

FILLING THE GAPS? NURSE STAFFING RATIOS IN THE U.S.

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Nursing Shortage

- National vacancy rate of 8.1%
 - ▣ 135,000 unfilled positions
- 55% of nurses will retire by 2020
- Shortage of 500,000 – 1 million nurses by 2020
- Causes: population growth, aging population, increased demand, shortage of graduates, shortage of educators, and closing of educational programs

State-Level Approaches



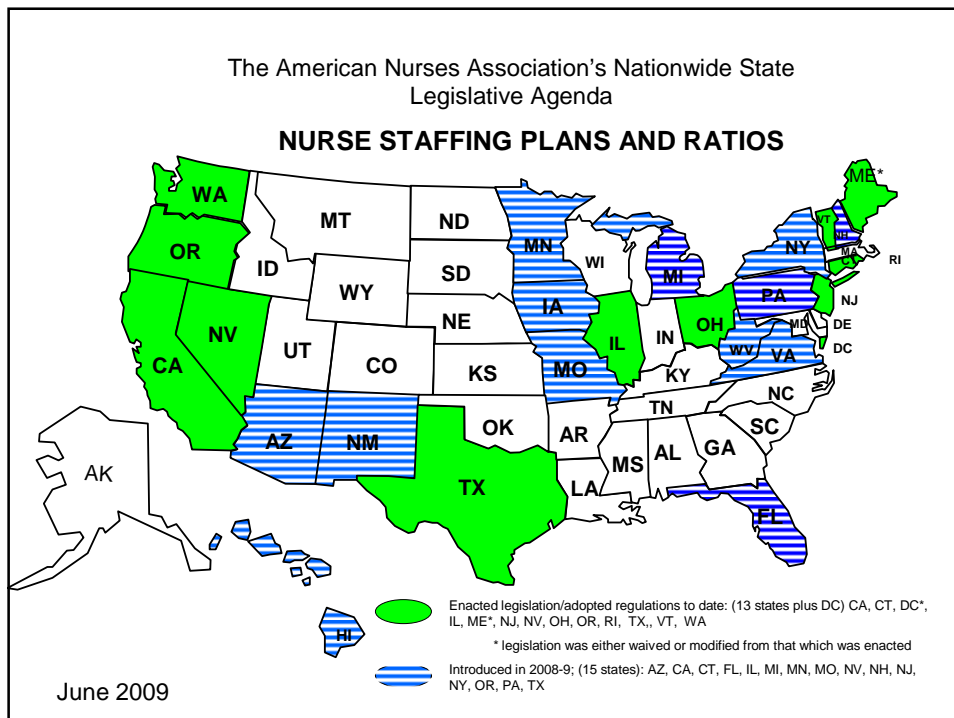
Thirteen states have adopted legislation or regulations to address nurse staffing. (ANA 2009)

State-Level Approaches

- Mandate specific nurse:patient ratios
 - ▣ CA, (FL), ME, DC*
- Require hospitals and other facilities to adopt nurse staffing plans
 - ▣ OH, CT, WA, OR, RI, TX, NV
 - ▣ Example: In Nevada, hospitals >70 beds must establish staffing committees, 50% nurses, to develop plans
- Require public disclosure of staffing levels
 - ▣ VT, NJ, IL
 - ▣ Example: Vermont's pt bill of rights allows pts to see hospital staffing ratios

State-Level Approaches - 2009

- Mandate specific nurse:patient ratios
 - ▣ AZ, FL, IL, NY, NV, CT
- Require hospitals and other facilities to adopt nurse staffing plans
 - ▣ TX, FL, NH, MA, PA, MI, MO
- Require public disclosure of staffing levels
 - ▣ MN, MO, NY



California's Nursing Shortage

- 585 nurses : 100,000 patients
 - ▣ National average: 798 : 100,000
- Non-cyclical shortage*
- State pop. predicted to increase 52% by 2025
 - ▣ Additional 110,000 RNs needed by 2010
 - ▣ Additional 25,000 LVNs needed by 2010
- Elimination of nurse education programs
 - ▣ Just 5,000 nursing graduates / year

California Assembly Bill 394

- First comprehensive legislation in U.S. to establish minimum nurse staffing levels
 - ▣ Ratios apply to all licensed nurses in acute care general hospitals
 - ▣ LVNs can't comprise >50% nurse workforce
 - ▣ Hospitals must be in "continuous compliance"
 - ▣ Nurse staffing ratios are considered minimum levels
 - ▣ DHS tasked with developing ratios

