

# Children's Health Spending: 2010–2013

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## Executive Summary

In 2013, about half of children (ages 18 and younger) in the United States were covered by employer-sponsored health insurance (ESI) at some point during the year.<sup>1</sup> Their numbers underscore the importance of understanding trends in health care spending for these children and their use of medical services. This report, *Children's Health Spending: 2010-2013*, is the third in a series of annual reports from the Health Care Cost Institute (HCCI) on trends in health care spending, utilization, and the drivers of health care costs for children.<sup>2</sup>

For this study, HCCI analyzed a population of an average of 10.2 million ESI children per year between 2010 and 2013 (see "About the data and methodology").<sup>3</sup> The analytic dataset was weighted to be representative of the national population of children covered by ESI. As in previous studies, HCCI examined the per capita health care spending and the drivers of health care costs for this population of children, including a detailed analysis of changes in the use of health care services in 2013.

### Health care spending for children in 2013

HCCI found that per capita health care spending for children (ages 0-18) covered by ESI continued to increase every year of the study period, 2010 to 2013. In

2013, \$2,574 was spent per child, and spending rose by \$113 per child (4.6%) over the previous year (Table 1). Spending for children generally grew at similar rates each year during the study period (Figure 1). Per capita spending for children increased by an average annual 5.7%, whereas the average annual increase was 3.9% for the national ESI population between the ages of 0 and 64.<sup>4</sup>

Between 2010 and 2013, per capita spending for boys continued to be higher than spending for girls. In 2013, per capita spending was \$2,716 for boys as compared to \$2,426 for girls (Table 1). Spending grew by similar rates for both genders in these years; rising 4.6% for both in 2013.

### Increased spending in 2013 was driven by increased prices

To understand the drivers of children's health care spending, HCCI examined prices and utilization for three categories of medical services (inpatient admissions, outpatient services, and professional procedures) and prescriptions. HCCI also examined subcategories of medical services (acute inpatient admissions, outpatient visits, and outpatient other services) and of prescriptions (branded and generic prescriptions). See "Service categories analyzed in this report."

For 2013, per capita spending increased for each of the medical

## 2013 BY THE NUMBERS

**\$2,574**

Per capita spending for children (ages 0-18).

**4.6%**

Increase in spending for children (ages 0-18).

**\$4,813**

Per capita spending for babies (ages 0-3).

**\$1,703**

Per capita spending for younger children (ages 4-8).

**\$1,854**

Per capita spending for pre-teens (ages 9-13).

**\$2,746**

Per capita spending for teenagers (ages 14-18).

service categories and for generic prescriptions. Spending grew at a faster rate for inpatient admissions (5.8%) and professional procedures (4.1%) as compared to spending growth the previous year (2.0% and 3.9%, respectively; Table 1). However, at the same time, spending growth slowed for all other service categories. Per capita spending on branded prescriptions was lower in 2013

than in 2012, as spending declined by 0.8% between these years. This was the only service category in which a decline in spending was observed for 2013.

Slower spending growth for 2012 and 2013 as compared to the previous year for outpatient services (both outpatient visits and outpatient other services) and the decline in spending on branded prescriptions were due largely to declining use of these service categories. The number of outpatient visits per 1,000 children declined by 3.2% (or 7 visits per 1,000); use of outpatient other services declined slightly by 0.3% (or 3 services per 1,000 children); and the number of filled days of branded prescriptions fell by 18.6% (or 3,612 filled days per 1,000 children; Table 2).

At the same time, use of professional procedures and generic prescriptions increased slightly. The largest increase in use

was observed for generic prescriptions, which rose 4.6%, or 2,531 filled days per 1,000 children. The number of inpatient admissions per 1,000 children was unchanged at 40 admits per 1,000.

The average price per service increased for every service category between 2012 and 2013. The largest dollar increase in an average price per service was in inpatient admissions; the average price per admit increased by \$744. This was the third consecutive year that the average price per service increased for each medical service category and for branded prescriptions. For generic prescriptions, the average price per filled day declined slightly between 2010 and 2011, before rising slightly in the two subsequent years.

## Spending and use of services varied by age group

As described in previous HCCI reports, variation continued in the spending trends by age group. HCCI analyzed children's health care spending trends by age group: babies (ages 0–3), younger children (ages 4–8), pre-teens (ages 9–13), and teenagers (14–18). In 2013, in all the children's age groups, the highest per capita spending (\$4,813) and the fastest spending growth (6.0%) were for babies (Table 3). In contrast, less was spent per younger child (\$1,703) than for any other age group, and spending for younger children also grew at the slowest rate (2.6%; Table 4). Per capita spending for pre-teens and teenagers rose by 4.2% to \$1,854 and \$2,746, respectively, in 2013 (Table 5 and Table 6).

### SERVICE CATEGORIES ANALYZED IN THIS REPORT

In this report, HCCI analyzed medical and prescription claims for children (ages 0–18) covered by ESI. As in prior reports, HCCI grouped these claims into distinct service categories for analytic purposes (please see the *2013 HCCI Analytic Methodology*).<sup>3</sup>

#### Medical service, subservice, and detailed service categories in this report

Three medical service categories were identified: inpatient facility, outpatient facility, and professional procedures. HCCI also reported on three medical subservice categories: acute inpatient admissions, which included labor and delivery (LD), medical, mental health and substance use (MH/SU), newborn, and

surgery admissions; outpatient visits; and outpatient other services. These are further classified into "detailed service" categories.<sup>3</sup>

#### Prescription service, subservice, detailed service categories, and therapeutic subclasses in this report

The prescription service category was further classified as branded and generic subservice categories. These are further classified into "detailed service" categories and further into therapeutic subclasses.<sup>3</sup> In this report, HCCI also examined a respiratory tract agent therapeutic subclass, as defined by the American Hospital Formulary Service (AHFS).<sup>3</sup> HCCI reported on the use of leukotriene modifiers (AHFS class 48:10:24), a type of respiratory agent commonly used to manage the symptoms of allergies and mild-to-severe asthma.

# Health Care Spending for Children (ages 0–18)

This section presents trends in health care spending and utilization for the national population of children (ages 0-18) covered by ESI. The sections that follow present spending and utilization trends by age group.

HCCI found that spending per child rose each year between 2010 and 2013 (Figure 1). Spending grew at a relatively stable rate during the study period with the exception of 2011, in which year spending grew more rapidly than in other years. HCCI also found that spending varied by gender and by age group. In 2013, spending on children's health care increased despite decreased use of some medical services, such as ER visits and branded prescriptions. Spending

increases were largely due to increases in price.

## Per capita spending trends

In 2013, per capita health care spending for children rose by 4.6% to \$2,574, an increase of \$113 dollars over the previous year (Table 1 and Figure 1). During the four-year study period (2010 to 2013), growth in per capita spending for children was relatively stable, growing between 4.5% and 4.7%, except for the 7.9% growth observed between 2010 and 2011 (a \$173 increase).

HCCI found that health care spending for children varied by gender. In every year in the study period, spending per capita for boys was higher than spending for

## 2013 KEY FINDINGS

**\$2,574**

Per capita spending for children (ages 0–18).

**4.6%**

Increase in spending for children.

**\$113**

Dollar increase in per capita spending for children.

**\$2,716**

Per capita spending for boys.

**\$2,426**

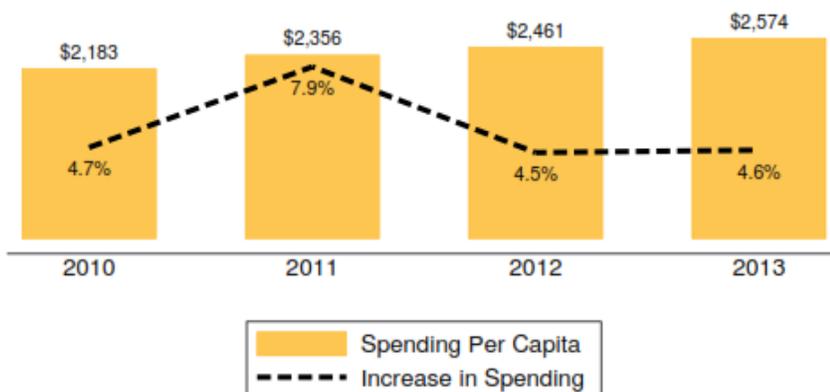
Per capita spending for girls.

