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April 2008

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Chairwoman Patricia A. Walrath, Joint Committee on Health Care Financing  
Chairman Richard T. Moore, Joint Committee on Health Care Financing  
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The Massachusetts Health Care Quality and Cost Council hereby submits its Annual Report, as mandated under Massachusetts General Law, Chapter 6A, Section 16L(k).

The Massachusetts Health Care Quality and Cost Council was established by Chapter 58 of the Acts of 2006 to establish statewide goals for improving health care quality, containing health care costs, and reducing racial and ethnic disparities in health care. The Council receives input and advice from an Advisory Committee that includes representation from consumers, business, labor, health care providers, and health plans.

The Council will launch an interactive, consumer-friendly, health quality and cost information website in June 2008 that will allow consumers to compare health care procedures at different hospitals and outpatient facilities. This website is intended to help consumers select high quality, lower cost care, and to encourage health care providers to improve quality and contain costs.

The Council has adopted six health care quality improvement goals that are intended to lower or contain the growth in health care costs while improving quality and reducing racial and ethnic health disparities. These goals address health care cost control, patient safety, chronic care management and prevention, end of life care, racial and ethnic disparities, and transparency. This report discusses each of these goals in detail, along with the Council's recommended strategies for attaining them.

During FY 2008 the council developed specific strategies aimed at controlling the rapid growth in health care costs including, but not limited to pursuing the following strategies:

- Analyzing the causes of increases or decreases in health care costs;
- Adopting a standard measurement of total annual Massachusetts health care spending (the "Massachusetts Global Health Cost Indicator");
- Developing legislative and regulatory recommendations to control health care costs, considering a wide range of health care clinical, service delivery, payment, technology, administrative, and legal opportunities; and

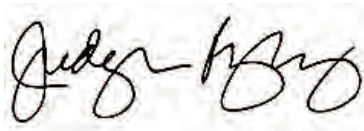
- Preparing reports comparing variations in rates paid by insured health plans, self-insured entities, Medicaid, Medicare, uninsured persons and other payers to health care providers in the Commonwealth.

The Council has also developed strategies aimed at improving the quality and management of health care for Massachusetts citizens, including but not limited to:

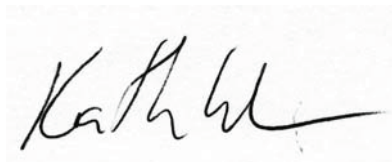
- Developing a blueprint for implementing a statewide model system of care that improves the health status of people with, or at risk for, chronic conditions;
- Adopting and displaying on the Council's website comparative measures of quality and cost information;
- Publicly reporting hospital-associated infections and serious reportable events;
- Developing and publicly reporting a whole system hospital mortality measure;
- Implementing a process for communicating patients' wishes for care at the end of life, and ensuring these wishes are followed;
- Increasing the availability and use of hospice and palliative care programs;
- Ensuring that each of these initiatives includes targeted programs to reduce racial and ethnic disparities; and
- Establishing performance benchmarks to measure progress toward meeting these goals.

The Council looks forward to working with you to accomplish the Commonwealth's goals of reducing the cost of health care and improving the quality of that care for all Massachusetts citizens. Copies of this report are available electronically from the Council's website at [www.mass.gov/healthcare](http://www.mass.gov/healthcare) or in hard copy from the Council's office by calling 617-988-3360.

Sincerely,



JudyAnn Bigby  
Chair



Katharine London  
Executive Director

## ■ EXECUTIVE SUMMARY

The Massachusetts Health Care Quality and Cost Council was established by the legislature to:

- Establish statewide goals for improving health care quality, containing health care costs, and reducing racial and ethnic disparities in health care;
- Demonstrate progress toward achieving those goals;
- Disseminate, through a consumer-friendly website and other media, comparative health care cost, quality, and related information for consumers, health care providers, health plans, employers, policy-makers, and the general public; and
- Identify, adopt and publish performance measurement data and benchmarks for its goals that advance a common national framework for quality measurement and reporting.

The Health Care Quality and Cost Council adopted six health care quality improvement goals that are intended to lower or contain the growth in health care costs while improving the quality of care, including reductions in racial and ethnic health disparities. For each such goal, the council identified the steps needed to achieve the goal; where possible, estimated the cost of implementation and the anticipated short-term or long-term financial savings achievable to the health care industry and the Commonwealth; and, estimated the expected improvements in the health status of health care consumers in the Commonwealth.

The Massachusetts Health Care Quality and Cost Council established these goals and recommendations in accordance with its statutory mandate under Massachusetts General Law Chapter 6A, Section 16L.

**GOAL I.            REDUCE THE COST OF HEALTH CARE. REDUCE THE ANNUAL RISE IN HEALTH CARE COSTS TO NO MORE THAN THE UNADJUSTED GROWTH IN GROSS DOMESTIC PRODUCT (GDP) BY 2012.**

### FY 2008 SPECIFIC GOALS

**GOAL I.A.            PROMOTE COST-EFFICIENCY THROUGH DEVELOPMENT OF A WEBSITE PROVIDING COMPARATIVE COST INFORMATION. DEVELOP A WEBSITE THAT WILL ENABLE CONSUMERS TO COMPARE THE COST OF HEALTH CARE PROCEDURES AT DIFFERENT HOSPITALS AND OUTPATIENT FACILITIES.**

**GOAL I.B.            REDUCE HEALTH CARE SPENDING BY PREVENTING THE NEED FOR AVOIDABLE HOSPITAL STAYS.**

### SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOAL I.

The Council recommended specific strategies under all six goals to reduce the growth in health care costs by providing comparative cost information, by preventing the need for avoidable hospital stays, and through other mechanisms.

In addition, the Council will pursue strategies to identify methods to control health care costs statewide, including:

- contracting with independent experts to provide the council with technical assistance in analyzing the causes of increases or decreases in health care costs. The Council will take a broad approach to this analysis, in twelve identified categories;
- adopting a standard of measurement of total annual Massachusetts health care spending (the “Massachusetts Global Health Cost Indicator”) to track the rate of increase or decrease in health care costs in total and within health care sectors from year to year;
- developing legislative, regulatory, and other recommendations to control health care spending based on analysis, assisted by independent experts, covering the full spectrum of health care clinical, service delivery, reimbursement, technology, administrative, legal and racial and ethnic disparities issues; and
- producing a report comparing variations in rates paid by insured health plans, self insured entities, Medicaid, Medicare, uninsured persons, and other payers to health care providers in the Commonwealth.

## **GOAL II. ENSURE PATIENT SAFETY AND EFFECTIVENESS OF CARE.**

### **FY 2008 SPECIFIC GOALS**

#### **GOAL II. A. ENSURE PATIENT SAFETY AND EFFECTIVENESS OF CARE. REDUCE HOSPITAL-ASSOCIATED INFECTIONS (HAI) DURING FY 2008. ELIMINATE HOSPITAL-ASSOCIATED INFECTIONS BY 2012.**

#### **SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOAL II.A.**

- Hospitals should implement recommendations of the Betsy Lehman Center Expert Panel for the Prevention and Control of Healthcare-Associated Infections.
- Hospitals should work together to improve the use of evidenced-based processes for reducing hospital-associated infections and lessons learned, in order to accelerate their efforts for improvement.
- Payers should align policies and standards to ensure that hospitals’ financial incentives encourage reducing infections.
- Consumers should receive information about what they can do and say to prevent infections in health care settings. This information should be provided using culturally sensitive materials available in multiple languages and literacy levels.

#### **ESTIMATED COST OF IMPLEMENTATION**

- The Betsy Lehman Center’s Expert Panel is developing guidelines for an optimal hospital infection control program. The Council will use these guidelines to estimate the cost of prevention. Many hospitals already have strong infection control processes in place, so the incremental cost of meeting the guidelines should be a fraction of the total cost.

#### **ESTIMATED FINANCIAL SAVINGS**

- The Betsy Lehman Center’s Expert Panel estimated that the Commonwealth spends \$200-400 million on healthcare-associated infections.

## EXPECTED IMPROVEMENTS IN HEALTH STATUS AND HEALTH CARE

- The number of hospital-associated infections will decrease significantly. Individuals will avoid unnecessary pain and suffering.
- Institutions will experience a decrease in utilization of services including decreased length of stay, avoidable emergency department visits and readmissions.
- The Council will publicly report on its website the number and rates of infections at each hospital in Massachusetts by October 2009.

**GOAL II. B. ENSURE PATIENT SAFETY AND EFFECTIVENESS OF CARE. ELIMINATE “SERIOUS REPORTABLE EVENTS” AS DEFINED BY THE NATIONAL QUALITY FORUM. ELIMINATE EVENTS THAT SHOULD NEVER HAPPEN IN HOSPITALS, SUCH AS WRONG SURGERY, WRONG SITE, OR WRONG PATIENT.**

## SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOAL II.B.

- Hospitals should implement the National Quality Forum’s Endorsed Safe Practices for Better Healthcare.
- Payers should align policies and standards to ensure that hospitals’ financial incentives encourage eliminating adverse events.
- Consumers should have full expectation of disclosure if a serious reportable event occurs and should receive information about what they can do and say to improve the safety of the care they receive and reduce the likelihood of an adverse event. This information should be provided using culturally sensitive materials available in multiple languages and literacy levels.

## ESTIMATED FINANCIAL SAVINGS

- The primary benefit in eliminating serious reportable events is to prevent considerable harm to patients, including deaths. Most serious reportable events are quite rare. Even though each individual event can be costly, the small volume of events indicates that total savings to the Commonwealth for eliminating these rare events would be small.

## EXPECTED IMPROVEMENTS IN HEALTH STATUS AND HEALTH CARE

- Serious reportable events will be eliminated in health care institutions.
- All hospitals in Massachusetts will comply with the National Quality Forum’s Endorsed Safe Practices.
- The Council will report on its website the Leapfrog Group’s composite Safe Practices Score, as well as hospital scores on the 30 individual National Quality Forum’s Endorsed Safe Practices reported publicly by Leapfrog, beginning in 2008.
- The Council will publicly report on its website by April 2009 the type and number of occurrences of each serious reportable event by hospital; a summary of key findings and lessons learned from the facility’s root cause analysis; and a summary of actions taken by the hospital to prevent similar events.

- Institutions will experience a decrease in utilization of services including decreased length of stay, avoidable emergency department visits and readmissions.

**GOAL II. C. ENSURE PATIENT SAFETY AND EFFECTIVENESS OF CARE. IMPROVE OVERALL PATIENT SAFETY AND EFFECTIVENESS OF CARE.**

**SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOAL II.C.**

- The Council will identify and adopt a meaningful measure of whole system quality and safety, including a whole system hospital mortality measure, in order to promote patient safety across-the-board, and not only in specific areas that are publicly reported.
- The Council will publicly report on its website the ratio of actual to expected mortality for each hospital by January 2010.

**GOAL III. IMPROVE SCREENING FOR AND MANAGEMENT OF CHRONIC ILLNESSES IN THE COMMUNITY.**

**FY 2008 SPECIFIC GOALS**

**GOAL III.A. IMPROVE CHRONIC AND PREVENTIVE CARE. IMPROVE CARE OF CHRONIC DISEASES SUCH AS CONGESTIVE HEART FAILURE, DIABETES, AND ASTHMA.**

**GOAL III.B. REDUCE DISEASE COMPLICATION RATES, READMISSION RATES, AND AVOIDABLE HOSPITALIZATIONS.**

**SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOALS III. A. AND B.**

- The Commonwealth of Massachusetts should adopt and promote a statewide model system of care that improves the health status of people with, or at risk for, chronic conditions.
- The Executive Office of Health and Human Services (EOHHS) should convene a working group with broad representation from stakeholders, including the Council, to develop a blueprint for this statewide model.
- The blueprint shall include strategies to reduce, and ultimately eliminate, racial and ethnic disparities in the treatment and prevention of chronic conditions.
- The blueprint shall address each of these objectives: patient self management, physician practice coordination and support, transitions from one patient care site to another, community resources, health information systems, and payment system alignment.

## ESTIMATED FINANCIAL SAVINGS

- Preventable hospitalizations for ambulatory sensitive conditions are costly. The cost of hospitalizations in Massachusetts for diabetes and related complications was approximately \$60 million in 2005, hospitalizations for asthma cost approximately \$30 million, and hospitalizations for congestive heart failure cost over \$100 million. Preventing even a fraction of these hospitalizations would result in considerable savings for the Commonwealth.

## EXPECTED IMPROVEMENTS IN HEALTH STATUS AND HEALTH CARE

- The Division of Health Care Finance and Policy estimates that up to 15% of hospital admissions are for ambulatory sensitive conditions for which timely and effective use of primary care can stabilize a patient's condition and prevent the need for hospitalization. These ambulatory sensitive conditions include chronic conditions such as congestive heart failure, diabetes, and asthma. Clearly, preventing the need for such hospitalizations is beneficial to patient's health, quality of life, and productivity.
- There are well documented racial and ethnic disparities in health care for chronic conditions. Reducing and eventually eliminating these disparities will improve the health of some of the most vulnerable populations in the Commonwealth.
- The Council will review and adopt recommendations for performance measurement benchmarks for tracking the progress in improving chronic care management and prevention as recommended by the working group, Advisory Committee, and experts in the field to advance a common national framework for quality and cost measures.

### **GOAL IV. DEVELOP AND PROVIDE USEFUL MEASUREMENTS OF OR APPROACHES TO QUALITY IN AREAS OF HEALTH CARE FOR WHICH CURRENT DATA ARE INADEQUATE OR CURRENT APPROACHES ARE UNSUCCESSFUL.**

#### **FY 2008 SPECIFIC GOAL: FOCUS ON END OF LIFE CARE**

##### **GOAL IV.A. DEVELOP PROCESSES AND MEASURES TO IMPROVE ADHERENCE TO PATIENTS' WISHES IN PROVIDING CARE AT THE END OF LIFE. ENSURE THAT HEALTH CARE PROVIDERS ASK ABOUT AND FOLLOW PATIENTS' WISHES WITH RESPECT TO INVASIVE TREATMENTS, DO NOT RESUSCITATE ORDERS, HOSPICE AND PALLIATIVE CARE, AND OTHER TREATMENTS AT THE END OF LIFE.**

#### **SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOAL IV.A.**

- The Commonwealth of Massachusetts Executive Office of Health and Human Services (EOHHS) should implement a statewide public health educational campaign by September 2008 to educate the public about their options for care at the end of life, how to communicate their wishes to their families and health care providers, and why it is important to communicate these wishes in advance. Because many individuals hold strong culturally-based beliefs about care at the end of life, it is essential that this campaign include a culturally competent campaign strategy and educational materials targeted to the needs of racial and ethnic minority groups.

- Hospitals, nursing homes, physicians and other providers should implement, by 2010, a process for communicating patients' wishes for care at the end of life, similar to the Physician Order for Life Sustaining Treatment (POLST) processes currently in use in Oregon, Washington, New York, West Virginia, and other states.
- Hospitals, extended care facilities, and home health care organizations should, by March 2009, offer formal hospice and palliative care programs to their terminally ill patients, and should ensure that these programs meet the needs of patients with different cultural expectations at the end of life.
- The Board of Registration in Medicine should require hospitals to submit a plan for ensuring that all clinical professionals who care for patients at the end of life are educated in the delivery of culturally sensitive care.
- Payers should adopt policies and standards to support and improve the process of care at the end of life.

### **ESTIMATED FINANCIAL IMPACT**

- Improving quality of care is the primary objective of this goal. There may be cost savings achieved, however, if patients and families choose fewer intensive services. In Massachusetts, the average per patient charge during a terminal hospitalization at a teaching hospital totaled over \$70,700 in 2004. Compared to traditional care for the terminally ill, hospice care and the use of advanced directives could save up to 10% the cost of care in a patient's last year of life, 10% to 17% in the last six months, and 25% to 40% in the final month.

