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MEMORANDUM

TO: Donald G. Milne, Clerk of the House
David A. Gibson, Secretary of the Senate
Emily Bergquist, Director and Chief Counsel

FROM: Michael Davis, Director of Hospital Regulatory Operations, Division of Health Care Administration (DHCA) of the Department of Banking, Insurance, Securities and Health Care Administration (BISHCA) *Milne*

RE: 2008 Vermont Health Care Expenditure Analysis & Three-Year Forecast

DATE: March 23, 2010

CC: Representative Steven Maier, Chair, House Health Care Committee
Senator Douglas A. Racine, Chair, Senate Health & Welfare Committee
Senator Jane Kitchel, Co-Chair, Commission on Health Care Reform
James Hester, Director, Commission on Health Care Reform
Susan Besio, Director, Office of Vermont Health Access
Heidi Tringe, Deputy Chief of Staff, Governor's Office
Steve Klein, Chief Fiscal Officer, Joint Fiscal Office
Paulette Thabault, Commissioner, BISHCA
Christine Oliver, Deputy Commissioner, DHCA

Pursuant to 2 V.S.A. § 20, attached is a copy of the *2008 Vermont Health Care Expenditure Analysis & Three-Year Forecast*. This report was developed to meet the requirement under 18 V.S.A. § 9406 (b)(1-4) that directs the Department of Banking, Insurance, Securities and Health Care Administration (BISHCA) to annually prepare an analysis of health care expenditures for Vermont residents and at Vermont facilities and providers, and to prepare a three-year forecast of these expenditures. An initial forecast report was provided to the General Assembly on January 15, 2010.

Please contact BISHCA at (802) 828-2900 if you would like a bound copy. Also, additional information on the forecast model is available in a technical documentation report available at BISHCA's website, <http://www.bishca.state.vt.us/health-care/hospitals-health-care-practitioners/health-care-expenditure-analysis-reports>.

Please feel free to contact BISHCA if you have any questions or concerns regarding this publication. Thank you for your assistance.

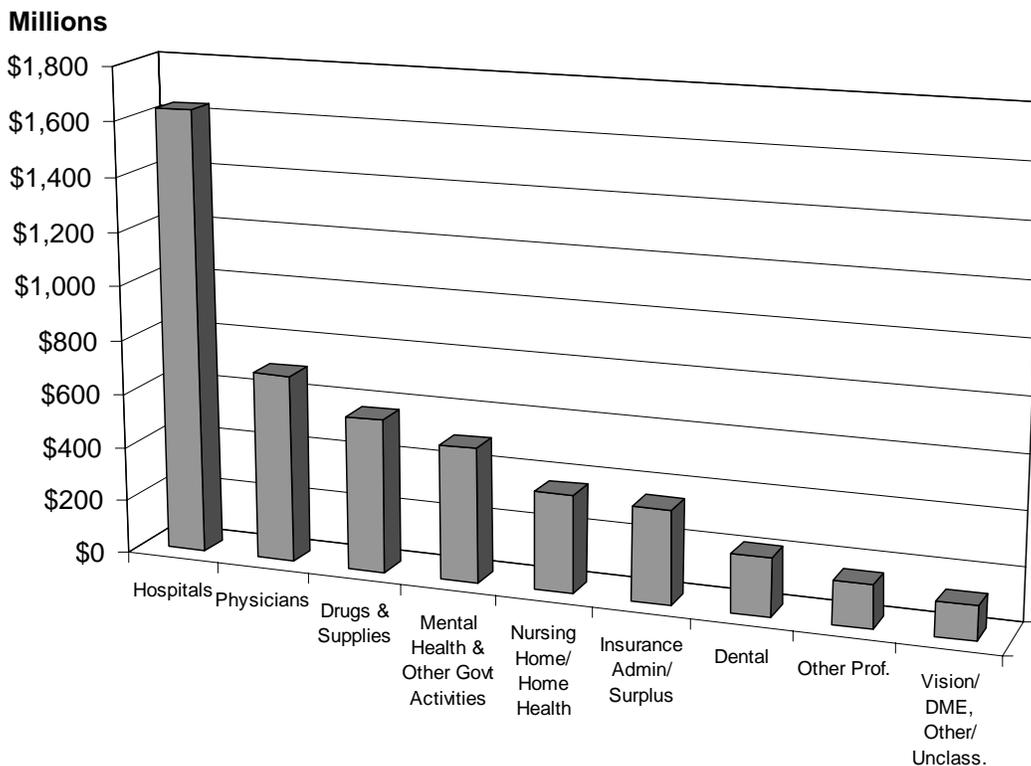
VERMONT



2008

VERMONT HEALTH CARE EXPENDITURE ANALYSIS & THREE- YEAR FORECAST

March 2010



2008 Vermont Resident Health Care Expenditures

Acknowledgements

This report would not have been possible without the support of many individuals in government, private insurance, and the health care provider industry. The Division of Health Care Administration of the Vermont Department of Banking, Insurance, Securities and Health Care Administration (BISHCA) would like to thank BISHCA staff and all participants who provided data and feedback in a timely manner. If you have questions about this report, please contact BISHCA at 802-828-2900 and ask for Michael Davis.

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Introduction

Purpose of the Report

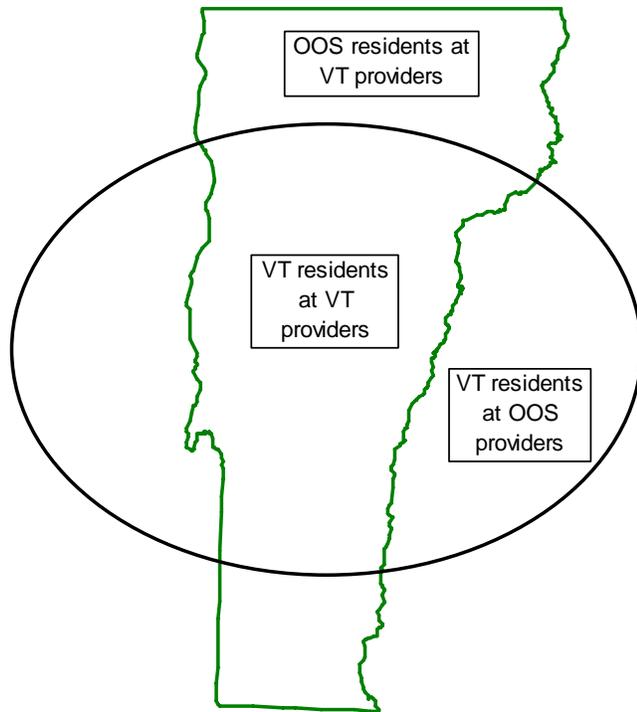
The *2008 Vermont Health Care Expenditure Analysis & Three-Year Forecast* report provides information on health care spending in Vermont and on behalf of Vermont residents. It is anticipated that this information will inform policymakers and stakeholders as the health care policy debate continues around various quality, cost, and access proposals.

The objectives of this report are to provide basic information about where financing for Vermont’s health care comes from, what is being purchased, and to estimate future spending levels and trends. This analysis answers such questions as “How much is being spent on health care for Vermonters?”, “How does Vermont health care spending compare to health care spending nationally?”, and “How fast is spending increasing in the various provider service sectors, such as hospitals or nursing homes?”

In addition, the report presents more in-depth data and analysis in a number of *Spotlights* to highlight areas of further interest.

Two Different Analyses

This report summarizes data in two forms: the **Resident analysis**, which includes expenditures on behalf of Vermont residents, regardless of where the health care was rendered; and the **Provider analysis**, which includes all revenue received for services by Vermont providers, regardless of where the patient lives. Because some Vermonters obtain health care out-of-state (OOS) and some non-Vermonters come to Vermont for care, both of these analytical constructs are necessary to understand health care spending. In the figure to the right, the Vermont map represents Vermont **providers** and the oval represents Vermont **residents**.



Different populations, data sources, and estimating methods between the Resident analysis and Provider analysis explain the differences in total expenditures and growth rates.¹

Three-Year Forecast

Besides requiring the development of a health care expenditure analysis, the Department of Banking, Insurance, Securities and Health Care Administration (BISHCA) is required by law (18 V.S.A. § 9406) to prepare an annual three-year projection of health care expenditures and an annual Unified Health Care Budget. The Provider analysis supports the development of the

Unified Health Care Budget by projecting expenditures by Vermont providers. The Resident analysis serves as the foundation for forecasting expenditures for all health care payers.

A Three-Year Forecast was published in January 2010 and a summary is included in this report.

Data Sources

The Vermont data described in this report and contained in the tables and figures are BISHCA estimates or data collected by BISHCA from health care payers and providers. U.S. data are from the U.S. Centers for Medicare and Medicaid Services' (CMS) National Health Expenditure Accounts (NHE) annual analysis of health care spending. Reporting categories are modeled after the national CMS NHE categories.

The Vermont data are compiled from a variety of sources including Vermont payers and providers. About 70 percent of the payer data and 60 percent of the provider data come directly from the individual Vermont payers and providers, providing very reliable and accurate data. Other data come from CMS, the BISHCA Household Health Insurance Survey, and other less direct sources. Shading in the matrices at the end of the report indicates differences in the reliability of the data.

