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**Issue Brief: Health Workforce Projections 2002-2012
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Background

The Department of Labor’s Bureau of Labor Statistics (BLS) provides an important source of information about the United States (U.S.) workforce. Their data regarding economic growth, employment by industry and occupation, and labor force availability are used in career guidance, planning education and training programs, and studying long-range employment trends. One significant aspect of their work is projection of future job growth by industry and occupation that includes the major health-care professions and support occupations. This report extrapolates the BLS’s 2002-2012 projections for these workers.

Projection information is updated biannually and developed in conjunction with the State Employment Security Agencies. A model is used to project how the U.S. economy will grow over the next 10 years, i.e. what may be the demand for goods and services by U.S. industries and what is the demand for labor needed to produce those goods and services.

2002–2012 Projections for Health Occupations

Based on the BLS 2002-2012 projections, total U.S. employment is forecasted to increase by 21.3 million jobs or 15 percent (Horrigan, 2003-2004). This figure reflects a slightly slower growth rate than estimates for 1992-2002. In tables of the Fastest Growing Industries, the Fastest Growing Occupations, and the Occupations with the Largest Job Growth, a variety of health related industries and occupations frequently appear. Community care facilities for the elderly, residential care facilities, and ambulatory health-care services, except offices of health practitioners, are listed among the top ten fastest growing industries during the next ten years and imply that an increase of health-care workers will be needed.

BLS projections express two major concepts about employment: changes in levels and changes in the rates of growth or decline (Horrigan, 2004). Some occupations will experience changes in one or other of these factors and some will experience great increases in both areas. Table 1 shows the fastest growing occupations (2002-2012), where 18 of 31 occupations are health professions and health support occupations¹. The table shows employment growth, changes in the numbers and percent employed, as well as where education for each career most frequently occurs. Medical assistants are projected to have the greatest percentage of increase. Overall, the majority of those jobs are assistive or aide positions typically requiring on-the-job training as opposed to collegiate education.

Table 1: Fastest Growing Health Occupations 2002-2012

Occupation	Employment		Changes		Most significant source of education
	2002	2012	Number	Percent	
Medical assistant	365,000	579,000	215,000	59	On-the job training
Physician assistants	63,000	94,000	31,000	49	Bachelor’s degree
Home health aides	580,000	859,000	279,000	48	On-the-job training

Table 1: Fastest Growing Health Occupations 2002-2012 (continued)

Occupation	Employment		Changes		Most significant source of education
	2002	2012	Number	Percent	
Medical records & health information technicians	147,000	216,000	69,000	47	Associate degree
Physical therapist aides	37,000	54,000	17,000	46	On-the-job training
Dental hygienists	148,000	212,000	64,000	43	Associate degree
Occupation therapist aides	8,000	12,000	4,000	43	On-the job training
Dental assistants	266,000	379,000	113,000	42	On-the job training
Personal & home care aides	608,000	854,000	246,000	40	On-the-job training
Occupational therapist assistants	18,000	26,000	7,000	39	Associate degree
Physical therapists	137,000	185,000	48,000	35	Master's degree
Occupational therapists	82,000	110,000	29,000	35	Bachelor's degree
Respiratory therapists	86,000	116,000	30,000	35	Associate degree

Source: BLS Fastest Growing Occupations, 2002-2012

Table 2 shows the **Health Occupations with the Largest Job Growth 2002-2012**¹. For the first time in recent history, registered nurses top the list of the 10 occupations with the largest projected numerical growth. The need for registered nurses is expected to increase significantly with 623,000 nurses needed for expected growth and replacement of the retiring workforce. More new positions are expected to be created for registered nurses than for any other occupation. Basic education for nurses will continue in baccalaureate and diploma programs but the majority will be educated in associate degree settings. Four other health occupations are included in the list of 30 groups with the largest job growth. These employees receive mostly on-the-job training with minimal educational preparation offered through technical colleges.

