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Spread Too Thin: The Case for Federally Mandated Minimum Nurse-to-Patient Ratios in Hospitals

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SPREAD TOO THIN: THE CASE FOR FEDERALLY MANDATED MINIMUM NURSE-TO-PATIENT RATIOS IN HOSPITALS

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I. INTRODUCTION

Nurses are crucial to high quality health care.¹ They provide surveillance of patients, early detection of complications, and timely interventions that save lives.² In his autobiography, Dr. Lewis Thomas³ wrote:

My discovery . . . is that the institution is held together, glued together, enabled to function as an organism, by the nurses and by nobody else. They spot errors before errors can be launched. They know everything written on the chart. Most important of all, they know their patients as unique human beings [and] because of this knowledge, they are quick to sense apprehensions and act on them.⁴

In hospitals, however, this glue is often spread too thin. When nurses are overloaded with patients, they do not have time to know each one as a unique human being. The ability to “spot errors before they can be launched” and “sense apprehensions and act on them” is not an inherent nursing quality that holds constant under all circumstances. Rather, it is a skill that nurses exercise when their

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1. Robert L. Kane et al., The Association of Registered Nurse Staffing Levels and Patient Outcomes, 45 MED. CARE 1195, 1195 (2007).


3. Dr. Thomas (1913–1993) was an American physician, researcher, author, and teacher. He graduated from Harvard Medical School, and served as Dean of New York University Medical School and Yale Medical School. Ann Woodlief, Lewis Thomas, DICTIONARY OF LITERARY BIOGRAPHY (2003), https://www.vcu.edu/engweb/LewisThomas.htm.

work environment permits them to do so.\textsuperscript{5} The reality today is that the number of patients hospitals assign to nurses often precludes high quality care.\textsuperscript{6} Nurses do not have time to perform even the basic practices associated with their profession, such as comforting and educating patients and their families.\textsuperscript{7}

There is hope that under the Patient Protection and Affordable Care Act ("ACA"), new incentives for improving health care quality may indirectly improve nurse staffing.\textsuperscript{8} Yet until legislation is passed that directly speaks to this issue, inadequate staffing will continue to impact patient outcomes, particularly as baby boomers age\textsuperscript{9} and access to health care expands.\textsuperscript{10}

Part II of this Note provides background on the issue of nurse staffing in hospitals, and presents research on the relationship between nurse staffing and health care quality. Part III examines two key reasons why inadequate nurse staffing exists, addressing the lack of both legal and monetary incentives for hospitals to remedy the problem. Part IV discusses three new programs under the ACA that incentivize hospitals to improve the quality of care they provide, and explains the impact that improved nurse-to-patient ratios could have on achieving this goal. Part V presents a proposal for federally mandated minimum nurse-to-patient staffing ratios, and Part VI justifies this proposal by addressing common arguments made in opposition to federal nurse staffing legislation.

\textsuperscript{5} Aiken et al., supra note 2, at 1992 ("The effectiveness of nurse surveillance is influenced by the number of registered nurses available to assess patients on an ongoing basis.").

\textsuperscript{6} See Helen J. Stampalia, Inadequate Staffing Kills, 25 QUINNIPIAC L. REV. 173, 181 (2006) ("Understaffed nurses are literally forced to forego caring for their patients."); see also Alexandra Robbins, We Need More Nurses, N.Y. TIMES (May 28, 2015), http://nyti.ms/1HxFg5g ("Inadequate staffing is a nationwide problem . . . . Dozens of studies have found that the more patients assigned to a nurse, the higher the patients’ risk of death.").


\textsuperscript{8} Olga Yakusheva et al., How Nursing Affects Medicare’s Outcome-Based Hospital Payments, ROBERT WOOD JOHNSON FOUND. INTERDISCIPLINARY NURSING QUALITY RESEARCH INITIATIVE, at 1, 8 (Nov. 2015), http://ldi.upenn.edu/sites/default/files/pdf/INQRI%20BRIEF%20V.pdf.

\textsuperscript{9} Every day for the next nineteen years, approximately 10,000 baby boomers will turn sixty-five years of age. D’Vera Cohn & Paul Taylor, Baby Boomers Approach 65—Glumly, P.EW RESEARCH CTR. (Dec. 20, 2010), http://www.pewsocialtrends.org/2010/12/20/baby-boomers-approach-65-glumly.

\textsuperscript{10} Since the ACA was passed, 16.4 million uninsured people have gained health coverage. The Affordable Care Act Is Working, U.S. DEP’T OF HEALTH & HUM. SERVS., http://www.hhs.gov/healthcare/facts-and-features/fact-sheets/aca-is-working/index.html (last visited Jan. 9, 2017).
II. BACKGROUND

Registered nurses are an “around-the-clock surveillance system” for “early detection and prompt intervention when patients’ conditions deteriorate.”

Numerous studies show that the number of patients assigned to a nurse impacts his or her ability to provide effective care. In hospitals with lower nurse-to-patient ratios, “nurses simply have more time to spend with patients, and can catch possible complications.” By contrast, in hospitals with higher ratios, the nurses “must rush from room to room,” which necessarily compromises the quality of care those nurses provide.

In a 2002 study published in the Journal of the American Medical Association, researchers at the University of Pennsylvania sought to evaluate the impact of nurse-to-patient ratios on patient mortality. They found that each additional patient assigned to a nurse was associated with a seven percent increase in the likelihood of dying within thirty days of admission, and a seven percent increase in the odds of failure-to-rescue. Researchers estimated that hospitals with nurse-to-patient ratios of 1:6, as opposed to 1:4, would have 2.3 additional deaths per 1,000 patients, and 8.7 additional deaths per 1,000 patients with complications. They concluded that had the ratios across every facility been 1:4 during the study, approximately 1,000 deaths could have been avoided. This is particularly alarming where, in some U.S. hospitals, nurses on similar units are regularly assigned seven to nine patients at a time.

