HCCI HEALTH CARE COST INSTITUTE

2007–2011 Vermont Health Care Cost and Utilization Report

Revised December 2014

Executive Summary

This is the first report by the Health Care Cost Institute (HCCI) in cooperation with the Green Mountain Care Board (GMCB) about the health care trends of employer-sponsor insured Vermonters (VESI) younger than age 65. For this project, HCCI relied on 2007–2011 data from the Vermont Healthcare Claims Uniform Reporting and Evaluation System (VHCURES) all-payers claims data base maintained by the GMCB. This dataset provided HCCI with claims from more than 90 percent of the VESI population, or about 305,000 Vermonters per year.

The primary aim of the HCCI-GMCB collaboration was to investigate the drivers of VESI health care spending and examine those trends over time. The secondary aim of the collaboration was to compare Vermont findings to the employer-sponsored (ESI) population nationally. Therefore, metrics in this report were designed to be comparable to HCCI's 2012 *Health Care Cost and Utilization Report*.[1] All national statistics reported in this document come from that report and the underlying dataset associated with it.[2]

Spending trends

In national reporting, HCCI identified the Northeast census region as having the highest per capita ESI spending in the United States in 2011. However, per capita VESI spending was lower than the national average for all years of the study. VESI paid out of pocket a percentage of their health care spending smaller than the ESI national average. Nevertheless, VESI spending per capita and out-of-pocket spending per capita rose in every year and grew more rapidly than did ESI spending nationally.

Utilization, prices, and resource intensity

HCCI also examined expenditures by service category, medical services—inpatient facility, outpatient facility (including outpatient visits and outpatient-other services), and professional claims—and pharmacy services (see "Definitions"). Generally, VESI spending on inpatient facility services, outpatient visit facility claims, professional services, and generic prescriptions grew more quickly than did ESI spending nationally, whereas VESI spending on outpatient-other facility services and brand prescriptions grew more slowly comparatively.

Together, inpatient admissions and outpatient visits constituted about 30 percent of VESI health care spending per capita. VESI per capita spending on inpatient admissions rose at a pace faster than that of the national ESI average and was driven primarily by rising prices, as VESI admission rates per 1,000 insureds were lower than the national average. Similarly, expenditures per VESI on outpatient visits grew more quickly than the national ESI average, and rising visit prices accounted for most of this growth. Additionally, the intensity—that is, the complexity of services—of VESI outpatient visits was somewhat higher than the national ESI average.

Outpatient-other facility and professional claims accounted for nearly 50 percent of VESI health care spending. VESI outpatient-other facility and professional claims had relatively high intensity-adjusted prices, compared to these ESI claims nationally.

The remaining 20 percent of VESI per capita expenditures was for prescriptions. During the

study period, brand prescription spending fell owing to declining use over time. In contrast, generic prescription spending rose, although much of that annual growth came from a spike in prescription prices and use in 2009. For both the VESI and ESI national populations, the price per generic filled day remained at about $1 throughout the study period.

Emerging trends

HCCI identified a number of emerging trends of potential interest to policy makers, researchers, and the public:

Bending the cost curve. The health care cost slowdown of 2010 and 2011 was less pronounced in Vermont than nationally. In 2010, spending per VESI grew at a pace slower than that of Vermont's nominal gross domestic product. However, spending per VESI outpaced Vermont's economic growth by 1 percent in 2011. This trend should be watched carefully not only to help forecast health expenditures by employers and insureds but to test whether the slowdown was driven by the recession or whether spending growth was ameliorated by health reforms.

Lower out-of-pocket spending. VESI spent fewer out-of-pocket dollars per insured and directly paid a smaller share of the costs for their care as compared to their national counterparts. Health plan design was likely playing a role in lower, direct consumer payments for care in Vermont. However, this study did not examine the use of high deductible plans in Vermont, nor could it determine whether VESI had benefits designs different from the average ESI population.

Young adult spending. Analysts should continue to watch the young adult VESI population and their expenditures. The VESI young adult population's health care spending was higher than the national average for ESI young adults. At the same time, young adult VESI were also paying a share of their out-of-pocket health care spending greater than that of the average Vermonter with VESI. Whether the young adult VESI expenditures were a reflection of a post-recessionary rebound in health care spending, an artifact of benefit design, or a result of the introduction of new insureds under the Affordable Care Act's extension of parental coverage was unclear and deserves further investigation.

Acute care. VESI's relatively higher use and intensity of services for outpatient facility care combined with lower use and service intensity for inpatient admissions bear watching. On average, VESI used more outpatient services and had fewer inpatient stays than ESI nationally. What effect these care patterns have on VESI health status is unknown and requires analysis of health outcomes to determine whether national lessons can be learned from the Vermont experience.

Imaging and radiology. VESI billing trends for imaging and radiology practices were somewhat different from those observed nationally. More VESI imaging and radiology claims came through outpatient facilities than came from professionals. The relatively high number of outpatient-other facility claims for these services may be due to the structure of the Vermont health care delivery system. Given that the average VESI outpatient-other facility claim costs more than the average VESI professional claim, investigation of this provider practice structure and comparison with health outcomes could be useful in identifying high-value low-cost care.

Generic drug spending. In 2007–2008, VESI per-capita spending on generics was lower than the national ESI average; after 2009, VESI spending was higher than the national average. This report did not examine the reasons why a change in VESI generic spending occurred during the recession.

Conclusions

Several conclusions from this report should be noted. First, during the study period, VESI health care spending per person was lower than spending by ESI nationally, but spending grew more rapidly in Vermont. Second, Vermont's medical and pharmacy practice and billing patterns were somewhat different from the U.S. average. Third, VESI outpatient health care use was higher and had greater average intensity than that of ESI nationally. Nonetheless, as was true nationally, VESI medical expenditure growth was driven by rising prices, not increased utilization.

This study did not explore the roles of health status, age, chronic conditions, the recession, or Vermont's ongoing experiment with universal health insurance coverage. These factors may be playing a role in the trends observed in this report and should receive further study. If the data permit, some of these factors should be investigated to help future researchers, policy makers, and health care leaders to understand the determinants of health care costs and utilization for Vermont's VESI population. Moreover, this study did not seek to determine whether differences observed in use trends between ESI in Vermont and those in the United States as a whole have implications for health care quality and outcomes; further investigation of this question is warranted.

ON THE UPDATED REPORT

The initial *2007–2012 Vermont Health Care Cost and Utilization Report* was published in August, 2014. In September, researchers at Brandeis University and Truven used the associated *Methodology* to reproduce some of the statistics in the report. They found inconsistencies between their numbers and those reported by HCCI. The researchers contacted HCCI about the inpatient utilization, price, and intensity metrics reported, and HCCI began an investigation to see why the metrics were not the same.

HCCI reviewed the methods used to calculate inpatient admissions and found that all rules were followed as discussed in the *Methodology*. However, HCCI found that a programming error had occurred during data cleaning that resulted in an overestimate of the number of admissions per 1,000 insured Vermonters. HCCI informed the Green Mountain Care Board of the problems and promptly removed the report from the HCCI website.

In December 2014, HCCI released an updated and corrected report. The only statistics that changed in the report were for Vermont inpatient care: admissions per 1,000 insured, average price paid, average intensity per admission, average intensity-adjusted price per admission, and length of stay. A few stylistic changes were also incorporated in the revised version.

In brief, VESI had fewer admissions per 1,000 insured in all years than previously reported, and fewer than the national average. For 2011, this resulted in 44 admissions per 1,000 VESI in the revised report, compared to 68 per 1,000 VESI in the original. Fewer inpatient admissions led to a higher price per admission in all years than previously reported for Vermont (about $5,380 higher in the revised report for 2011). With the revision, average intensity of inpatient care dropped and was lower than the national average in all years, and the intensity-adjusted prices for inpatient care were therefore nearly twice as much per admission than previously reported. Length of stay per admission in Vermont was revised to nearly the same as the national average, whereas it was nearly a day shorter in the original report. The VESI price per admitted day was already lower than the national average and fell further to $3,754 per day in the revised report. Due to these corrections, the decline in VESI inpatient admissions over the study period (2007-2011) was more pronounced and inpatient prices grew faster than originally estimated.

DEFINITIONS

COINSURANCE PAYMENTS. Coinsurance is the portion of covered health care costs borne by an insured. After the insured meets a deductible requirement, insurers typically apply coinsurance according to a fixed percentage of the prices paid.

COPAYS. Copays are a cost-sharing arrangement in which the insured pays a specified charge for a specified service. Insurers typically set copays as fixed flat amounts for physician office visits, prescriptions, or hospital services.

DEDUCTIBLES. Deductibles are the amount that the insured must pay out of pocket to providers before the health plan makes any reimbursement. For example, an insured with a $1,000 deductible would pay the first $1,000 of service costs in the given year. After the deductible is satisfied, the insured and the health plan jointly pay further expenses according to the insurance contract.

INTENSITY. Intensity is a measure of the complexity of a service, including the length of time, the severity of the illness addressed, and the amount of resources required for treatment. Many reasons can explain changes in the intensity of services, including new and better forms of treatment, the health status of the population receiving services, and modifications in the reimbursement system that either encourage or discourage one form of treatment over another. HCCI measures intensity by assigning a weight designed by the Centers for Medicare and Medicaid Services and commercially adjusted to each medical service, when possible. HCCI does not calculate intensity of prescriptions, as the dosage levels and days are fully captured by the price.

INTENSITY-ADJUSTED PRICE. Isolating the effect of intensity on the price paid per service allows for the calculation of an intensity-adjusted price. The patient never sees this price directly. The intensity-adjusted price, or unit price, is calculated by dividing the price paid for the service by the intensity of the service. For example, intensity equal to one would lead to no difference between prices paid and intensity-adjusted prices. Intensity greater than one would lead to intensity-adjusted prices being higher than prices paid; and an intensity-level less than one would mean that intensity-adjusted prices were less than the prices paid. Using this metric, HCCI is able to determine how much of the change in price growth came from changes in resource use (intensity growth) and how much came from changes in other factors influencing prices (intensity-adjusted price growth).

