HCCI HEALTH CARE COST INSTITUTE

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Per Capita Health Care Spending on Diabetes: 2009-2013

Diabetes is a costly chronic condition in the United States, medical costs and productivity loss attributable to diabetes were estimated to be $245 billion in 2012.[1] In this issue brief, for individuals covered by employer-sponsored insurance (ESI) and younger than age 65, per capita spending for people with a diagnosis of diabetes was compared to those without a diagnosis for the years 2009 through 2013. During that period, spending for individuals with diabetes increased by roughly $1,000 to about $15,000 per capita. The average per capita spending difference between people with and without diabetes was $10,310 (Figure 1). Additionally, during this period, people with diabetes spent on average 2.5 times more out of pocket than people without diabetes. Among individuals with diabetes, children (ages 0 through 18) and pre-Medicare adults (ages 55 through 64) were the two groups with the highest per capita health care spending in every year of the study period.

KEY FINDINGS: 2013

$14,999 Per capita spending for individuals with diabetes

$4,305 Per capita spending for individuals without diabetes

$1,922 Out-of-pocket spending per capita for individuals with diabetes

$738 Out-of-pocket spending per capita for individuals without diabetes

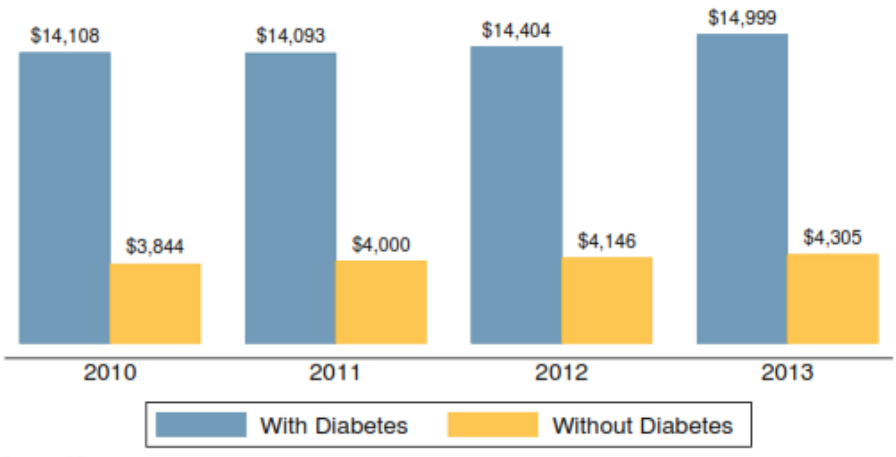
$15,456 Per capita spending for children (ages 0–18) with diabetes

$16,889 Per capita spending for pre-Medicare adults (ages 55–64) with diabetes

$1,361 2013 year-over-year increase in per capita spending for children with diabetes

$604 2013 year-over-year increase in per capita spending for pre-Medicare adults with diabetes

Figure 1
Total Per Capita Expenditures for Insureds, With and Without Diabetes: 2010-2013



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

Diabetes is one of the most common chronic conditions and is the seventh leading cause of death in the United States.[2,3] Since 1980, the prevalence of diabetes has risen steadily. According to the Centers for Disease Control and Prevention (CDC), in 2012, 29.1 million Americans—or 9.3% of the population—had diagnosed and undiagnosed diabetes. From 1980 through 2012, the number of individuals with diagnosed diabetes in the United States increased from 5.1 million to 21 million.[3] During this period, the number of deaths from diabetes in the United States rose, while the death rate from diabetes declined.[4]

The American Diabetes Association (ADA) estimated that 4.6% of the privately insured

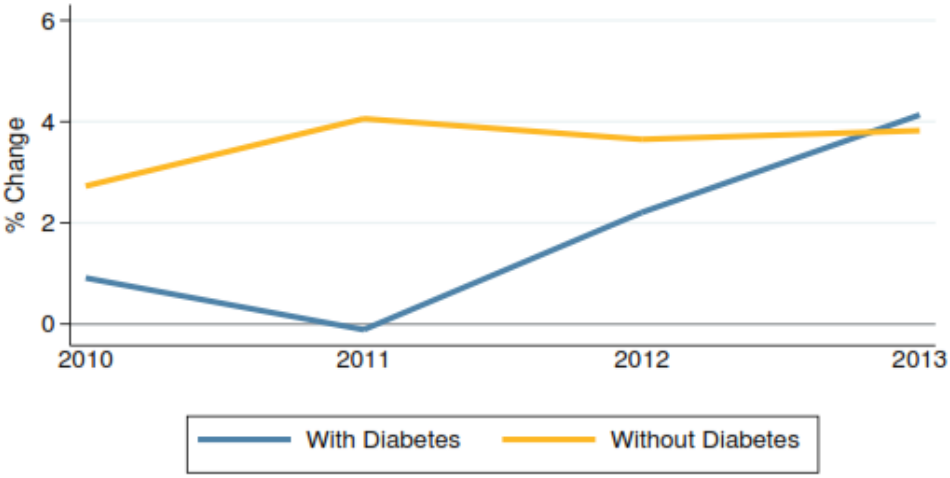
population in the United States had diagnosed diabetes in 2012. In addition to the disease's rising prevalence, the medical costs associated with diabetes are high. In 2012, the estimated direct medical cost of diabetes in the United States was $176 billion.[1]

