
This report extends HCCI’s reporting of cost and utilization. HCCI now has claims for approximately 40 million people covered by ESI compared to 33 million in our 2010 report. In this report, HCCI performed completion, a process by which actuaries estimate metrics for claims that were incomplete for 2010 or 2011. These new data and enhanced methodology resulted in changes to our original 2010 estimates. Therefore, the figures presented in the Health Care Cost and Utilization Report: 2010 have been superseded by this report.

Spending Rose

In 2011, per capita and total spending on health care accelerated. Between 2010 and 2011, estimated per capita expenditure for claims filed under ESI rose 4.6 percent, from $4,349 to $4,547. In comparison, spending growth was 3.8 percent for 2009—2010. By age group, spending rose the fastest for children, reaching $2,347 in 2011, a 7.7 percent increase over 2010. By region, the Northeast had both the highest dollars spent per capita ($4,659) and the highest growth in spending (5.3%).

For 2010, HCCI estimated total spending to have been $680.7 billion. For 2011, spending grew to $709.2 billion. Using the current population survey (CPS), HCCI estimated that 156.5 million people had ESI in 2010, compared with 156.0 million people in 2011, a 0.3 percent decline. The 4.6 percent growth in per capita spending when coupled with the 0.3 percent decline in the ESI population generated total spending growth of 4.2 percent.

Out-of-Pocket Payments Increased

The growth in per capita spending had similar effects on payers (health plans and employers) and beneficiaries (members of those health plans or otherwise insured individuals). Both payer per capita expenditure and beneficiary out-of-pocket spending rose between 2010 and 2011. For 2010 and 2011, beneficiaries paid about 16.2 percent of total per capita expenditure out of pocket. Estimated per capita spending out-of-pocket was $735 in 2011, a 4.6 percent increase over 2010. Health plans and employers saw per capita spending rise by 4.5 percent to $3,812.

Rising Prices Major Driver of Costs

HCCI categorized health care services as inpatient, outpatient (visits and other), professional procedures, and prescriptions. Growth in the average prices of these service categories outpaced changes in utilization.

In 2011, spending on inpatient facility services, per capita, grew 4.8 percent to $963. Inpatient admissions declined by 0.5 percent whereas inpatient prices, which were the highest average prices of any service category, rose 5.3 percent to $15,674. Increases in inpatient unit prices — the price paid adjusted for the resource mix to serve patients — outpaced increases in intensity (a metric indexing complexity of service), leading HCCI to conclude that in 2011 rising unit prices drove increases in inpatient spending.

Spending on outpatient facility services grew the fastest of any major service category in 2011 (6.8%). Within the outpatient facility category, HCCI per-
Executive Summary

formed analysis on outpatient visit claims (claims for emergency room, outpatient surgery, and observation) and claims for outpatient services provided at other settings (“outpatient other”), such as testing laboratories and imaging clinics. Outpatient utilization increased 2.1 percent for visits and 1.6 percent for services. Prices for outpatient facility visits (5.0%) and services (4.6%) rose faster than utilization. Rising unit prices drove the price increases observed for outpatient facility claims.

The major service category with the highest level of per capita spending in 2011 was professional procedures ($1,566). Utilization of professional procedures increased by 1.2 percent, whereas prices paid rose by 3.3 percent. As with facility claims, HCCI found that rising professional procedure unit prices outpaced changes in intensity.

Between 2010 and 2011, spending on prescriptions rose by 1.0 percent—a slowdown from the 2.4 percent growth seen between 2009—2010. HCCI determined that the number of prescriptions filled declined by 0.2 percent. Prices paid per prescription, however, rose by 1.2 percent.

Summary

In 2011, per capita and aggregate spending on Americans with ESI increased. We found most health care dollars were spent on the procedures performed by health professionals, not prescriptions, or facility fees. By age group, spending per capita grew fastest for children. By region, spending per capita was the highest and grew the fastest in Northeast. The greatest growth in expenditure occurred for outpatient services, whereas the slowest growth in expenditure occurred for prescriptions.

Despite some increases in utilization, HCCI found spending growth was driven primarily by increases in the prices paid. In 2011, utilization increased for outpatient facility services and professional procedures, and declined for inpatient admissions and filled prescriptions. However, the growth in prices at the major service level outpaced changes in service use. For all major service categories, increases in prices paid were driven by increases in the underlying unit price.

However, the slowdown in spending observed by HCCI in the Health Care Costs and Utilization Report: 2010 ended in 2011. For 2010, per capita health care spending growth was 3.8 percent. In 2011, per capita health care spending rose by 4.6 percent. This suggests that 2011 is a potential transition year, and that the growth in health care spending in 2012 needs to be closely watched.

Calculating Spending

HCCI estimated per capita health care spending on people with ESI by summing all the weighted dollars directly spent on health care services for filed claims and dividing it by the total number of people with ESI. The per capita health expenditure in this report therefore are the estimate of the cost per beneficiary, even if that beneficiary used no health care services in 2011.

HCCI did not adjust prices for inflation, so the estimated dollars in the report and associated documents—such as issue briefs, appendices, or infographics — are nominal or “current dollar”.

For 2011, HCCI found per capita and total spending rose faster than in 2010 for individuals younger than 65 and covered by private, employer-sponsored insurance (ESI).

**Changes in Per Capita Expenditure**

Between 2010 and 2011, estimated per capita spending for individuals with ESI increased by 4.6 percent, from $4,349 to $4,547 (Table 1). Spending grew relative to the 3.8 percent growth observed in 2010 but was lower than the 5.8 percent growth observed in 2009.

HCCI divided claims into four categories of service: inpatient facility, outpatient facility (visits or other), professional procedures (including physician and nonphysician services), and prescriptions. For all of these categories, health care spending increased (Table 1).

