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Health Care Quality



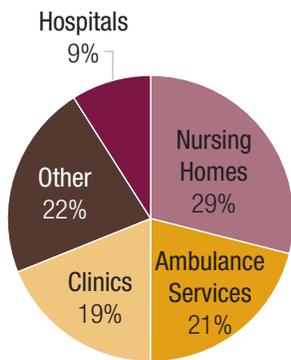
The Department is committed to ensuring quality and safety in health care across the continuum of care and throughout a person's lifespan. The MDPH Bureau of Health Care Safety and Quality is responsible for assuring that health care providers and health facilities provide safe, quality, and appropriate care to residents of the Commonwealth. From the licensing of health care professionals such as nurses and pharmacists, to the regulation and monitoring of pre-hospital ambulance services and licensure of hospital and long-term care facilities, the bureau works to assure that safe and appropriate care is provided to Massachusetts residents.

The Bureau licenses nearly 1,700 facilities, including 120 hospitals (acute and non-acute), nearly 450 nursing homes, and nearly 300 clinics. It also monitors more than 200 home health agencies and works to ensure that safe care is provided in all of these locations.

In addition to facility licensure, the bureau licenses more than 200,000 health care professionals throughout the state. More than 300 ambulance services with more than 1,700 vehicles are also licensed by the bureau. The Bureau also licenses over 1,500 pharmacies and wholesale druggists and issues Massachusetts Controlled Substances Registrations to over 44,500 health care professionals, facilities, and community programs.

The Division of Health Care Quality (DHCQ) conducts both licensure and certification activities for health care providers. When a provider applies to

Figure 4.1 Facilities Licensed by MDPH



Source: MDPH Bureau of Health Care Safety and Quality.

The goal of SRE reporting is to gain a greater understanding of why such events happen and how they can be prevented in the future.

be licensed or certified, DHCQ reviews the application to determine suitability as a provider, as well as compliance with state licensing regulations and federal regulations for participation in the Medicare and Medicaid programs. Periodic re-licensing and re-certification activities are also conducted.

DHCQ also handles reports of incidents and complaints and their related investigations. In any case where DHCQ determines that there is a significant lack of compliance with state and federal requirements, on-site follow-ups are conducted, as are enforcement activities, as warranted.

The following sections highlight activities that the Bureau performs to assure the safety and quality of the health care that the residents of Massachusetts receive.

Monitoring Adverse Events and Infections in Hospitals

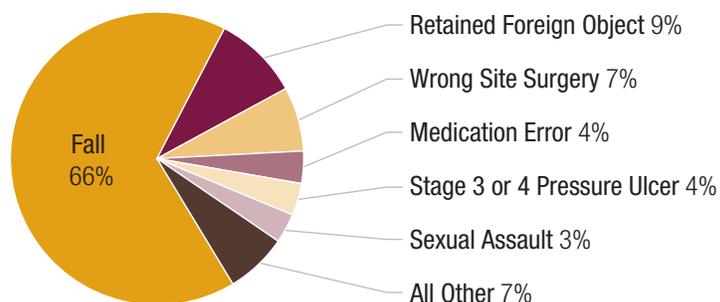
The Division of Health Care Quality monitors many aspects of hospital care, including events and infections that should not occur.

Serious Reportable Events

Serious Reportable Events (SREs) (formerly known as “never events”) are a defined set of adverse medical events. These include medication errors, falls, stage three or four pressure ulcers and foreign objects retained in patients’ bodies after surgeries. The goal of SRE reporting is to gain a greater understanding of why such events happen and how they can be prevented in the future.

In April of 2009, the Department issued its first hospital-specific report of SREs¹ in the Commonwealth, along with the programmatic responses adopted by some hospitals to ensure prevention of such events in the future. There were 338 SREs in Commonwealth acute care hospitals in 2008. Sixty-six percent of these were falls.

Figure 4.2 Hospital Serious Reportable Events, 2008



Source: MDPH Bureau of Health Care Safety and Quality, 2008.