Although information on diabetes prevalence and the economic costs of diabetes exists, less is known about per capita health care spending for individuals with diagnosed diabetes relative to spending for those without diabetes, either in terms of their total spending or their out-of-pocket costs. This is especially true for the per capita spending for children with diagnosed diabetes. This issue brief begins to fill that research gap: It compares per capita health care spending for the two populations, those with and without a diabetes diagnosis. Further, this issue brief examines health spending for individuals with diabetes by age and gender.

HCCI's ESI Population with Diabetes

The analytic dataset used in this issue brief includes nearly 40 million individuals from all 50 states and the District of Columbia, younger than age 65 and having employer-sponsored insurance (ESI). HCCI identified individuals with diagnosed diabetes mellitus (type 1 or type 2) in the dataset to examine their per capita health care spending trends. (For more information see "Identifying Individuals with Diabetes in Claims Data," "Data and Methods," and "Limitations".)

Figure 2
Change in Total Per Capita Expenditures for Insureds, With and Without Diabetes: 2010-2013



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

We examine the population identified as having diabetes as compared to the population who did not have diabetes, rather than comparing per capita spending for individuals with diabetes to the national ESI population (see "Limitations"). Using the analytic dataset, we estimated that 5.3% of the ESI population had diagnosed diabetes in 2013 (see "Individuals with Diagnosed Diabetes in the HCCI Population"). This suggests there were roughly 9 million individuals covered by ESI with diagnosed diabetes in the United States in 2013.[5]

Per Capita Health Care Spending for Individuals With and Without Diabetes

In 2013, for individuals with diagnosed diabetes, per capita health care spending was $14,999 (Table 1; Figure 1). Between 2012 and 2013, per capita spending for individuals with diabetes rose $595, or 4.1%. Additionally, from 2009 to 2013, per capita spending increased at an average annual rate of 1.8%. The only time when spending declined was between 2010 and 2011, when it fell 0.1%, or $15 per capita (Figure 2). HCCI did not examine the causes of this de-

Individuals with Diagnosed Diabetes in the HCCI Population

For 2013, HCCI identified 5.3% of individuals younger than age 65 and having ESI as having diagnosed diabetes (Table 2). From 2009 through 2013, the percentage of those with diagnosed diabetes rose by 0.6%, from 4.7% of the population.

HCCI's 2013 estimated rate of those with diagnosed diabetes, younger than age 65, and covered by ESI is slightly higher than other estimates. For example, the ADA estimated a rate of 4.6% in 2012 for the privately insured population.[1] These rate differences may be attributable to differences in population and study methodology.

In 2013, in the HCCI dataset of ESI individuals by age group, the share of those with diagnosed diabetes ranged from 7.0% for young adults (ages 19–64) to 0.3% for children (ages 18 years and younger).

HCCI AGE GROUPS

Children

Ages 0 through 18.

Young Adults

Ages 19 through 25.

Intermediate Adults

Ages 26 through 44.