As in 2010, professional procedures performed by physician and nonphysician providers accounted for the largest share of expenditure in 2011 (Table 1 and Figure 1). In 2011, the dollars spent per capita were highest for professional procedures ($1,566), and lowest for prescriptions ($773). The 1.0 percent growth in spending on prescriptions was lower than the 2.4 percent growth for 2010 (Figure 2).

Spending growth also declined 3.1 percentage points for services provided at other outpatient settings (such as laboratories, radiology centers, and imaging clinics) from 9.3 percent in 2010 to 6.2 percent in 2011 (Table 1). Despite this decline, outpatient services at other settings (“outpatient other”) remained the second fastest growing category of per capita health care spending. Only spending on outpatient visits to emergency rooms, outpatient surgery centers, and observation was faster (7.2%) — the same growth rate as 2010.

Spending levels and rates varied by age group (Table 1 and Figure 3). Children (ages 0-18) had the lowest per capita spending ($2,347) and the highest growth in spending (7.7%) relative to other age groups. The highest level of

**Figure 1**

**Share of Total Per Capita Expenditure by Major Service Category: 2011**

- Inpatient: 17.0%
- Professional: 21.2%
- Outpatient: 34.4%
- Prescription: 27.4%

Note: All data weighted to reflect the national, younger than 65 ESI population.
spending was on beneficiaries ages 55 to 64 ($8,776 per capita). There were differences regionally in both the level of spending and changes in spending for health care services (Table 1). The Northeast had the highest per capita spending ($4,659) and the fastest rate of regional spending growth (5.3%) in 2011. The West had the lowest spending per capita of any region ($4,358) and the slowest regional spending growth (3.9%). Between 2010 and 2011, the gap between the highest and lowest spending regions widened from $232 to $301.

**Changes in Total Spending**

Our estimates indicate that, between 2010 and 2011, total spending for people younger than age 65 and covered by ESI increased by 4.2 percent to $709.2 billion dollars (Table 1). This was $28.5 billion dollars more than in 2010. In 2011, total dollars spent on health care for individuals covered by ESI was approximately 4.7 percent of the United States’ nominal gross domestic product (GDP).

**Summary**

In 2011, for the privately insured who were younger than 65 years of age, per capita health care spending increased. Per capita spending rose faster than was seen in 2010, but less than observed in 2009. By major service category, per capita spending grew fastest for facility claims from outpatient visits. More than a third of per capita health care dollars were spent on professional procedures. For outpatient services provided at other settings and prescriptions, spending rose more slowly in 2011 than in 2010. Per capita health care spending levels rose with age. However, children had the highest spending growth of any age group, a trend that continued from the previous year. The Northeast had the highest per capita spending and fastest spending growth of any region. Overall, nominal health care spending growth (per capita and total) was higher than inflation and GDP growth.
Table 1: Annual Expenditure (2009–2011)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>All categories</td>
<td>$ 4,190</td>
<td>$ 4,349</td>
<td>$ 4,547</td>
<td>3.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>$ 887</td>
<td>$ 919</td>
<td>$ 963</td>
<td>3.6%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Inpatient without SNF</td>
<td>$ 879</td>
<td>$ 910</td>
<td>$ 954</td>
<td>3.5%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Outpatient</td>
<td>$ 1,079</td>
<td>$ 1,165</td>
<td>$ 1,245</td>
<td>8.0%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Outpatient Visits</td>
<td>$ 659</td>
<td>$ 707</td>
<td>$ 758</td>
<td>7.2%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Outpatient Other</td>
<td>$ 419</td>
<td>$ 458</td>
<td>$ 487</td>
<td>9.3%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Professional Procedures</td>
<td>$ 1,476</td>
<td>$ 1,499</td>
<td>$ 1,566</td>
<td>1.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Prescription</td>
<td>$ 748</td>
<td>$ 766</td>
<td>$ 773</td>
<td>2.4%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

| Per Capita by Geographic Region |  |  |  |  |  |
|---------------------------------|  |  |  |  |  |
| Midwest                         | $ 4,183 | $ 4,368 | $ 4,574 | 4.4%                      | 4.7%                      |
| Northeast                       | $ 4,238 | $ 4,426 | $ 4,659 | 4.4%                      | 5.3%                      |
| South                           | $ 4,262 | $ 4,393 | $ 4,591 | 3.1%                      | 4.5%                      |
| West                            | $ 4,043 | $ 4,194 | $ 4,358 | 3.7%                      | 3.9%                      |

| Per Capita by Age |  |  |  |  |  |
|-------------------|  |  |  |  |  |
| 18 and Under      | $ 2,063 | $ 2,178 | $ 2,347 | 5.6%                      | 7.7%                      |
| 19-44             | $ 3,368 | $ 3,472 | $ 3,599 | 3.1%                      | 3.6%                      |
| 45-54             | $ 5,518 | $ 5,680 | $ 5,927 | 2.9%                      | 4.3%                      |
| 55-64             | $ 8,139 | $ 8,455 | $ 8,776 | 3.9%                      | 3.8%                      |

| National Aggregates |  |  |  |  |  |
|---------------------|  |  |  |  |  |
| Estimated Commercially Insured Population (Millions)² | 157.8 | 156.5 | 156.0 | -0.8% | -0.3% |
| Estimated Total Expenditure ($Billions per year) | $ 660.9 | $ 680.7 | $ 709.2 | 3.0% | 4.2% |
| Consumer Price Index for All Urban Consumers (CPI-U): U.S. City Average | 1.6%³ | 3.2%⁴ |
| Nominal Gross Domestic Product (GDP) ($Billions per year)⁵ | $ 13,974 | $ 14,499 | $ 15,076 | 3.8% | 4.0% |
| Estimated Share of Nominal GDP | 4.7% | 4.7% | 4.7% | N/A | N/A |

Note: All data weighted and completed to represent the total population of beneficiaries younger than 65 and covered by ESI. All per capita dollars calculated from allowed costs. All figures rounded. Rounding may lead some percentage totals to not equal 100 percent.