### **EXPECTED IMPROVEMENTS IN HEALTH STATUS AND HEALTH CARE**

- Use of the Physician Orders for Life Sustaining Treatment (POLST ) process is associated with a dramatic increase in adherence to patient wishes. Studies have shown that patients with a completed POLST form received treatment matching the POLST instructions up to 94% of the time with respect to certain interventions, and the care provided matched POLST instructions for CPR, antibiotics, IV fluids and feeding tubes. Patients with a completed POLST form were more likely to receive care consistent with their expressed wishes than patients who relied on other types of advanced directives.
- Advanced care planning is associated with increased hospice use, fewer reported concerns with physician communication, and reduced likelihood of using a feeding tube or respirator in the last month of life.
- Over 70% of family members of patients receiving hospice services rated the overall quality of care as "excellent", compared with fewer than 50% of the families of those dying in an institutional setting or with home health services alone. Patients receiving hospice services are likely to receive better daily pain management.
- By October 2008, and annually thereafter, the Council will identify and adopt performance measurement benchmarks as targets to improve the quality of end of life care and publish performance measurement data and benchmarks in consultation with lead agencies and organizations and the Council's Advisory Committee.

**GOAL V. ELIMINATE RACIAL AND ETHNIC DISPARITIES IN HEALTH AND IN ACCESS TO AND UTILIZATION OF HEALTH CARE; HEALTH INDICATORS WILL BE CONSISTENT, AND CONSISTENTLY IMPROVING, ACROSS ALL RACIAL AND ETHNIC GROUPS.**

**FY 2008 SPECIFIC GOALS**

**GOAL V.A. REDUCE DISPARITIES IN HOSPITAL-ASSOCIATED INFECTIONS.**

**GOAL V.B. ELIMINATE DISPARITIES IN SERIOUS REPORTABLE EVENTS.**

**GOAL V.C. REDUCE, AND ULTIMATELY ELIMINATE, DISPARITIES IN DISEASE COMPLICATION RATES, READMISSION RATES, AND AVOIDABLE HOSPITALIZATIONS.**

**GOAL V.D. REDUCE DISPARITIES IN SCREENING AND MANAGEMENT OF CHRONIC ILLNESSES.**

**SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOAL V.**

- It is essential to address racial and ethnic disparities in health care through each quality improvement effort, rather than through a separate effort.
- It is essential that the blueprint for a statewide model system of coordinated care include specific strategies to reduce, and ultimately eliminate racial and ethnic disparities in the treatment and prevention of chronic conditions.
- Similarly, information to help patients and families express their wishes for care at the end of life must be adjusted to meet patients' cultural expectations.
- The Council has recommended that the Department of Public Health begin collecting hospital-associated infection rates and serious reportable events by patient race and ethnicity to identify, and then address, disparities in these areas.

**GOAL VI. PROMOTE QUALITY IMPROVEMENT THROUGH TRANSPARENCY.**

**FY 2008 SPECIFIC GOAL**

**GOAL VI.A. PROMOTE QUALITY IMPROVEMENT THROUGH DEVELOPMENT OF A WEBSITE AND OTHER MATERIALS PROVIDING COMPARATIVE QUALITY INFORMATION.**

**SUMMARY OF RECOMMENDED STRATEGIES TO ACHIEVE GOAL VI.A.**

- The Council will identify, adopt and display comparative measures of quality and cost information, including performance measurement data and benchmarks in a consumer-friendly format on its website in order to encourage health care providers to provide higher quality, lower cost care, and to help consumers select higher quality, lower cost health care providers.



**EX-OFFICIO MEMBERS**

**CHAIR**

**JudyAnn Bigby, M.D.**, *Secretary*  
Executive Office of Health and Human Services

**TREASURER**

**Elizabeth A. Capstick**, *Deputy State Auditor*  
Designee of State Auditor  
A. Joseph DeNucci

**Kevin Beagan**, *Director, State Rating Bureau*  
Designee of Commissioner of Insurance Nonnie  
Burnes

**David S. Friedman**, *First Assistant Attorney General*  
Designee of Attorney General  
Martha Coakley

**Dolores L. Mitchell**, *Executive Director*  
Group Insurance Commission

**Gregory W. Sullivan**, *Inspector General*  
Commonwealth of Massachusetts

**APPOINTED MEMBERS**

**VICE CHAIR**

**Joseph Lawler**, *Certified Employee Benefits Specialist*  
The Gaudreau Group  
*Representing the National Association of Insurance  
and Financial Advisors*

**Charles D. Baker**, *President and CEO*  
Harvard Pilgrim Health Care  
Non-Governmental purchaser of insurance

**James B. Conway**, *Senior Vice President*  
Institute for Healthcare Improvement

**Kenneth A. LaBresh, M.D.**, *Senior Vice President  
and Chief Medical Officer*  
Masspro  
*Representing a health care quality improvement  
organization*

**Thomas H. Lee, M.D.**, *Network President*  
Partners Healthcare Systems Inc.  
*Expert in Health Policy*

**Shannon Linde**, *Managing Partner*  
MBA Group  
*Representing the Massachusetts Association of  
Health Underwriters*

**Robert W. Seifert**, *Senior Associate*  
Commonwealth Medicine, University of  
Massachusetts Medical School  
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Institute*



**Deborah Banda**, State Director, AARP, *Representing AARP, Massachusetts Chapter*

**Diane Bergeron**, Executive Director, Hospice Care, Inc., *Representing hospice care*

**Marylou Buyse**, M.D., President and CEO, MAHP, *Representing the Massachusetts Association of Health Plans*

**J.D. Chesloff**, Director of Public Policy, Massachusetts Business Roundtable, *Representing Massachusetts Business Roundtable*

**Andrew Dreyfus**, Executive VP for Health Care Services, BCBS, *Representing Blue Cross Blue Shield of Massachusetts*

**Dan Driscoll**, CEO of Harbor Health Services, *Representing the Massachusetts League of Community Health Centers*

**Patricia Kelleher**, Executive Director, Mass Home Care Alliance, *Representing of Home Care Alliance of Massachusetts*

**John Lentini**, M.D., President, Massachusetts Academy of Family Physicians, *Representing primary care*

**Dale Magee**, M.D., President, MMS, *Representing the Massachusetts Medical Society*

**Louis Malzone**, Executive Director, Massachusetts Coalition of Taft Hartley Trust Funds, *Representing the Massachusetts Coalition of Taft Hartley Trust Funds*

**Wendy Mariner**, Professor of Health Law, Boston University School of Public Health, *Representing the Massachusetts Public Health Association*

**Richard Marlin**, Legislative Director, Mass AFL-CIO, *Representing the AFL-CIO*

**David Matteodo**, Executive Director, MABHS, *Representing the Massachusetts Association of Behavioral Health Systems*

**Eileen McAnneny**, VP of Government Affairs, AIM, *Representative of Associated Industries of Massachusetts*

**Michael McManus**, M.D., Children's Hospital, *Representing pediatric health care*

**Karen Nelson**, R.N., Senior VP of Clinical Affairs, MHA, *Representing the Massachusetts Hospital Association*

**Nicholas O'Connor**, M.D., *Representing medical education*

**Nancy O'Rourke**, MSN, President, Massachusetts Coalition of Nurse Practitioners, *Representing the nursing profession*

**W. Scott Plumb**, Senior VP, Massachusetts Extended Care Federation, *Representing the Massachusetts Extended Care Federation*

**Dana Safran**, *Representing the pharmaceutical field*

**William B. Vernon**, Massachusetts State Director, NFIB, *Representing the National Federation of Independent Business, Massachusetts Chapter*

**Deborah Wachenheim**, Consumer Health Quality Coordinator, HCFA, *Representing Health Care for All*

**Michael Weekes**, CEO, Mass Council of Human Service Providers, *Representing the Massachusetts Council of Human Service Providers*

**Michael Widmer**, President, Massachusetts Taxpayers Foundation, *Representing the Massachusetts Taxpayers Foundation*



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## ■ INTRODUCTION

The Massachusetts Health Care Quality and Cost Council was established by Chapter 58 of the Acts of 2006:

- to establish statewide goals for improving health care quality, containing health care costs, and reducing racial and ethnic disparities in health care;
- to demonstrate progress toward achieving those goals;
- to disseminate, through a consumer-friendly website and other media, comparative health care cost, quality, and related information for consumers, health care providers, health plans, employers, policy-makers, and the general public; and
- to identify, adopt and publish performance measurement data and benchmarks for its goals that advance a common national framework for quality measurement and reporting.

The Council is governed by a 13 member body comprised of seven experts on health care quality and cost appointed by the Governor, and six state officials, including the Attorney General, State Auditor, Inspector General, Secretary of Health and Human Services, Commissioner of Insurance and the Executive Director of the Group Insurance Commission. The Council receives input and advice from an Advisory Committee that includes representation from consumers, business, labor, health care providers, and health plans. The Council is located administratively within the Executive Office of Health and Human Services, and is chaired by the Secretary of Health and Human Services.

**VISION** THE COUNCIL'S VISION IS THAT BY JUNE 30, 2012 MASSACHUSETTS WILL CONSISTENTLY RANK IN NATIONAL MEASURES AS THE STATE ACHIEVING THE HIGHEST LEVELS OF PERFORMANCE IN CARE THAT IS SAFE, EFFECTIVE, PATIENT CENTERED, TIMELY, EFFICIENT, EQUITABLE, INTEGRATED, AND AFFORDABLE.

### PURPOSE OF THIS REPORT

This report meets the Council's mandate under Massachusetts General Law, Chapter 6A, §16L.

“(k) The council shall review and file a report, not less than annually, with the joint committee on health care financing and the clerks of the house and senate on its progress in achieving the goals of improving quality and containing or reducing health care costs. Reports of the council shall be made available electronically through an internet site.”

This report includes the Council's recommendations, developed as mandated by, Chapter 6A, §16L.

“(a) The council shall develop and coordinate the implementation of health care quality improvement goals that are intended to lower or contain the growth in health care costs while improving the quality of care, including reductions in racial and ethnic health disparities. For each such goal, the council shall identify the steps needed to achieve the goal; estimate the cost of implementation; project the anticipated short-term or long-term financial savings achievable to the health care industry and the commonwealth, and estimate the expected improvements in the health status of health care consumers in the commonwealth.”

The Council is grateful for the advice it received from its Advisory Committee and other interested parties and the analytic support it received from staff of the Department of Public Health and the Division of Health Care

Finance and Policy. The Council relied extensively on this input and assistance in its efforts to develop these recommendations.

This report also includes a summary of Massachusetts health care spending trends, relative to national trends. The Massachusetts Division of Health Care Finance and Policy conducted this analysis on behalf of the Council.

## ■ TAKING UP THE COMMONWEALTH'S QUALITY AND COST AGENDA

### *Council Activities to Date*

In the eighteen months since its inception, the Health Care Quality and Cost Council has devoted considerable time to three substantive areas: developing policy goals and recommending means to attain them; developing a health information website; and putting in place a system for collecting data to use in calculating cost and quality measures. This work has occurred alongside the organizational tasks necessary to launch a new governmental authority, amid high expectations flowing from the passage of the health reform law in 2006.

#### GETTING STARTED

The Massachusetts Health Care Quality and Cost Council was established in April 2006 by Chapter 58 of the Acts of 2006. During the late spring and early summer of 2006, Governor Romney appointed members to the Council and its Advisory Committee. The Council includes 7 experts on health care quality and cost, appointed by the Governor, and 6 state officials, while the Advisory Committee includes 24 representatives of a broad spectrum of Massachusetts health care organizations. The Council held its first meeting in August 2006. The Council secured a limited initial budget for FY 2007 and a more extensive budget for FY 2008. The Council hired an Executive Director in May 2007, and the Council staff now includes a health policy analyst and a health data project manager.

#### POLICY DEVELOPMENT

The Council's charge is challenging and its ambitions are high; members realize that success depends on widespread participation and support. During its first year, the Council reached out to a broad cross-section of the health care community. The Council heard testimony and presentations from nationally recognized experts on cost and utilization, from federal and state quality improvement organizations, from health care professionals, and from advocates and researchers on a variety of health care quality, cost and access issues.

**Establishing Goals for the Commonwealth** The Council's statute directs it to "develop and coordinate the implementation of health care quality improvement goals that are intended to lower or contain the growth in health care costs while improving the quality of care, including reductions in racial and ethnic health disparities." [M.G.L. c.6A, s.16L(a)] The Council established Quality and Cost committees to shape its goals. The Quality and Cost Committees conducted an initial review of existing quality improvement and cost containment efforts in Massachusetts in order to identify key areas for improvement. These Committees solicited input from the Advisory Committee and other experts in the field through a literature search, informal comments at committee meetings, formal written comments, and formal testimony.

From this process, the Quality Committee developed a set of key opportunities for improving quality in the Commonwealth, and the Cost Committee developed a corresponding set of opportunities for containing costs. The two committees worked together to prioritize opportunities to improve quality and contain cost simultaneously. The Committees jointly recommended to the Council a set of health care quality improvement goals that are intended to lower or contain the growth in health care costs while improving the quality of care, including reductions in racial and ethnic health disparities.

In June 2007, the Council approved its initial set of health care improvement goals, focusing on the areas of transparency, patient safety, chronic care management and prevention, end of life care, and racial and ethnic disparities. These are the goals identified and elaborated upon in this report.

The Council formally presented these goals to the public at its Annual Meeting, held in September 2007 at the John F. Kennedy Presidential Library in Boston and attended by over 170 policy-makers, health care providers, health care consumers, representatives of health plans and professional associations. Keynote speaker Stuart Altman, Dean and Sol C. Chaikin Professor of National Health Policy at Brandeis University's Heller School of Social Policy and Management, set the agenda with a presentation on Massachusetts's growing health care spending. Following his remarks a series of panelists discussed issues related to the Council's developing agenda.

**Detailed Recommendations** The Council established Committees to focus on the challenge of achieving its goals. Council members directed each of the Committees on Patient Safety, Chronic Care, End of Life Care, and Communications and Transparency, and an Ad-Hoc Committee on Cost Containment. The Council decided to address racial and ethnic disparities as an integral component of every effort of the Council, and thus did not establish a separate committee focusing solely on this topic. The Council invited members of its Advisory Committee and other experts to participate in these committees, which provided the Council with an extraordinary range of knowledge, expertise and advice.

Each committee was charged with identifying the steps needed to achieve each goal; the estimated cost of implementation; the anticipated short-term or long-term financial savings achievable to the health care industry and the Commonwealth; and the expected improvements in the health status of health care consumers including the impact on racial and ethnic disparities. The recommendations also consider the contribution that each health care sector should make toward achieving each goal. On March 5, 2008 the Council unanimously approved the recommendations made by each Committee.

The goals and recommendations for attaining these goals are included in this report.

## CONSUMER HEALTH INFORMATION WEBSITE DEVELOPMENT

M.G.L. C.6A, s.16L(h) directs the Council to:

“establish and maintain a consumer health information website. The website shall contain information comparing the cost and quality of health care services and may also contain general information related to health care as the council determines to be appropriate. The website shall be designed to assist consumers in making informed decisions regarding the medical care and informed choices between health care providers. Information shall be presented in a format that is understandable to the average consumer.”

Creating a website that conveys useful health care information credibly and accurately, while still making it understandable to an average consumer, is one of the Council's greatest challenges. The Council reviewed websites that have been developed by Massachusetts state agencies, other states, the federal government, and private organizations. The Council found an extensive amount of quality information about individual health care facilities already available on the internet, but the websites are difficult to find and even more difficult to understand. Moreover, there is very little information available to consumers on the actual cost of a given health care service. The Council's comprehensive review of all websites that purport to make health care quality and cost measure data publicly available did not identify an existing model for the Council's consumer-friendly website.