12. See, e.g., Kane et al., supra note 1, at 1200 (“This analysis supports previous contentions that increased nurs[e] staffing in hospitals is associated with improvements in patient care outcomes.”); S. P. Clarke & L. H. Aiken, More Nursing, Fewer Deaths, 15 QUALITY AND SAFETY IN HEALTH CARE 2, 2–3 (2006) (“Our findings confirm that low levels of hospital nurse staffing and deficiencies in the nurse working environment are associated with poor patient outcomes including excess deaths in a broad array of countries.”); Aiken et al., supra note 2, at 1992 (“Our results imply that had the patient-to-nurse ratio across all Pennsylvania hospitals been 4:1, possibly 4,000 of these patients may have died, and had it been 8:1, more than 5,000 of them may have died.”).
13. Stampalia, supra note 6, at 186.
14. Id.
15. Aiken et al., supra note 2, at 1987. Records were used from 232,342 patients who underwent general surgical, orthopedic, or vascular procedures in 168 Pennsylvania hospitals from April 1, 1998 to November 30, 1999. Id. at 1989.
16. Id. at 1987. Failure-to-rescue means “deaths within 30 days of admission among patients who develop complications.” Id. at 1991.
17. Id. at 1991–92.
18. Id. at 1992.
19. See, e.g., Robbins, supra note 6; Is California’s Nurse to Patient Ratio Working?, supra
and in others, ratios as high as twelve patients per nurse have been reported.\(^{20}\)

In another study published in the New England Journal of Medicine, researchers at the Harvard School of Public Health examined the relation between nursing care and patient outcomes.\(^{21}\) The study used administrative data for 799 hospitals in eleven states, covering over five million medical patient discharges.\(^{22}\) Researchers concluded that more hours of nursing care per day were associated with lower rates of urinary tract infections, upper gastrointestinal bleeding, pneumonia, shock, cardiac arrest, and failure-to-rescue, as well as shorter lengths of hospital stay.\(^{23}\)

Additionally, a meta-analysis of ninety-six studies, commissioned by the Agency for Healthcare Research and Quality,\(^{24}\) found a statistically and clinically significant association between nurse-staffing and hospital-related mortality, failure-to-rescue, and other patient outcomes.\(^{25}\) Overall, each additional patient assigned to a nurse was associated with a seven percent increase in hospital-acquired pneumonia, an eight percent increase in failure to rescue, and a sixteen percent increase in cardiopulmonary resuscitation.\(^{26}\)

Nurses are involved with almost every facet of care that hospital patients receive. It follows that when they are assigned too many patients concurrently, the quality of care is compromised. Though an extensive body of research supports this conclusion, hospitals have resisted implementing change.

III. FACTORS LIMITING IMPROVEMENT IN NURSE STAFFING

There are two salient reasons why the nurse-staffing problem persists in many hospitals despite readily available data that links better staffing to improved quality of care. First, most hospitals are not bound by any laws that regulate nurse-to-patient ratios in their institutions.\(^{27}\) Second, the benefits of improved staffing come at a

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note 7 (“[N]urses in hospitals that don’t have a mandatory staffing ratio are caring for an average of 8 patients on day shift.”).
20. Stampalia, supra note 6, at 182.
21. Needleman et al., supra note 4, at 1715.
22. Id.
23. Id. at 1715, 1719.
24. The Agency for Healthcare Research and Quality is part of the United States Department of Health and Human Services. Kane et al., supra note 1, at 1195.
25. Id. at 1195–96, 1202.
26. Id. at 1199.
cost:28 not only is it expensive to staff more nurses each shift, but also hospitals have historically been reimbursed based on the volume, rather than the quality, of care they provide.29 Thus, institutions that spend more resources to achieve better nurse staffing have not directly benefitted financially, even if their patient outcomes are markedly improved.30

A. Existing Nurse Staffing Laws

The Code of Federal Regulations sections 482 et seq. set forth the Medicare and Medicaid Services’ conditions of participation for hospitals.31 Section 482.23 pertains to nursing services:
The nursing service must have adequate numbers of licensed registered nurses, licensed practical (vocational) nurses, and other personnel to provide nursing care to all patients as needed. There must be supervisory and staff personnel for each department or nursing unit to ensure, when needed, the immediate availability of a registered nurse for bedside care of any patient.32 This nebulous33 language begs the question: what constitutes “adequate numbers” of licensed registered nurses? Several states have taken legislative action to address this matter.34

32. 42 C.F.R. § 482.23(b), (b)(1), (b)(3) (2012).
33. Nurse Staffing, supra note 27.
34. Id.
1. California

In 1999, then-Governor Gray Davis signed Assembly Bill 394 (“AB 394”) into law, requiring the California Department of Health Services (CDHS) to establish minimum nurse-to-patient ratios for hospitals. California was the first state to pass such legislation, which came only after years of intensive lobbying by nursing unions.

Prior to AB 394’s implementation, CDHS “spent two years holding hearings and inviting stakeholders to make recommendations regarding which nurse-to-patient ratio minimums should be mandated.” The responses varied dramatically. For example, nurse unions advocated for 1:4 on medical units, while hospitals proposed 1:10. In 2002, CDHS announced the final numbers by specialty. It ultimately required medical units to have ratios of 1:6 for the first year, and 1:5 thereafter. This represents the maximum number of patients that hospitals may assign each nurse.

Since AB 394 was passed, nurses report that the quality of care in California hospitals has improved. Their accounts are buttressed by a study that compared patient outcomes in California with those in New Jersey and Pennsylvania—neither of which had nurse-staffing legislation at the time of the study.

Researchers found that on average, California nurses cared for one fewer patient than nurses in the other states, and two fewer patients on medical and surgical units. The study concluded that if the nurse-to-patient ratios in the New Jersey and Pennsylvania hospitals had matched the California mandate, there would have been “13.9 percent fewer surgical deaths in New Jersey and 10.6 percent fewer...”

35. See generally CAL. CODE REGS. tit. 22, § 70217 (2013); Matthew D. McHugh et al., Contradicting Fears, California’s Nurse-to-Patient Mandate Did Not Reduce the Skill Level of the Nursing Workforce in Hospitals, 30 HEALTH AFFAIRS 1299, 1299 (2011).
37. McHugh et al., supra note 35, at 1299.
38. Stefanie Berman, Mandatory Nurse-to-Patient Staffing Ratios in California, 30 J.L. MED. & ETHICS 312, 312 (2002).
41. McHugh et al., supra note 35, at 1299.
42. Linda H. Aiken et al., Implications of the California Nurse Staffing Mandate for Other States, 45 HEALTH SERVS. RES. 904, 914 (2010).
43. Id. at 906.
44. Id. at 917.
fewer surgical deaths in Pennsylvania.”

