

Demographic Characteristics of Workers in Health Care

James M. Boiano

By Workplace

Selected demographic characteristics of employed persons in Health Care are provided by subsector, constituent industries (where available) and for all industries, for comparison purposes (Tables 2.9 and 2.10). These characteristics include gender, race and ethnicity, and age.

About 78% (11.2 million) of the workers in Health Care are women, more than any other industry sector and about 70% higher than the average for all industries (Table 2.9). Among industries (four digit codes), home health care employs the greatest percentage of women (90%), followed by nursing care facilities (85%) and dental offices (80%). The lowest percentage of women are employed by other ambulatory health care services and offices of other health practitioners (68.6% and 69.3%, respectively).

Available data on sex, race, and ethnicity show that there is a greater percentage of Blacks and Asians in Health Care when compared to all industries, while the percentage of Hispanics is somewhat less (Table 2.9). Blacks represent about 16% (2.3 million) of the workers in Health Care, leading all industry sectors, and 1.5 times the industry average of nearly 11%. Hospitals employ the largest number of Blacks in Health Care (0.94 million), followed by ambulatory health care services (0.70 million). Home health

TABLE 2.9 Percent Distribution of Employment within Health Care by Sex, Race, and Hispanic or Latino Ethnicity, 2006

2002 NAICS Code <sup>a</sup>	Industry	Total Employed <sup>1</sup> (in Thousands)	Women	Percent of Total		
				Black or African American	Hispanic or Latino	Asian
621	Ambulatory health care services <sup>b</sup>	6,133	77.2	11.5	9.9	6.6
6211	Physician offices	1,785	76.4	6.9	8.7	6.5
6212	Dental offices	852	79.7	3.6	9.6	6.3
6213	Offices of other health practitioners	553	69.3	3.2	5.4	4.6
6214	Outpatient care centers	919	78.4	12.2	11.0	5.4
6216	Home health care services	928	90.2	27.0	16.7	4.1
6219	Other ambulatory health care services	1,096	68.6	15.8	8.0	6.9
622	Hospitals	5,712	76.6	16.4	7.6	7.0
623	Nursing and residential care facilities	2,507	82.0	24.6	8.6	4.1
6231	Nursing care facilities	1,807	85.5	26.7	8.3	4.5
6232, 6233, and 6239	Residential care facilities (without nursing)	700	73.0	19.1	9.3	3.0
62, except 624	Health care	14,352	77.8	15.7	8.7	6.3
	All industry sectors (16 years and over)	144,427	46.3	10.9	13.6	4.5

Source: From Current Population Survey, Household Data Annual Averages, Table 18 Employed persons by detailed industry, sex, race, and Hispanic or Latino ethnicity, 2006, <ftp://ftp.bls.gov/pub/special.requests/lf/aat18.txt>

<sup>a</sup> NAICS, U.S. Census Bureau, [www.census.gov/epcd/www/naics.html](http://www.census.gov/epcd/www/naics.html)

<sup>b</sup> Excludes medical and diagnostic laboratories (NAICS 6215); data are unavailable.

TABLE 2.10 Percent Distribution of Employment in Health Care by Age, 2006

2002 NAICS Code <sup>a</sup>	Industry	Total Employed <sup>b</sup> (in Thousands)	Percent Distribution of Employment by Age Group						
			16–19	20–24	25–34	35–44	45–54	55–64	65 and Over
621	Ambulatory health care services <sup>a</sup>	6,133	1.5	6.9	21.9	25.1	26.1	14.6	3.9
6211	Physician offices	1,785	1.2	6.0	20.9	25.2	27.8	14.3	4.5
6212	Dental offices	852	2.8	8.8	21.4	24.5	24.5	13.8	4.0
6213	Offices of other health practitioners	553	1.9	7.3	21.1	22.4	25.0	16.9	5.4
6214	Outpatient care centers	919	1.3	7.4	23.4	22.1	27.5	15.5	2.7
6216	Home health care services	928	1.2	5.6	18.9	28.5	25.3	15.9	4.5
6219	Other ambulatory health care services	1,096	1.2	7.3	25.4	26.1	24.9	12.5	2.3
622	Hospitals	5,712	0.8	7.0	21.4	25.6	27.7	14.9	2.5
623	Nursing and residential care facilities	2,507	4.5	10.0	20.0	21.9	24.5	15.0	4.0
6231	Nursing care facilities	1,807	4.7	9.5	20.1	22.3	24.9	14.6	3.8
6232, 6233, and 6239	Residential care facilities (without nursing)	700	4.1	11.2	20.0	20.6	23.6	15.7	4.8
62, except 624	Health care	14,352	1.7	7.5	21.4	24.7	26.4	14.8	3.4
	All industry sectors (16 years and over)	144,427	4.2	9.6	21.5	23.9	23.6	13.4	3.7