Assembly Bill 394

- Passed and signed into law 1999
- Ratios originally scheduled to take effect Jan 2001
 - ▣ 2000 law delayed date to Jan 2002
 - ▣ DHS finalized ratios Fall 2003
- Ratios scheduled to go into effect January 2004

Ratios

TABLE 18-2 California Minimum Licensed Nurse/Patient Ratios

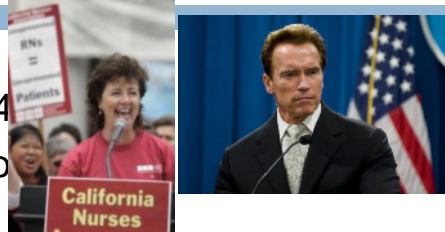
TYPE OF UNIT	RATIO IN 2004	RATIO IN 2005	RATIO IN 2008
Intensive or critical care	1:2	1:2	1:2
Neonatal intensive care	1:2	1:2	1:2
Operating room	1:1	1:1	1:1
Postanesthesia recovery	1:2	1:2	1:2
Labor and delivery	1:2	1:2	1:2
Antepartum	1:4	1:4	1:4
Postpartum couplets	1:4	1:4	1:4
Postpartum women only	1:6	1:6	1:6
Pediatrics	1:4	1:4	1:4
Emergency room	1:4	1:4	1:4
ICU patients in the ER	1:2	1:2	1:2
Trauma patients in the ER	1:1	1:1	1:1
Step-down	1:4	1:4	1:3
Telemetry	1:5	1:5	1:4
Medical-surgical	1:6	1:5	1:5
Other specialty care	1:5	1:5	1:4
Psychiatric	1:6	1:6	1:6

Sources: California Nurses Association, http://www.calnurses.org/nursing_practice/ratios/ratios_index.html; and Spetz, J. (2004). California's minimum nurse-to-patient ratios: The first few months. *Journal of Nursing Administration*, 34(12), 571-578.

Source: Spetz 2007

“Emergency” Regulations

- Implemented Nov 2004
- “At all times” clarification
 - CHA lawsuit
 - Initially, nurses on phone calls or restroom breaks had to be replaced by other staff (in effect late 04)
- Delayed time-line for lower ratios to go into effect
 - January 1, 2005 → January 1, 2008
 - Nurses protest



Current Ratios

Hospital Area	Old Ratio (2005)	New Ratio (2008)
Transitional units between ICU and general (aka step-down)	1:4	1:3
Telemetry	1:5	1:4
Specialty care (eg, cancer care)	1:5	1:4
Medical-surgical	1:6	1:5

Implementation

Increase the number of qualified nurses

- \$34 million allocated by Gov. Davis; additional \$30 million allocated by Gov. Schwarzenegger
- Expand nursing education
- Reduce attrition from nursing programs
- Hospitals and health care systems offered scholarships in exchange for service

Implementation

- Day-shift workers moved to night shifts
- Layoffs of patient care associates
- Traveler nurses converted to staff
- Foreign-born recruits
- Full-time recruiters hired

Implementation - Challenges

- 🖐️ ER wait times
 - ▣ ER patient traffic difficult to predict
 - ▣ Pts forced to wait so as not to exceed ER ratio
 - ▣ Pts held in ER until units had enough staff to meet ratios
- Surgical procedures referred to other hospitals
- Elective procedures rescheduled
- Night shifts difficult to fill

Challenges

Limited Enforcement

- DHS lacks resources to monitor / fine non-compliant hospitals
- State budget shortfalls → cutbacks on routine inspections
- Unions have voluntarily monitored compliance
 - ▣ LA nurses sued county
 - ▣ SD nurses filed complaints with DHS

Compliance - 2004

California Nurses Association:

- 59% of hospitals were *generally* in compliance

California Hospital Association:

