Massachusetts Commercial Medical Care Spending: Findings from the All-Payer Claims Database

2010-2012

Medical Claims Payments for the Three Largest Commercial Payers

July 2014
Introduction

This chartpack presents trends in combined commercial medical claims spending for the state’s three largest commercial payers based on data submitted to the All-Payer Claims Database (APCD).

The accompanying databook enables the public to view and analyze data directly, while technical notes explain the methods used.

Over time, CHIA and the HPC intend to extend their reporting of APCD data to include additional public and private payers and additional types of spending.

This report is a joint publication of The Center for Health Information and Analysis (CHIA) and the Health Policy Commission (HPC). CHIA and the HPC are independent state agencies that share a mission to monitor the Massachusetts health care system.
## About the data

**What data is included in this report?**

<table>
<thead>
<tr>
<th>Included</th>
<th>Excluded</th>
</tr>
</thead>
</table>
| • **Medical claims-based payments** submitted to the APCD for Massachusetts residents insured by one of the state’s three **largest commercial payers**: Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care and Tufts Health Plan.  
  • Payments include member **out-of-pocket spending** on deductibles and copayments.  
  • Calendar years 2010, 2011 and 2012, paid through June 2013. |  
|  
  • Other commercial payers, Medicare, and MassHealth.  
  • **Pharmacy claims, dental claims, and payments made outside the claims system**, such as capitation payments, pay-for-performance and shared savings.  
  • Any medical claims payments not submitted to the APCD by the three largest commercial carriers. |
What is included in this report?

Payers included in this report:
- Blue Cross Blue Shield of MA
- Harvard Pilgrim Health Care
- Tufts Health Plan
- These are the top 3 Commercial payers by enrollment in MA
- Does not include enrollees in other Commercial payers, MassHealth or Medicare

Spending included in this report:
- Medical claims
- Does not include pharmacy, dental, non-claims payments, and spending not reported to the APCD

Covered lives in MA insurance market, by payer
(~97% of MA residents in 2012)

- Commercial payers
- MassHealth and Medicare

Approximately 2 out of 3 (67%) of Commercial enrollees

Spending for top 3 Commercial payers

Medical claims spending

Other spending

Estimated 78% of total spending for these 3 Commercial payers

*Based on CHIA enrollment reporting which includes fully- and self-insured enrollees: [http://www.mass.gov/chia/docs/r/pubs/14/mahealthcare-enroll-trends-databook.xlsx](http://www.mass.gov/chia/docs/r/pubs/14/mahealthcare-enroll-trends-databook.xlsx)

**The data includes claims for approximately 2.8M individuals in 2012 or 36% of Massachusetts residents based on the 2012 census.

### Key findings

| Medical spending | • The average annual growth of per member per month (PMPM) medical claims-based spending was 2.9% between 2010 and 2012, from $330 to $350.  
• Enrollment in the three largest commercial plans declined 2.8 percent per year over the same period. |
| --- | --- |
| Out-of-pocket spending | • Members’ out-of-pocket spending rose from 6.9% of medical spending to 7.7% percent between 2010 and 2012.  
• In 2012, 7.4% of members spent more than $1,000 on deductibles, coinsurance and copayments for their medical claims. |
| By categories of service | • The fastest growing category of service was outpatient facility claims, which grew at 8% per year and made up 18% of spending in 2012. |
| By type of episode | • Joint degeneration, pregnancy with delivery, and routine exam were the types of episodes with the highest spending growth in 2012.  
• Spending growth was concentrated by episode, with 10 episode types making up 44% of growth. |
| By region | • PMPM spending varied from a high of $429 in the Cape and Islands to a low of $306 in the Pioneer Valley/Franklin region.  
• Risk scores were lowest in the Central MA and Metro Boston regions and highest in the Cape and Islands region. Risk scores measure expected spending, based on a population’s age, sex, and burden of illness. |
Commercial Medical Care Spending 2010-2012

Overview

Out-of-pocket spending  
By category of service  
By type of episode  
By region
PMPM spending on medical claims increased by 2.9% annually between 2010 and 2012; member months declined 2.8% annually over the same period.

Source: The Lewin Group analysis of medical claims data from the Massachusetts’s All-Payer Claims Database, three major commercial payers. Databook Exhibit 1.
The increase in per person spending was due to higher prices paid; the quantity of care used declined, and there was no change in members’ average risk score between 2010 and 2012.

