New York State NURSES ASSOCIATION Advocating for patients. Advancing the profession.

JOINT LEGISLATIVE PUBLIC HEARING ON 2013-2014

EXECUTIVE BUDGET PROPOSAL

HEALTH/MEDICAID

Good afternoon. My name is Gwendolyn Lancaster and I am a registered nurse at St. Luke's-Roosevelt Hospital Center in New York City; I am also a member of the New York State Nurses Association Board of Directors. Joining me today is Bernie Mulligan, the Director of Political and Community Organizing at the Nurses Association. NYSNA is the voice for registered nurses across the state and serves as the collective bargaining agent for more than 36,000 RNs at 150 healthcare facilities. On behalf of our members and the patients they serve, we appreciate the opportunity to address the Governor's 2013-2014 Executive Budget proposal as it relates to health and Medicaid.

Our members are concerned as they see healthcare across our state and country becoming more corporate, with profits put before patients. The closings, downsizings and service consolidations are all a reflection of this. The loss of healthcare services and jobs, in economically struggling areas of the state were worsened by Sandy. The task before all of us is to advocate for a budget that meets the needs of our communities and patients, and that protects the public sector and safety net hospitals. The proposed changes in the Certificate of Need process that I will focus on later will have profound, long-term effects on health care in our state. Our working bedside nurses see these issues every day in human terms - as they fight to care for patients - as they fight in every hospital to have safe nurse-to-patient ratios. In 1989, the nurses at St. Luke's Hospital went on strike because of dangerous staffing levels – I was one of those nurses. That same fight for our patients continues today.

Safe nurse staffing is an imperative because research shows that safe nurse staffing saves lives, improves patient outcomes and saves hospitals money. It saves hospitals and nursing homes money by decreasing staff turnover and by decreasing facility-acquired infections, avoidable hospital re-admissions and avoidable adverse events, including death and malpractice suits. Nurse staffing should no longer be thought of only as an expense on the balance sheet; rather, we need to consider nurse staffing also as a revenue generator that can help facilities avoid penalties and earn reimbursement bonuses.

We know that many difficult budget issues face you and your colleagues in dealing with the Governor's budget. I want to make it clear, on behalf of NYSNA's nearly 37,000 members, that safe

staffing, and all the patient, staff and system benefits that flow from it, would be a huge cost-savings for the state and life saver for thousands of patients.

We urge you, in your one-house budget legislation, to include language that will require minimum nurse-to-patient ratios in all hospitals and minimum hours of care in all nursing homes.

Proposals that Negatively Impact Quality Care

The Governor has included proposals in his Executive Budget that represent a direct assault on the provision of accessible, quality health care and that may have a dramatic, negative impact of the delivery of health care in New York State. In recent years, federal and state healthcare reforms have focused on advancing the Triple Aim of better care, better health and lower costs. But provisions that the Governor has proposed sacrifice better care and better health for the *possibility* of lowering short-term costs, and the *probability* of increasing long-term costs. The provisions that I am referring to are those related to the Certificate of Need, the healthcare business corporation pilot program, home health aides, the tobacco control program, and the Indigent Care Pool and Disproportionate Share Hospital (DSH) payments.

Certificate of Need Redesign Fails Patients, Communities

New York State is in the midst of redesigning the Certificate of Need process; the changes – when taken in their totality – are gravely concerning to NYSNA nurses. We believe the redesign will make it easier for large, private hospitals and hospital chains or systems to cut health services to already-underserved communities, and will shift the burden of caring for patients who rely on these services, to our state's already over-extended public and community hospitals. We are also concerned that a reduction in the scope of the Certificate of Need review and oversight, of large segments of the healthcare industry will have three principal effects. They will weaken the accountability of hospitals and providers to the communities they serve, will limit access to quality healthcare services and will effectively silence community and patient voices. These changes, some of which are implemented though the Governor's budget proposal, will likely create an environment conducive to profit-driven, private hospitals which have a well-established track record of sacrificing patient care for profits.

Protect Primary Care for Under-Served Communities

The Executive Budget includes a provision that eliminates the requirement of the public need review for Certificate of Need approval in the establishment of primary care facilities *and* in hospital and diagnostic and treatment center construction projects that do not involve changes in capacity, the types of services provided, major medical equipment, facility replacement or geographical location of services.

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The unconstrained expansion of primary care is not the solution to the challenges that currently exist for low-income, culturally diverse communities, in accessing high quality healthcare. Rather, the solution is a deliberate and purposeful expansion of primary care services that meet the public need. Primary care is not a commodity whose expansion will naturally be made efficient by market forces such supply and demand, because ill and vulnerable patients seldom act as informed consumers who might comparison-shop, reduce their demand when prices are raised or fully appraise the quality of care they have received. Even if healthcare delivery *were* efficiently regulated by market forces, the damage to patients and communities that may be wrought by bad-actors, before they are efficiently drummed out of the market, is unacceptable.

Don't Weaken Look-Back

Another element of Certificate of Need redesign proposed in the Governor's budget is a reduction of the look-back period for the character and competence review, from ten years to seven. Additionally, the review is amended to allow an exception for individuals who are part of complex organizations who have violated the state hospital codes and rules and regulations, a current prohibition to approval, if those violations cannot be attributed to a particular individual who is associated with the application under review.

This amendment is unacceptable to nurses. The corporate culture and practice expectations of a complex organization infiltrate all operations, whether or not a particular bad actor is identified on the Certificate of Need application. In the corporate world high-level executives are required to certify the accuracy of their financial operations; that high level of accountability should be no different when we are dealing with the lives and healthcare of individuals and communities.

We call upon the Legislature to reject these proposals that seek to weaken the Certificate of Need process.