1. Skilled Nursing Facility (SNF) was excluded from analysis of inpatient spending trends due to the lack of information about the intensity and unit prices of SNF claims at the time of analysis.


Components of Spending

HCCI derived health care spending in this report from the actual prices paid ("allowed costs") per service and the claims for those services ("utilization"). Price consisted of two components – the additional resources used to provide more complex treatments ("intensity") and a standard price that all patients would pay for a given treatment ("unit price"). HCCI used intensity and unit price to determine whether health care costs changed due to fees or the mix of services used by patients. As a result, HCCI reported unit price, utilization, and intensity as the three components of health spending.

Spending Rose for all Major Service Categories

Spending on all major service categories rose in 2011 (Table 1). Inpatient spending per capita rose 4.8 percent to $963. Outpatient spending per capita rose 6.8 percent to $1,245. Professional procedures, which had the highest overall level of per capita spending ($1,566), rose 4.5 percent – showing slower growth than the facility services categories. HCCI found per capita spending on prescriptions had the slowest growth, rising by 1.0 percent to $773.

Decomposing Spending

HCCI found that higher prices were the primary driver of per capita health spending in 2011. For all major service categories, increases in prices paid were primarily caused by increases in the underlying unit price (a standardized price derived from an intensity adjustment to the actual price paid).

For example, inpatient facility spending, when excluding skilled nursing facilities (SNFs), rose 4.9 percent in 2011 (Table 2). This rate was due to the combined changes in prices and utilization: inpatient facility prices rose 5.5 percent; inpatient utilization decreased 0.6 percent. The faster rate of change for prices drove spending to rise whereas the decline in facility use tempered this rise.

To examine the effect of prices further, HCCI decomposed prices into unit prices and intensity (Table 2 and Figure 4a). Overall, inpatient facility prices in 2011 (excluding SNFs) increased 5.5 percent to $16,011 (Appendix A). Inpatient facility intensity decreased by 0.3 percent (Appendix B). HCCI calculated a unit price by dividing price paid by the intensity level (1.28). The resulting inpatient facility unit price of $12,482 (Appendix C) was 5.9 percent higher than the unit price for an inpatient facility stay in 2010. HCCI concluded that despite the decline in intensity, the faster growth rate of unit prices caused prices paid to increase.

A similar analysis was performed on professional procedures. HCCI found the 4.5 percent increase in 2011 in professional procedures spending was...
driven primarily by a 3.3 percent increase in prices although utilization also increased by 1.2 percent (Table 2 and Figure 4a). Of the 3.3 percent increase in prices, a 3.7 percent increase in unit prices was offset by a drop (-0.4%) in the intensity level.

HCCI analyzed outpatient services in two categories – outpatient visits (emergency room, observation, and outpatient surgery facility services) and outpatient services provided at other settings (including testing laboratory and imaging facility services). HCCI found the 6.8 percent growth in outpatient spending came from both a 7.2 percent spending growth for outpatient visits and a 6.2 percent increase for services at other settings (Table 2 and Figure 4b). For outpatient visits, prices, unit prices, and utilization rose 5.0 percent, 9.6 percent, and 2.1 percent, respectively, while intensity of services declined 4.2 percent. For outpatient services provided at other settings (“outpatient other”), prices, unit prices, utilization, and intensity of services rose 4.6 percent, 3.5 percent, 1.6 percent, and 1.0 percent, respectively.

Unlike the other major categories of health care services, no unit price was available for prescriptions, as the intensity (dosage level) was captured in the actual price paid. The price of prescriptions rose 1.2 percent and the price per day rose 1.6 percent (Table 2). The average number of filled scripts declined by 0.2 percent and days supplied declined by 0.6 percent in 2011. The rise in prescription prices was offset by the decline in their use, resulting in a lower overall per capita trend of health spending on prescriptions (1.0%).

Summary

For 2011, HCCI found increases in prices were the primary cause of increased health care spending for the privately insured younger than 65 and covered by ESI. Utilization fell for inpatient facility claims and prescriptions. Utilization of outpatient services and professional procedures increased. However, the rate of price growth for all major services outpaced changes in utilization. The primary cause of increased prices was growth in unit prices.
# Table 2: Components of Spending (2010–2011)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Capita</td>
<td>Utilization</td>
</tr>
<tr>
<td>Inpatient¹</td>
<td>4.9%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Outpatient Visits</td>
<td>7.2%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Outpatient Other</td>
<td>6.2%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Professional Procedures</td>
<td>4.5%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Prescription - Prescriptions²</td>
<td>1.0%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Prescription - Day’s Supply²</td>
<td>1.0%</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>

Note: All data weighted and completed to represent the total population of beneficiaries younger than 65 and covered by ESI. All per capita dollars calculated from allowed costs. All figures rounded. Rounding may lead some percentage totals to not equal 100 percent.

1. Does not include Skilled Nursing Facilities (SNF) as SNF intensity was unavailable and therefore SNF unit prices could not be calculated.
2. Prescriptions had slightly different price trend than per day of supply, therefore both are shown.

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**What is Per Capita Spending?**

Per capita expenditure is the average dollars spent for a category of services per beneficiary. This average includes beneficiaries who did not use any service.

**What is Intensity?**

Intensity refers to the complexity of each service. For example, one patient has a simple 15-minute appointment with a physician, but another patient has a more complicated 30-minute visit with the same physician. Intensity of services is greater for the second patient, even though each was counted as a single office visit. HCCI measures intensity by assigning a weight to each health care service. HCCI did not calculate intensity of prescriptions, as the dosage levels and days are fully captured by the price.