BISHCA collects health insurance claims data from health insurers through the Vermont Healthcare Claims Uniform Reporting and Evaluation System (VHCURES). The purpose of VHCURES is to provide information that can be used to evaluate and improve the quality and cost-effectiveness of health care. While these data and reports are not yet integrated into this document, BISHCA anticipates that future integration of this information will provide more accurate and more detailed reporting of Vermont health care expenditures. See the VHCURES page on BISHCA's website for details about the program and for a series of standard reports on utilization and expenditures for privately insured Vermont residents.²

Changes in 2008

BISHCA is always seeking to refine and revise the Expenditure Analysis models and data to more accurately reflect Vermont's health care spending. In doing so, sometimes a methodology or source change can affect the trend analyses. One example of this in 2008 was a methodology change to refine the estimate for out-of-pocket (OOP) health care spending. BISHCA recently received data on OOP spending from the 2008 Vermont Household Health Insurance Survey, and the data indicated higher OOP expenditures than were calculated previously. The result is a higher estimate for 2008 resident expenditures by close to \$70 million. This change is primarily reflected in OOP spending for physician and dental services, with a reduction in OOP drug spending. BISHCA also revised 2007 data with this methodology, using imputed values.

Please see the summary of data revisions at the end of this report for more information on other data changes and revisions made in 2008.

Cover Figure

The figure on the cover of this report shows the major provider categories of health care spending for Vermont residents in 2008. Hospitals accounted for about 36 percent of the total \$4.6 billion in expenditures. Physicians and Drugs & Supplies respectively accounted for 15 percent and 12 percent.

Executive Summary

In preparing the annual Expenditure Analysis reports, BISHCA relies on multiple data sources that have very different reporting taxonomies. Accordingly, BISHCA must take care in categorizing information consistently in order to evaluate year-to-year changes and trends over time. Gathering and analyzing the 2008 data reflected much of this difficulty.

In 2008, Vermont resident health care spending grew 7.3 percent. Nationally, health care expenditures grew 4.4 percent in 2008. Vermont has not seen the effects of the recession on health spending as strongly as the U.S., but problems are similar. As noted by CMS, “Despite the overall slowdown in national health spending growth, increases continue to outpace growth in the resources available to pay for it.”³

In 2008, even though Vermont resident health care spending grew faster than the U.S., Vermont resident per capita health care expenditures were lower than the U.S.; \$7,414 in Vermont compared to \$7,681 nationally.

However, BISHCA notes that about 70 percent of the Resident data and 60 percent of the Provider data are from solid, dependable sources. The expenditure matrices at the end of the report reflect these sources.

BISHCA urges the reader to take caution in looking at longer-term trends. Since the preparation of the 2007 *Expenditure Analysis* report, BISHCA has made several revisions based on improved and updated data, including newly obtained Vermont-specific data. However, BISHCA was not always able to revise information prior to 2007. Therefore, throughout this report, when looking at 2005-2008 trends, 2005 and 2006 spending is likely understated, affecting trends in that time period.⁴ Please contact BISHCA or see *Summary of Data Revisions* at the end of this report for detail on current revisions.

Annual Vermont Health Care Expenditure Growth (2002-2008)

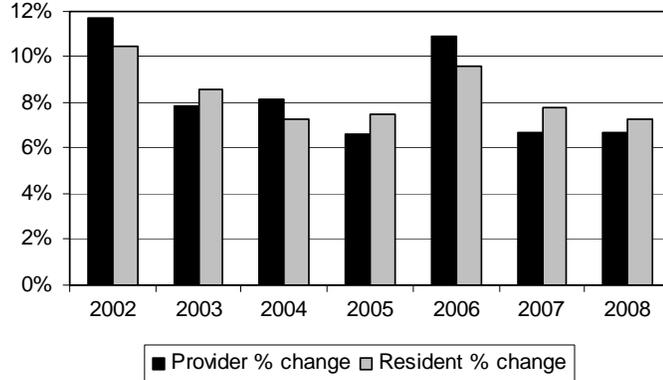


Figure 1

Prior to 2007, data may be understated. However, the increase in 2003 is adjusted for the inclusion of Workers' Compensation, which was not previously included.

Key Data Findings:		
Health Care Expenditures Vermont & U.S. (2008)		
	VT	U.S.
Total (billions)	\$4.6	\$2,338.7
Per Capita	\$7,414	\$7,681
Annual Change (2007-2008)	7.3%	4.4%
Average Annual Change (2005-2008)	8.2%*	5.7%
Share of Gross State/Domestic Product	18.1%	16.2%

Note: VT data is from the Resident analysis, U.S. data is from CMS.
* Without the out-of-pocket source and methodology change with 2007 and 2008 data, the 2005-2008 average annual increase would be 7.7%.

Table 1

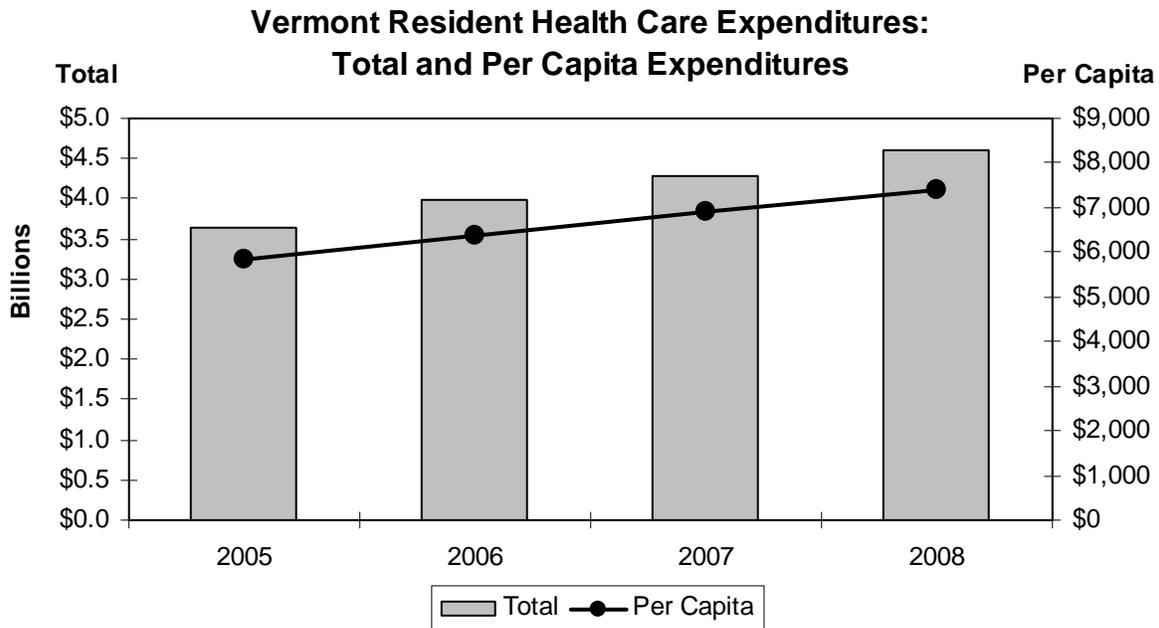
Notable findings include:

1. Spending for Vermont residents totaled \$4.6 billion in 2008 and spending on Vermont providers was \$4.4 billion. It should be noted that the two different perspectives will not be the same because they are compiled for different populations and from different data sources.
2. Health care spending accounted for 18.1 percent of Vermont's projected Gross State Product in 2008. Nationally, health care expenditures accounted for 16.2 percent of Gross Domestic Product in 2008.
3. The 2007-2008 increase was 7.3 percent in the Resident analysis and 6.7 percent in the Provider analysis.
4. From 2005 to 2008, Vermont resident average annual growth in total health care spending was 7.7 percent, compared to 5.7 percent for the U.S. (Note that the 7.7 percent for Vermont has been adjusted to account for the out-of-pocket methodology change in 2007 and 2008.)
5. Despite faster average annual expenditure growth than the U.S. since 2004, per capita health care costs in 2008 were lower in Vermont (\$7,414) when compared to the U.S. (\$7,681).
6. The implementation of the Medicare Part D prescription drug program in 2006 has dramatically shifted who pays for drugs. Medicaid paid \$72 million less for drugs in 2008 than in 2005, while Medicare paid \$96 million more.
7. From 2009 to 2012, health care expenditures are projected to grow at an average annual rate of 6.5 percent for the Resident analysis and 7.0 percent for the Provider analysis.
8. In 2008, there was a *net* migration of 4,531 inpatient discharges to out-of-state hospitals. There were 11,407 discharges of Vermont residents from hospitals in the bordering states of New Hampshire, New York, and Massachusetts, and 6,876 discharges of out-of-state residents from Vermont hospitals.
9. In 2007, the most expensive 5 percent of Vermont Medicare beneficiaries consumed 44 percent of total Vermont Medicare health care expenditures. The least expensive 50 percent of beneficiaries consumed less than 4 percent of the total.
10. Hospital-employed physician practices amounted to \$240 million in 2008, up from \$217 million in 2007.
11. In 2008, 60 percent of Vermont residents were enrolled in private insurance. There were an estimated 47,286 uninsured Vermont residents in 2008 (7.6 percent of the population, compared to 9.8 percent in 2005).
12. Medicaid is the primary payer of Government Health Activities, funding 91 percent (\$455 million) of the total for that category. About \$253 million (51 percent of the total \$497 million) are for programs related to mental health, mental retardation, and substance abuse.
13. The Dartmouth Atlas shows that from 2001-2005, Vermont had among the lowest Medicare utilization rates in New England for enrollees in the last six months of life and last two years of life.

