



RN-to-Patient Staffing Ratios

Safe staffing ratios improve the quality of patient care.

- Higher hospital occupancy, lower nurse staffing levels, weekend admission and admission during high seasonal influenza activity all independently increase the risk of dying in the hospital. Increased nurse staffing levels decrease the absolute risk for in-hospital mortality by 0.25 percentage points for each additional FTE nurse per patient-day. (*Medical Care*, March 2010)
- Increasing the number of full-time RNs on staff per day by one, there were 9 percent fewer hospital-related deaths in intensive care units, 16 percent fewer in surgical patients and 8 percent fewer in medical patients (*Healthcare Risk Management*, February 2008)
- Patients cared for in hospitals with higher RN staffing levels were 68 percent less likely to acquire a preventable infection, according to a review of outcome data of 15,000 patients in 51 U.S. hospitals. (*Medical Care*, June 2007)
- Improved RN staffing ratios are associated with a reduction in hospital-related mortality, failure to rescue, and lengths of stay. Every additional patient assigned to an RN is associated with a 7 percent increase in the risk of hospital-acquired pneumonia, a 53 percent increase in respiratory failure, and a 17 percent increase in medical complications. (Agency for Healthcare Research and Quality, May 2007)
- Patients hospitalized for heart attacks, congestive heart failure, and pneumonia are more likely to receive high quality care in hospitals with better RN staffing ratios. (*Archives of Internal Medicine*, December 2006)
- If all hospitals increased RN staffing to match the top 25 percent best-staffed hospitals, more than 6,700 in-hospital patient deaths, and, overall 60,000 adverse outcomes could be avoided. These findings do not include the ancillary value to families of reduced morbidity, such as decreased pain and suffering and days lost from work, and huge economic savings to hospitals. (*Health Affairs*, January/February 2006)
- Cancer surgery patients are safer in hospitals with better RN-to-patient ratios. A study of 1,300 Texas patients undergoing a common surgery for bladder cancer documented a cut in patient mortality rates of more than 50 percent. Hospitals with low volume on cancer procedures can match standards of high volume urban medical centers just by increasing their RN ratios. (*Cancer*, Journal of the American Cancer Society, September 2005)
- Chances of a hospital patient surviving cardiac arrest are lower during the night shift because staffing is usually lower at night, even though cardiac arrest occurs at all times of day or night – according to a report on 17,991 cardiac cases from 250 hospitals. (Annual meeting, American Heart Association, November 2003)

- The Institutes of Medicine of the National Academy of Sciences reports that “nurse staffing levels affect patient outcomes and safety.” Insufficient monitoring of patients, cause by poor working conditions and the assignment of too few RNs, increases the likelihood of patient deaths and injuries (IOM, Nov. 4, 2003)
- Inadequate staffing precipitated one-fourth of all sentinel events – unexpected occurrences that led to patient deaths, injuries or permanent loss of function – reported to JCAHO, the Joint Commission on Accreditation of Hospital Organizations, from 1997 to 2002 (JCAHO, Aug. 7, 2002)
- Each additional patient (above four) that a nurse is required to care for is associated with a 7 percent increase in the likelihood of one of that hospital’s surgical patients dying within 30 days of admission. Four additional patients increased the risk of death by 30 percent. (*Journal of the American Medical Association*, Oct. 22, 2002)
- A higher number of hours of care per day provided by registered nurses is associated with shorter lengths of stay, lower rates of urinary tract infections and upper gastrointestinal bleeding, pneumonia, shock or cardiac arrest as well as lower rates of “failure to rescue” patients. (Harvard School of Public Health, February 2001)

Safe staffing ratios will help solve the nurse shortage

- Each additional patient per nurse (above four) is associated with a 23 percent increase in the odds of nursing burnout and a 15 percent increase likelihood of job dissatisfaction. (*Journal of the American Medical Association*, October 2002)
- In a national survey of nurses, 83 percent of respondents said that improving staffing ratios would be “very effective” in improving job satisfaction, and in recruiting and retaining quality nurses. (Peter D. Hart Research Associates, April 2001)
- In California, applications for nurse licenses increased by 60.4 percent in the three years since staffing ratio legislation passed. Vacancies for RNs at Sacramento-area hospitals plummeted by 69 percent since 2004 when the ratios were first implemented. Throughout the state, many of California’s biggest hospital systems saw their turnover and vacancy rates fall below 5 percent, far below the national average. (*Sacramento Business Journal*, Jan. 19, 2004)

Safe staffing ratios save hospitals money

- Adding 133,000 RNs to the acute care hospital workforce across the U.S. would produce medical savings estimated at \$6.1 billion in reduced patient care costs, not including the value of increased productivity when nurses help patients recover more quickly, an estimated additional \$231 million per year. Combining medical savings with increased productivity, the partial estimates of economic value averages \$57,700 for each of the additional 133,000 RNs. (*Medical Care*, January 2009)
- Reducing the high RN turnover rate – unsafe staffing is a major cause of RNs leaving the bedside – could save billions of dollars. At the current national turnover rate, 18.5 percent, and a 2007 inflation-adjusted per-RN turnover cost of \$82,000 to \$88,000 yields a total national cost of RN turnover of \$18.9 billion - \$20.1 billion a year. (*Journal of Nursing Administration*, January 2008)

- Improving RN-to-patient ratios from 1:8 to 1:4 would produce significant cost savings and is less costly than many other basic safety interventions common in hospitals, including clot-busting medications for heart attacks and PAP tests for cervical cancer. (*Medical Care*, August 2005)
- Preventing medical errors reduces loss of life and could reduce healthcare costs by as much as 30 percent. Insurers paid an additional \$28,218 (52 percent more) and an additional.... The post-discharge costs savings achieved by reducing adverse events might just be enough for the hospital to break even on the investment in nursing. (Health Services Research, July 2008)
- RN understaffing in hospital intensive care units increases the risk of pneumonia and other preventable infections that can add thousands of dollars to the cost of care of hospital patients. (*Critical Care*, July 2007)
- Raising the proportion of RNs by increasing RN staffing to match the 25 percent best staffed hospitals would produce net short-term cost savings of \$242 million. (*Health Affairs*, January/February 2006)
- Nurses represent the single largest labor expense for hospitals. In an attempt to manage costs, many hospitals have, over the years, reduced nursing staff, which in some cases has compromised quality of care and patient safety. Nursing shortages have been shown to contribute to longer lengths of stay in the ICU and increased rates in urinary tract infections and other complications. According to VHA research, hospitals that improve employer satisfaction witness an average increase in revenue per employee... Poor service and loss of patients to other hospitals ultimately mean lost revenue for a hospital. Those facilities that find solutions will gain a competitive advantage in their market and achieve solid financial returns. (Voluntary Hospital Association. Press Release: What the Work Force Shortage is Costing U.S. Hospitals, Nov. 11, 2002)
- Healthcare industry turnover is reported to be 20.7 percent. A hospital with 600 employees and turnover rate of 20 percent would spend \$5.52 million a year on turnover. Cutting the turnover rate to 15 percent would result in direct savings of \$1.38 million per year. (Voluntary Hospital Association. The Business Case for Work Force Stability, October 2002)
- Hospitals with higher turnover rates have higher costs per discharge. Costs per adjusted discharge at hospitals with turnover rates above 21 percent run 36 percent higher than those at hospitals with turnover rates below 12 percent. (Voluntary Hospital Association. The Business Case for Work Force Stability, October 2002)