**TO:** **Health Policy Commission**

**FROM:** **Donna Kelly-Williams, RN President, Massachusetts Nurses Association**

**DATE:** **March 30, 2018**

**RE:** **Testimony on the Health Care Cost Growth Benchmark**

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As the president of the Massachusetts Nurses Association (MNA), I offer this testimony on behalf of the 23,000 members we represent in 85 health care facilities, including 51 acute care hospitals, across Massachusetts. The MNA supports the maintenance of the health care cost benchmark at 3.1% for 2018 and believes the Health Policy Commission and the state legislature should continue to take a multi-pronged approach to controlling health care costs in the Commonwealth. At this time, I will focus my testimony on a solution that both research and the experiences of frontline staff nurses have shown to be a way to decrease costs while improving patient care- appropriate nurse staffing with safe patient limits.

- Over 8-in-10 nurses say the quality of patient care in Massachusetts hospitals is suffering because registered nurses are forced to care for too many patients at once. Setting maximum nurse-to-patient limits will save lives and money. More than one-quarter of Massachusetts' registered nurses say they are aware of cases where patients died as a result of nurses being assigned too many patients at one time.

- Independent scientific studies have consistently found that the quality of care decreases dramatically when nurses are forced to care for too many patients at once, putting patients at increased risk for complications like pneumonia, bedsores, medication errors and an increased risk for costly readmissions. Evidence based medical journals such as the *Institute of Medicine*, the *Journal of the American Medical Association*, and the *New England Journal of Medicine* have all written on the impact of the nurse-to-patient assignment and the quality of patient care.

- More than ten years ago, California established maximum limits on the number of patients that could be assigned to a nurse at one time and the results have been universally positive. Recent studies have shown that patients in Massachusetts receive less time with their nurses, resulting in higher rates of complications and readmissions and longer wait times than in California, while costs in California remain below both the Massachusetts average and the national average.

- To reduce the rate of health care cost growth in Massachusetts, we must look at the most effective ways to deliver high-quality care- and the vital role nurse play in care delivery.

**Preventable Readmissions**

Preventable hospital readmissions have consistently been identified as a health care cost driver- at both the state and federal level. As noted by the Health Policy Commission at its March 28th hearing on the cost growth benchmark, preventable readmission rates in Massachusetts hospitals have increased, diverging from national trends. In 2016 Massachusetts tied with Kentucky for having the 5th worst readmission rates in the nation.[1] Massachusetts hospitals are also consistently among those penalized for high readmission rates by the federal Hospital Readmissions Reduction Program. The Health Policy Commission has identified reducing preventable readmissions as one of the ways to reduce overall costs, estimating that could save $1 billion over five years.

One way to combat increasing readmission rates is to ensure that patients receive appropriate care while in the hospital. According to a 2013 *Health Affairs* article, hospitals with higher nurse staffing had 25% lower odds of preventable readmissions compared to otherwise similar hospitals with lower staffing and 41% lower odds of receiving the maximum penalty under the Hospital Readmissions Reduction Program than their lower-staffed counterparts. The article states, "Investment in nursing is a potential system-level intervention to reduce readmissions that policy makers and hospital administrators should consider in the new regulatory environment as they examine the quality of care delivered to US hospital patients."[2] In looking at two of the most common conditions associated with preventable readmissions, heart failure[3] and pneumonia[4], recent studies have shown that higher nurse-to-patient staffing levels are factors in lowering preventable readmissions, while poor nurse-to-patient staffing levels are associated with higher rates of readmissions. And the association between appropriate nurse staffing and better outcomes is not limited to one particular population. Though many studies focus on preventable readmissions in the Medicare population, research also demonstrates a relationship between higher nurse-to-patient staffing levels and outcomes in children. A 2013 study found that for children with medical conditions, nurse staffing levels were significantly associated with hospital readmission rates, with every patient assigned to a nurse above four resulted in an 11% increased risk for a readmission.[5]

In addition to appropriate care while in the hospital, studies point to the importance of properly preparing patients and their families for discharge. Patients and their families must receive the necessary discharge instructions related to the reasons for the hospitalization and the treatment received while inpatient. This allows patients to go home with the right instructions, the right equipment and supplies, and the right medications. When they receive appropriate discharge information, once home, patients will have the knowledge of how to take their medications safely and as prescribed, how to do wound care appropriately and safely, how to begin to rebuild their strength and prevent falls, and know what potential complications to watch for and report to their caregivers. All of these things are crucial to preventing complications that could necessitate a preventable return admission. And all of these require appropriate nurse staffing with safe patient limits. As nurses, we see every day how inadequate nurse staffing leads to less time spent on educating patients and families- and how this in turn can lead to these preventable readmissions. Studies have supported these observations. In a 2014 study on heart failure published in the *Journal of Nursing Care Quality*, the authors cite previously published research stating, "evidence suggests that education provided by nurses prior to discharge improves outcomes such as increased patient satisfaction and decreased hospital readmissions for