Resident Analysis

Health Care Spending for Vermont Residents

The Resident analysis is based on reporting from all health care payers.⁵ It measures what is paid on behalf of Vermont residents, regardless of whether they receive services in Vermont or out-of-state.



Note: Spending for 2005 and 2006 is likely understated. See *Summary of Data Revisions* for adjustments that might affect trend values.

Figure 2

How much do Vermont residents spend on health care?

- Health care spending on behalf of Vermont residents totaled \$4.6 billion in 2008.
- Spending increased \$313 million (7.3 percent) from 2007 to 2008. The increased expenditures were primarily spent on hospital services (\$189 million, 60 percent of the total) and government health activities (\$49 million, 16 percent).
- Private insurance funded 38 percent of the \$313 million increase, with Medicaid funding about 31 percent and Medicare funding about 22 percent.
- Per capita health care costs grew 7.3 percent from 2007 to 2008, reaching \$7,414. Nationally, per capita health care costs were \$7,681 in 2008. Please see *Spotlight on Per Capita Health Care Costs* for more information.
- Health care spending in Vermont continues to grow faster than the overall economy. The share of Vermont's Gross State Product accounted for by health care services reached 18.1 percent in 2008, the highest level recorded since tracking of this data began. Nationally, 2008 health spending accounted for 16.2 percent of the Gross Domestic Product.

**Vermont Resident Health Care Expenditures
Provider Service Categories by Funding Source (2008)**

Provider Category	Out-of-Pocket	Private Ins.	Medicaid	Medicare	Other Gov't	Total
Hospitals	8.0%	45.9%	16.1%	51.8%	53.4%	35.6%
Physicians	17.4%	20.1%	8.7%	12.8%	3.4%	15.1%
Dentists	22.1%	3.4%	1.6%	0.0%	0.1%	4.6%
Other Professional	5.7%	4.4%	2.2%	2.0%	0.0%	3.4%
NH/HH*	15.1%	0.6%	13.4%	12.7%	5.5%	7.9%
Drugs & Supplies	23.6%	13.2%	6.5%	11.1%	6.2%	12.3%
Other**	8.1%	12.4%	8.7%	9.6%	7.9%	10.3%
Mental Health & Other Gov't Health Activities	0.0%	0.0%	42.9%	0.0%	23.4%	10.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* NH/HH includes expenditures for nursing home and home health care providers.

** Other includes expenditures for vision, durable medical equip, administration, and other misc. providers.

Table 2

What services are Vermont’s funding sources purchasing?

- Each provider category is funded differently by the different payment sources. This is a function of the population’s demographics, services provided, and allowable benefits paid by different payers.
- For private payers (self-insured and commercial insurance), 66 percent of expenditures were for hospital and physician services in 2008.
- For Medicare, about 65 percent of expenditures were for hospital and physician services in 2008. Hospitals accounted for over half of total Medicare expenditures.
- For Medicaid, about 43 percent of Vermont Medicaid dollars were for Mental Health & Other Government Health Activities in 2008. Hospital and physician services accounted for about 25 percent of Medicaid expenditures and nursing homes and home health services accounted for over 13 percent. See *Spotlight on Government Health Activities* for more information.
- Despite the methodology change in out-of-pocket spending, dental services and drugs & supplies have consistently accounted for the highest share of expenditures, and were 22 percent and 24 percent respectively in 2008.

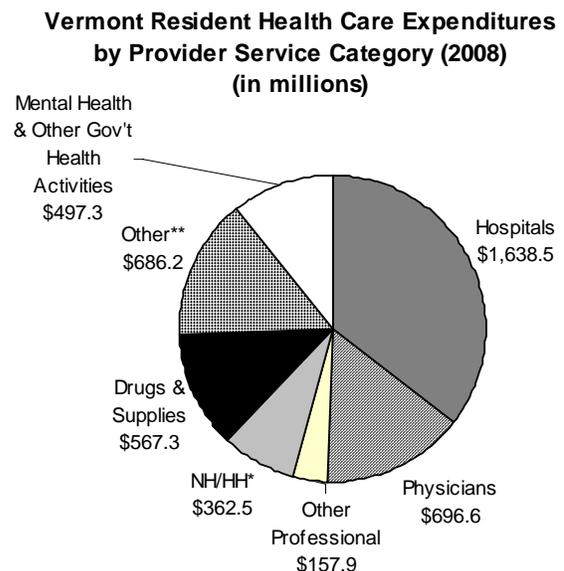


Figure 3

Annual Health Care Expenditure Growth, U.S. and Vermont Residents



Note: Spending for 2005 and 2006 is likely understated. See *Summary of Data Revisions* for adjustments that might affect trend values.

Figure 4

How fast are Vermont resident health care expenditures growing?

- Health care spending for Vermont residents grew 7.3 percent in 2008, compared to 4.4 percent for the U.S.
- The average annual growth rate for Vermont from 2005 to 2008 was 8.2 percent, compared to 5.7 percent for the U.S. Without the methodology change in out-of-pocket spending, Vermont's average annual growth rate would be about 7.7 percent.
- The relatively higher spending growth Vermont residents experienced in 2008 was reported across all provider service categories except for other professional services and administration/net cost of health insurance.
- Nationally, CMS indicates that the slower growth experienced by the nation in 2008 (4.4 percent) was largely attributed to slower growth in prices and the use and intensity of services because of the recession. Nearly all provider services slowed in the U.S., with hospitals and physicians seeing the lowest growth in ten years.⁶
- More accurate reporting of historical data necessitated revisions to 2006 and 2007 data. Revisions included a better estimate for out-of-pocket and self-insured expenditures in 2007, and changes to Medicaid data for 2006 and 2007. See *Summary of Data Revisions* for further detail.