**What is Unit Price?**

Isolating the change in intensity from change in price paid per service allows for the calculation of an intensity-adjusted price. This price is never seen by the patient or provider directly. The intensity-adjusted price, or “unit price”, was calculated by dividing the price paid for the service by the intensity of the service. A comparison between the two rates of growth is required to determine whether intensity drove overall price changes. For example, no change in the intensity at the same time that the intensity-adjusted price rises would suggest that increases in unit prices drove the overall price of services, not more intensity of service. An increase in the mix of services matched with no change in intensity-adjusted price would suggest that increased intensity drove overall price paid per service.
Out-of-Pocket Expenditure

Another measure of spending and the one most visible to consumers, is the amount beneficiaries pay directly, “out-of-pocket spending”. The spending accounted for in this report is shared between out-of-pocket spending by beneficiaries and the amounts spent by payers on behalf of beneficiaries to health care providers.

Out-of-Pocket Per Capita Spending Rose

Between 2010 and 2011, beneficiaries saw their out-of-pocket spending rise by 4.6 percent from $703 to $735 (Table 3). Per capita, beneficiaries paid $46 out of pocket for inpatient care, $183 for outpatient care, $319 for professional services, and $187 for prescriptions. Out-of-pocket spending rose fastest for outpatient facility claims (9.9%), and declined 2.8 percent for prescriptions. Beneficiaries paid 16.2 percent of all health care out-of-pocket spending in 2011 for a total of $114.6 billion dollars.

Most out-of-pocket spending was for professional procedures and prescriptions. Overall, professional services made up 34.4 percent of total per capita spending, but 43.4 percent of out-of-pocket payments (Figure 1 and Figure 5). Likewise, prescriptions were only 17.0 percent of total per capita spending, but 25.4 percent of out-of-pocket payments. About 31.2 percent of out-of-pocket spending was on facility services.

Payers Spending Also Increased

Overall, in 2011, health care plans paid 83.8 percent of total per capita expenditure (Table 3). Between 2010 and 2011, payers’ per capita expenditure rose from $3,646 to $3,812, a 4.5 percent increase. Payers’ per capita spending rose fastest for outpatient services (6.3%) and slowest for prescriptions (2.3%). The majority of the payers’ spending was payments for facility services (both inpatient and outpatient) and totaled $1,978 per capita. About 32.7 percent of payers’ spending was for professional procedures. Only 15.4 percent of payers’ per capita dollars went to prescriptions.

Figure 5
Share of Total Per Capita Expenditure Out of Pocket by Major Service Category: 2011

<table>
<thead>
<tr>
<th>Service</th>
<th>Share of Total Per Capita Expenditure Out of Pocket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient</td>
<td>25.4%</td>
</tr>
<tr>
<td>Professional</td>
<td>24.9%</td>
</tr>
<tr>
<td>Outpatient</td>
<td>43.4%</td>
</tr>
<tr>
<td>Prescription</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

Note: All data weighted to reflect the national, younger than 65 ESI population.

KEY FINDINGS

16.2%
Share of total per capita spending that came from beneficiaries’ co-pays, deductibles, and co-insurance (2011).

4.6% & $735
Growth and per capita dollar amount of out-of-pocket spending (2011).

4.5% & $3,812
Growth and per capita dollar amount of spending by payers (2011).

9.9%

6.3%
Growth of per capita spending by payers on outpatient facility services (2010—2011).

Summary

Both payers and beneficiaries paid more in 2011. Beneficiaries spent most of their out-of-pocket dollars on professional services and prescriptions, while payers spent the most health care dollars on facility claims. Despite the increase in per capita spending, the share of costs between beneficiaries and payers did not change between 2010 and 2011.
Table 3: Out-Of-Pocket Spending (2010–2011)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>Percent Change 2010/2011</th>
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<tbody>
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<td><strong>Per Capita—Insured Out-of-Pocket</strong></td>
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<td></td>
<td></td>
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<tr>
<td>All categories</td>
<td>$ 703</td>
<td>$ 735</td>
<td>4.6%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>$ 44</td>
<td>$ 46</td>
<td>5.4%</td>
</tr>
<tr>
<td>Outpatient</td>
<td>$ 167</td>
<td>$ 183</td>
<td>9.9%</td>
</tr>
<tr>
<td>Professional Procedures</td>
<td>$ 300</td>
<td>$ 319</td>
<td>6.4%</td>
</tr>
<tr>
<td>Prescription</td>
<td>$ 192</td>
<td>$ 187</td>
<td>-2.8%</td>
</tr>
<tr>
<td><strong>Per Capita—Payer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All categories</td>
<td>$ 3,646</td>
<td>$ 3,812</td>
<td>4.5%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>$ 875</td>
<td>$ 917</td>
<td>4.8%</td>
</tr>
<tr>
<td>Outpatient</td>
<td>$ 998</td>
<td>$ 1,061</td>
<td>6.3%</td>
</tr>
<tr>
<td>Professional Procedures</td>
<td>$ 1,199</td>
<td>$ 1,247</td>
<td>4.0%</td>
</tr>
<tr>
<td>Prescription</td>
<td>$ 574</td>
<td>$ 587</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Percentage of Total Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out-of-Pocket</td>
<td>16.2%</td>
<td>16.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>Payer</td>
<td>83.8%</td>
<td>83.8%</td>
<td>N/A</td>
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</tbody>
</table>

Note: All data weighted and completed to represent the total population of beneficiaries younger than 65 and covered by ESI. All per capita dollars calculated from allowed costs. All figures rounded. Rounding may lead some percentage totals to not equal 100 percent.
Inpatient

Inpatient facility claims are claims: 1) made by a hospital or skilled nursing facility for the use of facilities during a patient stay that is at least 1 day long or overnight and 2) associated with an inpatient Diagnosis-Related Group or a bundled inpatient payment.

