

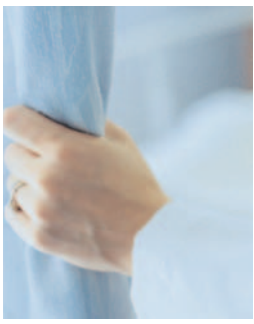
New England Public Policy Center and the Massachusetts Health Policy Forum

# NURSE-TO-PATIENT RATIOS:

## Research and Reality



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## July 2005

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For background information and the summary policy brief, see:  
[www.bos.frb.org/economic/neppc/conf.htm](http://www.bos.frb.org/economic/neppc/conf.htm)

# NURSE-TO-PATIENT RATIOS: Research and Reality

*On March 30, 2005, nurses, hospital administrators, health care researchers, legislators, and policy advisors gathered together to evaluate options for improving patient safety and nursing conditions in Massachusetts hospitals. They were participating in a conference co-sponsored by the Massachusetts Health Policy Forum and the New England Public Policy Center (NEPPC) of the Federal Reserve Bank of Boston. “Nurse-to-Patient Ratios: Research and Reality” focused particularly on the pros and cons of establishing minimum nurse-to-patient ratios, a legislative initiative currently under consideration in Massachusetts. This report, written by NEPPC researcher Brad Hershbein, summarizes the conference proceedings.*

Two competing bills under consideration by the Massachusetts legislature would improve patient safety and nursing conditions through different approaches. One bill, sponsored by Rep. Christine Canavan, would legislate minimum nurse-to-patient ratios. The other, sponsored by Sen. Richard Moore, would attempt to increase the supply of nurses and better track and disseminate information on patient outcomes and nurse workloads. (See summaries of the two bills on page 10.)

“Nurse-to-Patient Ratios: Research and Reality” explored many issues related to these two bills. At the end of the conference, much disagreement remained, but moderators Stuart Altman, professor of national health policy at the Heller School for Social Policy and Management at Brandeis University, and Robert Tannenwald, director of the New England Public Policy Center at the Federal Reserve Bank of Boston, found some common themes among participants:

- The number of staff nurses and their

skill play a critical role in patient outcomes across a range of conditions in the hospital setting.

- Patient outcomes depend not only on the kind and severity of patients’ illnesses, but also on human resources factors such as the mix of nurses, doctors, and auxiliary personnel, and on the work environment or culture of the hospital.

- The nursing shortage in the state and nation presents challenges for hospitals in changing the number and mix of staff nurses.

- Research has not yet shown, and may be unable to show, the optimal nurse-to-patient ratio.

Enforcement of any nurse staffing reform will be challenging, as the usual penalties for noncompliance, such as fines, could have a detrimental effect on access to care.

## Should Government intervene to require nurse-to patient ratios in hospitals?

- Regardless of the path that nurse staffing reform takes, the government, hospitals, nurses, doctors, insurance companies, and patients must put aside their differences and work together to make the reform successful.

These agreements, however, are often obscured by the dueling among various groups on the nature of the relationship between nurses and hospitals, on the extent to which there is public support for ratios, and on the estimates of what ratios would cost. Conference participants explored in great detail the evidence underlying these issues. This brief synthesizes their presentations and comments on the current nursing

shortage, the working environment that hospitals and nurses face, and the potential benefits and costs of various proposals to improve conditions for both patients and the nurses that care for them.

## The Nursing Shortage

Nursing shortages are not new. At the conference, Peter Buerhaus, a nursing professor at Vanderbilt, identified several peri-

**While most nursing shortages last only a year or two, the current one is in its eighth year.**

ods of nursing shortage over the last 40 years, with most lasting only a year or two. But the current shortage appears to be different. It began in 1998 and, now into its eighth year, has lasted longer than any previous recorded nursing shortage. And the problem is not likely to abate: The Bureau of Health Professions predicts that the current shortage of 150,000 nurses nationwide will by 2020 grow to 800,000 nurses—numbers, says Buerhaus, that are unsustainable under the current structure of health care.

Although the numbers demonstrate a real and growing problem, the situation is not yet critical, especially in Massachusetts. With over 92,000 active registered nurses, the Commonwealth is fortunate to have more RNs per capita than any other state and can draw upon not only Massachusetts nursing graduates but also those from nearby New England states. Furthermore, between 2001 and 2003, the worst years of the nursing shortage and a time of poor job

growth across the economy, hospitals nationwide increased their employment of registered nurses by 183,000, much more than normally would be expected, according to Buerhaus. Even within Massachusetts, which lost proportionately more jobs than most states during the slowdown, full-time RN hires have grown faster than patient volume over the last five years, says Karen Moore, president of the Massachusetts Organization of Nurse Executives. Still, despite this good news, the Health Resources and Services Administration forecasts the state's current unmet demand for registered nurses will rise from 5,000 to 25,000 by 2020.