Healthcare Business Corporation Pilot Project/Bad for Brooklyn, Bad for NYS

The Nurses Association is deeply concerned about another one of the Governor's budget proposals that we believe will have a dramatic, negative impact of the delivery of health care in New York State. The proposal allows for the establishment of a pilot program to "assist in the restructuring of health care delivery systems" by allowing for increased capital investment in health care facilities to be accomplished through the establishment of two business corporations – one in Brooklyn and one in another part of the state.

These two business corporations will be exempt from many provisions of the public health law and the criteria used to determine the activities they engage in and prioritize the interests of the corporation itself and of the shareholders, above the patients, the workforce and the communities.

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Experience has shown that the profit-maximizing model of health care delivery does not work for patients or for communities. The HCA-owned hospital chain which is owned by three private equity firms and which controls 163 hospitals from New Hampshire to California should alert this Legislature to the risks of this proposed "experiment." HCA-owned hospitals have been rapidly swallowing small, community hospitals across the country, destroying the health safety net for the communities those institutions once served. As the New York Times reported last August, their practices have included denying emergency room care; questionable and potentially fraudulent billing practices; providing sub-standard specialty care such as dialysis; the overuse of lucrative cardiac procedures and poor nursing staff levels, resulting in pressure ulcers, infections and avoidable deaths, at HCA facilities. [1]

We strongly encourage the Legislature to reject this dangerous proposal.

Home Health Aides should not Administer Medications

The Governor has proposed another demonstration project, one that will allow home health aides to administer medications, which are not pre-poured, to both self-directing and non-self-directing patients. In order to participate in this demonstration project, the home health agencies will be required to prove that they cannot, "despite reasonable efforts" secure the appropriate level of nursing services for the purposes of administering medication.

Administering medication is not simply the act of identifying the correct drugs and the correct patients. When administering medications, particularly to non-self-directing patients, licensed professionals observe for side effects and whether or not the medications are providing the intended therapeutic response. Medication administration is just one element in an intricate nexus of care delivery that should be provided by those professionals who are appropriately educated and prepared.

With respect to the requirement that home health agencies must prove they cannot secure nursing services to administer medication in order to participate in the program, the Nurses Association asserts that there is currently no nursing shortage. There are, in fact, new nursing graduates who cannot find employment in the health care field.

Perhaps the challenge of securing nurses that the home care agencies are experiencing is not related to the actual availability of nurses, but rather to the current work conditions in the home care industry. There are issues that contribute to the difficulty of attracting home care nursing staff. Home care nurses are still mandated to work overtime, while hospital-based nurses can longer be, and compensation paid to home care nurses is lower than hospital-based nurses receive, even though they are functioning in the field, with little support.

[1] "A Giant Hospital Chain is Blazing a Profit Trail", *The New York Times*, August 14, 2012.

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The Governor, as I mentioned earlier, has proposed support for the *nursing home* workforce – recognizing the need to maintain an educated, quality workforce in that clinical environment. Perhaps, given the aim of health care reform to transition more care into the community, support for the *home care* workforce, including nurses, is in order.

The Nurses Association calls upon you to reject the Governor's proposal that will allow home health aides to administer medications.

Reject Advanced Home Health Aides

The second proposal in the Executive Budget related to home health aides, would establish a new category of healthcare worker, *advanced* home health aides, to function under the exemption of the nurse practice act – which means they will perform functions that are considered nursing care, to be carried out by a licensed professional.

NYSNA cannot support proposals that will allow unlicensed assistive personnel to administer medications or that would permit them to provide nursing-level services to patients in the home setting. These proposals are short-sighted and the ultimate outcome is a poorer quality of patient care leading to unnecessary hospital admissions, re-admissions and adverse events that lead to increased patient morbidity, mortality, and cost of care.

With the ongoing changes in reimbursement methodologies, implemented as a result of both federal and state healthcare reform, there is increased pressure to reduce avoidable adverse outcomes, as well as avoidable hospital admissions and re-admissions. Not only are the Executive's proposals contrary to the best interests of patient care, but they also directly conflict with efforts underway to reduce long-term healthcare costs in the state.

Therefore, we ask the Legislature to reject the Governor's proposals that expand the range of services provided by homes health aides.

Restore Funding to the Tobacco Control Program

The Nurses Association, along with many coalition partners has long supported anti-tobacco efforts in New York. In December we signed onto a coalition letter urging Governor Cuomo to restore funding for the Tobacco Control Program, whose budget has been devastated in recent years. Unfortunately, the Executive Budget consolidates numerous prevention programs into a competitive pool and it is unclear how much, if any, of the funding will be invested in the Tobacco Control Program.

We think that is the wrong approach. This program has a successful track-record of reducing the number of adults and children who smoke. Smoking is a major risk factor for heart disease and cancer; annual, tobacco-related medical costs in New York are estimated to be over 8 billion

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dollars.[2] In the current healthcare climate where we are increasingly recognizing and incentivizing prevention and healthy behaviors, it is incomprehensible that the Governor would jeopardize the activities of this critically important program.

We urge the Legislature to *directly* and fully fund the Tobacco Control Program at 85 million dollars, the level that maximized its ability to accomplish its mission.

Reform Indigent Care

The Nurses Association, along with our partners, is advocating for a more rapid implementation of the needed changes in the allocation of the Indigent Care and Disproportionate Share Hospital funds. Under the Affordable Care Act, states *have* to target DSH funding to high Medicaid-use hospitals and to pay for the care of the uninsured - paying for bad debt is not allowed. The formula that New York currently uses is complicated and provides significant funding to hospitals that don't actually care for the uninsured or for a disproportionate share of Medicaid patients.

If New York does not rapidly bring its charity pool distribution into federal compliance, we will lose substantial amounts of federal funding. Beginning in 2013, the federal government will start cutting to DSH funding, under the rationale that more people will be gaining access to health insurance. But in New York, many people will remain uninsured due to ineligibility or because they still cannot afford insurance premiums. DSH funding is critical to the financial health of safety-net hospitals, which provide the majority of care to uninsured and Medicaid patients.