**Overall Spending Growth**

- **Changes in prices paid**: +5.2% (Increase in prices paid (may reflect unit prices and changes in provider mix))
- **Changes in utilization**: -2.1% (Decrease in spending at standardized prices)
- **Changes in risk score**: ~0% (No notable change in average member risk scores from 2010 to 2012)

**Note:** The change in quantity is calculated by re-pricing all services using a standardized fee schedule. The change in prices paid is the residual change in PMPM spending.

Risk scores measure expected health care spending, based on a population’s age, sex, and burden of illness, as observed in claims data. Risk scores were calculated using the Symmetry Episode Risk Group software.

**Source:** The Lewin Group analysis of medical claims data from the Massachusetts’s All-Payer Claims Database, three major commercial payers Databook Exhibits 4 and 5.
Commercial Medical Care Spending 2010-2012

Out-of-pocket spending

By category of service
By type of episode
By region
Members’ out-of-pocket spending for medical claims increased as did the percentage and number of members with high out-of-pocket spending.

**Out-of-pocket Spending as Proportion of Total Medical Claims Spending**

- 2010: 6.9%
- 2011: 7.2%
- 2012: 7.7%

Includes copayments and deductible.

**Percentage of Members by Out-of-Pocket Spending for Medical Claims**

- More than $2,000
  - 2010: 13.4%
  - 2011: 14.6%
  - 2012: 16.4%
- Between $1,000 and $2,000
  - 2010: 4.4%
  - 2011: 4.9%
  - 2012: 5.4%
- Between $500 and $1,000
  - 2010: 7.7%
  - 2011: 8.0%
  - 2012: 9.0%

**Number of Members Paying More than $500 out of Pocket**

- 2010: 173K
- 2011: 193K
- 2012: 210K

**Note:** Out-of-pocket spending is for medical claims only. Analyses include all members, including those with part-year enrollment. **Source:** The Lewin Group analysis of medical claims data from the Massachusetts’s All-Payer Claims Database, three major commercial carriers. Databook Exhibits 1 and 3.
Commercial Medical Care Spending 2010-2012

- Out-of-pocket spending
- By category of service
- By type of episode
- By region
The fastest growing category of service was outpatient claims, which grew at an average of 8% per year and made up 18% of spending in 2012.

### Categories of service

#### PER MEMBER PER MONTH SPENDING BY CATEGORIES OF SERVICE (2012)

<table>
<thead>
<tr>
<th>Categories of Service</th>
<th>Spending (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Facility</td>
<td>$350</td>
</tr>
<tr>
<td>Outpatient Facility</td>
<td>$90 (26%)</td>
</tr>
<tr>
<td>Other Institutional</td>
<td>$64 (18%)</td>
</tr>
<tr>
<td>Professional</td>
<td>$5 (1%)</td>
</tr>
<tr>
<td>Lab/X-ray</td>
<td>$137 (39%)</td>
</tr>
<tr>
<td>Total</td>
<td>$53 (15%)</td>
</tr>
</tbody>
</table>

#### CHANGE IN MEDICAL CLAIMS SPENDING BY CATEGORIES OF SERVICE (2010-2012)

<table>
<thead>
<tr>
<th>Categories of Service</th>
<th>Average annual growth rate, 2010-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Facility</td>
<td>3%</td>
</tr>
<tr>
<td>Outpatient Facility</td>
<td>8%</td>
</tr>
<tr>
<td>Other Institutional</td>
<td>5%</td>
</tr>
<tr>
<td>Professional</td>
<td>2%</td>
</tr>
<tr>
<td>Lab/X-ray</td>
<td>-1%</td>
</tr>
<tr>
<td>Total</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Note:** Professional includes all professional claims except for Lab/X-ray claims, which are included in the Lab/X-ray category.

**Source:** The Lewin Group analysis of medical claims data from the Massachusetts’s All-Payer Claims Database, three major commercial carriers. Databook Exhibit 6.
Commercial Medical Care Spending 2010-2012

- Out-of-pocket spending
- By category of service
- By type of episode
- By region
Spending growth was concentrated, with 10 types of episodes making up 44% of growth in PMPM spending between 2010 and 2012

**Episodes of care**

**KEY FINDINGS ABOUT EPISODES WITH HIGHEST GROWTH IN PMPM SPENDING BETWEEN 2010 and 2012**

- 44% of PMPM growth between 2010 and 2012 was concentrated in just 10 types of episodes and the top 20 types of episodes by growth of PMPM accounted for 61% of PMPM growth
- Joint degeneration, pregnancy with delivery, and routine exam were the episode types with the largest contribution to growth in PMPM spending, as well as the highest PMPM spending levels (data not shown)
- Among the 10 episodes by growth of PMPM, PMPM spending for autism and child psychosis, routine inoculation, and opioid / barbiturate dependence grew at the highest percentage rates, although the levels of PMPM spending were lower