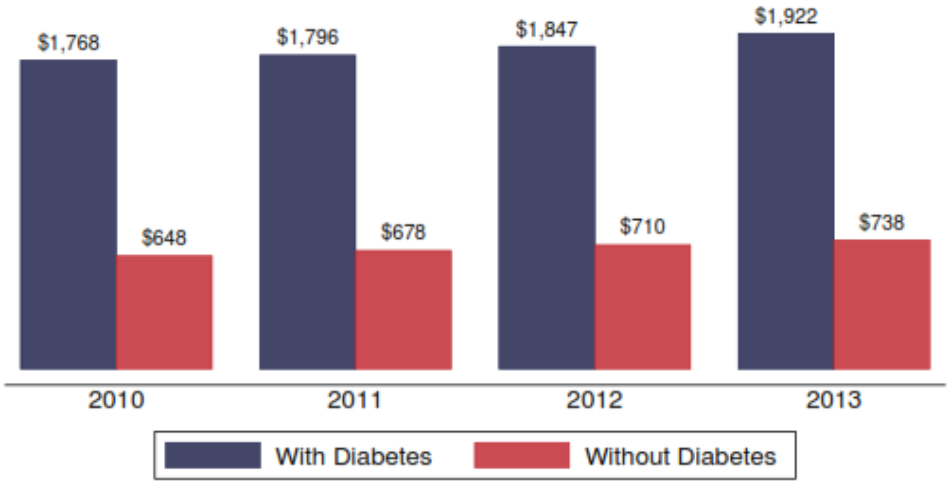
Middle-Aged Adults

Ages 45 through 54.

Pre-Medicare Adults

Ages 55 through 64.

Figure 3
Out-of-Pocket Per Capita Expenditures for Insureds, With and Without Diabetes: 2010-2013



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

cline in spending; however, the figure is consistent with a national slowdown in health care spending.[6]

In 2013, per capita spending for people without diagnosed diabetes was $4,305. Per capita spending for individuals with diabetes was 3.5 times higher than per capita spending for those without diabetes. The difference in per capita spending for people with and without a diabetes diagnosis, as identified by HCCI, was larger than other estimates of the difference. For instance, the ADA estimated that in 2012, individuals with diagnosed diabetes had health expenditures that were 2.3 times higher than those without diabetes; however, the ADA population included not only privately insured individuals but those with Medicare and Medicaid.[1]

Focusing on the HCCI data, the ratio of health care spending for individuals with diabetes to those without diabetes dropped from 3.74 in 2009 to 3.5 in 2013. Spending for those without diabetes grew during the study period at an average annual rate of 3.6% as compared with a 1.8% growth for those with diabetes.

Out-of-Pocket Spending

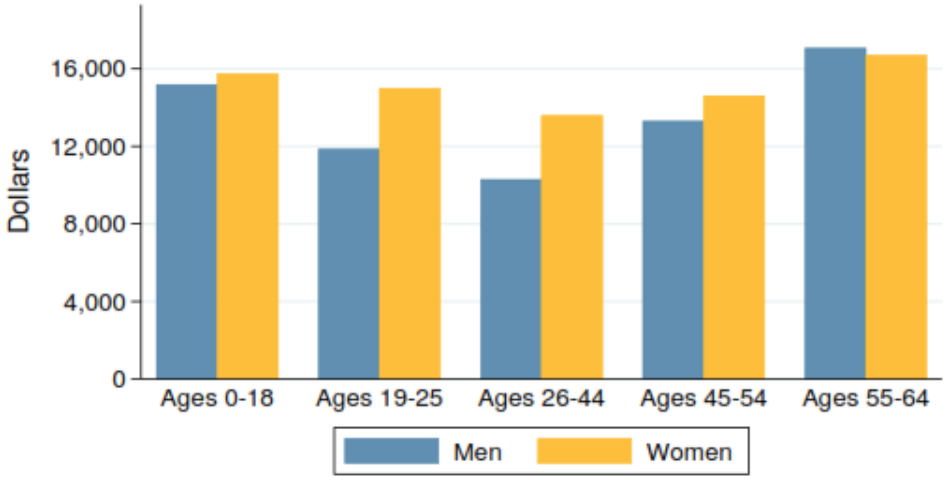
In 2013, individuals with diagnosed diabetes spent $1,922 out of pocket on health care services, an increase of $75 (4.1%) over that of 2012 (Table 3; Figure 3). From 2009 to 2013, out-of-pocket spending grew every year, at an average annual rate of 3.4%.[7] Between 2010 and 2011, out-of-pocket spending grew 1.6%, despite a small decrease in total per capita spending for those with diabetes.

A large difference was seen in per capita out-of-pocket health care spending between those with diagnosed diabetes and those without; in 2013, out-of-pocket spending for those with diabetes was $1,184 higher than for those with-

Identifying Individuals with Diagnosed Diabetes Using Claims Data

HCCI determined a diagnosis of diabetes using the *Dictionary of Disease Management Terminology* (DDMT) methodology for identifying health care activity associated with diabetes.[8] Individuals with a diagnosis of diabetes for at least one inpatient admission, one outpatient visit, or two office visits within the same calendar year were identified in a year of data as having diabetes (see the HCCI Methodology document for a list of codes included in this categorization).[9] After individuals have been identified as having received a diagnosis of diabetes, they retain this designation in all subsequent years of the dataset. We excluded radiology and laboratory claims from this methodology, as these can be used for screening purposes and may not reflect a diagnosis of diabetes.