MEDICAL SERVICE, SUBSERVICE, AND DETAILED CATEGORIES. Three medical service categories are identified: inpatient facility, outpatient facility, and professional. HCCI reports on three facility subservice categories: acute inpatient (which excludes skilled nursing facilities, hospice care, and ungroupable claims); outpatient facility visits; and outpatient-other facility services.[4] These categories are then further classified into “detailed service” categories.

OUT-OF-POCKET EXPENDITURES PER CAPITA. Insureds make out-of-pocket payments directly to a health care provider; these expenditures include any copayments, coinsurance payments, and deductible payments. Any health care payments made out of pocket were not included in this metric if no claim was filed (as would be the case with over-the-counter medicines). HCCI calculated out-of-pocket expenditures per capita by dividing total out-of-pocket expenditures by the insured population.

PAYER EXPENDITURES PER CAPITA. Payer expenditures are dollars paid by the insurer directly to a health care provider on behalf of the insured. Any rebates, discounts, incentive payments, or administrative costs that are not captured by the claims system were excluded. HCCI calculated payer expenditures per capita by dividing total payer expenditures by the insured population.

PRESCRIPTION SERVICE, SUBSERVICE, AND DETAILED SERVICE CATEGORIES. HCCI analyzes prescription drug and device claims from pharmacies. The prescription service category is further classified by brand and generic drug subservice categories.

SPENDING PER CAPITA. Per capita health spending is an estimate of total expenditures paid for individuals younger than age 65 and covered by ESI divided by the population of insured individuals.

Vermont ESI Health Care Cost and Utilization: Key Findings for 2011

	2011	Difference from U.S. average		Change 2010/2011	Percentage point difference from U.S. average	
Per Capita Spending						
Vermonter	$4,408	↓	–$112	4.2%	↑	+0.1
Male Vermonter	$3,876	↓	–$101	4.8%	↑	+0.2
Female Vermonter	$4,918	↓	–$116	3.9%	↑	+0.2
Child (0–18)	$2,080	↓	–$259	7.7%	↓	–0.1
Young adult (19–25)	$2,423	↑	+$5	10.2%	↑	+1.9
Adult (26–44)	$3,738	↓	–$196	4.3%	↑	+1.0
Adult (45–54)	$5,482	↓	–$383	3.3%	↓	–0.5
Pre–Medicare adult (55–64)	$7,734	↓	–$973	3.5%	↑	+0.4
Medical Care						
Acute Inpatient facility claims						
Spending per Vermonter	$656	↓	–$282	3.4%	↓	–1.2
Average price paid per day	$3,754	↓	–$160	0.8%	↓	–3.5
Days per 1,000 insured	175	↓	–65	2.6%	↑	+2.3
Outpatient Visits (ER, Surgery, Observation) facility claims						
Spending per Vermonter	$802	↑	+$49	7.0%	↑	+0.3
Average price paid per visit	$2,414	↑	+$95	2.9%	↓	–2.0
Visits per 1,000 insured	332	↑	+7	4.0%	↑	+2.3
Outpatient–Other facility claims						
Spending per Vermonter	$811	↑	$329	4.1%	↓	–1.0
Average price paid per procedure	$160	↓	–$25	4.4%	↑	+0.4
Procedures per 1,000 insured	5,067	↑	+2,457	–0.3%	↓	–1.4
Professional Procedure claims						
Spending per Vermonter	$1,354	↓	–$195	5.9%	↑	+2.1
Average price paid per procedure	$113	↑	+$17	2.9%	→	0
Procedures per 1,000 insured	11,941	↓	–4,139	2.9%	↑	+2.0
Pharmacy Claims						
Brand Prescriptions						
Spending per Vermonter	$498	↓	–$45	–0.1%	↓	–4.1
Average price paid per filled day	$8	→	0	20.2%	↑	+2.0
Filled days per 1,000 insured	62,966	↓	–6,978	–16.9%	↓	–4.9
Generic Prescriptions						
Spending per Vermonter	$277	↑	+$33	–0.8%	↑	+2.4
Average price paid per filled day	$1	→	0	–2.6%	↑	+5.1
Filled days per 1,000 insured	261,397	↑	+51,294	1.9%	↓	–3.0

Annual Health Care Expenditures Per Capita

Between 2007 and 2011, VESI spending per capita on combined medical and pharmacy services rose from $3,549 to $4,408 (Figure 1 and Table 1). Generally, VESI had per capita health expenditures lower than those of ESI nationally. This was true in all years of the study (2007–2011), which spanned the national and state recession and recovery periods. However, the per capita spending gap between the national ESI and VESI shrank by $91 over the period.

KEY FINDINGS

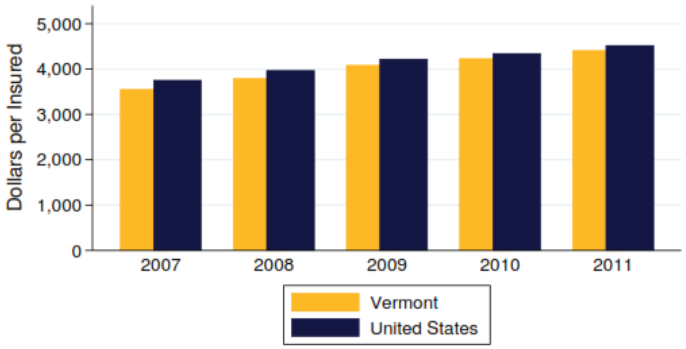
HEALTH CARE SPENDING PER VERMONT ESI GREW FASTER THAN THE NATIONAL AVERAGE

- Of interest to many state and federal policy makers is how Vermont's efforts to "bend the cost curve" are working and how these efforts compare to the nation as a whole.
- Less was spent per VESI as compared to ESI nationally ($4,408 and $4,520, respectively, in 2011).
- However, in most years, spending on VESI young adults was higher than the national ESI young adult average ($2,423 and $2,418, respectively, in 2011).
- Between 2007 and 2011, VESI health care spending slowed by 2.7 percentage points from 6.9% per year to 4.2% per year.
- Annually, VESI spending per capita grew more quickly than national spending per ESI.

During the 5 years studied, VESI health care expenditure growth slowed from 6.9 percent to 4.2 percent (Figure 2 and Table 2). During this period, the average annual per capita growth rate for VESI was 5.6 percent. Consistent with the national ESI trend, the year of lowest spending growth in Vermont was 2010, when health spending per VESI slowed by 4.0 percentage points (to 3.6 percent).

Per capita spending for VESI grew more rapidly than national ESI spending rates in every year between 2007 and 2011 (Figure 2). Vermont, like the national ESI population, experienced a slowdown in ESI expenditure growth during and after the Great Recession. During the recession (2007–2009), per capita VESI spending grew more rapidly than per capita ESI spending nationally. In 2010, the first year of the economic recovery, VESI spending grew at 3.6 percent, which was 0.7 percentage points faster than the national ESI spending growth rate. In 2011, the rates of growth for the national and Vermont ESI populations were 4.1 percent and 4.2 percent, respectively.

Figure 1
Vermont and national expenditures per ESI: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

VESI expenditures grew more slowly than the Vermont economy (as measured by gross domestic product) in 2010 but grew more rapidly than Vermont's economy in 2011 (Figure 3). Vermont's health care spending growth in 2011 was higher than the increase in national spending in that year, in part because, in 2010, VESI spending did not slow as dramatically as did national ESI spending.

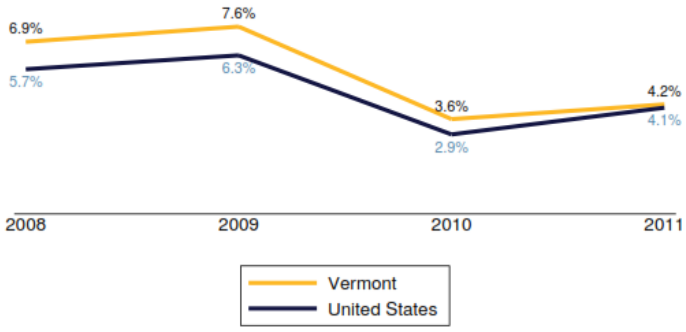
Spending by age

HCCI analyzed health care spending per VESI by age group (Table 1). The five analyzed age groups were children (ages 0–18), young adults (ages 19–25), adult groups (ages 26–44 and 45–54), and pre-Medicare adults (ages 55–64).

Similar to national ESI spending trends, VESI spending was lowest for children and highest for pre-Medicare adults (Table 1 and Figure 4). Between 2007 and 2011, per capita VESI spending on children rose by $430 (to $2,080). During those years, spending per VESI young adult rose by $379 (to $2,423) and by $646 (to $3,738) for adults ages 26 to 44. Spending on VESI adults ages 45 to 54 rose by $814 (to $5,482) and from $1,347 to $7,734 for pre-Medicare adults.