**DETAILS ON THE 10 EPISODES WITH HIGHEST PMPM SPENDING GROWTH BETWEEN 2010 AND 2012**

<table>
<thead>
<tr>
<th></th>
<th>PMPM 2010</th>
<th>PMPM 2012</th>
<th>Average annual growth rate 2010-2012</th>
<th>Percent of total PMPM growth between 2010 and 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint degeneration</td>
<td>$18.23</td>
<td>$20.09</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>Routine exam</td>
<td>$11.07</td>
<td>$12.51</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Pregnancy with delivery</td>
<td>$14.20</td>
<td>$15.29</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Autism &amp; child psychoses</td>
<td>$0.48</td>
<td>$1.18</td>
<td>57%</td>
<td>4%</td>
</tr>
<tr>
<td>Mood disorder, depressed</td>
<td>$7.31</td>
<td>$8.00</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Routine inoculation</td>
<td>$1.15</td>
<td>$1.83</td>
<td>27%</td>
<td>4%</td>
</tr>
<tr>
<td>Non malignant neoplasm of small intestine &amp; abdomen</td>
<td>$3.37</td>
<td>$3.98</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>Septicemia</td>
<td>$1.63</td>
<td>$2.21</td>
<td>17%</td>
<td>3%</td>
</tr>
<tr>
<td>Opioid/barbiturate dependence</td>
<td>$0.63</td>
<td>$1.15</td>
<td>35%</td>
<td>3%</td>
</tr>
<tr>
<td>Anxiety disorder/ phobia</td>
<td>$1.49</td>
<td>$1.89</td>
<td>13%</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Subtotal for top 10 episodes</strong></td>
<td>$59.54</td>
<td>$68.14</td>
<td>7%</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Subtotal for top 20 episodes</strong></td>
<td>$83.73</td>
<td>$95.81</td>
<td>7%</td>
<td>61%</td>
</tr>
<tr>
<td><strong>Total (348 episodes)</strong></td>
<td>$329.96</td>
<td>$349.64</td>
<td>2.9%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**What is an episode of care?**

An episode of care is a unit of analysis consisting of the set of services used to treat one occurrence of one condition for one patient. For example, one episode of “pregnancy with delivery” would include office visits for checkups, lab tests and inpatient admission for one pregnancy for one patient.

**Note:** Episodes were produced using version 82 of the Episode Treatment Group (ETG) software. Episodes shown in this analysis are based on the 4-digit ETGs. Episodes for pharmacy only, invalid codes, and orphan records were excluded. Source: The Lewin Group analysis of medical claims data from the Massachusetts’s All-Payer Claims Database, three major commercial carriers. Databook Exhibit 9.
Commercial Medical Care Spending 2010-2012

- Out-of-pocket spending
- By category of service
- By type of episode

By region
The Cape and the Islands had the highest per member per month spending and the highest risk score.

By region

**PER MEMBER PER MONTH (PMPM) SPENDING COMPARED TO STATE AVERAGE**

- At least 5% below (less expensive than) state average
- Between 5% below state average and exactly state average
- Between state average and 5% above (more expensive than) state average
- More than 5% above (more expensive than) state average

**RISK SCORE COMPARED TO STATE AVERAGE**

- Between 2% and 6% below state average
- Between 2% below and 2% above state average
- Between 2% and 6% above state average
- More than 6% above state average

State Average PMPM $350

**Lowest PMPM**

- **Pioneer Valley/Franklin**
  
  $306 – 12% lower than state average

**Highest PMPM**

- **Cape and Islands**
  
  $429 – 23% higher than state average

**Lowest risk score tie**

- **Central Massachusetts and Metro Boston**
  
  4% better than state average

**Highest risk score**

- **Cape and Islands**
  
  11% worse than state average

Note: Risk scores measure expected health care spending, based on a population’s age, sex, and burden of illness, as observed in claims data.

Risk scores were calculated using the Symmetry Episode Risk Group software and are limited to members with six months of enrollment in one year. Divisions of categories for the maps were made at points with more than 2% difference between regional values and also at state average for PMPM.

Source: The Lewin Group analysis of medical claims data from the Massachusetts’s All-Payer Claims Database, three major commercial carriers. Databook Exhibit 8.