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[1] "A revolving door at Mass. Hospitals" published October 11, 2016. The Boston Globe. https://www.bostonglobe.com/metro/2016/10/11/revolving-door-mass-hospitals/1JqWYNf8n01ZbtrEx3VTBK/story.html

[2] McHugh, Matthew D., Berez, Julie, et al, *Hospitals With Higher Nurse Staffing Had Lower Odds of Readmissions Penalties Than Hospitals With Lower Staffing,* Health Affairs. October 2013.

[3] Stamp, Kelly D., Flanagan, Jane, et al, *Predictors of Excess Heart Failure Readmissions: Implications for Nursing Practice,* Journal of Nursing Care Quality. April-June 2014.

[4] Flanagan, Jane, Stamp, Kelly D., et al, *Predictors of 30-Day Readmission for Pneumonia,* Journal of Nursing Administrators. February 2016.

[5] Tubbs-Cooley, Heather L., Cimiotti, Jeannie P., et al, *An Observational Study of Nurse Staffing Ratios and Hospital Readmissions Among Children Admitted for Common Conditions,* BMJ Quality & Safety. September 2013.

individuals with chronic illnesses".[6] Discharge is a crucial time for nursing care. Ensuring a smooth transition of care to the home setting can make a significant difference as to whether or not the patient returns to the hospital. Nurses must be afforded the time to clearly communicate post-discharge instructions- and this means that hospital units must be adequately staffed at all times. Unfortunately, my colleagues and I can report that this is most often not the case. Until such time as hospitals provide for appropriate nurse staffing with safe patient assignments, we will not likely see a decrease in costly, preventable readmissions.

The investment in resources such as nurses is an important one if we are looking to reduce unnecessary readmissions- and it is an investment that pays for itself.

**Cost Savings - California Example**

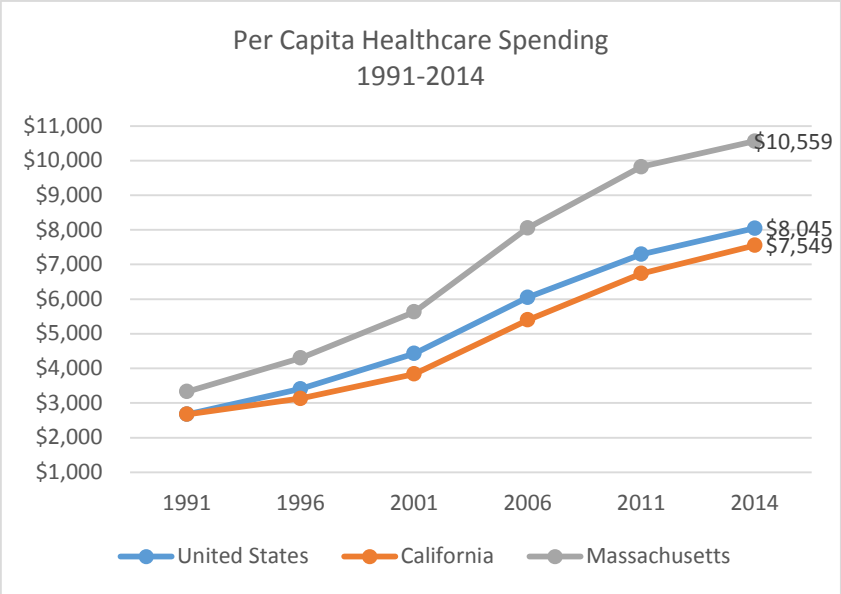
In addition to the specific cost savings associated with preventable readmissions, higher nurse-to-patient staffing levels are associated with lower health care costs. We can look no further for evidence of this than the state of California, which has had appropriate nurse staffing with safe patient limits in all hospital units since 2004 and in Intensive Care Units since 1979.

Compared to Massachusetts, California has had better patient outcomes- recent studies have shown that patients in Massachusetts receive less time with their nurses, resulting in higher rates of complications and readmissions and longer wait times than in California- and lower health care costs, including lower premiums.

