

Healthcare Spending Index

For Employer-Sponsored Insurance

December 2014

Since 1990, Truven Health Analytics™ has maintained a large multi-payer claims database (one of the MarketScan® Research Databases) that is the premier source of healthcare spending information about people under age 65 in the U.S. with employer-sponsored health insurance. Beginning in 2001, Truven Health researchers constructed a spending index to summarize the trends in spending for those with employer-sponsored insurance. This report provides the latest results, beginning with a look back at the annual experience of the population since 2003, followed by a focus on the most recent quarterly changes.

Key Findings

- ✓ New Hepatitis C drugs are responsible for trend-breaking upturn in pharmacy costs this year.
- ✓ Employee out-of-pocket payments (deductibles, copays) are growing faster than total healthcare costs.
- ✓ The growing prevalence of High Deductible Health Plans (HDHPs) may be causing the 45-64 age group to adjust their utilization and spending behavior.

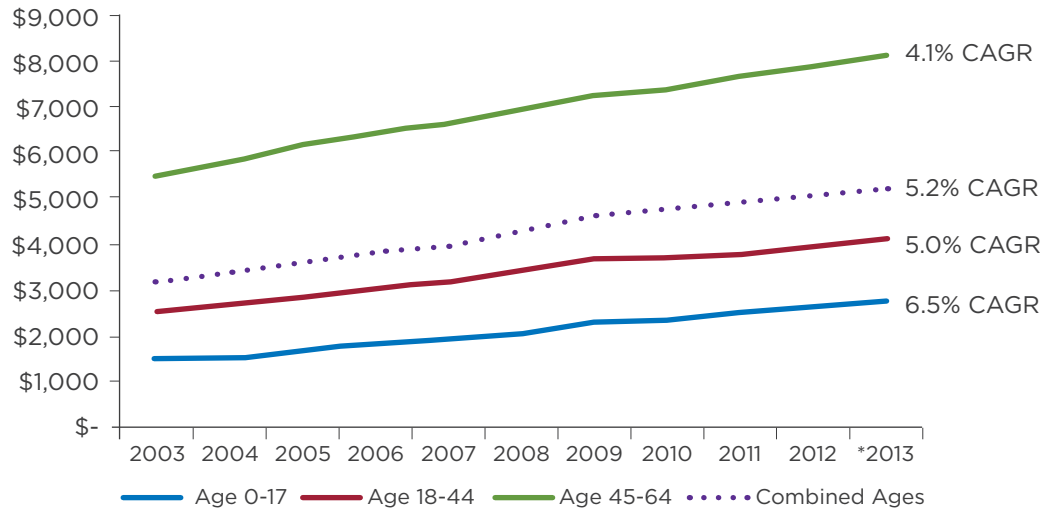
Results

Per capita annual spending grows fastest among young people

Per capita annual spending has seen a compound annual growth rate (CAGR) of 5.2 percent over the period of 2003–2013 for individuals with employer sponsored health insurance. While the 0–17 age group has seen the highest annual growth rate at 6.5 percent (from \$1,476 in 2003 to \$2,772 in 2013), the 45–64 age group continues to have a higher level of expenditure (\$8,175) despite a lower annual growth rate of 4.1 percent (figure 1).