From its review, the Council knew that it would need to invest significant effort into presenting consumer health information in a format that is understandable, useful and relevant to the average consumer. The Council hired Solomon McCown & Company to develop the framework for a consumer friendly Massachusetts health care website. These communications professionals, with experience developing and publicizing websites with a similar purpose, have undertaken a process to design a site based on information gathered directly

from consumers and from other stakeholders. The Council has separately hired Medullan to build the website according to the specifications defined through this process. The Council plans to launch the website in the spring of 2008.

## **DATA COLLECTION**

The Council has devoted considerable effort to creating a dataset from which to calculate health care quality and cost measures for posting on its website. In September 2007, the Council adopted regulation 129 CMR 2.00: Uniform Reporting System for Health Care Claims Data Sets. This regulation requires all Massachusetts health insurance carriers to submit to the Council de-identified member eligibility, medical claims, and pharmacy claims information. The datasets include information such as patient diagnosis and procedure, payment amount, provider information, and member demographic information. The dataset does not include personal data that identifies an individual patient, such as name, address, or social security number, and the Council will protect the privacy, security and confidentiality of the data in accordance with state and federal law. The data submission requirements are consistent with those in place in Maine and New Hampshire, so the Council will be able to compare quality and cost measure data in Massachusetts to those states.

The Council hired a Health Claims Data Manager, the Maine Health Information Center (MHIC), to collect the data from health insurance carriers. The MHIC collects similar data for Maine and New Hampshire and brought that knowledge, as well as efficiencies of scale, to the Massachusetts data collection effort. Health insurance carriers that insure a total of 2,000 or more Massachusetts covered lives are now working with the MHIC to submit their claims information in a standardized format. The Council plans to add claims from smaller insurance carriers in the summer of 2008, and to add Medicaid and Medicare claims. The Council does not currently have the authority to require third party administrators to submit these data; however some payers will submit these data voluntarily. Third parties administer claims for approximately half of all privately insured individuals.

These activities have brought the Council to a point where, with information and infrastructure in place, it can assume a leadership role in setting standards for quality and cost improvements for health care in the Commonwealth. The Council will soon launch its website, and over the next year it will publicize the site and goals, continue to build support for improvement across sectors of the health care system, and begin to effect the recommendations laid out in this report.



## ■ **RECOMMENDATIONS** *for improving health care quality, containing health care costs, and reducing racial and ethnic disparities in health care*

**GOAL I. REDUCE THE COST OF HEALTH CARE. REDUCE THE ANNUAL RISE IN HEALTH CARE COSTS TO NO MORE THAN THE UNADJUSTED GROWTH IN GROSS DOMESTIC PRODUCT (GDP) BY 2012.**

### **FY 2008 SPECIFIC GOALS**

**GOAL I.A. PROMOTE COST-EFFICIENCY THROUGH DEVELOPMENT OF A WEBSITE PROVIDING COMPARATIVE COST INFORMATION. DEVELOP A WEBSITE THAT WILL ENABLE CONSUMERS TO COMPARE THE COST OF HEALTH CARE PROCEDURES AT DIFFERENT HOSPITALS AND OUTPATIENT FACILITIES.**

**GOAL I.B. REDUCE HEALTH CARE SPENDING BY PREVENTING THE NEED FOR AVOIDABLE HOSPITAL STAYS.**

This report includes specific strategies, under all six goals, to reduce the growth in health care costs by providing comparative cost information, by preventing the need for avoidable hospital stays, and through other mechanisms.

In addition, the Council will pursue the following strategies specific strategies to identify methods to control health care costs statewide.

**Strategy 1.** The Council will contract with independent experts to provide the Council with technical assistance in analyzing the causes of increases or decreases in health care costs, including but not limited to the effects of (1) supply of and demand for services, as well as utilization trends, (2) concentration of provider market power by geographic region and medical service, (3) concentration of insurer market power, (4) quality of care and avoidable medical errors, (5) avoidable administrative costs, (6) payment systems, (7) overuse and inappropriate use of medical technology, pharmaceuticals, and medical devices; on health care costs in the Commonwealth.

**Strategy 2.** The Council will adopt a standard of measurement of total annual Massachusetts health care spending (the “Massachusetts Global Health Cost Indicator”) by which the Council will track the rate of increase or decrease in health care costs in total and within health care sectors from year to year. The Council will contract with an independent health care organization to provide the council with technical assistance in establishing and computing the Massachusetts Global Health Cost Indicator (“MGHCI”), in accordance with the provisions of Section 16L of Chapter 6A;

**Strategy 3.** The Council will develop legislative, regulatory, and other recommendations to control health care costs. The recommendations will be submitted by the Council to the appropriate entity in accordance with the provisions of Section 16L (m) of Chapter 6A. The Council will contract with independent experts to provide the Council with technical assistance in developing the recommendations.

In developing the recommendations, the Council shall consider the following categories of options, among others:

- a. Rate regulation, such as rate setting for Massachusetts health care providers and health care insurers;
- b. Controlling the supply of services, such as expansion of the Commonwealth's Determination of Need program and/or strengthening its enforcement provisions;
- c. Redesigning the delivery system, such as instituting medical homes and expanding primary care, reducing avoidable hospitalizations, improving end of life care, and improving coordination of care;
- d. Payment reform, such as evaluating alternatives to fee-for-service systems, evaluating the impact of cost-sharing measures, including but not limited to circumstances where a patient has a choice of providers or products, and considering uses of reinsurance models;
- e. Identifying sources of funding for prevention and other cost containment initiatives, including the use of new assessments;
- f. Disseminating information relating to cost and clinical effectiveness, such as comparative effectiveness studies;
- g. Malpractice reform;
- h. Evaluating strategies for decreasing detrimental concentrations of market power in the provider and health insurer sectors;
- i. Evaluating employer and patient expectations;
- j. Administrative simplification;
- k. Assessing uses of medical technology, electronic health records, and computerized physician order entry; and
- l. Examining plan benefit designs.

The recommendations shall include an estimate of cost savings, as well as recommendations for implementation and tracking. The recommendations shall be prioritized by the Council, with assistance from the independent experts, by effectiveness, by ease of implementation, and by impact on access, quality of care, and disparities in provision of care. The recommendations shall also take into account impact on the viability of health care institutions and providers, especially those based in the community.

**Strategy 4.** The Council will prepare reports to be presented to the Governor, Secretary of Health and Human Services, Senate President, Speaker, and Chairpersons of the Committees on Ways and Means and Health Care Financing, comparing variations in rates paid by insured health plans, self-insured entities, Medicaid, Medicare, uninsured persons, and other payers to health care providers in the Commonwealth. The Council will ensure that the content and dissemination of any such report conforms to the relevant confidentiality laws and regulations.

**Strategy 5.** The Council will request adequate funding to support Strategies 1 through 4.

**GOAL II. ENSURE PATIENT SAFETY AND EFFECTIVENESS OF CARE.**

**FY 2008 SPECIFIC GOALS**

**GOAL II.A. REDUCE HOSPITAL-ASSOCIATED INFECTIONS (HAI) DURING FY 2008. ELIMINATE HOSPITAL-ASSOCIATED INFECTIONS BY 2012.**

**GOAL II.B. ELIMINATE “SERIOUS REPORTABLE EVENTS” AS DEFINED BY THE NATIONAL QUALITY FORUM. ELIMINATE EVENTS THAT SHOULD NEVER HAPPEN IN HOSPITALS, SUCH AS WRONG SURGERY, WRONG SITE, OR WRONG PATIENT.**

**GOAL II.C. IMPROVE OVERALL PATIENT SAFETY AND EFFECTIVENESS OF CARE.**

**INTRODUCTION**

Hospital-associated infections and serious reportable events threaten patient safety, burden patients with complications to their treatment, and burden the health care system with unnecessary costs. In addition, hospital-associated infections threaten our communities when patients leave a health care facility with such an infection.

In fact, hospital-associated infections are among the top ten causes of death in the United States. The Centers for Disease Control and Prevention estimates that, nationally, over 2 million patients acquire hospital-associated infections each year, resulting in 90,000 deaths and \$4.5 billion in excess health care costs. And the Institute for Healthcare Improvement (IHI) estimates that nearly 15 million incidents of medical harm occur in the United States per year, a rate of over 40,000 per day.

Nationally, efforts to reduce and eliminate hospital-associated infections and serious reportable events have included the implementation of safe practices and procedures, tracking and reporting of events, and implementation of reimbursement limitations by Medicare for certain hospital acquired conditions. The National Quality Forum (NQF), IHI and other national and international health care quality organizations have developed detailed recommendations aimed at improving prevention efforts.

The Massachusetts Health Care Reform Act of 2006 provided funding to the Department of Public Health (DPH) to develop recommendations for action by health care facilities and to reduce preventable infections. Masspro, the Massachusetts Coalition for the Prevention of Medical Errors, Health Care for All, and other health care advocacy groups are working to assist health care providers’ prevention efforts, and to raise awareness about hospital-associated infections among patients. And many of our hospitals have already taken steps to improve safe practices.

The Council identified the following strategies to reduce, and ultimately eliminate, hospital-associated infections and serious reportable events.

## STRATEGIES FOR ACHIEVING THESE GOALS

1. **Hospitals** should implement recommendations of the Betsy Lehman Center Expert Panel for the Prevention and Control of Healthcare-Associated Infections.
2. **Hospitals** should implement the National Quality Forum's Endorsed Safe Practices for Better Healthcare (See summary and list at [http://www.qualityforum.org/pdf/reports/safe\\_practices/txspexecsummarypublic.pdf](http://www.qualityforum.org/pdf/reports/safe_practices/txspexecsummarypublic.pdf))
3. **Hospitals** should work together to improve the use of evidenced based processes for reducing hospital-associated infections and lessons learned, in order to accelerate their efforts for improvement. DPH, the Board of Registration in Medicine and other health care licensing organizations should meet regularly with each other and with hospital representatives to share information about serious reportable events and lessons learned that could prevent similar events from occurring at other facilities.
4. **MassHealth and each Private Health Plan** should align its own policies and standards to ensure that hospitals' financial incentives encourage reducing infections and eliminating serious reportable events.
5. **Consumers** should receive information about what they can do and say to reduce infections. This information should be provided using culturally sensitive materials available in multiple languages and literacy levels.
6. **Consumers** should have full expectation of disclosure if a serious reportable event occurs and should receive information about what they can do and say to improve the safety of the care they receive and reduce the likelihood of an adverse event. This information should be provided using culturally sensitive materials available in multiple languages and literacy levels. Hospitals should provide this information to consumers in accordance with the Joint Commission's 2007 National Patient Safety Goal 13, developed as part of its health care accreditation and related services. (See [http://www.jointcommission.org/NR/rdonlyres/5928FA30-6BAB-4017-8DF6-5545E5470154/0/09\\_Hospital\\_NPSG\\_FR.pdf](http://www.jointcommission.org/NR/rdonlyres/5928FA30-6BAB-4017-8DF6-5545E5470154/0/09_Hospital_NPSG_FR.pdf) for more information.)
7. **The Council** will identify and adopt performance measurement benchmarks as targets to improve patient safety and effectiveness of care and publish performance measurement data and benchmarks annually, in consultation with lead agencies and organizations and the Council's Advisory Committee.

## COST BENEFIT ANALYSIS

It is the Council's duty and goal to determine the anticipated impact on costs and savings as a result of specific recommendations. We know that hospital-associated infections and serious reportable events are contributing to unnecessary costs due to additional days spent in the hospital, unnecessary readmissions, additional medical care, etc. While there is ample evidence that HAIs and serious reportable events are burdening healthcare systems with additional and unnecessary costs, it is not clear that reducing infections and adverse events will lead to significant cost savings by providers. The studies and examples we are able to cite, however, lend strong support to the business argument that by increasing infection and quality control resources and thus reducing infections and adverse events, significant cost savings can be achieved in the health care system.

**Implementation Cost.** The Betsy Lehman Center’s Expert Panel is developing guidelines for an optimal hospital infection control program. The Council will use these guidelines to estimate the cost of prevention. Many hospitals already have strong infection control processes in place, so the incremental cost of meeting the guidelines should be a fraction of the total cost.

**Hospital-associated Infections.** The Betsy Lehman Center’s Expert Panel estimated that the Commonwealth spends \$200-400 million on healthcare-associated infections. Eliminating these infections would decrease the cost of hospital stays for hospitals and for payers. Many Massachusetts hospitals have a consistently high census and are planning expansions to add additional patient beds. Eliminating excess patient days due to infections and other adverse events could reduce the need for these capital-intensive expansion projects.

Michigan’s Henry Ford Hospital was able to save \$1.2 million and improve patient care by concentrating on reducing treatment-related infections by starting programs to prevent bloodstream infections, surgical-site infections, and ventilator-associated pneumonia and respond quicker in cases requiring emergency resuscitation. Specifically, the surgical-site infection program cost the hospital \$101,146, warded off 28 infections and saved \$215,807 in costs for a total savings of \$114,661.<sup>1</sup>

Michigan’s Keystone Initiative, in which hospitals used “checklists” developed by Peter Provonost of John’s Hopkins Hospital to help prevent line infections, achieved significant reductions in infections as well as significant cost savings. In December 2006, the *New England Journal of Medicine* reported that in the first 18 months of the Initiative, Michigan hospitals saved an estimated \$175 million and more than 1,500 lives. This success has been sustained for almost four years.<sup>2</sup>

In a study of 28 community hospitals in the southeastern United States, researchers compared the cost of hospital-associated infections to the amount budgeted for infection control programs. Findings indicated that the annual cost of HAIs was 4.6 times the amount budgeted for infection control. The median annual cost of HAIs per hospital was \$594,683 and the median cost of hospital infection control programs was \$129,000. Thus, an annual reduction in HAIs by 25% could save each hospital a median of \$148,667. The study concluded, “...incremental benefits (e.g. the money saved by preventing HAIs) remain far higher than incremental investments being made (e.g. the costs of increasing resources for an [infection control] program).” “Furthermore...data suggests that money invested in infection prevention activities will indeed yield substantial financial returns and simultaneously yield equally large dividends related to improving patient safety.”<sup>3</sup>

**Serious Reportable Events.** The primary benefit in eliminating these serious events is to prevent considerable harm to patients, including deaths. Most serious reportable events are quite rare. Even though each individual event can be costly, the small volume of events indicates that total savings to the Commonwealth for eliminating these rare events would be small.

## PERFORMANCE MEASUREMENT AND REPORTING

By October 2009, and annually thereafter, the Council will identify and adopt performance measurement benchmarks as targets to improve patient safety and effectiveness of care, in consultation with lead agencies and organizations and the Council’s Advisory Committee. The Council will publish performance measurement data and benchmarks, including but not limited to performance measurement data and

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1 Merx, K. “Infection control saves hospital \$1.2M.” *Crain’s Detroit Business*, April 4, 2005; 21(14): 39.

2 Gawande, A. “The Checklist.” *The New Yorker*, December 10, 2007. 83:86-95.

3 Anderson, DJ, et al. Underresourced Hospital infection control and Prevention Programs: Penny Wise, Pound Foolish?, *infection control and Hospital Epidemiology*, 2007; 28(7): 767-773.

benchmarks for measuring hospital-associated infections, serious reportable events, and whole system quality and safety.