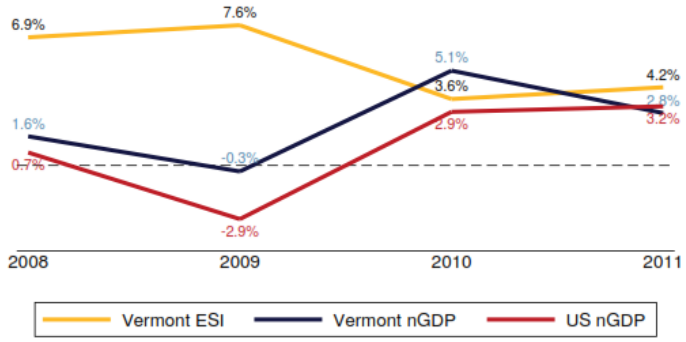
Figures 5–9 compare VESI and ESI spending by age group. In all years, VESI spending per child and per adult ages 26 to 64 was lower than the respective national ESI spending levels for those age groups. For young adults, per capita spending

Figure 2
Change in Vermont and national expenditures per ESI: 2008-2011



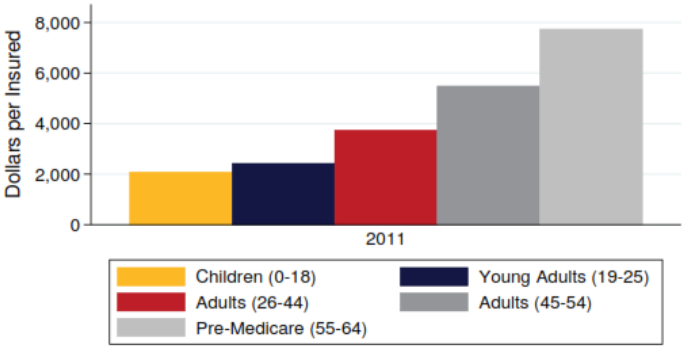
Source: HCCI, 2013.
Notes: All data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 3
Change in Vermont expenditures per ESI, Vermont gross domestic product (GDP) per capita, and National GDP per capita: 2008-2011



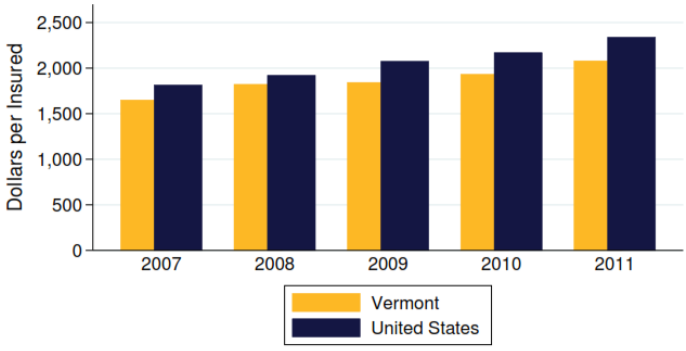
Source: HCCI, 2014. National Health Estimates, 2014.
Notes: All ESI data weighted to reflect the national, younger than 65 ESI population.
VT data (2007-2011) adjusted using acturial completion. GDP changes in nominal dollars.
Dashed lined indicates 0% change.

Figure 4
Vermont expenditures per ESI by age group: 2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 5
Vermont and national expenditures per ESI child (ages 0-18): 2007-2011

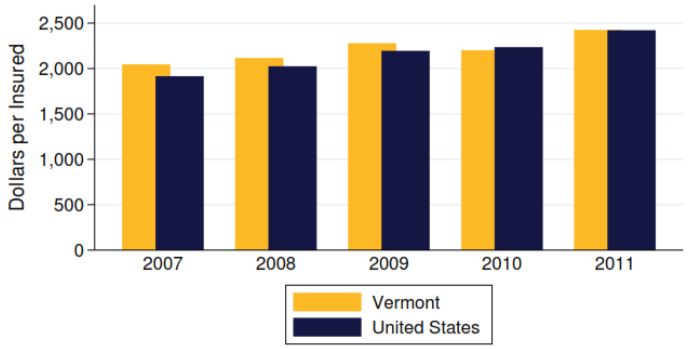


Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

levels were higher in Vermont than nationally in all years except 2010.

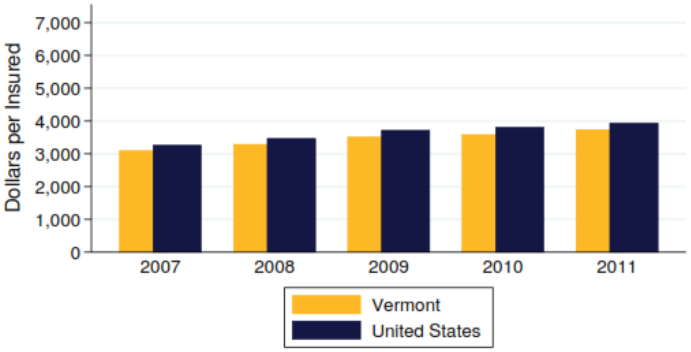
Per capita health care spending in Vermont grew at a faster rate than the national average, likely owing to the spending growth rates for most VESI adults (Table 2 and Table 3). Over the 2007–2011 study period, VESI children's health expenditures grew an average 6.0 percent per year as compared with the national ESI children's average of 6.6 percent per year. Expenditures on VESI young adults rose more slowly than for all other VESI age groups until 2011, when the VESI young adult growth rate increased by 10.2 percent. Nationally, young adult ESI spending growth also spiked in 2011.[1] The average annual growth rate for VESI spending on young adults was 4.3 percent per year, about 1.7 percentage points slower than the national ESI young adult rate. Spending on VESI adults ages 26 to 44 and on pre-Medicare adults grew by 4.9 percent per year, with spending on both groups slowing down after 2009. For adults ages 26 to 44, estimates of average annual growth rates for the ESI populations in Vermont and in the United States were nearly the same. VESI spending for pre-Medicare adults grew about 0.8 percent more rapidly than did the national ESI average. VESI spending grew most slowly for adults ages 45 to 54 at an average 4.1 percent per year, which was 0.4 percentage points slower than the national ESI growth rate for that age group.

Figure 6
Vermont and national expenditures per ESI young adult (ages 19-25): 2007-2011



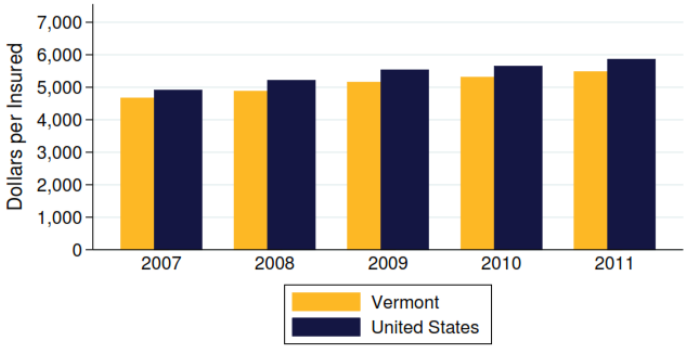
Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 7
Vermont and national expenditures per ESI adult (ages 26-44): 2007-2011



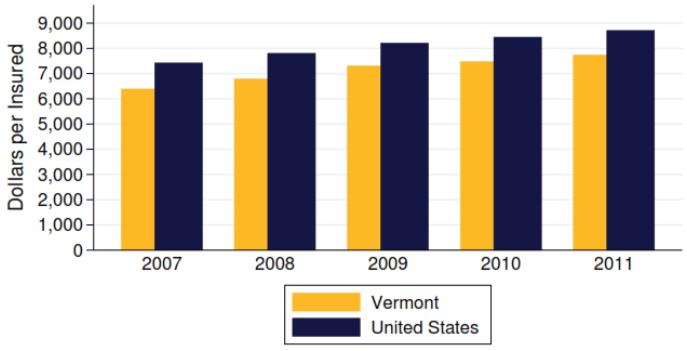
Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 8
Vermont and national expenditures per ESI adult (ages 45-54): 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 9
Vermont and national expenditures per ESI pre-Medicare adult (ages 55-64): 2007-2011



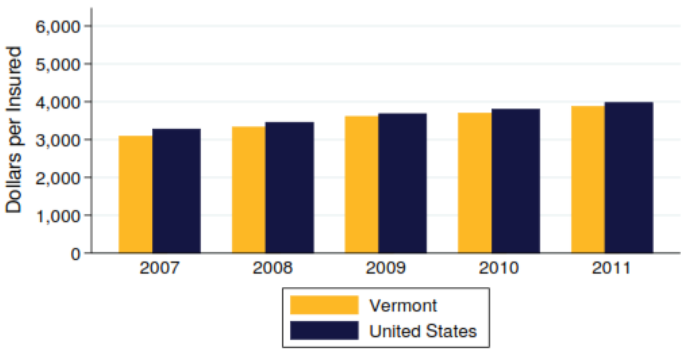
Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Spending by gender

Between 2007 and 2011, per capita spending on VESI men rose by $785 (to $3,876), while per capita spending on VESI women rose by $927 (to $4,918).[3] Growth in VESI expenditures slowed for both genders after 2009 (Table 2). Men's spending grew at 5.8 percent per year, while women's spending grew at 5.4 percent per year (Table 3). Despite women's slightly slower spending growth, the gap in spending levels between men and women widened between 2007 and 2011 (from $900 to $1,042).

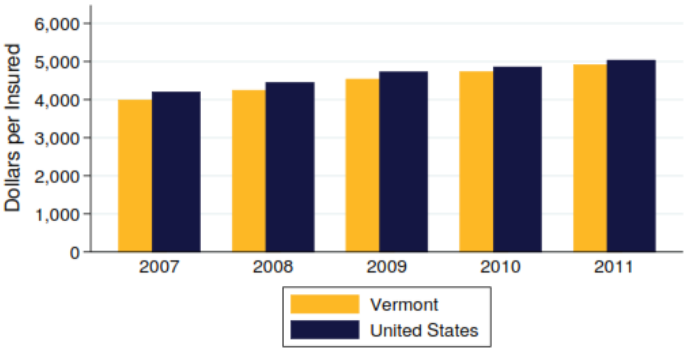
VESI annual spending levels were consistently lower than those for ESI men and women nationally (Figures 10 and 11). However the gap between Vermont's and national spending levels for men and women shrank over time. In 2007, VESI spending on men was about $186 less than that for ESI men nationally; by 2011, the gap had shrunk to $101. For women, the spending gap between VESI and ESI nationally narrowed during the 2007–2011 period, from a $210 difference to a $116 difference. Compared to national ESI spending levels, VESI spending on men and women grew on average about 0.8 percentage points more quickly (Table 3).

