

Nursing + Finance – Putting the Pieces Together



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2083 - Registered Nurse Safe Staffing Act of 2015

Congress (2015-2016) | Sat Alerts

Hide Overview

Sponsor: Rep. Capos, Lou (D-CA-24) (Introduced 04/29/2015)

Committees: House - Energy and Commerce; Ways and Means

Latest Action: 05/01/2015 Referred to the Subcommittee on Health. (All Actions)

Tracker: Passed House Passed Senate To President

Produced

Became Law

Text (1) Actions (5) Titles (2)

2083 — 114th Congress (2015-2016)

More on This Bill

Constitutional Authority Statement

Subject — Policy Area: Health

View Subjects

The Association of Registered Nurse Staffing Levels and Patient Outcomes

Systematic Review and Meta-Analysis

Robert L. Kane, MD,* Tatyana A. Shamityan, MD, MS,* Christine Mueller, PhD, RN, Sue Duval, PhD,* and Timothy J. Wilt, MD, MPH†

Objective: To examine the association between registered nurse (RN) staffing and patient outcomes in acute care hospitals.

Study Selection: Twenty-eight studies reported adjusted odds ratios of patient outcomes in categories of RN-to-patient ratio, and met inclusion criteria. Information was abstracted using a standardized protocol.

Data Synthesis: Random effects models assessed heterogeneity and pooled data from individual studies. Increased RN staffing was associated with lower hospital related mortality in intensive care units (ICUs) [odds ratios (OR), 0.91; 95% confidence interval (CI), 0.86–0.96], in surgical (OR, 0.84; 95% CI, 0.80–0.89), and in medical patients (OR, 0.94; 95% CI, 0.94–0.95) per additional full time equivalent per patient day. An increase by 1 RN per additional full pneumonia (OR, 0.70; 95% CI, 0.56–0.88), unplanned extubation (OR, 0.49; 95% CI, 0.36–0.67), respiratory failure (OR, 0.40; 95% CI, 0.27–0.59), and cardiac arrest (OR, 0.72; 95% CI, 0.62–0.84) in ICUs, with a lower risk of failure to rescue (OR, 0.84; 95% CI, 0.79–0.90) in surgical patients. Length of stay was shorter by 24% in ICUs (OR, 0.76; 95% CI, 0.62–0.94) and by 31% in surgical patients (OR, 0.69; 95% CI, 0.55–0.86).

Conclusions: Studies with different design show associations between increased RN staffing and lower odds of hospital related mortality and adverse patient events. Patient and hospital characteristics, including hospitals' commitment to quality of medical care, likely contribute to the actual causal pathway.

Key Words: nursing staff, hospital, quality, length of stay, mortality, safety, failure to rescue

(*Med Care* 2007;45: 1195–1204)

Review Article

Nurses are crucial to providing high-quality care. Hospital restructuring in the last 2 decades has shortened hospitalizations of acutely ill patients, increasing the nurse-to-patient ratio as a means to improve patient safety.¹⁻⁹ California state that has mandatory nurse-to-patient ratio other states^{10,11} as well as all Medicare participating hospitals. However, these mandatory staffing ratios by evidence-based optimal nurse-to-patient ratios, and outcomes. These ratios have on the association between registered nurse-to-patient ratios, and outcomes. These ratios have different ways.¹⁴ One method uses a ratio of number of RNs per patient day, where Appendix A which can be found on the www.lww-medicalcare.com). This study research and Quality (AHRQ) to examine hospitals. The full report can be found at clinic/evrtpdfs.htm.

From the *University of Minnesota School of Public Health; †University of Minnesota School of Nursing; and ‡VA Medical Center, Minneapolis, Minnesota.

