Chapter 5: Workforce
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Physician Workforce

The number of physicians per thousand population continued to increase despite a general consensus that there is an oversupply of many specialty types. The number of physicians per thousand is particularly high in the Northeast and Mid-Atlantic and relatively low in the South and West. These numbers should decline since the number of residents in training has leveled off and the population continues to grow (Charts 5.1 - 5.3).

Hospital Workforce

After declining in the early to mid-1980s, the number of full time equivalent employees (FTEs) working in hospitals has increased since 1985, although more slowly since 1993. However, FTEs per adjusted admission\(^{(1)}\) has been declining since 1992. The decline was greater in 1999 than in 1998, probably a factor of increasing admissions and a shortage of hospital workers. The number of registered nurse (RN) FTEs has been increasing slowly, with the number of RN FTEs per adjusted admission staying relatively constant. RN FTEs as a percent of total hospital FTEs has remained steady at around 24 percent between 1986 and 1999 (Charts 5.4 - 5.7).

Current and Long-term Workforce Shortage

The combined pressures of an aging population, increased professional opportunities for women, financial constraints, increased demand and other stresses have created critical shortages of health care professionals. Job types particularly affected include nurses, pharmacists and medical technologists.

\(^{(1)}\) An aggregate measure of workload reflecting the number of inpatient admissions, plus an estimate of the volume of outpatient services, expressed in units equivalent to an inpatient admission in terms of level of effort.
Results from an AHA Spring 2001 hospital survey found that hospitals currently have up to 168,000 open positions, and 126,000 of those are for registered nurses. In hospitals across the country, the survey found that a large share of positions remain vacant. The vacancy rate is 21 percent among pharmacists, 18 percent among radiological technologists, 12 percent among laboratory technologists and 11 percent among registered nurses. The AHA workforce survey also shows the workforce shortage is getting worse and is having an adverse impact on hospital operations and patient care (Charts 5.9 - 5.12).

Today’s shortage is just the beginning of a long-term shortage that is expected to worsen over the next 20 years. The nursing workforce is aging as fewer people are enrolling in RN education programs. Based on current projections of increasing demand for health care, a shortage of 434,000 registered nurses is expected by 2020 (Charts 5.13 - 5.15).
Chart 5.1:
Total Number of Active Physicians per 1,000 Persons
1980 - 1998

(1) 1980 does not include doctors of osteopathy

Chart 5.2:
Total Number of Active Physicians per 1,000 Persons by State
1998

Source: Health United States, 2000
Includes active non-federal doctors of medicine and active doctors of osteopathy
Chart 5.3:
Medical and Dental Residents in Training
in Community Hospitals
1980 - 1999


Chart 5.4:
Total Full Time Equivalent Employees
Working in Hospitals
1980 - 1999

Chart 5.5: Full Time Equivalent Employees per Adjusted Admission 1980 - 1999


Chart 5.6: Number of RN Full Time Equivalent Employees and RN FTEs per Adjusted Admission 1986 - 1999

Chart 5.7:
RN Full Time Equivalents
as a Percent of Total Hospital Full Time Equivalents
1986 - 1999


Chart 5.8:
RN Employment by Type of Provider
1980 - 2000

Source: Findings from the National Sample Survey of Registered Nurses, 1980-2000, Bureau of Health Professions, Division of Nursing
Chart 5.9: Vacancy Rates\(^{(1)}\) for Selected Hospital Personnel
Urban, Rural, and Total
Spring 2001

Source: AHA Workforce Survey, Spring 2001

\(^{(1)}\) Percent of budgeted positions that are unfilled
Chart 5.10: Estimated Number of Unfilled Hospital Positions Spring 2001

Total = 168,000

- Registered Nurse Positions: 126,000
- Other Hospital Positions\(^{(1)}\): 42,000

Source: AHA Special Workforce Survey, Spring 2001

\(^{(1)}\) Other hospital positions included in survey: pharmacists, radiological technologists, laboratory technologists, billing/coders, and housekeeping/maintenance.

Chart 5.11: Hospitals Reporting More Difficulty Recruiting than Last Year for Selected Types of Hospital Workers 2001

- Registered Nurses: 75%
- Radiological Technologists: 63%
- Pharmacists: 50%
- Laboratory Technologists: 43%
- Billing/Coders: 35%
- Housekeeping/Maintenance: 24%

Source: AHA Special Workforce Survey, Spring 2001
Chart 5.12:
Percent of Hospitals Reporting Various Types of Workforce Shortage Impacts
2001

- Exceeded 90% Census at Peak: 42%
- Experienced ED Overcrowding: 41%
- Reduced Number of Beds Staffed: 28%
- Gone on ED Diversion: 26%
- Increased Waiting Time to Surgery: 22%
- Cancelled Inpatient/Outpatient Surgeries: 15%
- Reduced Outpatient Capacity: 14%

Source: AHA Special Workforce Survey, Spring 2001

Chart 5.13:
Distribution of RN Workforce by Age Group
1980 - 2020 (Projected)

Chart 5.14:
Annual Enrollment in US RN Education Programs
1987 - 1998

Chart 5.15:
Forecast of Total RN FTEs vs. Requirements
Estimated by the Federal Government
2001 - 2020
