



Return on investment (ROI)

Evidence for investing in nursing

A BUSINESS CASE FOR RAISING REGISTERED NURSING STAFFING LEVELS

Increasing the proportion of care provided by registered nurses achieves net cost savings by reducing length of stay, adverse outcomes and mortality rates.

Background

A study by Needleman et al. (2002)¹ examined the relationship between nurse² staffing levels in hospitals and the rates of adverse outcomes among patients. Needleman et al. (2006)³ have now estimated the costs of increasing nurse staffing in United States hospitals and the associated cost savings that might be achieved by reducing adverse outcomes and length of hospital stays, and avoiding patient deaths. The authors studied three scenarios: (1) raising the proportion of nursing hours supplied by registered nurses to the 75th percentile of the range; (2) raising the number of hours of care per day provided by licensed nurses (registered nurses and licensed practical nurses) to the 75th percentile; and (3) raising staffing to both of these target levels.

The authors estimated that option 1, raising the proportion of registered nursing hours without increasing the total number of hours of care, would result in a short-term net cost saving of US\$242 million. They calculated that options 2 and 3 would also result in improved outcomes but at higher cost. They found that the length of hospital stays would be shorter under option 2, but that reductions in adverse outcomes and the costs associated with those outcomes would be less than that realized under option 1. The greatest reductions in adverse outcomes and length of hospital stays would be achieved with option 3, but these benefits would also be associated with the highest staffing costs. The authors determined that increased staffing under all three options would be associated with a reduction in hospital-related mortality.

Bottom Line

- The work of registered nurses has economic value and can yield overall cost savings.
- Having registered nurses provide a greater proportion of the care in hospitals would improve patient outcomes and reduce the costs associated with longer hospital stays and adverse outcomes.
- Hospital staffing mixes with a higher proportion of registered nurses would reduce length of stay, increase throughput of patients and shorten wait times.

¹ Needleman, J., Buerhaus, P., Mattke, S., Stewart, M., & Zelevinsky, K. (2002). Nurse-staffing levels and the quality of care in hospital. *New England Journal of Medicine*, 346(22), 1715-1722.

² In this study, the word "nurse" refers to registered nurses (RNs), licensed practical nurses (LPNs) and nurses' aides. RNs and LPNs are referred to together as licensed nurses.

³ Needleman, J., Buerhaus, P., Stewart, M., Zelevinsky, K., & Mattke, S. (2006). Nurse staffing in hospitals: Is there a business case for quality? *Health Affairs*, 25(1), 204-211.