- 89% of state hospitals have been out of compliance *at some point*

Compliance - 2004

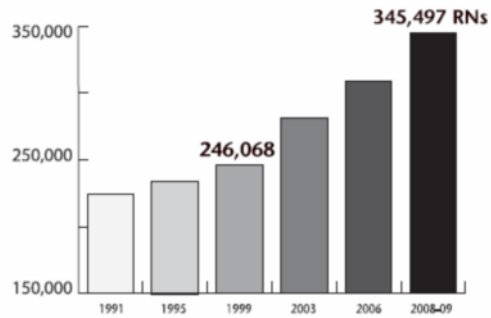
Conway PH et al. "Nurse Staffing Ratios: Trends and Policy Implications for Hospitalists and the Safety Net." J Hosp Med (2008)

- 84% of non-compliant hospitals were part of "hospital safety-net"
 - ▣ High proportion of uninsured / Medicaid patients
 - ▣ Government-owned
 - ▣ Non-teaching, urban

Compliance Today

Active RN Licenses

Nearly 100,000 New Licenses Since 1999



Source: www.calnurses.org

Compliance - Today

- All hospitals in CA compliant
- Role of economic recession

EXHIBIT 1

Annual Growth In Real Gross Domestic Product (GDP), National Unemployment Rates, And Annual Growth In Full-Time-Equivalent (FTE) Registered Nurse (RN) Employment, In Boom And Bust Periods, United States, 1981-2008

Years	Economic indicator		Annual growth in FTE RN employment	
	Annual growth in real GDP (%)	National unemployment rate (%)	All RNs (%)	Hospital RNs (%)
<u>1981-1983</u>	<u>1.7</u>	<u>8.4</u>	<u>1.6</u>	<u>3.5</u>
1984-1990	3.9	6.2	3.0	2.4
<u>1991-1992</u>	<u>1.6</u>	<u>7.1</u>	<u>3.4</u>	<u>5.0</u>
1993-2000	3.7	5.1	2.3	0.5
<u>2001-2003</u>	<u>1.6</u>	<u>5.5</u>	<u>4.9</u>	<u>5.0</u>
2004-2006	3.2	5.1	0.7	-0.9
<u>2007-2008</u>	<u>1.7</u>	<u>5.3</u>	<u>4.9</u>	<u>8.6</u>
<u>Bust average</u>	<u>1.6</u>	<u>6.6</u>	<u>3.6</u>	<u>5.3</u>
Boom average	3.7	5.5	2.3	1.0

SOURCE: Authors' calculations of data from the Current Population Surveys, 1980-2008, supplemented with data from the Bureau of Labor Statistics.

NOTE: Each entry represents the average over all years in the indicated range.

Beurhaus et al 2009

An ongoing debate

Nurses and labor unions say the ratios...

- Improve patient care
- Improve working conditions, leading to ↑ job retention, ↑ job applicants

Hospital industry says the ratios...

- Undermine hospital financial stability
- Limit access to care
- Force cutbacks on services
- Close units and even some hospitals

An ongoing debate

Pros

- Reverses nursing shortage
- Workforce stability
- Simple implementation
- Ensures compliance
- Studies link lower ratios to better care*

Cons

- Lack of evidence
- Inflexibility
- Obsolescence
- Difficult to enforce
- Costly – eg., no increase in reimbursement

Evidence of Success?

Aiken L et al, “Hospital Nurse Staffing and Patient Mortality, Nurse Burnout and Job Dissatisfaction,” JAMA 2002

- Patient Mortality
 - Each additional patient per nurse →
 - 7% increase in likelihood of 30d mortality
 - 7% increase in odds of failure to rescue
- Working Conditions
 - Each additional patient per nurse →
 - 23% increase in likelihood of burnout
 - 15% increase in likelihood of job dissatisfaction

Evidence of Success?

Needleman J et al, “Nurse-Staffing Levels and the Quality of Care in Hospitals,” NEJM 2002

- Higher number of hours of care by RN per day
 - - 📄 LOS
 - 📄 UTI, upper GI bleeding
 - 📄 pneumonia, cardiac arrest
 - 📄 failure to rescue

Evidence of Success?

Kane RL et al, “The Association of Registered Nurse Staffing Levels and Patient Outcomes,” Medical Care, 2007

- “increased nurse staffing in hospitals is associated with improvements in patient care outcomes and quality of care”
 - BUT
 - “arguments for a causal relationship are mixed”

In sum...

- Fierce battle between labor and industry
- Staffing has increased
- Reversal of shortage may be temporary
- Causal relationship between mandatory ratios and outcomes unclear
- Nonetheless...other states continue to mimic CA's policy approach



Key Sources

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