**Vermont Resident Health Care Expenditures
Distribution by Payment Source**

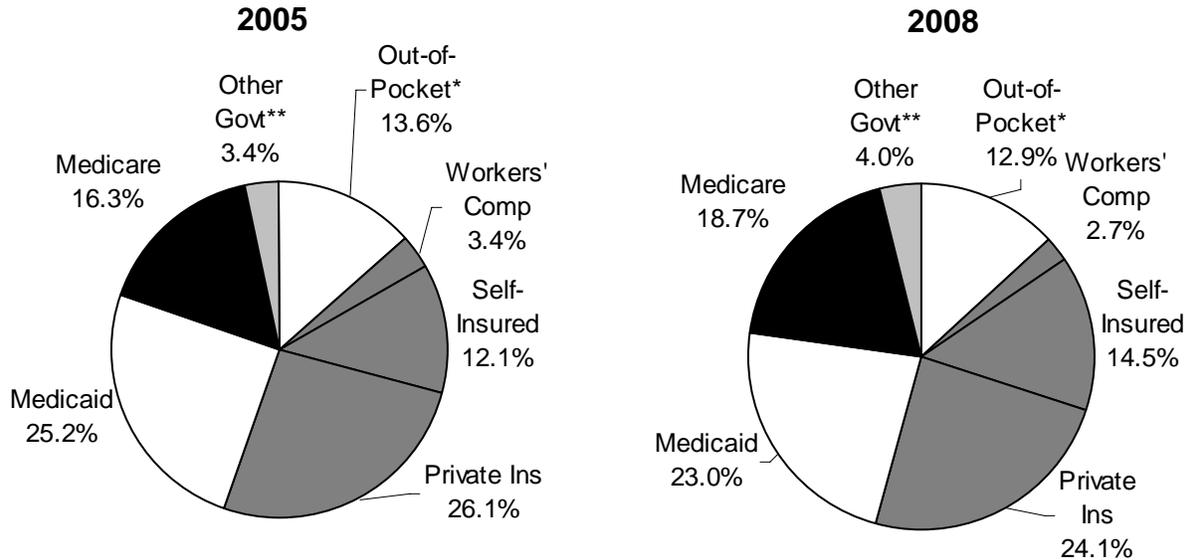


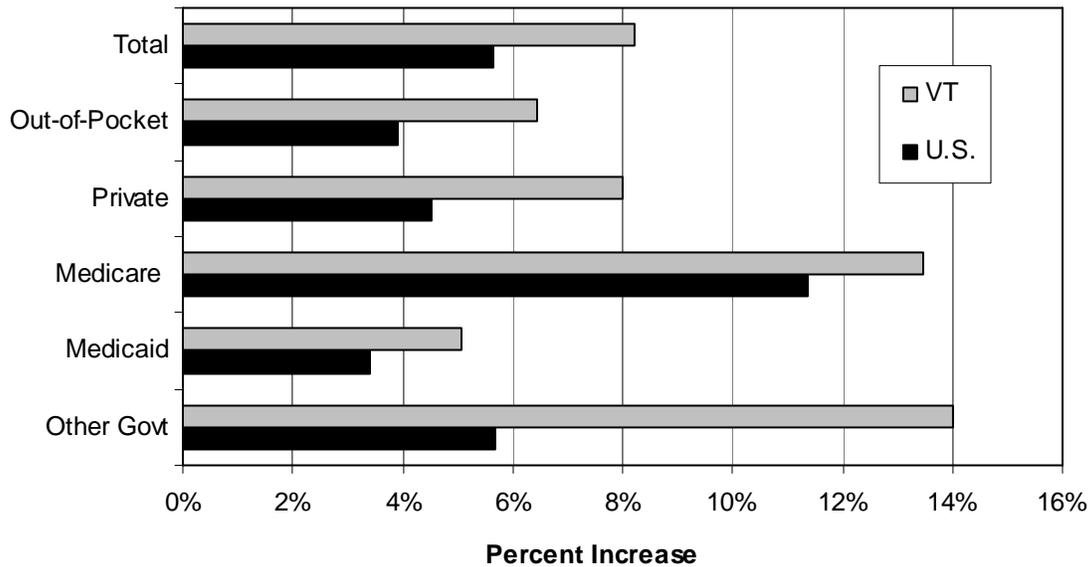
Figure 5

* Out-of-Pocket includes deductibles, copayments, payments for services not covered by insurance, and payments made by uninsured persons. It does not include individuals' share of premium payments. Premium dollars are captured under Private Insurance.
 ** Other Government includes spending for public health activities by federal and state government that is not covered by Medicaid or Medicare. Over 40% of expenditures in the Other Government category is funding for the Veterans Hospital in White River Junction, Vermont.

Who is paying for Vermonters' health care?

- In 2005 and 2008, private payers (including workers' compensation, self-insured, and private commercial plans) financed over 41 percent of total health care expenditures, a total of \$1.9 billion in 2008. In 1998, private payers financed 38 percent of the total.
- Nationally, private payers accounted for 41 percent of total expenditures in 2008.
- Vermont Medicaid's share of the health care dollar fell from 25 percent of the total in 2005 to 23 percent of the total in 2008. In the U.S. in 2008, the Medicaid program represented about 15 percent of total health care expenditures. The higher relative share of Vermont's Medicaid program compared to the nation can be explained in part by expansion of the Vermont program to be more inclusive in terms of its eligibility and benefits in comparison to other state Medicaid programs.⁷
- About 44 percent of Vermont's Medicaid program covers home and community-based services and community mental health and developmental services. Most of this spending flows through other state agencies that manage a variety of public programs related to these services. See *Spotlight on Government Health Activities* for more information.
- From 2005 to 2008, Medicaid's share of total health care expenditures decreased 2.2 percent and Medicare's share of the total increased 2.4 percent. These changes were due in part to the implementation of the Medicare Part D prescription drug program in 2006. This program shifted some of the funding of prescription drugs from Medicaid to Medicare. See *Spotlight on Prescription Drugs* for more information.

**Vermont Resident Health Care Expenditures
Average Annual Growth by Payer (2005-2008)**



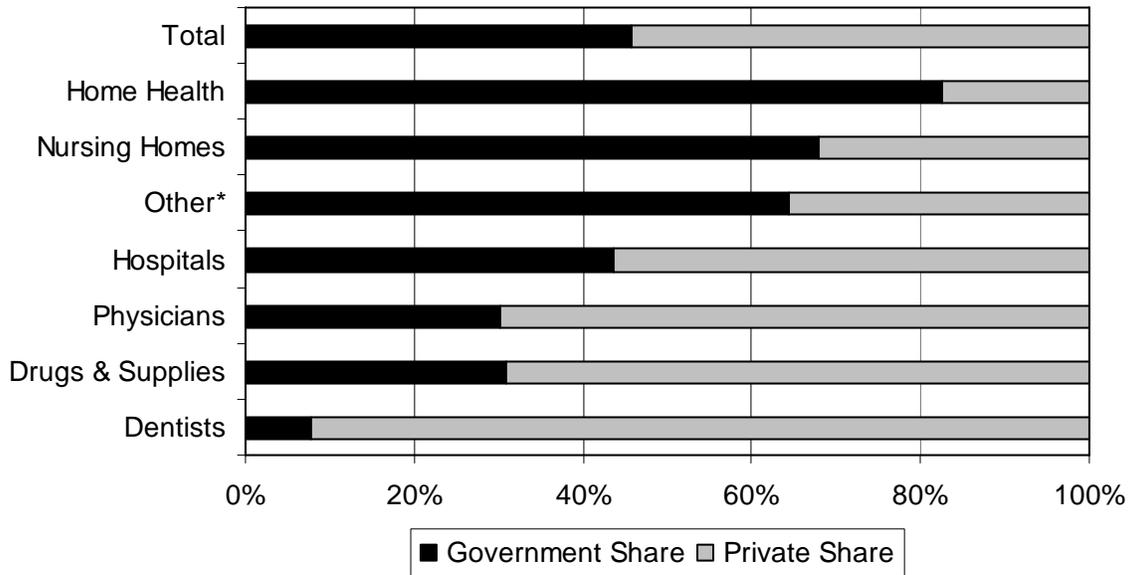
Note: Spending for 2005 and 2006 is likely understated. See *Summary of Data Revisions* for adjustments that might affect trend values.

Figure 6

What are the annual growth trends for Vermont payers?

- Payer growth is a function of increases in provider services and enrollment. Provider service growth is primarily driven by inflation and increases in the use and intensity of services.
- The average annual growth in private insurance expenditures was 8.0 percent from 2005 to 2008. Growth was driven primarily by growth in hospital spending.
- Medicare spending grew at an average annual rate of 13.5 percent from 2005 to 2008. All other things being equal, without the addition of the Medicare Part D prescription drug program, the average annual growth would have been closer to 9 percent in Vermont. See *Spotlight on Prescription Drugs* for more information on drug spending.
- Medicaid expenditures grew an average of 5.1 percent annually between 2005 and 2008. A significant decrease in Medicaid drug spending, due primarily to the start of the Medicare Part D prescription drug program in 2006, contributed to this slower-than-average growth. Medicaid funding of drugs and supplies dropped from \$141 million in 2005 to \$69 million in 2008, a drop of \$72 million (51 percent).
- Without the methodology change in calculating out-of-pocket (OOP) spending that resulted in more accurate estimates, the 2005-2008 average annual increase in OOP spending would be 2.1 percent instead of 6.4 percent.
- Between 2005 and 2008, of the different payers for health care services, Other Government expenditures (government expenditures that are not Medicare or Medicaid) grew the fastest, averaging an annual growth rate of 14 percent.⁸ However, these expenditures accounted for only a small share (4 percent) of total spending in 2008 (see Figure 5).

**Vermont Resident Health Care Expenditures
by Type of Funding (2008)**



*Other includes services rendered by other professionals, durable medical equip. suppliers, vision providers, other misc. providers, administrative costs, and government activities.

Figure 7

How much do government and private payers fund for each provider service?

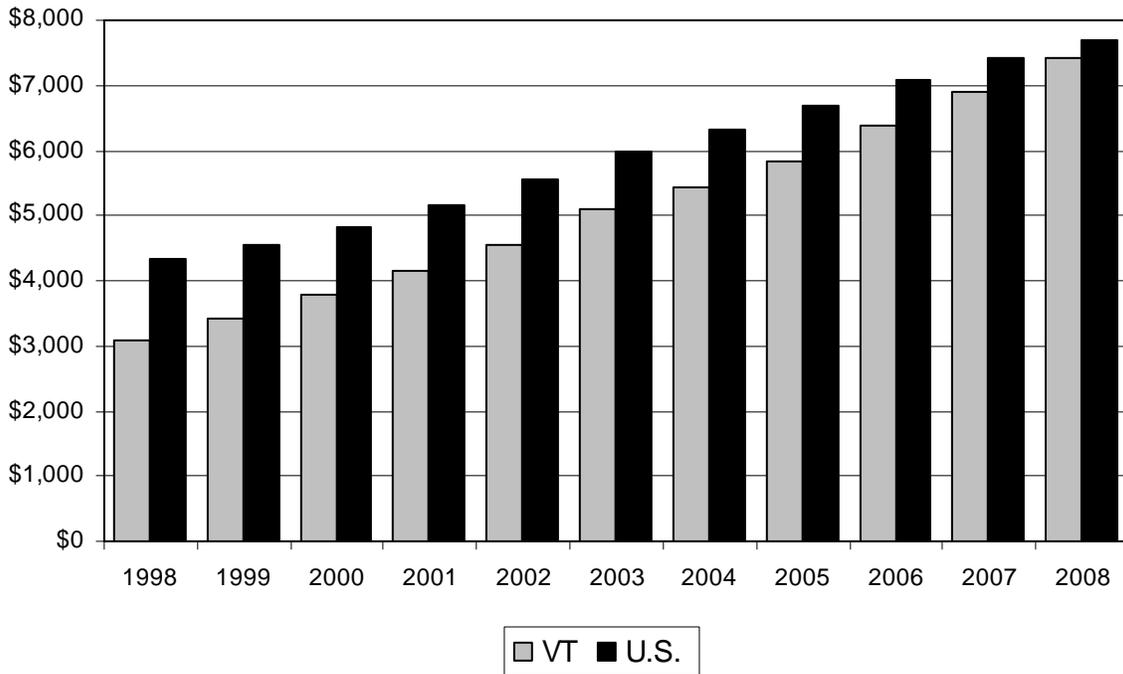
- In 2008, total health care expenditures for Vermont residents were financed 54 percent by private payers (private insurers and out-of-pocket) and 46 percent by government payers (Medicaid, Medicare, and other government).
- The percent of care financed by the government or private payers varies considerably at the provider service level. For example, in 2008, home health providers received about 83 percent of their funding from government sources. In contrast, the government financed only 30 percent each for physician services and drugs and supplies.
- In the U.S. in 2008, the government share of total health care spending was 47 percent compared to 46 percent for Vermont. Recent data from CMS indicates that the government share of health spending will exceed the private share by 2012.⁹
- Over a longer term, from 1998-2008, the government share of the total has ranged between 43 percent and 47 percent. During this time period, the government share of health care funding in Vermont increased for all provider services with the exception of hospitals. Hospitals were financed 47 percent by private payers in 1998 and 56 percent in 2008.