**-0.8%**

Decline in per capita spending on branded prescriptions.

girls. In 2013, spending was \$2,716 for boys as compared with \$2,426 for girls, whereas spending for both grew by 4.6% (Table 1). Despite spending growth at the same rate, the gap in spending between boys and girls widened to \$290 in 2013. Teenagers were the only age group to exhibit higher spending for girls (\$2,834 in 2013) than spending for

**Figure 1**  
**Per Capita Spending for Children (ages 0-18): 2010-2013**

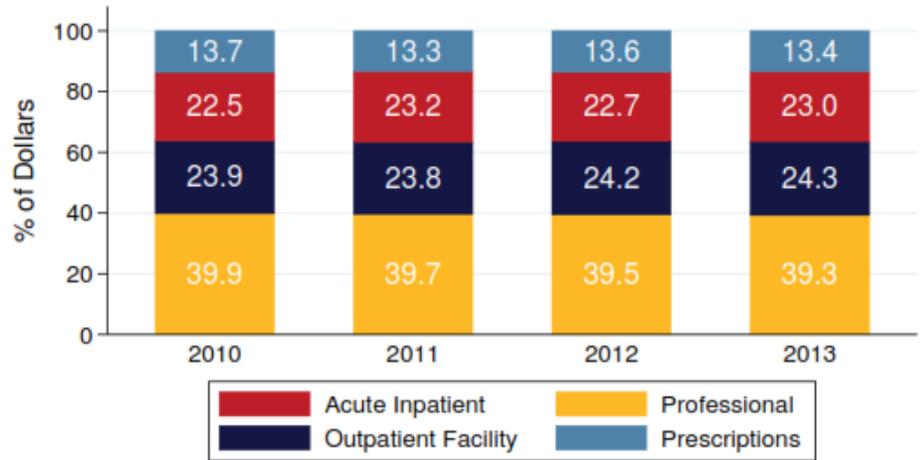


Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population. 2012 and 2013 data adjusted using actuarial completion.

boys (\$2,661; Tables 3–6).

Per capita spending on medical service categories (inpatient admissions, outpatient services, and professional procedures) accounted for 86.6% of per capita health care spending for children in 2013 (Table 1). Spending on prescriptions comprised the remaining 13.4%. Between 2012 and 2013, per capita spending increased by \$113; of this increase, \$102 was spent on medical services (Figure 2). Spending per capita on generic prescriptions increased by \$10, whereas spending on branded prescriptions declined by \$1.

**Figure 2**  
Share of Expenditures Per Capita for Children (ages 0-18), by Service Category: 2010-2013



Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than 65 ESI population. Data from 2012 and 2013 adjusted using actuarial completion.

**Drivers of spending growth**

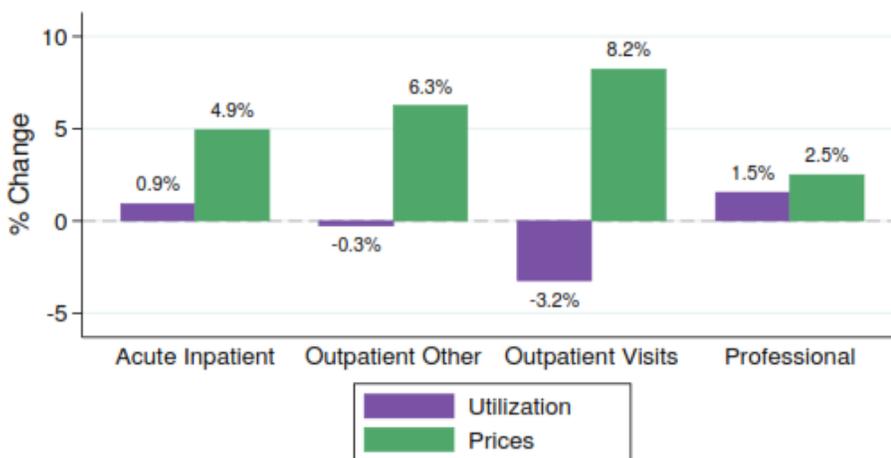


Per capita spending on inpatient facility services was \$593 in 2013, 23% of the total per capita spending for children (Table 1). The majority of inpatient expenditures for children were

attributable to acute inpatient admissions (medical, surgical, MH/SU, newborn, and LD hospital stays) rather than from longer-term care (skilled nursing facility and hospice) stays; therefore, we focus on acute inpatient admissions in this report.<sup>3</sup>

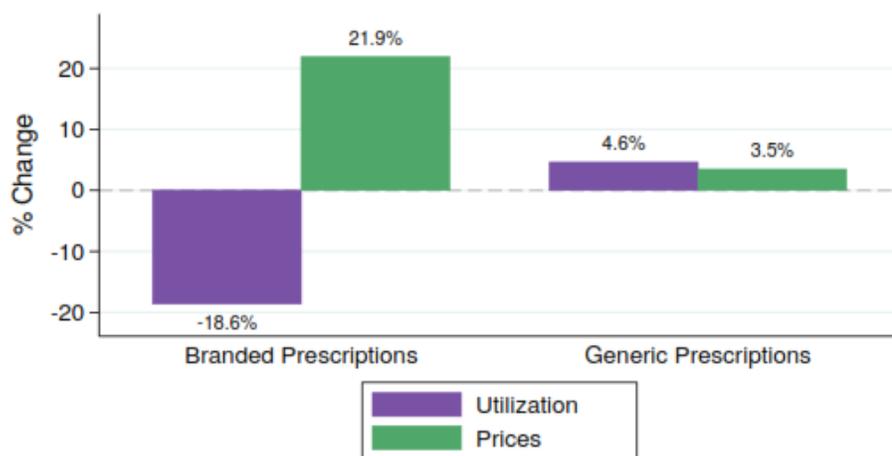
In 2013, acute inpatient per capita spending was \$591, an increase of \$33 from the previous year (Table 1; Figure 2). This 5.9% increase in spending was larger than the increase in 2012 (2.0% or \$11 per child), driven largely by an increase in the average price per admission (Table 2 and Figure 3). Between 2012 and 2013, the average price of an acute inpatient admission rose by nearly \$700 and grew more rapidly in 2013 (4.9%) than in 2012 (3.9%). Use of acute inpatient admission stayed steady at 40 admissions per 1,000 children in 2013. This was notable, as the number of admissions for the entire ESI population (ages 0–64) declined in that year.<sup>4</sup>

**Figure 3**  
Percentage Change in Medical Service Category Use and Prices for Children (ages 0-18): 2013



Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population. 2012 and 2013 data adjusted using actuarial completion.

**Figure 4**  
**Percentage Change in Prescription Category Use and Prices**  
**for Children (ages 0-18): 2013**



Source: HCCI, 2015.  
 Notes: All data weighted to reflect the national, younger than age 65 ESI population.  
 2012 and 2013 data adjusted using actuarial completion.



Per capita spending on outpatient facility services was \$626 in 2013, or about 24% of total spending for children (Table 1 and Figure 2). Spending on this service category increased by 5.2% between 2012 and 2013, a \$31 increase (Figure 2). Outpatient visits per capita spending rose \$18 to \$401, an increase somewhat smaller than that in the previous year (\$23). Spending per capita on outpatient other services was \$225 in 2013. Spending on outpatient other services grew \$13 in both 2012 and 2013.

The growth in outpatient spending was slower in 2013 (5.2%) than in the previous year (6.3%). The increase in spending on outpatient services was largely attributable to an increase in the average prices paid for outpatient other services and outpatient visits, which rose by 6.3% and 8.2%, respectively (Table

2 and Figure 3). In contrast, between 2012 and 2013, the use of these services—both outpatient other services and visits—by children declined. The decline was largely due to reduced emergency room (ER) use, which fell for children of all age groups and genders (see “Emergency room visits declined in 2013” for more details).



Between 2012 and 2013, spending on professional procedures rose by \$39, or 4.1%, to \$1,010 per capita (Table 1). Expenditures in this category accounted for the largest proportion (39%) of total health care spending for children in 2013 (Figure 2). Both the average price of a professional procedure and use of these professional services per 1,000 children rose in that year (2.5% and 1.5%, respectively). One notable trend was the increase in

preventive care visits by children to primary care providers (PCPs), which includes some visits mandated by the Patient Protection and Affordable Care Act (ACA) to be covered with no-cost sharing.<sup>6</sup> The number of preventive visits to PCPs per 1,000 children rose for all age groups and at rates in 2013 faster than those observed in 2011 or 2012 (Appendix Tables 3, 7, 11, and 15; see “Preventive visits for children continued to rise”).



Spending on prescriptions (\$345 per capita) accounted for 13.4% of total health care spending for children in 2013 (Table 1). Generic prescription spending increased \$10 to \$139 per child. The 8.2% growth rate was slower than the previous year’s 13.6%. In contrast, per capita spending on branded prescriptions in 2013 fell by 0.8% (a \$1 decline) to \$205.

The average price per filled day rose on both branded and generic prescriptions between 2012 and 2013 (Table 2 and Figure 4). For generic prescriptions, the average price per filled day rose by 3.5%; however, the observed changes were quite small, and the average price per filled day of generic prescriptions remained between \$2 and \$3 in each year studied. In contrast, the average price per filled day of branded prescriptions increased by about \$2 in every year of the study period, rising from \$7 in 2010 to \$13 in 2013.

Trends in the use of branded and generic prescriptions continued to diverge in 2013 (Table 2 and Figure 4). Filled days of generic prescriptions rose 4.6% in 2013 (an increase of 2.5 filled days per child) as compared to 8.8% in 2012 (an increase of 4.4 filled days per child). Unlike use of generic prescriptions, filled days of branded prescriptions dropped 18.6% (a decline of 3.6 filled days per child). In 2013, the net effect of slower growth in the use of generics and the continued decline in the use of branded prescriptions resulted in an overall decline (-1.3%) in prescription filled days per child (nearly 1 filled day per child). This is the first year studied in which HCCI observed a net

decline in prescription use by children (see "CNS agent utilization growth slowed in 2013").

**Summary**

Per capita health care spending for children rose by 4.6% to \$2,574 in 2013 (Table 1). This rate of spending growth was similar to the rates observed in 2010 and 2012. However, the underlying drivers of spending growth in 2013 were somewhat different from those in prior years.