The Council requests that the Department of Public Health and the Division of Health Care Finance and Policy submit specific recommendations for performance measurement benchmarks to the Council as detailed below. The Council will also consult with patient safety organizations, experts in the field, and the Council's Advisory Committee, and will select performance measurement benchmarks that advance a common national framework for quality measures.

The Council will review the recommendations it receives from these lead agencies, organizations, experts, and the Council's Advisory Committee. Based on this review, the Council may approve recommended measures, make revisions, or continue to research the issue.

#### **A. HOSPITAL-ASSOCIATED INFECTIONS (HAI)**

1. **The Council** will publicly report on its website the number and rates of infections at each hospital in Massachusetts by October 2009. The Council will include an assessment of each hospital's progress toward implementation of evidence-based processes required by the Council. The Council seeks full implementation of effective infection prevention programs at each hospital. The Council will obtain these data from the Department of Public Health (DPH).
2. **DPH** is responsible for collecting hospital-associated infections data. The required reporting format should include patient race and ethnicity so that DPH can identify any racial or ethnic disparities.
3. **DPH** issued regulations that require hospitals to begin reporting rates of certain types of infections. The regulations require reporting on the measures recommended for public reporting by the Betsy Lehman Center's Expert Panel on Healthcare-Associated Infections:
  - a. Central venous catheter-associated bloodstream infections (CVC-BSI) in intensive care units (ICUs) – true pathogens (Centers for Disease Control criterion 1)
  - b. Surgical site infection (SSI) resulting from hip arthroplasty
  - c. Surgical site infection (SSI) resulting from knee arthroplasty
4. **The Council** requests that DPH recommend to the Council by March 2009 a set of measures sufficient to enable DPH to ascertain and report to the public each hospital's progress in preventing the full spectrum of infection types occurring in Massachusetts health care settings. DPH should report to the Council on its progress toward developing this recommendation by June 2008, and quarterly until it makes the final recommendation to the Council by March 2009. DPH should continue to review its list of reportable infections at least annually to ensure that this list is effective in promoting the goal of eliminating HAIs and should recommend any additional measures to the Council.
5. **DPH** should issue its first public report no later than March 2009, based on aggregate data submitted by hospitals for the period July through December 2008. The report should include aggregate findings across all hospitals and should note any issues with reporting. Measures should at least include those measures recommended for public reporting by the Betsy Lehman Center's Expert Panel on Healthcare-Associated Infections, and should be stratified by patient age, race, ethnicity, and gender.
6. **DPH** should issue its first public report identifying individual hospitals' infection rates no later than October 2009, based on data submitted by hospitals for the period July 2008 through June 2009, and annually thereafter. Measures should at least include those measures recommended for public reporting by the Betsy Lehman Center's Expert Panel on Healthcare-Associated Infections.

7. **DPH** should report annually to the Council on hospitals' progress implementing the Betsy Lehman Center's Expert Panel recommendations.

## **B. SERIOUS REPORTABLE EVENTS**

1. **The Council** will report on its website the Leapfrog Group's composite Safe Practices Score, as well as hospital scores on the 30 individual NQF Endorsed Safe Practices reported publicly by Leapfrog, beginning in 2008. The Council will obtain these data from the Leapfrog Group. The Leapfrog Group is a not-for-profit organization of employers dedicated to recognizing and rewarding advances in health care safety, quality, and customer value.
2. **The Council** will publicly report on its website by April 2009:
  - a. The type and number of occurrences of each serious reportable event by hospital, including the number that resulted in death or serious disability;
  - b. A summary of key findings and lessons learned from the facility's root cause analysis; and
  - c. A summary of actions taken by the hospital to prevent a similar event in the future, including whether the hospital has implemented a specific set of evidence-based best practices endorsed by experts to prevent this type of event.

The Council will obtain these data from the Department of Public Health.

3. **DPH** is responsible for collecting data on serious reportable events. The required report format should include the patient race and ethnicity so that DPH can identify any racial or ethnic disparities.
  - a. In December 2007, DPH expanded its existing list of serious reportable events to include all serious reportable events identified by the National Quality Forum. DPH required hospitals to begin reporting on this expanded list of events beginning January 1, 2008.
  - b. DPH should investigate each serious reportable event. DPH will require additional staffing to meet this requirement. If DPH cannot allocate sufficient staffing to these investigations, DPH should develop triage criteria that will enable it to identify individual serious reportable events that require investigation at a level commensurate with its resources.
  - c. DPH should issue its first public report by October 2008 based on aggregate data submitted by hospitals for the period January through June 2008. This report should include aggregate findings across all hospitals and should note any issues with reporting. Measures should be stratified by patient age, race, ethnicity, and gender.
  - d. DPH should issue its first public report identifying individual serious reportable events that occurred at individual hospitals no later than April 2009, based on data submitted by hospitals for the period January through December 2008.
  - e. DPH should issue annual public reports within four months of the close of each reporting year, based on data submitted by hospitals for the prior reporting year.
4. **DPH and the Board of Registration in Medicine's (BORM's)** Patient Care Assessment program should report to the Council by June 2008 how they will work together to align their serious reportable event reporting requirements and oversight activities to the maximum extent possible, given the differences in their missions and statutory mandates. DPH and BORM are already in active discussions on this topic. DPH and the Board of Registration in Medicine should implement a joint web-based electronic reporting system, employing a single document that summarizes key learnings from the hospital's root cause analysis, by December 2008.

## C. IMPROVE OVERALL PATIENT SAFETY AND EFFECTIVENESS OF CARE.

The Council will identify meaningful measures of whole system quality and safety, including a whole system hospital mortality measure, in order to promote patient safety across-the-board, and not only in specific areas that are publicly reported.

1. **The Council** will publicly report on its website the ratio of actual to expected mortality for each hospital by January 2010.
2. **The Council** requests that the Division of Health Care Finance and Policy (DHCFP) recommend to the Council a reliable, valid methodology for calculating the ratio of actual mortality to expected mortality for each hospital in the Commonwealth. DHCFP should obtain advice from leading experts in the field to determine the most accurate and reliable methodology. Pursuant to the Council's adoption of the recommended methodology, DHCFP should make available to hospitals their own actual and expected mortality measures, in order to provide hospitals an opportunity to make corrections to the data and to formulate strategies for improvement.
  - a. DHCFP should convene a panel of experts by March 2008.
  - b. DHCFP should report to the Council by June 2008 on its analysis of the reliability and validity of available mortality ratio methodologies.
  - c. DHCFP should make available to hospitals their own actual and expected mortality measures calculated based on several years of historical data by October 2008.
  - d. DHCFP should publish the trend in the ratio of actual to expected mortality by hospital, without identifying individual hospitals, by March 2009.

## NEXT STEPS FOR FY 2009

1. **The Council** will continue to explore additional methods for improving patient safety, including best practices for transferring patients between units and between facilities.
2. **The Council** will explore methods to reduce, and ultimately eliminate, infections acquired in skilled nursing facilities, dialysis units and other health care settings.

**GOAL III. IMPROVE SCREENING FOR AND MANAGEMENT OF CHRONIC ILLNESSES IN THE COMMUNITY.**

**FY 2008 SPECIFIC GOALS**

**GOAL III.A. IMPROVE CHRONIC AND PREVENTIVE CARE. IMPROVE CARE OF CHRONIC DISEASES SUCH AS CONGESTIVE HEART FAILURE, DIABETES, AND ASTHMA.**

**GOAL III.B. REDUCE DISEASE COMPLICATION RATES, READMISSION RATES, AND AVOIDABLE HOSPITALIZATIONS.**

**INTRODUCTION**

Chronic conditions, such as heart failure, diabetes, and asthma are pervasive among Massachusetts residents. These chronic conditions reduce residents' quality of life, and treatment for these conditions represents a growing component of overall health care costs. The Milken Institute recently estimated the total economic impact of chronic illness on the Commonwealth of Massachusetts, including both treatment expenditures and lost productivity, at a staggering \$34 billion.<sup>4</sup>

Milken ranked Massachusetts 40<sup>th</sup> in the nation in its burden of chronic disease.<sup>5</sup> In addition, the Commonwealth Fund's State Scorecard (2007) ranked Massachusetts 32<sup>nd</sup> in the nation for hospitalizations for diagnoses where timely and effective primary care could have prevented or reduced the risk of hospitalization ("Medicare hospital admissions for ambulatory care sensitive conditions per 100,000 beneficiaries").<sup>6</sup> Similarly, the Commonwealth Fund ranked Massachusetts 41<sup>st</sup> in the nation for "Medicare 30-day hospital readmissions as a % of admissions."

**STRATEGIES FOR ACHIEVING THESE GOALS**

1. **The Commonwealth of Massachusetts** should adopt and promote a statewide model system of care that improves the health status of people with, or at risk for, chronic conditions.
2. **The Executive Office of Health and Human Services (EOHHS)** should convene a working group with broad representation from stakeholders to develop a blueprint for this statewide model. The group should include members of the Council, the Advisory Committee, consumer representatives, primary care physicians, health plan medical directors, physician group practice medical directors, and representatives of employers, community organizations, hospitals, and other health care provider groups, and health care professionals with expertise in the redesign of chronic care delivery systems. The workgroup should include representatives from state agencies including: the Department of Public Health, the Office of Medicaid, the Executive Office of Elder Affairs, the Division of Health Care Finance and Policy, and the Division of Insurance.

4 DeVol, R, et al. An unhealthy America: the economic burden of chronic disease—charting a new course to save lives and increase productivity and economic growth. Milken Institute, October 2007.

5 Ibid.

6 Cantor, JC, et al. Aiming higher: results from a state scorecard on health system performance. *The Commonwealth Fund*. June, 2007.

3. **The working group** shall develop a draft blueprint by March 2009. The blueprint shall:
  - a. Identify statewide, comprehensive, coordinated care management strategies to support evidence-based best practices for treatment and prevention of chronic conditions;
  - b. Include strategies to reduce, and ultimately eliminate, racial and ethnic disparities in the treatment and prevention of chronic conditions;
  - c. Include a focus on heart failure, diabetes, asthma, and associated depression;
  - d. Build on national models for supporting evidence-based best practices;
  - e. Recognize existing private and public sector efforts to improve the prevention and management of chronic conditions, coordinate these efforts, and align incentives of each component of the health care system, in order to maximize the overall effect on the health care system;
  - f. Coordinate with other initiatives to assure alignment of health reform efforts; and
  - g. Engage stakeholders in development of policies and plans to assure sustainability.
4. **The blueprint** shall address each of the following objectives:
  - a. **Self Management** Provide the education, tools and strategies that individuals with chronic conditions need to be effective managers of their own health. Explore the potential benefits and legal requirements for providing financial incentives (e.g. rebates, gift cards) for patient participation in care management.
  - b. **Provider Practice** Establish a coordinated system of practice redesign, education and tools to support physicians in ensuring that their patients receive care consistent with evidence-based best practices.
  - c. **Transitions** Establish a coordinated system of communication and responsibility for care when patients are discharged or transferred from one level of care or location to another.
  - d. **Community Resources** Support efforts to ensure that communities support healthy lifestyles.
  - e. **Health Information System** Explore the costs and benefits of developing an electronic chronic condition registry to track the course of a patient's treatment. Such a registry may be free standing or as part of an Electronic Health Record with decision support.
  - f. **Payment System Alignment** Align the payment system to support this model system of care. Promote agreement on clinical guidelines and performance measures, and facilitate alignment of financial and other incentives.

## COST BENEFIT ANALYSIS

The Division of Health Care Finance and Policy estimated that up to 15% of hospital admissions are for ambulatory sensitive conditions for which timely and effective use of primary care can stabilize a patient's condition and prevent the need for hospitalization. These ambulatory sensitive conditions include chronic conditions such as congestive heart failure, diabetes, and asthma. Clearly, preventing the need for such hospitalizations is beneficial to patient's health, quality of life, and productivity.

These hospitalizations are also costly. The cost of hospitalizations in Massachusetts for diabetes and related complications was approximately \$60 million in 2005, hospitalizations for asthma cost approximately \$30 million, and hospitalizations for congestive heart failure cost over \$100 million. (Calculated using DHCFFP Hospital Discharge Data) Clearly preventing even a fraction of these hospitalizations would result in considerable savings for the Commonwealth.

Preventing the need for hospitalizations for chronic conditions will result in direct savings for health plans and consumers, but preventing the need for these hospitalizations for chronic conditions may not result in direct cost savings to hospitals. However, reducing admissions may prevent the need for a health care provider to expand its staffing or physical space, thus reducing cost growth for the health care system.

## PERFORMANCE MEASUREMENT AND REPORTING

By October 2008, and annually thereafter, the Council will identify and adopt performance measurement benchmarks as targets to improve chronic care management and prevention and publish performance measurement data and benchmarks in consultation with lead agencies and organizations and the Council's Advisory Committee, including but not limited to performance measurement data and benchmarks for measuring disease complication rates, readmission rates, and avoidable hospitalizations.

The Council requests that the chronic condition blueprint working group submit specific recommendations for performance measurement benchmarks to the Council as detailed below. The Council will also consult with experts in the field and its Advisory Committee, and will select performance measurement benchmarks that advance a common national framework for quality measures.

The Council will review the recommendations it receives from this working group, experts, and its Advisory Committee. Based on this review, the Council may approve recommended measures, make revisions, or continue to research the issue.

1. **The working group** shall recommend to the Council statutory and regulatory changes needed to implement this blueprint.
2. **The working group** shall report to the Council on the progress it has made toward developing and implementing the blueprint by June 2008 and quarterly thereafter.
3. **The working group** shall recommend to the Council by September 2008 key indicators for improvement in chronic care management and prevention.
  - a. Measures for tracking performance improvement should be stratified by age, race, ethnicity, and gender.
  - b. Measures for tracking improvement may include:

- Hospital admissions for ambulatory sensitive conditions as a percentage of total hospital admissions;
- Hospital readmissions within 30 days as a percentage of total hospital admissions; and
- Percentage of patients with a certain chronic condition who received a set of recommended preventative services.

**GOAL IV. DEVELOP AND PROVIDE USEFUL MEASUREMENTS OF OR APPROACHES TO QUALITY IN AREAS OF HEALTH CARE FOR WHICH CURRENT DATA ARE INADEQUATE OR CURRENT APPROACHES ARE UNSUCCESSFUL.**

**FY 2008 SPECIFIC GOAL: FOCUS ON END OF LIFE CARE**

**GOAL IV.A. DEVELOP PROCESSES AND MEASURES TO IMPROVE ADHERENCE TO PATIENTS' WISHES IN PROVIDING CARE AT THE END OF LIFE. ENSURE THAT HEALTH CARE PROVIDERS ASK ABOUT AND FOLLOW PATIENTS' WISHES WITH RESPECT TO INVASIVE TREATMENTS, DO NOT RESUSCITATE ORDERS, HOSPICE AND PALLIATIVE CARE, AND OTHER TREATMENTS AT THE END OF LIFE.**

**INTRODUCTION**

There is widespread evidence that many patients and families are not aware of their options for care at the end of life and have not discussed with their health care providers their wishes with respect to invasive treatments, do not resuscitate orders, hospice and palliative care, and other treatments at the end of life.<sup>7,8</sup> Even those patients and families who are aware of their service options and have communicated their wishes to their primary care provider may not have those wishes honored, due to failure of communications among providers or an inability for documents with expectations to transfer across settings.<sup>9</sup>

Despite 70% of Americans indicating a preference to die at home,<sup>10</sup> and despite significant resources devoted over the last 20 years to enacting laws that make it easier for individual preferences to be honored, there has been no significant change in site of death. In 1997, 20% of deaths in Massachusetts occurred in homes, and in 2005, the number had only risen to 22%.<sup>11</sup>

Furthermore, the Dartmouth Atlas project found significant variation in resource use at the end of life from one region to another; patient preference is unlikely to explain this regional variation.<sup>12</sup> In 1997, the proportion of deaths at home ranged from 14.7% to 35.8% across the 50 states, with a national mean of 24.9%.<sup>13</sup> The Massachusetts Division of Health Care Finance and Policy found significant variation in resource use at the end of life from one Massachusetts hospital to another; again patient preference is unlikely to explain most of this variation.<sup>14</sup>

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7 Wenger, NS, et al. End-of-life discussions and preferences among persons with HIV. *JAMA*. 2001; 285(22):2880-7.  
8 Cherlin E, et al. Communication between physicians and family caregivers about care at the end of life: when do discussion occur and what is said? *J Palliat Med*. 2005; 8(6):1176-85.  
9 Lee, MA, et al. Physician orders for life-sustaining treatment (POLST): outcomes in a PACE program. Program of All-Inclusive Care for the Elderly. *J Am Geriatr Soc*. 2000; 48(10):1219-25.  
10 Means to a better end: A report on dying in America today. *Last Acts, Robert Wood Johnson Foundation*. November, 2002.  
11 Ibid.  
12 Barnato AE, et al. Are regional variations in end of life care intensity explained by patient preferences?: A study of the US Medicare population. *Med Care*. 2007; 45(5):386-93.  
13 Means to a better end: A report on dying in America today. *Last Acts, Robert Wood Johnson Foundation*. November, 2002.  
14 DHCFF, Analysis in Brief, Analysis in Brief: Hospital Resource Use on End-of-Life Patients Varies; No. 9, July, 2006.