The reasons for the current nursing shortage are numerous and complex. Not everyone agrees on all the factors that have contributed to the shortage, but several are either substantiated by data or commonly accepted by experts. These include:

**Demographics** – As the population as a whole continues to grow older, the demand for nurses will only increase. In fact, the Bureau of Labor Statistics forecasts that registered nursing will be the fastest-growing occupation between now and 2012, as Americans' health care needs and hospital visits and admissions rise. Yet lower birth rates during the 1970s, Buerhaus pointed out, have meant that in the last 15 years there simply have been fewer young people available to choose nursing as a career. Correspondingly, the median age of registered nurses increased from 35 years in 1980 to 45 years in 2000, higher than the median age of the workforce overall, and this difference is expected to persist over the next 20 years. Many nursing leaders worry whether older nurses will be able to work through arthritis, back pain, and the long hours of

### GLOSSARY

**ANA** — American Nurses Association

**ANCC** — American Nurses Credentialing Center

**FAAN** —Fellow of the American Academy of Nursing

**FACHE** —Fellow of the American College of Healthcare Executives

**IOM** — Institute of Medicine

**JCAHO** — Joint Commission on the Accreditation of Healthcare Organizations

**MARN** — Massachusetts Association of Registered Nurses

**MHA** — Massachusetts Hospitals Association

**MNA** — Massachusetts Nurses Association

**MONE** - Massachusetts Organization for Nurse Executives

standing that the job requires.

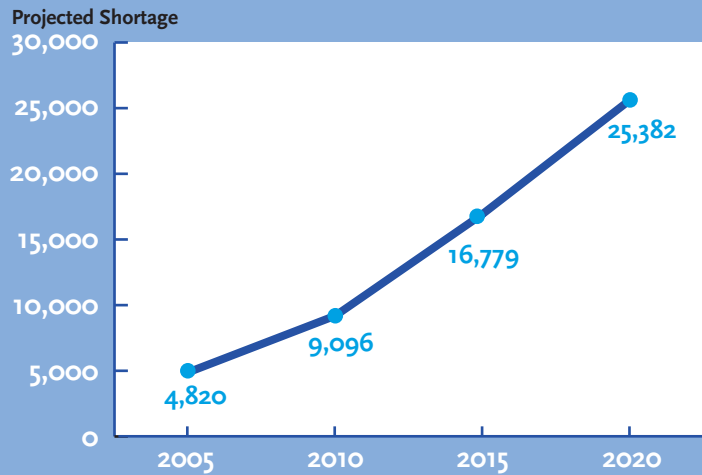
**Other job opportunities** – In the 1960s and into the 1970s, the three most common jobs for a working woman were secretary, teacher, and nurse. The women's rights movement that gained traction in the 1970s fundamentally changed that dynamic, opening up far more career possibilities for women than had existed previously. True, more men entered the nursing profession at this time as well, but nursing is still more than 92 percent female. The allure of occupational choice, especially as compensation for registered nurses began to lag behind that of other professional occupations, left a smaller nursing pool.

**Insufficient capacity in nursing education** – Growth in the number and size of nursing programs has not kept up with the demand for nurses. Buerhaus estimates that between 40,000 and 50,000 qualified applicants are turned away from nursing programs each year because there is no room for them. Part of this problem is money—nursing schools cannot raise funds easily to expand, and prospective students have few public nursing schools to choose from relative to more expensive, private institutions. Another part of the problem is a dearth of nursing faculty. At the conference, Senator Richard Moore, chair of the Commonwealth's joint committee on health care financing, argued that this latter issue is particularly acute in Massachusetts, and that pay disparities between nurses at the bedside and nurses in the classroom play a big part.