Per capita spending on all medical service categories and generic prescriptions rose in 2013. Unlike prior years, utilization of many service categories declined, whereas the average price per

service for these categories continued to increase (Table 2). Slower growth in the use of generic prescriptions, combined with a decline in filled days of branded prescriptions, led to fewer prescription filled days in 2013. At the same time, use of professional procedures increased, owing in part to an increase in the number of preventive visits to PCPs by all age groups of children (Appendix Tables 3, 7, 11, and 15; see "Preventive visits for children continued to rise").

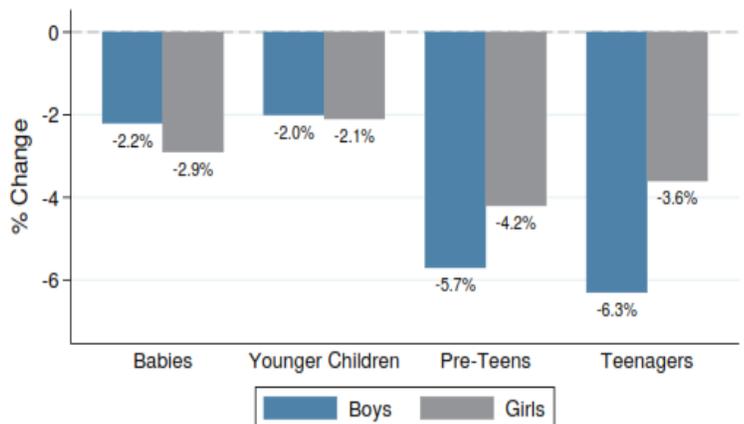
**EMERGENCY ROOM VISITS DECLINED IN 2013**

Between 2012 and 2013, outpatient visits for children declined by 3.2%, after two years of growth (Table 2). This category of care includes observation, ER visits, and outpatient surgery visits. In 2013, the use of ER visits declined for all age-gender groups of children (Appendix Tables 3, 7, 11, 15, and Figure 5). The decline in ER visits was the primary driver in the overall decline in outpatient visits. The largest declines were observed for teenage boys (a decline of 11 visits per 1,000 teen boys) and pre-teen boys (a decline of 8 visits per 1,000 pre-teen boys).

The reasons behind the 2013 decline in children's ER use were not clear from the analysis of these data. The declines observed for children somewhat mirrored the trends observed for the entire ESI population in 2013 (a decline of 3 visits per 1,000 insureds), suggesting that the decline in ER use may be due to factors additional to children's health status.<sup>4</sup> Those factors could include cost sharing,

the availability of community clinics, extended primary/intermediate care hours, or the use of wellness programs to help patient decision making. HCCI did not investigate whether any of these played a role in lower ER admission rates observed in this report.

**Figure 5**  
Decline in Emergency Room Visits for Children, by Age Group and Gender: 2013



Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population. 2012 and 2013 data adjusted using actuarial completion.

## Table 1: Per Capita Health Care Spending for Children (Ages 0–18): 2010–2013

	2010	2011	2012	2013	Percentage change 2010/2011	Percentage change 2011/2012	Percentage change 2012/2013
<b>Per Capita, Children</b>	\$2,183	\$2,356	\$2,461	\$2,574	7.9%	4.5%	4.6%
<b>Age Group</b>							
Babies (Ages 0-3)	\$4,041	\$4,374	\$4,542	\$4,813	8.2%	3.8%	6.0%
Younger Children (Ages 4-8)	\$1,489	\$1,610	\$1,659	\$1,703	8.1%	3.1%	2.6%
Pre-Teens (Ages 9-13)	\$1,542	\$1,698	\$1,779	\$1,854	10.1%	4.8%	4.2%
Teenagers (Ages 14-18)	\$2,329	\$2,488	\$2,635	\$2,746	6.8%	5.9%	4.2%
<b>Gender</b>							
Boys	\$2,297	\$2,486	\$2,597	\$2,716	8.2%	4.5%	4.6%
Girls	\$2,063	\$2,220	\$2,319	\$2,426	7.6%	4.5%	4.6%
<b>Service Category</b>							
Inpatient	\$496	\$549	\$561	\$593	10.7%	2.0%	5.8%
Acute Inpatient	\$491	\$547	\$558	\$591	11.4%	2.0%	5.9%
Outpatient	\$521	\$560	\$595	\$626	7.5%	6.3%	5.2%
Other	\$185	\$199	\$212	\$225	7.8%	6.4%	6.0%
Visits	\$336	\$360	\$383	\$401	7.3%	6.3%	4.7%
Professional Procedures	\$868	\$934	\$971	\$1,010	7.7%	3.9%	4.1%
Prescriptions	\$298	\$313	\$335	\$345	5.0%	7.1%	2.8%
Branded	\$193	\$199	\$206	\$205	3.6%	3.3%	-0.8%
Generic	\$105	\$113	\$129	\$139	7.6%	13.6%	8.2%

Source: HCCI, 2015.

Notes: All data weighted to reflect the national population ages 0-18 and covered by ESI. 2012 and 2013 data adjusted using actuarial completion. All per capita dollars from allowed amounts. All figures rounded.

## Table 2: Changes in Utilization and Prices for Children (Ages 0–18): 2010–2013

	2010	2011	2012	2013	Percentage change 2010/2011	Percentage change 2011/2012	Percentage change 2012/2013
<b>Utilization per 1,000 Insured</b>							
Inpatient	40	41	40	40	2.3%	-2.0%	0.5%
Acute Inpatient	39	40	40	40	2.8%	-1.8%	0.9%
Outpatient	1,320	1,348	1,370	1,359	2.1%	1.6%	-0.8%
Other	1,089	1,113	1,134	1,131	2.2%	1.9%	-0.3%
Visits	231	235	235	228	1.7%	0.1%	-3.2%
Professional Procedures	10,890	11,261	11,439	11,616	3.4%	1.6%	1.5%
Prescriptions - Filled Days	72,832	73,389	74,247	73,299	0.8%	1.2%	-1.3%
Branded	26,821	22,984	19,410	15,798	-14.3%	-15.6%	-18.6%
Generic	45,996	50,394	54,807	57,338	9.6%	8.8%	4.6%
<b>Average Price per Service</b>							
Inpatient	\$12,383	\$13,399	\$13,941	\$14,685	8.2%	4.0%	5.3%
Acute Inpatient	\$12,531	\$13,581	\$14,113	\$14,811	8.4%	3.9%	4.9%
Outpatient	\$394	\$415	\$434	\$461	5.2%	4.7%	6.0%
Other	\$170	\$179	\$187	\$199	5.5%	4.4%	6.3%
Visits	\$1,453	\$1,533	\$1,628	\$1,762	5.5%	6.2%	8.2%
Professional Procedures	\$80	\$83	\$85	\$87	4.1%	2.3%	2.5%
Prescriptions - Filled Days	\$4	\$4	\$5	\$5	4.2%	5.8%	4.2%
Branded	\$7	\$9	\$11	\$13	20.9%	22.4%	21.9%
Generic	\$2	\$2	\$2	\$2	-1.8%	4.5%	3.5%

Source: HCCI, 2015.

Notes: All data weighted to reflect the national population ages 0-18 and covered by ESI. 2012 and 2013 data adjusted using actuarial completion. All figures rounded.

# Health Care Spending for Babies (ages 0–3)



Health care spending per capita for babies (ages 0–3) covered by ESI rose by 6.0% (or \$271) to \$4,813 per capita in 2013 (Table 3 and Figure 6). In 2013, unlike that in all other children's age groups, spending growth for babies was faster than that in 2012.

Between 2012 and 2013, per capita spending for baby boys rose by 7.7% to \$5,307 (Table 3). This rise was higher than that of per capita spending for the entire ESI population (ages 0–64) in 2013 (\$4,864).<sup>4</sup> Per capita spending for baby girls rose by 3.8% to \$4,294. This figure was nearly \$1,000 less than the spending for baby boys. Growth in health care spending for baby boys, as compared to baby girls, was largely driven by

increased use of professional procedures and increases in the average prices per service, specifically the average price per acute inpatient admission (Appendix Table 2).

## Spending on inpatient admissions rose by \$139 per baby



Spending per capita on acute inpatient admissions rose by 7.6% to \$1,965 per baby in 2013 (Table 3). This accounted for about 40% of the total health care spending for babies. Spending on acute inpatient admissions increased \$139 and accounted for 51.2% of the total increase in spending for babies (Figure 7).

## 2013 KEY FINDINGS

**\$4,813**

Per capita spending for babies.

**6.0% OR \$271**

Spending growth and dollar increase in spending for babies.

**\$5,307 AND 7.7%**

Per capita spending for baby boys and spending growth rate.