## STRATEGIES FOR ACHIEVING THESE GOALS

1. **The Commonwealth of Massachusetts Executive Office of Health and Human Services (EOHHS)** should implement a statewide public health educational campaign by September 2008, to educate the public about their options for care at the end of life, how to communicate their wishes to their families and health care providers, and why it is important to communicate these wishes in advance. The Commonwealth should launch this educational campaign in partnership with the Council, the End of Life Commission and the Partnership for Healthcare Excellence, and with input from the Massachusetts Hospital Association, Mass Medical Society, Masspro, Hospice and Palliative Care Federation, Mass Extended Care Federation, the Massachusetts Association of Health Plans and others. Because many individuals hold strong culturally-based beliefs about care at the end of life, it is essential that this campaign include a culturally competent campaign strategy and educational materials targeted to the needs of racial and ethnic minority groups.
2. **Hospitals, nursing homes, physicians and other providers** should implement, by 2010, a process for communicating patients' wishes for care at the end of life, similar to the Physician Order for Life Sustaining Treatment (POLST) processes currently in use in Oregon, Washington, New York, West Virginia, and other states. EOHHS should facilitate the development of a draft Physician Order for Life Sustaining Treatment process in collaboration with key stakeholders by December 2008.

The POLST is a concise document that translates an individual's specific preferences for life-sustaining treatment (including resuscitation, medical interventions, antibiotics, and artificially administered fluids and nutrition) into a medical order based on the individual's current condition. Individual patients can use the POLST process to encourage or limit specific forms of treatment. The POLST has the strength of a medical order because it is signed by the individual's physician or other authorized care provider, in addition to the patient or the patient's health care proxy. As a medical order, the POLST supersedes the default protocols typically followed by emergency medical personnel and other medical professionals caring for the patient.

3. **EOHHS, in coordination with the End of Life Commission**, should establish a pilot program to test implementation of the Physician Order for Life Sustaining Treatment process in at least one area in Massachusetts by January 2009. The pilot should include education about the POLST process for patients, other family care givers, and health care providers. EOHHS, in coordination with the End of Life Commission, should then evaluate the success of the pilot and use the lessons learned to develop and implement a plan for statewide use of the POLST process by January 2010.
4. **The Governor and the legislature** should activate and fund the previously established and highly leveraged End of Life Commission as a state end of life and palliative care resource. The End of Life Commission was established by M.G.L. C.111, §55A to coordinate the development of End of Life policies and resources statewide, and was originally funded at \$100,000 per year. The End of Life Commission was designed to include diverse membership and bring widespread input to end of life issues. The End of Life Commission's membership and experience would bolster the success of the educational campaign and POLST pilot program recommended above.
5. **Hospitals, extended care facilities, and home health care organizations** should, by March 2009, offer formal hospice and palliative care programs to their terminally ill patients, and should ensure that these programs meet the needs of patients with different cultural expectations at the end of life. Hospitals, extended care facilities, and home health organizations can sponsor their own programs, or collaborate with another organization to make hospice and palliative care easily available. Hospice and palliative care programs improve comfort and quality of life for patients and their families.

Both hospice and palliative care programs provide coordinated pain and symptom control, care of psychological and spiritual needs, and family support. Hospice care primarily supports dying patients for whom curative treatment is no longer desired or effective, while palliative care supports patients at any stage of advanced and life-threatening illness and does not preclude continuation of curative treatment. Palliative care programs also coordinate care among providers, including specialists and primary care physicians, to prevent service fragmentation.

6. **The Boards of Registration in Medicine and Nursing** should inform physicians and nurses that these Boards will expect physicians and nurses who provide end of life care to acquire and maintain those competencies necessary for the delivery of safe, effective and patient-centered end of life care including, but not limited to, culturally sensitive palliative care, pain management, and advance care planning.
7. **The Board of Registration in Medicine** should amend its Patient Care Assessment regulations to require hospitals to submit, as part of the overall plan they submit to the Board every three years, a plan for ensuring that all clinical professionals who care for patients at the end of life are educated in the delivery of culturally sensitive care in these areas.
8. **The End of Life Commission** should partner with organizations such as the Massachusetts Hospital Association, the Massachusetts Medical Society, Masspro, the Massachusetts Extended Care Federation, Masspro, and the Hospice and Palliative Care Federation of Massachusetts to identify best practices including the advanced medical home; support collaboratives for accelerated learning; and identify methods for measuring performance improvement in palliative care and end of life care. These methods for measuring performance improvement should be presented to the Council for consideration to complement the Council's performance measures in this area. These organizations should apply lessons learned from the innovative Health Reform Pediatric Palliative Care Program, not only in the care of pediatric patients, but across the full spectrum of palliative and end of life services.
9. **MassHealth and each Private Health Plan** should align its own policies and standards to ensure that they support and encourage improving the process of care and communication with patients at the end of life.

## **COST BENEFIT ANALYSIS**

**Implementation Cost.** The cost of implementing the strategies required to achieve these goals include the cost of funding the End of Life Commission (\$150,000) and the cost of a implementing a pilot program to test the POLST process (\$150,000).

**Benefit to the Population.** The primary benefit of implementing these strategies is the improvement in care for individuals at the end of life in accordance with the wishes of the patient and their family. Some of these individuals may prefer to receive more intensive services, while others may prefer to receive fewer invasive treatments. Similarly, some individuals may prefer to receive care in a hospital setting, while others prefer to receive care at home or in an extended care facility.

End of life care is also costly. In Massachusetts, the average per patient charge during a terminal hospitalization at a teaching hospital totaled over \$70,700 in 2004.<sup>15</sup> The last year of life accounts for approximately one-fourth of all Medicare expenditures, with 70% of these costs accruing during the last six months of life.<sup>16</sup> And while the majority of end of life patients are Medicare beneficiaries, end of life patients whose primary insurance is Medicaid or private insurance represent significant expenses for these payers.

**Effectiveness of Physician Orders for Life Sustaining Treatment (POLST)** Use of the POLST process is associated with a dramatic increase in adherence to patient wishes. Studies have shown that patients with a completed POLST form received treatment matching the POLST instructions up to 94% of the time with respect to certain interventions, and the care provided matched POLST instructions for CPR, antibiotics, IV fluids and feeding tubes. Patients with a completed POLST form were more likely to receive care consistent with their expressed wishes than patients who relied on other types of advanced directives.<sup>17</sup> Other studies concluded that the POLST form accurately represented patients' preferences for their end of life care 90% of the time.<sup>18</sup> Over 90% of EMS providers agreed that the POLST was useful in determining the appropriate action to take when a patient is pulseless and apneic, and EMS providers altered treatment based on the POLST in 45% of these cases.<sup>19</sup> Advanced care planning is associated with increased hospice use, fewer reported concerns with physician communication, and reduced likelihood of using a feeding tube or respirator in the last month of life.<sup>20</sup>

**Hospice and Palliative Care.** Over 70% of family members of patients receiving hospice services rated the overall quality of care as "excellent", compared with fewer than 50% of the families of those dying in an institutional setting or with home health services alone.<sup>21</sup> Patients receiving hospice services are likely to receive better daily pain management<sup>22</sup> and are more likely to feel they are treated with respect at the end of life.<sup>23</sup>

Compared to traditional care for the terminally ill, hospice care and the use of advanced directives could save up to 10% of the cost of care in a patient's last year of life, 10% to 17% in the last six months, and 25% to 40% in the final month.<sup>24</sup>

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15 DHCFP, Analysis in Brief, Analysis in Brief: Hospital Resource Use on End-of-Life Patients Varies; No. 9, July, 2006.

16 Hogan, C, et al. Medicare beneficiaries' costs of care in the last year of life. *Health Affairs*. 2001; 20(4):188-95.

17 Lee, MA, et al. Physician orders for life-sustaining treatment (POLST): outcomes in a PACE program. Program of All-Inclusive Care for the Elderly. *J Am Geriatr Soc*. 2000; 48(10):1219-25.

18 Meyers, JL, et al. Physician orders for life-sustaining treatment form: honoring end-of-life directives for nursing home residents. *J Gerontol Nurs*. 2004; 30(9):37-46.

19 Schmidt, TA, et al. The Physician orders for life-sustaining treatment program: Oregon emergency medical technicians' practical experiences and attitudes. *J Am Geriatr Soc*. 2004; 52(9):1430-4.

20 Teno, JM, et al. Association between advance directives and quality of end of life care: a national study. *J Am Geriatr Soc*. 2007; 55(2):189-94.

21 Ibid.

22 Miller, SC, et al. Does receipt of hospice care in nursing homes improve the management of pain at the end of life? *J Am Geriatr Soc*. 2002; 50(3):507-15.

23 Teno, JM, et al. Association between advance directives and quality of end of life care: a national study. *J Am Geriatr Soc*. 2007; 55(2):189-94.

24 Means to a better end: A report on dying in America today. *Last Acts, Robert Wood Johnson Foundation*. November, 2002.

## PERFORMANCE MEASUREMENT AND REPORTING

By October 2008, and annually thereafter, the Council will identify and adopt performance measurement benchmarks as targets to improve the quality of end of life care and publish performance measurement data and benchmarks in consultation with lead agencies and organizations and the Council's Advisory Committee.

The Council requests that the Executive Office of Health and Human Services and the End of Life Commission submit specific recommendations for performance measurement benchmarks to the Council as detailed below. The Council will also consult with experts in the field and the Council's Advisory Committee, and will select performance measurement benchmarks that advance a common national framework for quality measures.

The Council will review the recommendations it receives from the Executive Office of Health and Human Services, the End of Life Commission, experts in the field, and the Council's Advisory Committee. Based on this review, the Council may approve recommended measures, make revisions, or continue to research the issue.

### A. DEVELOP PROCESSES AND MEASURES TO IMPROVE ADHERENCE TO PATIENTS' WISHES IN PROVIDING CARE AT THE END OF LIFE.

1. **EOHHS** should identify and report to the Council by June 2008 the statutory, regulatory and administrative requirements for implementing a Physician Order for Life Sustaining Treatment (POLST) process in Massachusetts. EOHHS should report to the Council quarterly thereafter on its progress developing a POLST process, developing a POLST pilot, evaluating the pilot, implementing the POLST process statewide, and educating providers and consumers about the POLST process.
2. **The Council** requests that EOHHS recommend key indicators for improvement in end of life care to the Council by September 2008.
  - a. Measures for tracking performance improvement should be stratified by age, race, ethnicity, and gender.
  - b. Measures for tracking performance may include:
    - Patient and family satisfaction with end of life care;
    - Percent of Massachusetts hospitals, nursing facilities, and home health care organizations with formal palliative care programs;
    - The percentage of Massachusetts residents who die at home;
    - The percentage of high risk nursing home patients who have a completed Physician Order for Life-Sustaining Treatment (POLST) form in organizations that have implemented the POLST process; and
    - The variation in hospital resource use at the end of life across Massachusetts hospitals.

### B. INCREASE ACCESS TO HIGH-QUALITY, COORDINATED HOSPICE AND PALLIATIVE CARE.

1. **The Council** should report on its website by March 2009 the hospitals, extended care facilities, and home health agencies that offer hospice and palliative care programs to their patients.
2. **The End of Life Commission** should report to the Council quarterly on its progress with identifying best practices and supporting collaboratives for accelerated learning. The Council requests that the End of Life Commission recommend to the Council methods for measuring performance improvement in palliative care and end of life care by September 2008.

**GOAL V. ELIMINATE RACIAL AND ETHNIC DISPARITIES IN HEALTH AND IN ACCESS TO AND UTILIZATION OF HEALTH CARE; HEALTH INDICATORS WILL BE CONSISTENT, AND CONSISTENTLY IMPROVING, ACROSS ALL RACIAL AND ETHNIC GROUPS.**

**FY 2008 SPECIFIC GOALS**

**GOAL V.A. REDUCE DISPARITIES IN HOSPITAL-ASSOCIATED INFECTIONS.**

**GOAL V.B. ELIMINATE DISPARITIES IN SERIOUS REPORTABLE EVENTS.**

**GOAL V.C. REDUCE, AND ULTIMATELY ELIMINATE DISPARITIES IN DISEASE COMPLICATION RATES, READMISSION RATES, AND AVOIDABLE HOSPITALIZATIONS.**

**GOAL V.D. REDUCE DISPARITIES IN SCREENING AND MANAGEMENT OF CHRONIC ILLNESSES.**

The Council agreed that it is essential to address racial and ethnic disparities in health care through each quality improvement effort, rather than through a separate effort. It is essential that the blueprint for a statewide model system of coordinated care include specific strategies to reduce, and ultimately eliminate racial and ethnic disparities in the treatment and prevention of chronic conditions.

Similarly, information to help patients and families express their wishes for care at the end of life must be adjusted to meet patients' cultural expectations.

In each area, reporting patient race and ethnicity is key to measuring disparities and developing strategies to address them. The Council recommended that DPH begin collecting hospital-associated infection rates and serious reportable events by patient race and ethnicity so that it can identify, and then address, any disparities in these areas.

DHCFP added patient race and ethnicity data to its hospital discharge dataset in January 2007. It should use this information to identify disparities in disease complication rates, readmission rates and avoidable hospitalizations.

The Council will identify and adopt performance measurement benchmarks as targets to eliminate racial and ethnic disparities in health and in access to and utilization of health care and publish performance measurement data and benchmarks in consultation with lead agencies and organizations and the Council's Advisory Committee.

**GOAL VI. PROMOTE QUALITY IMPROVEMENT THROUGH TRANSPARENCY.**

**FY 2008 SPECIFIC GOAL**

**GOAL VI.A. PROMOTE QUALITY IMPROVEMENT THROUGH DEVELOPMENT OF A WEBSITE AND OTHER MATERIALS PROVIDING COMPARATIVE QUALITY INFORMATION.**

The Council will display quality and cost information in a consumer-friendly format on its website in order to encourage health care providers to provide higher quality, lower cost care, and to help consumers select higher quality, lower cost health care providers.

**Principles.** The Council shall use the following principles to select quality measures for public reporting through its website and other media.