In 2011, the average price of an inpatient facility stay was $15,674, and the average unit price was $12,482. Inpatient admissions totaled 61.4 per 1,000 beneficiaries. Inpatient intensity declined 0.3 percent. Per capita spending on inpatient admissions was $963, a 4.8 percent increase over 2010. HCCI estimates that the growth in inpatient spending was driven primarily by rising prices.

Prices Paid

The average price of an inpatient facility stay was $15,674 in 2011, a 5.3 percent annual increase (Appendix A). As seen in Figure 6, the highest average prices paid to a facility were for surgical admissions ($29,858, an 8.5% rise from 2010) and medical admissions ($13,023, a 5.9% increase over 2010).

Intensity

For inpatient admissions overall, intensity of services declined by 0.3 percent in 2011 (Appendix B). The highest growth in intensity was for surgical admissions (1.9%). All changes in intensity were less than the overall change in unit prices paid for inpatient facilities.

Unit Prices

The inpatient unit price was $12,482 in 2011, a 5.9 percent increase since 2010 (Appendix C). The highest unit prices paid were for medical admissions ($13,684, a 5.2% rise over 2010) and surgical admissions ($12,934, a 6.5% increase over 2010). All changes in unit price were more than the change in intensity for inpatient facilities, indicating that unit price growth drove the overall change in prices.

Utilization

Between 2010 and 2011, the utilization level (reported as per 1,000 beneficiaries) for inpatient admissions declined 0.5 percent to 61.4 admissions (Appendix D). Of these, 35.9 percent were for medical admissions.
admissions, 27.5 percent were for surgical admissions, 26.9 percent were for deliveries and newborns, and 9.7 percent were for mental health, substance abuse, and skilled nursing facility admissions. The highest utilization levels were for medical admissions (22.1, a 1.2% decline from 2010) and surgical admissions (16.9, a 4.2% decline from 2010). Deliveries and newborns claims rose to 16.5, a 1.5 percent increase from 2010. Mental health and substance abuse admissions rose 10.1 percent to 4.1, and skilled nursing rose 3.8 percent to 1.8 admissions.

Per Capita Expenditure
Per capita expenditure for inpatient hospital admissions was $963 in 2011 (Appendix E). The highest per capita expenditure in 2011 were on surgical and medical admissions at $505 and $288, respectively. Surgical admissions made up 52.4 percent of spending, followed by medical admissions at 29.9 percent of spending.

Trend
Table 2 presents the relative contribution of the three components underlying spending – utilization rate, intensity-adjusted price, and intensity – for inpatient services. HCCI found that the main driver of spending growth in 2011 was unit prices. In Figure 7, HCCI presents the inpatient subcategory trends. HCCI found that unit price growth outpaced utilization and intensity in all categories for which intensity information was available, except for mental health and substance abuse admissions (MHSA). Due to the lack of intensity data for skilled nursing facilities (SNF), trend was calculated for inpatient services without the spending on SNF services.

Decomposition of the overall price trend in expenditure suggests that changes in the intensity of services were less than the changes in unit price. Excluding skilled nursing facility claims, inpatient utilization declined 0.6 percent and intensity decreased 0.3 percent, whereas unit prices rose 5.9 percent for a net 4.9 percent increase in per capita spending.

Unit prices grew faster than utilization and intensity for all service groupings except MHSA admissions (Figure 7). Medical admissions saw unit price changes (5.2%) outpace utilization and intensity (-1.2% and 0.7%, respectively). Growth rates for utilization and intensity were lower than the growth of surgical admission unit prices (-4.2%, 1.9%, and 6.5%, respectively). Deliveries and newborns claims saw unit price changes (6.0%) outpace utilization changes (1.5%) and intensity changes (-1.1%). MHSA admissions grew 10.1 percent, but intensity fell (-1.3%), while unit prices grew by 7.4 percent in 2011.

Summary
For inpatient services overall, prices grew faster than utilization. Utilization of inpatient services overall was down, driven by declines in medical and surgical admissions. Prices were highest for medical and surgical admissions. After decomposing price changes, HCCI found inpatient intensity declined overall but increased in 2011 for medical and surgical admissions. Unit prices rose for all services, and their rate of change outpaced changes in intensity. Unit prices also outpaced utilization, with the exception of MHSA admissions. HCCI concluded spending on most inpatient services increased due primarily to price growth.
Outpatient

Outpatient facility claims in HCCI’s analysis are for services provided at settings other than inpatient facilities or physicians’ offices. HCCI categorized outpatient facility claims as outpatient visits (emergency room (ER), outpatient surgery, observations) and outpatient services provided at other settings (laboratory/pathology, radiology, ancillary, and other categories). The categories varied in levels and rates of spending, prices, utilization, unit prices, and intensity.

In 2011, the average facility price for an outpatient visit was $2,236, and the average facility price for outpatient services provided in other settings (“outpatient other”) was $185. Per 1,000 beneficiaries, outpatient visits totaled 326 and outpatient services provided at other settings totaled 2,625. Intensity for outpatient visits declined, whereas it grew for outpatient services provided at other settings. For both, unit prices increased. Per capita spending on visits was $758 and spending on other facilities services was $487. Combined, outpatient spending rose 6.8 percent in 2011.

Prices Paid

The prices paid for outpatient facility use rose between 2010 and 2011. In 2011, the average facility price for an outpatient visit increased 5.0 percent to $2,326, (Appendix A); the average price of outpatient services provided at other settings rose 4.6 percent to $185. As seen in Figure 8, the highest average price paid for a visit was for outpatient surgery ($3,673, a 6.6% increase from 2010). The highest price paid at other outpatient settings was for radiology services ($471, a 3.4% increase from 2010).