Source: From Current Population Survey, NIOSH IST Data Mart Query, Query 1: column variable, age; row variable, NORA sector (primary job) and Query 2: column variable, age; row variable, industry code (primary job), <http://isx-morg1/dsr/IST/ISTDM2/cps/cps estimates results2.aspx>

Note: Values may not sum to the totals due to rounding.  
<sup>a</sup> NAICS, U.S. Census Bureau, [www.census.gov/epcd/www/naics.html](http://www.census.gov/epcd/www/naics.html)  
<sup>b</sup> Excludes medical and diagnostic laboratories (NAICS 6215); data are unavailable.

care services (27%) employ the largest percentages of any industry group within Health Care, while dental offices (3.6%) and offices of other health care practitioners (3.2%) employ the smallest percentages. Hispanics represent about 8.7% (1.2 million) of the workforce in Health Care (Table 2.9). Ambulatory health care services employ the largest number of Hispanics of any Health Care subsector (0.61 million), followed by hospitals (0.43 million). Home health care services (16.7%) and outpatient care centers (11.0%) employ the greatest percentages of any Health Care industry group. Asians represent over 6.3% of the workforce in Health Care, with an employment of 0.90 million (Table 2.9). Hospitals employ the greatest percentage of Asians of any Health Care subsector (7.0%); ambulatory health care services employ the largest number (0.4 million) slightly more than in hospitals. Percent distribution of employed persons in Health Care by age is provided for each of the three Health Care subsectors and four digit constituent industries, where available (Table 2.10). When compared to all industries, percents within each of the 7 age groups were very similar, with exception of the 16–19 age group where the industry average was about 2.5 times that in Health Care. Among the three Health Care subsectors, the highest percent employed within the 16–19, 20–24, 55–64, and 65 and over age groups were for nursing and residential care facilities; in the 35–44 and 45–54 age groups, hospitals employed the largest percent; and in the 25–34 age group, ambulatory health care services employed the

largest percent. When focusing on industries (four digit codes), nursing care facilities and residential care facilities without nursing had the highest percent distributions for young workers (16–19 and 20–24 age groups), while offices of other health care practitioners had the highest percent distributions for older workers (55–64 and 65 and over).

By Occupation

Table 2.11 presents sex, race, and ethnicity demographics of the top 20 Health Care occupations with the largest number of workers. For 16 of these occupations, the percents of women are higher than the industry average. Dental hygienists represent the highest concentration of women (98.6%), whereas dentists represent the lowest (22.6%). Registered nurses account for the largest number of women of any health care occupation (2.5 million).

TABLE 2.11 Percent Distribution of Women, Blacks, Hispanics, and Asians in 20 Largest Occupations in Health Care, 2006

Occupation	Total Employed (in Thousands)	Percent of Total			
		Women	Black or African American	Hispanic or Latino	Asian
Registered nurses	2,529	91.3	10.9	4.2	7.5
Nursing, psychiatric, and home health aides	1,906	88.9	34.8	13.1	4.0
Physicians and surgeons	863	32.2	5.2	5.7	17.0
Personal and home care aides	703	87.3	22.4	14.9	5.8
Licensed practical nurses and licensed vocational nurses	556	94.2	23.2	7.0	3.1
Health diagnosing and treating practitioner support technicians	425	80.1	11.8	8.2	5.6
Clinical laboratory technologists and technicians	321	78.1	14.2	7.8	9.6
Diagnostic related technologists and technicians	281	72.9	7.5	6.3	2.9
Dental assistants	274	95.4	5.4	14.9	4.2
Pharmacists	245	48.9	6.0	5.6	19.5
Physical therapists	198	62.7	5.8	5.0	13.7
Dentists	196	22.6	3.1	4.3	11.4
Emergency medical technicians and paramedics	156	31.9	11.9	7.4	2.2
Dental hygienists	144	98.6	1.4	4.6	4.2
Speech language pathologists	114	95.3	8.1	3.6	1.4
Medical records and health information technicians	98	92.0	20.5	15.1	1.4
Dieticians and nutritionists	96	91.0	21.2	4.6	7.6
Respiratory therapists	85	66.0	15.3	6.2	4.6
Occupational therapists	78	90.3	3.1	2.0	4.7
Chiropractors	69	23.1	3.3	1.9	1.8
Total (16 years and older)	144,427	46.3	10.9	13.6	4.5

Source: From Current Population Survey (2006), Household Data Annual Averages, Table 11, Employed persons by detailed occupation, sex, race, and Hispanic or Latino ethnicity, <http://www.bls.gov/cps/cpsaat11.pdf>