NYSNA urges the Legislature to include language that will maximize the amount of federal funding that the state receives to support the care of the uninsured and of Medicaid patients. We also urge the Legislature to include provisions to ensure that New York provides the most funding to hospitals that actually provide significant amounts of care to uninsured and Medicaid populations. Finally, we urge an increase the pace of transition of the State's disbursement methodology.

Proposals that NYSNA Supports

Despite our serious concerns regarding many of the Governor's budget proposals, there are some provisions that we support.

Support Temporary Operator Provision

The temporary operator provision incorporated in the Certificate of Need amendments is supported by the Nurses Association. We view this provision as a safety line to protect patients and their nurses from ineffective and unscrupulous operators who jeopardize our ability to

[2] http://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2007/BestPractices_Complete.pdf

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provide safe patient care – a scenario that we are, unfortunately, all too familiar with. We encourage you to maintain this proposal.

Funding for Nursing Education

We applaud the Governor for supporting the education of registered nurses. The Executive Budget proposal maintains consistent funding for the SUNY and CUNY nursing programs. It also maintains support for the high-needs nursing programs at private schools of nursing, as well as maintaining funding for the Senator Patricia K. McGee Nursing Faculty Scholarship Program and the Nursing Faculty Loan Forgiveness Incentive Program.

Healthcare reform creates more demand for RNs, we urge the Legislature to accept these proposals and continue to support the essential work of educating registered nurses in New York.

Support Nurse Practitioners

The Governor's budget also includes language that would eliminate the written collaborative practice agreement and practice protocol requirements for primary care nurse practitioners, when deemed appropriate by the Department of Health and the State Education Department.

Although the Governor's language does not duplicate the proposal that the Nurses Association has supported with our partners, this budget language makes it clear that Governor Cuomo understands the crucial role that nurse practitioners play in providing patient-centered, high quality, coordinated care.

We urge the Legislature to extend this sound judgment to all nurse practitioners and to join eighteen other states and the District of Columbia in eliminating obligatory, arbitrary collaboration. Given the education, training and advanced certification of nurse practitioners, mandatory collaboration does not serve a legitimate clinical purpose. Nurse practitioners are educated and trained to collegially refer patients to other specialty healthcare providers as they deem appropriate.

Again, we urge the Legislature to accept the Governor's proposal regarding primary care nurse practitioners and to expand it by eliminating the written collaborative practice agreement and practice protocol requirements for *all* nurse practitioners.

Strengthen the Nursing Home Workforce

The Governor's budget proposal has recognized the importance of a well-educated and well-trained nursing workforce in another important provision. The Executive Budget includes language that would require HMO contracts with nursing homes to make certain that resources are included in the contracts, to provide sufficient compensation to the workforce, including

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nurses, to ensure the retention of a qualified workforce that's capable of providing high quality care to the nursing home residents.

Research conducted by Barbara Bowers demonstrates that wages in nursing homes are approximately 75% of those in acute care facilities and that high staff turnover, insufficiently-prepared staff, inappropriate workforce composition and overall inadequate staffing levels significantly and negatively impact the quality of care provided to vulnerable nursing home residents.

We encourage the Legislature to accept the Governor's proposal and in so doing, to improve the care and quality of life of New York's most vulnerable current and future grandparents and elders.

CONCLUSION

As you continue your deliberations, we urge you to pass a budget that will ensure access to quality healthcare for all of New York's residents, putting patients before profits by protecting and supporting:

- safety net providers,
- careful, community-supported growth and adjustments in services and
- the trained and qualified healthcare workforce these patients need.

Nurses are determined to achieve the adoption of minimum nurse-to-patient staffing ratios in New York's hospitals and minimum hours of care in nursing homes because we know from documented research and our lived experience that these investments will save lives, reduce adverse outcomes and save healthcare facilities and New York State money.

We are going to continue our work to fix New York's healthcare crisis and to build back a better system that provides quality care to all and we look forward to working with the Legislature in this effort.

Thank you for your time and consideration.

For more information, contact the New York State Nurses Association Political and Community Organizing Department at **518.782.9400, ext. 283** or by e-mail.

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The evidence-based case for nurse-to-patient ratios

A summary of academic research on the effects of nurse staffing levels on patient outcomes and hospital finances.

Prepared by the NYSNA Strategic Research Department

Excerpted from the NYSNA Safe Staffing Toolkit ■ July 2012

The evidence-based case for nurse-to-patient ratios

Study after study has found that nurse staffing levels have a significant impact on patient outcomes and hospital financial performance.

Safe nurse-to-patient ratios:

- **Save lives.**
- **Reduce adverse outcomes for patients.**
- **Help recruit and retain nurses.**
- **Save hospitals money by avoiding unreimbursed expenses for avoidable adverse outcomes, averting death and malpractice litigation, and reducing nurse turnover.**

Safe staffing saves lives – and will save hospitals money

HSR

"Evidence of the favorable effects of better nurse staffing can be found ... in the severity-adjusted likelihood that the patients being treated in these hospitals will be discharged alive."

"Evidence of the favorable effects of better nurse staffing can be found not only in the comparison of nurse reports from better and poorer staffed hospitals but also in differences between these hospitals in the severity-adjusted likelihood that the patients being treated in these hospitals will be discharged alive."

"When we use the predicted probabilities of dying from our adjusted models to estimate how many fewer deaths would have occurred in New Jersey and Pennsylvania hospitals if the average patient-to-nurse ratios in those hospitals had been equivalent to the average ratio across California hospitals, we get 13.9 percent (222/1,598) fewer surgical deaths in New Jersey and 10.6 percent (264/2,479) fewer surgical deaths in Pennsylvania."

Aiken, L. H., Sloane, D.M., Cimiotti, J.P., Clarke, S.P., Flynn, L., Seago, J.A., Spetz, J. & Smith, H.L. (2010). Implications of the California nurse staffing mandate for other states. Health Service Research, 45(4), 904-921.