Spotlight on Per Capita Health Care Costs

Vermont’s per capita health care costs¹⁰ have historically been lower than the national average. In 2008, according to BISHCA, Vermonters spent on average \$7,414 per person on health care, compared to \$7,681 nationally.¹¹ Compared to 2007, this was a one-year increase of 7.3 percent for Vermont and 3.5 percent for the U.S.

The difference in cost per person between the Vermont and U.S. per capita estimates has been narrowing over time. In 1998, Vermont per capita health care costs were about 72 percent of the U.S. per capita; by 2008, Vermont’s per capita cost was about 97 percent of the U.S. per capita. Using the current forecasted growth rates, Vermont’s per capita health care costs will exceed the U.S. per capita costs in 2011.

**Per Capita Health Care Expenditures
U.S. and VT (1998-2008)**



Source: BISHCA for Vermont; CMS for U.S.

Note: Spending prior to 2007 is likely understated. See *Summary of Data Revisions* for adjustments that might affect trend values.

Figure 8

How does the Vermont per capita estimate by BISHCA compare to the Vermont per capita estimate by CMS?

According to a 2007 article in *Health Affairs*¹², estimated data compiled by CMS and the U.S. Census Bureau show Vermont’s per capita costs lower than any other New England state in 2004 (the latest comparative data available) except for New Hampshire. Further, CMS reports that Vermont’s per capita costs grew at an average annual growth rate of 9.4 percent from 1998 to

2004, faster than any other New England state. BISHCA calculates a similar per capita average annual growth rate of 9.3 percent for the same time period.¹³ Vermont's higher growth in provider services is primarily due to faster-than-average growth in hospitals, drugs and supplies, and physician services when compared to national estimates.

Does BISHCA's spending analysis differ from the CMS national analysis?

Recent conversations with CMS experts have shed light on how the estimates may be different. Reasons for the differences include:

Different sources: CMS builds their cost estimates of Vermont residents by using provider-based data and then adjusting for state border-crossing patterns (migration). Those adjustments are based on unique data sets that include Medicare claims data, private hospital discharge information, and physician claims records. This method of building the resident costs is less specific than the BISHCA methodology. For example, BISHCA gets Vermont resident spending directly from private insurers, Medicare, and Medicaid, which directly accounts for 66 percent of total health care spending in 2008. Included in that spending information are payments made to out-of-state providers on behalf of Vermonters. This is a level of detail that CMS does not have.

Definitional issues: BISHCA and CMS define certain health care expenditures and categories differently. In comparison to the CMS national estimates, when doing state estimates, CMS does not include the categories of administration, the net cost of private health insurance, certain government health activities spending, and investments (research, structures, and equipment). BISHCA includes some of these expenditures; administration, the net cost of insurance, and all government health activities spending. Another example is that in the hospital category, CMS includes hospital non-operating revenue in its estimates while BISHCA does not.

Population counts: There are also some differences in population estimates. BISHCA uses population estimates as calculated by the Vermont Department of Health (VDH) and BISHCA's Vermont Household Health Insurance Survey, while CMS uses U.S. Census data for Vermont. This difference is relatively minor, but needs to be examined since estimates could be updated at different times.

Out-of-pocket estimate: BISHCA recently revised its method for estimating out-of-pocket health care expenditures based on Vermont-specific data. However, the methodology was not revised back to 2004, which is the latest year of CMS state data available for per capita comparisons. BISHCA's out-of-pocket estimate for 2004 may be undervalued.

Other provider spending categories: Because CMS builds their resident estimates off of their provider estimates, understanding how CMS estimates their provider spending is important to help value per capita differences. For example, one item that needs to be further understood between BISHCA and CMS is the accounting for physician costs. BISHCA is working with CMS to better understand differences to ensure the per capita analysis is consistent and reliable.

CMS is currently beginning a new reporting cycle to update state expenditure data and BISHCA will be working with them as that work continues. BISHCA will provide updated per capita findings as that work emerges.

2004 Data	Analysis of Variables that Affect BISHCA/CMS Per Capita Comparisons			
	BISHCA Resident Expenditures	BISHCA Per Capita	CMS Resident Expenditures	CMS Per Capita
Total Resident Expenditures	\$3,381,531,346	\$5,442	\$3,767,000,000	\$6,069
Patient migration estimate	?*	?*	\$210,000,000	\$338
Admin/net cost of insurance	(\$284,166,438)	(\$457)	\$0	\$0
Hospital non-operating revenue	\$26,981,154	\$43	N/A	N/A
Out-of-pocket estimate	\$471,428,079	\$759	N/A	N/A
Other provider categories	?	?	?	?
Population counts	621,394		620,695	

* In 2004, out of \$1.1 billion in spending by BCBSVT, MVP, CIGNA, and Medicare, \$255 million (23%) was spent on Vermont residents out-of-state (out-migration). Hospital in-migration in 2004 is estimated at \$109 million, of which \$29 million is spending on out-of-state Veterans at the VA hospital in Vermont. Other in-migration and out-migration revenue information is more limited. See *Spotlight on Hospital Inpatient In-Migration and Out-Migration* for more information.

N/A means data is not currently available.

Numbers will not add to the total.

Rows are intended to highlight the complexity in comparing BISHCA and CMS per capita estimates.

Table 3

Spotlight on Vermont Resident Health Insurance

In January 2009, BISHCA published findings from the recently completed 2008 Vermont Household Health Insurance Survey. A similar survey was completed in 2005. The table below summarizes both survey results that assign Vermont residents into mutually exclusive categories for primary source of health insurance coverage. Many Vermonters have multiple coverage sources providing primary and secondary or wrap-around coverage.

Vermont Residents Primary Source of Health Insurance Coverage ¹⁴ 2005 and 2008				
	2005		2008	
	Population	% of Pop.	Population	% of Pop.
Private	369,348	59.4%	371,870	59.9%
Medicaid	91,126	14.7%	99,159	16.0%
Medicare	90,110	14.5%	88,027	14.2%
Military	9,754	1.6%	14,910	2.4%
Uninsured	61,057	9.8%	47,286	7.6%
Total Vermont Residents	621,395	100.0%	621,252	100.0%

Source: 2005 and 2008 Vermont Household Health Insurance Surveys, BISHCA.

Table 4

In 2008, 60 percent of Vermont residents were enrolled in private insurance. There were an estimated 47,286 uninsured Vermont residents in 2008 at a rate of 7.6 percent of the population, compared to 9.8 percent in 2005.

In 2008, 16 percent of Vermonters were enrolled in the Vermont Medicaid program as their primary source of coverage. Of those Vermonters covered by Medicaid (99,159), about 16,000 were dually enrolled in both Medicare and Medicaid, with Medicare as their primary source of coverage. In the table above, the dually eligible are counted under Medicare.

Over 96 percent of the 371,870 Vermonters with private insurance in 2008 obtained coverage in the group market through employers or related to employment.^{15,16} This includes self-funded employer plans, which pay benefits from a fund established by an employer or organization. The employer is ultimately liable for paying health care claims. An estimated 21 percent of Vermonters were in self-funded plans in 2008 (self-insured employer plans and Federal employee health benefit plans). Generally speaking, self-funded employer plans are subject to a federal law known as “ERISA” and are not subject to most state laws or BISHCA regulation.

For more information about the health insurance market and coverage in Vermont, see the “Frequently Asked Questions About The Health Insurance Market in Vermont in 2008” on BISHCA’s website.¹⁷ In addition, an updated report on Vermont resident health insurance was recently completed by BISHCA in January 2010, using 2009 data. For detail, see the “2009 Vermont Household Health Insurance Survey: Comprehensive Report” on BISHCA’s website.¹⁸

Spotlight on Government Health Activities

The category of Government Health Activities primarily includes expenditures for mental health and other direct care programs administered by the Vermont Agency of Human Services (AHS). This category totaled \$497 million in 2008.