**Changes in hospital care** – Jean Ann Seago, an associate professor at UCSF, mentioned that as part of the managed care reforms during the 1990s, hospitals altered their admittance practices. Changes in technology, payment structures, and incentives encouraged them to admit only the sickest patients and to send the patients home or to rehabilitation facilities more quickly than before. As a result, patients were in the hospital only during the most acute phase of their illness or injury, making hospital patients sicker on average than they had been 15 years earlier. Additionally, many hospitals began hiring more unlicensed assistive personnel that licensed nurses then had to train and supervise. Thus, even if the number of nurses had remained con-

### Forecast of RN Shortage in Massachusetts

Although Massachusetts has more registered nurses per capita than any other state, the Bureau of Health Professions predicts the state's unmet demand for nurses will continue to grow



Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions (2002) "Projected Supply, Demand and Shortages of Registered Nurses: 2000-2020"

stant, the work intensity for hospital nurses still would have increased.

**Hospital budget constraints** – In FY 2004, 42 percent of Massachusetts's hospitals operated in the red, and the picture was not much better nationwide. Many hospitals rely heavily on public or charitable support and simply cannot afford to hire more nurses. While several chief nursing officers commented that they have been trying to raise nurse staff levels, they compete with other areas of hospital administration for a relatively small discretionary pie.

**Nurses are leaving the profession** – A series of research studies over the last several years unequivocally shows that many nurses are not happy with their work conditions and are more likely to quit because of this dissatisfaction. One nurse remarked: "Every time I'm not able to turn a fragile post-op hip replacement patient, not able to assess the skin frequently, not able to assess the breath sounds frequently, I go home cringing." It is not precisely clear what factors have caused these high levels of nurse dissatisfaction and whether or not the situation is improving. But it is clear that the issue is a critical one. How to improve current working conditions of nurses was probably the most contentious topic raised at the forum.

## Nurses on the front lines

What are nurses' working conditions? The short answer from the conference participants is: not nearly as good as they should be, but perhaps somewhat better than a few years ago. With the managed care revolution of the 1990s and the concomitant goal of cost-cutting came cutbacks in much of the direct patient care infrastructure that nurses rely on to do their job. Many types of support services and specialty units were downsized or eliminated, RN staffing was cut, mandatory overtime became common, and hospitals began to substitute cheaper, less-credentialed staff for licensed RNs. Massachusetts in particular took a heavy blow: After its nurse staffing fell 27 percent during the 1980s, the steepest decline in the nation, the number of licensed nurses only weakly recovered in the 1990s.

Not surprisingly, the severity and rapidity of these changes hit nurses hard. In the early 1990s, 41 percent of hospital nurses expressed job dissatisfaction—three times the rate of all professional workers nationwide—and 43 percent reported high levels of job burnout, according to a nurse survey published in *Health Affairs* by Julie Sochalski, an associate professor at the University of Pennsylvania. Further, almost half the nurses felt that quality of care was

deteriorating, whether it was the care that they themselves were able to provide or care provided in the hospital overall. Julie Sochalski and her colleague Linda Aiken found that an increase of one patient in a nurse's load was associated with a 23 percent increase in the chance of burnout, a 15 percent decrease in job satisfaction, and ultimately a greater likelihood of nurse turnover.

Ten years later, the picture the data portray is not quite so grim and actually hints at some improvement. A recent 2004 survey highlighted at the conference by Peter Buerhaus shows that the percentage of nurses who cite the work environment as the prime reason for the nursing shortage declined from 26 percent in 2002 to 17 percent in 2004. Likewise, salary and benefits as a reason fell from 54 percent to 40 percent, and undesirable work hours fell from 40 percent to 31 percent. The 2004 survey also reveals that nurses were more likely to feel that management recognized the importance of family and personal life, that they were satisfied being a nurse, and that they would recommend the profession to others.

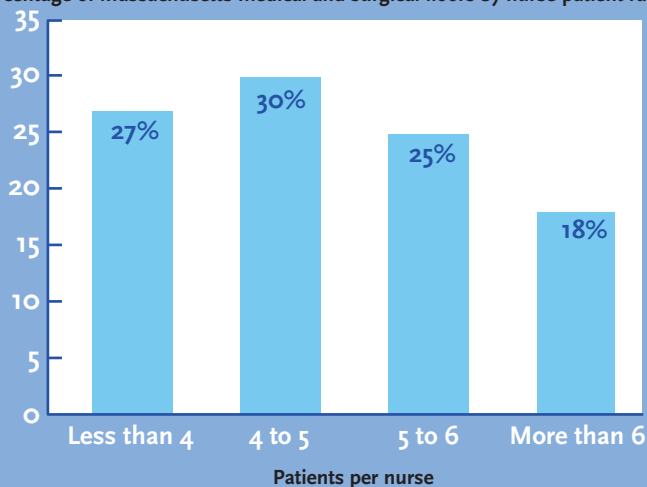
Despite this seemingly good news, the personal stories of some nurses at the conference suggest the data may not be telling the whole story, at least in Massachusetts. One nurse pointed out that although he works at a hospital that follows the Massachusetts Hospital Association's (MHA's) nascent voluntary staff-monitoring plan, he is routinely responsible for four to five patients coming straight from the ICU, and that situations in which there are three to four nurses for 40 beds on the night shift are not uncommon. Another nurse agreed with this assessment and added that she remembered a study by the Massachusetts Board of Registration in Nursing finding the primary reason nurses were leaving was that they felt the workload was creating unsafe conditions, a sentiment she clearly shared.

