

# Differences in Health Care Spending of Children and Adults

## 2007–2010

This research brief highlights findings from the Health Care Cost Institute's (HCCI) *Children's Health Care Spending Report: 2007–2010*.<sup>1</sup> The report tracks changes in expenditure and utilization of health care services for children age 18 and younger, who were covered by employer-sponsored private health insurance (ESI). Our recently released *Health Care Cost and Utilization Report: 2010* found that the health expenditure for children grew faster in 2010 than in any other age group.<sup>2</sup> This brief assesses the differences between the health care spending on children and adults focusing on 2007 and 2010.

Data used in *Children's Health Care Spending Report: 2007–2010* and *Health Care Cost and Utilization Report: 2010* was collected from the health care claims of beneficiaries who were covered by employer-sponsored private health insurance and were younger than 65 years old. The report does not include information about uninsured individuals, beneficiaries covered by individual health insurance, or individuals insured through a public program. As a result, the levels and changes in spending, prices, utilization, and mix of services are generalizable only for beneficiaries younger than 65 and covered under ESI.

### Coverage and Changes in Coverage

ESI is the most common form of health insurance in the United States with roughly 156.5 million Americans having ESI. For 2010, HCCI estimated the privately insured population of children was 41.4 million and the privately insured population of adults was 115.1 million (Table 1).<sup>3</sup> Of these beneficiaries, 26.5 percent were age 18 and younger in 2010 and 73.6 percent were adults age 19-64. The three-year ESI population trend was a decline of 5.7 percent for children, and 6.0 percent for adults.

### Spending and Changes in Spending

Total estimated health care spending on health care by all beneficiaries under age 65 with ESI was \$666.1 billion dollars in 2010 (Table 2). For that year, spending on children was \$87.9 billion and spending on adults totaled \$578.2 billion. About 13.2 percent of total 2010 ESI health expenditure was spent on children, a 0.4 percent increase since 2007. The 2010 total expenditure for adults with ESI was 86.8 percent of total dollars spent on ESI beneficiaries. Since 2007, children's spending rose 11.9 percent while spending on adults rose 8.5 percent.

## KEY FINDINGS

- ◆ Total spending on children rose faster than total spending on adults (2007–2010).
- ◆ The number of children and adults covered by ESI declined by 5.7 percent and 6.0 percent, respectively (2007–2010).
- ◆ Children comprised more than 26 percent of the privately insured, but spending on children was only 13 percent of total health care expenditure in 2010.
- ◆ Per capita, spending on children (\$2,123) was lower than spending on the total population (\$4,255) in 2010.
- ◆ The share of out-of-pocket expenditure was higher for children's health care services than for the total population (2007–2010).

Per capita spending on children was lower than per capita spending for the total population (Table 3).<sup>4</sup> The per capita expenditure for beneficiaries under age 65 with ESI was \$4,255 in 2010. In that year, the per capita expenditure for all children was \$2,123 while the per capita expenditure for adults ranged from \$3,362 to \$8,327. Per capita spending on all children increased 18.6 percent between 2007 and 2010, which was considerably

higher than total spending increases (15.8%).

In each census region, per capita spending on children was consistently lower than total per capita expenditure (Figure 2). Unlike the total population for which the South had the highest levels of per capita spending, children in the Northeast had the highest per capita spending between 2007 and 2010. For both children and the total population, per capita spending levels were lowest in the West.

Per capita spending on children age 0-3 ("infants and toddlers") was the highest level for any children's age group (\$3,896).<sup>5</sup> Spending on toddlers and infants was \$534 higher than the per capita spending on adults age 19-44 (\$3,362). Children age 4-8 years had the lowest per capita spending at \$1,451 in 2010.

Growth in the per capita expenditure of children age 4-18 years outpaced growth in the adult under 65 per capita spending (Figure 1). Of any age group, the fastest growing per capita spending was on children 14-18 ("teenagers") at 22.3 percent. Of children, infants and toddlers had the slowest growth (13.7%). Per capita spending on adults 55-64 increased 13.6 percent between 2007 and 2010—the slowest growth of any adult age group.

### Spending by Major Service Category

HCCI analyzed four major categories of health care spending: inpatient facility costs, outpatient facility costs, professional procedures, and prescription drugs. For all major service categories, the level of spending on children was less than that of the total insured population in 2010 (Figure 3). However, between 2007 and 2010 for

all major service categories, growth in children's spending was considerably higher than growth seen in the total population (Figure 4). Per capita spending on professional procedures for children rose 16.5 percent, compared to a 12.0 percent increase for the total population. Growth in spending on prescription drugs for children outpaced growth in total prescription drug spending by 5.0 percent (19.2% versus 14.2%). For outpatient facility services, the spending increase on children was 2.2 percentage points higher than that of total spending (28.4% and 26.2%, respectively). Spending on children's inpatient admissions grew 12.7 percent, 0.9 percentage points higher than the total population.