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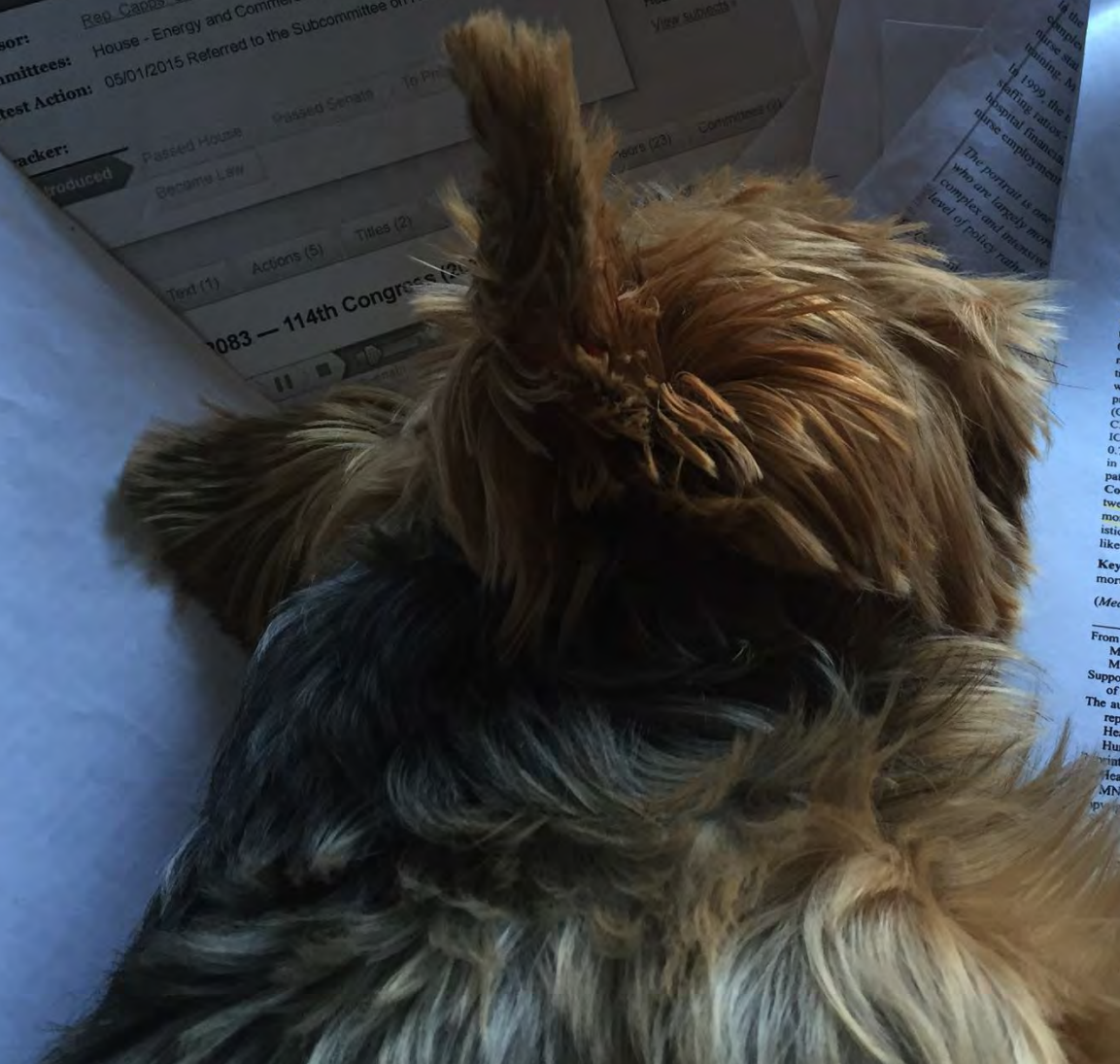
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Search Strategy

The systematic review protocol to the recommendations for Meta-Analyses in Epidemiology and Methodology (MOOSE) line, CINAHL, Cochrane database, American Nurses Association reports, American Nurses Association studies conducted in the United States investigated the association between patient outcomes. The search included keywords and their combinations: "staff, hospital," "nursing audit," "nursing education," "health care quality, access



Why is it Important

- * External Influence
- * Value added
- * Knowledge
- * Language
- * Collaboration

External Influences

- * **Affordable Care Act (2010)**

DSH payments, Access, DSRIP, Medicaid expansion (2014)

- * **Value Based Purchasing: (2012-2013)**

- HCAPHS: (pain, noise, responsiveness, discharge instructions) voice of the patient, publicly reported, perception of their care reimbursement is based on result
- Quality/Safety Domain: Pneumonia, AMI, Immunization, Heart Failure, Immunization, CAUTI, CLABSI, Falls with Injury, Readmissions, HAC

- * **Joint Commission**

- * **Department of Health (DOH)**

- * **Justice Center**

Objectives

- * Key finance term definitions
- * Understand types of budgets
- * Overview budget process
- * Understand the connection between budget, scheduling and staffing
- * Calculations: FTE, BRF/CF
- * Staffing guideline development
- * Identify factors that effect staffing

What is a Budget

- * A plan, a projection for a specified period of time, usually 1 year.
- * Procurement, allocation and management of resources.
- * Annual budgets usually do not change during the year

Types of Budgets

- * Revenue – income for exchange of services
- * Expense – cost of providing services
 - Operating – Salary/Supplies (OTPS)
- * Capital – large purchases, equipment, building projects, MRI

What is The Largest Component of a Hospital Budget ?