Indeed, the current harried pace in health care not only leaves some nurses feeling guilty about being unable to deliver quality care, but also increases the risk of mishaps for which they might be held professionally liable. According to Massachusetts Representative Christine Canavan, a registered nurse, current staffing structures also jeopardize nurses' ability to know their patients and deliver personalized

### RN Staffing Ratios Range Widely on Medical and Surgical Floors

According to a Massachusetts Nurses Association survey conducted by Andover Economic Evaluation, the number of patients per nurse on medical or surgical floors in Massachusetts is close to the national average of five. However, these staffing ratios can still vary substantially from floor to floor.

Percentage of Massachusetts medical and surgical floors by nurse-patient ratios



## CALIFORNIA: The Experiment State

California is the first, and so far the only, state to legislatively require minimum nurse-to-patient ratios. In the heyday of the 1990s, when the economy was booming and managed-care health care reform was a watercooler topic, the nation's most populous state (and, incidentally, one with relatively few nurses per capita) decided that it should increase nurse staffing by mandating minimum ratios. Driving this movement was the fact that in the 1970s California had instituted minimum nurse ratios for intensive care units, which are widely viewed as successful today, and in the early 1990s had devised a loose, hospital-defined patient classification system, which is thought to be unsuccessful and in need of change because of poor design. Legislation went into effect in 1999 instructing the California Department of Health Services (CHDS) to devise minimum nurse ratios for the different specialty units of the state's 450 acute care hospitals. With recommendations ranging from a minimum of one nurse per 10 patients from the hospitals' association to one nurse per three patients from one of the nurses' associations, CDHS in 2002 picked an initial ratio of 1:6 for medical and surgical units that would move to 1:5 after a year. The 1:6 ratio ultimately went into effect in January 2004 after a few legal battles, and further legal actions delayed implementation of the 1:5 ratio until March 2005. The California regulations allow that up to 50 percent of nurse staffing on most hospital units can be achieved with LVNs, the equivalent of LPNs in Massachusetts.

With the rollout of ratios still quite recent, the effects are not yet clear. "It's probably too early to weigh benefits and costs of ratios because we can't really measure the benefits yet," says Joanne Spetz, a researcher at the University of California, San Francisco, who has studied California's law. What little is known, adds Spetz, is that California's enforcement of the law through CDHS is weak. The department cannot issue fines; instead, it can only require the violator to submit a plan of remedy. Even if the state's law had more teeth on paper, an environment of

state fiscal deficits would limit the chance for additional funds to cover the costs of stricter enforcement. Not surprisingly, perhaps, an investigation by the L.A. Times found that half of the 28 hospitals inspected through September 2004 were not in compliance with the ratios at all times. More stringent enforcement may come from Medicare and Medicaid regulations, which can deny reimbursement to hospitals that demonstrate a pattern of willful violation of state or federal regulations. And the threat of malpractice lawsuits may deter hospitals from egregious violations, as California's malpractice cap does not apply to cases of gross negligence.

The news is not all disappointing, however. Spetz maintains that most hospitals are now trying to meet the mandatory ratios, noting that although most hospitals initially fought them, those that agreed to meet them or exceed them saw their nursing job applications surge. Additionally, some chief nursing officers have quietly admitted to liking the ratios; they feel the bargaining power of nurse managers has increased enough that they can get the funding for the staff levels that they have always wanted.

Is it possible, as Federal Reserve Bank of Boston economist Robert Tannenwald suggested at the conference, that "a radically new rule can catalyze constructive action"? If so, it certainly must be done carefully. Massachusetts' Proposition 2½ emerged as a more nuanced, flexible, and successful take on property tax limitations than California's earlier Proposition 13 because Massachusetts analyzed the strengths and weaknesses of California's experiment before acting. Perhaps the Commonwealth will do the same on measures for improving nurse staffing in hospitals.