Generally, these “effects [are] most pronounced for the hospitals with low baseline staffing to begin with.” Such hospitals were the exact institutions of most concern for CDHS, which emphasized that the mandated “ratios were aimed at remediating ‘the hospitals with the leanest staffing, effectively raising the bar for the standard of acceptable staffing.’”

Accordingly, the goal of minimum nurse-to-patient ratio legislation is not to impose radical change in hospitals or to require administrators to meet an impossibly high standard. The hope is that most institutions already adhere to these or better staffing numbers. If the mandate catalyzes truly radical change, it will likely be in outlier facilities where reform is desperately needed.

2. Other States

Though California remains the only state with mandated minimum nurse-to-patient ratios by hospital specialty, thirteen other states have passed nurse-staffing legislation. Massachusetts recently enacted a law specific to intensive care units that “requires a 1:1 or 1:2 nurse to patient ratio depending on the stability of the patient.” Five states demand “some form of disclosure and/or public reporting,” meaning that hospitals must disclose staffing levels to the public and/or a regulatory body.

The remaining seven states require hospitals to have staffing committees. In theory, these committees operate at the local level and empower nurses to create staffing plans that reflect the unit-specific needs of a particular hospital. Their inveterate flaw,
however, is that they are typically half-composed of hospital administrators, who alone have the final say in staffing decisions.\textsuperscript{53} Committee resolutions, therefore, are subject to manipulation by hospitals, and as such, this type of legislation alone will not solve the nurse-staffing problem.\textsuperscript{54}

\textbf{B. The Economics of Nurse Staffing}

While, presumably, all hospital administrators are innately concerned with the quality of care their institutions provide, the reality is that they are also bound by a competing duty to meet short-term operating budgetary goals.\textsuperscript{55} Thus, despite the data that links nurse staffing to improved patient outcomes, many administrators believe that one of the “most effective way[s] to decrease a hospital’s operating budget [is] by cutting nursing staff.”\textsuperscript{56} This is, in part, due to the fact that “[s]taffing expenses range from 50 to 70 percent of a facility’s operating budget, and nursing salaries comprise more than half of the labor costs.”\textsuperscript{57} Nevertheless, there is a need for better balance between economic considerations and commitment to quality; hospital boards should “take their responsibility for patient safety at least as seriously as they take the hospital’s financial condition.”\textsuperscript{58}

In a 2006 study, researchers at UCLA and Vanderbilt University examined the business case for investing in nurse staffing by comparing the cost of increasing the nurse workforce with the savings that result from avoided adverse patient events, which are associated with better staffing levels.\textsuperscript{59} The study first established that improved staffing resulted in decreased patient deaths, length of patient stay, urinary tract infections, pneumonia, and shock or cardiac arrest (collectively, “adverse events”).\textsuperscript{60}

\begin{itemize}
\item \textsuperscript{54} For further discussion, see infra Section V.C.
\item \textsuperscript{55} Kavanagh et al., supra note 29, at 387.
\item \textsuperscript{56} Id.
\item \textsuperscript{57} Id.
\item \textsuperscript{58} George J. Annas, \textit{The Patient’s Right to Safety—Improving the Quality of Care Through Litigation Against Hospitals}, 354 NEW ENG. J. MED. 2063, 2063 (2006).
\item \textsuperscript{59} Jack Needleman et al., \textit{Nurse Staffing in Hospitals: Is There a Business Case for Quality?}, 25 HEALTH AFFAIRS 204, 205 (2006). Studies have found that “approximately 1 in 7 hospitalized patients is harmed by an adverse event, and 44 to 66 percent of these events were judged as preventable.” Kavanagh et al., supra note 29, at 386.
\item \textsuperscript{60} Needleman et al., supra note 59, at 205.
\end{itemize}
Researchers found that although U.S. hospitals could save as much as $5.8 billion by avoiding adverse events through improvements in nurse staffing, the cost of increasing nurse staffing to achieve these outcomes could total as much as $8.5 billion. Because the net cost for hospitals would increase, the conclusion drawn was that the cost effectiveness of improving nurse staffing depends on the value that society places on avoidance of death and medical complications. It is safe to say that for society as a whole, “the value of lives saved and adverse events foregone” justifies more nursing staff, but “the business case for hospitals [has been] harder to make.”

This problem is exacerbated by a payment model that reimburses hospitals based solely on the volume of services provided rather than the quality of patient outcomes. While Medicare, state Medicaid programs, and many private sector health plans are moving rapidly to change payment systems to reward quality, reimbursement based on volume remains widespread. Without financial benefit for improved outcomes, hospitals have a tangible disincentive to increase nurse staffing.

IV. THE ACA AND NURSE STAFFING

Although the United States spends more on health care than any other nation, it “continues to perform poorly in health care quality when compared with other industrialized nations.” The ACA, signed into law by President Barack Obama on March 23, 2010, addresses this disparity by incentivizing hospitals to improve their quality of care and to work toward lowering health care costs.

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61. Id. at 207. A similar study found that the savings could total $6.1 billion, but at an estimated cost of $11 billion in labor costs. Kavanagh et al., supra note 29, at 388.
62. Needleman et al., supra note 59, at 205.
63. Kavanagh et al., supra note 29, at 388.
64. Kane et al., supra note 1, at 1202.
65. Testimony of Patrick Conway M.D. on U.S. Efforts to Reduce Healthcare-Associated Infections, U.S. DEP’T OF HEALTH & HUM. SERVS. (Sept. 24, 2013), http://www.hhs.gov/asl/testify/2013/09/20130924.html (“In the past, hospitals had little financial incentive to improve the quality of their care because Medicare and other purchasers paid hospitals for treating infections or errors even when they could have been prevented.”).
66. Id.
67. Needleman et al., supra note 59, at 205.
68. Kavanagh et al., supra note 29, at 385.
While the ACA does not go as far as directly mandating improvements in nurse staffing, it does authorize the Centers for Medicare and Medicaid Services (“CMS”) to implement three different programs that link hospital reimbursements to patient outcomes: the Hospital Readmissions Reduction Program, the Value-Based Purchasing Program, and the Hospital-Acquired Conditions Reduction Program. As discussed below, the particular quality goals that these programs emphasize are closely linked to the care that nurses provide. Thus, CMS’s financial incentives may indirectly encourage hospitals to increase nurse staffing in their facilities.

