NYSTLA CIVIL JUSTICE BRIEF

Hospital Medical Errors Cost New York More Than $1 Billion Annually

Reducing medical errors would save hundreds of millions of dollars and many lives each year.

Overview

Many New York hospitals are confronting difficult financial challenges. The causes of their financial woes are complex and include inadequate funding from Medicaid and Medicare, the high costs of treating large numbers of patients who have received inadequate primary care and present with multiple risk factors, high hospital debt loads and management inefficiencies. Medical errors are another major factor.

Hospital medical errors in the U.S. are at epidemic levels. In 1999, the Institute of Medicine of the National Academies released a landmark study, *To Err is Human*, which determined that there were up to 98,000 avoidable patient deaths in U.S. hospitals each year.[1] More than a decade later, a study published in the *New England Journal of Medicine* concluded that since *To Err is Human* was published there had been no progress in reducing avoidable harmful adverse events in hospitals. According to the *New York Times* coverage of the report, "[I]nstead of improvements, the researchers found a high rate of problems. About 18 percent of patients were harmed by medical care, some more than once, and 63.1 percent of the injuries were judged to be preventable."[2]

Based on national studies of the cost of hospital medical errors, we calculate that in New York medical errors results in at least $1 billion in excess medical expenditures each year. This is a very conservative calculation. To obtain this figure, we applied New York's share of U.S. hospital expenditures to the total national cost of hospital medical errors. Because hospitals in New York are less safe than in most other states, New York's share of medical error costs is actually greater than its share of total hospital costs and therefore well in excess of $1 billion.

National studies agree that New York ranks near the bottom in hospital patient safety:

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[1] L.T. Kohn, J.M. Corrigan, and M.S. Donaldson, eds., T*o Err Is Human: Building a Safer Health System, A Report of the Committee on Quality of Health Care in America,* Institute of Medicine, National Academy Press, 2000.

[2] Grady, Denise, "Study Finds No Progress in Safety at Hospitals," *New York Times*, November 24, 2010.

In 2012, *Consumer Reports* rated hospitals nationwide on four "key" measures of patient safety. **Of the 50 lowest-scoring hospitals in the U.S., 27 were in downstate New York.** *Consumer Reports* reported, "36 of the 81 hospitals in the New York City area with data in all four measures, or 44 percent, got our lowest or second-lowest rating in each, compared with just 14 percent nationwide." Only one downstate hospital did better than the national average. Senior Health Editor Joel Keehn wrote on the *Consumer Reports* website, "No one was more surprised than me—a New Yorker, through and through—to see just how badly Big Apple hospitals did in our new patient-safety ratings."[3]

The annual HealthGrades *Patient Safety in American Hospitals Study* for both 2010 and 2011 **ranked New York as one of the ten "worst" states for hospital patient safety.** The rankings were based on hospital risk-adjusted performance on 13 patient safety indicators developed by the U.S. government. HealthGrades is the nation's leading healthcare rating organization.

According to the U.S. Agency for Healthcare Research and Quality annual National Healthcare Quality Report for 2010 (most recent year released), **New York "hospital care quality" is "weak"** compared to other states. AHRQ compared how well hospitals nationwide performed on 32 indicators including "patient safety" indicators such as "post-operative sepsis per 1,000 elective-surgery discharges," and "inpatient surgery – appropriate antibiotic timing." (The five quality categories are very weak, weak, average, strong and very strong.)

To help consumers select a hospital, in June 2012 the Leapfrog Group, a consortium of major employers that purchase health insurance and promote improved healthcare delivery, gave U.S. hospitals a "hospital safety score" letter grade. **In New York, 72% of hospitals received a C or worse compared to 47% nationally.**[4] New York was tied with two other states for second worst after the District of Columbia. The grades were based on 26 indicators collected by Medicare or Leapfrog such as the rate of punctured lungs and adherence to safe practices such as computerized physician ordering, which avoids mistakes due to poor doctor penmanship.

Cost of hospital medical errors in New York: well over $1 billion a year

The enormous cost of medical errors has been well documented in major national studies. The table below summarizes how much extra New York spends on healthcare because of medical errors, according these studies.

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[3] Accessed at http://news.consumerreports.org/health/2012/03/new-york-city-area-hospitals-do-poorly-in-patient-safety-rating.

[3] To view state-by-state results, see http://capsules.kaiserhealthnews.org/index.php/2012/06/lots-of-cs-as-hospitals-get-graded-for-patient-safety/s.html.

[4] To view state-by-state results, see http://capsules.kaiserhealthnews.org/index.php/2012/06/lots-of-cs-as-hospitals-get-graded-for-patient-safety/

The first three studies discussed below consider the direct medical care cost of errors in hospitals. These studies agree that the annual cost of medical errors in the U.S. is at least $17 billion. Based on New York's eight percent share of U.S healthcare costs, as reported by Kaiser Foundation's State Health Facts, the cost of hospital errors to New York totals at least $1 billion annually. The fourth study assesses the cost of 14 preventable surgical adverse events; New York's proportionate share of the national cost of these events is $120 million. The fifth study calculates the cost of preventable drug-related injuries in hospitals; New York's proportionate share is $280 million.