The highest share of health care dollars for both children and the total population were spent on professional procedures (40.3% and 34.6%, respectively), and outpatient facility services (23.9% and 26.5%, respectively). Compared to total per capita spending, a greater share of health care dollars spent on children went to professional procedures and inpatient admissions (Figure 5).

For the all beneficiaries under 65 with ESI in 2010, the share of per capita spending on inpatient facility services was 21.0 percent, 26.5 percent for outpatient facility services, 34.6 percent for professional procedures, and 18.0 percent for prescription drugs. In 2010, the share of children's health care spending on inpatient services was 1.2 percentage points higher and spending on professional procedures was 5.7 percentage points higher. For the total population compared to children in that same year, spending was 2.6 percentage points higher for outpatient facility services, and 4.4 percentage points higher for prescription drugs.

### Out-of-Pocket Spending

The payer and the beneficiary generally share payments for services. Deductibles, coinsurance, and copays are the mechanisms for determining a beneficiary's share for any particular service. While HCCI does not have specific plan information, HCCI was able to separate amounts paid by payers and beneficiaries who used health care services. Out-of-pocket spending was the dollars spent by beneficiaries on their health care claims.

Out-of-pocket per capita spending on children experienced slower growth and levels than out-of-pocket spending on the total population (Table 4). However, beneficiaries paid a higher share of children's health care costs compared to the total population's costs. Out-of-pocket per capita spending for beneficiaries under age 65 with ESI was \$689 in 2010; out-of-pocket per capita spending on children in the same year was \$371. Out-of-pocket per capita spending grew 6.8 percent between 2009 and 2010 for children, slightly less than the 7.1 percent growth in out-of-pocket spending for all beneficiaries. However, the share of spending that was out-of-pocket for children was higher than the total population share of spending out-of-pocket in 2010 (17.5% and 16.2%, respectively).

### Conclusions

Although the levels of health care spending on children in aggregate and per capita were somewhat lower than the levels of spending on the adult population, spending rose faster for most children with ESI between 2007 and 2010. The share of health care spending on children rose during that period, while the share of total spending on adults declined. At the same time, per

capita spending rose faster for children than adults.

The distribution of children's spending was different from the total population, suggesting that more of the health care dollars spent on children were going to inpatient facility services and procedures. Beneficiaries paid a greater share of health care costs out of pocket for children than for the total population.

the insured population of the United States. Description of the HCCI methods for calculating weights can be found at <http://www.healthcostinstitute.org/methodology>. Use of ACS led HCCI to have estimates of the under 18 population with ESI in 2010 that are slightly different from those reported by the Kaiser Family Foundation, which were based on the Current Population Survey. KFF estimates the population of children with ESI at 39.6 million in 2009—2010. See The Kaiser Family Foundation, [statehealthfacts.org](http://statehealthfacts.org). Data Source: Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau's March 2010 and 2011 Current Population Survey (CPS: Annual Social and Economic Supplements).[Internet]. 2012 (cited 13 June 2012). Available from: <http://www.statehealthfacts.org/profileind.jsp?ind=127&cat=3&rqn=1>.

individuals and their dependents who were younger than 65 and covered by group health insurance through an employer in the year of analysis. Total population numbers are presented in lieu of adult-only numbers due the reporting of limited adult-only data in the *Health Care Cost and Utilization Report: 2010*. Usually, when total population metrics are greater than the metrics for children, this would suggest lower utilization/intensity/spending/price/growth for children's health care services than the adult population. Total population metrics that are less than the metrics for children would suggest higher utilization/intensity/spending/price/growth for children's health care services than the adult population.