Figure 10
Vermont and national expenditures per ESI man: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 11
Vermont and national expenditures per ESI woman: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Out-of-Pocket Spending

The dollars paid to providers for health care services for the ESI come either from employers and health plans ("payers") or directly from the insured. Those direct, or "out-of-pocket," payments are often negotiated by the health plans on behalf of the insured. The payments consist of deductibles, co-payments, and co-insurance. Nationally, as benefit packages change, the risk associated with the burden of health care payments has shifted away from payers to the insured (for example, through high deductible plans), with insureds paying more out of pocket for their health care.

KEY FINDINGS

Most ESI Vermonters had lower spending out of pocket than did ESI nationally

VESI bear slightly less of their care costs directly, as compared to their national counterparts.

- Out-of-pocket per capita health care spending was lower for VESI ($595 per capita in 2011) than for the national ESI population ($733 per capita in 2011).
- VESI paid a smaller portion of their health care bill out of pocket (13.5% in 2011) than did the average person covered by ESI (16.2% in 2011).
- In 2011, VESI paid about 3% of inpatient spending out of pocket ($20 per capita), compared to 9% paid out of pocket for outpatient visits ($79 per capita).
- VESI paid about 13% of other-outpatient claims ($108 per capita) and 18% of professional claims ($238 per capita) out of pocket in that year.
- VESI paid out of pocket about 15% of brand prescription spending ($76 per capita) and 26% of generic prescription spending ($73 per capita) in 2011.

In 2007, VESI paid to providers about $449 per person out of pocket; by 2011, this amount had increased to $595 per person (Table 4). In all years, VESI paid about 13 percent of per capita health care spending out of pocket. Employers and health plans paid the remaining 87 percent ($3,813 per VESI in 2011) to providers (Table 5).

VESI out-of-pocket spending grew at an average annual rate of 7.3 percent (Table 6), which was faster than aggregate annual VESI spending growth.

Compared to ESI nationally, VESI paid less out of pocket and a smaller share of their spending out of pocket. In 2011, the national ESI population paid an average $733 per person out of pocket,[1] which was $138 more per person than for VESI. However, VESI saw their annual out-of-pocket spending grow about 1.8 percentage points more rapidly per year than the national ESI average (Table 6).

Out-of-pocket spending by gender

In 2011, VESI out-of-pocket spending was $669 per woman, compared with $517 per man (Table 4). With the exception of 2010, when both men and women paid about 13.2 percent of their health care bill out of pocket, VESI women paid a

larger share of their health care bills out of pocket than did VESI men. In 2011, women paid 13.6 percent out of pocket, compared with 13.3 percent paid by men.

VESI out-of-pocket spending growth was faster for men before 2010 and faster for women after 2010 (Table 7). The difference in out-of-pocket spending by gender widened between 2007 and 2011. In 2007, VESI men paid about $122 less out of pocket than did VESI women; in 2011, the out-of-pocket difference was $152 more for women than for men (Table 4). Changes in spending by VESI payers are presented in Table 8.

For both genders, VESI out-of-pocket spending in 2011 was lower than the ESI national average. Nonetheless, out-of-pocket spending by VESI men and women grew at a pace faster than that of their respective national ESI averages (Table 6).

Out-of-pocket spending by service category

To determine where the VESI population spent its out-of-pocket dollars, HCCI analyzed out-of-pocket spending by health care service categories. For the ESI populations nationally and in Vermont in all years, most of the out-of-pocket spending was for professional claims; spending out of pocket was least for inpatient care (Table 9). In 2011, VESI paid about 3 percent ($20 per capita) of their inpatient care out of pocket, compared with 10 percent ($79 per capita) for outpatient visits. Between 2007 and 2011, the share of VESI out-of-pocket spending on outpatient-other facility claims rose from 11 percent to 13 percent ($108 per capita). In 2011, VESI out-of-pocket spending for professional claims was $238 per capita, or about 18 percent of the professional bill. Between 2007 and 2011, out-of-pocket spending for brand prescriptions fell from 17 percent to 15 percent ($76 per VESI). During that period, average out-of-pocket spending by VESI on generic prescriptions fell from 30 percent of the bill to 26 percent ($73 per VESI).

OUT-OF-POCKET SPENDING BY YOUNG ADULTS

Relative to other age groups in Vermont, young adult VESI paid the largest share of their health care spending out of pocket (Table 4). Young adults paid about $413 out of pocket, or 17.0% of their health care bill in 2011, as compared to the Vermont average of 13%. This was a relative easing of their cost burden, as the share that young adults paid out of pocket in 2011 was down from 2009 and 2010, when they paid 17.4% and 18.0%, respectively.

Young adult VESI out-of-pocket spending grew more slowly than the national average for that age group (Table 6). Young adults in Vermont saw their out-of-pocket spending rise 4.8% per year during the study period, whereas young adults nationally saw spending rising 6.3% per year.

One possible reason why young adults paid relatively more out of pocket than the average VESI is that they may have used services that, under the ESI benefit design, were less covered. HCCI did not have information about benefit design and, therefore, could not determine how benefit design effected young adult spending.

Inpatient Admissions and Outpatient Visits

Hospitalizations and outpatient visits are the two most expensive categories of medical care on a service-by-service basis. Inpatient care is any care delivered in an inpatient facility and billed by that facility directly. This includes hospitalizations for medical, surgical, labor and delivery, skilled nursing, hospice, substance use, and mental health care. Outpatient visits occur when a patient receives care in an outpatient care facility for three major categories of service: emergency room care, outpatient surgery, and observation. For the purposes of analysis, only the bills paid to the facility that delivered the care are considered part of an inpatient admission or outpatient visit. Any claims made by other care providers (such as medical groups, technicians, or external labs) appear in other medical service categories.

KEY FINDINGS

VESI INPATIENT ADMISSION AND OUTPATIENT VISIT TRENDS DIFFER FROM THOSE OF THE AVERAGE ESI

- Spending for inpatient care and outpatient visits made up about 33% of health care spending per VESI, compared with 38% of spending per ESI nationally (2011).
- VESI spent less than ESI nationally on admissions ($663 and $950, respectively, in 2011).
- Despite similar lengths of stay, VESI spent less than ESIs nationally on acute inpatient visits, in part owing to lower prices paid per day for care (annual averages of $202 less per day in Vermont) and fewer inpatient admissions than ESIs nationally.
- Visit spending per VESI was higher than that of ESI nationally ($802 and $753, respectively, in 2011), largely owing to more Vermonter visits (annual averages of 3 visits per 1,000 insured more in Vermont) and higher prices (annual averages of $96 more per visit in Vermont).
- VESI visits had higher intensity of care–meaning that those services required more resources than those in the national average.

Inpatient admissions

In 2011, VESI had 44 inpatient admissions per 1,000 at an average price of $15,109 per admission (Table 10). Between 2007 and 2011, per VESI spending on inpatient care rose from $494 to $663 (Table 11) but was consistently lower than the national ESI average (Figure 12), which was $950 in 2011.[1]

Per capita VESI spending for inpatient care grew at an average annual rate of 7.7 percent; per capita spending for acute inpatient care without skilled nursing and hospice claims grew an average of 7.6 percent per year (Table 12). Inpatient spending growth slowed every year during the period (Figure 13). Inpatient per capita spending grew much more rapidly for VESI as compared to the national ESI average spending in all years (except 2011).[1]

Three major factors played a role in inpatient spending trends: admissions rates, price growth, and length of stay. Generally, health care spend-

ing growth is driven by changes in prices and changes in the number of services used. Understanding how changes in prices and use interacted to create spending growth helps to explain what drives up health care costs. For inpatient care, this explanation is complicated by the length of time a person stays in the hospital.

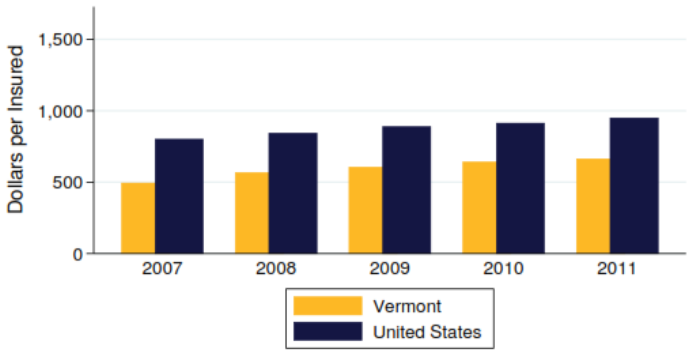
Admissions. VESI inpatient admission trends over the time period were quite different from ESI trends nationally. There were an average of 45 admissions per 1,000 VESI per year compared with 63 admissions per 1,000 ESI per year.[1] If Vermont's prices paid per admission matched national average prices, Vermont would have had higher spending per capita on inpatient care. However, Vermont's prices paid per admission ($15,109 in 2011; Table 10) were slightly lower than the national average ($15,582 in 2011).

Inpatient price growth. For all years of the study, VESI inpatient spending growth was driven more by increasing prices than by changes in use, as the prices paid per admission in Vermont grew more rapidly than did admissions (Table 12). Between 2007 and 2011, the price per inpatient admission grew an average 8.5 percent per year, whereas the number of inpatient admissions per 1,000 VESI declined at an average 0.8 percent per year.

Acute inpatient price growth. To simplify its analysis, HCCI also examined acute inpatient admissions (inpatient admissions excluding skilled nursing facilities and hospice claims) between 2007 and 2011 for the ESI populations in Vermont and those nationally. For VESI, acute inpatient care utilization declined by 1.0 percent per year, while prices rose at 8.8 percent per year (Table 12). The intensity of VESI admissions was somewhat lower than that of the national ESI population. As a result, after adjustment for intensity of care, acute admission prices grew by 5.7 percent per year—barely higher than the national rate.