Intensity

Changes in the intensity of outpatient facility claims were mixed in 2011 (Appendix B). For outpatient visits, intensity declined for all subcategories with an overall decline of 4.2 percent. For outpatient services provided at other settings, overall, intensity grew by 1.0 percent. Radiology services were the only “other” subcategory to have a decline in intensity (-1.8%).

Key Findings

| $1,245 | Outpatient spending per capita in 2011. |
| 6.8%  | Increase in per capita spending for outpatient facility services (2010—2011). |
| 7.2% & 6.2% | Increase in spending on outpatient visits and outpatient services provided at other settings (2010—2011). |
| $3,673 | Average price of an outpatient surgery visit in 2011. |
| 1.6%, 3.5%, 1.0% | Change in utilization, unit price, and intensity for services at other outpatient settings (2010—2011). |
| $471 | Average price of a radiology facility service in 2011. |

Unit Prices

For most outpatient services, unit prices grew in 2011 (Appendix C). For the overall categories of outpatient
visits, outpatient services at other settings unit prices grew faster than intensity. For most outpatient subcategories, unit prices outpaced intensity; however, the change in intensity outpaced the unit price trend for laboratory/pathology services.

The average unit price of an outpatient visit was $134 (9.6% increase from 2010). In the outpatient visit category, ER unit prices rose 9.1 percent to $226 (Figure 9a). Unit prices for outpatient surgery rose 9.7 percent. However, unit prices for outpatient visits were highest for observation ($258), which had the slowest growth (0.5%).

The average unit price of outpatient services provided at other settings was $141 (3.5% increase from 2010). Laboratory/pathology facilities had the highest unit prices for services at other outpatient settings ($243, a 0.2% decline from 2010). As seen in Figure 9b, radiology services had the highest unit price growth (5.2%).

Utilization
Utilization of outpatient facilities rose in 2011 (Appendix D). Outpatient visit utilization increased 2.1 percent (326 per 1,000). In this category, emergency room visits were the highest (175 per 1,000). At other outpatient settings, utilization grew 1.6 percent (2,625 services per 1,000). Use of laboratory/pathology facilities increased 1.6 percent (1,183 per 1,000). Overall, the growth of utilization was lower than price growth for outpatient facility claims.

Per Capita Expenditure
In 2011, per capita expenditure for outpatient visits was $758. For outpatient services provided at other settings, per capita expenditure was $487 (Appendix E). In the outpatient visit category, the highest per capita expenditure was for outpatient surgery at $480. For the outpatient services provided at other settings category, the highest per capita expenditure was for radiology services at $188.

Trend
For outpatient services overall, prices outpaced utilization (Table 2). Growth in unit prices primarily drove the 5.0 percent increase in prices paid for outpatient visits and the 4.6 percent increase in prices paid for outpatient services.
services in other settings.

Between 2010 and 2011, outpatient visit utilization increased by 2.1 percent, intensity declined by 4.2 percent, and unit prices rose 9.6 percent, resulting in a 7.2 percent increase in per capita spending.

Utilization of outpatient services provided at other settings increased by 1.6 percent, intensity rose 1.0 percent, and unit prices rose 3.5 percent, resulting in a 6.2 percent total increase in per capita spending.

Prices rose faster than utilization for all outpatient sub-categories, except observation and laboratory/pathology, where utilization outpaced prices.

After decomposing prices into unit price and intensity for the remaining sub-categories, HCCI found unit prices outpaced intensity for all services except for laboratory/pathology.

**Summary**

In 2011, outpatient services spending increased, primarily due to price growth. Overall, utilization rose for outpatient services. Utilization was higher for outpatient services provided at other settings compared with outpatient visits. The highest utilization was for laboratory/pathology services. Overall, outpatient prices rose. Average prices were higher for outpatient visits compared to outpatient services provided at other settings. Outpatient surgery had the highest facility prices. For all sub-categories of spending, except for observation and laboratory/pathology, price growth exceeded utilization growth.

Overall unit prices for outpatient visits and outpatient services provided at other settings changed more than intensity. At the sub-category level, outpatient unit prices rose, with the exception of unit prices for laboratory/pathology services. Intensity declined for outpatient visits, but increased for most outpatient services provided in other settings, except radiology. From these findings for 2011, HCCI concluded that rising outpatient facility prices were driven primarily by rising unit prices.
Professional Procedures

Professional procedures are for services performed by a physician or other health professional. Services, rather than visits, are the unit of analysis, as a single visit to a provider’s office could result in both an office visit and a lab test being billed and counted. For this reason, HCCI’s findings are based only on professional claims for services.

In 2011, the average professional service price was $97, and the average unit price was $58. Professional services totaled 16.1 per beneficiary. Treatment intensity declined by 0.4 percent. Per capita spending on professional services was $1,566, a 4.5 percent increase from 2010. Professional services made up over a third of all per capita health care spending in 2011.

**Prices Paid**

The average price of a professional procedure increased 3.3 percent from 2010 (Appendix A). As seen in Figure 10, the highest average prices paid to a health professional were for anesthesia ($714, a 3.2% increase from 2010) and administered drugs ($396, an 11.1% increase from 2010).

**Intensity**

For professional procedures, intensity declined by 0.4 percent in 2011 (Appendix B). The highest growth in intensity was for administered drugs (5.0%) and pathology/lab (1.5%). All changes in intensity were less than the changes in prices paid for these service groupings.

**Unit Prices**

The average unit price of a professional procedure was $58 in 2011, a 3.7 percent increase from 2010 (Appendix C). The highest average unit price paid was for administered drugs ($369, a 5.8% increase from 2010) and anesthesia ($111, a 3.8% increase from 2010). All changes in unit price were more than the changes in intensity for these service groupings, except for pathology/lab.

