health Professions and Related Clinical Sciences, Other	7,886	4,799	846	98	723	10%
Public Health Education and Promotion	4,240	3,061	877	79	2,173	105%
Health and Wellness, General	4,013	2,951	248	9	3,437	597%
Hospital and Health Care Facilities Administration/Management	4,403	2,773	1,287	1	1,849	72%
Community Health and Preventive Medicine	2,204	1,782	242	25	938	74%
Health/Medical Preparatory Programs, Other	5,006	1,741	137	0	3,591	254%
Occupational Safety and Health Technology/Technician	3,556	1,720	564	4	1,858	109%
Health Information/Medical Records Administration/Administrator	2,881	1,558	400	0	866	43%
Environmental/Environmental Health Engineering	2,501	1,533	795	151	1,081	76%
Community Health Services/Liaison/Counseling	2,533	1,499	197	9	1,157	84%
Public Health, Other	2,722	1,386	857	124	876	47%
Health Teacher Education	2,028	1,301	594	46	(370)	(15%)
Health Services Administration	2,401	1,048	891	26	484	25%

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

Table 6: Top 20 Healthcare-Related Programs in the United States by Master's Completions

Description	All Program Completions 2017	Bachelor's Completions 2017	Master's Completions 2017	Doctor's Completions 2017	All Program Completions Change 2010-2017	% Change 2010-2017
Registered Nursing/Registered Nurse	232,526	134,670	16,090	882	61,953	36%
Health/Health Care Administration/Management	24,332	12,008	9,619	257	12,616	108%
Public Health, General	16,687	5,830	9,442	527	9,867	145%
Physician Assistant	9,007	541	8,021	16	3,172	54%
Occupational Therapy/Therapist	8,322	842	6,606	740	2,960	55%
Nursing Administration	7,532	726	6,402	321	4,304	133%
Mental Health Counseling/Counselor	6,170	9	5,742	28	3,338	118%
Sport and Fitness Administration/Management	15,012	10,147	4,106	32	6,178	70%
Bioengineering and Biomedical Engineering	10,650	7,023	2,562	1,015	4,601	76%
Mental and Social Health Services and Allied Professions, Other	4,024	507	1,687	21	(1,902)	(32%)
Adult Health Nurse/Nursing	2,243	314	1,586	51	1,365	155%
Epidemiology	1,873	36	1,312	288	836	81%
Hospital and Health Care Facilities Administration/Management	4,403	2,773	1,287	1	1,849	72%
Health and Physical Education/Fitness, General	14,212	10,660	1,227	30	3,263	30%
Health Services Administration	2,401	1,048	891	26	484	25%
Public Health Education and Promotion	4,240	3,061	877	79	2,173	105%
Public Health, Other	2,722	1,386	857	124	876	47%
Health Professions and Related Clinical Sciences, Other	7,886	4,799	846	98	723	10%
Environmental/Environmental Health Engineering	2,501	1,533	795	151	1,081	76%
Health Services/Allied Health/Health Sciences, General	19,207	11,833	673	227	11,569	151%

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

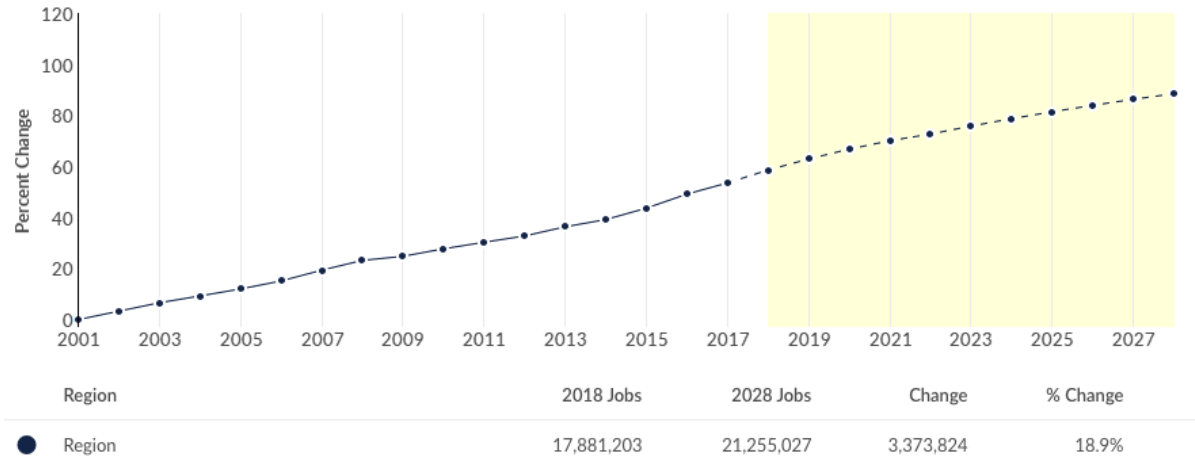
Table 7: Top 20 Healthcare-Related Programs in the United States by Doctor's Completions