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1. Health Care Cost Institute. Children's Health Care Spending Report: 2007—2010. [Internet] Washington (DC): HCCI 2012.
2. Health Care Cost Institute. Health Care Costs and Utilization Report: 2010. [Internet] Washington (DC): HCCI 2012.
3. HCCI estimates are based on a weighting scheme using three-year American Community Survey (ACS) estimations of

4. The terms "total" or "overall" refer to statistics that include both children and adults. The total population consisted of

5. Costs (prices and utilization) for normal childbirth are generally attributed to the mother.

**Table 1: Estimated Coverage of Total, Children, and Adult Populations: 2007-2010 (millions)**

|                                     | 2007  | 2008  | 2009  | 2010  | Percentage Change 2007-2010 |
|-------------------------------------|-------|-------|-------|-------|-----------------------------|
| All Beneficiaries                   | 166.3 | 164.3 | 157.8 | 156.5 | -5.9%                       |
| Children                            | 43.9  | 43.3  | 41.6  | 41.4  | -5.7%                       |
| Adults                              | 122.4 | 121   | 116.2 | 115.1 | -6.0%                       |
| % of Population Ages 18 and Younger | 26.4% | 26.4% | 26.4% | 26.5% | -                           |
| % of Population Ages 19-64          | 73.6% | 73.6% | 73.6% | 73.5% | -                           |

**Table 2: Estimated Total Expenditure for Total, Children, and Adult Populations: 2007-2010 (\$Billions)**

|                                      | 2007     | 2008     | 2009     | 2010     | Percentage Change 2007-2010 |
|--------------------------------------|----------|----------|----------|----------|-----------------------------|
| All Beneficiaries                    | \$ 611.4 | \$ 639.9 | \$ 650.0 | \$ 666.1 | 8.9%                        |
| Children                             | \$ 78.5  | \$ 81.9  | \$ 84.5  | \$ 87.9  | 11.9%                       |
| Adults                               | \$ 532.9 | \$ 558.0 | \$ 565.5 | \$ 578.2 | 8.5%                        |
| % of Spending on Ages 18 and Younger | 12.8%    | 12.8%    | 13.0%    | 13.2%    | -                           |
| % of Spending on Ages 19-64          | 87.2%    | 87.2%    | 87.0%    | 86.8%    | -                           |

**Table 3: Per Capita Spending by Age Group: 2007-2010**

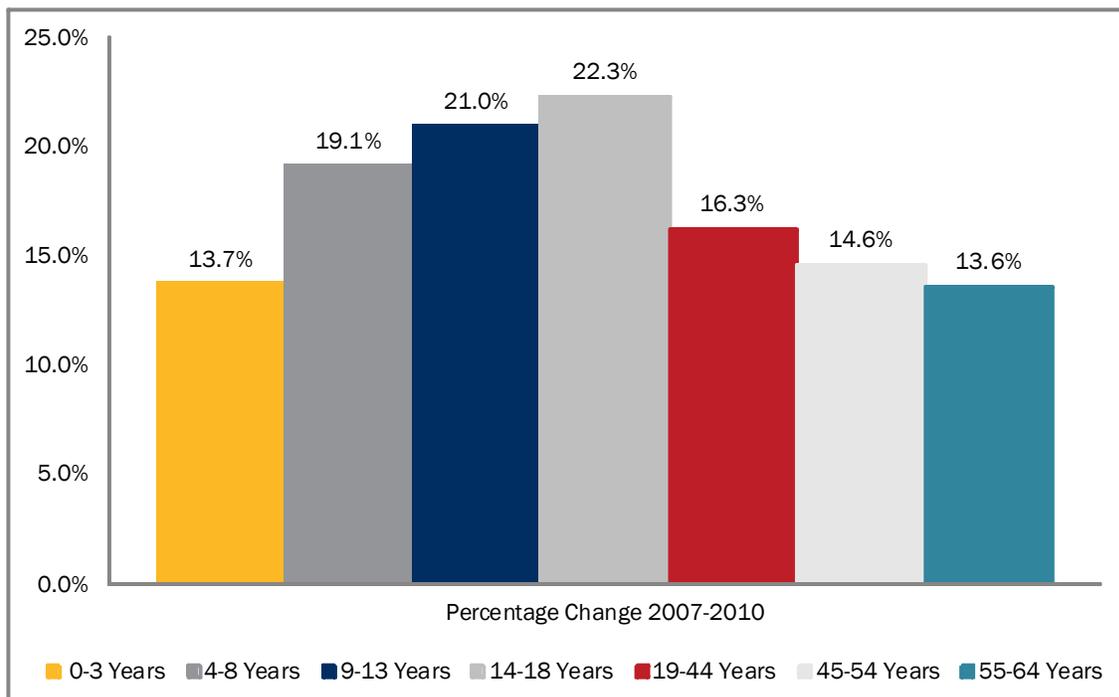
|              | 2007     | 2008     | 2009     | 2010     | Percentage Change 2007-2010 |
|--------------|----------|----------|----------|----------|-----------------------------|
| All Ages     | \$ 3,676 | \$ 3,895 | \$ 4,120 | \$ 4,255 | 15.8%                       |
| 18 and Under | \$ 1,790 | \$ 1,893 | \$ 2,031 | \$ 2,123 | 18.6%                       |
| 0-3 Years    | \$ 3,426 | \$ 3,520 | \$ 3,670 | \$ 3,896 | 13.7%                       |
| 4-8 Years    | \$ 1,219 | \$ 1,297 | \$ 1,419 | \$ 1,451 | 19.1%                       |
| 9-13 Years   | \$ 1,245 | \$ 1,342 | \$ 1,457 | \$ 1,506 | 21.0%                       |
| 14-18 Years  | \$ 1,858 | \$ 1,998 | \$ 2,160 | \$ 2,272 | 22.3%                       |
| 19-44 Years  | \$ 2,892 | \$ 3,070 | \$ 3,285 | \$ 3,362 | 16.3%                       |
| 45-54 Years  | \$ 4,855 | \$ 5,156 | \$ 5,441 | \$ 5,563 | 14.6%                       |
| 55-64 Years  | \$ 7,331 | \$ 7,731 | \$ 8,080 | \$ 8,327 | 13.6%                       |