Between 1991 and 2014, California's average annual health care costs grew by 4.6%- putting them in 44th place out of fifty states and the District of Columbia in terms of average annual growth rate- and below both Massachusetts and the national average.[7]

| Location | Average Annual % Growth per Capita |
|---|---|
| California | 4.6% |
| United States | 4.9% |
| Massachusetts | 5.2% |

*Health Care Expenditures Per Capita by State of Residence, 1991-2014*




[6] Stamp, Kelly D., Flanagan, Jane, et al.
[7] Data source: State Health Care Facts produced by the Henry J. Kaiser Family Foundation.

The total growth in health care spending per capita in California between 1991 and 2014 was 182%, while the U.S. average increase was 201% and health care spending per capita in Massachusetts grew by 217% over this period. And as illustrated in the graph on the previous page (*Health Care Expenditures Per Capita by State of Residence, 1991-2014*), the cost trend in California mirrors the national average, even as the cost increases remain below that average. There is no spike or sudden acceleration in costs beginning in 2004 when California adopted specific nurse-to-patient staffing levels. So even as California hospitals added nursing staff to comply with the law, the state's health care expenditures per capita did not rise at a level that was out of step with increases seen in Massachusetts or at the national level. And while Massachusetts ranks third in health care expenses per capita ($10,559), California is 37th ($7,549)- well below the national average ($8.045).[8]

These cost savings carry over to costs borne by individuals and employers. California employers contribute a larger portion as a percentage (78%) to the costs of single health care plan premiums than Massachusetts employers (75%), but in actual dollars, California employers paid slightly less per employee than Massachusetts employers. When ranking all states (from highest to lowest) in terms of costs to employers for single plan premiums, Massachusetts employers were #16, while Californian employers were #18. All in all, workers in California paid $179 less per year in health care premiums than the national average and $524 less than their Massachusetts counterparts, who paid more than employees in almost any other state in 2016.

The data for family plans tells a similar story. Employers in California paid nearly $1,274 less in health care premiums per employee than employers in Massachusetts, which ranked 4th (tied with New Hampshire and Indiana; California was ranked #22) of all states in terms of employer contribution to family plans.

When comparing the cost of employee contributions to family plans across all states, Massachusetts workers paid more than workers in 29 other states while in California, workers paid $223 less than Bay State residents in 2016. The total cost of health care premiums for Massachusetts family plans in 2012 was 5th highest in the nation, and $1,497 more per enrolled employee than in California, which ranked 30th.

The successes in California are not limited to cost. A 2010 study comparing California, Pennsylvania and New Jersey found that if those states matched the nurse staffing patient assignments in California, New Jersey hospitals would have 13.9% fewer patients deaths and Pennsylvania hospitals 10.6% fewer death. According to the study's lead author, Linda Aiken, "because all hospitalized patients are likely to benefit from improved nurse staffing, not just general surgery patients, the potential number of lives that could be saved by improving nurse staffing in hospitals nationally is likely to be many thousands a year,".[9] The study goes on to note California nurses report having significantly more time to spend with patients- something supported by data from several other studies, including one that found Massachusetts patients are receiving over three hours less care per day than patients in California.[10]

**Further Cost Savings through Appropriate Nurse Staffing with Safe Patient Limits**

Financial success as related to higher nurse-to-patient staffing levels is not limited to California. While it is true that labor costs do account for a certain percentage of a hospital's budget, these costs are not the budget buster they are

[8] Ibid.
[9] Aiken, Linda H., Sloane, Douglas M., et al. *Implications of the California Nurse Staffing Mandate for Other States.* Health Services Research. August 2010.
[10] Flanagan, Jane, Stamp, Kelly D.

sometimes made out to be. Nursing as a percentage of hospital budgets has been relatively flat for over two decades – this is clearly not the driving force for health care inflation. And it should be noted that one of the reasons hospitals exist is to provide professional nursing care. If a patient does not need nursing care, he or she is likely not in the hospital. It is also important to note that the Massachusetts' nurse-to-patient staffing limits in hospital ICUs went into effect in 2014- and since implementation, the state's hospitals have come in under the established health care cost benchmark.