*For more information on the California experience and for a side-by-side comparison of ratios in California compared to proposed ratios in Massachusetts, visit [www.sihp.brandeis.edu/mhpf](http://www.sihp.brandeis.edu/mhpf), Forum #25.*

care, affecting both patient outcomes and nurses' job satisfaction. Rep. Canavan added, "We have nurses that are leaving the bedside, and they're leaving because they cannot work in the dangerous conditions they're in—because if they lose their license they can never work [as nurses] again." No one at the conference could recall a nurse recently losing his or her license.

How does Massachusetts fare on these accounts? A Massachusetts Nurses Association (MNA) survey by Thomas

Grannemann of Andover Economic Evaluation reveals that nurse staffing levels in the state are similar to the national average, with about one nurse per five patients on medical and surgical floors. Statewide, one-sixth of these floors had nurse-to-patient ratios of less than 1 to 6 and one-quarter had ratios of greater than 1 to 4, with Boston-area hospitals more likely to have fewer patients per nurse. Of course, it is also likely that Boston-area hospital patients are sicker on average than patients

in the rest of the state (call it the winner's curse of top hospitals), so it is difficult to draw definitive conclusions from these figures. But, according to Karen Moore, 83 percent of Massachusetts patients in a recent survey gave their hospitals the highest ranking for quality of care, suggesting that existing nurse staffing ratios aren't having disastrous effects on patient outcomes. This is not to say, however, that the status quo could not be improved.

### **Would more nurses help?**

The implications of nurses' working environments on patient safety can be quite serious indeed. Two-thirds of the respondents in a 2003 survey of MNA members believed that insufficient nursing care led to serious medical complications, many of which resulted in patient deaths. Nearly 90 percent of the nurses surveyed felt that they were being forced to care for too many patients at once. In addition, numerous studies—by organizations as diverse as the Joint Commission on the Accreditation of Healthcare Organizations, the Agency for Health Research and Quality, and those published in the *New England Journal of Medicine*, have linked lower nurse staffing levels with patients' increased risk of pneumonia, urinary tract infection, post-operative infection, sepsis, ulcers, gastrointestinal bleeding, cardiac arrest, longer hospital stay, and, in some cases, death.

However, these studies vary in methodology. Some measure nurse staffing levels as nurse-hours per patient-day while others compare the percent of nursing staff that are RNs; some use state-level data while others use national data; some explore results at the hospital level while others analyze specific specialty floors. These different approaches make the results difficult to compare precisely. In addition, numerous other factors affect a patient's health besides nurses, including hospital organization, proper medical equipment, and number of support staff. These other factors cloud estimates of how effective more nurses might be. For example, if there are more nurses per patient in well-run hospitals, and these hospitals have a lower incidence of urinary tract infections of admitted patients, is this result because there are more nurses, because the hospital is better organized, or because the patients are sim-

ply different? It is hard to say.

Despite such methodological uncertainties, the weight of the evidence concerning the impact of higher nurse staffing ratios on patient outcomes is quite persuasive—some would argue, conclusive. For example, Jack Needleman, associate professor at UCLA, argued that “given the variety of studies, the robustness, the plausible clinical pathways that have been used to explain these results, [they] go beyond association to causality.” Needleman's own research, which tries to control for some of the difficulties just mentioned, estimates that switching a nurse's load from the level of the bottom quarter to that of the top quarter of hospitals nationally—a reduction of roughly one patient per nurse—lowers the risk of adverse outcomes such as shock and infection and decreases hospital length of stay by between 3 percent and 12 percent.

However, even if those numbers are accepted at face value (and Needleman advocates caution when using them), they still leave many questions unanswered. We do not know whether a reduction of that magnitude would occur if nurse loads changed from eight patients per day to seven patients per day, as would be more feasible in smaller hospitals, or whether there would be a reduction at all if nurse loads fell from four patients to three. It is also possible, as the MNA argues, that hiring more nurses would have an even greater positive effect than these studies suggest, because nurses' long-term stress levels would fall once they knew their workload would be more manageable, and less-stressed nurses could provide better care. In short, current research cannot determine what the optimal nursing level should be because there is not one number that works at all times under all circumstances—there is just too much variation in the severity of cases, staff skills, nurses' experience, and a host of other variables for there to be a single, one-size-fits-all ratio. What the research can determine is that patient outcomes can likely be improved—at least somewhat—with more nurses.