Spending for the youngest group grew 88% from 2003-2013

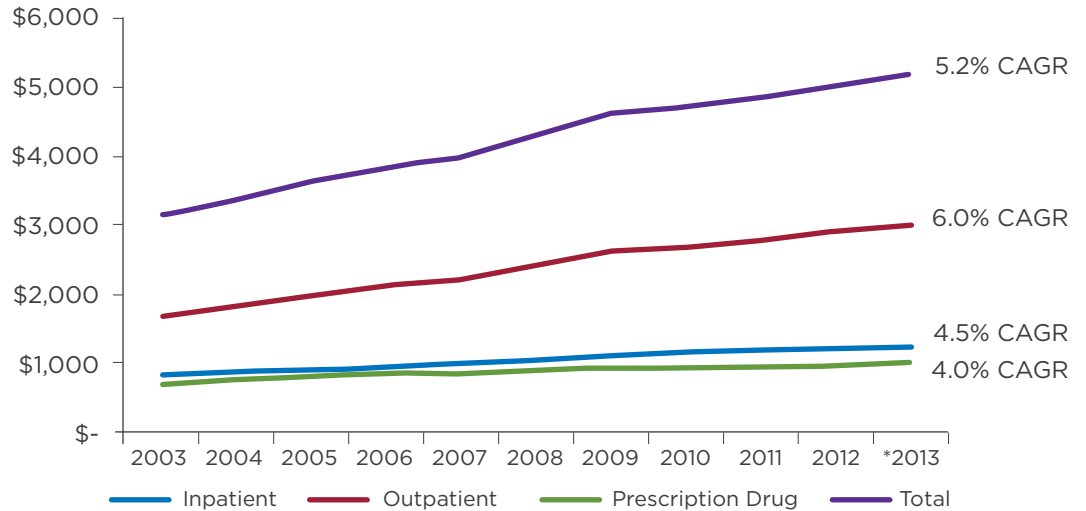
Figure 1: Per Capita Annual Spending by Age Group, 2003-2013



From a patient's perspective, spending can take place in inpatient settings, outpatient settings or through the pharmacy (whether retail or mail order). In some settings, both facilities and professionals bill for services. Figure 2 reports annual spending by setting, including all billing associated with care in that setting. Outpatient spending is both the largest category and the fastest growing in the overview period.

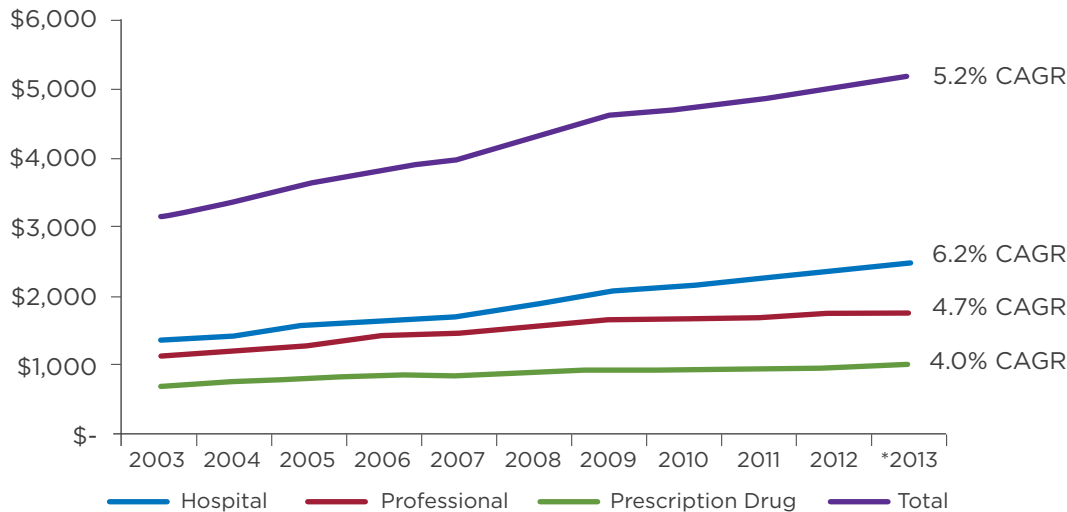
Outpatient spending grew faster than all other categories

Figure 2: Per Capita Annual Spending by Setting — Inpatient/Outpatient/Prescription Drug



An alternative breakdown is shown in Figure 3. This focuses on the provider of care — hospitals, professionals, and pharmaceuticals. With this view, hospitals are the largest and fastest growing segment. This is consistent with the rapid growth in outpatient care noted above because hospital outpatient departments are, in fact, the fastest growing provider segment.