This paper examines primary survey data from 22,336 hospital staff nurses in California, Pennsylvania and New Jersey and state hospital discharge databases. The authors compare nurse workloads among the three states and how nurse and patient outcomes, including patient mortality and failure-to-rescue, are affected by the differences in nurse workload across the hospitals in the three states.

"... there was a significant association between mortality and exposure to below-target [staffing] or high-turnover [of patients] shifts. For all hospital admissions, the risk of death increased with exposure to an increased number of below-target shifts."

"We estimate that the risk of death increased by 2% for each below-target [staffing] shift and 4% for each high-turnover [of patients] to which a patient was exposed."

Needleman, J., Buerhaus, P., Pankratz, V.S., Leibson, C.L., Stevens, S.R. & Harris, M. (2011). Nurse staffing and inpatient mortality. *The New England Journal of Medicine*, 264(11), 1037-1045.

This study analyzes data from a large tertiary academic medical center involving 197,961 admissions and 176,696 nursing shifts of 8 hours each in 43 hospital units to examine the association between mortality and patient exposure to nursing shifts with RN staffing 8 hours or more below the staffing target. They also examined the association between mortality and high patient turnover.

The NEW ENGLAND JOURNAL of MEDICINE

"We estimate that the risk of death increased by 2% for each below-target [staffing] shift...."

"We estimated that more than 6,700 in-hospital patient deaths could be avoided by raising nurse staffing."

Needleman, J., Buerhaus, P., Stewart, M., Zelevinsky, K. & Mattke, S. (2006). Nurse staffing in hospitals: Is there a business case for quality? *Health Affairs*, 25(1), 204-211.

This study is based on results from a previous study conducted by the same authors, that analyzed data from 799 non-federal, acute care hospitals in 11 states and identified an association between nurse staffing and (1) lengths of stay, urinary tract infections, upper gastrointestinal bleeding, hospital-acquired pneumonia, shock, or cardiac arrest among medical patients and (2) failure-to-rescue, defined as the death of a patient with 1 of 5 life-threatening complications – pneumonia, shock or cardiac arrest, upper gastrointestinal bleeding, sepsis or deep vein thrombosis – among surgical patients. This study simulates the effects of three options to increase nurse staffing.

HealthAffairs

"... more than 6,700 in-hospital patient deaths could be avoided by raising nurse staffing."

"... labor costs were higher with 4:1 [4 patients to 1 nurse] ratios than 8:1; however, more deaths occurred with the 8:1 ratio. They estimated that labor costs were $64,000 per life saved when dropping the number of patients from 7:1 to 6:1. When compared to other 'life-saving' interventions ..., nurse staffing is a cost-effective intervention that should be a part of the financial strategic planning for acute care hospitals."

Anderson, E.F., Frith, K.H. & Caspers, B. (2011). Linking economics and quality: Developing an evidence-based nurse staffing tool. *Nursing Administration Quarterly* 35(1), 53-60.

This paper describes a practice/academic collaborative initiated to promote the translation of staffing research into decision-making through the development of an evidence-based staffing tool. Reports of previous research on nurse staffing and patient and financial outcomes are summarized.

NAQ Nursing Administration Quarterly

"... nurse staffing is a cost-effective intervention that should be a part of the financial strategic planning for acute care hospitals."

"Increasing RN staffing by one RN FTE/patient day was associated with a positive cost-savings ratio in different clinical settings. The monetary benefit of saved lives per 1,000 hospitalized patients was 2.3 times higher than the increased cost of one additional RN FTE/patient day in ICUs, 1.8 times higher in surgical units, and 1.3 times higher in medical units."

"...we estimated that an increase by one RN FTE in ICUs would save 327,390 years of life in men and 320,988 in women with a productivity benefit (present value of lifetime future earnings) of $4 billion to $5 billion. The productivity benefit from increased staffing in surgical patients would be larger: $8 billion to $10 billion."

Shamliyan, T.A., Kane, R.L., Mueller, C., Duval, S. & Wilt, T.J. (2009). Cost savings associated with increased RN staffing in acute care hospitals: Simulation exercise. *Nursing Economics*, 27(5), 302-314.

In this study, the authors analyzed the savings-cost ratio of increased RN-to-patient ratios for patients in ICUs and patients in surgical and medical units based on a meta-analysis of 27published observational studies that reported adjusted odds ratios of patient outcomes in categories of RN-to-patient ratio.

Nursing Economics

"The monetary benefit of saved lives per 1,000 hospitalized patients was 2.3 times higher than the increased cost of one additional RN FTE/patient day in ICUs, 1.8 times higher in surgical units, and 1.3 times higher in medical units."

Safe staffing improves patient outcomes and reduces avoidable accidents and costs

"While inadequate staffing levels place heavy burdens on the nursing staff ... there is also a considerable financial cost to be considered."

"While inadequate staffing levels place heavy burdens on the nursing staff and adverse events are painful for patients, there is also a considerable financial cost to be considered."

"For example, the cost of care for patients who developed pneumonia while in the hospital rose by 84 percent. Treating pneumonia raised total treatment costs by $22,390 - $28, 505, while the length of stay increased 5.1 – 5.4 days and the probability of death rose by 4.67 – 5.5 percent. Pressure ulcers, another category of adverse patient even sensitive to nursing care, are estimated to cost $8.5 billion per year."

Stanton, M.W. & Rutherford, M.K. (2004). Hospital nurse staffing and quality of care. *Agency for Healthcare Research and Quality*; Research in Action Issue 14. AHRQ Pub. No. 04-0029.

This report summarizes the findings of AHRQ-funded and other research on the relationship of nurse staffing levels to adverse patient outcomes.

"Hospital-acquired infections ... were reduced when the TotHPD [total hours per day of nursing care] in general adult units and in the ICU were higher."