### **What would it cost?**

The answer to how expensive additional nurses would be depends on the person you ask. Needleman predicts a nationwide



cost of about \$680 million to raise the proportion of nurses who are full RNs to the current national 75th percentile. He feels that this modest switching from licensed practical nurses (LPNs) to RNs would pay for itself through reduced costs to hospitals and insurers. If hospitals decided instead to increase nurse staffing overall to the 75th percentile level of one nurse per five patients averaged over the day, Needleman forecasts an upfront price tag over \$6 billion, with only one-fourth recouped through financial savings, for a net cost of about 1.5 percent of hospitals' current expenditures.

Despite the proposed legislation in Massachusetts stipulating a more stringent standard averaging one nurse per four patients, the upfront cost for the state would be proportionally similar because of the state's already relatively high number of nurses per patient. Thomas Grannemann, using results from the Massachusetts nurses study conducted on behalf of the MNA, estimates the projected cost at around \$270 million, or 1.9 percent of net patient services revenue. (If these numbers are adjusted to recoup savings through reduced costs the way Jack Needleman did, the proportional savings, though not strictly comparable, are similar.) Another cost estimate from the MHA puts the ballpark estimate slightly higher, at between \$250 million and \$450 million.

All of these estimates, however, rest on the assumption that there are plenty of nurses standing by, ready and waiting to be hired at the current going rate. Regrettably, this is not the case. With an ongoing nursing shortage and many nurses still complaining of poor working conditions, it is likely that something would need to change to attract enough nurses to increase nurse staffing levels. Exactly what would need to change, and by how much, is a source of contention. Many researchers believe a wage hike is needed to bring in more nurses, and, although the specific increase hasn't been pinpointed, research presented by Joanne Spetz, an associate professor at UCSF's school of nursing, suggests the magnitude of this hike could be as much as 66 percent, inflation-adjusted, over the next 12 years. Although an MNA survey suggests low nurse wages may be less of a problem in Massachusetts than nationally, even small increases could be costly. With every 10 per-

cent pay raise corresponding approximately to an additional \$180 million in costs for Massachusetts, according to economist Jim Howell, the earlier expense estimates could still easily double or triple. On the other hand, many ratio advocates feel wage increases could be kept small, since more reasonable workloads might prevent nurses from leaving the bedside and encourage more nurses either to return to or enter the profession. No research can tell us ahead of time which result will occur, so the debate over the need for higher nurse wages so far is limited to conjectures.

Moreover, even if one could accurately predict how much wages would need to increase to fill all the vacant nursing slots, the cost estimates for more nurse staffing still suffer from several complications. They cannot fully control for additional savings that research suggests could result, including higher quality of care, reduced rehospitalization, declines in the cost of worker's compensation from fatigue-induced injuries,

**On the medical and surgical units of the state's hospitals, there are about five patients per nurse—similar to the national average.**

potential savings from less nurse turnover (estimated at between \$25,000 and \$75,000 per nurse), and fewer lost workdays. The effect of these benefits could be substantial, possibly even enough to make higher ratios ultimately cost-neutral. Conversely, the cost to train and socialize an influx of new, probably less-experienced nurses to specific hospitals could also be substantial. How do these effects play out on net costs? Again, we simply do not know.

Additionally, not all hospitals would be able to afford to hire more nurses. Hospitals that currently have fewer nurses per patient, those that are already operating at a deficit (42 percent of the state's hospitals in FY 2004), and those that are not connected with major universities and accompanying revenue-raising capacity will all face great difficulty in increasing nurse staffing levels,

argued Jim Howell. Overwhelmingly, these hospitals are the small, community hospitals outside of major urban areas. In Howell's opinion, the cost burden on small hospitals—in either hiring nurses to meet the ratios or suffering fines for noncompliance—would be great enough to put several of them on the brink of closure. If such is the case, then mandatory ratios could end up restricting access to care for the people who arguably need it most—patients in non-metropolitan areas who already lack the options

in medical care that their urban counterparts have. Would this scenario come to pass? The evidence from California, admittedly a very different state from Massachusetts, seems mixed and not dire (see sidebar on the impact of California's nurse-to-patient ratio legislation on page 7). Nevertheless, stricter nurse staffing requirements would probably stress some hospitals more than others. It is unknown whether or how the hospitals would try to cope with minimum ratios—consolidation, appeals for state aid, and lawsuits have all been mentioned as possibilities—and who would bear the ultimate cost of these choices.