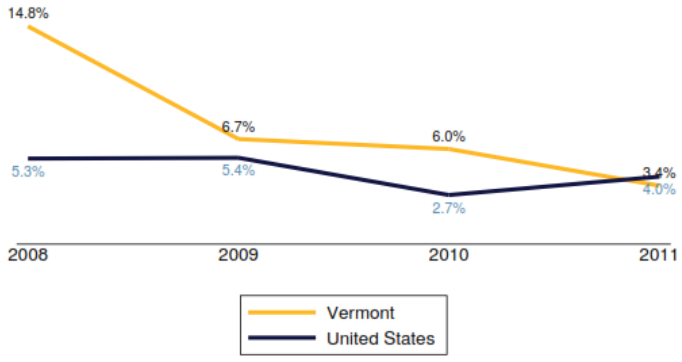
Length of stay. In Vermont, the average length of stay for acute care facilities was 4.1 days as compared with 3.9 days nationally (Table 13). Over the study period, VESI acute inpatient admission price per day was on average $202 less than the national ESI inpatient admission price per day (Vermont data, Table 13; national data not shown). Despite the similar lengths of stay for these populations, the lower price per admitted day and fewer admissions per 1,000 helped to

Figure 12
Vermont and national inpatient admission expenditures per ESI: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 13
Change in Vermont and national inpatient admission expenditures per ESI: 2008-2011



Source: HCCI, 2013.
Notes: All data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

keep Vermont inpatient spending per person lower than that per national ESI person.

Outpatient visit spending trends

Between 2007 and 2011, per capita VESI spending on outpatient visits (emergency rooms, observation, and outpatient surgery) rose from $561 to $802 (Table 11). For these services, per capita VESI spending was higher than ESI spending nationally (Figure 14).

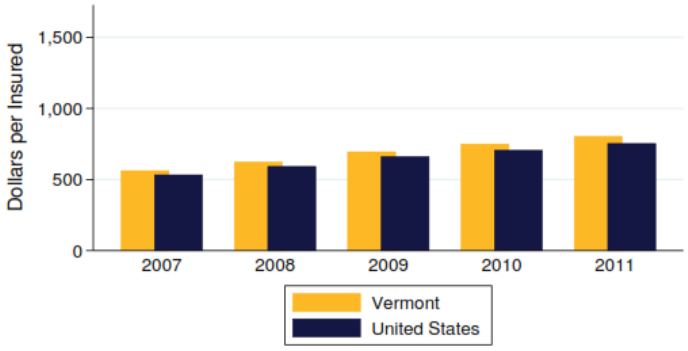
Growth in VESI spending on outpatient visits rose at an average annual rate of 9.3 percent. This rate was higher than national ESI trends, which grew at an average annual rate of 9.1 percent.[1] VESI spending growth for these services slowed between 2009 and 2011 (Table 14).

Outpatient visits grew during the 2007–2011 period, rising from 318 visits per 1,000 VESI to 332 visits per 1,000 VESI (Table 11). Visit growth slowed between 2008 and 2010 and then rose sharply in 2011 (Figure 15). In 2008, utilization grew by about 2.3 percent; it fell by 2.4 percent in 2010 and rose by 4.0 percent in 2011. Over the study period, VESI outpatient visits grew at an average annual rate of 1.1 percent (Table 15).

Visit prices for VESI rose throughout the period, growing at an average annual rate of 8.1 percent (Table 12). In 2007, the average VESI price for an outpatient visit was $1,766; by 2011, it was $2,414 (Table 10). The intensity of VESI outpatient visits rose slightly over time at an average annual rate of 0.8 percent, indicating that relatively little of the increase in outpatient visit prices came from changes in the intensity of care.

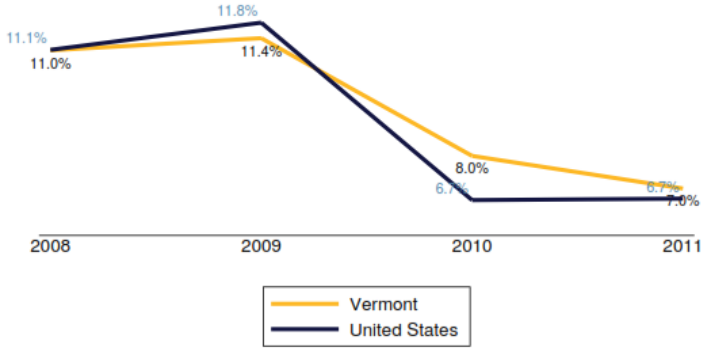
Generally, VESI used more outpatient visits and paid higher outpatient visit prices than those of the national ESI population.[1] During the study period, VESI had 3 visits per 1,000 more per year than the national ESI average (data not shown). The VESI price for outpatient visits was about $96 more per visit than for the national ESI average. Much of the difference in prices had to do with the intensity of care. VESI had higher care intensity per outpatient visit (annual average of 16.4) than did the average ESI visit nationally (annual average of 15.7). The intensity-adjusted average price of an outpatient visit in both Vermont and the nation was the same—about $129 per visit during the study period.

Figure 14
Vermont and national outpatient visit expenditures per ESI: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 15
Change in Vermont and national outpatient visit expenditures per ESI: 2008-2011



Source: HCCI, 2013.
Notes: All data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Outpatient-Other and Professional Claims

Some of the services provided by outpatient-other facilities (such as labs, imaging, and radiology) and medical professionals (such as physicians, nurse practitioners, and therapists) are substitutable. Outpatient facilities may perform laboratory tests and imaging, as may professionals in private practice. Outpatient facilities and physician offices, however, can have different billing codes and different prices for what appear to be similar services.

KEY FINDINGS

VESI SPENT MORE THAN ESI NATIONALLY ON OUTPATIENT-OTHER FACILITY USE AND LESS ON PROFESSIONAL CLAIMS

Vermont practice or billing patterns may have driven this trend.

- Outpatient-other facility use and professional spending made up about 49% of the dollars spent per VESI (2011).
- Compared to ESI nationally, VESI spent more per person on outpatient-other facilities (annual average of $325 more per VESI than ESI nationally).
- Compared to ESI nationally, outpatient-other VESI prices and utilization were higher by an annual average of $25 per claim and 2.6 claims per insured.
- VESI spent less on professional claims than ESI nationally (annual average of $209 less per VESI).
- Lower VESI professional spending was due to lower use than ESI nationally (4 claims less per VESI in 2011).

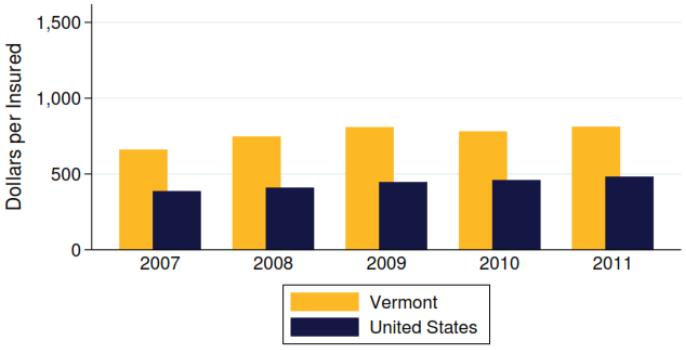
Outpatient-other claim trends

Between 2007 and 2011, per capita VESI spending on outpatient-other facility care rose from $659 to $811 (Table 15 and Figure 16). On an average annual basis, VESI spending on these services was about $325 greater per person than the national ESI average.[1]

VESI spending on outpatient-other care grew at an average annual rate of 5.3 percent (Table 16), slowing from 13.2 percent in 2008 to 4.1 percent in 2011 (Table 15 and Figure 17). By comparison, over the study period, per capita ESI spending nationally for these services grew at an average annual rate of 5.7 percent.[1]

Rising prices helped to drive outpatient-other facility spending growth. Prices for these services grew an average of 4.8 percent annually (Table 14). In 2011, the VESI average price paid for out-

Figure 16
Vermont and national outpatient-other facility expenditures per ESI: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

patient-other ($160) was lower than the national ESI average ($185).[1]

As seen in Table 16, outpatient-other utilization rose at a rate of 0.5 percent per year. In 2011, there were about 5.1 claims per VESI, down from a high of 5.3 claims per VESI in 2009. VESI had 2.6 more outpatient-other claims per capita annually than did the national ESI average.[1]

The differences in use of outpatient-other care between VESI and ESI nationally was more distinct when examined by outpatient-other detailed service categories (Figure 18). In 2011, VESI had about 3.2 lab/pathology claims per person, compared to 1.2 claims per person for ESI nationally. VESI also had considerably more claims per person for radiology in that year. Together, the higher volumes for lab/pathology and radiology accounted for most of the difference between VESI and ESI nationally for the outpatient-other category as a whole.

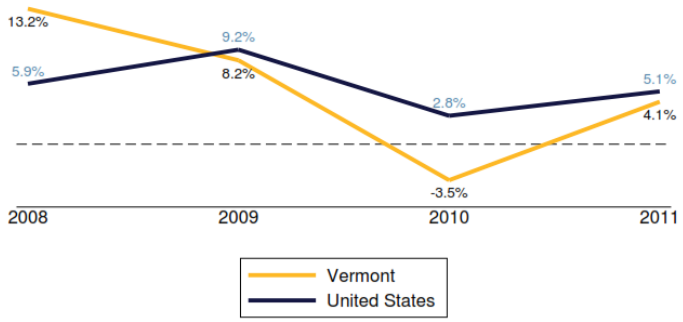
During this period, the intensity of those claims fell by 0.9 percent per year. Nonetheless, the average VESI intensity-adjusted price of an outpatient-other claim in 2011 was higher—at $195—than the ESI national average at $143.