Med/Surg Supplies
Pharmaceuticals/Implants
Salaries /Fringe Benefits
Malpractice Insurance
Utilities

Operating Budget

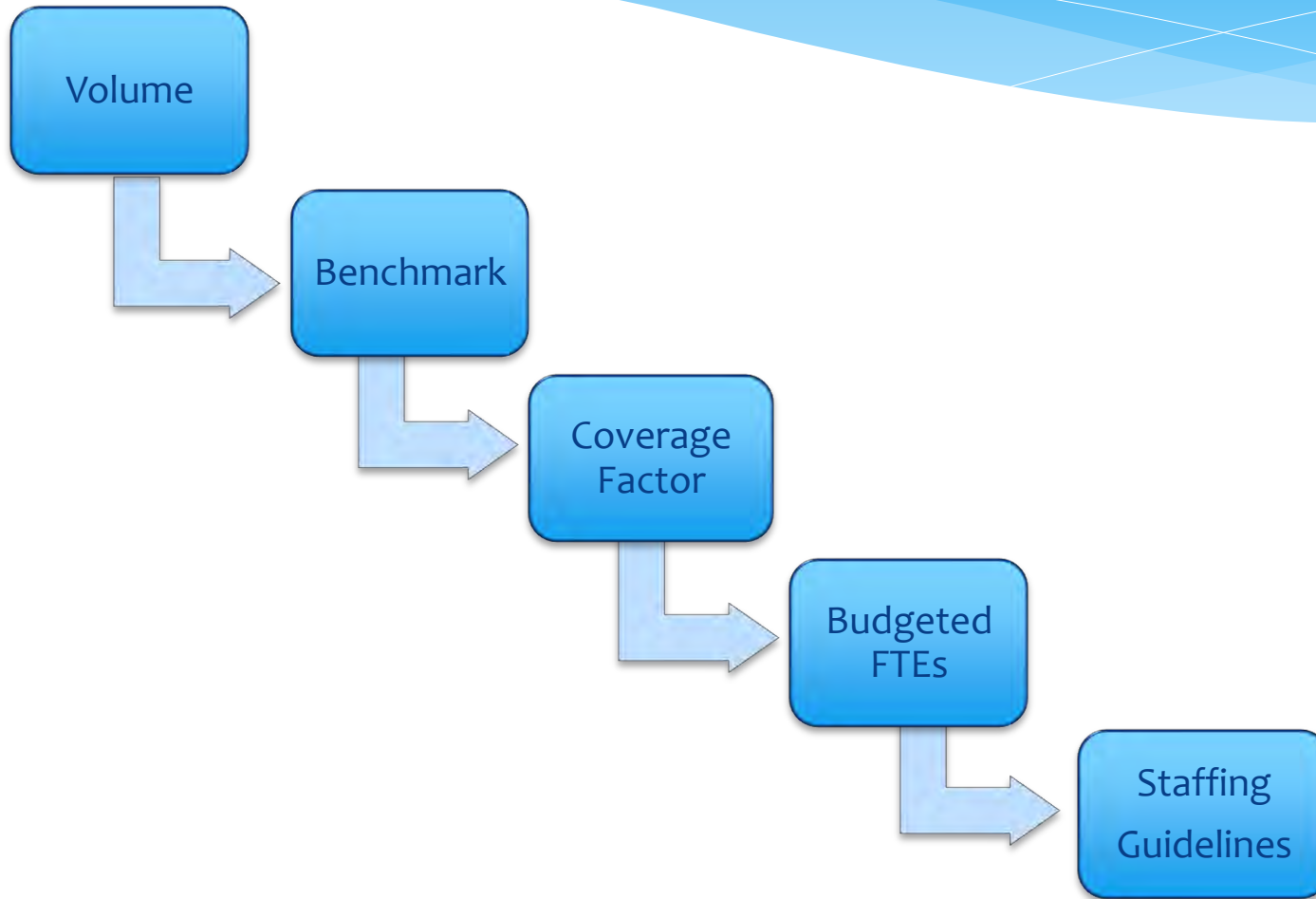
- * Labor is the largest component of hospital costs
60% of Total Operating Cost
- * Med Surg Supplies (OTPS)
- * Utilities, insurance