Figure 4
Total Per Capita Expenditures for Insureds with Diabetes, by Gender and Age Group: 2013



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

out diabetes ($738). However, out-of-pocket spending was a larger share of total per capita spending for people without diabetes: 17.1% as compared to 12.8% for people with diabetes. Additionally, from 2009 to 2013, per capita out-of-pocket spending for people without diabetes grew faster than spending for those with diabetes: at average annual rates of 5.0% and 3.4%, respectively.

Per Capita Health Care Spending for Individuals with Diabetes by Age and Gender

In 2013, the highest per capita spending for individuals with diabetes was for children and pre-Medicare adults (Figure 4). Between 2011 and 2013, per capita spending grew faster for children than for those in any other age group. Additionally, in each age group, per capita spending was higher for women than for men, with the exception of the pre-Medicare adults group, in which spending was higher for men. The following sections discuss the total health care spending trends for individuals diagnosed with diabetes by age group and gender.

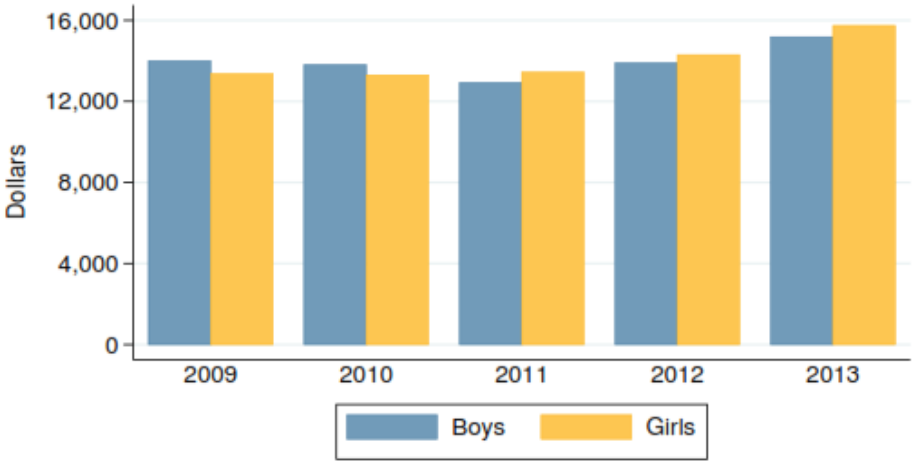
Children (Ages 0–18) with Diabetes

From 2009 through 2013, children with diagnosed diabetes had the second highest per capita spending of any age group. In 2013, per capita spending for children with diabetes was $15,456 (Table 4). While per capita spending declined slightly for children between 2009 and 2011, large spending increases occurred in 2012 and 2013.

Between 2011 and 2013, children with diabetes had the fastest per capita spending growth as compared to growth for the other age groups with diabetes: 7.0% between 2011 and 2012 and 9.6% between 2012 and 2013 (Table 5). The $1,361 increase experienced between 2012 and 2013 was the largest increase in dollars spent per capita for any age group during that period, nearly double the next largest dollar increase, which was for young adults ($753).

In 2009 and 2010, in the population of children with diabetes, spending was higher for boys as compared with girls ($515 in 2010; Figure 5). However, this trend switched in 2011, and spending was higher for girls between 2011 and 2013; in 2013, spending for girls as compared with boys was $557 more per capita.

Figure 5
Total Per Capita Expenditures for Children (Ages 0-18) With Diabetes: 2009-2013



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

Middle Three Age Groups (Ages 19–25, 26–44, and 45–54) with Diabetes

Middle age adults with diagnosed diabetes (young adults, intermediate adults, and middle-aged adults) had the lowest per capita spending. In each year studied, intermediate adults had the lowest per capita spending ($11,946 in 2013) followed by that for young adults ($13,524 in 2013; Table 4). While per capita spending levels were low for these groups, they generally had the second (young adults) and third (intermediate adults) fastest spending growth between 2011 and 2013. In 2013, at $13,886 per capita, middle-aged adults had higher health care spending than either young adults or intermediate adults but had the slowest spending growth between 2011 and 2013.