Professional claim trends

Between 2007 and 2011, per capita VESI spending on professional claims rose from $1,149 to $1,354 (Table 15 and Figure 19). On average, VESI per capita spending on professional claims was lower than the national ESI average by about $209 per insured.[1]

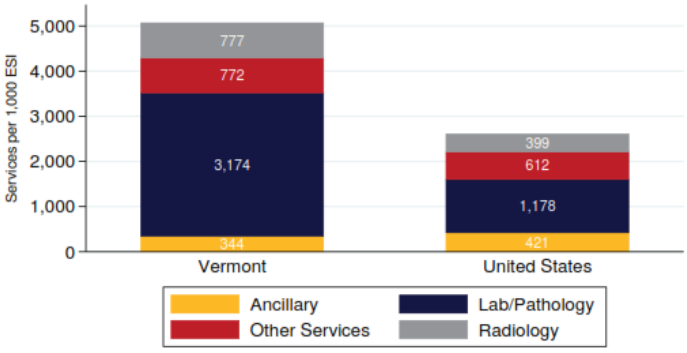
VESI spending for professional claims grew at an average annual rate of 4.2 percent, which increased during the study period from 3.2 percent in 2008 to 5.9 percent in 2011 (Table 14, Table 16, and Figure 20). In contrast, national ESI spending on professional claims slowed over time and grew at an average annual rate of 3.7 percent,

Figure 17
Change in Vermont and national outpatient-other facility expenditures per ESI: 2008-2011



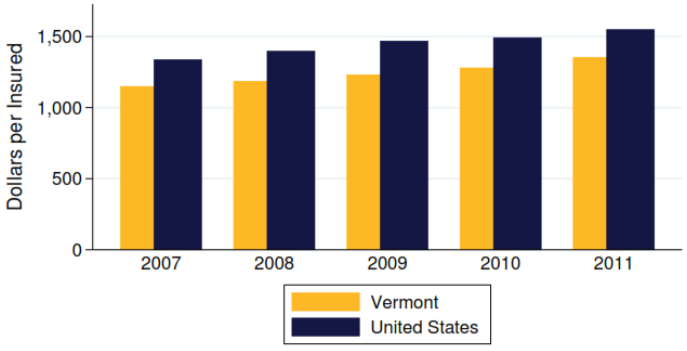
Source: HCCI, 2013.
Notes: All data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.
Dashed lined indicates 0% change.

Figure 18
Detailed service category counts of Vermont and national outpatient-other utilization per 1,000 ESI: 2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 19
Vermont and national professional expenditures per ESI: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

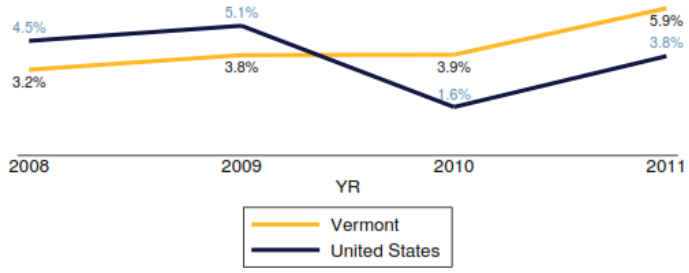
which was slower than VESI spending growth for these services.

VESI claims for professional services grew by 1.0 percent per year during the study period (Table 16). In 2011, VESI use of these services (12 claims per person) was somewhat lower than ESI use nationally (16 claims per person).[1]

Professional claim prices grew steadily at an average annual rate of 3.2 percent (Table 16), while intensity declined over time. After adjusting for intensity, prices rose at an annual rate of 3.8 percent. On average, VESI prices for professional services were somewhat higher than ESI prices nationally. In 2011, the average VESI price for professional procedures was $113, whereas the intensity-adjusted price was about $65 (Table 14). By comparison, the average ESI price nationally for professional procedures was $96, and the intensity-adjusted price was about $56.[1]

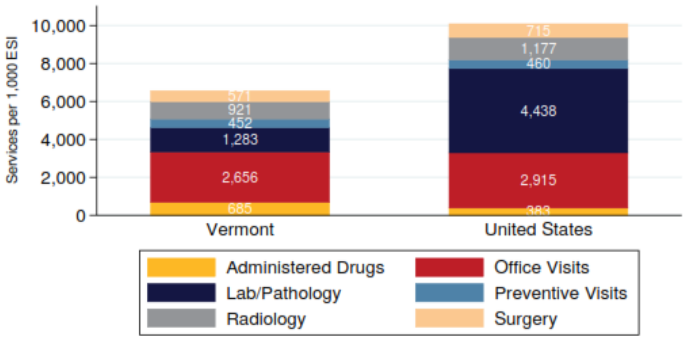
Utilization differences between VESI and ESI nationally were clear with respect to professional lab/pathology detailed service category claims. As seen in Figure 21, 2011 saw about 1.3 lab/pathology professional claims per VESI as compared with 4.4 claims per ESI nationally. This difference in lab/pathology claims alone makes up 75 percent of the difference in the professional procedures utilization differences between VESI and ESI nationally.

Figure 20
Change in Vermont and national professional expenditures per ESI: 2008-2011



Source: HCCI, 2013.
Notes: All data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 21
Selected detailed service category counts of Vermont and national professional utilization per 1,000 insured: 2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.
Graph excludes data from Other Professional claims.

WHY DID VESI, ON AVERAGE, USE FEWER PROFESSIONAL SERVICES THAN DID ESI NATIONALLY?

The use of outpatient-other facility services helps explain why the professional claim use rates were relatively lower for VESI as compared to the ESI national average. Some services (including laboratory testing and radiology) are delivered in various settings, such as hospital-based ambulatory care centers or in physician offices. Vermont may be a state in which billing, practice patterns or local markets encourage insureds to seek care in outpatient facilities. This study did not explore what policy, practice, or benefit mechanisms might influence the choice of provider or testing facility nor did it explore whether services performed in one setting or another resulted in higher or lower care quality or cost.

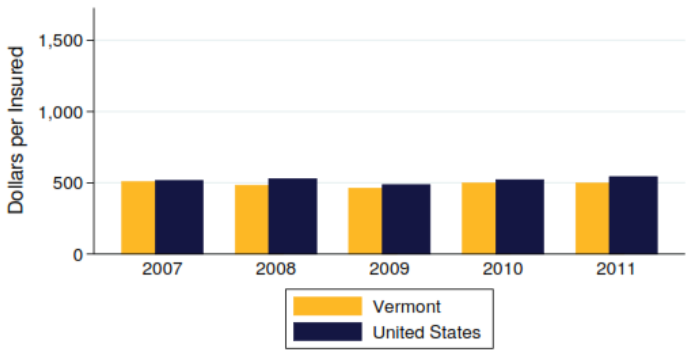
Brand and Generic Prescriptions

KEY FINDINGS

VESIs SPENT MORE PER PERSON ON GENERICS AND LESS ON BRAND PRESCRIPTIONS THAN ESIs NATIONALLY

- Annually, VESI spent an average of $12 more per insured on generic and $29 less per insured on brand prescriptions than ESI nationally.
- Unlike national ESI trends, VESI had declining per capita brand prescription spending (annual average rates of 1.3% and –0.5%, respectively). Declining VESI brand spending was due to falling brand prescription use (annual average rate of –14.5%).
- VESI used 51.3 more filled generic days than did ESI nationally in 2011.
- Prices paid per day for brand and generic drugs rose over time for VESI (annual average rates of 16.4% and 4.7%, respectively).

Figure 22
Vermont and national brand prescription expenditures per ESI: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Not every employer offers prescription coverage as part of ESI.[2] In 2007, about 93 percent of VESI with medical coverage also had prescription coverage. By 2011, about 79 percent of VESI had prescription coverage, and the remainder had prescription coverage through a carve-out or no-prescription coverage. Therefore, HCCI's findings are not representative of individuals who had ESI medical coverage and received prescription coverage through other means.

Brand prescriptions

Between 2007 and 2011, VESI per capita spending on brand prescriptions fell from $508 to $498 per person (Table 17). On average, VESI spent about $29 less on brand prescriptions per person per year than did ESI nationally (Figure 22).

During the study period, VESI spending on brand prescriptions declined at an average annual rate of 0.5 percent, although that spending briefly rose by 7.9 percent in 2010 (Table 17 and Table 18). In contrast, national ESI spending on brand prescriptions grew at 1.3 percent annually during the same period (Figure 23).

As seen in Table 19, the number of brand-filled days fell every year of the study. Between 2007 and 2011, the number of filled days of brand prescriptions per VESI fell from 117 to 63. During this period, brand prescription use declined at an average annual rate of 14.5 percent per year.

Compared to ESI nationally, VESI filled fewer brand prescription days. In 2011, ESI nationally filled about 70 brand days per insured.[1] However, as in Vermont, the number of brand-filled days per ESI fell during the study period (Table 19).

The price paid per filled brand prescription day rose over time. Between 2007 and 2011, the VESI price of a filled day of brand prescriptions on average rose from $4 per day to $8 per day (Table 19). Similarly, during this period, ESI prices for brand prescriptions nationally rose from $5 per day $8 per day.[1] VESI prices per day of brand prescriptions rose at an average annual rate of 16.4 percent as compared with 14.2 percent for national ESI prices.