**\$4,294 AND 3.8%**

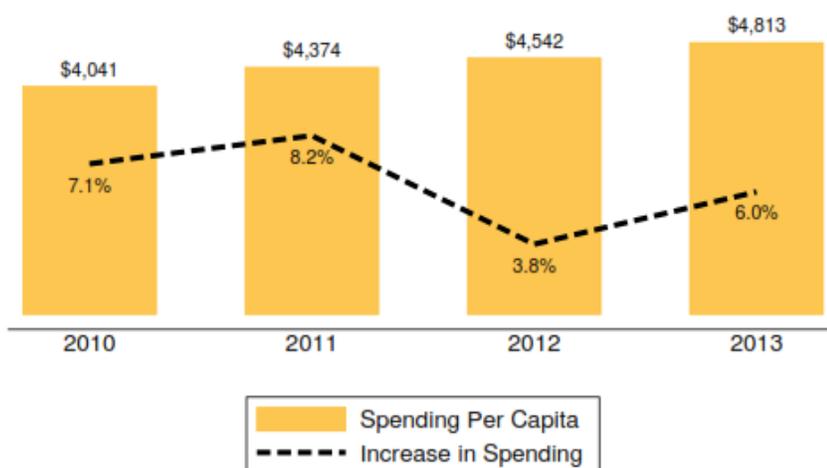
Per capita spending for baby girls and spending growth rate.

**2.1% AND 3.6%**

Increase in acute admissions for baby boys and baby girls.

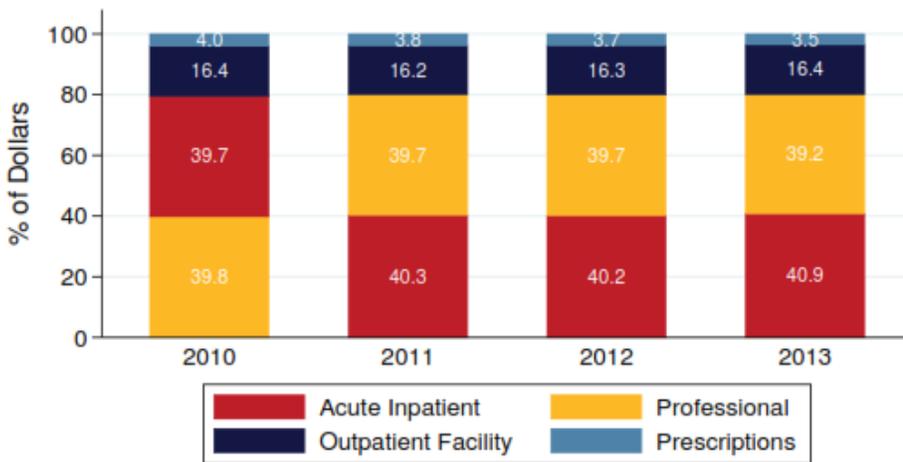
In 2013, an increased number of admissions and a higher average price per admission helped push up spending on acute inpatient admissions (Appendix Table 1). The average price paid for an acute admission rose by more than \$500, to \$12,820 per admission. Babies were the only children's age group that experienced a year-on-year increase in acute admissions from 2012 to 2013. The number of

**Figure 6**  
Per Capita Spending for Babies (ages 0-3): 2010-2013



Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population. 2012 and 2013 data adjusted using actuarial completion.

**Figure 7**  
**Share of Expenditures Per Capita for Babies**  
**(ages 0-3), by Service Category: 2010-2013**



Source: HCCI, 2015.  
 Notes: All data weighted to reflect the national, younger than 65 ESI population.  
 Data from 2012 and 2013 adjusted using actuarial completion.

admissions rose by 4 (2.8%), to 153 admissions per 1,000 babies, after a decline of 1 admission per 1,000 in 2012.

The growth in acute inpatient admissions for babies was driven by an increased number of newborn admissions (Appendix Table 2 and Table 3). A newborn admission occurs when a child between 0 and 18 days old is admitted to a hospital separately from its mother. Newborn admissions accounted for nearly 80% of acute admissions for babies in 2013. The number of newborn admissions rose by 4 per 1,000 baby boys and 6 per 1,000 baby girls.

#### Outpatient service use declined for second consecutive year



Total spending on outpatient care rose by 6.6% to \$788 per baby

in 2013 (Table 3). Outpatient care reflected 16% of total per capita spending for babies and accounted for \$16 of the \$271 increase in per capita spending for this age group (Figure 6). Spending per capita on outpatient visits grew by 6.3% (\$32) to \$532, and spending on outpatient other services rose by 7.3% (\$17) to \$256 per baby.

For the second consecutive year, outpatient service use and visits declined (Appendix Table 1). For an analysis of one of the drivers of this decline, see “Emergency room visits declined in 2013.” Conversely, the average price paid for outpatient visits and outpatient other services grew by 8.9% and 7.6%, respectively, higher rates than observed in the two prior years.

#### Use of professional procedures by babies rose in 2013



Spending per capita on professional procedures grew by 4.6% to \$1,886 for babies in 2013 (Table 3). This spending growth was faster than that observed in the previous year (3.9%), largely owing to an increase in use. Professional procedure use rose by 1.8% in 2013 after flat growth in the previous year. The average price for a professional service rose by 2.7% to \$91. For more on the use of a key professional procedure, see “Preventive visits for children continued to rise.”

#### Prescription spending for babies did not rise in 2013



Prescription spending for babies remained at \$170 per capita in 2013, or 3.5% of total spending for babies (Table 3 and Figure 7). Spending per capita on generic prescriptions rose by \$1 to \$87 per baby, and spending on branded prescriptions declined by \$2 to \$82. Between 2012 and 2013, the number of filled days of prescriptions fell by 3.1 filled days per baby. This drop was due to decline in filled days of both generic and branded prescriptions (Appendix Table 1). At the same time, the average price per filled day of branded and generic prescriptions rose in 2012 and 2013.

**Table 3: Per Capita Spending for Babies (Ages 0-3): 2010-2013**

	2010	2011	2012	2013	Percentage change 2010/2011	Percentage change 2011/2012	Percentage change 2012/2013
Per Capita, Babies	\$4,041	\$4,374	\$4,542	\$4,813	8.2%	3.8%	6.0%
<b>Gender</b>							
Boys	\$4,375	\$4,773	\$4,930	\$5,307	9.1%	3.3%	7.7%
Girls	\$3,692	\$3,955	\$4,135	\$4,294	7.1%	4.5%	3.8%
<b>Service Category</b>							
Inpatient	\$1,608	\$1,766	\$1,830	\$1,969	9.8%	3.6%	7.6%
Acute Inpatient	\$1,601	\$1,763	\$1,826	\$1,965	10.1%	3.6%	7.6%
Outpatient	\$663	\$706	\$739	\$788	6.6%	4.6%	6.6%
Other	\$215	\$230	\$239	\$256	7.0%	3.9%	7.3%
Visits	\$448	\$476	\$500	\$532	6.4%	5.0%	6.3%
Professional Procedures	\$1,607	\$1,735	\$1,803	\$1,886	8.0%	3.9%	4.6%
Prescriptions	\$163	\$166	\$170	\$170	1.7%	2.4%	-0.1%
Branded	\$78	\$80	\$84	\$82	2.6%	5.0%	-1.9%
Generic	\$85	\$86	\$86	\$87	0.8%	-0.3%	1.3%

Source: HCCI, 2015.

Notes: All data weighted to reflect the national population ages 0-18 and covered by ESI. 2012 and 2013 data adjusted using actuarial completion. All per capita dollars from allowed amounts. All figures rounded.

### PREVENTIVE VISITS FOR CHILDREN CONTINUED TO RISE

HCCI analyzed changes between 2010 and 2013 in use of preventive visits by children, a category of care that included well-child visits.<sup>3</sup> Under the Patient Protection and Affordable Care Act, beginning in mid-2010, most private health plans were required to cover some preventive services for children with no cost sharing when billed by an in-network provider.<sup>6</sup>

Preventive visits to primary care providers (PCPs) per 1,000 children increased for each age-gender group in every year of the study period (Appendix Tables 3, 7, 11, and 15). Additionally, the growth in use of these preventive visits was faster in 2013 than in the two prior years. The highest use of these PCP visits in 2013 was by babies: 2,311 visits per 1,000 girls and 2,316 visits per 1,000 boys. Comparatively, the fewest visits were by teenagers: 372 visits per 1,000 girls and 374 visits per 1,000 boys. HCCI did not distinguish between visits to in-network or out-of-network providers.

# Health Care Spending for Younger Children (ages 4–8)



As observed in prior HCCI reports, 2013 per capita spending for younger children (ages 4–8) was the lowest of any age group and had the slowest spending growth (Table 1). Spending per capita grew by 2.6% for younger children covered by ESI, an increase of \$44, to \$1,703 (Table 4 and Figure 8). Spending for younger boys rose by 1.8%—the lowest growth rate of any age-gender group—to \$1,880, whereas spending for girls rose by 3.7% to \$1,518. As a result, the spending difference between younger boys and girls narrowed slightly, declining from \$382 in 2012 to \$362 in 2013.

## Majority of spending on outpatient care and professional procedures



Spending on acute inpatient admissions grew by \$7 (3.6%) to \$218 per younger child in 2013, accounting for 13% of the total spending for younger children (Table 4 and Figure 9). The average price of an acute inpatient admission grew by \$1,396 (7.7%) to \$19,419 (Appendix Table 5). This increase in the average price of an admission was larger for younger girls than for boys. For girls, the average price increased by \$1,711, while increasing \$1,153 for boys (Appendix Table 6). Acute admissions fell by 3.9%, or 1 admission per 1,000 younger children (Appendix Table 5).

## 2013 KEY FINDINGS

**\$1,703**

Per capita spending for younger children.