In 2009, regulations were adopted to implement a legislative mandate that prohibits a health care facility from charging or seeking reimbursement for services provided as a result of an SRE.² As part of these new regulations, specific requirements about communication with patients about the SRE were developed.

As additional data are collected, the impact of SRE reporting and related non-payment policies can be better analyzed. It will take several years of data collection to determine whether the public reporting and non-payment policies lead to a reduction in SREs. It is anticipated that, due to increased proficiency with SRE identification and reporting, the number of SREs reported may actually increase for a few years before there is a decrease in incidents.

Healthcare Associated Infections (HAI)

A Healthcare Associated Infection (HAI) is an infection that is acquired in a health care setting and not found to be present or incubating at the time of admission. According to the Centers for Disease Control and Prevention (CDC), an estimated 1.7 million HAIs and 99,000 associated deaths occur annually in United States hospitals.³

Massachusetts acute care hospitals are now required to report specific data on HAIs to MDPH (Figure 4.3). Ten specific outcome and process measures were initially selected for reporting. The preliminary report of the first four months of data was released in April 2009.

Figure 4.3 Healthcare Associated Infections and Prevention Measures, 2009

	Reporting Level	
	Public	Internal
Device-Associated Infections: Central Venous Catheter Associated Infections		
Bloodstream Infection in Intensive Care Units	•	
Bloodstream Infection Outside of Intensive Care Units		•
Device-Associated Infections: Ventilator-associated pneumonia		•
Procedure-Associated Infections: Surgical Site Infections		
Hip Arthroplasty	•	
Hysterectomy	•	
Knee Arthroplasty	•	
Coronary Artery Bypass Graft	•	
Multidrug-resistant Organism (MDRO) and Clostridium difficile-Associated Disease (CDAD)		
Point prevalence of methicillin-resistant Staphylococcus aureus (MRSA)	•	
Clostridium difficile-associated disease (CDAD)		•
Process Measure: Influenza vaccination of healthcare of workers	•	

Source: MDPH, Hospital Circular Letter: DHCQ 09-09-516.

Note: "Public" – data submitted to MDPH; "Internal" – for reporting hospital's use only.

MDPH is working on statewide initiatives with hospitals and ambulatory surgical centers to prevent and reduce the incidence of HAIs in Massachusetts. These collaborative efforts include the dissemination of evidence-based preventive best practices, identification of specific process and outcome measures for monitoring, promoting transparency and accountability through public reporting, increasing community education and awareness, and professional education.

The Massachusetts HAI Prevention and Control Program is expanding prevention efforts to include free-standing dialysis centers and ambulatory surgical centers, long-term care facilities, and rehabilitation hospitals.

Licensure and Inspections

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Investigating incidents and complaints is a key way in which the Bureau protects the health and safety of patients. More than 13,000 reports, including more than 11,000 incident reports from facilities and approximately 2,000 complaints, were received related to all facility types in FY2009.

In addition to the incident and complaint investigation, the Bureau conducted more than 1,400 certification and licensure inspections and follow-ups in the last fiscal year. Nursing homes have the greatest activity in this area (Figure 4.4).

Figure 4.4 Nursing Home Activities

	FY2005	FY2006	FY2007	FY2008	FY2009
Complaints					
Complaints received (from the public)	859	896	858	1,065	1,026
On-site complaint investigations	430	482	458	494	473
Incidents					
Incident reports Received (from the facility)	9,516	9,524	9,402	9,504	9,787
On-site incident investigations	529	537	521	479	482
Inspections					
Certification and recertification inspections and follow-ups	716	868	866	796	862
Licensure inspections and follow-ups	168	225	142	84	16
Total	12,218	12,532	12,247	12,422	12,646

Source: MDPH, DHCQ Incidents and Complaint System, FY2005-FY2009.