**Table 4: Out-of-Pocket Expenditure: 2009-2010**

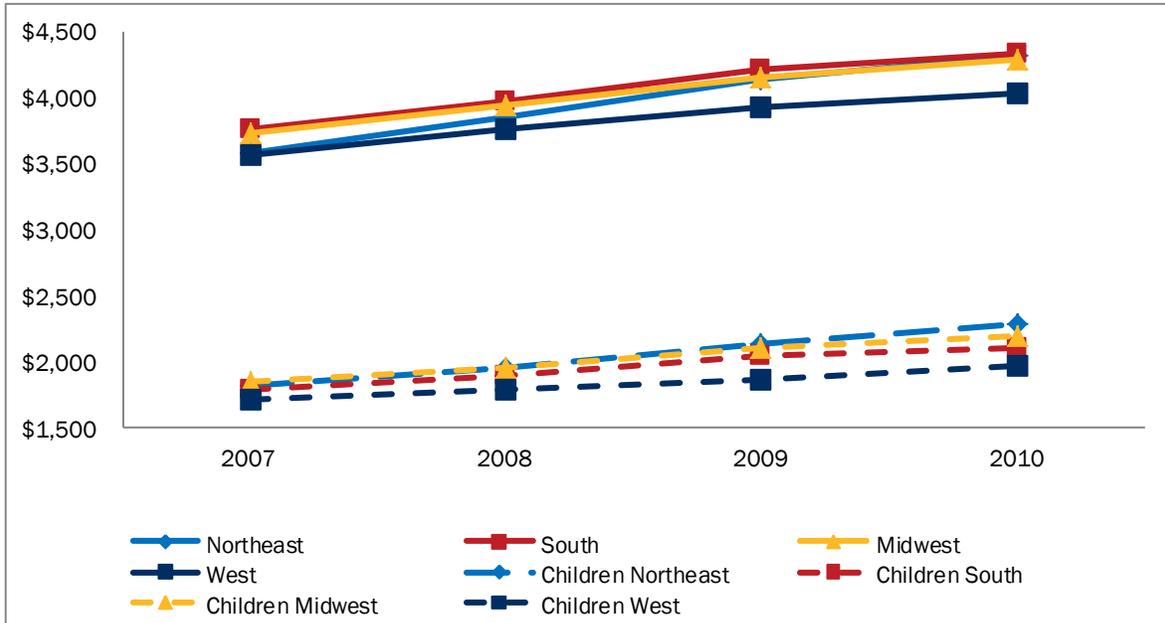
|  | 2009   | 2010   | Percentage Change<br>2009 - 2010 |
|--|--------|--------|----------------------------------|
| <b>Out-of-Pocket Per Capita</b>                      |        |        |                                  |
| All Service Categories – Total                       | \$ 644 | \$ 689 | 7.1%                             |
| All Categories - Children                            | \$ 347 | \$ 371 | 6.8%                             |
| <b>Out-of-Pocket as Percent of Total Expenditure</b> |        |        |                                  |
| All Service Categories – Total                       | 15.6%  | 16.2%  | 3.7%                             |
| All Categories - Children                            | 17.1%  | 17.5%  | 2.2%                             |

Notes: All per capita expenditures weighted to reflect the national, younger than 65 ESI population. All figures rounded to the nearest integer, except for percentage changes and estimated national aggregates. Please refer to methodology and glossary for an explanation of terms at [www.healthcostinstitute.org/report](http://www.healthcostinstitute.org/report).