"Hospital-acquired infections (infections related primarily to intravenous and urinary catheters) were reduced when the TotHPD [total hours per day of nursing care] in general adult units and in the ICU were higher. In addition, the occurrence of postoperative sepsis was reduced by higher levels of RN skill mix in the ICU."

"Costs per case of hospital acquired infections and other adverse outcomes are high, ranging between $30,000 and $44,000. These savings could more than justify the costs of higher nurse staffing. Medicare previously paid for services without regard to quality or outcomes; however, the Centers for Medicare and Medicaid Services is reducing or eliminating payments for care after adverse events including decubitis ulcers, falls and hospital-acquired infections."

Blegen, M.A., Goode, C.J., Spetz, J. Vaughn, T. & Park, S.H. (2011). Nurse staffing effects on patient outcomes: Safety-net and non-safety-net hospitals. *Medical Care*, (49)4, 406-414.

This paper examines data from approximately 1.1 million adult patient discharges and staffing for 872 patient care units from 54 hospitals of the University HealthSystem Consortium, which is an alliance of 116 academic medical centers and 271 of their affiliated hospitals representing approximately 90% of the nation's non-profit academic medical centers. The authors analyzed the data to determine the relationship between nurse staffing in general and intensive care units and patient outcomes, and also to determine whether safety net status affected this relationship.

"...we found an association between the proportion of total hours of nursing care provided by registered nurses ... and six [adverse] outcomes among medical patients."

"... we found an association between the proportion of total hours of nursing care provided by registered nurses or the number of registered-nurse-hours per day and six [adverse] outcomes among medical patients. These were the length of stay and the rates of urinary tract infections, upper gastrointestinal bleeding, hospital-acquired pneumonia, shock or cardiac arrest, and failure to rescue (the death of a patient with one of five life-threatening complications — pneumonia, shock or cardiac arrest, upper gastrointestinal bleeding, sepsis, or deep venous thrombosis)."

Needleman, J., Buerhaus, P., Mattke, S., Stewart, M., & Zelevinsky, K. (2002). Nurse-staffing levels and the quality of care in hospitals. *New England Journal of Medicine*, 346(22), 1715-1722.

This study examines administrative data from 1997 for 799 hospitals in 11 states (covering 5,075,969 discharges of medical patients and 1,104,659 discharges of surgical patients) to examine the relation between the amount of care provided by nurses at the hospital and patients' outcomes. They conducted regression analyses which controlled for patients' risk of adverse outcomes, differences in the nursing care needed for each hospital's patients, and other variables.

"... data analysis revealed that in the months of the study when nursing units had higher RN non-overtime staffing, the odds of patient readmission were lower. One SD [standard deviation] size increase in RN non-overtime staffing (0.75 hours-per-patient-day) was directly associated with a 0.44 reduction in the odds of an unplanned/related readmission for a 4.4 percentage point reduction in probability of readmission."

"In this study sample, there was a direct, negative association between RN hours to which patients were exposed during hospitalization and the odds of subsequent readmission. Among patients hospitalized on the same nursing unit, those who were discharged when RN non-overtime staffing was higher were less likely to subsequently be readmitted."

Weiss, M.E., Yakusheva, O. & Bobay, K.L. (2011). Quality and cost analysis of nurse staffing, discharge preparation, and post-discharge utilization. *Health Services Research*, 46(5), 1473–1494.

The authors examined data from a sample of patients who were at least 18 years of age, spoke English or Spanish, were hospitalized on a medical–surgical unit, and discharged directly home with or without home health services and without hospice care. Equivalent numbers of subjects were randomly selected within each of 16 participating medical–surgical units of four hospitals within a single health care system in the Midwestern United States.

HSR

"... when nursing units had higher RN non-overtime staffing, the odds of patient readmission were lower."

"... higher nurse staffing levels have been associated with fewer of the hospital-acquired conditions and infections that the Centers for Medicare and Medicaid Services no longer pays for..."

McHugh, M.D., Kelit, L.A.., Sloane, D.M. & Aiken, L.H. (2011). Contradicting fears, California's nurse-to-patient mandate did not reduce the skill level of the nursing workforce in hospitals. *Health Affairs*, 30(7), 1299-1306.

Comparing the changes in staffing in California to other states (including New York) and the nation as a whole is necessary to determine the effect on staffing attributable to the state's law. This paper analyzes hospitals' registered nurse staffing, nursing skill mix, and a number of control variables in all adult, nonfederal, acute care hospitals in the United States during the period 1997-2008. The primary data source for hospital characteristics was the American Hospital Association Annual Survey for those years.

HealthAffairs

"... higher nurse staffing levels have been associated with fewer ... hospital-acquired conditions and infections."

"...an increase of 1% in RN percentage in staffing reduced the number of adverse events [pressure ulcers, catheter–associated urinary tract infections and hospital-acquired injuries, air embolism, blood incompatibilities, vascular catheter-associated infections and mediastinitis following coronary bypass graft; which, if present, reduce reimbursement by CMS] by 3.4%, and a 5% increase in the RN percentage would decrease the number of adverse events by 15.8%."

"...every 1-hour increase in RN hours was expected to decrease LOS [length of stay] by 16.54%.... Likewise, for every 1% increase in the percentage of RNs, LOS would be reduced by 4.18%."

"Findings from the study are consistent with others reported in the literature and demonstrate the importance of improving staffing, particularly the number of RN hours and the percentage of RNs in the skill mix of medical-surgical units... Because the average costs per patient day is $1817 in US hospitals, a reduction in the LOS can lower costs for hospitals. When lower lengths of stay are combined with decreases in the number of adverse events, a net financial gain can be anticipated."

Frith, K.H., Anderson, F., Caspers, B., Tseng, F., Sanford, K., Hoyt, N.G. & Moore, K. (2010). Effects of nurse staffing on hospital-acquired conditions and length of stay in community hospitals. *Quality Management in Health Care*, 19(2), 147-155.