Description	All Program Completions 2017	Bachelor's Completions 2017	Master's Completions 2017	Doctor's Completions 2017	All Program Completions Change 2010-2017	% Change 2010-2017
Dentistry	6,415	0	0	6,388	1,317	26%
Nursing Practice	5,042	958	297	3,529	3,968	369%
Chiropractic	2,521	0	0	2,521	(80)	(3%)
Bioengineering and Biomedical Engineering	10,650	7,023	2,562	1,015	4,601	76%
Registered Nursing/Registered Nurse	232,526	134,670	16,090	882	61,953	36%
Occupational Therapy/Therapist	8,322	842	6,606	740	2,960	55%
Public Health, General	16,687	5,830	9,442	527	9,867	145%
Nursing Administration	7,532	726	6,402	321	4,304	133%
Epidemiology	1,873	36	1,312	288	836	81%
Health/Health Care Administration/Management	24,332	12,008	9,619	257	12,616	108%
Health Services/Allied Health/Health Sciences, General	19,207	11,833	673	227	11,569	151%
Environmental/Environmental Health Engineering	2,501	1,533	795	151	1,081	76%
Public Health, Other	2,722	1,386	857	124	876	47%
Pharmacoeconomics/Pharmaceutical Economics	161	0	49	112	156	3120%
Health Professions and Related Clinical Sciences, Other	7,886	4,799	846	98	723	10%
Environmental Health	1,248	364	641	96	547	78%
Public Health Education and Promotion	4,240	3,061	877	79	2,173	105%
Allied Health Diagnostic, Intervention, and Treatment Professions, Other	2,064	542	25	68	1,079	110%
Health Occupations Teacher Education	223	7	142	57	171	329%
Adult Health Nurse/Nursing	2,243	314	1,586	51	1,365	155%

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

Figure 1 outlines the past, current and future job growth for health care occupations in the United States. These occupations have seen strength growth and are expected to continue growing over the next 10 years.

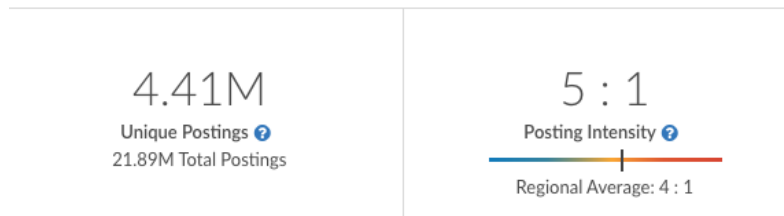
Figure 1: National Trends For Health Care Occupations



Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

There were over 21 million total job postings for health care occupations in the United States from January 2018 to August 2018, of which 4.41 million were unique, giving a posting intensity of 5-to-1. This indicates that companies are trying harder than average toward hiring for the health care occupations.

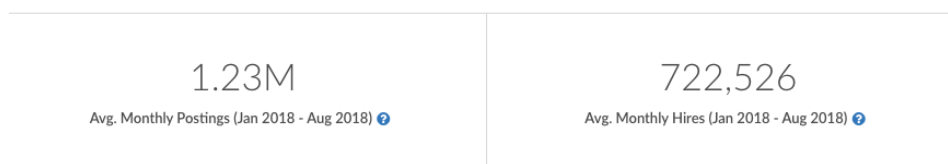
Figure 2: Job Postings Overview For Health Care Occupations



Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

In an average month, there were 1.23 million unique job postings and over 700,000 hires for health care occupations in the United States.

Figure 3: Average Monthly Postings vs. Hires For Health Care Occupations



General medical and surgical hospitals employ the most health care professionals, followed by home health care services and secondary schools.