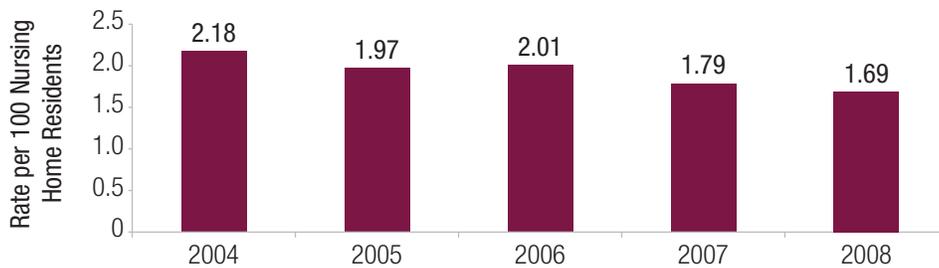
The Office of Patient Protection (OPP) functions as a consumer protection entity within the Bureau, to help consumers who are enrolled in a Massachusetts managed care plan and have questions or problems obtaining covered services. OPP primarily helps consumers in appealing managed care decisions. OPP had 373 external review requests in 2008, which is the

highest number of requests received since the office began in 2001. Behavioral health comprises the greatest number of requests.

Falls

Falls are the most common cause of injuries, especially for older patients. They are thus a primary focus of many quality improvement initiatives. The Department has worked collaboratively with a wide variety of stakeholders to reduce falls. Of all falls injuries, hip fractures often have the most significant negative impact on a patient’s quality of life. The rate of falls per 100 nursing homes residents has declined from 2.18 in 2003 to 1.69 in 2008.

Figure 4.5 Nursing Home Falls with Hip Fractures



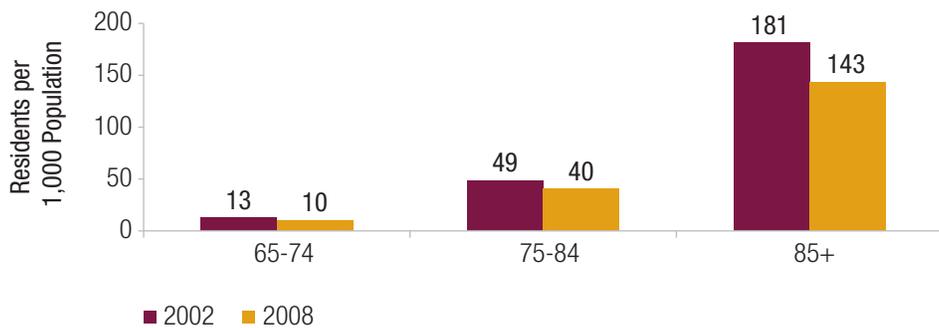
For more information on falls, see Chapter 11: Unintentional Injury.

Source: MDPH DHCQ Incidents and Complaints System, 2003-2008.
 *Rates significantly decreased for the period shown ($p \leq 0.05$).

Utilization of Nursing Homes

The Bureau periodically assesses nursing home utilization rates in order to project future need for nursing home beds in the state. These assessments, along with national statistics, show that utilization of nursing homes by people ages 85+ has declined significantly. The trend may indicate

Figure 4.6 Nursing Home Utilization Rates by Age Group



Source: US Centers for Medicare and Medicaid Services (CMS) Quality Improvement Evaluation System (QIES), 2002 and 2008.

movement away from nursing homes to new models of care or could also reflect a healthier older population.

Special Projects in Hospital Care

In addition to event monitoring and investigation, the DHCQ has undertaken several special projects in collaboration with Massachusetts hospitals designed to improve hospital treatment safety and quality.

Stroke

The focus of the Bureau's stroke initiative is ensuring that eligible stroke patients receive IV-tPA, a clot-busting drug that has been effective in treating many strokes caused by artery blockage. However, results have shown that only a small percentage of stroke patients are receiving IV-tPA, primarily due to either patient delay in seeking treatment within the three hour treatment window or to medical system delays. Through a combination of public and provider education, public reporting, and regulatory inspections, the Department is working to promote greater use of IV-tPA in appropriate circumstances.

Cardiac Care

The MassCOMM trial is a randomized trial comparing the safety and outcomes of non-emergency percutaneous coronary interventions (PCI or angioplasty) conducted at community hospitals that do not have cardiac surgery backup services, and also at tertiary facilities that do have cardiac surgery backup. As of February 2010, eight community hospitals and seven tertiary hospitals are participating in the trial.