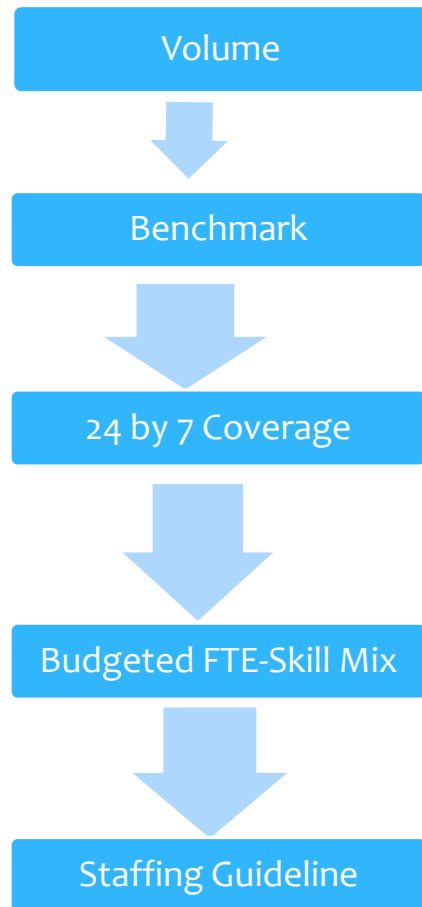
Financial Terms

- * **Cost Center**
- * **Average Daily Census (ADC)**
- * **Unit of Service**
- * **Hours per patient day (HPPD), RN and total caregivers**
- * **Full time Equivalent (FTE) 1950 paid hrs. per year**
- * **Benefit Relief Factor/Coverage Factor**
- * **Skill Mix**
- * **Productive/Non Productive Hours**
- * **Benchmark**

Salary FTE Budget Process



5 Salary Budget Elements



- * **Volume Metric** - average daily census, cases, visits, procedures
- * **Benchmark** – Hours Per Patient Day (HPPD) census units, Truven, Action OI
- * **BRF/CF** - additional FTEs to cover benefit time and days off
- * **Skill Mix** - Skill mix the % of licensed to non licensed personnel will vary by type of unit
- * **Staffing Guidelines** – number of staff per shift . Budget and guidelines should align

Benefit Relief/ Coverage Factor Calculation for 24/7 Unit

7.5 Hr. Shifts

Type	Hours	Days
Vacation	150	20
Holiday/PD	90	12
Sick	<u>90</u>	<u>12</u>
	330	44
Days Off	<u> </u>	<u>104</u>

Total non productive **148**

Days working: $365 - 148 = \mathbf{217}$

BRF/CF : $148/217 = \mathbf{.68}$

$330/1950 = \mathbf{16.9\%}$

12 Hr. Shifts

Type	Hours	Days
Vacation	150	12.7
Holiday/PD	90	7.5
Sick	<u>90</u>	<u>7.5</u>
	330	27.7
Days Off	<u> </u>	<u>208</u>

Total non productive **235.7**

Days working: $365 - 235.7 = \mathbf{129}$

BRF/CF : $235.7/129 = \mathbf{1.8}$

$330/1950 = \mathbf{16.9\%}$

Examples of FTE Calculations for 24/7 Unit

- * $ADC \times HPPD \times BRF / \text{Shift length}$
- * ICU – staffing 2 patients per RN
 - # patients / 2 = # RNs per shift x 2
 - # RNs in 24 hrs. x BR/CF
- * Determination of HPPD
 - $\text{Run Rate (FTE utilization)} / ADC / BRF * \text{Shift Length}$

Table Exercise - FTE Calculation 24/7 Patient Care Unit

- * ADC of 10
- * HPPD 12
- * BRF 2.8
- * Shift length 12 hrs.

-
- * ICU – staffing 2 patients per RN
patients/ 2 = # RNs per shift x 2
RNs in 24 hrs. x BR/CF

-
- * Determination of HPPD
Run Rate (FTE utilization) 28.0 FTEs
10 ADC
BRF 2.8
Shift Length 12 hrs

Determination of Staffing Guidelines

- * Known number of FTEs - divide by the BRF doubled
28 RN FTES budgeted / by 5.6 (2.8 x 2) = 5 per shift
- * Use HPPD as benchmark
- * Adjust for volume up and down, ADC, procedures
- * Peri Op, procedural areas adjust for break time
- * ED adjust staffing for higher volume times

Staffing Guidelines

Census Unit Staffing

Job Title	Day	Eve	Night	HPPD
RN	5		5	12.0

ED Staffing

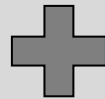
Job Title	Day	Eve	Night
Triage RN	1	2	1
Blue Team RN	2	3	2

Vacation Planning

Number of
nurses accruing
4 weeks of
vacation per
year



4



Number of
nurses accruing
5 weeks of
vacation per
year



5

of Weeks Available to Take Vacation

Factors Influencing Staffing

- * Balanced Schedule Preparation
 - Evenly planned vacations
 - Weekend scheduling
 - Seasonality
- * Fluctuating Volume – census, cases, visits
- * Patient needs, 1:1 coverage
- * Unplanned Absences – sick calls, LOAs, vacancies
- * Missed meal breaks
- * Incidental OT

Review of the Objectives

- * Key finance term definitions
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QUESTIONS



I'm A

Nurse

What's Your

Superpower