Figure 3: Per Capita Annual Spending by Provider — Hospital/Professional/Prescription Drug



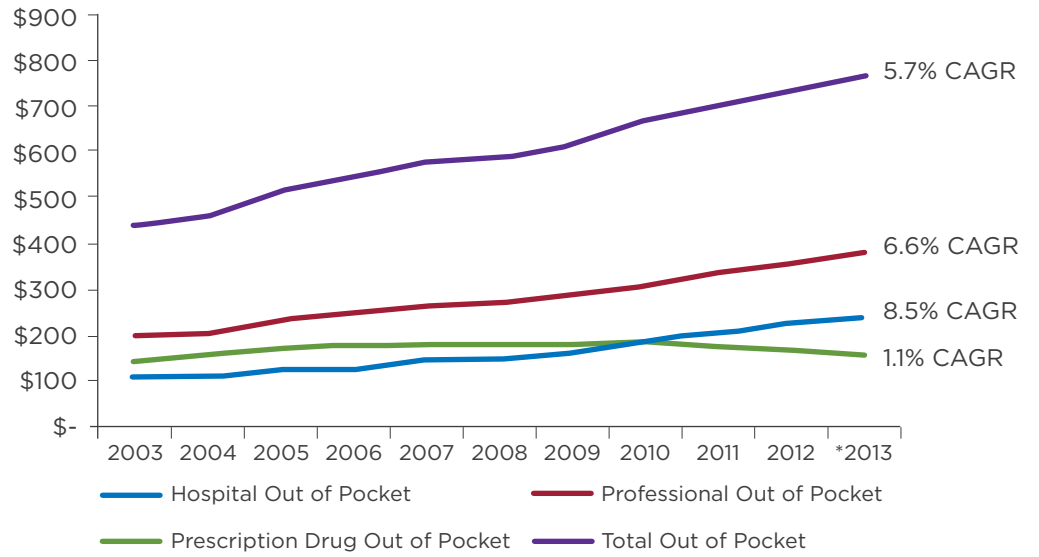
Hospitals receive the largest portion of growth in outpatient spending

Employee out-of-pocket costs grow faster than employer spending rate

During the past ten years, employees have been paying a larger fraction of their total health costs. They pay in multiple ways. First, their health insurance premium has risen (depressing the growth in wages in the opinion of most health economists) and their share of that premium paid with pre-tax dollars has grown. They are also paying an increasing share at the time services are delivered. MarketScan data allow us to track the out-of-pocket payments at the time of service. As shown in Figure 4, out-of-pocket expenditures increased more rapidly than total spending with a CAGR of 5.7 percent, reaching \$762 in 2013 (figure 4). This compares to the 5.2 percent growth rate for total spending.

Employee out of pocket spending grew 74% from 2003-2013

Figure 4: Out of Pocket Per Capita Annual Spending by Provider — Hospital/Professional/Prescription Drug



Payments to professionals lead out-of-pocket spending for employees at \$374, but hospitals show the largest CAGR at 8.5 percent. Prescription drug spending is, on average, a small part of total healthcare expenditure and has been growing more slowly for the past 10 years. The slow growth may be turning around in recent quarters.

