

Nursing Counts, highlighting data that illustrate the value of nursing, appears in the *American Journal of Nursing* as a periodic column and is provided by the John A. Hartford Foundation Institute for Geriatric Nursing, the Division of Nursing, New York University, New York City, www.hartfordign.org.

The Changing Picture of Hospital Nurses

Who's working at the bedside?

The 1990s saw dramatic shifts in employment patterns of hospital nursing. As the managed care system took hold, hospitals nationwide restructured their workforces as part of reengineering initiatives. Registered nurses were widely replaced by unlicensed assistive personnel. According to the March 1996 report from the National Sample Survey of Registered Nurses, the total number of licensed RNs in the United States grew by 14.2% between 1992 and 1996. Yet during that same period, the number of licensed RNs working in hospitals increased by just 3.1%. Hospital workforce restructuring had been largely abandoned by 2000, but hospital employment of RNs didn't rebound. Between 1996 and 2000 the number of RNs employed as nurses grew only 4.1%, a much smaller increase than that in the previous four years; and the number of nurses employed in hospitals rose by just over half that amount, 2.3%.

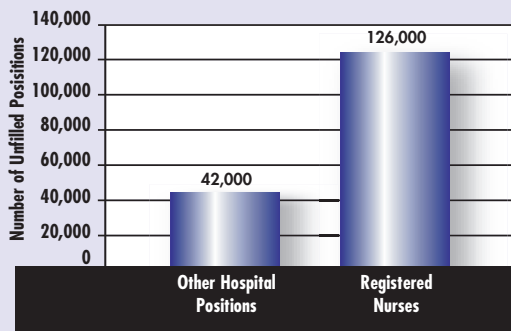
This decline in growth has been felt acutely at the bedside. The number of staff nurses working on inpatient bed units (such

as general medical-surgical, step-down, and ICUs) fell by 7% between 1992 and 1996 and continued to drop between 1996 and 2000. The erosion of nursing staff has likely had substantial impact on patients 65 and older, who accounted for 48% of total inpatient days in 1999. In contrast, data from the American Hospital Association show that total inpatient days fell by 3.4% to 4.6% annually between 1992 and 1996, then began to rise slowly, increasing by 1.3% between 1999 and 2000.

Furthermore, nurses who work at the bedside have reported low levels of job satisfaction. In the 2000 National Sample Survey of Registered Nurses, only 63% of staff nurses working on inpatient bed units reported being satisfied

168,000 Hospital Positions Unfilled in 2001

There are three times as many unfilled positions for RNs as for other positions.



Other hospital positions included pharmacists, radiologic technologists, laboratory technologists, billing coders, and housekeeping and maintenance staff.

Source: American Hospital Association. *Workforce data fact sheet*. 2001 Jun 5. <http://www.aha.org/workforce/resources/factsheetb0605.asp>.

FAST FACTS

- ▼ People ages 65 and older accounted for 39.5% of all short-stay hospital discharges in 1999.
- ▼ From 1998 to 1999, only 34.4% of hospital nurses in Pennsylvania thought there were enough RNs to provide high quality care to patients, and just 33.4% reported that staffing was sufficient to get the work done.
- ▼ Every hour of ED patient care that's provided to Medicare patients results in one hour of paperwork; an hour of inpatient care provided to these patients results in 36 minutes of paperwork
- ▼ In 2001, 89% of hospitals reported a shortage of registered nurses.

Sources: Popovic JR, Hall MJ. National Hospital Discharge Survey. *Advance data from vital and health statistics*; No. 319. Hyattsville (MD): National Center for Health Statistics; 2001. <http://www.cdc.gov/nchs/data/ad/ad319.pdf>; Aiken LH, et al. Nurses' reports on hospital care in five countries. *Health Aff (Millwood)* 2001;20(3):43-53; American Hospital Association. *Patients or paperwork? The regulatory burden facing America's hospitals* [report]. 2001. <http://www.aha.org/art/Advocacy/Content/FinalPaperworkReport.pdf>; American Hospital Association. *Workforce data fact sheet*. 2001 Jun 5. <http://www.aha.org/workforce/resources/factsheetb0605.asp>.