As shown in Figure 4, per capita health care spending was higher for women than for men in each of the three middle age groups. The spending difference between men and women was largest for intermediate adults; in 2013, spending was $3,300 higher for intermediate adult women than spending for intermediate adult men (Table 4). This difference between men and women was compared to spending differences of $3,139 for young adults and $1,309 for middle-aged adults.

Pre-Medicare Adults (Ages 55–64) with Diabetes

Pre-Medicare adults diagnosed with diabetes had the highest per capita health care spending for any age group in all years of the study period. In 2013, spending for pre-Medicare adults was $16,889 per capita, 3.7% higher than in 2012. In most years of the study, spending growth was relatively slower, and the per capita dollar increases were lower for pre-Medicare adults than for the other age groups (Table 5).

Spending for pre-Medicare adult men with diabetes was higher than that for pre-Medicare adult women with diabetes in every year of the study; in 2013, the per capita spending difference was $36. Between 2012 and 2013, pre-Medicare adult men's spending increased 4.2% as compared to 3.1% for women.

Per Capita Spending on Anti-Diabetic Agents

To analyze prescription drug spending related to diabetes, HCCI calculated per capita spending for individuals with diabetes for their use of anti-diabetic agents (defined using the *American Hospital Formulary System* definition; see the HCCI Methodology document for more information).[9,10] This class of prescription drugs, including, for example, insulin and metformin, are generally used to treat and manage diabetes.

Spending on branded anti-diabetics and spending on generic anti-diabetics differed by age group. For example, per capita spending on branded anti-diabetic agents was higher for children and young adults than for individuals in the other age groups. In contrast, spending on generic anti-diabetic agents was higher for middle-aged adults and pre-Medicare adults than for those in other age groups.

In 2013, for children and young adults, per capita spending on branded anti-diabetic agents made up most of the spending on anti-diabetic agents (99% and 98%, respectively; Table 6). For middle-aged adults and pre-Medicare adults the majority of spending on anti-diabetic agents was on branded drugs (88% and 87%, respectively), but this was a lower share of the spending than for children and young adults.

From 2009 to 2013, per capita spending on branded anti-diabetic agents increased 70% for children and 38% for pre-Medicare adults. Over the same period, per capita spending on generic drugs fell 87% for children as compared with a 10% drop for pre-Medicare adults.

One factor that might influence these spending differences is higher spending on insulins for children and young adults than for those in other age groups (Table 7). In 2013, spending on insulins constituted 99% and 95%, respectively, of spending on anti-diabetic agents for children and young adults as compared with 52% and 48%, respectively, spent for middle-aged adults and pre-Medicare adults.

Conclusion

In 2012, in the United States, diabetes cost $245 billion in direct medical costs and reduced productivity.[1] In the HCCI data in 2013, spending per capita for individuals diagnosed with diabetes was $14,999, more than 3 times higher than spending for individuals without diabetes ($4,305). Furthermore, individuals with diabetes had out-of-pocket costs that were 2.5 times higher than out-of-pocket costs for individuals without diabetes.

Among individuals diagnosed with diabetes, the two age groups that had the highest per capita spending were children and pre-Medicare adults. Between 2011 and 2013, children with diabetes also had the largest increases in per capita health care spending of any age group. This increase in spending for children with diabetes was driven in part by increases in spending on branded anti-diabetic agents, specifically branded insulin. These findings demonstrate the need for additional research on the health care spending trends of individuals with diabetes in the United States.

Data and Methods

This issue brief used an analytic dataset that consisted of weighted and aggregated claims data for people younger than age 65 and covered by ESI for calendar years 2009 to 2013.[9] The analytic dataset was derived from health care claims for 40 million Americans per year contributed by three national insurers and was used for the *2013 Health Care Cost and Utilization Report*.[5] All data used for our study were de-identified and compliant with the Health Insurance Portability and Accountability Act.

A diagnosis of diabetes was determined using the DDMT methodology for identifying health care activity associated with diabetes.[8] Individuals with a diagnosis of diabetes for at least one inpatient admission, one outpatient visit, or two office visits in the same calendar year were flagged in a year of data as having been diagnosed with diabetes (see the HCCI Methodology document for a list of codes included in this categorization).[9] Once individuals have been flagged as having received a diagnosis of diabetes, they retain this flag in all subsequent years of the dataset. This methodology excluded radiology and laboratory claims, as these can be used for screening purposes and may not reflect a diagnosis of diabetes.