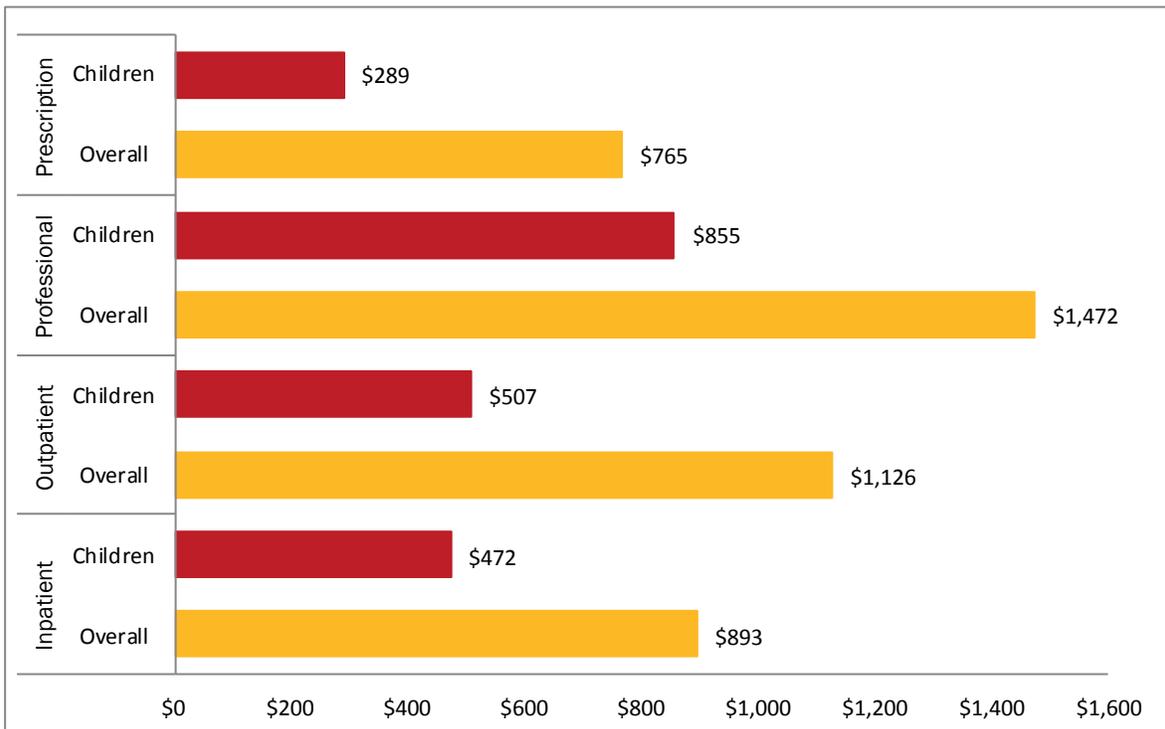
**Figure 1: Growth in Per Capita Spending by Age Group: 2007-2010**



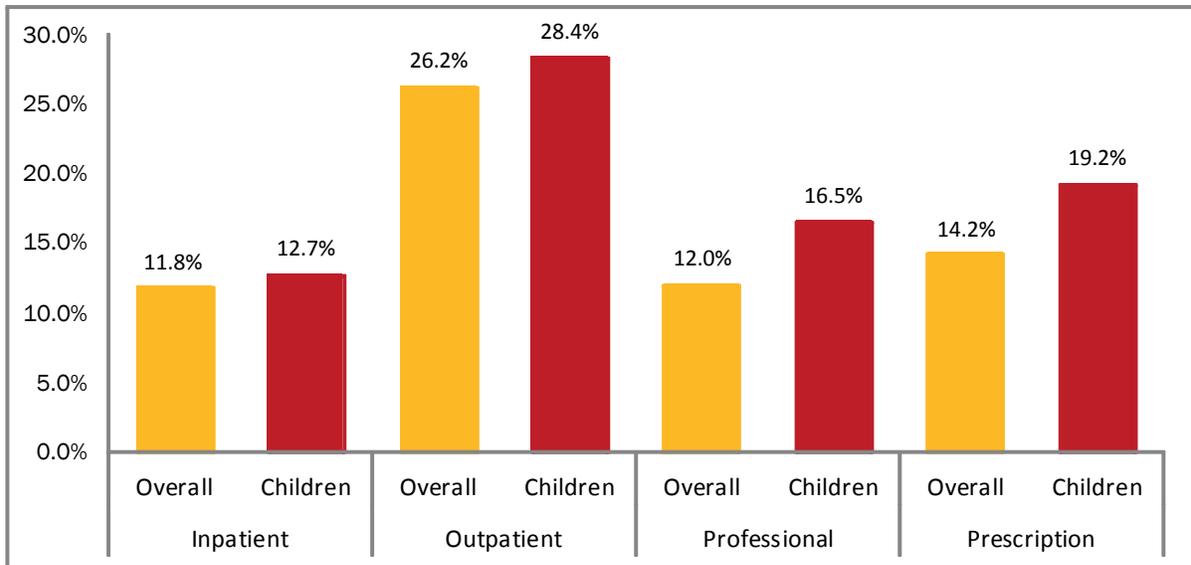
**Figure 2: Per Capita Spending by Region, Children and Total: 2007-2010**