**2.6% OR \$44**

Spending growth and dollar increase in spending for younger children.

**\$5,307 AND 7.7%**

Per capita spending for younger boys and spending growth rate.

**\$4,294 AND 3.8%**

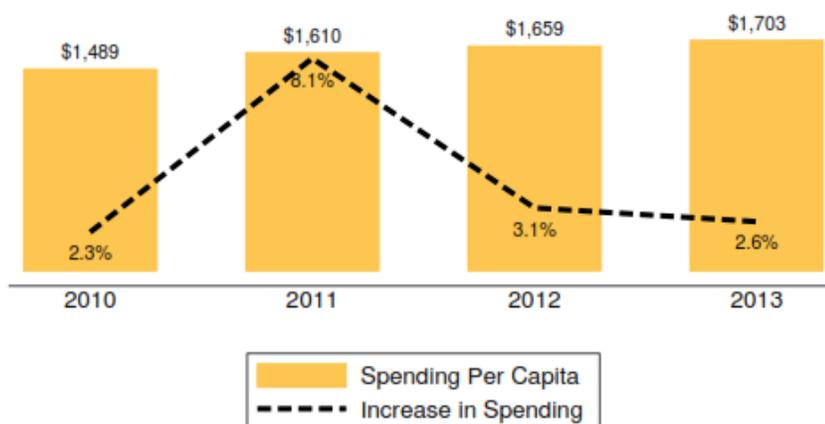
Per capita spending for younger girls and spending growth rate.

**-3.8%**

Decline in prescription spending for younger children.

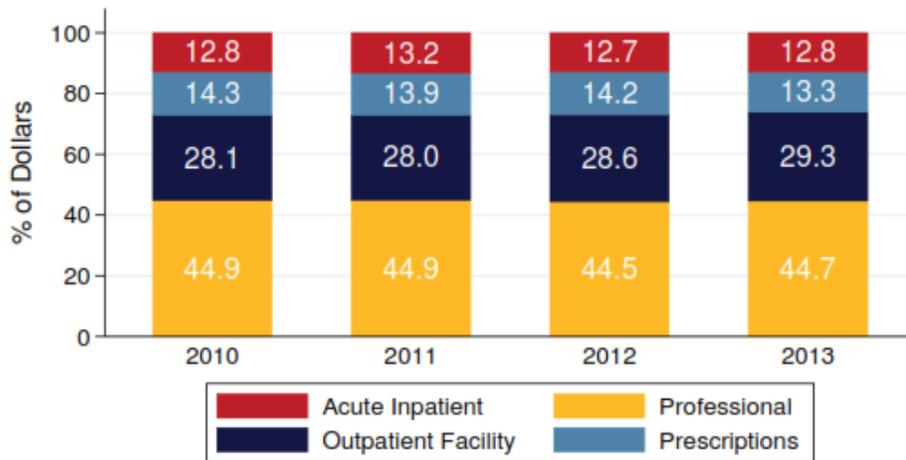
However, this decline was found only for younger boys, whose admissions fell by 1 per 1,000 boys (Appendix Table 6). At the same time, use by younger girls remained steady at 10 admissions per 1,000 girls.

**Figure 8**  
Per Capita Spending for Younger Children (ages 4-8): 2010-2013



Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population. 2012 and 2013 data adjusted using actuarial completion.

**Figure 9**  
**Share of Expenditures Per Capita for Younger Children**  
**(ages 4-8), by Service Category: 2010-2013**



Source: HCCI, 2015.  
 Notes: All data weighted to reflect the national, younger than 65 ESI population.  
 Data from 2012 and 2013 adjusted using actuarial completion.



Spending on outpatient services (\$498) made up 29% of total health care expenditures for younger children in 2013 (Table 4). Spending per capita on both outpatient visits and outpatient other services continued to rise, although spending growth rates slowed for the third consecutive year. Spending on outpatient visits rose by \$16 to \$332 per capita, whereas outpatient other spending grew by \$7 to \$166. The average price per visit and per outpatient other service rose, even as utilization of these services declined (Appendix Table 5; see “Emergency room visits declined in 2013”). The largest decline in use of these services was outpatient other use by younger boys, which fell by 22 services per 1,000 boys (2.3%; Appendix Table 6).



In 2013, \$760 was spent on professional procedures per younger child, representing 44% of their total health care expenditures (Table 4 and Figure 9). Spending on professional services grew by \$22 (3.0%), comprising half of the \$44 increase in per capita spending.

The increase in spending was driven by an increase in the average price for a professional procedure, which grew by 3.2% (Appendix Table 5). In contrast, the use of professional services declined for the second consecutive year, falling slightly (-0.2%). However, this decline in use was found only for younger girls, whose use fell (-0.5%), whereas use by younger boys rose slightly (0.1%; Appendix Table 6).

### Prescription spending fell in 2013



In contrast to spending on medical services, total prescription per capita spending for younger children declined by \$9 (3.8%) to \$226 per child in 2013 (Table 4). This decrease was driven by a decline in spending on branded prescriptions, which fell 7.8%. Conversely, spending on generic prescriptions increased by 1.6%, to \$2 per younger child.

Every year of the study period revealed a net decline in the prescription filled days for younger children. Between 2012 and 2013, use fell by 2.8 filled days per younger child (Appendix Table 5). In all years studied, this decline was due to falling use of branded prescriptions. The use of generic prescriptions increased each year but did not offset declines in the use of branded prescriptions.

The decline in the use of prescriptions was observed for both younger boys and girls (Appendix Table 6) and was largely due to fewer filled days of respiratory track agents and central nervous system (CNS) agents (Appendix Table 8; for more information about the drivers of these declines, see “Generic use of asthma drug increased” and “CNS agent utilization growth slowed in 2013”).

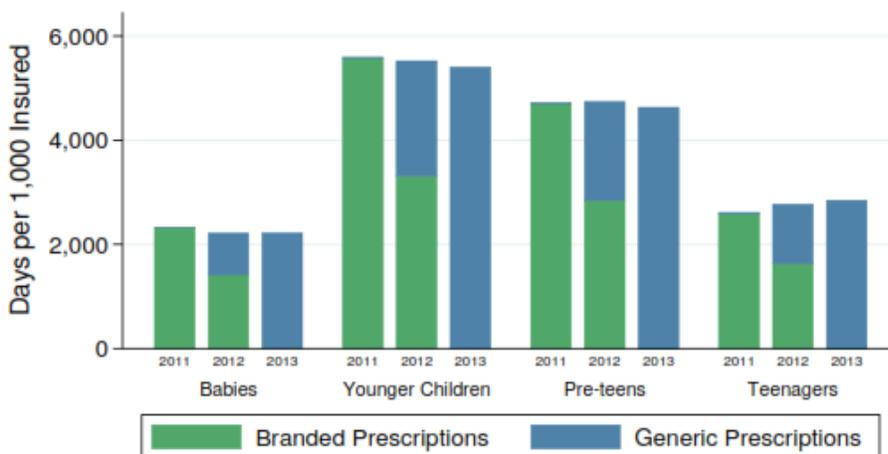
## GENERIC USE OF ASTHMA DRUG INCREASED

Respiratory agents are among the most common therapeutic drug classes used by children. Drugs in this class are often used to manage the symptoms of asthma, suppress coughs, and reduce inflammation and allergic reactions.

Beginning in 2012, HCCI observed a large shift in use from branded to generic respiratory agents by all age groups of children (Appendix Tables 4, 8, 12, and 16). Between 2011 and 2013, use of generic agents rose by more than 300% for babies, more than 700% for younger children, more than 800% for pre-teens, and more than 500% for teenagers. At the same time, use of branded versions of these drugs declined, resulting in a near-perfect substitution of the use of generic versions for the branded versions.

One specific subclass of respiratory agents— leukotriene modifiers (see “Service categories analyzed in this report”)—was a large driver of this observed branded-to-generic trend. In each year between 2010 and 2013, for all children’s age groups, use of branded leukotriene modifiers declined, falling to nearly zero filled days per child by 2013 (Figure 10 and Appendix Table 17). Conversely, use of generic leukotriene modifiers increased from nearly no filled days in 2010 and 2011 to more than 2 filled days per child in 2013. For children younger than age 14, the increase in use of generic leukotriene modifiers did not offset the decline in the use of branded versions and led to net declines in the use of these drugs between 2010 and 2013. Only for teenagers did a net increase occur in the use of leukotriene modifiers in those years.

**Figure 10**  
**Filled Days of Leukotriene Modifiers per 1,000 Children by Age Group: 2011-2013**



Source: HCCI, 2015.  
 Notes: All data weighted to reflect the national, younger than age 65 ESI population.  
 2012 and 2013 data adjusted using actuarial completion.

