Massachusetts Health Care Cost Trends

November 2009
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Executive Summary

Focus of this Analysis

- To evaluate the historical trends in health care expenditures in Massachusetts and project future trends (assuming no cost-containment intervention). National trends are provided as a benchmark for comparison.
- To estimate the potential savings if cost containment efforts keep the growth of health care expenditures to the same level as per capita GDP.
- To compare the growth of health insurance premiums relative to the growth of health care expenditures.

Major Findings

- **We spend more on health care in Massachusetts compared to the U.S.** Health care expenditures account for a larger and growing share of the GDP compared to the national average in 2007. By 2007, health care expenditures are expected to account for 15.2% of GDP in Massachusetts compared to 13.7% for the nation.
- **Hospital-based expenditures are a primary driver of higher health care costs in Massachusetts.** Hospital-based expenditures account for one-half of the difference between Massachusetts and U.S. per capita health care spending in 2004.
- **Medicare and Medicaid share of health spending in Massachusetts grew from 36% to 38% from 1991 to 2004.** In 2004, Medicare spending was $7.9 billion and Medicaid spending was $8.3 billion.
- **The growth in employment-based health insurance premiums in Massachusetts was somewhat faster and more volatile than the growth in health care expenditures.** In 2007 both family and single premiums were higher in Massachusetts compared to the U.S., by 12% and 10%, respectively.
- **Beginning in 2002, health care expenditures in Massachusetts (both actual and projected) grew more rapidly than other economic indicators such as wages, consumer prices, and per capita GDP.** By 2020, health care expenditures per capita in Massachusetts are expected to be 4.5 times what they were in 1991, while the CPI is projected to be just more than double.
- **Health care in Massachusetts is projected to cost $3,000 more per person by 2018 compared to the U.S. average.** During 2004-2018, compared to the national average, Massachusetts is projected to have a higher annual growth rate in per capita health care expenditures, reaching about $16,000 per person in 2018. U.S. health care spending is projected to reach about $13,000 per person by 2018.
- **If cost containment efforts are successful, potential savings could be as high as $91 billion over 10 years.** If cost containment efforts result in a slowing of the growth of health care expenditures to the same growth rate as per capita GDP (3.9%), the potential annual savings would be close to $3,000 per capita for a total accumulated savings of $91 billion over 10 years.
Data Sources and Methodology

Major Data Sources

Health Care Spending

Health Insurance Premiums
- 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey-Insurance Component (MEPS-IC), health insurance premiums per enrolled employee at private-sector establishments that offer health insurance. 2007 premiums are estimated using the average of 2006 and 2008 premiums.

Methodology Used for Cost Projection
- The annual growth rate of per capita health expenditures in Massachusetts for 2004-2010 is assumed to keep the same average annual growth rate of 7.4% experienced in 2000-2004. This is assumed because in the short run, trends are likely to keep the same momentum as the most recent annual trends.
- The annual growth rate of per capita health expenditures in Massachusetts for 2010-2020 is assumed to be at the lower average annual growth rate of 5.7% experienced in the longer period of 1991-2004 in Massachusetts. This reflects a more steady state trend that the state is likely to return to in the longer term.
- Total health care expenditures is calculated based on projected per capita health expenditures multiplied by total population in Massachusetts. Projected population comes from U.S. Census Bureau, Population Division, Interim State Population Projections, 2005, which factors in migration trends.
- Projections for U.S. health care cost trends come directly from the Centers for Medicare and Medicaid Services (CMS).
Trends in Health Care Expenditures
Annual Growth Rate of MA Per Capita Health Spending Tracked U.S. but Generally Grew Faster After 2000
Annual Rate of Change in Per Capita Health Expenditures in MA and U.S., 1992-2007

Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for Massachusetts are only available through 2004. 2005, 2006, and 2007 growth rates for MA are projected.

Per Capita Health Spending Increased from 23% Higher in MA Than U.S. in 1991 to 27% Higher in 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.

MA Health Care Expenditures Are Higher than U.S. and Represent a Growing Share of the Economy


Health Expenditures Per Capita

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<tbody>
<tr>
<td>Per Capita</td>
<td>$5,021</td>
<td>$8,281</td>
<td>$4,039</td>
<td>$6,227</td>
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Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for Massachusetts are projected for 2007.


Health Expenditures as Percent of GDP

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<tr>
<td>As % of GDP</td>
<td>11.5%</td>
<td>15.2%</td>
<td>13.7%</td>
<td>11.7%</td>
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Hospital-Based Expenditures Account for Half of the Difference Between MA and U.S. Per Capita Spending
Health Expenditures Per Capita by Services in MA and U.S., 2004

Per capita hospital-based expenditures were 36% higher in Massachusetts compared to the U.S. Nursing home spending per capita in MA was 64% higher than in the U.S., the highest percentage difference among these five health expenditure categories.