To be flagged in the HCCI dataset as having a diagnosis of diabetes, individuals must have had at least one medical claim filed with their insurer in one of the years of the study period. The population of individuals without diabetes is composed of all members in the HCCI analytic dataset who were not flagged as having received a diabetes diagnosis. This population without diabetes included individuals who never had a medical claim filed with their insurer during the study period. Therefore, these two populations—individuals diagnosed with diabetes and individuals without diabetes—are similar but not methodologically identical. Per capita spending trends for these populations should be treated as estimates.

Limitations

Our study has several limitations that can affect the interpretation of the findings. For this reason, HCCI considers its work a starting point for analysis and research on individuals younger than age 65 covered by ESI and diagnosed with diabetes, rather than a complete analysis of this population's effect on health care in the United States.

First, our findings are estimates for the United States ESI population based on a sample of approximately 25% of ESI insureds younger than age 65. The estimates for numbers of insured individuals by each plan type were weighted to account for any demographic differences between the HCCI sample and population estimates based on the United States Census, making the dataset representative of the national, ESI population younger than age 65.[9]

Second, because HCCI's claims holdings reflect only explicit health care activity, HCCI could not identify individuals with diabetes who (1) did not seek medical care between 2009 and 2013, (2) did not meet our criteria for study inclusion, (3) did not file with their health insurer a claim that indicated a diagnosis of diabetes, or (4) had undiagnosed diabetes. Moreover, claims data have a mixed record of utility for population health studies.[11] Work is ongoing to improve the methods used to determine health status from administrative claims. To that end, HCCI invites readers to review the methodology for this report and comment on how to better identify the chronically ill from claims data.[7] Suggestions and other inquiries should be directed to the contact form on the HCCI Website. Third, this is a descriptive study, and findings are not causal. The

tables and figures presented are limited to descriptive statistics for individuals covered by ESI and younger than age 65. In this brief, we presented per capita spending trends for individuals flagged as having diagnosed diabetes and those not flagged as having diabetes. For more information about the calculation of per capita spending trends, see the HCCI Methodology document.[9]

Fourth, diabetes may onset owing to genetic factors (type 1 diabetes) or owing to environmental or lifestyle factors (type 2 diabetes). HCCI did not distinguish between type 1 and type 2 diabetes in this report.

Endnotes

1. American Diabetes Association. "Economic Costs of Diabetes in the US in 2012."*Diabetes Care* 36.4 (2013): 1033-1046.

2. Centers for Disease Control and Prevention (CDC). Risk Factor Surveillance System Survey Data. U.S. Department of Health and Human Services, 2013. Web.

3. Centers for Disease Control and Prevention (CDC). National Diabetes Statistics Report, 2014. CDC, 2014. Web.

4. Murphy SL, Xu JQ, Kochanek KD. "Deaths: Final Data 2013". National vital statistics reports; vol 64 no 2. Hyattsville, MD: National Center for Health Statistics. 2014.

5. Estimate is based on Community Population Survey estimate of individuals covered by employer-based insurance (~169 million).

6. Health Care Cost Institute. 2013 Health Care Cost and Utilization Report. HCCI, Oct. 2014. Web.

7. The rise in out-of-pocket spending over the study period parallels rising deductibles for individuals with ESI. According to the Kaiser Family Foundation the average deductible for an individual with ESI rose 40% between 2009 and 2013, to $1,135.

8. Duncan, I, ed. *Dictionary of Disease Management Terminology*. Washington, DC: Disease Management Association of America, 2004.

9. Health Care Cost Institute. 2013 Health Care Cost and Utilization Report Analytic Methodology v. 3.2. Health Care Cost Institute, Oct. 2013. Web.

10. McEvoy, GK., ed. AHFS Drug Information. Bethesda, MD: American Society of Health-System Pharmacists, 2014. PEPID. Web.

11. Burton, B, Jesilow, P. "How Healthcare Studies Use Claims Data." *The Open Health Services and Policy Journal 4.1* (2011): 26–29.

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Table 1: Per Capita Expenditures for Insureds With and Without Diabetes (2009-2013)

	2009	2010	2011	2012	2013
Insureds with Diabetes					
Per Capita	$13,981	$14,108	$14,093	$14,404	$14,999
Percent Change	-	0.9%	-0.1%	2.2%	4.1%
Insureds without Diabetes					
Per Capita	$3,742	$3,844	$4,000	$4,146	$4,305
Percent Change	-	2.7%	4.1%	3.6%	3.8%

Source: HCCI, 2015.
Notes: Data represents the population of insureds 0-64 covered by ESI. Actuarial completion was performed on data from 2012 and 2013. All per capita dollars calculated from allowed amounts. All figures rounded.