A. Hospital Readmissions Reduction (HRR) Program

The HRR Program reduces Medicare payments to hospitals with excess patient readmissions. The reasons that a patient might be readmitted to a hospital after a recent discharge “are multifactorial and influenced by complex and interacting comorbidities.” Nevertheless, readmissions that occur within thirty days of discharge are deemed “preventable and considered failures” of the health care process. In 2003–2004, thirty-day readmissions occurred for one in five Medicare patients, costing an estimated $15 billion.

Three of the most common and expensive conditions for which Medicare beneficiaries are readmitted are acute myocardial infarction (“AMI”), heart failure (“HF”), and pneumonia (“PN”). The HRR Program penalizes hospitals by reducing repayments for excess readmissions of Medicare patients with any of these conditions.

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71. Yakusheva, supra note 8, at 1.
72. See Matthew D. McHugh et al., Hospitals with Higher Nurse Staffing Had Lower Odds of Readmissions Penalties Than Hospitals with Lower Staffing, 32 HEALTH AFFAIRS 1740, 1745 (2013) (noting that hospital quality improvement interventions are dependent on and often carried out by nurses).
73. Conway, supra note 65.
74. Marianne E. Weiss et al., Quality and Cost Analysis of Nurse Staffing, Discharge Preparation, and Postdischarge Utilization, 46 HEALTH SERVS. RES. 1473, 1475 (2011).
75. Id.
76. Id. at 1474.
77. Kavanagh et al., supra note 29, at 388.
78. Commonly known as a heart attack.
79. Conway, supra note 65.
In 2014, “2,638 out of 3,476 participating hospitals were penalized for excess readmissions,” with the average penalty amounting to $34,650 per 1,000 Medicare discharges.81 CMS’s focus on reducing thirty-day readmissions implicates nurse staffing because nurses are an integral part of the discharge process, and “poor discharge preparation contributes to readmissions.”82 Nurses are often the ones planning a patient’s discharge, coordinating care, educating the patient and his or her family members about care at home, and following up to ensure no problems are overlooked and no questions are left unanswered.83 Truly effective discharge preparation “goes beyond basic information-giving, to planning and problem solving for self-care management in the home after discharge.”84 As such, the success of any readmission prevention program will likely “depend on having sufficient well-trained nurses to implement it.”85

In fact, research confirms this. One study focused on nurse staffing as a system factor through which hospital administrators might reduce the likelihood of being penalized under the HRR Program.86 Researchers found that hospitals with higher nurse staffing had twenty-five percent lower odds of being penalized than similar hospitals that were less well staffed.87 The study, therefore, “strongly supports the idea that nurse staffing is one key component of health care delivery that hospitals can address to both improve patient outcomes and reduce the likelihood of being penalized for excessive readmissions.”88

B. Hospital-Acquired Conditions Reduction (HACR) Program

The HACR Program reduces payments to hospitals with the

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80. As of October 1, 2012, hospitals with excess readmissions were penalized up to three percent of their aggregate operating base payments for all Medicare discharges. Yakusheva, supra note 8, at 2.
81. Id.
82. Weiss et al., supra note 74, at 1475.
84. Weiss et al., supra note 74, at 1488.
85. McHugh et al., supra note 72, at 1745.
86. Id. at 1746.
87. Id. at 1742.
88. The lead author of the study explained that it is “rather intuitive that when [nurses] have adequate staffing and resources to carry out [their discharge duties] properly, readmission rates decline.” Boosting Nurse Staffing Levels Could Reduce Readmissions, supra note 83.
highest rates of hospital-acquired conditions ("HACs"). HACs are patient conditions that develop in the hospital and that were not present at the time of admission. Healthcare-acquired infections ("HAIs") are a type of HAC that is associated with morbidity, mortality, and enormous costs to health care facilities. The Centers for Disease Control and Prevention ("CDC") estimates that roughly two million HAIs occur each year (one in twenty patients), resulting in approximately $40 billion in excess health care costs and as many as 99,000 deaths annually.

The HACR Program currently tracks two types of HAIs: Catheter-Associated Urinary Tract Infections and Central Line-Associated Blood Stream Infections. The program incentivizes hospitals to reduce the occurrence of these HAIs in their facilities by first assigning them a total HAC score, and then reducing payments to the lowest-performing facilities. Hospitals with the highest scores face a one percent reduction in their total payment amount, or approximately $55,000 per 1,000 Medicare discharges. In 2015, 721 of 3,284 participating hospitals were penalized an aggregate penalty of over $330 million.

1. Catheter-Associated Urinary Tract Infections (CAUTI)

Between fifteen and twenty-five percent of patients receive urinary catheters during their hospital stay. Occasionally, these

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89. Conway, supra note 65.
90. Id. Examples of HACs, which CMS has determined should never occur in hospitals, are pressure ulcers, falls with injury, and healthcare-acquired infections. Peter I. Buerhaus et al., Registered Nurses’ Perceptions of Nurse Staffing Ratios and New Hospital Payment Regulations, 27 NURSING ECON. 372, 372 (2009).
92. Kavanagh et al., supra note 29, at 387.
95. Yakusheva, supra note 8, at 2.
96. The total HAC score can range from one to ten, with a higher score indicating poorer performance. The score is based on two domains: (1) hospitals’ rates of selected HACs; and (2) hospitals’ Agency for Healthcare Research and Quality ("AHRQ") Patient Safety Indicator ("PSI") score. Id.
97. Conway, supra note 65.
98. Yakusheva, supra note 8, at 2.
99. Id.
100. A urinary catheter is a flexible plastic tube used to drain urine from the bladder. Care for an Indwelling Urinary Catheter, UW HEALTH, http://www.uwhealth.org/health/topic/special/
catheters introduce bacteria into the urinary system, which can lead to complications like increased length of stay, patient discomfort, and mortality.102