This research examines the predictive relationships between nurse staffing and patient outcomes in nearly 35,000 patients from 11 medical-surgical units, in 4 urban and rural community hospitals of the Catholic Health Initiatives Corporation (a national, nonprofit organization), across 3 states. The data were extracted from administrative databases over a 2-year period.

Quality Management in Health Care

"... a 5% increase in the RN percentage would decrease the number of adverse events by 15.8%."

"When lower lengths of stay are combined with decreases in the number of adverse events, a net financial gain can be anticipated."

Safe nurse staffing saves money by improving nurse retention and reducing staff turnover

HSR

"... in hospitals ... in compliance with the benchmark set on California-mandated ratios ... the less likely nurses are to intend to leave their jobs."

"The higher proportion of nurses in hospitals whose patient assignment is in compliance with the benchmark set on California-mandated ratios, the lower the nurse burnout and job dissatisfaction, the less likely nurses are to report the quality of their work environment as only fair or poor, the less likely nurses are to report that their workload causes them to miss changes in patients' conditions, and the less likely nurses are to intend to leave their jobs."

Aiken, L. H., Sloane, D.M., Cimiotti, J.P., Clarke, S.P., Flynn, L., Seago, J.A., Spetz, J. & Smith, H.L. (2010). Implications of the California nurse staffing mandate for other states. *Health Service Research*, 45(4), 904-921.

This paper examines primary survey data from 22,336 hospital staff nurses in California, Pennsylvania and New Jersey and state hospital discharge databases. The authors compare nurse workloads among the three states and how nurse and patient outcomes, including patient mortality and failure-to-rescue, are affected by the differences in nurse workload across the hospitals in the three states.

NAQ Nursing Administration Quarterly

"Inadequate staffing levels are also correlated with nursing turnover and poor patient satisfaction."

"...inadequate staff levels can lead to errors, delays, and missed care. Inadequate staffing levels are also correlated with nursing turnover and poor patient satisfaction. These costs and the negative consequences of poor staffing will increase the cost of care even though budgeted staffing goals are met."

Anderson, E.F., Frith, K.H. & Caspers, B. (2011). Linking economics and quality: Developing an evidence-based nurse staffing tool. *Nursing Administration Quarterly* 35(1), 53-60.

This paper describes a practice/academic collaborative initiated to promote the translation of staffing research into decision-making through the development of an evidence-based staffing tool. Reports of previous research on nurse staffing and patient and financial outcomes are summarized.

JONA

"... 2007 per RN turnover cost would range from approximately $82,000 ... to $88,000 ..."

"...FY [fiscal year] 2007 per RN turnover cost would range from approximately $82,000 (ie, if turnover vacancies are filled by experienced RNs who have a shorter new-employee learning curve) to $88,000 (ie, if vacancies are filled by new RNs who have a longer learning curve)."

Jones, C.B. (2008). Revisiting nurse turnover costs: Adjusting for inflation. *The Journal of Nursing Administration*, (28)1, 11-18.

This paper uses nurse turnover data from a previous study to demonstrate how nurse turnover costs can be adjusted using relevant data from the Consumer Price Indices (CPIs). A previously developed method was modified to reflect current practices in health care organizations as well as changes in the CPI data calculation procedures.

UHC

"... hospitals with a nurse-to-patient ratio of 1:7 had an average turnover rate of 18%, while rates at hospitals with a ratio of 1:4 averaged only 9%."

"However, high nurse turnover and vacancy rates result in higher nurse-to-patient ratios—and nurses burned out by high patient loads leave the bedside, increasing turnover rates even more. One study reported that hospitals with a nurse-to-patient ratio of 1:7 had an average turnover rate of 18%, while rates at hospitals with a ratio of 1:4 averaged only 9%."

Krsek, C. & McElroy, D.(2009). A solution to the problem of first-year nurse turnover. *University HealthSystem Consortium*.

The authors are the designers and managers of the UHC/AACN Nurse Residency Program™.The University HealthSystem Consortium is an alliance of 116 academic medical centers and 271 of their affiliated hospitals representing approximately 90% of the nation's non-profit academic medical centers. The American Association of Colleges of Nursing is the national body for America's baccalaureate- and higher degree nursing education programs.

"Failure to retain nurses is costly and wasteful. Every percentage point increase in nurse turnover costs an average hospital about $300,000 annually. Hospitals that perform poorly in nurse retention spend, on average, $3.6 million more than those with high retention rates."

"HRI estimates that reduction in turnover can save an illustrative hospital up to $3.6 million annually. Based on an average hospital of 350 full-time-equivalent nurses, every percent in increased nurse turnover costs an average hospital about $300,000 annually."

PricewaterhouseCoopers Health Research Institute. (2007). *What works: Healing the healthcare staffing shortage*.

This paper studies the evolving issue of the predicted healthcare staffing shortage – both nurses and physicians. The authors conducted more than 40 in-depth interviews with thought leaders and executives representing hospitals, academic associations, nursing schools and the business community. They also conducted a literature review of reports and guidance from associations, regulators, and academia to summarize current challenges and best practices.

PRICEWATERHOUSECOOPERS

"Every percentage point increase in nurse turnover costs an average hospital about $300,000 annually."

Safe staffing saves lives and money in nursing homes

"More RN direct care time per resident per day…was associated with fewer pressure ulcers, hospitalizations, and UTIs; less weight loss, catheterization, and deterioration in the ability to perform ADLs (activities of daily living)…"

Horn, S.D., Buerhaus, P., Bergstrom, N. & Smout, R.J. (2005). RN staffing time and outcomes of long-stay nursing home residents. *American Journal of Nursing*, 105(11), 58-70.

This study examines the time nurses spend in direct care and how it affects outcomes in long-stay (two weeks or longer) nursing home residents. The authors examined secondary data from the National Pressure Ulcer Long-term Study as well as primary data collected from resident medical records.