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with their jobs. Interestingly, although 78% of nurses under age 25 reported being satisfied with their jobs, nurses age 30 and older reported much less satisfaction. If job dissatisfaction is an indicator of potential staff turnover, these data suggest that hospitals will need to redouble their efforts if they hope to retain experienced nurses at the bedside.—*Julie Sochalski, PhD, RN, FAAN*

Sources: American Hospital Association. *Hospital statistics*. 2002 ed. Chicago: Health Forum; 2002; American Hospital Association. *Hospital statistics*. 2001 ed. Chicago: Health Forum; 2001; Bureau of Health Professions. Division of Nursing. *The registered nurse population: findings from the National Sample Survey of Registered Nurses, March*

1992. Rockville (MD): Department of Health and Human Services; 1992; Moses EB. *The registered nurse population: findings from the National Sample Survey of Registered Nurses, March 1996*. Rockville (MD): Department of Health and Human Services; 1996; Bureau of Health Professions. Division of Nursing. *The registered nurse population: National Sample Survey of Registered Nurses—March 2000: preliminary findings, February 2001*. Rockville (MD): Department of Health and Human Services; 2001. <ftp://ftp.hrsa.gov/bhpr/nursing/sampsurvpre.pdf>; Popovic JR, Hall MJ. National Hospital Discharge Survey. *Advance data from vital and health statistics*; No. 319. Hyattsville (MD): National Center for Health Statistics; 2001. <http://www.cdc.gov/nchs/data/ad/ad319.pdf>. Some of the figures in this article are the result of author calculations based on the original data sets from the 1992, 1996, and 2000 National Sample Surveys of Registered Nurses.

Who Will Care for Older Adults?

Internationally, the ratios of nurses to general population vary widely. And as these examples show, developing countries have substantially fewer nurses per 100,000 people than do industrialized countries. Further, 59% of adults ages 65 and older worldwide currently live in developing countries; by 2030 that percentage is expected to reach 71%.

Nurses per 100,000 Population		
	Nepal	5.0
	Liberia	5.9
	Central African Republic	8.8
	Haiti	10.7
	Afghanistan	18.0
	Somalia	20.0
	United States	972.0
	Ireland	1,593.0
	Monaco	1,621.0
	Norway	1,840.0

Sources: World Health Organization. *WHO estimates of health personnel: physicians, nurses, midwives, dentists and pharmacists (around 1998)*. [2001]. http://www3.who.int/whosis/health_personnel/health_personnel.cfm?path=whosis_health_personnel; Kinsella K, Velkoff V. *An aging world*. 2001. Washington (DC): US Census Bureau; 2001. (International Population Reports, Series P95/01-1). <http://www.census.gov/prod/2001pubs/p95-01-1.pdf>.

RESEARCH BRIEF

Blegen and colleagues recently reported that, according to their secondary analysis of data from two earlier studies, fewer medication errors were made on units with more experienced nurses. Also, the patients on these units had fewer falls. The researchers found no relationship between these quality-of-care measures and the educational level of the nurses providing care.

The researchers used data collected from 42 inpatient units in one hospital (study 1) and from 39 patient units in 11 other hospitals (study 2). The medication error rate was defined as errors per 10,000 doses and the patient fall rate was defined as falls per 1,000 patient-days. Nursing experience was measured either as the percentage of RNs on a unit with more than five years' experience (study 1) or by a unit's average for number of years of RN nursing (study 2). Education was measured in terms of the proportion of RNs on a unit who had baccalaureates.

The researchers concluded that further study is needed, and they suggested that future studies examine positive indicators of quality, rather than adverse occurrence rates. They also recommended examining broader and more complex indicators of care, such as evidence-based practice activities, leadership, and case management.—*Solange Williams, nursing student, and Malvina Kluger, BA*

Source: Blegen MA, et al. Nurse experience and education: effect on quality of care. *J Nurs Adm* 2001;31(1):33-9. ▼