Table 2: Percentage of Insureds With and Without Diabetes (2009-2013)

	2009	2010	2011	2012	2013
Insureds with Diabetes					
Total Insureds	4.7%	4.9%	5.2%	5.3%	5.3%
Adults (19-64)	6.2%	6.5%	6.9%	7.0%	7.0%
Children (0-18)	0.3%	0.3%	0.3%	0.3%	0.3%
Insureds without Diabetes					
Total Insureds	95.3%	95.1%	94.8%	94.7%	94.7%
Adults (19-64)	93.8%	93.5%	93.1%	93.0%	93.0%
Children (0-18)	99.7%	99.7%	99.7%	99.7%	99.7%

Source: HCCI, 2015.
Notes: Data represents the population of insureds 0-64 covered by ESI. All per capita dollars calculated from allowed amounts. All figures rounded.

Table 3: Out-of-Pocket Per Capita Expenditures For Insureds With and Without Diabetes (2009-2013)

	2009	2010	2011	2012	2013
Insureds with Diabetes					
Per Capita	$1,684	$1,768	$1,796	$1,847	$1,922
Percent Change	-	5.0%	1.6%	2.8%	4.1%
Insureds without Diabetes					
Per Capita	$607	$648	$678	$710	$738
Percent Change	-	6.7%	4.6%	4.8%	4.0%

Source: HCCI, 2015.
Notes: Data represents the population of insureds 0-64 covered by ESI. Actuarial completion was performed on data from 2012 and 2013. All per capita dollars calculated from allowed amounts. All figures rounded.

Table 4: Per Capita Expenditures Spending for Insureds with Diabetes, by Gender and Age Group (2009-2013)

	2009	2010	2011	2012	2013
Children (0-18)					
All	$13,688	$13,556	$13,178	$14,095	$15,456
Boys	$14,004	$13,813	$12,931	$13,902	$15,181
Girls	$13,365	$13,298	$13,441	$14,294	$15,738
Young Adults (19-25)					
All	$11,591	$12,643	$12,043	$12,771	$13,524
Men	$10,486	$11,276	$10,522	$11,683	$11,851
Women	$12,562	$13,874	$13,369	$13,716	$14,990
Intermediate Adults (26-44)					
All	$11,287	$11,222	$11,142	$11,458	$11,946
Men	$9,789	$9,597	$9,653	$9,856	$10,282
Women	$12,841	$12,893	$12,631	$13,045	$13,582
Middle-Aged Adults (45-54)					
All	$13,120	$13,123	$13,130	$13,359	$13,886
Men	$12,413	$12,424	$12,544	$12,737	$13,290
Women	$13,964	$13,965	$13,829	$14,099	$14,599
Pre-Medicare Adults (55-64)					
All	$15,633	$15,887	$15,928	$16,285	$16,889
Men	$15,682	$16,019	$16,091	$16,371	$17,055
Women	$15,575	$15,732	$15,738	$16,186	$16,694

Source: HCCI, 2015.
Notes: Data represents the population of insureds 0-64 covered by ESI. Actuarial completion was performed on data from 2012 and 2013. All per capita dollars calculated from allowed amounts. All figures rounded.

Table 5: Change in Per Capita Expenditures for Insureds with Diabetes, by Gender and Age Group (2009-2013)

	2009/2010	2010/2011	2011/2012	2012/2013
Children (0-18)				
All	-1.0%	-2.8%	7.0%	9.6%
Boys	-1.4%	-6.4%	7.5%	9.2%
Girls	-0.5%	1.1%	6.3%	10.1%
Young Adults (19-25)				
All	9.1%	-4.7%	6.0%	5.9%
Men	7.5%	-6.7%	11.0%	1.4%
Women	10.4%	-3.6%	2.6%	9.3%
Intermediate Adults (26-44)				
All	-0.6%	-0.7%	2.8%	4.3%
Men	-2.0%	0.6%	2.1%	4.3%
Women	0.4%	-2.0%	3.3%	4.1%
Middle-Aged Adults (45-54)				
All	0.0%	0.1%	1.7%	3.9%
Men	0.1%	1.0%	1.5%	4.3%
Women	0.0%	-1.0%	2.0%	3.5%
Pre-Medicare Adults (55-64)				
All	1.6%	0.3%	2.2%	3.7%
Men	2.1%	0.5%	1.7%	4.2%
Women	1.0%	0.0%	2.8%	3.1%

Source: HCCI, 2015.
Notes: Data represents the population of insureds 0-64 covered by ESI. Actuarial completion was performed on data from 2012 and 2013. All per capita dollars calculated from allowed amounts. All figures rounded.