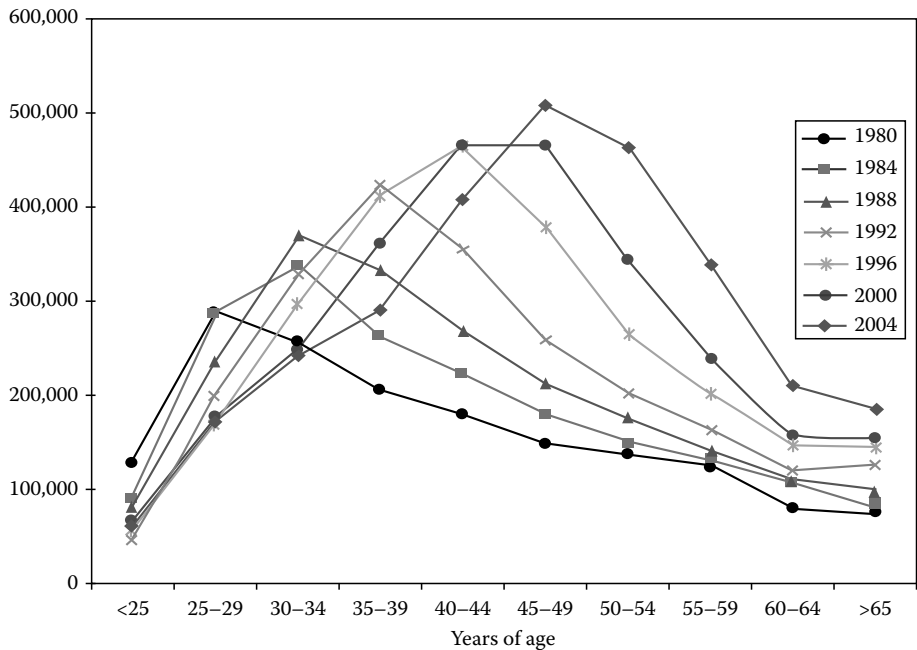
Note: Data for occupations with fewer than 50,000 employed are not published.

For half of the listed occupations, the percents of Blacks meet or exceed the industry average of 10.9% (Table 2.11). Nursing, psychiatric, and home health care aides represent the occupational group with the highest percentage (34.8%); dental hygienists comprise the lowest percentage (1.4%). Nursing, psychiatric, and home health aides account for the largest number of Blacks of any health care occupation (0.66 million).

The percents of Hispanics are higher than the industry average (13.6%) for only 3 of the 20 occupations, with medical records and health information technicians representing the highest concentration (15.1%). By comparison, chiropractors represent the lowest percentage (1.9%). Nursing, psychiatric, and home health aides account for the largest number of Hispanics of any health care occupation (0.25 million).

The percents of Asians are higher than and exceed the industry average of 4.5% for 11 of the top 20 occupations. Pharmacists represent the highest concentration of individuals of Asian decent (19.5%); medical records and health information technicians and speech language pathologists represent the lowest (1.4%). Registered nurses account for the largest number of Asians of any health care occupation (0.19 million).

Very little data are available on age distribution for most of the health care occupations listed in Table 2.11, with the exception of registered nurses. Findings from a 2004 national sample survey<sup>1</sup> show continual movement to more registered nurses in older age groups and a general decline in the numbers of registered nurses in younger age groups (Figure 2.1). Based on data from seven quadrennial surveys conducted from 1980 to 2004, the average age of the registered nurse population continued to climb, increasing to 46.8 years of age in 2004 compared to 44.3 years in 1996. The largest age group of registered nurses in 1980 was 25–29 years of age, 35–39 years in 1992, 40–44 years in 1996, 45–49 years in 2000, and 45–49 years in 2004. By contrast, the numbers of registered nurses in the two youngest age groups (less than 25 and 25–29 years of age) continued to decline over this 24 year period.



Note: The total numbers in each survey, across age ages, may not equal the estimated total of all registered nurses due to incomplete information provided by respondents. Only those who provided age information are included in the calculations used for this chart.

FIGURE 2.1 Age distribution of registered nurse population, 1980–2004.

## Reference

1. The Registered Nurse Population: Findings from the 2004 National Sample of Registered Nurses. Health Resources and Services Administration, U.S. Department of Health and Human Services. <http://bhpr.hrsa.gov/healthworkforce/rnsurvey04/2.htm>

## Burden of Injury and Illness in Health Care as Documented by Surveillance Systems

*James M. Boiano, John P.E. Sestito, Sara E. Luckhaupt, Cynthia F. Robinson, and James T. Walker*

This section presents an overview illustrated by charts and tables that describe the national magnitude and trends of occupational injuries, illnesses, and fatalities in the HCSA sector,\* as documented by various federal and state-based surveillance systems. The data focus on the three Health Care subsectors (i.e., ambulatory health care services, hospitals, and nursing and residential care facilities), although data for social assistance are also provided, where available. Data are presented for predominant health and safety hazards and issues including sprains and strains, overexertion/repetitive trauma, falls on same level, assaults and violent acts, sharps injuries (SIs), and infectious disease. Significantly elevated causes of death for each of the three Health Care subsectors and for the largest health care occupations are also provided.