Overall

From 2005 to 2008, the average annual growth in Government Health Activities was 16.6 percent. However, a number of factors resulted in increased variability year to year. In 2006, the beginning of the Global Commitment to Health (see Medicaid section below) resulted in increased spending that year. Also, improved reporting each year resulted in revising and/or reclassifying data to reflect this category’s spending more accurately.

Medicaid

Medicaid is the primary payer of Government Health Activities, funding 91 percent (\$455 million) of the total. About \$253 million (51 percent of the total \$497 million) are for programs related to mental health, mental retardation, and substance abuse.

A significant change occurred at the start of the 2006 federal fiscal year (October 2005), when the State of Vermont entered into an agreement with CMS called the “Global Commitment to Health Waiver”. This five-year Waiver imposed a global cap on federal funds, but gave the State financial and programmatic flexibility to help maintain public health care coverage and provide for more effective services. It established the Office of Vermont Health Access (OVHA) as a Managed Care Organization (MCO), subject to the rules for Medicaid MCOs. At the same time, the State also entered into an agreement with CMS called “Choices for Care”, which is a long-term care program that pays for care and support of the elderly and those with physical disabilities. OVHA’s reporting to CMS was changed during this period and a number of reporting improvements have been done to meet the needs of CMS and BISHCA.

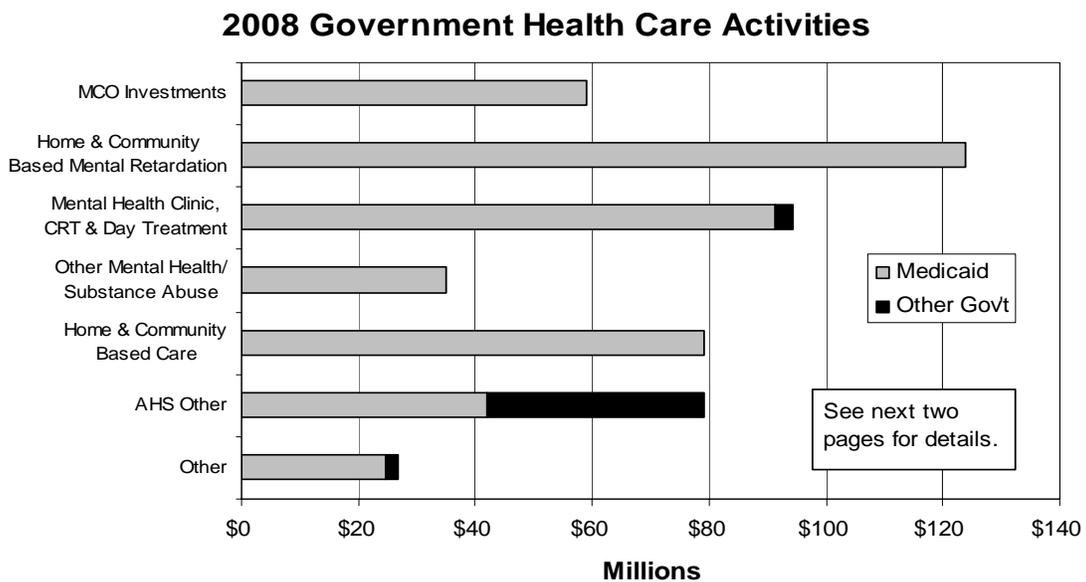


Figure 9

2008 VERMONT HEALTH CARE EXPENDITURE ANALYSIS & THREE-YEAR FORECAST

Other Government

Other government health care spending that was not Medicaid totaled \$43 million in 2008 under the category of Government Health Activities. This spending includes state and other federal grant funding (non-Medicaid) that is administered by the Vermont Department of Health, health care spending by the Vermont Department of Corrections, and most of the funding for the Vermont Division of Health Care Administration (DHCA).

The table below shows Government Health Activities spending for federal fiscal year 2007 and 2008 by program and service categories.¹⁹ Please contact BISHCA or OVHA for more information related to these changes or expenditures.

Government Health Activities	Description	FFY07	FFY08	\$ Difference	% Difference
Mental Health/Substance Abuse					
H&CB Mental Retardation	Home & community-based care for those requiring in-home services due to mental retardation.	\$110,996,473	\$123,765,500	\$12,769,027	11.5%
Mental Health Clinic	Evaluation, diagnostic and treatment services provided in a licensed mental health clinic, including psychotherapy, group therapy, day hospital, chemotherapy and emergency care.	\$11,171,158	\$8,868,422	(\$2,302,735)	-20.6%
Mental Health Day Treatment	Day treatment programs for those with mental health issues.	\$41,263,176	\$42,159,616	\$896,440	2.2%
Mental Health Community Rehab & Treatment	Programs that assist adults who have been diagnosed with a mental illness, including programs that help individuals and their families develop skills and supports important to living the life they want for themselves.	\$29,823,207	\$43,271,289	\$13,448,082	45.1%
Targeted Case Management	Services aimed specifically at special groups such as those with developmental disabilities or chronic mental illness, that assist individuals in gaining access to needed medical, social, educational, and other services. It does not include the direct provision of those services.	\$7,363,068	\$7,363,130	\$62	0.0%
H&CB Mental Health Services	Home & community-based care for those requiring in-home services due to a mental health illness.	\$3,491,131	\$3,978,954	\$487,823	14.0%
H&CB - TBI Services	Home & community-based care for those requiring in-home services due to a traumatic brain injury.	\$3,775,549	\$4,027,240	\$251,691	6.7%
Other MH/MR Services	Other mental health and mental retardation services.	\$6,763,072	\$7,226,507	\$463,435	6.9%
Alcohol & Drug Abuse Programs	Programs to address alcohol and substance abuse.	\$11,369,957	\$12,391,841	\$1,021,884	9.0%
Total Mental Health/Substance Abuse		\$226,016,790	\$253,052,499	\$27,035,709	12.0%
MCO Investments	Health care investment opportunities in programs that serve to reduce the rate of uninsured and/or underinsured in Vermont, increase the access of quality health care to uninsured, underinsured, and Medicaid beneficiaries, provide public health approaches to improve the health outcomes and the quality of life for Medicaid-eligible individuals in Vermont, and encourage the formation and maintenance of public-private partnerships in health care. Examples include health provider training, school health services, and emergency mental health services.				
Total MCO Investments		\$53,885,867	\$59,017,611	\$5,131,744	9.5%

2008 VERMONT HEALTH CARE EXPENDITURE ANALYSIS & THREE-YEAR FORECAST

Government Health Activities	Description	FFY07	FFY08	\$ Difference	% Difference
Home & Community-Based Care					
H&CB Aged/Disabled	Home & community-based care provides alternative services for the aged and disabled who would otherwise need admission to a nursing home.	\$21,248,756	\$27,210,042	\$5,961,286	28.1%
H&CB Enhanced Residential Care	Home & community-based enhanced residential care provides services to those in Level III residential care facilities and assisted living residences.	\$5,343,535	\$6,776,155	\$1,432,620	26.8%
Assistive Community Care Services	Services for those in participating residential care homes or assisted living residencies including case management, nursing assessment and routine tasks, medication assistance, and on-site assistive therapy.	\$21,662,985	\$24,832,184	\$3,169,198	14.6%
Personal Care Services	Personal care services for those in participating residential care homes or assisted living residencies.	\$18,169,173	\$20,235,146	\$2,065,974	11.4%
Total Home & Community-Based Care		\$66,424,449	\$79,053,527	\$12,629,078	19.0%
AHS Other					
D&P Dept. of Education	Services offered through the Vermont Department of Education including case management, counseling, rehabilitation, personal care, and therapy services.	\$36,697,559	\$36,431,910	(\$265,649)	-0.7%
AHS - Dept. of Health	Program and grant funding through the Department of Health, primarily for Alcohol and Drug Abuse Programs (ADAP), health promotion & disease prevention, local health services, and emergency preparedness .	\$21,154,479	\$20,414,352	(\$740,127)	-3.5%
AHS - Other	Other miscellaneous services including Department of Corrections inmate health care services and miscellaneous health care transportation services.	\$20,844,863	\$22,380,233	\$1,535,370	7.4%
Total AHS Other		\$78,696,901	\$79,226,495	\$529,594	0.7%
Other					
D&P Other	Services including case management, counseling, rehabilitation, personal care and therapy services.	\$19,349,843	\$23,051,748	\$3,701,904	19.1%
Health Care Administration	The Division of Health Care Administration of the Department of Banking, Insurance, Securities and Health Care Administration (BISHCA) provides health care consumer protection, assistance and education; requires community hospital and insurance company regulatory filings for evaluation, response and approval; promotes cost containment in health care through activities including the review of capital expenditure and hospital budgets; provides data and analysis to advance public policy discussions at state and federal levels.	\$4,318,873	\$3,868,202	(\$450,671)	-10.4%
Total Other		\$23,668,716	\$26,919,950	\$3,251,233	13.7%
GRAND TOTAL GOVERNMENT HEALTH ACTIVITIES		\$448,692,724	\$497,270,083	\$48,577,359	10.8%

Spotlight on 2007 Medicare Spending²⁰

BISHCA has access to Vermont Medicare claims by contracting with The Dartmouth Institute for Health Policy & Clinical Practice (TDI). The contractor provides a variety of summary reports that allow BISHCA to detail spending in accordance with the Expenditure Analysis categories. In addition, reports are prepared that provide other analytical constructs for examining general characteristics of Medicare enrollees and their associated expenditures. The following describes information based upon an analysis of the 2007 Medicare claims. (Note that this information differs from that shown on the 2008 Resident analysis data matrix at the end of the report.) BISHCA includes an estimate for administrative costs and the Medicare Part D prescription drug program, for which information is not currently available from TDI. The 2008 claims are expected to be available by spring 2010.