## MASSACHUSETTS LEGISLATION ON THE TABLE

by Katherine Kranz Lewis

Research Associate, The Heller School, Brandeis University

An Act Ensuring Patient Safety, proposed by Rep. Christine Canavan (D-Brockton), is currently under consideration in the Massachusetts legislature. This bill would guarantee minimum registered nurse staffing levels in acute care hospitals across the state. This is a much stronger provision than in California, which has less stringent ratios and where up to 50 percent of staffing, with some exceptions, can be met with the equivalent of LPNs. Under the Massachusetts bill, the Department of Public Health would be responsible for enforcing the regulations and also for establishing a patient classification system to adjust staffing levels based upon patient needs. Such a system already exists in California, but it has not been adequately enforced or implemented, reportedly rendering it rather ineffective.

SB 1260 is an alternative piece of legislation introduced by Senator Richard Moore (D-Uxbridge) that would include acute and chronic disease hospitals. Facilities would be required, under this law, to create staffing formulas based upon patient and nurse characteristics. These formulas would then be made available to the public. Nurse-sensitive patient outcome measures, including patient care hours per patient day, would be selected by the Betsy Lehman Center from the National Quality Forum. The Center would both develop the annual reporting process and publicly report hospital-specific performance measures, aggregated industry trends, and best practices developed from the annual reports. The bill also includes incentives to increase the supply of nurses: \$30 million earmarked for the Clara Barton Nursing Excellence Trust Fund for student loan repayments and funding for faculty, scholarships, and mentoring services; increased nursing workforce data collection and dissemination; and improved accountability from hospitals in terms of staffing levels.

For more information on the Massachusetts bills, visit [www.sihp.brandeis.edu/mhpf](http://www.sihp.brandeis.edu/mhpf), Forum #25.

### Are there alternatives to ratios?

Hospitals have already taken strides toward improving patient safety and working conditions for nurses. Some, for instance, have attained what is known as magnet status, a special accreditation from the American Nurses Credentialing Center, an affiliate of the American Nurses Association. Magnet status signifies that a hospital is on the cutting edge of quality care. Hospitals must apply through a lengthy process and demonstrate that they meet all ANA regulations and government statutes, possess experienced and influential nurse leadership, allow and encourage nurse feedback without retribution, haven't committed unfair labor practices, collect data on patient outcomes, and, most important, maintain an excellent record of patient care. Only 100 or so hospitals nationwide are magnet-certified, and only three (Mass General, Winchester, and Jordan Hospital in Plymouth) are in Massachusetts, though many others are working toward this accreditation. These hospitals employed what measures they thought necessary to improve staff work environments and levels of care and earned a mark of distinction, all without government intervention.

Another potential solution being implemented in the Commonwealth is Massachusetts Patients First, an initiative of MHA and the Massachusetts Organization of Nurse Executives in which hospitals pledge to provide proper staffing and work environments to meet patient needs, work toward improving patient access to care, and agree to release performance measures to the public. Nearly half of the 131 certified

hospitals in Massachusetts have signed on to this program since its rollout six months ago, and more hospitals are expected to join in the future.

These innovative, voluntary approaches have promise, but some nurses doubt that they will be sufficient to solve the problem. The presence of a few magnet hospitals, for example, still leaves millions of patients at thousands of hospitals that do not meet magnet qualifications, many of them in poorer, non-urban areas. In the words of one nurse at the conference: “What seems to be coming out [are] more and more solutions to create exceptional hospitals...We need to create a minimum standard of safety and from that...work on the quality issue.” Many nurses—and others at the conference—agree. Another challenge facing cooperative programs is their reliance on trust between hospitals and the nurses in their employ, trust that the managed care reform of the 1990s eroded, according to Joyce Clifford, president and CEO of The Institute for Nursing Healthcare Leadership. Recent surveys have shown that trust between nurses and the hospitals that employ them is still far from recovered. Karen Moore, representing nurse executives, was optimistic about trust being rebuilt, citing the 40 state hospitals applying for magnet status. Julie Pinkham, executive director of the MNA, was less sanguine, mentioning that a dozen years of hospital management disregarding nurses' input on staffing decisions has left nurses skeptical of voluntary plans, favoring instead the “blunt instrument” of minimum nurse staffing regulation. Indeed, an additional shortcoming of voluntary initiatives is that they are, well, voluntary. “Regulation itself does not guarantee excellence,” Joyce Clifford warned, but, according to many participants, hospital pledges that are not backed up by firm commitments and accountability may not do so either.