Table 2: Health Occupations with the Largest Job Growth 2002-2012

Occupation	Employment		Changes		Most significant Source of education
	2002	2012	Number	Percent	
Registered Nurse	2,284,000	2,908,000	623,000	27	Associate degree
Nursing aides, orderlies, attendants	1,375,000	1,718,000	343,000	25	On-the-job training
Home health aides	580,000	859,000	279,000	48	On-the-job training
Personal and home care aides	608,000	854,000	246,000	40	On-the-job training
Medical assistants	365,000	597,000	215,000	59	On-the-job training

Source: BLS Fastest Growing Occupations 2002-2012

National Projection of Health Care Job Growth 2002-2012

The Occupational Outlook Handbook 2004-05 (BLS, 2004) lists all jobs tracked by BLS and provides a myriad of information about each occupation including a job outlook section. Table 3 shows the prospects for health professions and health support occupations through 2012. Of the 26 health occupations listed, only dentist and recreational therapist openings are expected to grow more slowly than average².

Table 3: Health Care Job Growth Outlook 2002-2012

Professional Occupations	Job Growth Outlook through 2012	Health Support Occupations	Job Growth Outlook through 2012
Audiologists	Faster than average	Dental hygienists	Much faster than average
Chiropractors	Faster than average	Medical records & health information technicians	Much faster than average
Pharmacists	Faster than average	Cardiovascular technicians	Faster than average
Physical therapists	Faster than average	Diagnostic medical sonographers	Faster than average
Physician assistants	Faster than average	Emergency medical technicians & paramedics	Faster than average
Registered nurses	Faster than average	Licensed practical nurses	Faster than average
Respiratory therapists	Faster than average	Nuclear medicine technicians	Faster than average
Speech pathologists	Faster than average	Pharmacy technicians	Faster than average
Occupational therapists	Faster than average	Radiologic technicians	Faster than average
Dietitians/nutritionists	About as fast as average	Surgical technicians	Faster than average
Optometrists	About as fast as average	Clinical laboratory technicians	About as fast as average
Physicians/Surgeons	About as fast as average		
Podiatrists	About as fast as average		
Dentists	More slowly than average		
Recreational therapists	More slowly than average		

Source: BLS *Occupational Outlook Handbook 2004-05*

Labor Force

BLS does not provide specific information about who will enter the health care labor force but projections for health care workers are likely to mirror labor trends in the general workforce. The civilian labor force is expected to increase by 17.4 million over the 2002-2012 decade. That projection is up to 12 percent from 11.3 percent in the years 1992-2002. “Changes in the demographic composition of the labor force are expected because of changes both in the composition of the population and in the rates of labor force participation across demographic groups” (BLS Release, 2004, p. 2). The number of people in the labor force ages 55 to 64 is projected to grow by 51 percent. This increase is more than four times the average for all age groups. The number of workers age 65 and older is expected to grow by 43 percent. Women in the labor force will continue to edge upward from 46.5 percent in 2002 to nearly 47.5 percent in 2012. By then, the Hispanic labor force is expected to reach 23.8 million (14.7%). This increase is due to faster population growth resulting from a younger population, higher fertility rates, and increased immigration levels. White non-Hispanics will remain the largest employed group, composing 66 percent of the labor force. Asians will continue to be the fastest growing of the labor force groups (BLS Release, 2004).

Labor Shortages by Occupation

Specific occupations tend to adapt to difficult hiring markets in a variety of ways, so it is virtually impossible to accurately project shortages. For that reason, BLS does not provide a list of expected shortages; however, it does look at several indicators. One is whether trending data shows a consistent pattern of rising wages and rising employment, suggesting that the demand for workers in the occupation is increasing faster than the supply. This situation may indicate a shortage or simply a market that is maintaining equilibrium by paying higher wages. The recent history of registered nurse salaries is an example of the latter.