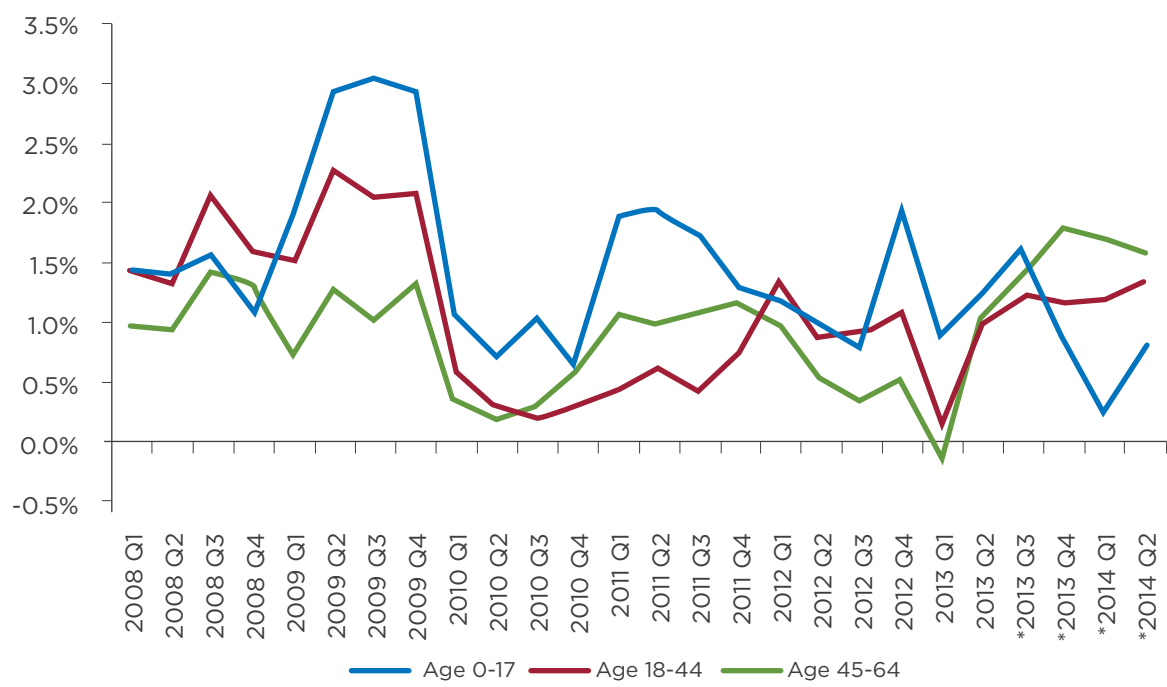
Recent Quarterly Changes

Changing trends: prescription drug and older age group spending accelerates

The source database for the annual long-term trends discussed above is updated quarterly. We use the quarterly updates to track short-term trends in annual per capita spending on a rolling four quarter basis. These trends are expressed as percentage changes (this is similar to reporting for GNP statistics).

Figure 5 shows quarterly changes that correspond to the annual changes displayed in Figure 1. A look at 2008Q1 to 2014Q2 quarter-over-quarter growth shows a reversal of a long-term trend: Expenditure for the 0-17 age group has grown at a faster rate for most quarters shown, but preliminary estimates since 2013Q3 suggest that the 45-64 age group has been leading the pace. Faster growth for child health may simply be an artifact of the smaller amounts spent on average to manage childhood illness (and prevention). But the preliminary estimates for the most recent quarters show a departure with young adults and those of middle age experiencing faster growth.

Figure 5: Per Capita Quarterly Percentage Change in Spending by Age Group, 2008Q1 - 2014Q2



Healthcare spending among adult age groups accelerates

Figures 6 and 7 show quarterly changes that correspond to Figures 2 and 3. For the first time in this study period, prescription drug spending has grown faster than hospital and professional spending. This is a direct result of the introduction of two drugs — Sovaldi® and Olysio™ — that offer effective treatment of Hepatitis C.

Prescription drug spending reverses course, growing faster than hospital and professional spending