MA Per Capita Spending: $6,683
U.S. Per Capita Spending: $5,283
Difference: $1,400

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.
Medicare and Medicaid Share of Health Care Spending in MA Grew From 36% to 38% from 1991 to 2004

Share of Medicare and Medicaid of Total Personal Health Expenditures in MA (billion $), 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.

Trends in Health Insurance Premiums
Premiums Rose More Rapidly after 2000 in MA, Similar to the Acceleration of Health Care Expenditures Generally

Single Health Insurance Premiums in MA, 1996-2008

Sources: 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.
Premiums Grew Faster than Per Capita Health Spending in MA

Health Expenditures Per Capita

- 2000: $5,021
- 2008: $8,895

Annual Health Insurance Premium Per Enrolled Employee

- Single:
  - 2000: $2,719
  - 2008: $4,836
- Family:
  - 2000: $7,341
  - 2008: $13,788

Sources: Health expenditure data for 2000 are from Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007 (by Residence Location). Data for 2007 are estimated by DHCFP. Premium data for 2000 from Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS) Insurance Component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.
Premium Growth in MA Is More Volatile than Growth in Health Care Spending

Annual Rate of Increase in Health Expenditures Per Capita and Single Premiums in MA, 1992-2008

Growth of Single Premiums in MA Was Higher than National Average in Recent Years


1997-2000 average annual growth rate
MA: 3.9%; U.S.: 7.4%

2000-2008 average annual growth rate
MA: 7.5%; U.S.: 6.5%

Sources: 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.
Growth in Family Premiums in MA Was Higher than National Average in Recent Years

Annual Growth Rate of Family Insurance Premiums in MA and U.S., 1997-2008

1997-2000 average annual growth rate
MA: 5.2%; U.S.: 8.1%

2000-2008 average annual growth rate
MA: 8.2%; U.S.: 7.7%

Sources: 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.
Single and Family Premiums in MA Were 10% to 12% Higher than U.S. in 2008


The relative difference in premiums between Massachusetts and the U.S. tended to increase over time. The individual premium in Massachusetts was 2%, 8%, and 10% higher than in the U.S. and the family premium was 8%, 8%, and 12% higher in 2000, 2006, and 2008 respectively.

Sources: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component.
Projected Trends in Health Care Spending through 2020
Total Health Spending Is Expected to Double from 2009 to 2020 (Assumes No Cost Containment Intervention)

Massachusetts Total Personal Health Care Expenditures (billion $), 1991-2020

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


2005-2020 data are projected based on projected per capita health expenditures.
Per Capita Spending Is Expected to Nearly Double from 2009 to 2020 (Assumes No Cost Containment Intervention)
Massachusetts Per Capita Personal Health Care Expenditures, 1991-2020

Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for 2005 – 2020 are projected and are based on historical growth patterns. Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.
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Gap in Per Capita Health Spending between MA and U.S. Projected to Widen

Index of Per Capita Health Expenditures in MA and U.S., 1991-2020

Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for 2005 – 2020 (Massachusetts) and 2008-2017 (U.S.) are projected. Projected growth is based on historical growth patterns.

Growth in Health Spending in MA Expected to Surpass Other Economic Indicators

Index of Health Expenditures Per Capita and Other Indicators in MA, 1991-2020

Per Capita Health Expenditures: 550 in 2020
Per Capita GDP: 337 in 2020
Wage and Salary: 325 in 2020
Consumer Price Index (CPI): 224 in 2020

Per capita GDP index: real GDP annual change + GDP price index annual change – population annual change; wage index: average annual wage in covered employment.
Potential Savings if Growth Rate Reduced to GDP
Estimated Impact if MA Per Capita Health Spending Grows at Same Rate as GDP
Projected Per Capita Health Expenditures in MA, 2010-2020

No Cost Control: average annual growth rate of total health spending is projected to be 5.7%

Cost Control: average annual growth rate of per capita health spending is set to be same as the projected per capita GDP growth rate of 3.9%

Estimated Impact on Total Health Spending if MA Per Capita Spending Grows at Same Rate as GDP

Projected Total Personal Health Expenditures in MA (billion $), 2010-2020

Projected Total Health Spending = Projected Per Capita Health Spending x Projected Total Population

No Cost Control: average annual growth rate of total health spending is projected to be 6.0%

Cost Control: average annual growth rate of total health spending is projected to be 4.2% based on the projected per capita health spending growth rate of 3.9%

Estimated Savings in Total Health Spending in MA
If Growth of Per Capita Health Expenditures Were Held to the Same Rate as Growth in projected Per Capita GDP, 2010-2020