1. Wherever possible, measures should be drawn from nationally accepted standard measure sets.
2. The measure must reflect something broadly accepted as meaningful to providers or patients.
3. There must be empirical evidence that the measure provides stable and reliable information, and that the data sources and sample sizes are sufficient for accurate reporting at the level chosen.
4. There must be sufficient variability or insufficient performance on the measure to merit attention.
5. a. There must be empirical evidence that the measured entity (clinician, site, group, institution) is associated with a significance amount of the variance in the measure. The measures offered for providers should, in totality, be representative of a significant proportion of their practices.

OR

- b. The measure is important for patients or communities, even though a clear consensus on accountability for performance has not been determined.
6. Providers should be informed about the development and validation of the measures and given the opportunity to view their own performance, ideally for one measurement cycle, before the data are used for public reporting. Where feasible, providers should be permitted to verify data and offer corrections.

**Progress toward building the website** The Council has taken the following steps toward meeting this goal. The Council plans to launch the website later in the spring.

1. The Council procured a Communications and Web Design vendor, Solomon McCown & Company, to conduct market research and design a website and other materials. The vendor conducted a consumer telephone survey, interviewed key stakeholders, developed web design options, and tested these options with focus groups. The vendor also designed the look and feel, navigation, and functionality of the website.
2. The Council promulgated a regulation requiring health insurance carriers to submit health care claims and eligibility data to the Council.

3. The Council procured a Health Claims Data Manager vendor, the Maine Health Information Center, to collect claims and eligibility data from health insurers, clean these data, and deliver a clean dataset to the Council. The vendor has begun collecting these data from insurance carriers. The Council expects to begin analyzing these data in March 2008.
4. The Council is in the process of procuring:
  - a. An Analytic Consulting Services vendor to develop a health care quality and cost measure reporting plan for the Council. The reporting plan will include the measures to be reported and the algorithm for calculating the measures.
  - b. An Analytic Operations vendor to import existing quality measures that are already available on other sites, and to calculate quality and cost measures using the Council's dataset. The Operations vendor will create a final set of measures for posting on the Council's website.
  - c. A Web Development vendor to build a consumer friendly website displaying the measures produced and aggregated by the Operations vendor, according to the design specifications developed by the Communications vendor.

## HEALTH CARE SPENDING IN MASSACHUSETTS

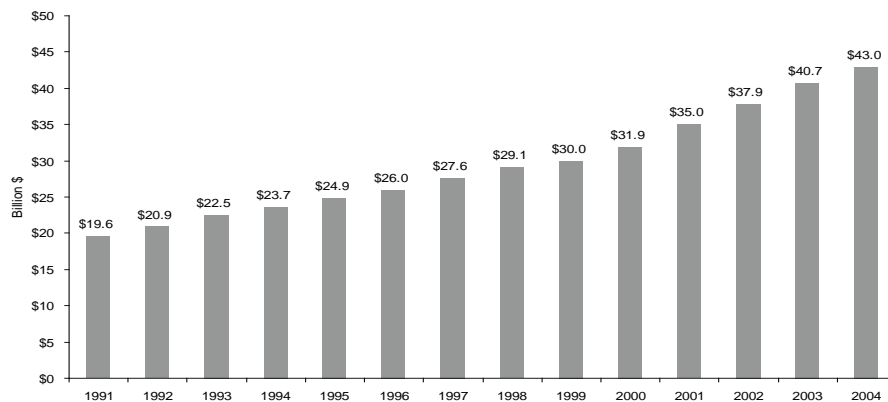
At the Council's request, the Division of Health Care Finance and Policy conducted an analysis of health care spending trends in Massachusetts, as compared to the national average. The analysis covers the period 1991-2004, the years for which comparable data was available. (See the Technical Notes at the end of this section for more information about the data, methodology and limitations of the analysis.)

The analysis indicates that Massachusetts health care costs are among the highest in the nation, and have been growing slightly faster than the national average. Both Massachusetts and national health care spending grew faster during the period 2000-2004 than from 1991-1999. Massachusetts spending per capita exceeds the national average in every spending category, with the largest spending gaps in the areas of hospital care, nursing facilities, and "other" health care services (which include dental care, home health, durable medical equipment, and other services).

### HEALTH CARE EXPENDITURES

Total health spending in Massachusetts more than doubled between 1991 and 2004, from \$19.6 billion in 1991 to \$43.0 billion in 2004. Between 1991 and 2000, the average annual growth rate was 5.6%, or \$1.4 billion annually. Between 2000 and 2004, the average annual growth rate was 7.7%, or \$2.8 billion annually.

**FIGURE 1 MASSACHUSETTS PERSONAL HEALTH EXPENDITURES, 1991-2004**

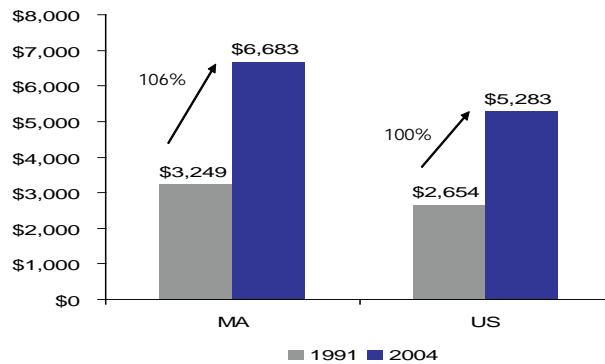


Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.  
Massachusetts Division of Health Care Finance and Policy

Massachusetts has among the highest health care expenditures per resident of any state in the nation. Massachusetts health expenditures per capita more than doubled from 1991 to 2004, a growth rate that was slightly faster than the national average.

**FIGURE 2 HEALTH EXPENDITURES PER CAPITA IN MASSACHUSETTS AND UNITED STATES, 1991 AND 2004**

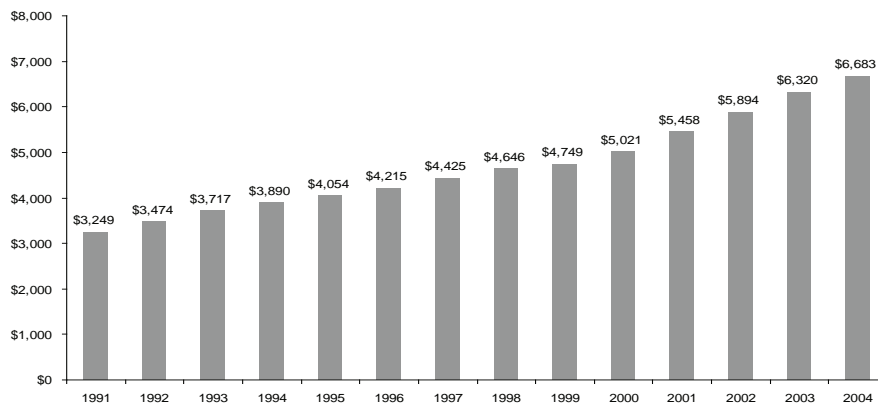


Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.   
 Massachusetts Division of Health Care Finance and Policy

Health spending growth has accelerated in recent years, both in the nation as a whole and in Massachusetts in particular. Per capita spending growth in Massachusetts increased by 5.0% between 1991 and 2000 compared to 4.8% for the United States. Between 2000 and 2004 per capita spending growth accelerated with spending increasing by 7.4% annually in Massachusetts compared to 6.9% for the United States as a whole.

**FIGURE 3 MASSACHUSETTS HEALTH EXPENDITURES PER CAPITA, 1991-2004**

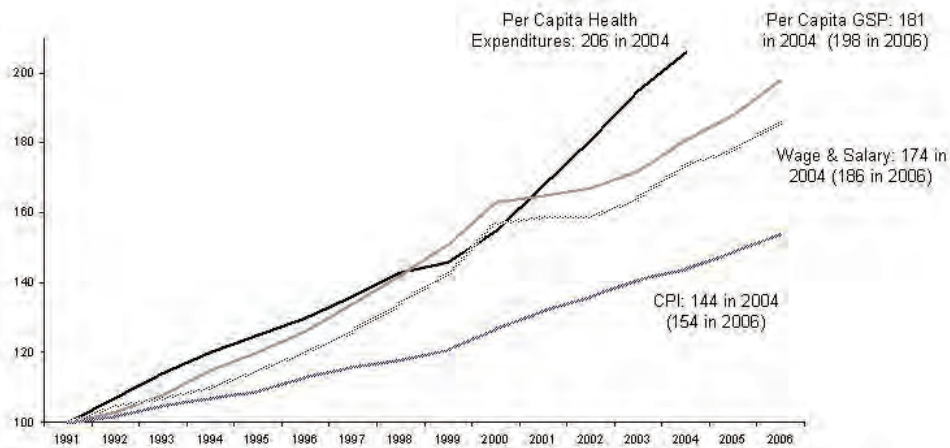


Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.   
 Massachusetts Division of Health Care Finance and Policy

Massachusetts health expenditures per capita grew faster than other economic indicators. Based on a standardized index of 100 in 1991, indexed per capita health expenditures grew to 206 in 2004 compared to an indexed 181 for the per capita Gross State Product (GSP), 174 for Wage and Salary, and 144 for the Consumer Price Index (CPI).

**FIGURE 4 HEALTH CARE EXPENDITURE TREND RELATIVE TO OTHER ECONOMIC INDICATORS**  
**INDEX OF HEALTH EXPENDITURES PER CAPITA AND OTHERS IN MASSACHUSETTS, 1991-2006**



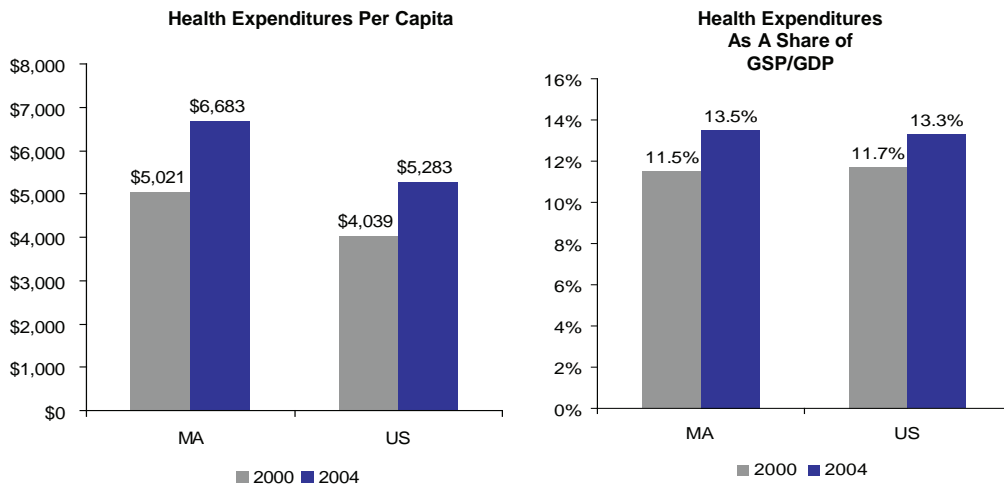
Sources: Per capita health expenditures: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007. Per capita GDP and wage and salary: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce. CPI-Urban for Boston area: Bureau of Labor Statistics, U.S. Department of Labor.

Massachusetts Division of Health Care Finance and Policy

While nominal spending per capita is higher in Massachusetts than the national average, health spending represents a comparable share of the overall economy when compared to the nation as a whole. In 2004, health expenditures per capita spending in Massachusetts was \$6,683 compared to \$5,282 for the United States, a difference of \$1,400.

Massachusetts health expenditures per capita grew faster as a share of the economy than the nation as a whole. Massachusetts health expenditures per capita as a percentage of gross state product grew by 2.0 percentage points from 2000 to 2004, while national health expenditures as a percentage of gross domestic product grew by only 1.6 percentage points during the same period.

**FIGURE 5 HEALTH EXPENDITURES IN MASSACHUSETTS AND UNITED STATES, 2000 AND 2004**



Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

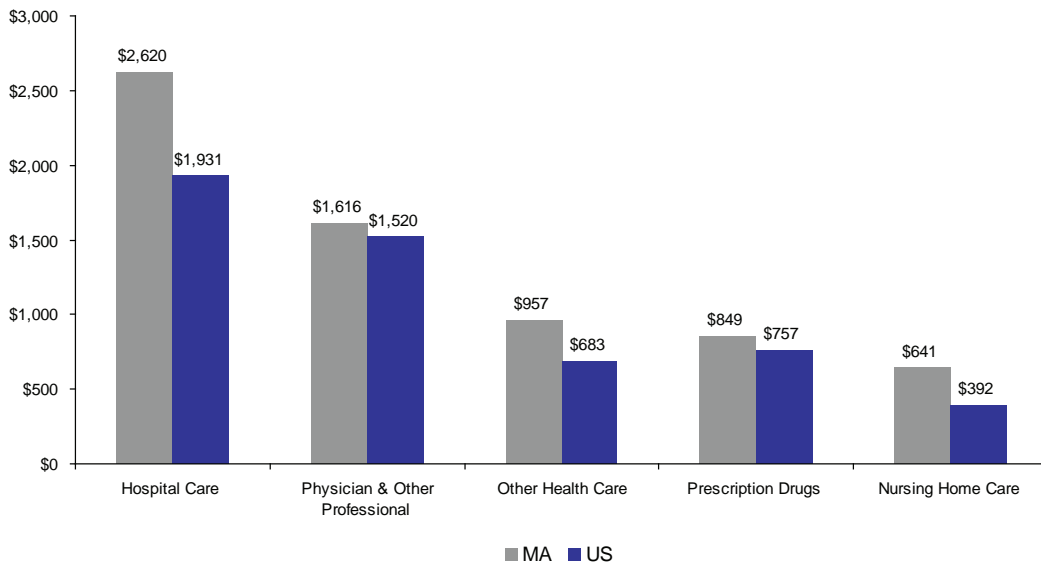
Massachusetts Division of Health Care Finance and Policy

Massachusetts health expenditures per capita exceed the national average in every spending category.

Hospital-based expenditures account almost half of the difference between Massachusetts and United States per capita spending, \$689 per capita. Factors that account for some of this difference include:

- **Federal research funding:** Academic medical centers are very successful in Massachusetts in attracting significant funding for research and education. In 2004, Massachusetts received \$353 per capita in NIH research funding, which accounted for 5.3% of Massachusetts per capita health expenditures in 2004. In comparison, NIH funding per capita nationally was only \$77 in 2004.
- **Graduate Medical Education (GME):** In 2004, Federal graduate medical education payments to teaching hospitals constituted 1% of per capita Massachusetts total health care expenditures compared to 0.5% of national per capita health care expenditures.

**FIGURE 6 HEALTH EXPENDITURES PER CAPITA BY SERVICES: MASSACHUSETTS AND UNITED STATES, 2004**

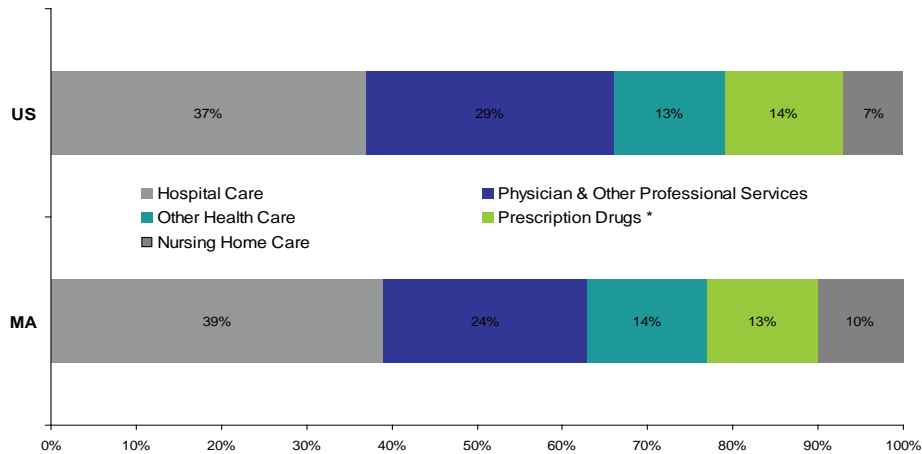


Note: Health expenditures are based on residence location. Prescription drugs include only outpatient drug expenses Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007.