HCCI did not examine the specific causes of the change in respiratory agent use observed in 2012 and 2013. However, one likely influence was perhaps the patent expiration of the leukotriene modifier Singulair® (montelukast sodium) in 2012, an asthma and allergy treatment produced by Merck. In August, 2012, the U.S. Food and Drug Administration (FDA) approved the first generic versions of montelukast sodium for use in children to control asthma symptoms and to help to relieve symptoms of indoor and outdoor allergies.<sup>8</sup>

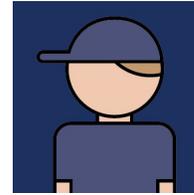
## Table 4: Per Capita Spending for Younger Children (Ages 4–8): 2010–2013

	2010	2011	2012	2013	Percentage change 2010/2011	Percentage change 2011/2012	Percentage change 2012/2013
<b>Per Capita, Younger Children</b>	\$1,489	\$1,610	\$1,659	\$1,703	8.1%	3.1%	2.6%
<b>Gender</b>							
Boys	\$1,636	\$1,769	\$1,846	\$1,880	8.1%	4.4%	1.8%
Girls	\$1,336	\$1,443	\$1,464	\$1,518	7.9%	1.5%	3.7%
<b>Service Category</b>							
Inpatient	\$192	\$213	\$212	\$219	11.2%	-0.6%	3.5%
Acute Inpatient	\$190	\$212	\$211	\$218	11.6%	-0.6%	3.6%
Outpatient	\$418	\$451	\$475	\$498	7.7%	5.4%	4.9%
Other	\$142	\$151	\$159	\$166	6.5%	5.2%	4.8%
Visits	\$277	\$300	\$316	\$332	8.3%	5.5%	5.0%
Professional Procedures	\$667	\$723	\$738	\$760	8.4%	2.1%	3.0%
Prescriptions	\$212	\$223	\$235	\$226	5.0%	5.2%	-3.8%
Branded	\$132	\$136	\$140	\$129	3.2%	2.4%	-7.8%
Generic	\$80	\$87	\$95	\$97	8.0%	9.5%	1.6%

Source: HCCI, 2015.

Notes: All data weighted to reflect the national population ages 0-18 and covered by ESI. 2012 and 2013 data adjusted using actuarial completion. All per capita dollars from allowed amounts. All figures rounded.

# Health Care Spending for Pre-teens (ages 9–13)



Per capita spending for pre-teens rose by \$75 to \$1,854 per child in 2013 (Table 5 and Figure 11). Spending grew by 4.2%, a growth rate lower than that observed in 2011 or 2012. Spending per capita was higher for boys than for girls during the study period, whereas the spending growth rate was higher for girls in each year. Despite higher growth rates for girls, the spending difference between pre-teen boys and girls widened between 2010 and 2013, from \$242 to \$269.

## Spending on all service categories rose in 2013



Acute inpatient spending rose by 4.2% to \$255 per pre-teen in 2013 (Table 5). The rise

in acute inpatient spending accounted for \$10 of the \$75 increase in total per capita spending for pre-teens (Figure 12). Spending on acute admissions represented the smallest percentage of spending for pre-teens: about 14%.

In 2013, the increase in spending on acute admissions was due to an increase in the average price per admission (Appendix Table 9). The average price paid per admission rose more for pre-teen boys than for girls: an increase of \$2,046 for boys as compared to \$563 for girls (Appendix Table 10). At the same time, acute admissions fell by 1 admission to 12 admissions per 1,000 boys, while they remained constant for pre-teen girls at 12 admissions per 1,000 girls.

## 2013 KEY FINDINGS

**\$1,854**

Per capita spending for pre-teens.

**4.2% OR \$75**

Spending growth and dollar increase in spending for pre-teens.

**\$1,985 AND 4.1%**

Per capita spending for pre-teen boys and spending growth rate.

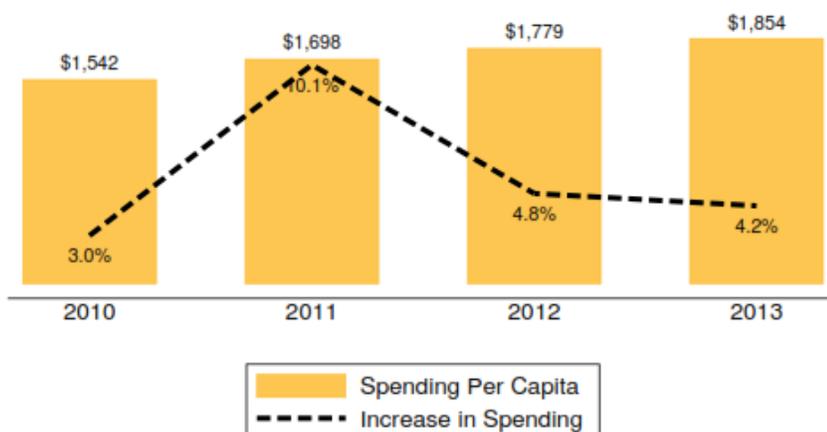
**\$1,716 AND 4.5%**

Per capita spending for pre-teen girls and spending growth rate.

**3.9%**

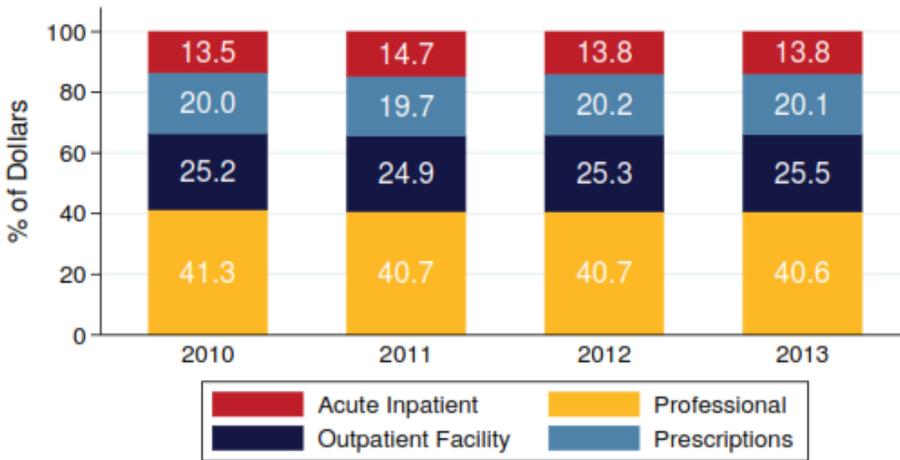
Increase in prescription spending for pre-teens.

**Figure 11**  
**Per Capita Spending for Pre-teens (ages 9-13): 2010-2013**



Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population.  
2012 and 2013 data adjusted using actuarial completion.

**Figure 12**  
**Share of Expenditures Per Capita for Pre-Teens**  
**(ages 9-13), by Service Category: 2010-2013**



Source: HCCI, 2015.  
 Notes: All data weighted to reflect the national, younger than 65 ESI population.  
 Data from 2012 and 2013 adjusted using actuarial completion.



Spending on outpatient facility services accounted for \$472 of pre-teen per capita expenditures in 2013, or about one-fourth of the spending for pre-teens (Table 5). Spending on both outpatient other services and outpatient visits continued to increase, but they increased at rates lower than those in the previous two years (Figure 12).

Between 2012 and 2013, outpatient visits declined by 4.0% (Appendix Table 9), and the decline was largely attributable to fewer ER visits (see “Emergency room visits declined in 2013”). Outpatient other service use, however, fell only for pre-teen boys (-0.2%), while it increased slightly for pre-teen girls (0.2%; Appendix Table 10).



Per capita spending on professional procedures was \$752 and comprised 40% of total health care expenditures for pre-teens in 2013 (Table 5). Both use of professional services and the average price per professional service increased from the previous year by 2.1% and 2.0%, respectively (Appendix Table 9). The increase in use was slightly higher for pre-teen boys (2.3%) than for girls (2.0%), while the average price per service increased more for girls (Appendix Table 10).



Unlike spending trends for babies and younger children, spending on prescriptions for pre-teens rose by 3.9% (\$14) to \$373 per capita in 2013 (Table 5 and Figure 12). Spending on generic prescriptions rose by 8.0%, while spending on branded prescriptions rose by 1.4%. Together, spending

on branded and generic prescriptions accounted for 20% of the total spending for pre-teens.

Between 2012 and 2013, filled days of branded prescriptions dropped by 18.2%, or 4.1 filled days per pre-teen (Appendix Table 9). Similar to the decline in use of prescription drugs by younger children, the decline in pre-teens’ filled days of branded prescriptions was partially attributable to declines in respiratory tract and CNS agents (Appendix Table 12). At the same time, generic filled days rose by 3.1 filled days per pre-teen. This increase in the use of generic prescriptions did not offset the decline in branded drugs, leading to the first net decline in prescription use for pre-teens observed in the study period. In contrast, the average price per filled day increased slightly for both branded and generic prescriptions.

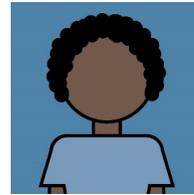
**Table 5: Per Capita Spending for Pre-Teens (Ages 9–13): 2010–2013**

	2010	2011	2012	2013	Percentage change 2010/2011	Percentage change 2011/2012	Percentage change 2012/2013
<b>Per Capita, Pre-Teens</b>	\$1,542	\$1,698	\$1,779	\$1,854	10.1%	4.8%	4.2%
<b>Gender</b>							
Boys	\$1,660	\$1,821	\$1,908	\$1,985	9.7%	4.7%	4.1%
Girls	\$1,418	\$1,568	\$1,643	\$1,716	10.6%	4.8%	4.5%
<b>Service Category</b>							
Inpatient	\$210	\$250	\$247	\$257	19.2%	-1.3%	4.0%
Acute Inpatient	\$208	\$249	\$245	\$255	19.8%	-1.5%	4.2%
Outpatient	\$388	\$423	\$450	\$472	9.1%	6.5%	4.7%
Other	\$151	\$165	\$175	\$182	8.6%	6.1%	4.5%
Visits	\$236	\$259	\$276	\$289	9.4%	6.7%	4.9%
Professional Procedures	\$636	\$691	\$722	\$752	8.6%	4.5%	4.2%
Prescriptions	\$308	\$334	\$359	\$373	8.3%	7.6%	3.9%
Branded	\$219	\$228	\$234	\$237	4.3%	2.5%	1.4%
Generic	\$89	\$105	\$125	\$135	18.1%	18.8%	8.0%

Source: HCCI, 2015.