Figure 6: Per Capita Quarterly Percentage Change by Setting

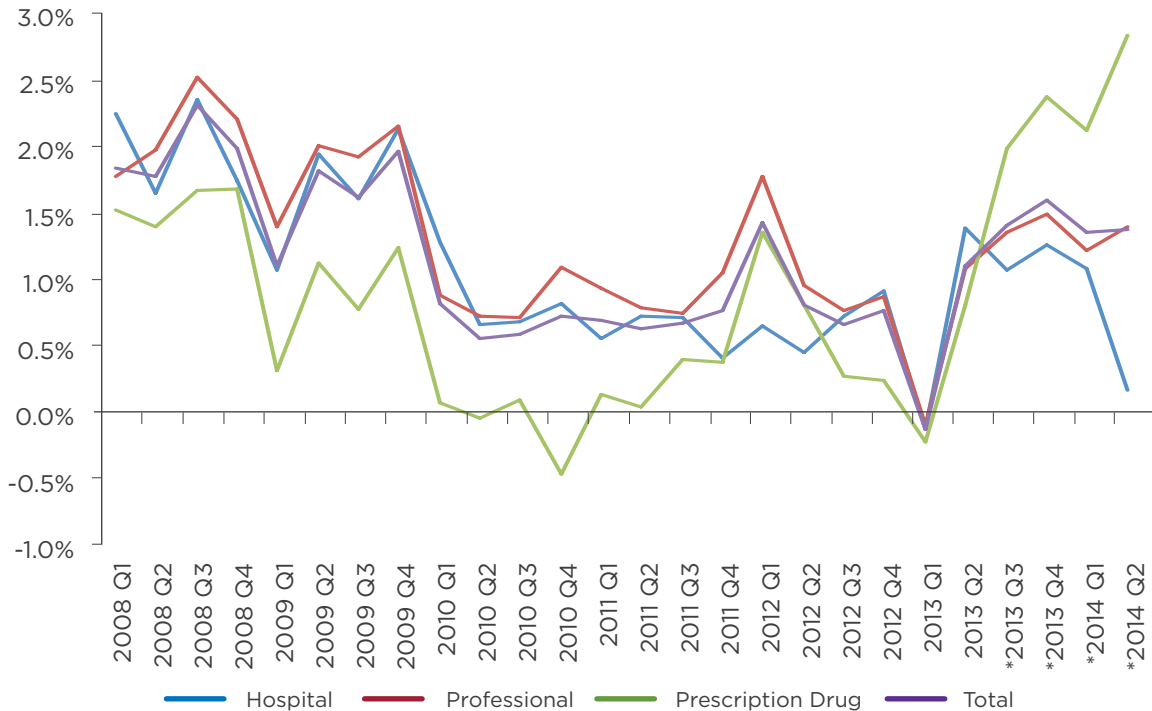
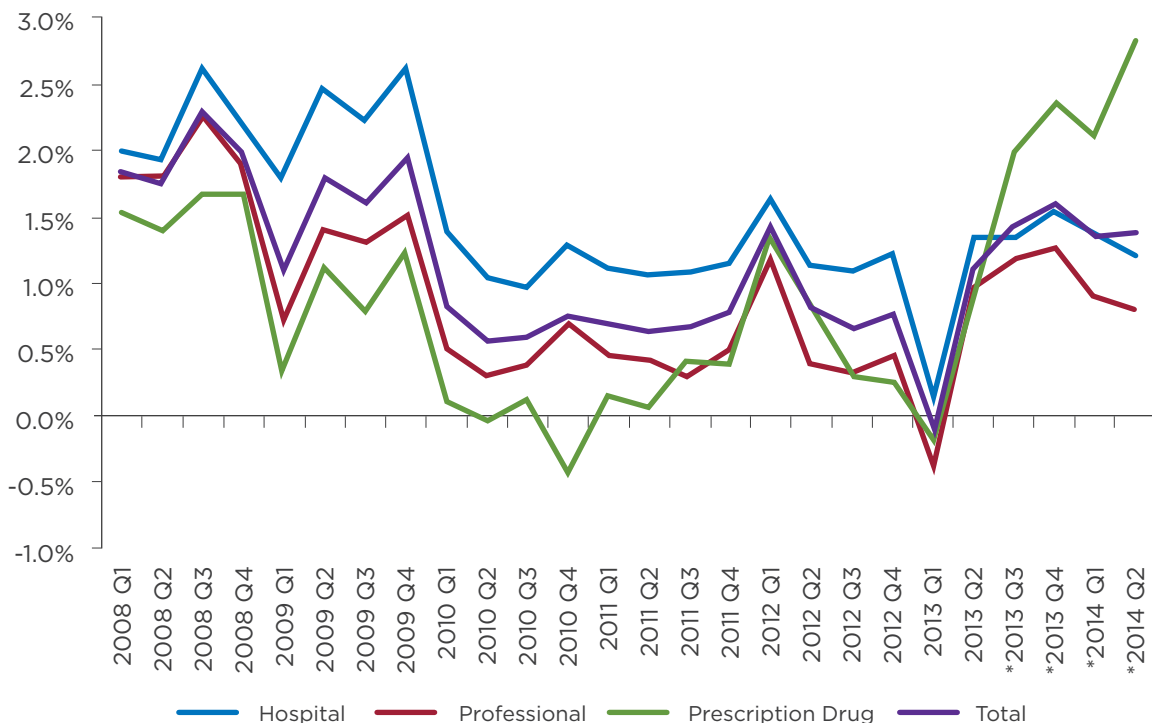


Figure 7: Per Capita Quarterly Percentage Change by Provider, 2008Q1 - 2014Q2



Through the third quarter of 2013 there was no spending for these drugs and in the space of three quarters (by 2014Q2) spending on these two drugs comprised 3.3 percent of total spending on prescription drugs. Absent this introduction, the trend for prescription drug spending would have continued to be lower than the other major components.