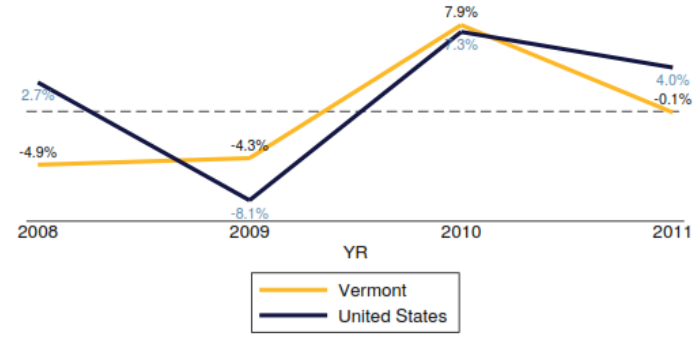
Generic prescriptions

Between 2007 and 2011, VESI per capita spending on generic prescriptions rose from $176 to $277 (Table 17). Annually, about $12 more per VESI was spent on generic drugs relative to the national average ESI (Figure 24). VESI per capita spending grew at an average annual rate of 12.0 percent, though spiking in 2009 to 49.3 percent. (Table 17 and Table 18). By comparison, national ESI spending on generics grew at an average annual rate of 8.0 percent while also spiking in 2009 (Figure 25).

Table 19 shows that VESI use of generic prescriptions rose during this period from 200.2 generic prescription filled days per person (37 more days than ESI nationally) to 261.4 filled days per person (51 days more than ESI nationally).[1] VESI use grew at an average annual rate of 6.9 percent, though use spiked in 2009 and slowed in 2011.

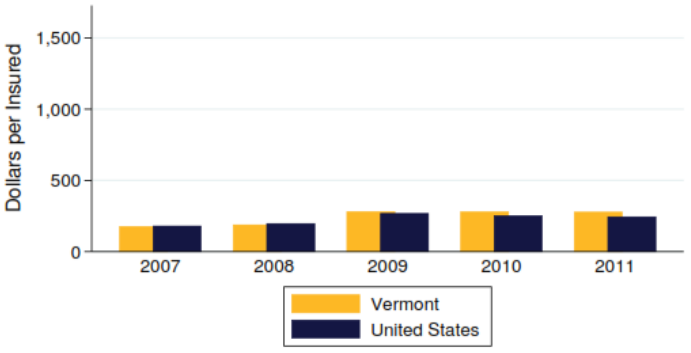
VESI prices per day for generic prescriptions grew by 4.7 percent per year (Table 19). Prices rose by 2.4 percent in 2008, spiked by 27 percent in 2009, and declined by 5.0 percent in 2010 and by 2.6 percent in 2011. In all years, the average price paid by VESI and ESI nationally for a generic prescription was about $1 per day.

Figure 23
Change in Vermont and national brand prescription expenditures per ESI: 2009-2012



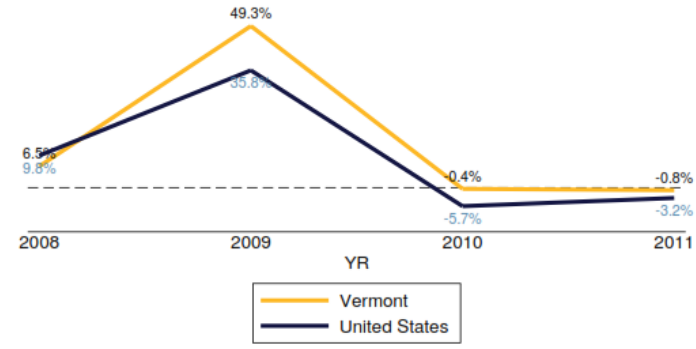
Source: HCCI, 2013.
Notes: All data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.
Dashed line indicates 0% change.

Figure 24
Vermont and national generic prescription expenditures per ESI: 2007-2011



Source: HCCI, 2014.
Notes: All national data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.

Figure 25
Change in Vermont and national generic prescription expenditures per ESI: 2008-2011



Source: HCCI, 2013.
Notes: All data weighted to reflect the national, younger than 65 ESI population.
Graph not to scale. National data (2011) and VT data (2007-2011) adjusted using acturial completion.
Dashed line indicates 0% change.

About this Project

The Green Mountain Care Board (GMCB) and the Health Care Cost Institute (HCCI) entered into a 3 -year collaboration to advance public reporting on health care spending in the state of Vermont. In the first year of collaboration (2013–2014), the goal was to produce this document: the *2007–2011 Vermont Health Cost and Utilization Report*. Work on this project began in March 2013. HCCI finished preparing preliminary report tables, a report draft, and draft methodology in December 2013. A final draft was completed and approved by the GMCB in August 2014.

This study had three goals. The first goal was to benchmark health care coverage and per capita spending for Vermonters younger than age 65 and covered by employer sponsored insurance (ESI) as a primary health insurer. The second goal was to identify the drivers of health care spending (utilization, prices, and intensity) and to benchmark those trends over time. The third goal was to compare Vermont's ESI benchmarks to those in the 2012 *Health Cost and Utilization Report.*[1,4] The authors hope that Vermonters, the GMCB, and others find this report a starting point for further analyses of health care trends in Vermont.

For this report, HCCI used data from VHCURES. We analyzed VHCURES data from an average of 305,000 ESI Vermonters per year between 2007 and 2011. The paid, consolidated claims from VHCURES were cleaned and actuarially adjusted using methods similar to those in the 2012 report. HCCI calculated the metrics in this report using the same methods as used for the 2012 report. Therefore, the findings in this report on Vermont, although independently calculated from a different dataset, are comparable to the 2012 findings for ESI nationally as reported by HCCI.

HCCI analyzed health spending per ESI Vermonter by claim type (inpatient, outpatient, professional claims, and prescriptions). HCCI decomposed spending into two primary components: utilization and prices. HCCI further decomposed prices into intensity-adjusted prices using the intensity of care for each service. These metrics were presented by claim-type service category, subservice category, and detailed service category. More information on the data and methods is available in the *Methodology.*[5]

Endnotes

1. Health Care Cost Institute. 2012 Health care cost and utilization report [Internet]. Washington (DC): HCCI; 2013.
2. Any administered drugs appear as professional claims. No information on non-brand, non-generic prescriptions appears in this report.
3. In our analysis of VESI spending by gender (Table 1), HCCI used the self-reported gender on the claims and did not seek to correct any gender misattributions.
4. Health Care Cost Institute. Aggregated ESI cost and utilization dataset (2007–2012). Washington (DC): HCCI; 2013.
5. Health Care Cost Institute. 2007–2011 Vermont health care cost and utilization report methodology [Internet]. Washington (DC): HCCI; 2014.

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Appendix

TABLE 1 Annual expenditures per capita by age and gender, 2007–2011

	2007	2008	2009	2010	2011
Per capita	$3,549	$3,794	$4,082	$4,229	$4,408
Per capita by age					
18 and younger	$1,650	$1,822	$1,843	$1,932	$2,080
19-25	$2,044	$2,115	$2,275	$2,200	$2,423
26-44	$3,092	$3,287	$3,513	$3,583	$3,738
45-54	$4,668	$4,880	$5,160	$5,309	$5,482
55-64	$6,387	$6,788	$7,305	$7,474	$7,734
Per capita by gender					
Men	$3,091	$3,329	$3,608	$3,700	$3,876
Women	$3,991	$4,244	$4,535	$4,733	$4,918

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 2 Changes in annual expenditure per capita by age group and gender, 2007–2011

	Percent Change 2007/ 2008	Percent Change 2008 / 2009	Percent Change 2009 / 2010	Percent Change 2010/2011
Per capita	6.9%	7.6%	3.6%	4.2%
Per capita by age				
18 and younger	10.4%	1.2%	4.8%	7.7%
19-25	3.4%	7.6%	-3.3%	10.2%
26-44	6.3%	6.9%	2.0%	4.3%
45-54	4.5%	5.7%	2.9%	3.3%
55-64	6.3%	7.6%	2.3%	3.5%
Per capita by gender				
Men	7.7%	8.4%	2.5%	4.8%
Women	6.4%	6.9%	4.4%	3.9%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 3 Average annual per capita spending growth by age group and gender, 2007–2011

	Vermont Spending Per Capita	US Spending Per Capita	Vermont Difference (Percentage Points)
Age			
Children (ages 0-18)	6.0%	6.6%	-0.6
Young Adults (ages 19-25)	4.3%	6.0%	-1.7
Adults (ages 26-44)	4.9%	4.8%	+0.1
Adults (ages 45-54)	4.1%	4.5%	-0.4
Pre-Medicare adults (ages 55-64)	4.9%	4.1%	+0.8
Gender			
Men	5.8%	5.0%	+0.8
Women	5.4%	4.6%	+0.8

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Note: All figures rounded. Average annual growth rates calculated using geometric means.

TABLE 4 Annual out-of-pocket expenditures per capita by age group and gender, 2007–2011

	2007	2008	2009	2010	2011
Out-of-pocket per capita	$449	$487	$538	$558	$595
Out-of-pocket per capita by age					
18 and younger	$231	$259	$282	$301	$327
19-25	$342	$359	$395	$395	$413
26-44	$419	$463	$508	$523	$578
45-54	$564	$599	$653	$668	$714
55-64	$719	$757	$828	$850	$875
Out-of-pocket per capita by gender					
Men	$387	$422	$470	$488	$517
Women	$509	$549	$603	$626	$669

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 5 Annual expenditures per capita for payers by age group and gender, 2007–2011

	2007	2008	2009	2010	2011
Payer per capita	$3,099	$3,308	$3,544	$3,670	$3,813
Payer per capita by age					
18 and younger	$1,420	$1,563	$1,561	$1,631	$1,753
19-25	$1,702	$1,756	$1,880	$1,805	$2,010
26-44	$2,673	$2,824	$3,005	$3,061	$3,161
45-54	$4,104	$4,281	$4,507	$4,640	$4,768
55-64	$5,668	$6,030	$6,477	$6,623	$6,860
Payer per capita by gender					
Men	$2,704	$2,906	$3,139	$3,212	$3,359
Women	$3,481	$3,695	$3,932	$4,107	$4,249

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 6 Average annual changes in out-of-pocket per capita spending, 2007–2011

	Out-of-Pocket Spending Per Capita		Vermont Difference (Percentage Points)
	Vermont	US	
All (ages 0-64)	7.3%	5.5%	+1.8
Men	7.5%	5.6%	+1.9
Women	7.1%	5.4%	+1.7
Young adults	4.8%	6.3%	-1.5

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. Average annual growth rates calculated using geometric means.

