THE COSTS AND BENEFITS OF SAFE STAFFING RATIOS

FACT SHEET
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The Costs of the Nurse Staffing Crisis

Numerous studies have found that inadequate nurse staffing leads to poorer patient outcomes.

- A 2002 report by the Joint Commission on Accreditation of Healthcare Organizations stated that the lack of nurses contributed to nearly a quarter of the unanticipated problems that result in death or injury to hospital patients.[1]
- A recent study by Linda Aiken, PhD, RN and others found that for each additional patient over four in a nurse's workload, the risk of death increases by 7% for surgical patients. Patients in hospitals with the highest patient-to-nurse ratio (eight patients per nurse) have a 31% greater risk of dying than those in hospitals with four patients per nurse. On a national scale, staffing differences of this magnitude may result in as many as 20,000 unnecessary deaths each year.[2]
- Another recent study found that patients at hospitals with staffing ratios of four patients to one nurse or higher suffered from cardiac arrest or shock 9.4% more often than patients at hospitals with ratios of 2.5 patients to one nurse or lower. They also had 9% more urinary tract infections, 5% more gastro-intestinal episodes, and 6.5% more cases of pneumonia acquired in the hospital. Surgery patients in short-staffed hospitals were 6% more likely to die from complications like shock or sepsis.[3]

While the most important results related to inadequate nurse staffing are unanticipated patient complications and deaths, other costs include longer hospital stays, higher rates of occupational injury and stress among nurses, more turnover among nurses, and more liability for hospitals. The Institute of Medicine estimates that preventable medical errors cost $17 billion each year.[4]

- The Advisory Board Company for the Nursing Executive Center estimates the cost of replacing a hospital medical/surgical nurse as $42,000 in 2000; the cost of replacing a specialty nurse was $64,000.[5]

Hospitals Are Using Expensive Methods to Attract New Nurses

- Over 40% of hospitals offer bonuses to new hires according to the American Hospital Association. Most offer packages of between $1,000 and $5,000, but some offer even more compensation.[6] This policy does nothing to reward and retain experienced nurses and can certainly create resentment.
- Nearly 60% of hospitals hire nurses from temporary agencies or traveling nurse companies.[7] Nationally, hospitals spent $7.2 billion on temps and travelers in 2000.[8] Temps and traveling nurses earn as much as $100 an hour, while staff nurses typically earn less than $25 per hour, which affects morale among the nurses who stay.[9]
- Hospitals also recruit nurses from other countries, which removes badly needed healthcare providers from poor countries, while also depressing nurses' wages here.

These solutions do nothing to address the underlying reason why so many qualified nurses leave the profession. In 2000, 18% of registered nurses were no longer working in their profession.[10]

Some hospitals have had success in retaining their nurses by lowering patient-to-nurse ratios, involving nurses in decision-making, and providing nurses with opportunities to further their education. Turnover dropped from 15.3% in 2000 to 10.3% in 2002 at New York Presbyterian Hospital, a hospital which now has a safe staffing clause in its contract.[11]

<u>What Will Safe Staffing Ratios Cost Hospitals?</u>

A University of California at Davis study estimates it will cost California hospitals $1.1 billion annually to implement a ratio of four patients to one nurse in medical/surgical units, the standard approved by the SEIU Nursing Alliance, United Nurses' Associations of California, and Kaiser Permanente.

Berliner, *et. al.*, have criticized UC Davis study on several methodological grounds, pointing to assumptions which inflate the estimate by 35% to 40%, as well as data collection issues, placing the estimate below $500 million.[12] The assumptions include:

- Failing to distinguish between for-profit and non-profit hospitals, although for-profit hospitals have the leanest staffing ratios and can best afford to implement improved staffing ratios.
- Assuming that nurses cannot be transferred from a unit where there is a surplus of staff to a unit which is short.
- Assuming that only full-time nurses would be hired, when 35% of nurses in California work part-time.
- Defining the cost of hiring a new nurse as the average nurse salary, when it is plausible that many will be entry-level or part-time.[13]

Although the validity of the UC Davis study is questionable, even if the estimate of $1.1 billion is accurate, the cost is only a 2.3% increase for California's $40 billion industry divided among 500 hospitals.[14] Moreover, due to the costs of inadequate nurse staffing, safe staffing ratios will allow hospitals to save on costs associated with patient complications and liability, nurse turnover, temp agency fees, and recruiting.

- A 2002 report by Blue Cross Blue Shield Association found that California hospitals could save over $331 million if all hospitals performed at the level of the best hospitals in the state in terms of these quality indicators: adverse events, wound infection, pneumonia after surgery, and urinary tract infections.[15] These indicators are well-established measures of nurse staffing quality.