CAUTI accounts for forty percent of all HAIs, with an estimated 560,000 cases occurring annually.103 Moreover, they result in approximately $425 million in excess health care costs and 13,000 deaths a year.104 Though preventing CAUTI used to be a relatively low priority in acute care hospitals, the HACR Program has “spurred hospitals into action,” challenging them to implement prevention practices.105 Still, one recent survey indicates that “no single strategy [is] widely used across hospitals to prevent these infections.”106

Nurses are frequently responsible for the insertion and management of urinary catheters.107 Though not all CAUTIs can be prevented, it is believed that a large number could be avoided with proper catheter management.108 Just as nurses need time to properly prepare a patient for discharge, they need time to correctly insert catheters, provide continued catheter care, and educate the patient about minimizing the risk of developing a CAUTI.109

A study by the American Nurses Association examined more than nine million patients in almost 1,000 hospitals, and found that rates of hospital-acquired urinary tract infections were “markedly lower with higher levels of nursing involvement in patient care.”110 Another study found that increasing a nurse’s workload by one patient was associated with increases in urinary tract infections.111
2. Central Line-Associated Blood Stream Infections (CLABSI)

Central lines are long, flexible catheters that thread into a large vein leading to the heart, through which hospital staff can administer medication, nutrition, fluid, and blood to patients.\footnote{Id.} Nurses often access central lines multiple times a day, and each time there is a risk of introducing bacterial contamination “unless the strictest sterile conditions are observed.”\footnote{Id.} If bacteria is introduced, the “central line’s biggest virtue—the ability to spread its cargo throughout the body quickly—becomes its biggest vice,” and can lead to a bloodstream infection.\footnote{Id.} Though CLABSI accounts for just fifteen percent of all hospital infections, they are responsible for at least thirty percent of the 99,000 annual HAI-related deaths.\footnote{Id.}

Nurses are uniquely positioned to influence the prevention of CLABSI.\footnote{Id.} Effective prevention includes performing hand hygiene before and after accessing a central line, disinfecting skin with the proper antiseptic, and using a particular type of sterile dressing at the insertion site.\footnote{Id.} Most nurses know the importance of these prevention strategies, but heavier workloads contribute to poor compliance.\footnote{Id.}

As nurses are heavily involved in the insertion and care of both urinary catheters and central lines, adequate staffing is crucial to reducing instances of CAUTI and CLABSI and to avoiding penalties under the ACA.

C. Value-Based Purchasing (VBP) Program

The VBP Program\footnote{See Patient Protection and Affordable Care Act, Pub. L. No. 111-148 § 3001(a), 124 Stat. 119 (2010).} rewards hospitals with incentive payments, based on either how well the hospitals perform on certain quality measures or how much they improve from their baseline performance.\footnote{See Cooper, supra note 103, at 66.} There are two phases of the VBP Program. First, all
hospitals’ base operating Medicare payments are reduced by 1.75 percent in 2016 to create an aggregate incentive payment pool. Second, the payment pool is redistributed to hospitals based on total performance scores (“TPS”) that reflect hospital quality. The TPS is based on nineteen different performance measures in four separate domains: Clinical Process of Care, Patient Experiences, Outcomes and Safety, and Efficiency. As discussed below, most of these domains address goals that are closely linked to nursing processes.

1. The Clinical Process of Care Domain

The clinical process of care domain is calculated using quality measures that encompass five clinical areas where CMS is focused on improving care: AMI, HF, PN, HAI, and surgical care improvement. Research shows that better nurse staffing is associated with improvements in many of these categories, such as decreasing rates of HAI, PN, and post-operative infection, as well as improving outcomes for patients with AMI. Thus, strategies for hospitals to secure the VBP Program’s incentive payments under the ACA will likely require ensuring that nurses are assigned an appropriate number of patients.

2. The Patient Experience Domain

The patient experience domain is based on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey. HCAHPS is a national, standardized survey

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121. Id. The reduction will increase to two percent for 2017 and subsequent years. Id.
122. Id.
123. Id.
124. Hospital Value-Based Purchasing, MEDICARE.GOV, https://www.medicare.gov/hospitalcompare/Data/hospital-vbp.html (last visited Jan. 9, 2017). The set of measures included in each of the domains is evolving, as are domains themselves, to gradually place more emphasis on patient experiences, outcomes, and efficiency of care, and less emphasis on the process of care measures. Id.
126. Kavanagh et al., supra note 29, at 386.
127. Executive Summary: Nurse Staffing and Patient Outcomes in the Inpatient Hospital Setting, supra note 110.
128. Id.
129. The Center for Outcomes and Effectiveness Research found that “only 86 to 91 percent of patients admitted after suffering from an AMI died in a hospital with adequately staffed nurses, but 94 to 100 percent died when nurses were understaffed.” Stampalia, supra note 6, at 184–85.
130. Patient and Caregiver Centered Experience of Care/Care Coordination Domain, MEDICARE.GOV, https://www.medicare.gov/HospitalCompare/Data/patient-and-caregiver-center
that asks adult patients about their experiences during recent hospitalizations, and touches on eight different aspects of hospital quality, including communication with nurses, responsiveness of hospital staff, pain management, communication about medication, and discharge information.\textsuperscript{131} As the front-line interface with patients, nurses have a direct impact on these aspects of care.\textsuperscript{132} Therefore, it is no surprise that patient-reported satisfaction is higher in hospitals with more favorable nurse-to-patient ratios.\textsuperscript{133}

One study examined how nursing and patient satisfaction correlated across 430 hospitals and found that the “nurse work environment was significantly related to all HCAHPS patient satisfaction measures.”\textsuperscript{134} Moreover, researchers found that nurse-to-patient workloads were “significantly associated with patients’ ratings and recommendation of the hospital to others.”\textsuperscript{135} These findings support the notion that investment in nursing is a promising strategy for improving hospital performance as measured by patient satisfaction.\textsuperscript{136}