Notes: All data weighted to reflect the national population ages 0-18 and covered by ESI. 2012 and 2013 data adjusted using actuarial completion. All per capita dollars from allowed amounts. All figures rounded.

# Health Care Spending for Teenagers (ages 14-18)



Teenagers had the second highest spending levels—after those for babies—of any age group of children. This has been the case in all years studied here and in prior reports. Health spending per capita for teenagers rose by \$111 (4.2%) to \$2,746 in 2013 (Table 6 and Figure 13). Unlike that for the other children's age groups, spending per capita for teenage girls was higher than for boys. Per capita spending for teen girls grew \$147 (5.5%) to \$2,834, whereas spending for boys grew by \$75 (2.9%) to \$2,661.

### Acute admissions fell for teen boys and rose for teen girls



Spending on acute inpatient admissions amounted to \$449 in

2013 (Table 6). This amount accounted for 16% of total per capita health expenditures for teenagers, in contrast to spending on acute admissions comprising 41% of spending for babies (Table 3). Spending for teenagers on acute admissions continued to grow in 2013, by 3.1% to \$449 per capita (Table 6 and Figure 14).

Acute inpatient spending growth was higher in 2013 than in 2012 owing to an increased average price per admission (Appendix Table 13). The average price per acute inpatient admission rose by nearly \$1,000 in 2013. At the same time, acute admissions for teenage boys declined by 2 admissions per 1,000 boys, while they increased for teenage girls by 1 admission per

## 2013 KEY FINDINGS

**\$2,746**

Per capita spending for teenagers.

**4.2% OR \$111**

Spending growth and dollar increase in spending for teenagers.

**\$2,661 AND 2.9%**

Per capita spending for teenage boys and spending growth rate.

**\$2,834 AND 5.5%**

Per capita spending for teenage girls and spending growth rate.

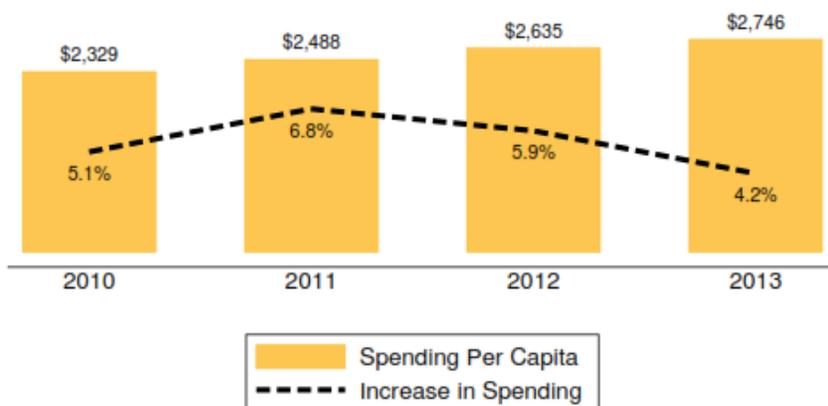
**-4.3%**

Decline in outpatient visits by teenagers.

1,000 girls (Appendix Table 14).

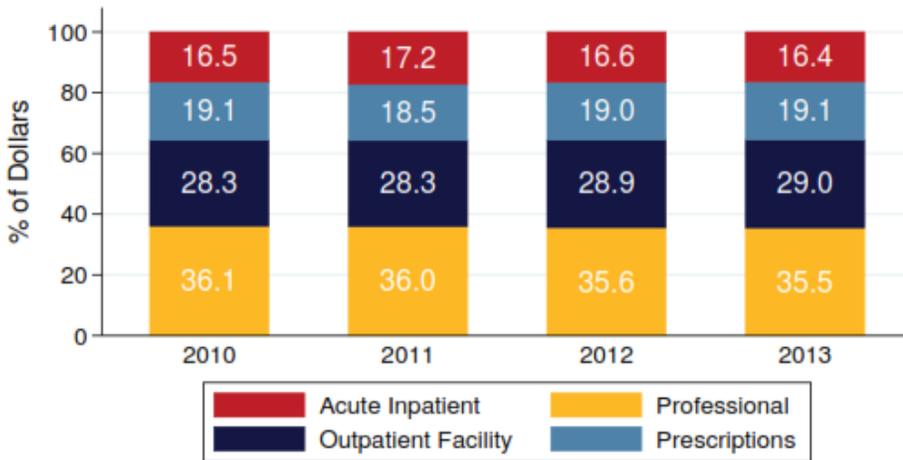
For teenage boys, in 2013, the number of medical admissions and mental health and substance use (MH/SU) admissions each fell by 1 admission to 8 admissions per 1,000 boys (Appendix Table 15). For teenage girls, labor and delivery (LD) admissions continued to decline, falling by 1 admission to

**Figure 13**  
Per Capita Spending for Teenagers (ages 14-18): 2010-2013



Source: HCCI, 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population. 2012 and 2013 data adjusted using actuarial completion.

**Figure 14**  
**Share of Expenditures Per Capita for Teenagers**  
**(ages 14-18), by Service Category: 2010-2013**



Source: HCCI, 2015.  
 Notes: All data weighted to reflect the national, younger than 65 ESI population.  
 Data from 2012 and 2013 adjusted using actuarial completion.

4 admits per 1,000 girls. Medical admissions also fell by 1 per 1,000 girls. At the same time, the number of MH/SU admissions continued to rise, increasing by 1 admission per 1,000 teen girls in every year of the study period (to 13 MH/SU admissions in 2013).

#### Spending on outpatient services and professional procedures increased



Spending on outpatient care for teenagers was \$795 per teen in 2013 (Table 6). Of that

spending, outpatient other services comprised \$300, whereas \$495 was spent on outpatient visits. Use of outpatient other services increased slightly for both boys and girls (Appendix Table 14). Conversely, outpatient visits declined for teenagers: -5.3% for boys and -3.3% for girls. As with pre-teens, this decline was largely due to

fewer ER visits (see “Emergency room visits declined in 2013”).



For teenagers, more dollars per capita were spent on professional procedures than on any other type of service, amounting to 35.5% of their total health care expenditures (Table 6). From 2012 to 2013, spending on professional services rose by 4.0% and reached \$974 per capita. Spending on professional procedures increased owing to both rising utilization and average price per service (Appendix Table 13).

#### Prescription spending grew more slowly in 2013 than in 2012



Spending on prescriptions accounted for 19.1% (\$524) of total per capita spending for teenagers in 2013 (Table 6). Prescription

spending grew more slowly in 2013 (5.1%) than in 2012 (8.7%) owing to slowdowns in generic and brand spending growth. Spending on branded prescriptions rose slightly (an increase of \$1), while spending on generic prescriptions rose by \$24 (Figure 14).

Teenagers were the only age group that experienced a net increase in prescription use in 2013 (Appendix Table 13). However, an increase in filled days occurred only for teenage girls, whose use increased by 2.9 filled days per girl (Appendix Table 14). One driver of this increase was more filled days of hormones and synthetic substitutes (a therapeutic class that includes hormone contraceptives), which increased by 1.4 filled days per teen girl (Appendix Table 16). In contrast, for teenage boys, the total number of filled days of prescriptions declined slightly, by 0.5 filled days per 1,000 boys (Appendix Table 14).