Massachusetts enacted legislation in 2000 establishing that a Cardiac Care Quality Advisory Group develop standards for collecting cardiac data. The legislation also dictated the composition of the group. Regulations passed in April 2002 required all Massachusetts hospitals providing cardiac surgery and/or angioplasty to collect patient data. The Massachusetts Data Analysis Center (Mass-DAC) is the data-coordinating center that collects monitors and validates patient-specific outcome data for all hospitals in the Commonwealth. Data are reported annually and allows the monitoring of outcomes for cardiac surgery and angioplasty.⁴

Emergency Medical Care

Emergency Department Diversion

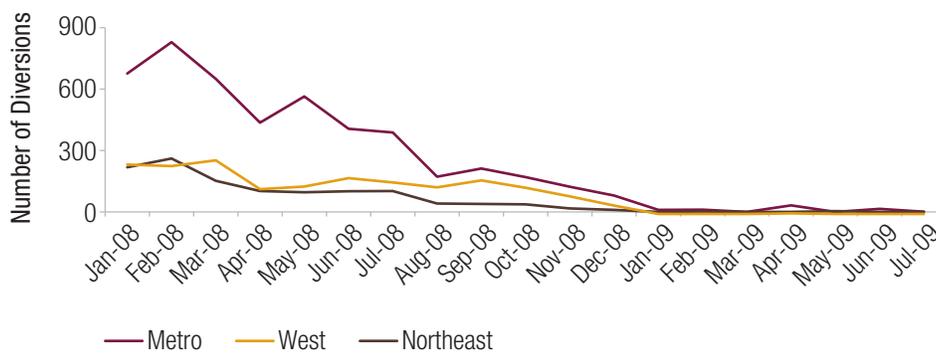
In January of 2009, Massachusetts became the first state in the country to ban the diversion of incoming ambulances to other hospitals, except in

the event of an internal emergency or “code black.” It had been shown that diversion had not helped with emergency department overcrowding, and in fact may have been contributing to it. Diversion from one hospital often creates overcrowding at nearby hospitals. Patients could also have been diverted away from hospitals where their doctors practiced or where they habitually sought care.

In the months since the policy has been enacted, data collected indicate that wait times at emergency departments have not increased, even without diversion as an option. Hospitals have worked to address patient flow issues in order to reduce overcrowding and boarding in the emergency department.

In January of 2009, Massachusetts became the first state in the country to eliminate routine ambulance diversion.

Figure 4.7 **Emergency Department Diversions**



Source: MDPH, Hospital Emergency Department Data Collection System, 2008-2009.

Erwin Hirsch State Trauma Registry

The lack of trauma data has put the Commonwealth at a distinct disadvantage in providing evidence-based quality indicators on the effectiveness of the state’s trauma system and emergency planning. MDPH’s new Erwin Hirsch State Trauma Registry now enables the Bureau to use severity-adjusted data to evaluate the timeliness and quality of trauma care, monitor patient safety and conduct clinical benchmarking with the goal of refining the statewide treatment and trauma triage protocols. MDPH has formed a State Trauma Outcomes Committee (STOC), which has begun exploring factors contributing to the higher probability of death among injured patients in certain geographic regions of the state and will provide recommendations for reducing variation in quality of care and improving patient outcomes across the state.

Massachusetts Ambulance Trip Record Information System (MATRIS)

MDPH has completed building the new Massachusetts Ambulance Trip Record Information System (MATRIS). In calendar year 2010, Massachusetts licensed ambulance services will begin submitting vital data to MATRIS that will allow the Bureau to evaluate and improve pre-hospital

There were nearly 1.6 million ambulance trips in the Commonwealth last year.

emergency medical care in the Commonwealth, including EMT training, ground and air ambulance resource distribution, emergency communications, patient outcomes, and the effectiveness of hospital emergency medical control networks. MATRIS prehospital data will ultimately be linked to the hospital data, police crash reports, and death records to provide a clear picture of the entire spectrum of care from the trauma scene to the hospital.