Massachusetts Division of Health Care Finance and Policy

In 2004, hospital expenditures accounted for 39% of Massachusetts health expenditures compared to 37% of United States health expenditures. Massachusetts also spent a greater share of our health care dollars on nursing facilities than the United States as a whole.

**FIGURE 7 DISTRIBUTION OF HEALTH EXPENDITURES: MASSACHUSETTS AND UNITED STATES, 2004**



Note: Health expenditures are based on residence location.

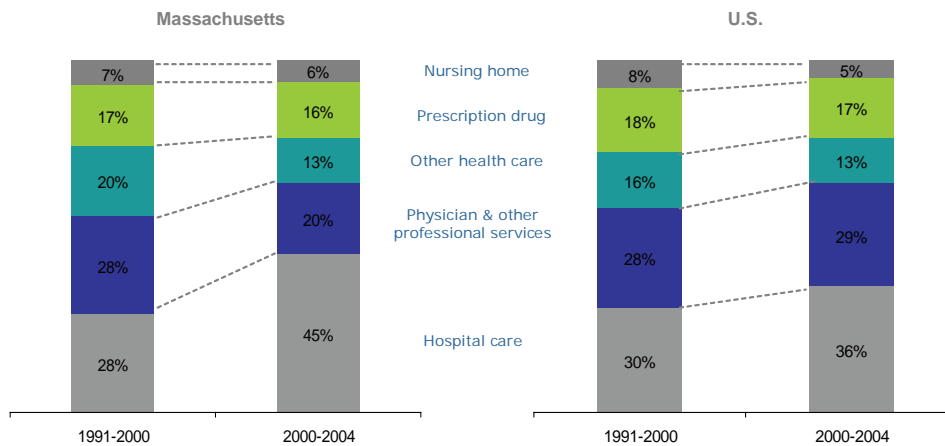
\* Prescription drugs include only outpatient drug expenses.

Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007.

Massachusetts Division of Health Care Finance and Policy

Hospital care accounts for a much larger share of the increase in Massachusetts health expenditures from 2000-2004 than from 1991-2000, and a much larger share of the increase in health expenditures than in the United States as a whole in either time period.

**FIGURE 8 SHARE OF INCREASE IN TOTAL HEALTH EXPENDITURES BY PROVIDERS IN MASSACHUSETTS AND UNITED STATES, 1991-2000 AND 2000-2004**



Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

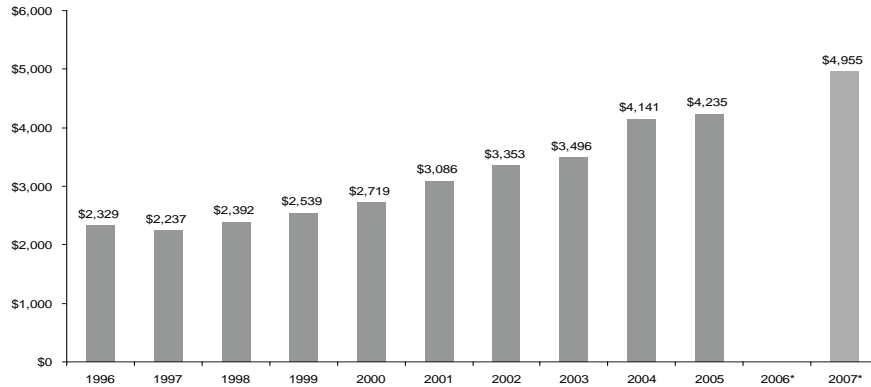
Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Massachusetts Division of Health Care Finance and Policy

## HEALTH INSURANCE PREMIUMS

Premiums reflect the largest single health care cost outlay for most consumers. Massachusetts premiums are higher than the United States average. Massachusetts premiums grew slower than the United States average from 1996-2000, but faster than the United States average from 2000-2007. Between 1996 and 2000 the average annual growth rate for individual insurance premiums in Massachusetts was only 3.9%, far lower than the national average of 7.4%. Between 2000 and 2007, the average annual growth rate for individual insurance premiums accelerated to 8.9% in Massachusetts, compared to 7.7% for the United States.

**FIGURE 9 INDIVIDUAL INSURANCE PREMIUMS IN MASSACHUSETTS, 1996-2007**

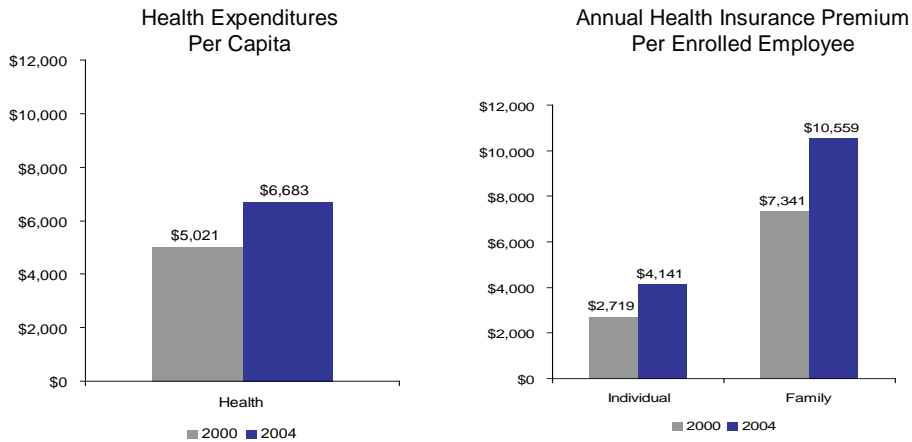


Sources: 1) 1996-2005: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2) 2007 MA: DHCFP Massachusetts Employer Survey 2007. 3) 2006-2007 US: Kaiser/HRET, Survey of Employer-Sponsored Health Benefits 2007.

Massachusetts Division of Health Care Finance and Policy

In recent years, Massachusetts health insurance premiums have increased faster than overall health care spending. Between 2000 and 2004, health care expenditures grew by 33% while insurance premiums grew by 52% for individuals and 44% for families.

**FIGURE 10 HEALTH EXPENDITURES AND INSURANCE PREMIUMS IN MA, 2000 AND 2004**



Sources: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007 (by Residence Location) Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-Insurance Component

Massachusetts Division of Health Care Finance and Policy

## ■ TECHNICAL NOTES

The Division of Health Care Finance and Policy analyzed data from federal health care expenditure surveys to ensure standardization of sources and definitions for state-level and aggregate nation data. The Centers for Medicare and Medicaid Services' State Health Expenditure Accounts (SHEA) provides a state by state accounting of health care expenditures data. SHEA includes data on personal health care expenditures (PHCE), defined as estimates of health spending by Massachusetts residents, including aggregate and per capita health spending by type of establishment delivering care (such as hospitals, physicians and nursing homes). PHCE excludes spending on program administration, government public health activity, investment and noncommercial medical research. The analysis also drew on the Agency for Healthcare Research and Quality's Medical Expenditure Panel Survey- Insurance Component, which compiles uniform state data on aspects of health insurance coverage.

The Division noted that SHEA data do not support an assessment of the relative efficiency of state or national health care systems. An efficiency analysis would require an examination of the complex interactions among cost, illness severity and quality of outcomes.

Comparisons of Massachusetts to national trends are limited by the unique characteristics of the state's health care system. PHCE are adjusted to exclude relevant expenditures incurred by non-Massachusetts residents who seek care at the academic medical centers. The estimate of health care spending in Massachusetts by out of state residents ranges from 3% to 5% over the past 13 years of available data. NIH research grants are included in the American Hospital Association survey data used in PHCE hospital spending health estimates. In contrast, the value of commercial research and development arrangements with university-based medical centers is included in the hospitals' financial reports used to create PHCE estimates, cannot be isolated, and may be one component of the higher Massachusetts costs. In addition, higher labor costs in Massachusetts are part of the health care costs shouldered by Massachusetts residents and are reflected in the analysis. Finally, graduate medical education (GME) is included in the PHCE at about \$67 per capita, a rate that may be higher than in other states.

## ■ APPENDIX A: *Health Care Quality and Cost Council Enabling Statute*

*Note:* Formats and headers included in brackets [] were added to the statutory language to make it easier to read.

MGL CHAPTER 6A, AS AMENDED BY CHAPTER 58 OF THE ACTS OF 2006 AND CHAPTER 205 OF THE ACTS OF 2007

### [DEFINITIONS]

Section 16J. As used in this section and in sections 16K and 16L, the following words shall, unless the context clearly requires otherwise, have the following meanings:—

“Clinician”, a health care professional licensed under chapter 112.

“Council”, the health care quality and cost council, established by section 16K.

“Facility”, a hospital, clinic or nursing home licensed under chapter 111 or a home health agency.

“Health care provider”, a clinician, a facility or a physician group practice.

“Insurer”, a carrier authorized to transact accident and health insurance under chapter 175, a nonprofit hospital service corporation licensed under chapter 176A, a nonprofit medical service corporation licensed under chapter 176B, a dental service corporation organized under chapter 176E, an optometric service corporation organized under chapter 176F and a health maintenance organization licensed under chapter 176G.

“Physician group practice”, 2 or more physicians who deliver patient care, make joint use of equipment and personnel and divide income by a prearranged formula.

### [GOAL]

Section 16K. There shall be a health care quality and cost council within, but not subject to control of, the executive office of health and human services. The council shall establish health care quality improvement and cost containment goals. The goals shall be designed to promote high-quality, safe, effective, timely, efficient, equitable and patient-centered health care.

The council shall receive staff assistance from the executive office of health and human services and may, subject to appropriation, employ such additional staff or consultants as it may deem necessary.

### [MEMBERSHIP]

The council shall consist of

- the secretary of health and human services,
- the auditor of the commonwealth or his designee,

- the inspector general or his designee,
- the attorney general or his designee,
- the commissioner of insurance,
- the executive director of the group insurance commission, and
- 7 persons to be appointed by the governor;
  - ~ 1 of whom shall be a representative of a health care quality improvement organization recognized by the federal Centers for Medicare and Medicaid services,
  - ~ 1 of whom shall be a representative of the Institute for Healthcare Improvement, Inc. recommended by the organization's board of directors,
  - ~ 1 of whom shall be a representative of the Massachusetts Chapter of the National Association of Insurance and Financial Advisors,
  - ~ 1 of whom shall be a representative of the Massachusetts Association of Health Underwriters,
  - ~ 1 of whom shall be a representative of the Massachusetts Medicaid Policy Institute,
  - ~ 1 of whom shall be an expert in health care policy from a foundation or academic institution and
  - ~ 1 of whom shall represent a non-governmental purchaser of health insurance.

The representatives of nongovernmental organizations shall serve staggered 3-year terms.

#### **[CHAIR]**

The council shall be chaired by the secretary of health and human services.

#### **[DEVELOP STATEWIDE HEALTHCARE GOALS]**

Section 16L. (a) The council shall develop and coordinate the implementation of health care quality improvement goals that are intended to lower or contain the growth in health care costs while improving the quality of care, including reductions in racial and ethnic health disparities. For each such goal, the council shall identify the steps needed to achieve the goal; estimate the cost of implementation; project the anticipated short-term or long-term financial savings achievable to the health care industry and the commonwealth, and estimate the expected improvements in the health status of health care consumers in the commonwealth.

#### **[CONTRACT WITH INDEPENDENT HEALTH CARE ORGANIZATION]**

(b) The council may, subject to chapter 30B, contract with an independent health care organization to provide the council with technical assistance related to its duties including, but not limited to, the development of health care quality goals, cost containment goals, performance measurement benchmarks, the design and implementation of health quality interventions, the construction of a consumer health information website and the preparation of reports, including any reports as required by this section. The independent health care organization shall have a history of demonstrating the skill and expertise necessary to:

- (i) collect, analyze and aggregate data related to costs and quality across the health care continuum;

- (ii) identify, through data analysis quality improvement areas;
- (iii) work with Medicare, MassHealth, other payers' data and clinical performance measures;
- (iv) collaborate in the design and implementation of quality improvement measures;
- (v) establish and maintain security measures necessary to maintain confidentiality and preserve the integrity of the data;
- (vi) design and implement health care quality improvement interventions with health care service providers; and
- (vii) identify and, when necessary, develop appropriate measures of cost and quality for inclusion in the website.

To the extent possible, the independent organization shall collaborate with other organizations that develop, collect and publicly report health care cost and quality measures.

#### **[PLAN FOR REPORTING ON QUALITY MEASURES]**

(c) Any independent organization under contract with the council shall develop and update on an annual basis a reporting plan specifying the cost and quality measures to be included on the internet site. The reporting plan shall be consistent with the requirements of subsections (a) and (b). The organization shall give consideration to those measures that are already available in the public domain and to whether it is cost effective for the council to license commercially available comparative data and consumer decision support tools. If the organization determines that making available through the internet site only those measures already available in the public domain would not fully comply with subsection (b) or would not provide consumers with sufficient information to make informed health care choices, the organization shall develop appropriate measures for inclusion on the internet site and shall specify in the reporting plan the sources from which it proposes to obtain the data necessary to construct those measures and any specifications for reporting of that data by insurers and health care providers. As part of the reporting plan, the organization shall determine for each service that comparative information is to be included on the internet site whether it is more practical and useful to: (1) list that service separately or as part of a group of related services; and (2) combine the cost information for each facility and its affiliated clinicians and physician practices or to list facility and professional costs separately. The independent organization shall submit the reporting plan and any periodic revisions to the council. The council shall, after due consideration and public hearing, adopt or reject the reporting plan or any revisions. If the council rejects the reporting plan or any revisions, the council shall state its reasons therefor.

The reporting plan and any revisions adopted by the council shall be promulgated by the council.

#### **[DATA COLLECTION & PENALTY FOR NON-COMPLIANCE]**

(d) Insurers and health care providers shall submit data to the council or to the independent organization on behalf of the council, as required by regulations promulgated under subsection e. If any insurer or health care provider fails to submit required data to the council on a timely basis, the council shall provide written notice to the insurer or provider. If the insurer or health care provider fails, without just cause, to provide the required information within 2 weeks following receipt of said written notice, the insurer or provider may be required to pay a penalty of \$1,000 for each week of delay; provided, however, that the maximum penalty under this section shall be \$50,000.

## **[RULES AND REGULATIONS]**

(e) The council may promulgate additional rules and regulations relative to the type of information that reasonably may be required and the format in which it should be provided for the implementation the quality improvement and cost containment goals. Data submitted to the health care quality and cost council under this section and regulations promulgated thereunder shall not be deemed a public record under the provisions of clause twenty-sixth of section seven of chapter four and chapter 66, except as specified in regulations promulgated by the council or as approved by the council for display on the council's website. The council shall promulgate regulations providing access to such data, provided that such regulations shall take into account the need to: (1) achieve the goals identified by the council, (2) protect patient privacy, (3) prevent collusion or anti-competitive conduct, and (4) prevent the release of data that could reasonably be expected to increase the cost of health care. The regulations may limit access to data based on the proposed use of the data, the credentials of the requesting party, the type of data requested, or other criteria required to make a determination regarding the appropriate release of the data. The regulations shall also provide for limitations on the requesting party's use and release of any data to which that party has been given access by the council.