3. The Outcome Domain

The outcome domain measures a broad set of health care activities that affect patient wellbeing.\textsuperscript{137} Patients who received high-quality care during their hospitalization will likely have improved outcomes, including survival, functional ability, and quality of life.\textsuperscript{138} This domain focuses, in part, on the thirty-day mortality rate\textsuperscript{139} for patients admitted with AMI, HF, and PN.\textsuperscript{140} As previously noted, University of Pennsylvania researchers found that each additional patient assigned to a nurse was associated with a seven percent increase in the likelihood of dying within thirty days of admission.\textsuperscript{141}

\textsuperscript{131}Id.
\textsuperscript{132}Id.\textsuperscript{,} Weiss et al., supra note 74, at 1475.
\textsuperscript{133}Ann Kutney-Lee et al., Nursing: A Key to Patient Satisfaction, HEALTH AFF. (June 12, 2009), http://content.healthaffairs.org/content/28/4/w669.full.html.
\textsuperscript{134}Id.
\textsuperscript{135}Id.
\textsuperscript{136}Id.
\textsuperscript{138}Id.
\textsuperscript{139}Id. Mortality rate is measured by whether a patient with an AMI, HF, or PNA died within 30 days of hospitalization. Id.
\textsuperscript{140}Id.
\textsuperscript{141}Aiken et al., supra note 2, at 1987.
Another study, which found that nurse staffing levels were predictors of thirty-day mortality, determined that a ten percent increase in nurse-reported adequacy of staffing and resources was associated with seventeen fewer deaths for every 1,000 discharged patients.142

Each of the foregoing domains contributes to a hospital’s TPS, and the higher the TPS, the higher its incentive payment will be for the subsequent fiscal year.143 In 2014, the HVBP Program redistributed an estimated $1.1 billion to hospitals nationwide based on their quality performance.144

With financial incentives now in play for many hospitals, there is hope that administrators may attempt to achieve the ACA’s quality goals through improvements in their nurse-staffing plans. However, it remains unclear whether CMS reimbursements will be enough to overcome the cost of increasing the nurse workforce to make these changes financially worthwhile for a hospital. With the ever-present emphasis on profit margins, it seems unlikely that U.S. hospitals will ever voluntarily swallow an $8.5 billion pill, even if doing so would significantly increase patient safety.145

The ACA’s emphasis on quality over quantity is undoubtedly an important step toward improving health care for patients. Still, it requires hospital administrators to make an inferential step between nurse staffing and patient quality without guaranteeing economic benefit. In light of hospitals’ history of resisting improved nurse staffing plans, federal legislation is necessary to guarantee that the issue is properly addressed.

V. PROPOSAL

Federally mandated minimum nurse-to-patient ratios will mitigate the disparity in health care quality and foster a minimum standard of safety nationwide.146 As discussed below, the Nurse

143. Conway, supra note 65. The highest performing hospitals can earn up to twice the amount of the reduction, that is, three percentage points (from -1.5 to 1.5 percent). Yakusheva, supra note 8, at 1.
144. Conway, supra note 65.
145. See Needleman et al., supra note 59, at 207.
146. Tort litigation is another method of regulating healthcare quality. Annas, supra note 58, at 2063. While extensive discussion of regulation through litigation is beyond the scope of this note, some jurisdictions have found hospitals liable for negligence based on inadequate staffing. Julie Marie Bessette, An Analysis in Support of Minimum Nurse-to-Patient Ratios in Massachusetts, 9 QUINNIPIAC HEALTH L.J. 173, 186–88 (2006). One barrier to widespread
Staffing Standards for Patient Safety and Quality Care Act ("Quality Care Act"), introduced in the House of Representatives on March 25, 2015, provides a foundational template for successful implementation of nurse staffing ratios.\textsuperscript{147} Yet it requires two important adjustments to set forth a truly workable solution. First, the bill’s staffing numbers should be adjusted to align with the California ratios to create a realistic floor for hospital staffing. Second, the bill should incorporate certain aspects of the Registered Nurse Safe Staffing Act of 2015 ("Safe Staffing Act"), introduced in the House of Representatives on April 29, 2015.\textsuperscript{148}

A. The Quality Care Act as a Template

The Quality Care Act would amend the Public Health Service Act to establish nationwide minimum nurse-to-patient ratios.\textsuperscript{149} The bill seeks to require hospitals to implement and submit to the Department of Health and Human Services ("HHS") a staffing plan that complies with minimum ratios by specialty, as in California.\textsuperscript{150}

The Quality Care Act contains several provisions that are necessary for any successful federal nurse-staffing legislation. First, it adjusts Medicare payments to hospitals to cover additional costs on this issue is the difficulty of proving causation between the injury and the alleged understaffing. See id. at 188–89.


incurred from increasing nursing staff to comply with the ratio mandate.\textsuperscript{151} As previously noted, this financial burden on hospitals will also be lessened by avoidance of adverse events associated with poor staffing.\textsuperscript{152}

Second, the bill protects nurses by allowing them to refuse to participate in any assignment that would violate the minimum ratios or compromise the safety of a patient.\textsuperscript{153} It also prohibits hospitals from taking action against a nurse based on his or her refusal to accept an assignment for such a reason.\textsuperscript{154}

Third, the Quality Care Act addresses the issue of nurse education and retention.\textsuperscript{155} It adds stipends to the nurse workforce loan repayment and scholarship program and expands the nurse retention grant program to implement nurse preceptor and mentor projects.\textsuperscript{156} Pairing the mandate with incentives to “increase the pool of available registered nurses in the workforce” is vital to the sustainability of mandated ratios.\textsuperscript{157}

Finally, the bill contains a clause requiring hospital-staffing ratios to be transparent and available for public inspection.\textsuperscript{158} This will not only facilitate regulation by HHS, but also allow the general population to make more informed decisions when choosing a hospital. Each of the foregoing provisions of the Quality Care Act addresses important aspects of federal nurse-staffing legislation and should remain part of the bill. The numerical ratios, however, require adjustment.