AJN

"More RN direct care time … was associated with fewer pressure ulcers, hospitalizations, and UTIs."

"Nurse staffing levels have been documented to have a positive impact on both the process and the outcomes of nursing home care, such as fewer pressure ulcers, improved functional status, better mortality rates, and fewer deficiencies for poor quality."

Harrington, C., Olney, B., Carrillo, & Kang, T. (2012). Nurse staffing and deficiencies in the largest for-profit nursing home chains and chains owned by private equity companies. *Health Services Research*, 47(1), 106-128.

This study compares staffing levels and deficiencies of the 10 largest U.S. for-profit nursing home chains with 5 other ownership groups before and after purchase by 4 private equity companies. The data were collected for the 2003-2008 period and controlled for facility characteristics, resident acuity and market factors.

HSR

"Nurse staffing levels have … a positive impact on both the process and the outcomes of nursing home care."

"High turnover rates have also been related to both poor staff morale and low staffing levels. Elevated turnover rates are associated with adverse clinical outcomes in nursing facilities [nursing homes], including substantially increased rates of infectious disease and acute care hospitalizations, both which can lead to higher (and potentially avoidable) Medicare and Medicaid expenditures."

"… as RN turnover increased [in nursing homes] from low (0% to 20%) to moderate (21% to 50%) levels, quality declined, as measured by more frequent use of restraints, urinary catheterization, and psychoactive drugs; increased risk of contractures and PUs [pressure ulcers]; and more survey deficiencies."

Collier, E. & Harrington, C. (2008). Staffing characteristics, turnover rates, and quality of resident care in nursing facilities. *Research in Gerontological Nursing*, (1)3, 157-170.

This article synthesizes literature, including published reports, expert opinion, and peer reviewed studies, on staffing levels, and quality of care in nursing homes.

Research in GERONTOLOGICAL NURSING

"Elevated turnover rates are associated with adverse clinical outcomes in nursing facilities."

Ratio myths vs. facts

Opponents of the Safe Staffing for Quality Care Act are already spreading myths about the law.

They said the same thing when the nation's first ratio law went into effect in California.

Here are some of the myths – and what the facts say.

Myth: Hospitals will not be able to comply with ratios
Facts: California hospitals did comply with nurse-to-patient ratios

"Our findings suggest that registered nurse staffing in California hospitals increased considerably as a consequence of the implementation of the state's nurse staffing mandate."

McHugh, M.D., Kelly, L.A., Sloane, D.M. & Aiken, L. (2011). Contradicting fears, California's nurse-to-patient mandate did not reduce the skill level of the nursing workforce in hospitals. *Health Affairs*, 30(7), 1299-1306.

This study analyzes data collected for the American Hospital Association Annual Survey for the years 1997-2008. The survey collects data from approximately 85% of the 6000 adult, nonfederal, acute care hospitals in the United States. The research goal was to assess the effect of California's policy on changes in hospital staffing and skill mix.

Health Affairs

"... registered nurse staffing in California hospitals increased considerably..."

"Compliance with nurse staffing ratios in medical/surgical units was found to be 90% prior to the implementation and 97% in the first two quarters of 2004."

Serratt, T., Harrington, C., Spetz, J. & Blegen, M. (2011). Staffing changes before and after mandated nurse-to-patients in California's hospitals. *Policy, Politics & Nursing Practice*, 12(3), 133-140.

This study utilizes data from the California Hospital Annual Financial Disclosure Reports, which receives data from all California, licensed, nonfederal hospitals. Data from 2 fiscal years are analyzed, one year prior to the ratios implementation (FY 2000) and one year following the ratio implementation (FY 2006). The purpose of the analysis is to identify and describe changes in nurse and non-nursing staffing that may have occurred as a result of the enactment of the mandated nurse-to-patient ratios.

POLICY, POLITICS, & NURSING PRACTICE

"Compliance with nurse staffing ratios in medical/surgical units was ... 97% in the first two quarters of 2004."

"Nurse workloads in California hospitals in 2006, 2 years after the implementation of mandated nurse staffing ratios, were significantly lower than in New Jersey and Pennsylvania hospitals. Nurses in California care for an average of one fewer patient each, and these lower ratios have sizeable effect on surgical patient mortality."

Aiken, L. H., Sloane, D.M., Cimiotti, J.P., Clarke, S.P., Flynn, L., Seago, J.A., Spetz, J. & Smith, H.L. (2010). Implications of the California nurse staffing mandate for other states. *Health Service Research*, 45(4), 904-921.

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HSR

"Nurses in California care for an average of one fewer patient each, and these lower ratios have sizeable effect on surgical patient mortality."

Myth: The costs of ratios will close hospitals.
Facts: Hospitals have not closed as a result of ratios.

"Implementation of the staffing regulations could not be tied to changes in hospital finance."

"Implementation of the staffing regulations could not be tied to changes in hospital finances; rather, changes in Medicare and Medi-Cal payment rates and demands to address seismic building requirements had far greater effects on finances."

"In fact, it is likely that the staffing requirements had at most a marginal impact on hospital financial stability. Several of the nursing executives and managers reported that the staffing legislation made it easier to secure additional funding or avoid budget cuts within their own hospitals, particularly for hiring nursing staff."

Spetz, J., Chapman, S., Herrera, C., Kaiser, J., Seago, J.A. & Dower, C. (February 2009). Assessing the impact of California's nurse staffing ratios on hospitals and patient care. California HealthCare Foundation – *Issue Brief*.

This study combined quantitative analysis of several data sets with qualitative analysis of interviews conducted at 12 hospitals. Quantitative analysis of the impact of the regulations on staffing, fiscal, and health outcomes were conducted for 140 general, acute-care hospitals from 1999-2007 .