Discussion

Out-of-pocket, hospital costs reflect changing healthcare marketplace

Out-of-pocket exposure is changing for people with private insurance as consumers move into high deductible health plans and other plans that emphasize consumer cost sharing. We believe this move into HDHPs is causing the 45–64 age group to adjust their utilization and spending behavior. Taking the long view, the growth in spending for children age 0–17 has been increasing at a faster rate than for adults. During the financial downturn, we believe that parents may have adjusted their own utilization behavior, putting off services for non-emergent needs for themselves, while continuing to provide their children with preventive and necessary care. In short, the demand for child health services from a middle class privately insured population is less elastic than the demand for adult care.

Technology also plays a key role

A potential driver of the slowed overall growth in recent years may be slowed growth in payments for prescription drugs — blockbusters such as Lipitor® and more recently Cymbalta® and OxyContin® have come off patent, and as drugs come off patent the generic competition dramatically reduces price. Of course, as we noted with Sovaldi and Olysio, the introduction of important new branded drugs does just the opposite. The Sovaldi/Olysio introduction is particularly noteworthy. These drugs actually cure the underlying disease. There is a substantial population of people with Hepatitis C. A cure is of immediate interest to them all. Payment systems will be stressed in the short run by this cure, but will benefit in the long run by the avoided downstream liver transplants.

The dramatic increase in spending for hospital services includes an ongoing shift from the inpatient to the outpatient setting, in part driven by technology advances — and oftentimes better technology, while producing better outcomes, also costs more. Another driver may be delivery system changes that have seen physician groups being purchased by hospitals, thereby shifting spending out of the professional services column and into the hospital column.

We believe this move into HDHPs is causing the 45-64 age group to adjust their utilization and spending behavior

Background

The Truven Health Analytics Healthcare Spending Index: Employer-Sponsored Insurance (HSI-ESI) measures historical and current levels of per capita spending on healthcare for individuals with employer-sponsored insurance. The HSI-ESI estimates are based on data from the Truven Health MarketScan Databases, a large dataset containing paid claims for inpatient and outpatient services, as well as outpatient prescription drugs. First developed in 2001, the methodology for the HSI-ESI was updated in 2010.

The HSI-ESI is based on analysis of all claims submitted for employees and dependents covered by health plans from self-insured employers. Only persons who are under 65 and are not in capitated plans are included in the dataset used to compute the HSI-ESI. We estimate that in 2013 this group represents roughly 27 percent of the total U.S. population.

The HSI-ESI measures levels of annual per capita spending on a rolling four-quarter basis. It is updated quarterly, approximately 90 days after the end of the quarter in which healthcare services were used. The latest four quarters of estimates are preliminary and are subject to revision in subsequent quarterly releases of the index.

The HSI-ESI is reported quarterly, at several levels: Total, hospital, physician, and drug per capita spending, as well as out-of-pocket spending by employees (including their dependents who are covered under the employee's health plan).

References to "hospital" spending are technically spending on facility types of healthcare providers, predominantly hospitals. Similarly, "physician" spending is reimbursement to professional providers, mostly physicians, but also other nonphysician licensed professionals, such as physical therapists, nurse practitioners or physician assistants, and other non-facility suppliers.

* 2013 and 2014 data are preliminary.

Data Table Appendix

Healthcare Spending Index For Employer Sponsored Insurance
Annual Per Capita Expenditure and Recent Quarterly Changes

Annual Per Capita Expenditure

Table 1: Per Capita Annual Spending by Age Group, 2003-2013

Year	Age 0-17	Age 18-44	Age 45-64	Combined Ages
2003	\$1,476	\$2,521	\$5,496	\$3,158
2004	\$1,551	\$2,685	\$5,802	\$3,372
2005	\$1,681	\$2,859	\$6,157	\$3,628
2006	\$1,801	\$3,064	\$6,447	\$3,839
2007	\$1,938	\$3,196	\$6,628	\$3,991
2008	\$2,047	\$3,406	\$6,941	\$4,314
2009	\$2,277	\$3,683	\$7,247	\$4,600
2010	\$2,356	\$3,734	\$7,350	\$4,726
2011	\$2,522	\$3,817	\$7,666	\$4,858
2012	\$2,646	\$3,979	\$7,850	\$5,039
*2013	\$2,772	\$4,116	\$8,175	\$5,242