\textbf{B. Aligning with the California Ratios}

Although the Quality Care Act is modeled after California law, it requires hospitals to staff with one to two fewer patients per nurse than in California on several specialty floors. The table below highlights some discrepancies:

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\textsuperscript{151} The Nurse Staffing Standards for Patient Safety and Quality Care Act, H.R. 1602, 114th Cong. § 3404 (2015).
\textsuperscript{152} Needleman et al., \textit{supra} note 59, at 207.
\textsuperscript{153} The Nurse Staffing Standards for Patient Safety and Quality Care Act, H.R. 1602, 114th Cong. § 3405 (2015).
\textsuperscript{154} \textit{Id.}
\textsuperscript{155} \textit{Id.} at Section 4.
\textsuperscript{156} \textit{Id.}
\textsuperscript{157} See McHugh et al., \textit{supra} note 36, at 179.
\textsuperscript{158} The Nurse Staffing Standards for Patient Safety and Quality Care Act, H.R. 1602, 114th Cong. § 3401(c)(4) (2015).
<table>
<thead>
<tr>
<th>Hospital Unit</th>
<th>Proposed in the Quality Care Act</th>
<th>Mandated in California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric Service Unit</td>
<td>1:3</td>
<td>1:4</td>
</tr>
<tr>
<td>Antepartum Unit</td>
<td>1:3</td>
<td>1:4</td>
</tr>
<tr>
<td>Emergency Room Services</td>
<td>1:3</td>
<td>1:4</td>
</tr>
<tr>
<td>Postpartum Services</td>
<td>1:6 (three mother/baby couplets)</td>
<td>1:8 (four mother/baby couplets)</td>
</tr>
<tr>
<td>Psychiatric Services</td>
<td>1:4</td>
<td>1:6</td>
</tr>
<tr>
<td>Telemetry Unit</td>
<td>1:3</td>
<td>1:5 for the first three years; 1:4 thereafter</td>
</tr>
<tr>
<td>Medical/Surgical Unit</td>
<td>1:4</td>
<td>1:6 for the first year; 1:5 thereafter</td>
</tr>
</tbody>
</table>

While the number of patients assigned to each nurse has an undeniable impact on the quality of patient outcomes, in the complex healthcare field, many other factors are also at play. The key to successful federal legislation on this issue is the advocacy of minimum nurse-to-patient ratios that ensure a baseline level of quality while still allowing hospitals the flexibility to adjust staffing plans around unit-specific variables.

The Quality Care Act’s proposed ratios do not realistically give hospitals this leeway. Accordingly, the bill should adopt the numbers set forth in California’s legislation—which have proved sufficient—rather than attempt to achieve ratios that are too idealistic.

There are two additional aspects of the California law that

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159. Id. at § 3401(b)(1).
160. 22 C.F.R. § 70217(a) (2013).
161. For example, severity of illness, treatment requirements, experience of staff, and family situation/needs. Kathy Douglas, Ratios—If It Were Only That Easy, 28 NURSING ECON. 119, 122 (2010).
162. See Stampalia, supra note 6, at 180 (supporting the Quality Care Act because “fixed nurse-to-patient ratios must be implemented,” rather than emphasizing more flexible, minimum ratios).
should be integrated into the federal legislation. First, it provides that a rural hospital may apply for and be granted flexibility in adhering to certain aspects of the law. Expanding on this safeguard at the federal level would ensure that a “one size fits all” approach is not forced upon every hospital regardless of its patient population. Second, the California law phases the desired ratios in over time, rather than requiring instantaneous adjustment by hospitals. This mechanism provides a more realistic and workable approach for implementing a staffing mandate.

C. Incorporating the Safe Staffing Act

The Quality Care Act and the Safe Staffing Act both seek to protect patients by improving nurse staffing in hospitals. While the Quality Care Act accomplishes this through mandated ratios, the Safe Staffing Act does so by requiring each Medicare-participating hospital to establish an internal committee to implement a nurse-staffing plan. The plan must ensure that “an appropriate number of registered nurses provide direct patient care in each unit.” Additionally, at least fifty-five percent of each committee must be composed of “registered nurses who provide direct patient care but who are neither hospital nurse managers nor part of the hospital administration staff.”

The concept behind this legislative model is that it empowers nurses at the local level to make their own staffing decisions. Those who support this bill over the Quality Care Act believe that its approach better accounts for variables specific to individual hospital units, such as the “intensity of patients’ needs, the number of admissions, discharges and transfers during a shift, [the] level of experience of nursing staff, [the] layout of the unit, and [the] availability of resources.” Although it is necessary to address these factors in staffing decisions, it is unlikely that the underlying issue can be remedied solely by requiring hospitals to have staffing


166. Id.

167. Nurse Staffing, supra note 27.

168. Id.
committees. After all, “if hospitals could be trusted to enforce safe, effective levels of staffing by internal committees,” there would likely be no staffing problem in the first place.169

Ultimately, achieving the ACA’s health care quality goals is best accomplished by applying the Quality Care Act and the Safe Staffing Act in tandem. The Quality Care Act’s nurse-to-patient ratios (adjusted to match the California law) establish a much-needed minimum standard of care nationwide. Directly mandating minimum ratios provides a bright-line rule free of the bureaucracy of a committee comprised of both staff nurses and hospital administrators. As in California, the goal would be to “remediat[e] ‘the hospitals with the leanest staffing, effectively raising the bar for the standard of acceptable staffing.’”170

The Safe Staffing Act’s committees would further this goal by providing continued oversight to ensure that hospitals do not halt staffing efforts once the minimum ratios are met. Starting from a legislated baseline, committee members could tailor staffing numbers to the needs of each individual hospital unit to achieve the highest quality of care possible, and secure the ACA’s incentive payments.

In sum, while the Quality Care Act would accomplish what the ACA did not—mandating minimum nurse-to-patient ratios—the staffing numbers it proposes are likely impractical. Adjusting these numbers to align with the California ratios would establish a minimum quality standard that is more flexible to the needs of individual hospitals. With this floor in place, committees in each facility could incorporate other factors into the staffing plan, as well as reinforce compliance with the minimum ratios.

VI. OPPOSITION TO NURSE-TO-PATIENT RATIO LEGISLATION

Strong evidence and demonstrated benefits notwithstanding, four arguments are commonly raised in opposition to a nurse-to-patient ratio mandate: the supply and demand for nurses, the importance of nurse autonomy in staffing decisions, the impact on nurse care mindset, and the rigidness of a single standard.

