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The impact of California's staffing mandate and the economic recession on registered nurse staffing levels: A longitudinal analysis

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Abstract

Background

Despite the importance of adequate hospital nurse staffing, California is the only state with minimum nurse-to-patient ratio mandates. The health care workforce is historically "countercyclical"—exhibiting growth during economic recessions when employment in other sectors is shrinking.

Purpose

This study was to examine how staffing mandates impact hospital nurse staffing during economic recessions.

Method

We compared hospital nurse staffing in California and in other states over 20 years to examine differences before and after the California mandate and, within the postmandate period, before, during, and after the Great Recession of 2008.

Findings

Staffing differences increased during the postmandate period due to faster growth in California staffing compared to other states, except during the Great Recession, when staffing remained stable in California but

declined in other states.

Discussion

State legislators deliberating staffing mandates should consider the protective factor such policies provide during economic recessions and the implications for the quality and safety of care.

Introduction

The Great Recession of 2008 drove a decline in the growth rate of health care spending and a reduction in capital investments by health care providers as households, governments, and businesses faced economic hardship (Martin et al., 2011). National unemployment rates increased from 5.0 percent in December 2007 to 9.5 percent in June 2009 (U.S. Bureau of Labor Statistics, 2012). However, the health care industry historically experiences employment growth during recessions. Nursing jobs are no exception to this "countercyclical" trend (Dolfman et al., 2017), but how this impacts actual hospital staffing levels during recessions is unknown. Nurses represent a significant portion of hospital operating budgets (Kane & Siegrist, 2002). Financial pressures prompt hospitals to limit growth in staff, as noted during the introduction of the Balanced Budget Act of 1997 and prospective payment systems (Bazzoli et al., 2004).

California hospitals faced the economic challenges of the recession with the added pressure of Assembly Bill (AB) 394 (Reiter et al., 2012), which imposed mandatory nurse-to-patient ratios by specialty. For example, the bill required medical-surgical floors to have at least 1 nurse for every 6 patients, a nurse-to-patient ratio that transitioned to 1:5 over an 18-month period. In addition to restricting how hospitals can legally respond in the face of nursing shortages and financial strain (i.e., their austerity measures cannot reduce nurse staffing below the mandated minimum), full implementation and compliance with the mandate was estimated to cost each hospital $700,000 to $800,000 (Spetz, 2004).

Hospitals disapproved of the law as a unilateral one-size-fits-all mandate that ignored individual facilities' needs. It was only after years of extensive lobbying efforts by nursing unions that AB 394 was passed in 1999 and implemented January 1, 2004. California remains the first and only state to pass legislation mandating comprehensive minimum nurse-to-patient ratios in hospitals. However, research has repeatedly shown that adequate nurse staffing is associated with critical patient outcomes, including mortality (Aiken et al., 2014; Aiken et al., 2010; Needleman et al., 2011), failure to rescue (Aiken et al., 2002), other adverse events and length of stay (Needleman et al., 2002). Therefore, the costs of implementing staffing requirements—in California or other states—may be offset by the expenses associated with near misses and adverse events that would be avoided (Dall et al., 2009; Rothschild et al., 2009). Average length of stay in community hospitals has declined over recent decades (American Hospital Association, 2018) while patient comorbidities have increased (Clark et al., 2018), both adding more pressure on nursing staff and increasing care demands.

California remains the only state with a strict minimum nurse-to-patient ratio, but interest in staffing legislation has gained momentum and other states, including Massachusetts and Illinois, have since introduced legislation for minimum staffing ratios, although none have passed (Tung, 2019). The potential for widespread impact of staffing laws and continued debate about ratios makes studying the California staffing mandate a research priority. Previous studies have evaluated the California staffing mandate in

terms of nurse staffing levels and skill mix (McHugh et al., 2012; McHughetal., 2011). No studies have addressed the mandate in the context of macroeconomic changes, and few recent studies are available on the topic despite its importance and relevance to current policy development.

Recessions are inevitable byproducts of global economic fluctuations and hospitals will face budget constraints in future years. Whether and how these laws interact with economic recessions to help or hinder hospitals is an important consideration during legislative proceedings in states looking to emulate California. This study provides evidence for these deliberations. The objective was to compare nurse staffing in California hospitals to those in other states not subject to a state-level staffing mandate before, during, and after the 2008 economic recession.

Section snippets

Design

California is the first and, to date, only state to impose mandatory minimum RN staffing ratios on hospitals, effective January 1, 2004. Four years later, the economic recession of 2008 presented the conditions under which nurse staffing, as a hospital's single largest operating expense, likely attracted the heightened awareness of budget-conscious administrators looking to reduce costs. These events created a natural experiment to test the mitigating effect of staffing mandates on nurse…

Findings

Figure 1 and 2 present graphical representations of nurse staffing over time for California and non-California hospitals. The vertical bars stemming from the horizontal axis in each figure associate the data with a timetable of events related to the California staffing mandate and the 2008 economic recession. Figure 1 presents observed RN HPPD for 1997 to 2016, demonstrating a continued rise in staffing levels across hospitals in all states, but with growth in California hospitals outpacing…

Discussion

These findings suggest that nurse staffing mandates increase RN HPPD above and beyond the national trend and may act as a safety net to protect these more robust staffing levels from deteriorating in challenging economic times. Prior to the implementation of California's staffing ratios, changes in RN HPPD over time in California hospitals were comparable to those of other states. In the years following implementation of the mandate, staffing levels increased across all hospitals, but RN HPPD…

Conclusions

California's nurse staffing mandate—the only one of its kind in the United States—demonstrated its potential to mitigate the impact of a national economic recession on hospital nurse staffing levels. The role of safe nurse staffing levels in achieving improved patient outcomes is well documented. Protecting investments in nursing staff and the associated quality, safety, and outcomes of care during vulnerable times of economic stress are important considerations for policymakers pursuing nurse…

Author Contribution

Andrew Dierkes: Writing – Original Draft, Writing – Review & Editing, Visualization; **Duy Do:** Methodology, Software, Formal analysis, Data Curation, Visualization; **Haley Morin:** Writing – Original Draft, Writing – Review & Editing; **Monica F. Rochman:** Writing – Review & Editing; **Douglas Sloane:** Methodology, Writing – Review & Editing; **Matthew D. McHugh:** Conceptualization, Methodology, Resources, Supervision, Writing – Original Draft, Writing – Review & Editing.…

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