<u>If Berliner and colleagues' estimate of $500 million as the cost of safe staffing levels is accurate, the direct costs of complying with the California safe staffing law would be almost completely offset by the benefits of improved nurse staffing quality.</u>

<u>Nurses Return to Nursing When Safe Staffing Ratios Are Implemented</u>

The nurse crisis is a global phenomenon. In 2000, the Australian state of Victoria implemented staffing ratios as part of a strategy to recruit and retain nurses in their state and met with remarkable success.

- Six months after the ratios were fully implemented, 3,300 nurses returned to work full-time.[16]
- A preeminent technical institute in Victoria reported that the number of graduating students

planning to study nursing increased by 144%.

- One major hospital reported that its costs for temp agencies fell by 83%. Another hospital reported that its costs for temp agencies fell by 83%, while yet another major hospital now has 19 nurses on a waiting list to work in its emergency department.

California is experiencing more interest in nursing since passing nurse ratio legislation in 1999.

- The number of RNs increased by 4% from June 2001 to June 2002 and the number of certifying exam applicants rose by 18%.[17]
- Kaiser Permanente voluntarily enacted ratios before the California law went into effect in July 2001. As a result, the Northern California branch of Kaiser hired 71% more new nurses and the number of nurses quitting declined by 47% from January to October 2002, a net increase in RNs of 570% over the previous year.[18]

Testimony from California RNs confirms the benefits of staffing ratios. A study by UC San Francisco's Center for Health Professions found that nurses from California express concern about staffing more than any other topic, regardless of whether they work for for-profit or non-profit healthcare organizations or whether they belong to a union. Staffing ratios are already legally required in critical care units in California hospitals and nurses consistently cite ratios as a draw to work in these units because they know they will be able to provide high quality care to their patients.[19]

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[1] Joint Commission on Accreditation of Healthcare Organizations, *Healthcare at the Crossroads: Strategies for Addressing the Nursing Crisis*, August, 2002.
[2] Aiken, Linda, *Journal of the American Medical Association*, October 22, 2002.
[3] Needleman, Jack, et al., "Nurse-Staffing Levels and Quality of Care in Hospitals," *The New England Journal of Medicine*, May 30, 2002.
[4] Institute of Medicine, *To Err is Human: Building a Better Health Care System*, 1999.
[5] Kemski, Ann, *Market Forces, Cost Assumptions, and Nurse Supply: Considerations in Determining Appropriate Nurse to Patient Rations in General Acute Care Hospitals R-37-01*, SEIU Nurse Alliance, December 2002.
[6] Hansen, Brian, "Nursing Shortage: Are Bad Working Conditions Causing Deaths?" *CQ Researcher*, September 20, 2002.
[7] Ibid.
[8] California Nurses Association press release "CNA Blasts Study on Alleged Costs of Safe Staffing, Implementing Ratios May be Cost Neutral, RNs Say," July 26, 2001.
[9] Hansen, Brian, "Nursing Shortage: Are Bad Working Conditions Causing Deaths?" *CQ Researcher*, September 20, 2002.
[10] Kemski, Ann, *Market Forces, Cost Assumptions, and Nurse Supply: Considerations in Determining Appropriate Nurse to Patient Rations in General Acute Care Hospitals R-37-01*, SEIU Nurse Alliance, December 2002.
[11] Cadrain, Diane, *HR Magazine*, December 2002.
[12] Berliner, Howard, Christine Kovner, and Carolyn Zhu, *Nurse Staffing Ratios in California Hospitals: A Critique of the Final Report on Hospital Nursing Staff Ratios and Quality of Care*, SEIU Nurse Alliance, December 2002.
[13] Ibid.
[14] Ibid.
[15] Kane, Nancy, and Richard B. Siegrist, Jr., "Understanding Rising Hospital Inpatient Costs: Key Components of Cost and the Impact of Poor Quality," August 2002, http://bcbshealthissues.com/costpressconf/materials.vtml.
[16] Fitzpatrick, Lisa, *The Herald Sun*, March 15, 2003.
[17] Kemski, Ann, *Market Forces, Cost Assumptions, and Nurse Supply: Considerations in Determining Appropriate Nurse to Patient Rations in General Acute Care Hospitals R-37-01*, SEIU Nurse Alliance, December 2002.
[18] Kaiser Permanente California press release, "Kaiser Permanente Innovations Attracting Nurses," October 22, 2002.
[19] Kemski, Ann, *op. cit.*

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