Table 2: Per Capita Annual Spending by Setting — Inpatient/Outpatient/Prescription Drug

Year	Inpatient	Outpatient	Prescription Drug	Total
2003	\$805	\$1,680	\$673	\$3,158
2004	\$839	\$1,792	\$741	\$3,372
2005	\$891	\$1,962	\$775	\$3,628
2006	\$915	\$2,111	\$813	\$3,839
2007	\$954	\$2,207	\$830	\$3,991
2008	\$1,032	\$2,399	\$883	\$4,314
2009	\$1,103	\$2,583	\$914	\$4,600
2010	\$1,142	\$2,672	\$912	\$4,726
2011	\$1,170	\$2,768	\$921	\$4,858
2012	\$1,203	\$2,890	\$946	\$5,039
*2013	\$1,247	\$3,002	\$993	\$5,242

Table 3: Per Capita Annual Spending by Provider — Hospital/Professional/Prescription Drug

Year	Hospital	Professional	Prescription Drug	Sum of Total
2003	\$1,353	\$1,132	\$673	\$3,158
2004	\$1,426	\$1,206	\$741	\$3,372
2005	\$1,562	\$1,292	\$775	\$3,628
2006	\$1,636	\$1,390	\$813	\$3,839
2007	\$1,718	\$1,443	\$830	\$3,991
2008	\$1,873	\$1,558	\$883	\$4,314
2009	\$2,050	\$1,636	\$914	\$4,600
2010	\$2,148	\$1,666	\$912	\$4,726
2011	\$2,244	\$1,694	\$921	\$4,858
2012	\$2,360	\$1,733	\$946	\$5,039
*2013	\$2,463	\$1,786	\$993	\$5,242

Table 4: Out of Pocket Per Capita Annual Spending by Provider – Hospital/Professional/Prescription Drug

Year	Hospital	Professional	Prescription Drug	Total
2003	\$104	\$197	\$136	\$437
2004	\$104	\$203	\$150	\$457
2005	\$118	\$227	\$162	\$506
2006	\$125	\$242	\$171	\$539
2007	\$140	\$257	\$174	\$572
2008	\$145	\$268	\$170	\$583
2009	\$157	\$282	\$172	\$612
2010	\$183	\$308	\$175	\$665
2011	\$197	\$327	\$172	\$696
2012	\$221	\$353	\$161	\$735
*2013	\$235	\$374	\$152	\$762

Recent Quarterly Changes****Table 5: Per Capita Quarterly Percentage Change in Spending by Age Group, 2008Q1 - 2014Q2**

Quarter	Age 0-17	Age 18-44	Age 45-64	Combined Ages
2008Q1	1.4%	1.4%	1.0%	1.8%
2008Q2	1.4%	1.3%	1.0%	1.8%
2008Q3	1.6%	2.1%	1.4%	2.3%
2008Q4	1.1%	1.6%	1.3%	2.0%
2009Q1	1.9%	1.5%	0.7%	1.1%
2009Q2	2.9%	2.3%	1.3%	1.8%
2009Q3	3.0%	2.0%	1.0%	1.6%
2009Q4	2.9%	2.1%	1.3%	2.0%
2010Q1	1.1%	0.6%	0.4%	0.8%
2010Q2	0.7%	0.3%	0.2%	0.6%
2010Q3	1.0%	0.2%	0.3%	0.6%
2010Q4	0.6%	0.3%	0.6%	0.7%
2011Q1	1.9%	0.4%	1.0%	0.7%
2011Q2	1.9%	0.6%	1.0%	0.6%
2011Q3	1.7%	0.4%	1.0%	0.7%
2011Q4	1.3%	0.7%	1.2%	0.8%
2012Q1	1.2%	1.3%	1.0%	1.4%
2012Q2	1.0%	0.9%	0.5%	0.8%
2012Q3	0.8%	0.9%	0.3%	0.7%
2012Q4	1.9%	1.1%	0.5%	0.8%
2013Q1	0.9%	0.1%	-0.2%	-0.1%
2013Q2	1.2%	1.0%	1.0%	1.1%
*2013Q3	1.6%	1.2%	1.4%	1.4%
*2013Q4	0.9%	1.1%	1.8%	1.6%
*2014Q1	0.2%	1.2%	1.7%	1.4%
* 2014Q2	0.8%	1.3%	1.6%	1.4%