Study	***Costs analyzed***	***New York's annual excess cost***
Milliman-American Society of Actuaries-2010	"Medical errors," inpatient and outpatient	$1 billion inpatient $300 million outpatient
Institute of Medicine, *To Err is Human*, 2000	Preventable adverse events in hospitals	$1.0 to $1.7 billion
Jha, Chan, Ridgway, Franz and Bates, *Health Affairs,* 2009	"Readily preventable" adverse events in hospitals	At least $1.3 billion
Agency for Healthcare Research and Quality, 2008	14 potentially preventable adverse medical events in adult major surgeries	$120 million
Institute of Medicine, 2006	Preventable drug-related injuries in hospitals	$280 million

American Society of Actuaries-Milliman

A study prepared by Milliman, the prominent consulting firm, for the American Society of Actuaries that was released in 2010 calculated that in 2008 there were 6.3 million measurable medical injuries in the U.S., of which 1.5 million were associated with medical error. Milliman defines medical error as "an injury which results from inappropriate medical care." The medical cost of these errors was $17 billion in 2008.[5] *Based on New York's proportion of U.S. healthcare spending, New York's cost was $1.3 billion – approximately $1.1 billion in hospital medical errors and $275 million in outpatient medical errors.*

The $17 billion total consisted only of the direct increase in the medical costs of providing inpatient, outpatient, and prescription drug services. There are also were substantial indirect costs. Lost productivity due to related short-term disability claims cost approximately $1.1 billion additional a year and indirect costs related to increased mortality rates of individuals who experience medical errors was approximately $1.4 billion annually. The costs calculated in the Milliman study did not include malpractice judgments or insurance payments.

[5] Milliman, "The Economic Measurement of Medical Errors," Sponsored by the Society of Actuaries' Health Section, 2010, American Society of Actuaries. Accessed at: http://www.soa.org/files/pdf/research-econ-measurement-appx.pdf

National Academies, Institute of Medicine

In 1999, the Institute of Medicine's landmark report, *To Err is Human*, concluded that medical errors are responsible for injuring as many as one out of every 25 hospital patients and that up to 98,000 hospital patients die from medical errors each year nationally. The study estimated that preventable adverse events in hospitals cost the U.S. $17 to $29 billion a year, of which "over one-half" were costs to the health care system. Conservatively assuming that healthcare costs accounted for only one-half of this total, New York's share was $680 million to $1.2 billion. Adjusting for medical care price inflation since the release of the study, New York's share today is approximately $1 billion to $1.7 billion.[6]

Jha, Chan, Ridgway, Franz and Bates, 2009

A national study published in *Health Affairs* in 2009, *Improving Safety and Eliminating Redundant Tests: Cutting Costs in U.S. Hospitals*, found that eliminating "readily preventable" adverse events in hospitals would have "resulted in direct savings of more than $16.6 billion, or 5.5 percent of total inpatient costs"[7] in 2004. *New York's proportionate share: more than $1.3 billion in 2004.* The authors also found that eliminating duplicate tests would save another $8 billion in 2004.

National Academies Institute of Medicine-Medication Errors

An IOM study issued in 2006, *Preventing Medication Errors***,** which followed up on *To Err is Human*, estimated that there are an estimated 400,000 preventable drug-related injuries in hospitals a year. The extra medical cost of treating these errors was "conservatively" estimated at $3.5 billion, not taking into account lost productivity or additional health costs. *New York's proportionate share: $280 million.*

U.S. Agency for Healthcare Research and Quality (AHRQ)

In a 2008 study by the Agency for Healthcare Research and Quality of the U.S. Department of Health and Human Services, *Impact of Medical Errors on Ninety-Day Costs and Outcomes: An Examination of Surgical Patients,*[8] researchers looked at 14 potentially preventable adverse medical events in adult major surgeries and calculated their annual excess cost at $1.5 billion nationally. During the study period, 2.6 percent of surgeries had at least one of the potentially preventable adverse events. These events

[6] U.S. city average Medical Care Consumer Price Index was 104.0 in December 2000 and 151.6 in December 20101999 = 100.

[7] Jha A, Chan D, Ridgway A, Franz C, Bates D, "Improving Safety and Eliminating Redundant Tests: Cutting Costs in U.S. Hospitals," *Health Affairs*, Sep-Oct 2009.