TABLE 7 Changes in annual out-of-pocket expenditures per capita by age group and gender, 2007–2011

	Percent Change 2007/ 2008	Percent Change 2008 / 2009	Percent Change 2009 / 2010	Percent Change 2010/2011
Out-of-pocket per capita	8.4%	10.5%	3.8%	6.6%
Out-of-pocket per capita by age				
18 and younger	12.2%	9.1%	6.5%	8.7%
19-25	4.8%	10.1%	0.1%	4.5%
26-44	10.4%	9.8%	2.8%	10.5%
45-54	6.2%	9.0%	2.3%	6.8%
55-64	5.3%	9.4%	2.7%	2.9%
Out-of-pocket per capita by gender				
Men	9.2%	11.2%	3.8%	6.1%
Women	7.8%	9.8%	3.8%	6.9%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 8 Changes in annual expenditures per capita for payers by age group and gender, 2007–2011

	Percent Change 2007/ 2008	Percent Change 2008 / 2009	Percent Change 2009 / 2010	Percent Change 2010/2011
Payer per capita	6.7%	7.2%	3.6%	3.9%
Payer per capita by age				
18 and younger	10.1%	-0.1%	4.5%	7.5%
19-25	3.2%	7.1%	-4.0%	11.4%
26-44	5.6%	6.4%	1.9%	3.3%
45-54	4.3%	5.3%	3.0%	2.8%
55-64	6.4%	7.4%	2.3%	3.6%
Payer per capita by gender				
Men	7.5%	8.0%	2.3%	4.6%
Women	6.1%	6.4%	4.4%	3.4%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 9 Annual out-of-pocket expenditures per capita and changes in out-of-pocket expenditures by service category, 2007–2011

	2007	2008	2009	2010	2011
Inpatient (all)	$15	$16	$17	$20	$20
		4.3%	5.7%	17.1%	4.3%
Acute Inpatient	$15	$16	$17	$19	$20
		4.2%	5.6%	17.6%	3.7%
Outpatient Visits	$49	$59	$63	$69	$79
		19.2%	8.4%	8.4%	15.1%
Outpatient-Other	$71	$82	$92	$97	$108
		16.4%	12.3%	5.5%	10.9%
Professional	$170	$191	$204	$213	$238
		12.4%	6.4%	4.4%	12.2%
Prescriptions (all)	$144	$139	$162	$160	$149
		-3.5%	16.5%	-1.1%	-7.0%
Brand	$90	$83	$82	$86	$76
		-8.1%	-0.8%	4.9%	-11.7%
Generics	$54	$56	$80	$74	$73
		4.4%	41.8%	-7.3%	-1.5%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 10 Utilization, prices, intensity, and unit prices in Vermont for inpatient admissions and outpatient visits, 2007–2011

	2007	2008	2009	2010	2011
Utilization per 1,000 insured					
Inpatient	45	46	44	43	44
		1.0%	-3.1%	-2.5%	1.5%
Acute Inpatient	44	45	43	42	43
		0.9%	-4.9%	-1.6%	1.5%
Outpatient Visits	318	325	327	319	332
		2.3%	0.7%	-2.4%	4.0%
Average prices per service					
Inpatient	$10,886	$12,375	$13,637	$14,836	$15,109
		13.7%	10.2%	8.8%	1.8%
Acute Inpatient	$11,006	$12,521	$14,041	$15,128	$15,404
		13.8%	12.1%	7.7%	1.8%
Outpatient Visits	$1,766	$1,917	$2,121	$2,346	$2,414
		8.5%	10.6%	10.6%	2.9%
Average intensity per service					
Acute Inpatient	1.05	1.12	1.18	1.19	1.18
		6.8%	4.9%	0.9%	-0.7%
Outpatient Visits	15.90	15.84	16.72	16.97	16.41
		-0.4%	5.6%	1.5%	-3.3%
Average intensity-adjusted price per service					
Acute Inpatient	$10,485	$11,164	$11,931	$12,739	$13,067
		6.5%	6.9%	6.8%	2.6%
Outpatient Visits	$111	$121	$127	$138	$147
		8.9%	4.8%	9.0%	6.4%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: The inpatient metrics in this table were updated in November 2014. All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 11 Annual expenditures per capita and changes in expenditures on inpatient admissions and outpatient visits, 2007–2011

	2007	2008	2009	2010	2011
Inpatient (all)	$494	$567	$605	$642	$663
		14.8%	6.7%	6.0%	3.4%
Acute Inpatient	$489	$561	$599	$635	$656
		14.8%	6.6%	6.0%	3.4%
Outpatient Visits	$561	$623	$694	$750	$802
		11.0%	11.4%	8.0%	7.0%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 12 Average annual changes in the components of spending on inpatient admissions and outpatient visits, 2007–2011

	Spending Per Capita	Components of Spending Trend		Components of Price Trend	
	Per Capita	Utilization	Prices Paid	Intensity	Unit Price
Inpatient	7.7%	-0.8%	8.5%	N/A	N/A
Acute Inpatient	7.6%	-1.0%	8.8%	2.9%	5.7%
Outpatient Visits	9.3%	1.1%	8.1%	0.8%	7.3%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: The inpatient metrics in this table were updated in November 2014. All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 13 Acute Inpatient length of stay and price per day in Vermont, 2007–2011

	2007	2008	2009	2010	2011
Length of Stay (Days)	3.8	3.9	3.9	4.1	4.1
		1.7%	1.5%	3.5%	1.0%
Average Price per day	$2,894	$3,237	$3,577	$3,723	$3,754
		11.8%	10.5%	4.1%	0.8%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: The inpatient metrics in this table were updated in November 2014. All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 14 Utilization, prices, intensity, and unit prices in Vermont for outpatient-other facility and professional services, 2007–2011

	2007	2008	2009	2010	2011
Utilization per 1,000 insured					
Outpatient-other	4,975	5,199	5,271	5,082	5,067
		4.5%	1.4%	-3.6%	-0.3%
Professional	11,476	11,832	11,865	11,604	11,941
		3.1%	0.3%	-2.2%	2.9%
Average prices per service					
Outpatient-other	$133	$144	$153	$153	$160
		8.3%	6.7%	0.1%	4.4%
Professional	$100	$100	$104	$110	$113
		0.1%	3.5%	6.2%	2.9%
Average intensity per service					
Outpatient-other	0.85	0.84	0.81	0.84	0.82
		-0.9%	-3.6%	2.6%	-1.5%
Professional	1.79	1.77	1.77	1.74	1.75
		-1.3%	-0.1%	-1.4%	0.5%
Average intensity-adjusted price per service					
Outpatient-other	$156	$170	$188	$184	$195
		9.3%	10.7%	-2.5%	6.0%
Professional	$56	$57	$59	$63	$65
		1.4%	3.7%	7.7%	2.4%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Note: All figures rounded.

TABLE 15 Annual expenditures per capita and changes in expenditures on outpatient-other facility and professional services, 2007–2011

	2007	2008	2009	2010	2011
Outpatient-other	$659	$746	$807	$779	$811
		13.2%	8.2%	-3.5%	4.1%
Professional	$1,149	$1,186	$1,232	$1,279	$1,354
		3.2%	3.8%	3.9%	5.9%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 16 Average annual changes in the components of spending on outpatient-other facility and professional services, 2007–2011

	Spending Per Capita	Components of Spending Trend		Components of Price Trend	
		Utilization	Prices Paid	Intensity	Adjusted Price
Outpatient-other	5.3%	0.5%	4.8%	-0.9%	5.7%
Professional	4.2%	1.0%	3.2%	-0.6%	3.8%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. Average annual growth rates calculated using geometric means.

TABLE 17 Annual expenditures per capita and changes in expenditures on prescriptions, 2007–2011

	2007	2008	2009	2010	2011
Prescriptions (all)	$685	$672	$744	$779	$777
		-1.9%	10.7%	4.8%	-0.4%
Brand	$508	$483	$462	$499	$498
		-4.9%	-4.3%	7.9%	-0.1%
Generics	$176	$188	$280	$279	$277
		6.5%	49.3%	-0.4%	-0.8%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. All per capita dollars calculated from allowed amounts.

TABLE 18 Average annual changes in the components of spending on prescriptions, 2007–2011

	Spending Per Capita	Components of Spending Trend	
		Utilization	Prices Paid
Prescriptions (all)	3.2%		
Brand	-0.5%	-14.5%	16.4%
Generics	12.0%	6.9%	4.7%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Notes: All figures rounded. Average annual growth rates calculated using geometric means.

TABLE 19 Utilization, prices, intensity, and unit prices in Vermont for brand and generic prescriptions, 2007–2011

	2007	2008	2009	2010	2011
Filled days per 1,000 insured					
Brand	117,581	96,491	81,576	75,784	62,966
		-17.9%	-15.5%	-7.1%	-16.9%
Generic	200,176	208,246	244,817	256,617	261,397
		4.0%	17.6%	4.8%	1.9%
Average prices per service					
Brand	$4	$5	$6	$7	$8
		15.9%	13.2%	16.2%	20.2%
Generic	$1	$1	$1	$1	$1
		2.4%	27.0%	-5.0%	-2.6%

Source: HCCI, 2014. Data: VHCURES all-payer claims data set (2007–2011). Data pulled in June 2013. Note: All figures rounded.

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