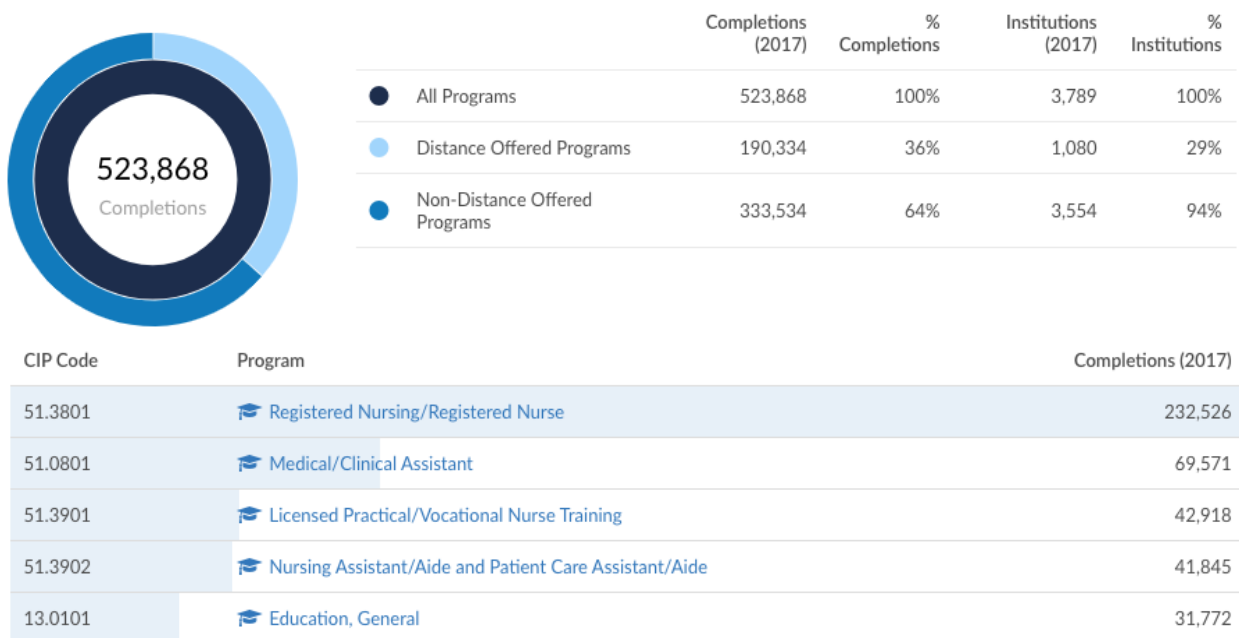
Figure 4: Top Industries Employing Health Care Professionals

Industry	Occupation Group Jobs in Industry (2017)	% of Occupation Group in Industry (2017)	% of Total Jobs in Industry (2017)
General Medical and Surgical Hospitals	2,820,339	16.3%	60.1%
Home Health Care Services	1,742,427	10.1%	89.7%
Elementary and Secondary Schools (Local Government)	1,545,638	8.9%	21.5%
Services for the Elderly and Persons with Disabilities	1,432,262	8.3%	77.5%
Offices of Physicians (except Mental Health Specialists)	1,279,323	7.4%	46.4%

Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

In 2017, there were over 500,000 completions for health care related programs across over 3,000 institutions in the United States. Registered Nursing programs are by far the most popular, followed by Medical/Clinical Assistant programs.

Figure 5: Occupational Program Overview



Source: EMSI Analyst, Labor and Occupational Forecasts, 2018

Table 8 utilizes *U.S. News & World Report's* Best Nursing Schools: Master's of 2018 list. All of the institutions listed offer a Master's program in Nursing.

Table 8: Top 10 Master's in Nursing Programs in the United States

<u>Rank</u>	<u>Institution</u>
#1	Johns Hopkins University
#2	Duke University
#3	Emory University
#4	University of Pennsylvania
#5	University of Washington
#6	Case Western Reserve University
#7	University of Pittsburgh
#8	University of Alabama, Birmingham
#9	University of Michigan
#10	Yale University

Table 9 ranks the top 10 Master's in Health Care Administration programs in the United States based off of length of accreditation, graduation rate, employment rate, peer assessment, and overall cost.

Table 9: Top 10 Master's in Health Care Administration Programs in the United States

<u>Rank</u>	<u>Institution</u>
#1	University of Alabama, Birmingham
#2	Xavier University
#3	University of North Carolina
#4	Cornell University
#5	University of Minnesota
#6	University of Washington
#7	Medical University of South Carolina
#8 (Tied)	George Washington University
#8 (Tied)	University of Michigan
#8 (Tied)	University of Pittsburgh

Table 10 utilizes *U.S. News & World Report's* Best Medical Schools: Research of 2018 list.

Table 10: Top 10 Medical Schools for Research in the United States

<u>Rank</u>	<u>Institution</u>
#1	Harvard University
#2	Johns Hopkins University
#3 (Tied)	New York University
#3 (Tied)	Stanford University
#5	University of California, San Francisco
#6	Mayo Clinic School of Medicine
#6 (Tied)	University of Pennsylvania
#8 (Tied)	University of California, Los Angeles
#8 (Tied)	Washington University, St. Louis
#10	Duke University

Table 11 ranks the top health science-related Bachelor's programs in the United States based on the number of tracks, breadth of options, popularity of program, and cost of attendance.

Table 11: Top 10 Health-Science-Related Bachelor's Programs

<u>Rank</u>	<u>Institution</u>	<u>Program</u>
#1	Stony Brook University	Health Science Program
#2	California State University Fullerton	BS in Health Sciences
#3	University of Florida	Bachelor of Health Science
#4	California State University Dominguez Hills	BS in Health Science
#5	University of Minnesota Rochester	BS in Health Sciences
#6	Stockton University	BS in Health Science
#7	Mercy College	BS in Health Science
#8	University of Central Florida	BS in Health Science Pre-Practitioner Track
#9	Wilmington University	BS in Health Sciences
#10	California State University Sacramento	BS in Health Science