Enrollees

There were 106,924 Vermont Medicare beneficiaries enrolled for at least one month in 2007, a three percent increase over 2006.²¹ Of these beneficiaries, 96 percent were enrolled in Medicare Part A (inpatient hospital care²²) midyear and 90 percent were enrolled in Part B (primarily physician services) midyear. Enrollment also includes several thousand beneficiaries who maintain primary coverage through private group employer-sponsored plans and use Medicare as a secondary payer. The remaining enrollees are those who either aged into Medicare after midyear or who died before midyear. It is noted that this number of enrollees does not include many “snowbirds” since it is likely that they select another state as their residence.²³ Also, neither HMO enrollees in Medicare Advantage plans or Medicare Part C, nor their claims, were included in this report; the number for Vermont is extremely small.²⁴

Spending

A total of \$795 million in Medicare expenditures was spent on the 106,924 beneficiaries identified as living in Vermont in 2007. This includes \$128 million estimate for administration costs and the Medicare Part D prescription drug program.

Medicare claims totaled \$668 million in 2007, not including administration costs or Medicare Part D spending. Analysis of funds spent shows that about 74 percent (\$493 million of the \$668 million) was for services to Vermont Medicare beneficiaries provided within the State of Vermont. The remaining 26 percent (\$174 million) was for services provided in other states, with New Hampshire receiving \$111 million of the \$174 million. See *Spotlight on Hospital Inpatient In-Migration and Out-Migration* for more information.

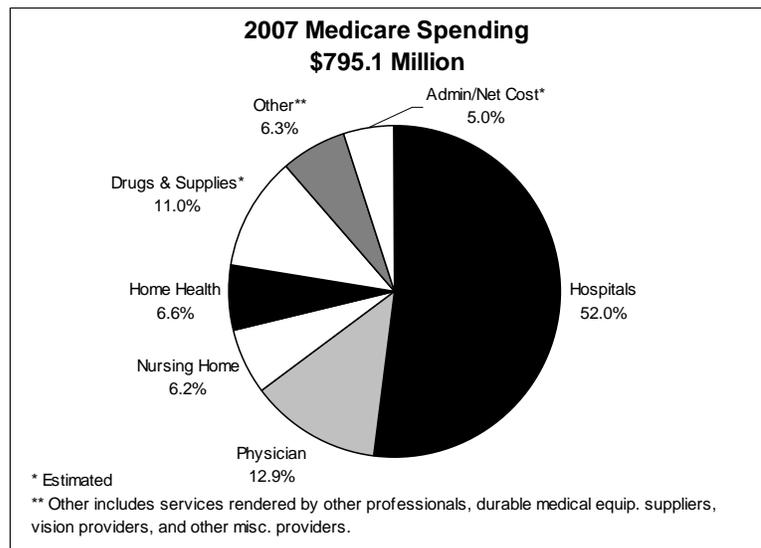


Figure 10

Overall Medicare spending increased 8.8 percent from 2006 to 2007, with Medicare per enrollee spending increasing 5.6 percent. Again, this includes the estimates for administration and the Medicare Part D prescription drug program (see *Spotlight on Prescription Drugs*).

Another analysis that examines spending is a pareto analysis. It shows how much of total spending is driven by small percentages of all beneficiaries. For example, 64 percent of Vermont Medicare payments were attributed to the 10 percent of Vermont beneficiaries with the highest spending in 2007. This trend has been consistent for the period 2003 through 2007. This type of analysis may offer opportunities to find savings for certain high-cost populations. See *Spotlight on the Concentration of Health Care Expenditures* for more information.

Analysis of the top inpatient Diagnostic Related Groups (DRGs)²⁵ in 2007 shows that major joint replacement or reattachment of the lower extremity accounted for the highest expenditures, with \$10.5 million (3.9 percent) of total Part A inpatient hospital payments of \$271 million. The same diagnosis had the highest expenditures in 2006. The DRG with the second highest expenditures in 2007 was rehabilitation (\$9.7 million), followed by pneumonia (\$7.1 million). These top three diagnoses represented 10.1 percent of total inpatient hospital payments.

Dartmouth Atlas Spending Data

According to The Dartmouth Atlas of Health Care²⁶, in 2006, Maine had the lowest per enrollee payments in New England for Medicare Part A and Part B at \$6,952. Vermont and New Hampshire had the next lowest at \$7,284 and \$7,814 respectively. The national average was \$8,304.²⁷

Medicare payments per enrollee during the last two years of life are substantially higher than average payments for all enrollees due to the frequency of hospitalizations and intensity of care. The Dartmouth Atlas shows that from 2001 to 2005, Vermont averaged about \$41,500 per Medicare enrollee during the last two years of life. This was the second lowest in New England (behind Maine) and lower than the national average of \$46,400.²⁸ Programs such as hospice have been shown to reduce end-of-life care costs and result in significant overall cost savings for the Medicare population.²⁹

Dartmouth Atlas Utilization Data

	Last 2 Years of Life, Per Decedent (2001-2005)			Last 6 Months of Life, Per Decedent (2001-2005)		
	Physician Visits	Intensive Care Unit Days	Hospital Days	Physician Visits	Intensive Care Unit Days	Hospital Days
National Average	61.29	5.14	19.59	30.51	3.44	11.64
Connecticut	57.23	3.92	18.75	28.25	2.76	11.62
Maine	43.19	2.77	16.40	19.80	1.83	9.64
Massachusetts	57.33	3.35	19.30	27.88	2.37	11.57
New Hampshire	45.72	2.55	15.75	21.64	1.78	9.39
Rhode Island	53.81	3.64	19.70	25.92	2.61	11.89
Vermont	41.48	2.36	15.52	18.17	1.64	8.77

Source: The Dartmouth Atlas of Health Care

Figure 11

The Dartmouth Atlas shows that in 2005, Vermont had the lowest number of Medicare discharges per 1,000 enrollees in New England, followed by New Hampshire and Connecticut. During the last two years of life from 2001-2005, Vermont also had the lowest per enrollee average in New England for physician visits, intensive care unit days, and hospital days. Vermont per enrollee averages for these indicators for the last six months of life were also lowest in New England. Each of these measures helps explain why Vermont's per capita health care costs are lower than the nation's.

According to data from a report³⁰ from the Dartmouth Atlas Project, from 2003 to 2006, Vermont ranked seventh in the nation, and lowest in New England, in discharges per 1,000 Medicare enrollees for "ambulatory-sensitive conditions". These are conditions for which hospitalization can often be prevented by better outpatient management.³¹ Discretionary stays in the hospital pose a risk to patients and a substantial cost to the health care system. Vermont's relatively favorable ranking suggests that chronic diseases may be being managed more appropriately than in other states, which results in cost savings to Vermont's health care system.

BISHCA continues to work with TDI and the Dartmouth Atlas data to refine the Medicare analysis. The beginning of the Vermont Healthcare Claims Uniform Reporting and Evaluation System (VHCURES) will enable further analysis of Vermont Medicare data. For additional tables and information, please contact BISHCA.

Spotlight on the Concentration of Health Care Expenditures

At any given point in time, a small percentage of the population consumes a relatively large proportion of health care resources. For example, for the Vermont Medicare population in 2007, the most expensive 5 percent of that population consumed 44 percent of Medicare health care expenditures. Both Vermont and the U.S. show similar concentrations of health care expenditures for a given percentage of their respective Medicare populations.