### Bureau of Labor Statistics National Surveillance Systems Data

National statistics on occupational injuries, illnesses, and fatalities are compiled by the Bureau of Labor Statistics (BLS) in conjunction with participating state agencies. National estimates of the numbers and rates of illnesses and injuries are compiled from the annual Survey of Occupational Injuries and Illnesses (SOII), which is based solely on private industry employer's OSHA logs.<sup>1</sup> The SOII exclude self-employed persons, public sector workers, and workers employed on small farms, representing 22% of the U.S. workforce, and thus may underestimate the true prevalence of injuries, illnesses, and fatalities. Numbers of cases and incidence rates are reported by year with 2005 being the most recent year data are presented.

For each recordable case, employer's are required to complete OSHA Form 300 (Log of Work-Related Injuries and Illnesses), OSHA Form 301 (Injuries and Illnesses Incident Report), and OSHA Form 300A (Summary of Work-Related Injuries and Illnesses).<sup>2</sup> Collectively, these forms are used to develop a picture of the extent and severity of work-related incidents. In Form 300, employers must record information about every work-related death and about every significant work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. Employers must also classify the case as either an injury or one of the following types of illness: skin disorder, respiratory condition, poisoning, hearing loss, or all other illnesses. In Form 301, employers must record information about the employee (name, address, date of birth, gender, etc.), information about the treating health care professional, and information about the case (date and time of incident, job activity at time of incident, part of body affected, object or substance that harmed the employee, and date of death if employee died). In Form 301A, employers must provide yearly totals for the following: deaths, total cases with days away from work, total cases with job transfer or restriction, and total other recordable cases—total days away from work, total days of job transfer or restriction, injuries, or one of the five aforementioned illness categories. Establishment information including name, industry code, annual average number of employees, and total hours worked by all employees in the last year is also required.

\* 2002 NAICS code 62 (see Chapter 1 for more information on NAICS codes for HCSA sector).

H A N D B O O K   O F

# MODERN HOSPITAL SAFETY

S e c o n d   E d i t i o n

Edited by

WILLIAM CHARNEY



CRC Press

Taylor & Francis Group

Boca Raton London New York

---

CRC Press is an imprint of the  
Taylor & Francis Group, an **informa** business

CRC Press  
Taylor & Francis Group  
6000 Broken Sound Parkway NW, Suite 300  
Boca Raton, FL 33487-2742

© 2010 by Taylor & Francis Group, LLC  
CRC Press is an imprint of Taylor & Francis Group, an Informa business

No claim to original U.S. Government works  
Printed in the United States of America on acid-free paper  
10 9 8 7 6 5 4 3 2 1

International Standard Book Number-13: 978-1-4200-4785-1 (Hardcover)

This book contains information obtained from authentic and highly regarded sources. Reasonable efforts have been made to publish reliable data and information, but the author and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The authors and publishers have attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission to publish in this form has not been obtained. If any copyright material has not been acknowledged please write and let us know so we may rectify in any future reprint.

Except as permitted under U.S. Copyright Law, no part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

For permission to photocopy or use material electronically from this work, please access [www.copyright.com](http://www.copyright.com) (<http://www.copyright.com>) or contact the Copyright Clearance Center, Inc. (CCC), 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400. CCC is a not-for-profit organization that provides licenses and registration for a variety of users. For organizations that have been granted a photocopy license by the CCC, a separate system of payment has been arranged.

**Trademark Notice:** Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

---

**Library of Congress Cataloging-in-Publication Data**

---

Handbook of modern hospital safety / edited by William Charney. -- 2nd ed.  
p. ; cm.  
Includes bibliographical references and index.  
ISBN-13: 978-1-4200-4785-1 (hardcover : alk. paper)  
ISBN-10: 1-4200-4785-X (hardcover : alk. paper)  
1. Hospitals--Security measures--Handbooks, manuals, etc. 2. Hospitals--Safety measures--Handbooks, manuals, etc. 3. Hospitals--Employees--Health and hygiene--Handbooks, manuals, etc. I. Charney, William, 1947- II. Title.  
[DNLN: 1. Hospitals. 2. Safety Management--methods. 3. Health Personnel. 4. Occupational Health. WX 185 H2365 2010]  
  
RA969.95.H37 2010  
362.11068'4--dc22  
  
2008051637

---

Visit the Taylor & Francis Web site at  
<http://www.taylorandfrancis.com>  
and the CRC Press Web site at  
<http://www.crcpress.com>