Myth: The mandated ratios will not actually translate into an increase in the hours of nursing care per patient.
Facts: RN nursing hours did increase for California patients

POLICY, POLITICS, & NURSING PRACTICE

"ratios ... increased the number of worked nursing hours per patient day in acute care hospitals."

"...the implementation of mandated nurse-to-patient ratios achieved the policy aim of reducing the number of patients assigned per licensed nurse and increased the number of worked nursing hours per patient day in acute care hospitals."

Donaldson, N. & Shapiron, S. (2010). Impact of California mandated acute care hospital nurse staffing ratios: A literature synthesis. *Policy, Politics & Nursing Practice* 11(3), 184-201.

This synthesis examines 12 studies of the impact of California's ratios on patient care cost, quality, and outcomes in acute care hospitals.

POLICY, POLITICS, & NURSING PRACTICE

"...the mean total RN hours of care per patient day increased by 20.8%..."

"...the mean total RN hours of care per patient day increased by 20.8% on medical/surgical units..."

Serratt, T., Harrington, C., Spetz, J. & Blegen, M. (2011). Staffing changes before and after mandated nurse-to-patients in California's hospitals. *Policy, Politics & Nursing Practice*, 12(3), 133-140.

This study utilizes data from the California Hospital Annual Financial Disclosure Reports, which receives data from all California licensed, nonfederal hospitals. Data from 2 fiscal years are analyzed, one year prior to the ratios implementation (FY 2000) and one year following the ratio implementation (FY 2006). The purpose of the analysis is to identify and describe changes in nurse and non-nursing staffing that may have occurred as a result of the enactment of the mandated nurse-to-patient ratios.

Myth: Nursing skill mix will decline.
Facts: The nursing skill mix increased in California.

"The skill mix in California hospitals did not decrease following implementation of the staffing mandate as feared. In fact, it increased three percentage points."

McHugh, M.D., Kelly, L.A., Sloane, D.M. & Aiken, L. (2011). Contradicting fears, California's nurse-to-patient mandate did not reduce the skill level of the nursing workforce in hospitals. *Health Affairs*, 30(7), 1299-1306.

This study analyzes data collected for the American Hospital Association Annual Survey for the years 1997-2008. The survey collects data from approximately 85% of the 6000 adult, nonfederal, acute care hospitals in the United States. The research goal was to assess the effect of California's policy on changes in hospital staffing and skill mix.

HealthAffairs

"The skill mix in California hospitals did not decrease.... In fact, it increased three percentage points."

"... skill mix increased in California hospitals."

Spetz, J., Chapman, S., Herrera, C., Kaiser, J., Seago, J.A. & Dower, C. (February 2009). Assessing the impact of California's nurse staffing ratios on hospitals and patient care. California HealthCare Foundation – *Issue Brief*.

This study combined quantitative analysis of several data sets with qualitative analysis of interviews conducted at 12 hospitals. Quantitative analysis of the impact of the regulations on staffing, fiscal, and health outcomes were conducted for 140 general, acute-care hospitals from 1999-2007 .

CALIFORNIA HEALTHCARE FOUNDATION

"... skill mix increased in California hospitals."

Myth: Non-nurse ancillary support services will be reduced.
Facts: RN hours rose and non-nurse staff hours were stable.

"...unit-based support staff and other non-nurse staff mean productive hours per patient day or per service were not reduced. These findings suggest most hospitals did make upward adjustments to RN staffing in response to the mandated nurse-to-patient patios....However, this adjustment did not decrease use of non-nurse staff...."

Serratt, T., Harrington, C., Spetz, J. & Blegen, M. (2011). Staffing changes before and after mandated nurse-to-patients in California's hospitals. *Policy, Politics & Nursing Practice*, 12(3), 133-140.

This study utilizes data from the California Hospital Annual Financial Disclosure Reports, which receives data from all California licensed, nonfederal hospitals. Data from 2 fiscal years are analyzed, one year prior to the ratios implementation (FY 2000) and one year following the ratio implementation (FY 2006). The purpose of the analysis is to identify and describe changes in nurse and non-nursing staffing that may have occurred as a result of the enactment of the mandated nurse-to-patient ratios.

POLICY, POLITICS, & NURSING PRACTICE

"...unit-based support staff and other non-nurse staff mean productive hours per patient day or per service were not reduced."

Nurse-to-patient ratios improve patient outcomes and increase nurse retention.

HSR

"Outcomes are better for nurses and patients in hospitals that meet a benchmark based on California nurse staffing mandates."

"Outcomes are better for nurses and patients in hospitals that meet a benchmark based on California nurse staffing mandates whether [or not] the hospitals are located in California ....the higher the percentage compliance with benchmark based on California ratios, regardless of the hospital state location, the less likely nurses are to report complaints from patients or families, verbal abuse of nurses by staff or patients, quality of care that is poor or only fair, and lack of confidence that their patients can manage after discharge."

Aiken, L. H., Sloane, D.M., Cimiotti, J.P, Clarke, S.P, Flynn, L., Seago, J.A., Spetz, J. & Smith, H.L. (2010). Implications of the California nurse staffing mandate for other states. *Health Service Research*, 45(4), 904-921.

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Nursing Economics

"... the nurse-to-patient ratios law was associated with improvements in nurse satisfaction."

"The sample's overall job satisfaction increased significantly as the years passed, concurring with previous studies and suggesting the nurse-to-patient ratios law was associated with improvements in nurse satisfaction."

Tellez, M. (2012). Work satisfaction among California registered nurses: A longitudinal comparative analysis. *Nursing Economics*, 30(2), 73-81.

This study is a secondary data analysis of survey data from the California Board of Registered Nursing Surveys from 1997 (before ratio implementation), 2004 (at the time of the implementation), 2006 (mid-term, post-implementation), and 2008 (long-term, post-implementation). The California Board of Registered Nurse Surveys collect and evaluate nursing workforce data to understand changes in the state's workforce.