Another indicator is the percentage of an occupation that is in the 55 and older age range since this group is theoretically ready to retire over the next decade. BLS lists 25 such occupations but only three are health related. Table 4 shows that ambulance drivers, chiropractors, and personal and home care aides have at least 20 percent of their employees ages 55 and older and are projected to have net employment increases larger than the overall national average of 14.8 percent. This information suggests that hiring in these fields, if only for replacement purposes, is going to be fairly brisk, and the need to expand total employment levels will only serve to accentuate the hiring challenge (Horrigan, 2004).

Table 4: Percentage of Employees and Projected Net Employment Change in Selected Occupations, by Age Group

Occupation	Percent distribution of employees by age group			Employment (thousands)		Change		Total job openings due to growth & net replacement (thousands)
	16-24	25-54	55 and older	2002	2012	Number	Percent	
All occupations	14.7	71.4	13.9	144,015	165,319	21,305	14.8	56,305
Ambulance drivers except emergency medical technicians	5.8	68.9	25.3	17	22	5	26.7	6
Chiropractors	2.7	73.8	23.4	49	60	11	23.3	21
Personal & home care aides	34.8	44.1	21.0	608	854	246	40.5	343

Source: Horrigan, 2004

Implications and Conclusions

According to BLS projections, health-care professionals and support workers will be in great demand through 2012. Expansion of health services and the impending retirement of baby boomers currently in the field are major reasons. An emerging trend is the projected increase in health aides and technicians. As a result, the recruitment and education of health workers will be impacted. For example, as the salaries for health professionals increase, more tasks will be delegated to aides and technicians who receive lower wages. A likely result is that the scope of professional practice will continue to be redefined to accommodate this shift.

Another implication emerging from the changing composition of health care occupations will be the need for different recruitment and health occupational education strategies. Major efforts will be needed to recruit health care workers in order to avert critical workforce shortages. Assistive personnel must be recruited to the health-care field. There is no ready supply of health support workers graduating from college programs. Recruitment of minorities has historically been a challenge for health facilities for a variety of reasons. In the future, they are expected to be an even larger source of potential employees, so recruitment challenges are likely to increase.

Regarding education, more institutional resources will be required to provide on-the-job education for assistive workers. Perhaps more collaboration with colleges will occur in order to provide technical training. Innovative teaching methodologies to accommodate adult and multicultural learners will be necessary. Finally, professional organizations, employers, and educators must work together to ensure educational articulation and resolution of issues surrounding institutional licensure/credentialing to assure health worker job satisfaction and advancement.

Numerous changes are anticipated within the next ten years as the mix of health professional and support personnel shifts and increases. Health related careers will be in great demand with few declines expected in any occupation.

¹Discrepancies in mathematical calculations are explained by the aggregating and rounding techniques employed by the Bureau of Labor Statistics.

²The terms used below describe the relationship between the number of job openings and the number of jobseekers. Descriptions of this relationship in a particular occupation reflect the knowledge and judgment of economists in the BLS's Office of Occupational Statistics and Employment Projections.

Changing employment between 2002 and 2012

If the statement reads:	Employment is projected to:
Grow much faster than average	Increase 36 percent or more
Grow faster than average	Increase 21 to 35 percent
Grow about as fast as average	Increase 10 to 20 percent
Grow more slowly than average	Increase 3 to 9 percent
Little or no growth	Increase 0 to 2 percent
Decline	Decrease 1 percent or more

The Center for Health Workforce Planning was created in the Iowa Department of Public Health, Bureau of Health Care Access, to assess and forecast health workforce supply and demand, address barriers to recruitment and retention, support strategies developed at the local level that prevent shortages, and engage in activities that assure a competent, diverse health workforce in Iowa. Funding for the center, fueled through the efforts of U.S. Senator Tom Harkin, is administered through the Bureau of Health Professions, Health Resources and Services Administration, U.S. Department of Health and Human Services.

http://www.idph.state.ia.us/hpcdp/workforce_planning.asp

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