Table 6: Per Capita Expenditures on Anti-Diabetic Agents for Insureds with Diabetes, by Age Group (2009-2013)

	2009	2010	2011	2012	2013
Branded					
Children (0-18)	$1,488	$1,819	$1,910	$2,103	$2,525
Young Adults (19-25)	$1,125	$1,373	$1,323	$1,428	$1,712
Intermediate Adults (26-44)	$674	$784	$799	$853	$1,000
Middle-Aged Adults (45-54)	$745	$861	$898	$941	$1,041
Pre-Medicare Adults (55-62)	$816	$950	$1,003	$1,048	$1,124
Branded Percentage Change					
Children (0-18)	-	22.2%	5.0%	10.1%	20.1%
Young Adults (19-25)	-	22.0%	-3.7%	8.0%	19.9%
Intermediate Adults (26-44)	-	16.4%	1.9%	6.8%	17.1%
Middle-Aged Adults (45-54)	-	15.5%	4.3%	4.8%	10.5%
Pre-Medicare Adults (55-62)	-	16.5%	5.5%	4.5%	7.2%
Generic					
Children (0-18)	$199	$32	$28	$28	$27
Young Adults (19-25)	$144	$28	$25	$24	$27
Intermediate Adults (26-44)	$123	$56	$51	$67	$82
Middle-Aged Adults (45-54)	$153	$79	$73	$99	$129
Pre-Medicare Adults (55-62)	$180	$98	$91	$126	$162
Generic Percentage Change					
Children (0-18)	-	-83.9%	-11.2%	-2.3%	-4.1%
Young Adults (19-25)	-	-80.5%	-10.8%	-2.6%	9.3%
Intermediate Adults (26-44)	-	-54.7%	-8.5%	30.5%	23.7%
Middle-Aged Adults (45-54)	-	-48.1%	-8.3%	36.6%	29.4%
Pre-Medicare Adults (55-62)	-	-45.6%	-7.3%	39.4%	28.0%

Source: HCCI, 2015.
Notes: Data represents the population of insureds 0-64 covered by ESI. Actuarial completion was performed on data from 2012 and 2013. All per capita dollars calculated from allowed amounts. All figures rounded.

Table 7: Per Capita Expenditures on Insulin for Insureds with Diabetes, by Age Group (2009-2013)

	2009	2010	2011	2012	2013
Branded					
Children (0-18)	$1,478	$1,808	$1,899	$2,090	$2,511
Young Adults (19-25)	$1,072	$1,315	$1,267	$1,372	$1,644
Intermediate Adults (26-44)	$406	$489	$504	$560	$695
Middle-Aged Adults (45-54)	$310	$377	$407	$475	$589
Pre-Medicare Adults (55-62)	$298	$375	$412	$494	$617
Branded Percentage Change					
Children (0-18)	-	22.3%	5.0%	10.0%	20.1%
Young Adults (19-25)	-	22.7%	-3.7%	8.3%	19.9%
Intermediate Adults (26-44)	-	20.6%	3.0%	11.1%	24.2%
Middle-Aged Adults (45-54)	-	21.4%	7.9%	16.6%	24.1%
Pre-Medicare Adults (55-62)	-	25.5%	9.9%	20.0%	24.8%
Generic					
Children (0-18)	$193	$28	$25	$23	$21
Young Adults (19-25)	$130	$18	$17	$14	$14
Intermediate Adults (26-44)	$56	$15	$14	$15	$15
Middle-Aged Adults (45-54)	$44	$15	$14	$14	$16
Pre-Medicare Adults (55-62)	$46	$18	$17	$17	$19
Generic Percentage Change					
Children (0-18)	-	-85.6%	-11.4%	-5.5%	-11.9%
Young Adults (19-25)	-	-85.9%	-10.0%	-14.8%	-3.5%
Intermediate Adults (26-44)	-	-72.9%	-6.6%	1.6%	5.9%
Middle-Aged Adults (45-54)	-	-66.8%	-4.6%	2.1%	12.0%
Pre-Medicare Adults (55-62)	-	-62.2%	-2.5%	2.0%	9.1%

Source: HCCI, 2015.
Notes: Data represents the population of insureds 0-64 covered by ESI. Actuarial completion was performed on data from 2012 and 2013. All per capita dollars calculated from allowed amounts. All figures rounded.