## Table 6: Per Capita Spending for Teenagers (Ages 14–18): 2010–2013

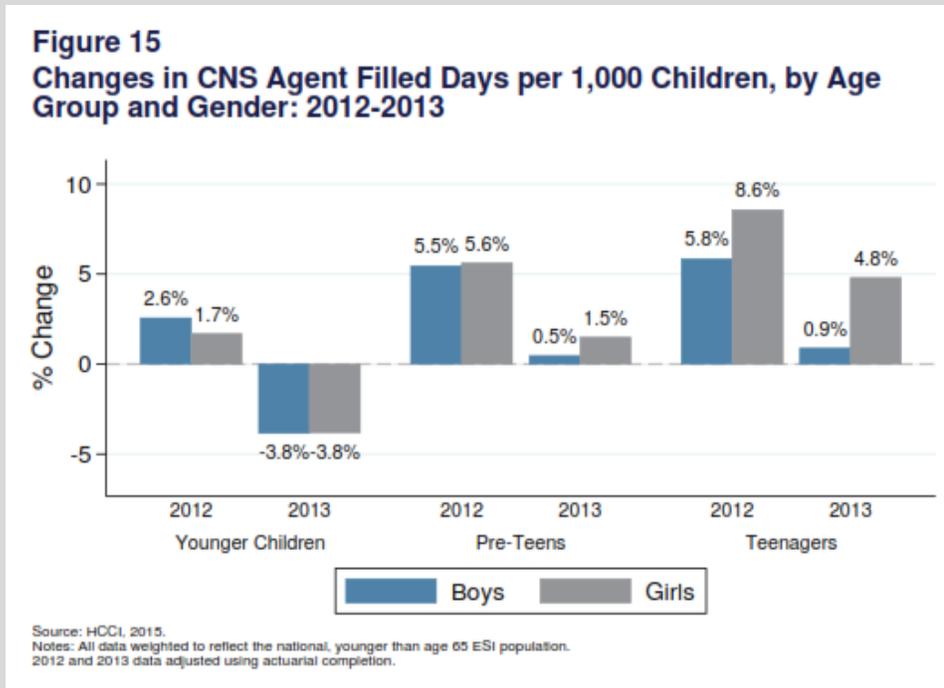
	2010	2011	2012	2013	Percentage change 2010/2011	Percentage change 2011/2012	Percentage change 2012/2013
<b>Per Capita, Teenagers</b>	\$2,329	\$2,488	\$2,635	\$2,746	6.8%	5.9%	4.2%
<b>Gender</b>							
Boys	\$2,287	\$2,444	\$2,586	\$2,661	6.9%	5.8%	2.9%
Girls	\$2,374	\$2,534	\$2,687	\$2,834	6.7%	6.1%	5.5%
<b>Service Category</b>							
Inpatient	\$394	\$432	\$439	\$452	9.7%	1.6%	2.9%
Acute Inpatient	\$383	\$428	\$436	\$449	11.7%	1.9%	3.1%
Outpatient	\$655	\$704	\$760	\$795	7.4%	8.0%	4.6%
Other	\$238	\$259	\$281	\$300	8.7%	8.6%	6.6%
Visits	\$417	\$445	\$479	\$495	6.6%	7.6%	3.4%
Professional Procedures	\$837	\$893	\$937	\$974	6.7%	5.0%	4.0%
Prescriptions	\$443	\$459	\$499	\$524	3.6%	8.7%	5.1%
Branded	\$288	\$298	\$310	\$311	3.4%	4.3%	0.2%
Generic	\$155	\$161	\$188	\$212	3.8%	16.8%	12.9%

Source: HCCI, 2015.

Notes: All data weighted to reflect the national population ages 0-18 and covered by ESI. 2012 and 2013 data adjusted using actuarial completion. All per capita dollars from allowed amounts. All figures rounded.

## CNS AGENT UTILIZATION GROWTH SLOWED IN 2013

Between 2012 and 2013, use of CNS agents (combined branded and generic) by younger children declined, and use grew more slowly than in previous years for pre-teens and teenagers (Appendix Tables 8, 12, and 16 and Figure 15). This utilization slowdown comes after several years of high growth in the use of these drugs, as described in previous HCCI reports.<sup>2,4</sup>



For both pre-teen and teenage boys, growth in use dropped from more than 5% in 2012, to below 1% in 2013. For 2013, use of CNS agents by pre-teen boys increased by 0.2 filled days per boy, as compared to an increase of 2.1 filled days during the previous year. For teenage boys, in 2013 CNS agent use increased by 0.3 filled days per boy, as compared to an increase of 2.1 filled days during the previous year. Despite the observed slowdown in growth, CNS agents remained one of the most used detailed classes of prescriptions for these age groups of children.

# Data and Methods

## Data

HCCI's dataset contains several billion de-identified commercial health insurance claims for the years 2009 through 2013. Three major health insurers contributed data to HCCI for the purposes of producing a national, multipayer, commercial health care claims database. These data include claims for individuals covered by group insurance (fully insured and administrative services only), individual insurance, and Medicare Advantage plans. The claims data include prices paid to providers by both insurers and insureds and details about the services used. Furthermore, HCCI's claims data are compliant with the Health Insurance Portability and Accountability Act (HIPAA).

For *Children's Health Spending: 2010–2013*, HCCI performed analysis on a subset of data for approximately 10.2 million insureds per year (2009–2013). This analytic subset consisted of all claims for insureds ages 0 through 18 and covered by ESI. The data set used for this report represented about 25% of the privately insured children in the United States.

## Methods

HCCI weighed the analytic subset using United States Census Bureau age-gender geographic-based estimates of the ESI population to make the analytic subset representative of the national ESI

population. Claims in the analytic subset from 2012 and 2013 were actuarially completed to account for claims that had been incurred but not adjudicated. Claims for years 2009 through 2011 were not adjusted and were considered 100% adjudicated. HCCI used the weighted, actuarially completed dataset to estimate per capita health expenditures, average prices, and utilization of services for 2009 through 2013. HCCI did not correct dollars for inflation; thus, all reported expenditures and prices were in nominal dollars.

HCCI analyzed four major categories of services, several subservice categories, and detailed service categories. Inpatient facility claims were from hospitals, skilled nursing facilities (SNFs), and hospices where detail was sufficient to identify an overnight stay by an insured. Outpatient facility claims did not entail an overnight stay and include observation and ER services. Both outpatient and inpatient claims consisted of only the facility charges associated with such claims. Professional procedures included claims billed by physicians and non-physicians according to the industry's standard procedure coding practices. Prescription data are prescriptions filled at both retail and mail order pharmacies.

For a more detailed description of HCCI's methodology and dataset,

see the Analytic Methodology on HCCI's Website.<sup>3</sup> HCCI's analytic methodology underwent a number of changes to enhance reporting since the previous *Children's Health Spending: 2009–2012* report. See the methodology document and the *2013 Health Care Cost and Utilization Report*, both available on HCCI's Website, for details on these changes.

## Limitations

This report, like all research, had several limitations that affect the generalizability and interpretation of the findings. For this reason, HCCI considers the work a starting point for analysis and research on individuals covered by ESI rather than as a conclusive analysis of the ESI population's effect on health care in the United States.

First, our findings were estimates for the United States ESI population ages 0 through 18 based on a sample of approximately 25% of these insured children. Second, the analysis and results were descriptive, and the findings were not used to determine causal relationships. Third, this report did not discuss the effect of individual or population health status, such as existence of chronic conditions.

### 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 expenditure; 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*.<sup>9,10,11</sup>

### Suggested citation for the report

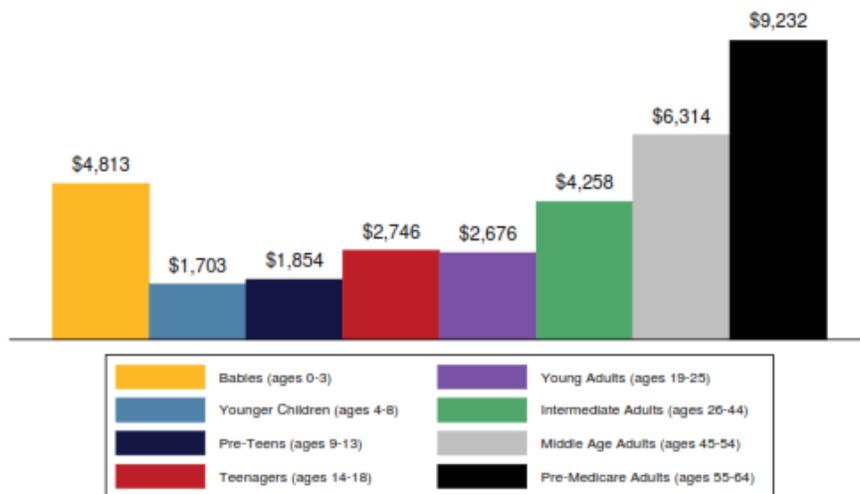
*Children's Health Spending Report: 2010-2013*. Health Care Cost Institute, Inc., June 2015. Web.

### Endnotes

1. United States; Dept. of Commerce; Census Bureau; Current Population Survey, 2014 Annual Social and Economic Supplement. *Health Insurance Coverage Status and Type of Coverage by Selected Characteristics: 2013*. US Census Bureau. 2014. Web. May 6, 2015; Table HI01.
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# Notable Trend: 2013 Comparison of Spending Trends for Children and Adults

**Per Capita Health Care Spending for People with Employer Sponsored Insurance by Age Group: 2013**



Source: HCCI, 2014 and 2015.  
Notes: All data weighted to reflect the national, younger than age 65 ESI population.  
2012 and 2013 data adjusted using actuarial completion.

As seen in this figure, for individuals covered by ESI, per capita spending for some children’s age groups was higher than spending for some adult age groups in 2013. Health care spending per baby was \$4,813; this was higher than the spending per capita for all of other children’s age groups, young adults (ages 19–25), and intermediate adults (ages 26–44).<sup>4</sup> Only spending for middle-age adults (ages 45–54) and pre-Medicare adults (ages 55–64) was higher than spending for babies in that year. Additionally, per capita spending for teenagers (\$2,746) was higher than that for young adults (\$2,676).

Between 2010 and 2013, average annual spending growth on all children (ages 0–18) was faster than average annual spending growth for the entire ESI population (ages 0–64): 5.7% per year as compared to 3.9% per year, respectively.<sup>4</sup> Among the children’s age groups, babies had the fastest average annual growth at 6.0% per year, whereas teenagers had the second fastest at 5.6% per year. Information about the drivers of spending and spending growth for children can be found in this report.

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