**Figure 10**

**Average Prices per Service for Professional Procedures: 2011**

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administered Drugs</td>
<td>$396</td>
</tr>
<tr>
<td>All Other Care</td>
<td>$77</td>
</tr>
<tr>
<td>Anesthesia</td>
<td>$89</td>
</tr>
<tr>
<td>Office Visit-PCP</td>
<td>$119</td>
</tr>
<tr>
<td>Preventive Visit-PCP</td>
<td>$28</td>
</tr>
<tr>
<td>Pathology/Lab</td>
<td>$118</td>
</tr>
<tr>
<td>Radiology</td>
<td>$94</td>
</tr>
<tr>
<td>Office Visit-Specialist</td>
<td>$128</td>
</tr>
<tr>
<td>Preventive Visit-Specialist</td>
<td>$380</td>
</tr>
</tbody>
</table>

**KEY FINDINGS**

- **$1,566 & 4.5%**

- **$97**
  - Average professional service price in 2011.

- **$714**
  - Average anesthesia service price in 2011.

- **1.2% & 3.3%**
  - Growth in professional service utilization and prices (2010—2011).

- **3.7% & -0.4%**
  - Increase in professional service unit price and decline in professional service intensity (2010—2011).

**Utilization**

The utilization level per 1,000 beneficiaries for professional services was 16,142 in 2011, a 1.2 percent increase from 2010 (Appendix D). The highest utilization level per 1,000 beneficiaries was for other procedures (5,880, a 0.7% increase from 2010) and pathology/lab (4,445, a 3.6% increase from 2010).¹

**Per Capita Expenditure**

In 2011, the per capita expenditure for a professional service was $1,566 (Appendix E). The highest level of
expenditure was for other procedures and surgery at $455 and $273, respectively. Surgery made up 17.4% of spending, followed by administered drugs (9.7%), office visits to a primary care provider (9.0%) and radiology procedures (8.9%).

### Trend

HCCI found that the main driver of professional service spending growth in 2011 was prices (Table 2). The growth rate of price per service (3.3%) was higher than the growth rate of utilization (1.2%). The overall intensity of services declined (-0.4%), whereas the unit price increased (3.7%), indicating that intensity changes helped slow the increase in price per service trend. HCCI concludes that, on net, changes in price per service contributed the most to the rise in overall per capita spending increases for professional services.

Unit prices grew faster than intensity overall and for all sub-service categories except for pathology/lab procedures (Figure 11a and Figure 11b). Unit prices did not grow faster than utilization for all service groupings. Unit prices and utilization grew at the same rate for office visits to a specialist (3.2%). Utilization outpaced unit prices and intensity for preventive visits – primary care provider, preventive visits – specialists, and pathology/lab services.

### Summary

For professional services and the sub-service groupings, prices, unit prices, and per capita spending continued to grow in 2011. Prices per service were highest for surgery and administered drugs. Price growth was caused primarily by increases in unit prices. Overall, intensity of professional services declined. For all sub-service categories, unit prices increased. Prices grew faster than utilization for the category overall but not for all sub-service categories. Although utilization growth in preventive visits and pathology/lab services outpaced price growth, spending on professional services increased primarily due to prices.

1. A full listing of other procedures is available at www.healthcostinstitute.org/methodology.
Prescriptions

Prescription claims in HCCI’s analysis are for claims made at non-hospital pharmacies for drugs and medical devices. Drugs administered in a doctor’s office are categorized under professional services and are not included in this analysis of prescription services. In 2011, the average prescription price was $84, an increase of 1.2 percent since 2010. The average beneficiary whose ESI coverage included pharmacy prescriptions filled approximately 9.2 prescriptions. Per capita spending on prescriptions was $773, a 1.0 percent increase over 2010.

The average brand name prescription price was $268 and the average generic prescription price was $33 in 2011. Brand name prescription use declined 12.9 percent to over 1.9 prescriptions per beneficiary. Generic prescription use increased 3.4 percent to 7.2 prescriptions per beneficiary. Brand name prescription spending rose 2.5 percent, whereas spending on generics declined (4.0%).

Prices Paid

In 2011, the average price of a prescription was $84, a 1.2 percent increase since 2010 (Appendix A). The highest prices paid were for gastrointestinal prescriptions ($109, a 16.3% decline from 2010). The average price for a filled brand name prescription increased 17.7 percent to $268 (Figure 12). Generic prices decreased 7.2 percent to $33 per prescription.

Utilization

In 2011, the average beneficiary filled 9.2 prescriptions, a 0.2 percent decrease since 2010 (Appendix D). Central nervous system prescriptions totaled 2.5 per beneficiary, a 1.2 percent rise from 2010. Central nervous system prescriptions accounted for 27.0 percent of prescriptions; “other” therapeutic classes (a combination of classes), 22.3 percent; and cardiovascular prescriptions, 19.6 percent. Brand name prescriptions declined by 12.9 percent to less than 2 per beneficiary. Generic use increased 3.4 percent to 7.2 prescriptions per beneficiary (Figure 13).

Per Capita Expenditure

In 2011, per capita expenditure on prescriptions was $773 (Appendix E). The highest per capita expenditure was for other therapeutic classes and central nervous system prescriptions at $248 and $170, respectively. Other therapeutic class prescriptions made up 32.1 percent of prescription spending, followed by central nervous system prescriptions (22.0%), hormone prescriptions (16.8%), and cardiovascular prescriptions (14.6%).

Per capita expenditure on brand name prescriptions outpaced generic
Prescriptions

Spending on brand name drugs and devices rose 2.5 percent, while spending on generics dropped 4.0 percent from 2010.