First, opponents argue that mandated ratios would cause the demand for nurses to outweigh the supply, leaving hospitals unavoidably in violation of the law. In California, however, “the

169. Stampalia, supra note 6, at 196–97.
170. McHugh et al., supra note 35, at 1304.
number of RNs has grown at nearly five times the rate predicted by the Board of Registered Nursing” since the ratio mandate was implemented.\textsuperscript{171} In fact, the law is “credited with helping to close the nursing shortage.”\textsuperscript{172} This is likely in part because nurses are more willing to work in hospitals that do not overload them with patients.\textsuperscript{173} One study found that “[t]he higher the proportion of nurses in hospitals whose patient assignment is in compliance with [the California law], the lower nurse burnout and job dissatisfaction . . . and the less likely nurses are to intend to leave their jobs.”\textsuperscript{174} Moreover, funding nurse education and retention initiatives and ensuring that the ratios are phased in over time will likely minimize this issue.

The second argument is that federal legislation would remove the voice of the nurse in staffing decisions,\textsuperscript{175} taking away his or her authority and responsibility.\textsuperscript{176} One flaw in this argument is that staff nurses are likely not making autonomous staffing decisions in the first place.\textsuperscript{177} It is more probable that nurse managers and hospital administrators, in spite of competing budgetary priorities, are the ones tasked with these determinations.\textsuperscript{178}

Moreover, as there is evidence that a majority of staff nurses support mandated nurse-to-patient ratios,\textsuperscript{179} it appears that the voice of the nurse is, in fact, calling for federal legislation. With one study concluding that sixty-two percent of nurses believed minimum nurse-

\footnotesize{\textsuperscript{171} Stampalia, supra note 6, at 201 n.192.  
\textsuperscript{173} \textit{HEALTH LAW HANDBOOK} § 11:6 (Alice G. Gosfield ed., 2005) (“RNs do not believe there is a shortage of nurses in the profession, but a shortage of nurses willing to work in hospitals because of understaffing.”); Bessette, supra note 146, at 215 (“Many nurses leave the profession because they are dissatisfied with working in understaffed environments.”).  
\textsuperscript{174} Aiken et al., supra note 42, at 918.  
\textsuperscript{175} Douglas, supra note 161, at 124.  
\textsuperscript{178} See Robbins, supra note 6 (“It’s not unusual for hospitals to intimidate nurses who speak up about understaffing . . . . It happens all the time, and nurses are harassed into taking what they know are not safe assignments.”).  
\textsuperscript{179} \textit{E.g.}, Buerhaus et al., supra note 90, at 374; Zimlich, supra note 172.
to-patient staffing ratios should be mandated, and another finding that ninety percent of nurses supported the ratios, those opposing mandated ratios may be stifling the very authority for which they claim to advocate.

Third is the argument that a system of mandated ratios would cause nurses to shift from a mindset focused on how to best improve care for each patient to a mindset preoccupied with whether their hospital was complying with the staffing ratio. On the contrary, it is likely that nurse-to-patient ratios would have the opposite effect. Improved nurse staffing would give nurses the time to be more autonomous, and exercise more decision-making authority in their daily practice. With four patients to care for instead of six, a nurse might be permitted to shift from a hurried, task-oriented work process to one that incorporates critical thinking and interventions for each unique patient, thereby elevating the standard of care for all.

Finally, opponents argue that a single standard is too rigid, and neither accounts for other staffing variables nor “allow[s] for adjustments as new research uncovers more” findings. However, as previously noted, it is important to recognize that the mandated ratios set forth the maximum number of patients that may be concurrently assigned to a nurse. Thus, the ratios would create a minimum standard of patient safety, which each hospital could upwardly adjust based on factors particular to their institution.

Furthermore, the benefits of improved staffing should not be disregarded merely because research has not determined the optimal ratio—appropriate numbers can nevertheless be selected. There is evidence that many hospitals already employ similar nurse-to-patient ratios on certain floors. For example, “[m]ost [Intensive Care Units] in the United States adhere to an unofficial staffing guideline of two patients per nurse.” The consensus surrounding nurse-to-patient ratios for certain units, as well as the fact that over a decade of research exists to help inform the federal decision, should

180. Buerhaus et al., supra note 90, at 374.
181. Zimlich, supra note 172.
182. Douglas & Kerfoot, supra note 176, at 171.
183. Douglas, supra note 161, at 123.
185. Kelly et al., Impact of Critical Care Nursing on 30-Day Mortality of Mechanically Ventilated Older Adults, 42 CRITICAL CARE MEDICINE 1094 (2014).
186. Id.
minimize the fear that the ratios will be arbitrary.

Accordingly, the foregoing arguments against federally mandated ratios are either unfounded or unconvincing, particularly when considered against the broader backdrop of this nation’s health care quality gap and the dire need for staffing reform.

VII. CONCLUSION

There is a great deal riding on effective nurse staffing, as the issue “impact[s] almost every aspect of the performance of a health care organization from quality and safety to operational and financial performance.”187 Authoritative research supports the fact that strengthening nurse staffing improves quality of care. Nevertheless, many hospitals have not implemented lower nurse-to-patient ratios because there is no law requiring them to do so, and the cost is not conducive to their bottom line.

New programs under the ACA that shift the focus from volume-based to value-based reimbursements are promising for the future of health care quality. Moreover, these programs may have a positive impact on hospital administrators’ approach to nurse staffing. Yet, without federal legislation that speaks directly to this issue, it is unlikely that widespread change will be implemented.

Federally mandated minimum nurse to patient ratios will foster nationwide improvement in patient outcomes. The Quality Care Act provides a template, which should be tailored to match the California ratios and to incorporate the staffing committees proposed in the Safe Staffing Act. This will establish a floor for quality of care while allowing administrators the flexibility to integrate other hospital-specific variables into their staffing plan.

As the baby boomers age and access to health care expands, patient safety risks will only increase unless federal legislation directly addresses the nurse staffing issue and raises the national standard to a better, safer level. Every person is likely to be a patient someday,188 and all patients should have the comfort of knowing that their hospital places more value on human life than on its own bottom-line. Or, at the very least, patients should have the assurance that legislation is in place to safeguard a minimum quality standard in all hospitals.

188. Stampalia, supra note 6, at 207.