## **[BY-LAWS]**

(f) The council may adopt by-laws for itself and for its advisory committee for the efficient operation of both organizations, and may recommend that public or private health care organizations be responsible for overseeing implementation of a goal and may assist these organizations in developing implementation plans.

## **[PERFORMANCE BENCHMARKS – PUBLISH ANNUALLY]**

(g) The council shall develop performance measurement benchmarks for its goals and publish such benchmarks annually, after consultation with lead agencies and organizations and the council's advisory committee. Such benchmarks shall be developed in a way that advances a common national framework for quality measurement and reporting including, but not limited to measures that are approved by the National Quality Forum and adopted by the Hospitals Quality Alliance and other national groups concerned with quality. Performance benchmarks shall be clinically important and include both process and outcome data, shall be standardized, timely, and allow and encourage physicians, hospitals and other health care professionals to improve their quality of care. Any data reported by the council should be accurate and evidence-based, and not imply distinctions where comparisons are not statistically significant. Members of the advisory committee established by this section shall have reasonable opportunity to review and comment on all reports before public release.

## **[CONSUMER INFORMATION WEBSITE]**

(h) The council shall establish and maintain a consumer health information website. The website shall contain information comparing the cost and quality of health care services and may also contain general information related to health care as the council determines to be appropriate. The website shall be designed to assist consumers in making informed decisions regarding the medical care and informed choices between health care providers. Information shall be presented in a format that is understandable to the average consumer. The council shall take appropriate action to publicize the availability of its website and make available written documentation available upon request and as necessary.

(i) The internet site shall provide updated information on a regular basis, at least annually, and additional comparative cost and quality information shall be posted as determined by the council. To the extent possible, the internet site shall include:

- (i) comparative quality information by facility, clinician or physician group practice for each service or category of service for which comparative cost information is provided,
- (ii) general information related to each service or category of service for which comparative information is provided; and
- (iii) comparative quality information by facility, clinician or physician practice that is not service specific, including information related to patient safety and satisfaction.

#### **[PUBLIC HEARINGS]**

(j) The council shall conduct annual public hearings to obtain input from health care industry stakeholders, health care consumers and the general public regarding the goals and the performance measurement benchmarks. The council shall invite the stakeholders involved in implementing or achieving each goal to assist with the implementation and evaluation of progress for each goal.

#### **[ANNUAL REPORT]**

(k) The council shall review and file a report, not less than annually, with the joint committee on health care financing and the clerks of the house and senate on its progress in achieving the goals of improving quality and containing or reducing health care costs. Reports of the council shall be made available electronically through an internet site.

#### **[ADVISORY COMMITTEE]**

(l) The council shall establish an advisory committee to allow the broadest possible involvement of health care industry and other stakeholders in the establishment of its goals and the review of its progress. The advisory committee shall include

- 1 member representing the Massachusetts Medical Society,
- 1 member representing the Massachusetts Hospital Association,
- 1 member representing the Massachusetts Association of Health Plans,
- 1 member representing Blue Cross Blue Shield of Massachusetts,
- 1 member representing the Massachusetts AFL-CIO,
- 1 member representing the Massachusetts League of Community Health Centers,
- 1 member representing Health Care For All, Inc.,
- 1 member representing the Massachusetts Public Health Association,
- 1 member representing the Massachusetts Association of Behavioral Health Systems,
- 1 member representing the Massachusetts Extended Care Federation,

- 1 member representing the Massachusetts Council of Human Service Providers,
- 1 member representing the Home Care Alliance of Massachusetts,
- 1 member representing Associated Industries of Massachusetts,
- 1 member of the Massachusetts Business Roundtable,
- 1 member of the Massachusetts Taxpayers Foundation,
- 1 member of the Massachusetts chapter of the National Federation of Independent Business,
- 1 member of the Massachusetts Biotechnology Council,
- 1 member representing the Blue Cross Blue Shield Foundation,
- 1 member representing the Massachusetts chapter of the American Association of Retired Persons,
- 1 member representing the Massachusetts Coalition of Taft Hartley Trust Funds, and
- additional members to be appointed by the governor which shall include, but not be limited to,
  - ~ a representative of the mental health field,
  - ~ a representative of pediatric health care,
  - ~ a representative of primary care,
  - ~ a representative of medical education,
  - ~ a representative of racial or ethnic minority groups concerned with health care,
  - ~ a representative of hospice care,
  - ~ a representative of the nursing profession and
  - ~ a representative of the pharmaceutical field.

**[RECOMMEND LEGISLATIVE OR REGULATORY CHANGES]**

(m) The council may recommend legislation or regulatory changes, including recommendations for the commonwealth's health care payment methodologies to promote the health care quality and cost containment goals set by the council, and the council may promulgate regulations under this section.

**[DISBURSE FUNDS]**

(n) Subject to appropriation, the council may disburse funds in the form of grants or loans to assist members of the health care industry in implementing the goals of the council.

**[OPEN MEETINGS]**

(o) All meetings of the council shall conform to chapter 30A, except that the council, through its bylaws, may provide for executive sessions of the council. No action of the council shall be taken in an executive session.

## **[COUNCIL MEMBERS' EXPENSES]**

(p) The members of the council shall not receive a salary or per diem allowance for serving as members of the council but shall be reimbursed for actual and necessary expenses reasonably incurred in the performance of their duties. The expenses may include reimbursement for reasonable travel and living expenses while engaged in council business.

## **[PROCUREMENT]**

(q) The council may, subject to chapter 30B and subject to appropriation, procure equipment, office space, goods and services, including the development and maintenance of the website.

## **[WEBSITE – ADDITIONAL DETAIL]**

C.58 of the Acts of 2006, as amended by St.2007, c.250, s.29

SECTION 136. The website established under Section 16L of Chapter 6A of the General Laws shall be operational and shall include links to other websites that display comparative cost and quality information no later than September 1, 2007. The website shall include comparative cost information by facility, clinician or physician group practice for obstetrical services, physician office visits, high-volume elective surgical procedures, high-volume diagnostic tests, and high-volume therapeutic procedures, no later than March 1, 2008, provided that such cost information shall include the average payment made on behalf of insured patients for each service or category of service received by each facility, clinician or physician practice.



## ■ **APPENDIX B:** *National Quality Forum serious reportable events in Health Care*<sup>25</sup>

### **SURGICAL EVENTS**

1. Surgery performed on the wrong body part.
2. Surgery performed on the wrong patient.
3. Wrong surgical procedure on a patient.
4. Unintended retention of a foreign object in a patient after surgery or other procedure.
5. Intraoperative or immediately post-operative death in a normal health patient (defined as a Class 1 patient for purposes of the American Society of Anesthesiologists patient safety initiative).

### **PRODUCT OR DEVICE EVENTS**

6. Patient death or serious disability associated with the use of contaminated drugs, devices, or biologics provided by the healthcare facility.
7. Patient death or serious disability associated with the use or function of a device in patient care in which the device is used or functions other than as intended.
8. Patient death or serious disability associated with intravascular air embolism that occurs while being cared for in a healthcare facility.

### **PATIENT PROTECTION EVENTS**

9. Infant discharged to the wrong person.
10. Patient death or serious disability associated with patient elopement (disappearance) for more than 4 hours.
11. Patient suicide or attempted suicide resulting in serious disability, while being cared for in a healthcare facility.

### **CARE MANAGEMENT EVENTS**

12. Patient death or serious disability associated with a medication error (e.g., error involving the wrong drug, wrong dose, wrong patient, wrong time, wrong rate, wrong preparation, or wrong route of administration).
13. Patient death or serious disability associated with a hemolytic reaction due to the administration of ABO/HLA-incompatible blood or blood products.

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25 Source: National Quality Forum. Serious reportable events in healthcare: 2005–2006 update. 2006.

14. Maternal death or serious disability associated with labor or delivery on a low-risk pregnancy while being cared for in a healthcare facility.
15. Patient death or serious disability associated with hypoglycemia, the onset of which occurs while the patient is being cared for in a healthcare facility.
16. Death or serious disability (kernicterus) associated with failure to identify and treat hyperbilirubinemia in neonates.
17. Stage 3 or 4 pressure ulcers acquired after admission to a healthcare facility, excluding those that progress from Stage 2 to Stage 3.
18. Patient death or serious disability due to spinal manipulative therapy.

#### **ENVIRONMENTAL EVENTS**

19. Patient death or serious disability associated with an electric shock while being cared for in a healthcare facility.
20. Any incident in which a line designated for oxygen or other gas to be delivered to a patient contains the wrong gas or is contaminated by toxic substances.
21. Patient death or serious disability associated with a burn incurred from any source while being cared for in a healthcare facility.
22. Patient death associated with a fall while being cared for in a healthcare facility.
23. Patient death or serious disability associated with the use of restraints or bedrails while being cared for in a healthcare facility.

#### **CRIMINAL EVENTS**

24. Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed healthcare provider.
25. Abduction of a patient of any age.
26. Sexual assault on a patient within or on the grounds of a healthcare facility.
27. Death or significant injury of a patient resulting from a physical assault (i.e. battery) that occurs within or on the grounds of a healthcare facility.
28. Artificial insemination with the wrong donor sperm or egg.

## ■ APPENDIX C: *National Quality Forum Endorsed Set of Safe Practices for Better Healthcare*<sup>26</sup>

### 2006 UPDATE

1. Create and sustain a healthcare culture of safety.

**Element 1** Leadership structures and systems must be established to ensure that there is organization-wide awareness of patient safety performance gaps, that there is direct accountability of leaders for those gaps, that an adequate investment is made in performance improvement abilities, and that actions are taken to assure the safe care of every patient served.

**Element 2** Healthcare organizations must measure their culture, provide feedback to the leadership and staff, and undertake interventions that will reduce patient safety risk.

**Element 3** Healthcare organizations must establish a proactive, systematic, and organization-wide approach to developing team-based care through teamwork training, skill building, and team led performance improvement interventions that reduce preventable harm to patients.

**Element 4** Healthcare organizations must systematically identify and mitigate patient safety risks and hazards with an integrated approach in order to continuously drive down preventable patient harm.

2. Ask each patient or legal surrogate to “teach back” in his or her own words key information about the proposed treatments or procedures for which he or she is being asked to provide informed consent.
3. Ensure that written documentation of the patient’s preferences for life-sustaining treatments is prominently displayed in his or her chart.
4. Following serious unanticipated outcomes, including those that are clearly caused by systems failures, the patient and, as appropriate, the family should receive timely, transparent, and clear communication concerning what is known about the event.
5. Implement critical components of a well-designed nursing workforce that mutually reinforce patient safeguards, including the following:
  - a. a nurse staffing plan with evidence that it is adequately resourced and actively managed and that its effectiveness is regularly evaluated with respect to patient safety;
  - b. senior administrative nursing leaders, such as a chief nursing officer, as part of the hospital senior management team;
  - c. governance boards and senior administrative leaders that take accountability for reducing patient safety risks related to nurse staffing decisions and the provision of financial resources for nursing services; and
  - d. the provision of budget resources to support nursing staff in the ongoing acquisition and maintenance of professional knowledge and skills.

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26 Source: National Quality Forum. *Safe Practices for Better Healthcare: A Consensus Report—Updated*. 2006.

6. Ensure that non-nursing, direct care staffing levels are adequate, that the staff is competent, and that they have had adequate orientation, training, and education to perform their assigned direct care duties.
7. All patients in general intensive care units (ICUs) (both adult and pediatric) should be managed by physicians who have specific training and certification in critical care medicine (“critical care certified”).
8. Ensure that care information is transmitted and appropriately documented in a timely manner and in a clearly understandable form to patients and to all of the patient’s healthcare providers/ professionals, within and between care settings, who need that information in order to provide continued care.
9. For verbal or telephone orders or for telephonic reporting of critical test results, verify the complete order or test result by having the person who is receiving the information record and read back the complete order or test result.
10. Implement standardized policies, processes, and systems to ensure the accurate labeling of radiographs, laboratory specimens, or other diagnostic studies so that the right study is labeled for the right patient at the right time.
11. A “discharge plan” must be prepared for each patient at the time of hospital discharge, and a concise discharge summary must be prepared for and relayed to the clinical caregiver accepting responsibility for postdischarge care in a timely manner. Organizations must ensure that there is confirmation of the receipt of the discharge information by the independent licensed practitioner who will assume responsibility for care after discharge.
12. Implement a computerized prescriber order entry (CPOE) system built upon the requisite foundation of re-engineered evidence-based care, an assurance of healthcare organization staff and independent practitioner readiness, and an integrated information technology infrastructure.
13. Standardize a list of “do not use” abbreviations, acronyms, symbols, and dose designations that cannot be used throughout the organization.
14. The healthcare organization must develop, reconcile, and communicate an accurate medication list throughout the continuum of care.
15. Pharmacists should actively participate in medication management systems by, at a minimum, working with other health professionals to select and maintain a formulary of medications chosen for safety and effectiveness, being available for consultation with prescribers on medication ordering, interpretation and review of medication orders, preparation of medications, assurance of the safe storage and availability of medications, dispensing of medications, and administration and monitoring of medications.
16. Standardize methods for the labeling and packaging of medications.
17. Identify all high alert drugs, and establish policies and processes to minimize the risks associated with the use of these drugs. At a minimum, such drugs should include intravenous adrenergic agonists and antagonists, chemotherapy agents, anticoagulants and anti-thrombotics, concentrated parenteral electrolytes, general anesthetics, neuromuscular blockers, insulin and oral hypoglycemics, and opiates.
18. Healthcare organizations should dispense medications, including parenterals, in unit-dose, or, when appropriate, in unit-of-use form, whenever possible.

19. Action should be taken to prevent ventilator-associated pneumonia by implementing ventilator bundle intervention practices.
20. Adhere to effective methods of preventing central venous catheter-associated bloodstream infections, and specify the requirements in explicit policies and procedures.
21. Prevent surgical site infections (SSIs) by implementing four components of care:
  - a. appropriate use of antibiotics;
  - b. appropriate hair removal;
  - c. maintenance of postoperative glucose control for patients undergoing major cardiac surgery; and
  - d. establishment of postoperative normothermia for patients undergoing colorectal surgery.
22. Comply with current Centers for Disease Control and Prevention (CDC) Hand Hygiene guidelines.
23. Annually, immunize healthcare workers and patients who should be immunized against influenza.
24. For high-risk elective cardiac procedures or other specified care, patients should be clearly informed of the likely reduced risk of an adverse outcome at treatment facilities that participate in clinical outcomes registries and that minimize the number of surgeons performing those procedures with the strongest volume-outcomes relationship.
25. Implement the Universal Protocol for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery™ for all invasive procedures.
26. Evaluate each patient undergoing elective surgery for his or her risk of an acute ischemic perioperative cardiac event, and consider prophylactic treatment with beta blockers for patients who either:
  - a. have required beta blockers to control symptoms of angina or have symptomatic arrhythmias or hypertension, or
  - b. are at high cardiac risk owing to the finding of ischemia on preoperative testing and are undergoing vascular surgery.
27. Evaluate each patient upon admission, and regularly thereafter, for the risk of developing pressure ulcers. This evaluation should be repeated at regular intervals during care. Clinically appropriate preventive methods should be implemented consequent to this evaluation.
28. Evaluate each patient upon admission, and regularly thereafter, for the risk of developing venous thromboembolism/deep vein thrombosis (VTE/DVT). Utilize clinically appropriate, evidence-based methods of thromboprophylaxis.
29. Every patient on long-term oral anticoagulants should be monitored by a qualified health professional using a careful strategy to ensure the appropriate intensity of supervision.
30. Utilize validated protocols to evaluate patients who are at risk for contrast media-induced renal failure, and utilize a clinically appropriate method for reducing the risk of renal injury based on the patient's kidney function evaluation.