Other possible interventions go further than voluntary programs but stop short of mandatory staffing ratios. Both advocates and opponents of minimum nurse staffing ratios give wide support to the public reporting on a regular basis of a range of hospital performance measurements, particularly nurse-sensitive patient outcomes. The idea is that if patients knew which hospitals

have better patient outcome records, they would be more likely to go to those hospitals. Since research has shown that higher nurse staffing is associated with better patient outcomes, competition for patients would compel hospitals to staff nurses at market driven and publicly acceptable levels. However, while better consumer information is clearly laudable, it is not clear that public reporting alone would improve patient outcomes or increase nurse staffing. Although patients may “shop” hospitals the way consumers shop for the best deals, medical emergencies or expense can limit patients to the most convenient hospital, not necessarily the one with the best record. Further, even if competition does take hold, as initiatives such as Patients First propose, hospitals may be able to improve patient outcomes with other, cheaper initiatives besides more nurses, such as technology expansion or organizational change. While this would benefit patients, it would not necessarily alleviate heavy nurse workloads.

Another popular alternative is the creation of a state-wide patient classification system, which would provide a rubric to gauge the severity of a patient's condition and the care he or she needs for a range of maladies. If the balance of patients on the floor have particularly critical conditions and require a high level of care, then nurse staffing would have to be higher than on a less care-intensive unit. This measure would seem to help both patients and nurses, but it, too, has its shortcomings. Scheduling could be problematic, for example, if several high-need patients are admitted into a unit quickly. Will there be nurses on call, ready to rush into duty at a moment's notice? Conversely, if the floor is quiet, will scheduled nurses be dismissed from their shifts? Moreover, enforcement can be tricky, as a classification scheme requires detailed calculations to ensure that staffing is adequate at all times. While good on paper, the logistics of a patient classification system may prove challenging, as the case of California (box on page 7) illustrates.

Of course, as Peter Buerhaus pointed out, the common fallacy of these initiatives is that they are designed with the expectation that regulating the process will lead to the desired outcome. None ensures that the desired outcome is, in fact, reached.

Buerhaus argued that a better solution would be to establish an incentive structure for hospitals to achieve better patient outcomes and more manageable nurse workloads. If hospitals were rewarded, for instance, for delivering better patient care, whether by the government or the market, then better patient care would result. Such a strategy would directly target the problem—patient outcomes and nurses’ working conditions in need of improvement—while allowing hospitals the flexibility to do so in the best way possible for them.

### Public voice and public responsibility

The current debate on how to improve nurse staffing and patient outcomes has mostly been between staff nurses on one side and hospital administrators and nurse executives on the other. The groups that would be affected most by any change—the health insurers who currently pay for health-care and the patients and potential patients who ultimately receive the care and pay for it through premiums and co-pays—have been on the sidelines of the issue, if present at all.

The MNA and MHA have both attempted to glean some insight into public sentiment on this issue. But much like the opinions on how much money more nurses would cost, the public's attitude on how best to improve patient care in hospitals depends on whom you ask and how you ask them. A survey of former hospital patients sponsored by MNA and reported at the conference found a 50-30 split in the percentage of respondents favoring minimum nurse-to-patient ratios over the posting and reporting of nurse staffing plans as the “better approach to addressing the nurse staffing issue.” A dueling survey of registered voters sponsored by MHA broke 56-21 in favor of letting “hospitals, together with nurses, draw upon their own nurse staffing plans and publicly report those plans to an independent entity” over mandating ratios. What to make of the dichotomy? Probably not much. These results demonstrate as much the power of wording and issue framing as they do of how people actually feel. They therefore do not provide much guidance on what the public really wants and even less on how much the public is pre-

pared to pay for better care.

Moderator Stuart Altman of Brandeis suggested that, in fact, the public may not be able or willing to answer these kinds of questions adequately since they largely leave the decisions on how much and what kind of care they need to health care professionals. The public will start to take notice, however, if they see costs increase dramatically or if they become concerned about the quality of their care. And in their roles as both health care consumers and taxpayers, they will press for a solution that achieves results without breaking the bank, possibly to the detriment of nurses or hospitals. Both these groups have a responsibility to care for patients to the best of their ability, and both are committed to providing quality care. Thus it is in the interest of hospitals and nurses to work together to find a common solution rather than pressing for their own interests. As Altman remarked: “You're both right...as a past patient and probably a future patient, I look to the professionals not only at the bedside but also the people who are responsible for administering the nurses and the people that run the hospital...to tell me what the right care is. And I would hope that as we move forward with this legislation...collectively the bedside nurse, the nurse administrators, and the hospital administrators can decide what's best.”