Table 6: Per Capita Quarterly Percentage Change in Spending by Setting, 2008Q1 - 2014Q2

Quarter	Inpatient	Outpatient	Prescription Drug	Total
2008Q1	2.2%	1.8%	1.5%	1.8%
2008Q2	1.6%	2.0%	1.4%	1.8%
2008Q3	2.3%	2.5%	1.7%	2.3%
2008Q4	1.7%	2.2%	1.7%	2.0%
2009Q1	1.1%	1.4%	0.3%	1.1%
2009Q2	1.9%	2.0%	1.1%	1.8%
2009Q3	1.6%	1.9%	0.8%	1.6%
2009Q4	2.1%	2.1%	1.2%	2.0%
2010Q1	1.3%	0.9%	0.1%	0.8%
2010Q2	0.7%	0.7%	0.0%	0.6%
2010Q3	0.7%	0.7%	0.1%	0.6%
2010Q4	0.8%	1.1%	-0.4%	0.7%
2011Q1	0.6%	0.9%	0.2%	0.7%
2011Q2	0.7%	0.8%	0.1%	0.6%
2011Q3	0.7%	0.7%	0.4%	0.7%
2011Q4	0.4%	1.0%	0.4%	0.8%
2012Q1	0.7%	1.8%	1.4%	1.4%
2012Q2	0.5%	1.0%	0.8%	0.8%
2012Q3	0.7%	0.8%	0.3%	0.7%
2012Q4	0.9%	0.9%	0.3%	0.8%
2013Q1	-0.1%	-0.1%	-0.2%	-0.1%
2013Q2	1.4%	1.1%	0.8%	1.1%
*2013Q3	1.1%	1.3%	2.0%	1.4%
*2013Q4	1.3%	1.5%	2.4%	1.6%
*2014Q1	1.1%	1.2%	2.1%	1.4%
*2014Q2	0.2%	1.4%	2.8%	1.4%

Table 7: Per Capita Quarterly Percentage Change in Spending by Provider, 2008Q1-2014Q2

Quarter	Hospital	Professional	Prescription Drug	Total
2008Q1	2.0%	1.8%	1.5%	1.8%
2008Q2	1.9%	1.8%	1.4%	1.8%
2008Q3	2.6%	2.3%	1.7%	2.3%
2008Q4	2.2%	1.9%	1.7%	2.0%
2009Q1	1.8%	0.7%	0.3%	1.1%
2009Q2	2.5%	1.4%	1.1%	1.8%
2009Q3	2.2%	1.3%	0.8%	1.6%
2009Q4	2.6%	1.5%	1.2%	2.0%
2010Q1	1.4%	0.5%	0.1%	0.8%
2010Q2	1.0%	0.3%	0.0%	0.6%
2010Q3	1.0%	0.4%	0.1%	0.6%
2010Q4	1.3%	0.7%	-0.4%	0.7%
2011Q1	1.1%	0.5%	0.2%	0.7%
2011Q2	1.1%	0.4%	0.1%	0.6%
2011Q3	1.1%	0.3%	0.4%	0.7%
2011Q4	1.1%	0.5%	0.4%	0.8%
2012Q1	1.6%	1.2%	1.4%	1.4%
2012Q2	1.1%	0.4%	0.8%	0.8%
2012Q3	1.1%	0.3%	0.3%	0.7%
2012Q4	1.9%	1.1%	0.5%	0.8%
2013Q1	0.9%	0.1%	-0.2%	-0.1%
2013Q2	1.2%	1.0%	1.0%	1.1%
*2013Q3	1.6%	1.2%	1.4%	1.4%
*2013Q4	0.9%	1.1%	1.8%	1.6%
*2014Q1	0.2%	1.2%	1.7%	1.4%
* 2014Q2	0.8%	1.3%	1.6%	1.4%

* Preliminary results

** Quarterly percentage changes are calculated on a rolling four quarter basis.



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