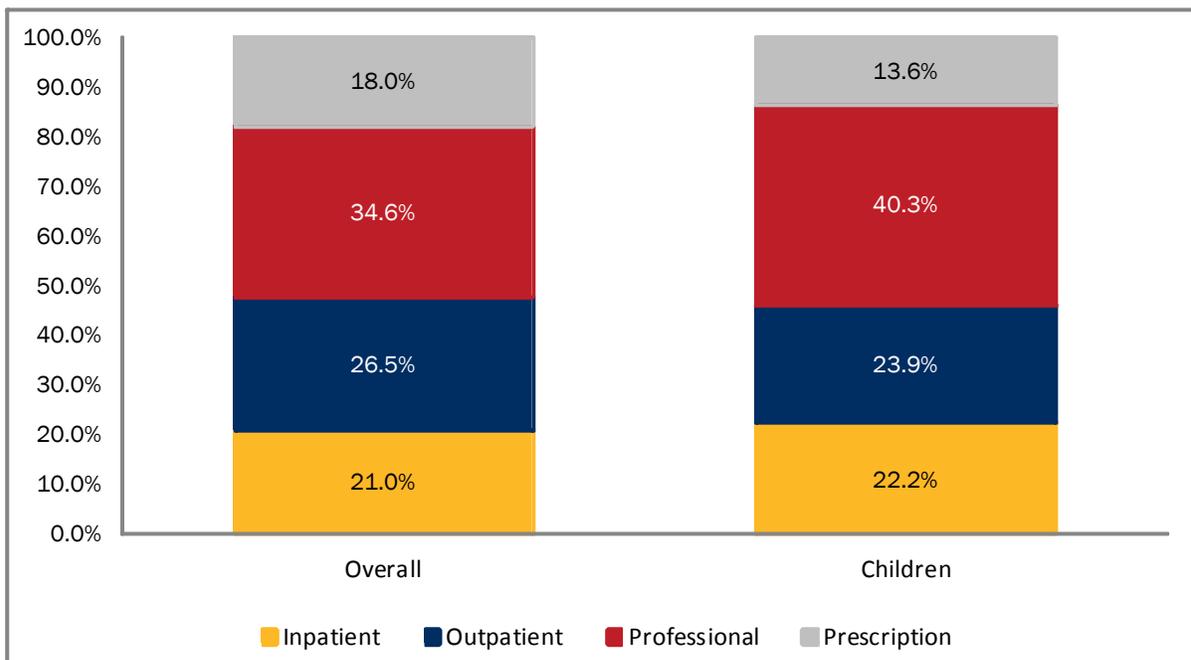
**Figure 3: Per Capita Expenditure by Major Service Category: 2010**



**Figure 4: Percent Change in Per Capita Expenditure by Major Service Category: 2007-2010**



**Figure 5: Percentage of Health Care Spending by Major Service Category: 2010**



## Data and Methods

HCCI has access to roughly 3 billion health insurance claims for more than 33 million individuals covered by ESI from 2007 to 2010 (including both fully insured and self-funded benefit programs). This data was 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 from the data contributors de-identified, Health Insurance Portability and Accountability Act (HIPAA) compliant information that included the allowed cost, or actual prices paid to providers for services. The numbers in this report reflect the actual expenditure on health care by payers and beneficiaries who filed claims with their group ESI.

HCCI provides full methodology, supplemental data dictionaries, and glossaries at [www.healthcostinstitute.org/methodology](http://www.healthcostinstitute.org/methodology).

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