[8] Encinosa W, Hellinger, F "The Impact of Medical Errors on 90-Day Costs and Outcomes: An Examination of Surgical Patients," Center for Delivery, Organization and Markets, Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services, April 21, 2008.

ranged from the accidental laceration, which was the least costly, to acute respiratory failure. *New York's proportionate share: $120 million.*

Patient Safety Needs to Be Improved At All New York Hospitals

In response to the landmark *To Err is Human* report, in 2000 the Commissioner of the New York State Department of Health pledged to cut by half the number of hospital medical errors within five years.[9] Yet in a report issued five years later, the New York Public Interest Research Group found "no evidence that such progress has been made, and in fact, there is no evidence that the Department has any program in place to even begin to measure the incidence of medical errors in the licensed facilities it oversees."[10] In 2009 a report issued by Consumers Union concluded that, nationally, ten years after *To Err is Human,* "efforts to reduce the harm caused by our medical care system are few and fragmented," and therefore, "we believe that preventable medical harm still accounts for over 100,000 deaths each year…" Consumers Union gave the U.S. "a failing grade on progress on select recommendations we believe necessary to create a health-care system free of preventable harm."[11]

Yet national studies show that New York hospitals would realize enormous savings sand save hundreds and possibly thousands of lives each year if they performed at the highest levels of safety and quality seen in other states:

In its *Seventh Annual Patient Safety in American Hospitals Study* (2010), HealthGrades calculated that the 15 patient safety indicators they reviewed were associated with nearly $8.9 billion in excess Medicare costs nationally over the 2006-2008 study period.[12] U.S. hospitals would save $2.1 billion if they all performed as well as the top 15 percent of hospitals on the 15 indicators. New York's proportionate share of the savings would be approximately $170 million. But as noted above, HealthGrades ranked New York among the bottom ten states in hospital patient safety. Although New York accounts for 6.3% of the U.S. population, in 2011 New York had only three (1.4%) of the 206 HealthGrades Critical Care Excellence Award hospitals[13] and none of the HealthGrades 50 Best Hospital Award recipients.

The 2011 edition of *100 Top Hospitals* issued annually by Thomson Reuters included none in New York. Thomson Reuters looked at indicators in three categories: clinical

[9] New York State Department of Health, *NYPORTS News & Alert*, January 2004.

[10] New York Public Interest Research Group, *Empty Promises: The Failure of the New York State Health Department to Monitor Medical Errors,*

[11] Consumers Union, T*o Err is Human – To Delay is Deadly, Ten years later a million lives lost, billions of dollars wasted*, May 2009.

[12] The cost calculations were based on three indicators in addition to the 12 indicators used to rank hospitals by state. The three additional indicators were complications of anesthesia, accidental puncture or laceration, and transfusion reaction. HealthGrades explained that these three were not included in the rankings because their definitions use codes that are not applied consistently from hospital to hospital.

[13] Vassar Brothers, Huntington Hospital and Mt. Vernon Hospital.

excellence, efficiency and financial health, and patient perception of care.[14] According Thomson Reuters, if all hospitals performed at the same level as the 100 top U.S. hospitals, nearly 116,000 additional patients would survive each year, more than 197,000 patient complications would be avoided annually, the average patient stay would decrease by half a day, and expense per discharge would drop by $462.

Making hospitals safer would also reduce medical malpractice liability costs. In 2010, a study by the RAND Corporation analyzed more than 365,000 hospital medical "adverse events" and 27,000 hospital medical malpractice claims. RAND found "a highly significant correlation between the frequency of adverse events and malpractice claims… On average, a county that shows a decrease of 10 adverse events in a given year would also see a decrease of 3.7 malpractice claims."[15]

A good place to start is in hospital obstetrics departments. A comprehensive obstetrics safety program implemented in 2002 at New York-Presbyterian Medical Center resulted in medical malpractice payments plummeting from an annual average of $27.5 million from 2003 to 2006 to $2.5 million from 2007 to 2009. Given that obstetrics accounts for 35% to 50% of hospital medical malpractice payments in New York, according to the Greater New York Hospital Association, expanding the New York-Presbyterian program to all hospital obstetrics departments in New York would have an enormous impact on overall medical malpractice costs in the state.

To be sure, three of the nation's 15 "best" hospitals, according to the 2012 *U.S. News and World Report* rankings of the nation's best hospitals, are in New York. Nonetheless, in 2012 two of these three hospitals received a patient safety grade of only "C" from Leapfrog Group and received Consumer Reports patient safety scores well below the national average. One reason for these differing outcomes is that the Leapfrog and Consumers Union scores focus entirely on patient safety – that is, how likely a patient might be to suffer avoidable harm caused by the hospital. *U.S. News & World Report's* scores are based in large part on a hospital's reputation and also consider issues such as quality of specialized services. Relatively few New Yorkers receive care at one of the three "best" hospitals. To get a handle on the extraordinary excess costs associated with substandard care, New York's hospitals must improve the safety of care received by *all* patients.

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[14] Examples of indicators it uses are risk-adjusted mortality rate, risk-adjusted complications index, risk-adjusted patient safety index, severity-adjusted average length of stay, expense-per adjusted discharge, and the HCAHPS score (patient rating of overall hospital performance). Accessed at: http://100tophospitals.com/assets/100%20Top%20Hospitals%20National%202011%20Abstract.pdf

[15] Michael D. Greenberg, Amelia M. Haviland, J. Scott Ashwood, Regan Main, *Is Better Patient Safety Associated with Less Malpractice Activity? Evidence from California,* RAND Corporation, 2010.