Another link between appropriate nurse staffing levels and cost is centered on hospital-acquired infections. Beginning in 2014, Medicare began reducing reimbursement rates for hospitals with the worst performances relative to preventable hospital-acquired infections. In 2016, twelve Massachusetts Hospitals were penalized for high incidents of these potentially avoidable hospital-acquired infections- and many of the same hospitals were also fined in 2015.[11] In 2013, one study put the national cost of these potentially avoidable infections at $1 billion annually. This means that within Massachusetts, we could be looking at significant savings if we were to improve the performances of our hospitals. A 2012 study on hospital-acquired infections linked lower levels of nurse staffing and high nurse turnover to increased hospital-acquired infections, with the authors stating, "Hospital-acquired infections remain a major quality concern because of the toll they exact on patients' well-being, the high costs associated with treating them, and the fact that most are preventable," and "in this paper, we point to promising strategies for preventing common hospital-acquired infections that have not received adequate attention, namely safe nurse staffing levels and work environments that facilitate high-quality nursing care,".[12] The study goes on to say that reducing nurse burnout by 30% could prevent more than 4,000 UTIs and more than 2,200 SSIs each year and save up to $69 million annually in health care costs. A 2008 study pointed to a link between understaffing of nurses and the spread of methicillin-resistant Staphylococcus aureus (MRSA), the most dangerous type of hospital-acquired infections.[13] The MNA believes that reducing these types of infections is another lever that could be utilized to bend the cost curve.

Additionally, the MNA would like to note for the record that staffing expenses associated with direct care nurses provide a net positive return on investment for hospitals. Here is just a sample of studies substantiating this:

- **The better the nurse staffing by the hospital, the less likely patients were to die and they had a "dramatically lower rate of [costly] ICU (Intensive Care Unit) use."** Moreover, the total cost of surgery remained at about $27,000 in either environment (better or worse nurse staffing). **That means the better-staffed facilities had "a formula for excellent value".**

  (Silber, Jeffrey H., MD, PhD, Paul R. Rosenbaum, PhD, et al, *Comparison of the Value of Nursing Work Environments in Hospitals Across Different Levels of Patient Risk*, Journal of the American Medical Association Surg. Published online Jan. 20, 2016)

- **Nurse staffing levels have a positive association with financial performance** in competitive hospital markets. Hospitals should reconsider reducing nursing staff, as this is inefficient and can negatively affect financial performance.

[11] https://khn.org/news/758-hospitals-penalized-for-patient-safety-in-2016-data-table/
[12] Cimiotti, Jeannie P., Aiken, Linda H., *Nurse Staffing, Burnout, and Health Care-Associated Infection,* American Journal of Infection Control. August 2012.
[13] Clements, Archie et al. *Overcrowding and Understaffing in Modern Health-care Systems: Key Determinants in Meticillin-resistant Staphylococcus Aureus Transmission.* Lancet Infectious Disease, July 2008.

(Everhart D, Neff D, Al-Amin M, et al, *The Effects of Nurse Staffing on Hospital Financial Performance: Competitive Versus Less Competitive Markets,* Health Care Manage Rev. April-June 2013)

- "The Evidence clearly shows that **adequate staffing and balanced workloads are central to achieving good patient, nurse and financial outcomes**. Efforts to improve care, recruit and retain nurses, and enhance financial performance must address nurse staffing and workload."

  (Unruh, Lynn, *Nurse Staffing and Patient, Nurse and Financial Outcomes,* The American Journal of Nursing. January 2008)

- **Increasing the proportion of nurses** without increasing the total nursing hours per day **could reduce costs and improve patient care by reducing unnecessary deaths** and shortening hospital stays. "Whether or not staffing should be increased depends on the value patients and payers assign to avoided deaths and complications."

  (Needleman J, Buerhaus PI, Stewart M, et al, *Nurse Staffing in Hospitals: Is There a Case for Quality,* Health Affairs. January-February 2006)

**Improved Patient Care**

It was noted several times at the Health Policy Commission's March 28th public hearing, that we must find a way to bend the health care cost curve without sacrificing access or quality. The good news is that improved patient care and outcomes are consistently associated with lower costs and better financial outcomes. Nurses know from experience- and are backed by empirical evidence- that appropriate nurse staffing with safe patient limits is key to improving patient outcomes. In addition to a reduction in preventable readmission rates, appropriate nurse-to-patient staffing limits are associated with lower mortality rates, shorter patients hospital stays and lower rates of hospital-acquired infections. And despite testimony offered to the Health Policy Commission that there is no research to support higher nurse-to-patient staffing limits, published studies connecting appropriate nurse staffing with safe patient limits to improved patient outcomes can be found here: https://www.massnurses.org/legislation-&-politics/safe-staffing/scientific-research

**Further recommendations**

In addition to the recommendation that the Health Policy Commission support policy proposals for appropriate nurse staffing levels in Massachusetts hospitals, the MNA reiterates our support for the policy recommendations we made in our 2017 benchmark testimony around provider price variation, market consolidation, pharmaceutical costs and exploring a Medicare for All model.

Thank you for the opportunity to share our thoughts on these important issues.