Summary

The activities discussed are examples of some of the vital work done by the Bureau and the Department to protect the health of patients and communities. Other critical activities include the work of the Bureau's Drug Control Program (DCP) to ensure that pharmaceuticals are available for medical use, while preventing drug diversion, prescription fraud, and illicit use and abuse of prescription drugs. The DCP's enhanced Prescription Monitoring Program, due to launch in 2010, will help the Commonwealth to track prescription fraud and inappropriate prescribing practices that can lead to substance abuse and addiction disorders.

The Bureau of Health Care Safety and Quality is committed to protecting, preserving and promoting the health of all residents in the Commonwealth through strategic health planning, and by assuring the delivery of safe, high quality, person-centered health care for all.



Paula Griswold

Executive Director, Massachusetts Coalition for the Prevention of Medical Errors

In Massachusetts and nationally, policymakers and the media have focused on two patient safety issues, serious patient safety events, called Serious Reportable Events, and Hospital-Acquired Infections, with calls for public accountability through public reporting, and improvements to prevent patient harm from these events. Locally, the Massachusetts Healthcare Quality and Cost Council went so far as to set the ambitious goals of eliminating hospital-acquired infections in Massachusetts by 2012, and serious patient safety events.

Nationally, Consumer Reports has repeatedly advocated public reporting of infection rates by hospital, encouraging subscribers to support state and national legislation. In fact, the March 2010 issue includes information listing hospital-specific infection data from fifteen states. (The report can be found at www.ConsumerReportsHealth.org/hospitalinfections.) National health reform legislation has included requirements for public reporting, and the American Recovery and Reinvestment Act provided funding for states to offer programs to help hospitals learn and share best practices for infection prevention, to improve care while reducing healthcare costs.

Massachusetts has taken great strides in addressing these priorities and recommended strategies. Annual public reporting of hospital-specific data for Serious Reportable Events and infection rates creates public accountability, and allows for insightful analysis of the underlying causes, and effective actions to prevent future occurrences. The public debate provides the opportunity to highlight how healthcare organizations are working to improve their “culture of safety”, correct their unsafe processes, and share the lessons learned with others.

The Massachusetts Department of Public Health – and now the federal government – have funded programs to support and accelerate the efforts of individual hospitals for infection prevention. The Massachusetts Coalition for the Prevention of Medical Errors, in collaboration with the Massachusetts Hospital Association and hospitals in the state, has organized educational sessions for local and national hospital teams to share their tools and strategies with colleagues throughout the state. (A collection of infection prevention successes from the project is posted at www.macoalition.org.)

The impact on patient safety is already visible. These activities sustain healthcare leadership focus on these patient safety priorities, ensure public accountability, and accelerate progress through shared learning.

Safety in health care is of paramount importance to the success of health care reform and the lives of patients. Massachusetts has much to be proud of in its bold steps in public reporting and prevention efforts. Our hospitals and health care facilities are partners in this successful transition to greater transparency and continuing improvement.



FIGURE NOTES

Figure 4.5: Nursing home population denominators from the US Centers for Medicare and Medicaid Services (CMS) Quality Improvement Evaluation System (QIES).

Figure 4.6: Population denominators from the Census Bureau Population Estimates for MA 2008.

ENDNOTES

- 1 “Serious Reportable Events in Massachusetts Acute Care Hospitals: January 1, 2008 – December 31, 2008” http://www.mass.gov/Eeohhs2/docs/dph/quality/healthcare/sre_acute_care_hospitals.pdf.
- 2 105 CMR 130.332 (<http://www.mass.gov/Eeohhs2/docs/dph/regs/105cmr130.pdf>) and 105 CMR 140.308 (<http://www.mass.gov/Eeohhs2/docs/dph/regs/105cmr140.pdf>).
- 3 McKibben L., Horan T., et al. Guidance on public reporting of healthcare associated infections: Recommendations of the Healthcare Infection Control Practices Advisory Committee. *AJIC*. 2005; 33:217-226.
- 4 A preliminary report is available from Mass-DAC online at <http://www.massdac.org/sites/default/files/reports/CABG%20FY2007.pdf>. See page 35 for PCI and page 30 for CABG.