

Fact Sheet 2011



Impact of Nurse-to-Patient Ratios

Implications of the California Nurse Staffing Mandate for Other States

In 2004, California became the first state to implement minimum nurse-to-patient staffing ratios.¹ Dr. Linda Aiken, PhD, RN and her colleagues studied the effectiveness of the staffing ratios mandated in California. Dr. Aiken's findings have important implications beyond California.

Context: Staffing ratios are designed to improve patient mortality and nurse retention. Nurse-to-patient staffing ratios require a minimum number of nurses in specific hospital units during a nurse's shift.

For decades, nurses have raised concerns regarding inadequate staffing that threatens the health and safety of their patients. Aiken and her colleagues investigated how nurse workloads compared in three states, California, New Jersey, and Pennsylvania.

Aiken examined how patient mortality and failure-to-rescue (FTR), incidents where hospital doctors, nurses, or caregivers fail to notice symptoms or respond adequately to signs that a patient is dying of preventable complications, are affected by differences in nurse workloads.

"The California Department of Health undertook a multiyear process to determine the minimum ratios to be mandated based upon research and other factors."² California mandated the following nurse-to-patient staffing ratios:³

- 6:1 patient-to-nurse workload in psychiatrics;
- 5:1 patient-to-nurse in medical-surgical units, telemetry, and oncology;
- 4:1 in pediatrics;
- 3:1 in labor and delivery; and
- 2:1 in intensive care units.

As of March 2011, 15 states^a and the District of Columbia have enacted legislation or adopted regulations addressing nurse staffing. Seven states^b require hospitals to have committees responsible for staffing policy, and five states^c require disclosure or public reporting of staffing.⁴ More legislation is being introduced, including proposals by three states^d to create

^a CA, CT, IL, ME, MN, NV, NJ, NY, NC, OH, OR, RI, TX, VT, WA.

^b CT, IL, NV, OH, OR, TX, WA.

^c IL, NJ, NY, RI, VT.

^d FL, IL, IA.

staffing committees, proposals by three states^e to require public disclosure laws, proposals by seven states^f to set staffing ratios, and four states^g with alternative nurse staffing bills.⁵

In 2006, Florida passed a safe staffing ratio law similar to California's. The law addresses minimum staffing requirements for nursing homes and requires a registered nurse (RN) in the operating room during all surgical procedures.⁶

Study Design

Objective: “To determine whether nurse staffing in California hospitals, where state-mandated minimum nurse-to-patient ratios are in effect, differs from two states without legislation and whether those differences are associated with nurse and patient outcomes.”⁷

Methods: This study comes from 2006 survey data of 22,366 hospital staff nurses in California, Pennsylvania, New Jersey, and state hospital discharge databases from those states.⁸ New Jersey and Pennsylvania were chosen because these states lacked nurse staffing standards at the time of the study.

Results^h

Principle Findings:⁹

- “California hospital nurses cared for one less patient on average than nurses in” Pennsylvania and New Jersey.¹⁰
- California nurses cared for “two fewer patients on medical and surgical units” than nurses in Pennsylvania and New Jersey.¹¹
- Lower nurse-to-patient ratios **significantly** lowered the likelihood of a patient’s death.
- “When nurses’ workloads were in line with California-mandated ratios in all three states, nurses’ burnout and job dissatisfaction were lower, and nurses reported consistently better quality of care.”¹²

Additional Findings:

- There was a substantial increase in the number of RNs staffing California hospitals after the law was passed and regulations implemented.¹³ While the mandated staffing ratios could have been met using licensed vocational nurses (LVN), the evidence did not show that this occurred.¹⁴ However, 34 percent of nurses reported decreased use of unlicensed personnel and 27 percent of nurses reported “decreased availability of non-nursing support services such as housekeeping and unit clerks,”¹⁵ but the research does not show that this had a negative effect on patients.
- “Wage growth for RNs in California after implementation of mandated minimum nurse staffing increased more than RN wage growth in other states,” but this may have occurred from nurse shortages or other reason.¹⁶
- Dr. Aiken compared the opinions of nurses in California, New Jersey, and Pennsylvania.¹⁷

^e HI, IL, MA.

^f IN, KY, MD, NJ, NY, VT, WV.

^g CA, MA, MO, PA.

^h Dr. Aiken cautions that the results in California may not be solely attributed to the implementation of the nurse-to-patient ratio mandate.

- Nurses considered their workload reasonable: CA – 73%, NJ – 59%, PA – 61%;
 - Adequate support services were provided by the hospital to allow nurses to spend time with patients: CA – 66%, NJ – 53%, PA – 55%;
 - Nurses received 30-minute breaks during the workday: CA – 74%, NJ – 51%, PA – 45%;
 - There were enough RNs on staff to provide quality patient care: CA – 58%, NJ – 42%, PA – 44%; and
 - Nurses had enough staff to get their work done: CA – 56%, NJ – 40%, PA – 44%.
- California nurse staffing ratios resulted in a lower likelihood of an in-patient death within 30 days of hospital admission than in New Jersey and Pennsylvania.¹⁸ There was also a lower likelihood of death from preventable complications (failing to properly respond to symptoms).
 - California had 13.9 percent fewer surgical deaths than New Jersey and 10 percent fewer surgical deaths than Pennsylvania.¹⁹

Conclusion

“Hospital nurse staffing ratios mandated in California are associated with lower mortality and nurse outcomes predictive of better nurse retention in California and in other states where they occur.”²⁰ Thus, the minimum nurse-to-patient staffing ratios mandated in California have great potential to improve patient outcomes and nurse retention.

¹ Aiken, Linda H., Douglas M. Sloane, Jeannie P. Cimiotti, Sean P. Clarke, Linda Flynn, Jean Ann Seago, Joanne Spetz, and Herbert L. Smith. “Implications of the California Nurse Staffing Mandate for Other States.” *Health Services Research*, Volume 45, Issue 4, Wiley Online Library. August 2010. p. 905.

² *Ibid.*, 906.

³ *Ibid.*, 910.

⁴ “Nurse Staffing Plans and Ratios,” *American Nursing Association*, Nursing World, March 4, 2011. Available at: http://www.nursingworld.org/MainMenuCategories/ANAPoliticalPower/State/StateLegislativeAgenda/StaffingPlansandRatios_1.aspx

⁵ *Ibid.*

⁶ *Ibid.*

⁷ Aiken, 904.

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² *Ibid.*

¹³ *Ibid.*, 905.

¹⁴ *Ibid.*, 908.

¹⁵ *Ibid.*, 917.

¹⁶ *Ibid.*, 906.

¹⁷ *Ibid.*, 912.

¹⁸ *Ibid.*, 916.

¹⁹ *Ibid.*, 917.

²⁰ *Ibid.*

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