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Research Shows New York State’s Nurse Staffing Legislation Predicted to Save Lives and Money

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I am Professor Linda Aiken, Founding Director of the Center for Health Outcomes and Policy Research, University of Pennsylvania School of Nursing. I am an elected member of the National Academy of Medicine and the American Academy of Arts and Sciences. The Center for Health Outcomes and Policy Research is the world’s foremost authority on nurse staffing research. Its research has received the top research awards of the National Academy of Medicine, the Joint Commission that accredits hospitals and healthcare systems, and the International Council of Nurses among others.

The Center’s mission is to produce objective, scientific evidence to inform healthcare services directions and policies. The Center’s researchers have published hundreds of peer-reviewed research papers in the highest impact scientific journals in the world on the outcomes of nurse staffing including evaluations of patient-to-nurse staffing policies enacted in California (1-3), more recently in the state of Queensland in Australia (4), and now in the state of New York (5,6,7).

Penn Study of Nurse Staffing in New York State Hospitals

Over the past 13 months the Center has conducted an independent, comprehensive study of whether state-mandated minimum safe nurse staffing standards is in the public’s interest in New York State and published **three peer reviewed scientific papers** (5, 6, 7) in prominent medical journals with our results. These results provide real time and local evidence to inform the New York State Legislature as to 1) whether there is a problem in the state with hospital staffing that is in the public’s interest to address with legislation, and 2) whether legislation is

likely to improve quality and outcomes of care and contribute to more effective use of existing resources .

Study Design: In January and February of 2020, right before COVID appeared in New York hospitals, we collected original data on nurse staffing in all general acute hospitals in New York state by surveying all registered nurses licensed in the state. For nurses working in inpatient care in hospitals, we asked how many patients they cared for on their last shift and the name of their employing hospital. We aggregated all the nurses by hospital to determine average staffing in **116 hospitals**—representing 81% of the acute care general hospitals in the state that together cared for most of the hospitalized patients. This is the gold standard for determining actual patient-to-nurse staffing in hospitals as it counts only inpatient nurses with direct clinical care assignments. We linked nurses’ reports to the outcomes of 418,000 Medicare patients treated in those same hospitals using Medicare claims data.

What are nurse staffing levels across hospitals in New York State?

- Patient to nurse ratios in adult medical and surgical units **varied across hospitals from 4.3 to 10.5 patients per nurse** (before COVID).
- This variation in staffing is not explained by differences in how sick the patients are or other scientific justifications.
- This variation in patient-to-nurse staffing ratios has negative consequences for the public’s health, for the retention of a qualified hospital nurse workforce, and for the efficient use of resources.
- The Safe Staffing for Quality Care Act (S.1032/ A.2954) calls for nurses to care for no more than 4 patients each on adult medical and surgical units. Our findings show that on average, hospital nurse staffing is significantly worse than the proposed standard. Across all hospitals in the state, nurses care for on average 6.3 patients each.
- Nurse staffing was worst in New York City where nurses cared for an average of 6.9 patients each.
- Implementing the Act would improve hospital staffing throughout the state.

Are current nurse staffing levels and substantial variations across NYS hospitals a problem that is in the public’s interest to fix? YES

- Variation in nurse staffing is very important to whether patients survive a hospital stay. We found that each patient reduction in nurses’ workloads was associated with a **13% decrease in patient deaths** for elderly patients hospitalized with common surgical and medical conditions.
- Each patient reduction per nurse was associated with a **5% decrease in length of hospital stay for surgical patients and a 9% decrease for medical patients.**
- Similarly, each patient reduction per nurse was associated with a **6-8% decline in readmissions** within 30 days of discharge.
- Over a third of **patients gave their hospital less than an excellent rating** and one-third would *not* recommend their hospital to a family member or friend needing care.

- Before COVID, half of nurses in NYS hospitals suffered from high job-related burnout; close to 30% were dissatisfied with their jobs, and **over 1 in 5 nurses said they intended to leave their jobs within the year.**
- Half of nurses gave their hospital an **unfavorable grade on patient safety.**

Is the proposed legislation likely to improve patient outcomes and resource efficiency in NYS hospitals? YES

- From our empirical results, we estimated that were all NYS hospitals staffed at the 4:1 ratio proposed in the pending legislation, **more than 4,370 deaths would have been avoided** just among elderly Medicare patients admitted to hospitals with common surgical and medical reasons during the 2 years of the study, and many more deaths would have been avoided if all patients who benefit from improved nurse staffing were counted.
- **Savings of a minimum of \$720 million** would have been achieved over two years because of avoided days of hospital care from shorter lengths of stay and fewer readmissions associated with better nurse staffing, just among the study population; overall savings would be much greater when all patients are considered. Savings could be reinvested in employing more nurses.
- New York State previously passed legislation known as Rory’s Regulations mandating care bundles to reduce hospital deaths from sepsis. The Center’s new study finds that even more sepsis deaths would be avoided if the Legislature passed the pending Safe Staffing for Quality Care Act. **A reduction of one patient in a nurse’s workload is associated with 12% lower in-hospital mortality from sepsis compared with only a 5% reduction in mortality associated with improved adherence to mandated care bundles previously passed by the NYS legislation.**

Other policy considerations

- Evidence suggests that New York state has a **sufficient nurse supply** to meet the ratios proposed in the legislation. California which successfully implemented similar legislation has substantially fewer nurses (11.3 nurses per 1000 population) than New York State (18.7 per 1000 population). (8)
- **34 states but not NYS have passed legislation adopting the Nurse Licensure Compact** allowing nurses to work across state lines which would enhance nurse supply in NYS if needed. Governor Cuomo’s use of emergency authority to temporarily suspend in-state nurse licensure requirements during the COVID surge would not have been necessary if the state had joined with 34 other states in the Compact.
- The Center in collaboration with the non-profit organization NursesEverywhere (9) commissioned a Harris Poll in July 2020 to determine what the public wants to happen after COVID: **Over 90% of respondents agreed that hospitals and nursing homes should be required to meet safe nurse staffing standards.**
- An evaluation by the Center of the California’s nurse staffing mandate showed that safety net hospitals substantially improved nurse staffing after implementation of minimum

required ratios, suggesting that similar legislation in NYS would also substantially improve outcomes in safety net hospitals that care for some of the sickest patients.(3)

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