**Trend**

HCCI found that price increases drove prescription spending growth (Table 2 and Figure 14). Overall, prescription prices rose more than the decline in prescription utilization. However, the trends for brand name prescriptions and generics moved in opposite directions, with brand name spending rising as prices rose and generic spending declining as prices fell.

**Summary**

HCCI found that prices and per capita spending on prescription claims grew in 2011, but at slower rates than observed in 2010. Overall, utilization of prescriptions declined in 2011. These findings suggest that rising prices drove prescription spending.

The different trends in brand and generic spending had offsetting effects on prescription spending growth. In 2011, brand name prescription utilization declined, while generic utilization increased. At the same time, brand name prices rose and generic prices declined. As a result, generic spending declined while brand spending rose. The result is that prescription spending per capita grew due to brand name price increases but that growth was slowed by the decline in generic prices.

1. Other therapeutic classes include but are not limited to blood derivatives, cellular therapy, contraceptives, dental agents, disinfectants, gold compounds, oxytocics, radioactive agents, and local anesthetics.
### Data & Methods

#### Data

HCCI has access to roughly 6 billion commercial health insurance claims for the years 2007 through 2011. Our data include claims for fully insured, self-funded, self-insured, and Medicare Advantage beneficiaries. The data were contributed to HCCI by a set of large health insurers who collectively represent almost 40 percent of the US private health insurance market.

HCCI received de-identified claims information that was compliant with the Health Insurance Portability and Accountability Act (HIPAA) and included the allowed cost, or actual prices, paid to providers for services.

For the *Health Care Cost and Utilization Report: 2011*, HCCI performed research on over 4.5 billion claims made by 40 million beneficiaries younger than 65 and covered by employer sponsored health insurance (ESI). Our analysis included beneficiaries in fully insured and self-funded benefit programs. The claims used in this report represent about 25.3 percent of the ESI population, making this one of the largest collections of data on the privately insured ever assembled.

#### Methods

HCCI used its claims to estimate per capita health expenditures, prices, utilization, unit prices, and service intensity for 2007 through 2011. The per capita health expenditures in this report are the estimate of the cost per beneficiary, even for beneficiaries who did not use health care services. No adjustment was performed for inflation, so the estimated dollars in this report are nominal.

HCCI divided claims into four categories of service: inpatient facility, outpatient facility (visits or other), professional procedures (including physician and nonphysician services), and prescriptions (brand and generic). Inpatient claims were from hospitals, skilled nursing facilities, and hospices when there was evidence that the beneficiary stayed overnight. Outpatient facility claims did not require an overnight stay. Both outpatient and inpatient claims included only the facility charges associated with such claims. HCCI classified professional services provided by physicians and nonphysicians in those facilities according to procedure codes commonly used in the industry. HCCI also categorized professional claims as primary care or specialist care. HCCI coded prescription claims into 30 therapeutic classes and grouped them as either generic or brand name prescriptions.

To make our findings representative of the ESI population, HCCI used Census Bureau data to create age, gender, and geographic weights. HCCI estimated per capita health care spending by summing all the weighted dollars spent on health care and dividing the sum by the total beneficiaries in the weighted dataset.

HCCI estimated total expenditures by multiplying the weighted per capita expenditure by the total number of ESI beneficiaries in the United States. This metric was a subset of overall national health care spending and was not comparable to other metrics of national spending because it applied only to the ESI population.

#### A Note on Premiums

HCCI does not report on premiums or their determinants. For more information on health insurance premiums and the multiple factors that affect them (including health care expenditures; beneficiary, group and market characteristics; benefit design; and the regulatory environment) see Congressional Research Service, *Private Health Insurance Premiums and Rate Reviews, 2011*; American Academy of Actuaries, *Critical Issues in Health Reform: Premium Setting in the Individual Market, 2010*; and Congressional Budget Office, *Key Issues in Analyzing Major Health Insurance Proposals, Chapter 3, Factors Affecting Insurance Premiums, 2008.*

#### Changes in 2011

Several changes were made to HCCI’s data, methods, and reporting for *Health Care Cost and Utilization Report: 2011*. HCCI added 7 million covered individuals per year to the analysis. HCCI performed completion on the 2010 and 2011 data. HCCI also reported on several sub-categories not addressed in the 2010 report, including inpatient metrics without skilled nursing facilities. HCCI also expanded analysis of prescription drugs.

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1. For details, please see http://www.healthcostinstitute.org/methodology.
About the Health Care Cost Institute

In late 2011, HCCI was launched as an independent, nonprofit entity committed to creating the nation’s most comprehensive source of information on health care costs and utilization.

HCCI’s mission is to promote independent research and analysis on the causes of rising US health spending; to provide policy makers, consumers, and researchers with better, more transparent information on what is driving health care costs; and to help ensure that the nation is able to get greater value from its health spending.

HCCI provides researchers with the most comprehensive information available on health care spending and utilization trends. HCCI is beginning to develop an exclusive centralized database of commercial health care data that will be available to accredited researchers whose proposals meet HCCI’s data and scientific usage standards. Researchers who meet appropriate qualifications can apply for access to the data to perform specific research projects.

Currently, two independent research teams are working with HCCI data. HCCI licensed data to:

❖ The Institute of Medicine in support of the IOM’s Committee on Geographic Variation in Health Care Spending and Promotion of High-Value Care which is charged by the Secretary of the Department of Health and Human Services with evaluating factors that influence geographic variation in health care spending and utilization of services.

❖ Red Quill Consulting in support of the Society of Actuaries' Study of Health Care Costs by Age that will examine the impacts of aging on health care costs and the drivers of cost changes by age, gender, and service category.

To download our reports and read the latest news on our blog HCCI Pulse, visit www.healthcostinstitute.org

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