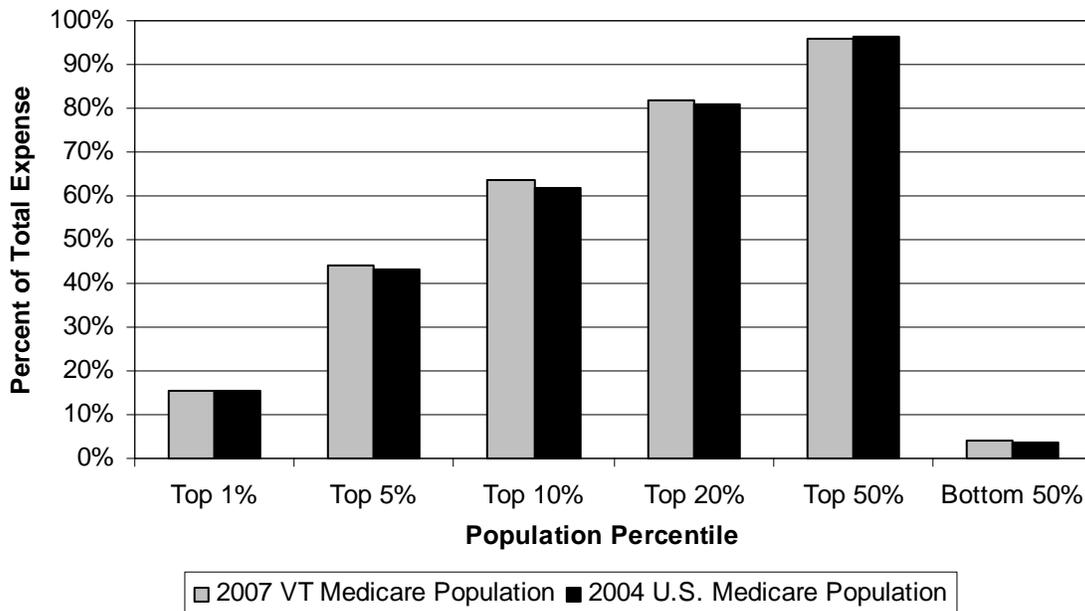
Viewing it another way, half of Medicare beneficiaries in both the U.S. and Vermont had few health care expenses; these groups were responsible for less than 4 percent of their populations' respective health care spending.

National data (through 2004) shows a decline in the concentration of expenditures for the U.S. Medicare population over time. For example, the top 5 percent of the U.S. Medicare population in 1975 accounted for 54 percent of total Medicare expenditures. In 2004, the number was 43 percent. Some of the reasons suggested for this relate to changes in Medicare program design, long-term trends in longevity and medical expenses, a possible increase in expensive technology used on less sick patients, and trends in disability and associated health care costs.³²

However, recent Vermont data (2003 through 2007) suggests that the concentration of Medicare spending remains fairly steady in Vermont.

National data also shows that for the highest spending 5 percent of U.S. Medicare beneficiaries, about 24 percent are still in the top 5 percent spending group the following year, and about 15 percent are in that group in the second subsequent year. For more information, see the *Health Affairs* article, "Long-Term Trends In The Concentration Of Medicare Spending".³³

**Concentration of Medicare Health Care Expenditures:
Vermont & U.S.**



Data Source: CMS

Figure 12

Spotlight on Prescription Drugs

The Expenditure Analysis includes prescription and non-prescription drug spending and non-durable supplies spending in the category “Drugs & Supplies”. In the Provider analysis, about 88 percent of this category was related to expenditures for prescription drugs in 2008.

Overall, Drugs & Supplies for Vermont residents were \$567 million in 2008, a 5.3 percent increase over 2007. Nationally, prescription drugs grew 3.2 percent in 2008, the lowest growth seen in the category since 1961.

A slowdown in price growth is one factor contributing to this deceleration of drug spending growth in the U.S., with 2.5 percent price growth in 2008 compared to a ten-year average of 4.1 percent. Lower-priced and discounted generic drugs contributed to this slower price growth.³⁴

CMS also attributes some of the slowdown in prescription drug spending to the impact of the recession. Research has shown that some individuals did not fill prescriptions, skipped doses, or split pills in efforts to reduce costs. Also, CMS notes there were not many new product introductions in 2008. In addition, concerns about the safety and efficacy of certain drugs could have had a negative impact on sales.³⁵

The Medicare Part D program subsidizes the cost of prescription drugs for eligible seniors and those with disabilities. It was enacted as part of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA). Due to data timing and reporting issues, there is limited Vermont and national expenditure data available for the first few years of the program, which began in 2006. Currently, the Vermont estimate included in this report is based on 2008 national data. However, a sampling of Vermont Medicare Part D data will be available for inclusion in next year’s report.

In the 2005-2008 period, estimates for Medicare prescription drug spending for Vermont residents rose from near zero to \$96 million (about 17 percent of total drugs and supplies spending). For the U.S., Medicare paid for 22 percent of prescription drugs in 2008, compared to 2 percent in 2005.

The Medicare Part D program had a substantial effect on Medicaid drug spending from 2005 to 2008, causing a decrease of \$72 million (over 50 percent) to \$69 million in 2008. This three-year decrease was due primarily to the shifting of prescription drug coverage from Medicaid to Medicare for individuals dually eligible for both programs, as they were automatically enrolled in the Part D program.

The decrease in out-of-pocket drug spending from 2005 to 2008 is in part due to a change in methodology based on more accurate data, which reduced these drug expenditures by about \$50 million.

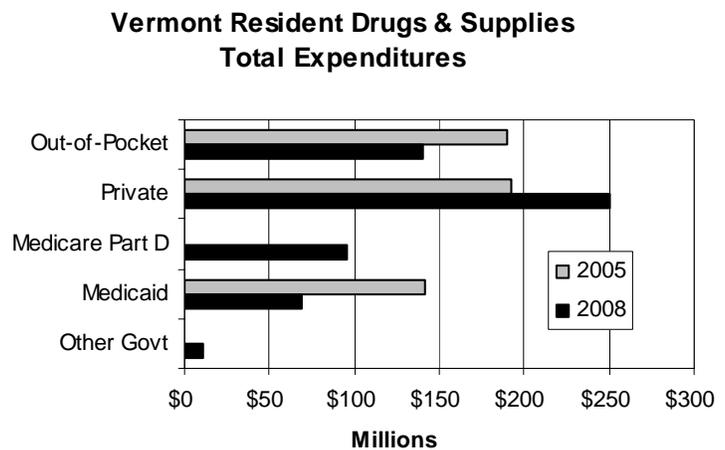


Figure 13

Provider Analysis

Health Care Spending for Vermont Providers

The Provider analysis includes reporting by entities providing care and services in Vermont. This includes expenditures for Vermont residents and out-of-state residents served by Vermont providers.

**Vermont Provider Health Care Expenditures
(in billions)**

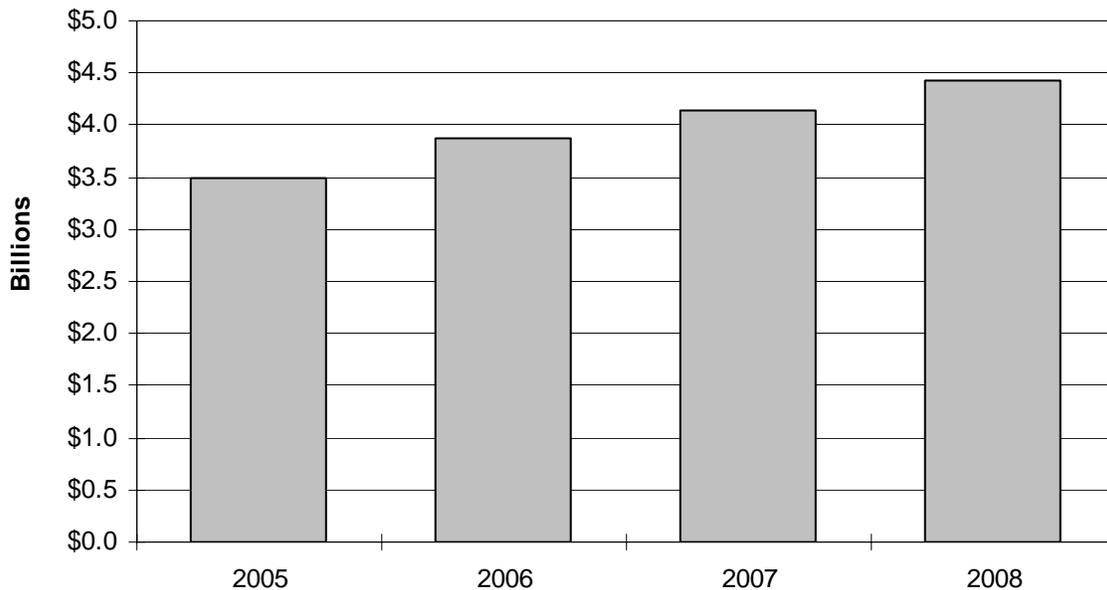


Figure 14

How much is spent on Vermont health care provider services?

- Health care spending on Vermont providers for in-state and out-of-state residents totaled \$4.4 billion in 2008.
- Vermont health care Provider spending increased 6.7 percent (\$276 million) from 2007 to 2008, compared to Vermont Resident spending, which grew 7.3 percent.
- The hospital category (which includes hospital-employed physicians) had the largest share of this expenditure growth, accounting for 45 percent (\$124 million) of the total increase. Government health activities accounted for 18 percent (\$49 million) of the increase and drugs and supplies 15 percent (\$41 million).
- Drivers of health care spending growth include economy-wide and medical-specific price inflation, population growth, and increases in the use and intensity of medical care services.³⁶
- Other than Government Health Activities spending, which is accounted for the same in both the Resident and Provider analyses, data revisions in the Resident analysis have little or no effect on total Provider analysis spending.

**Vermont Provider Health Care Expenditures
Distribution by Provider Service Category**

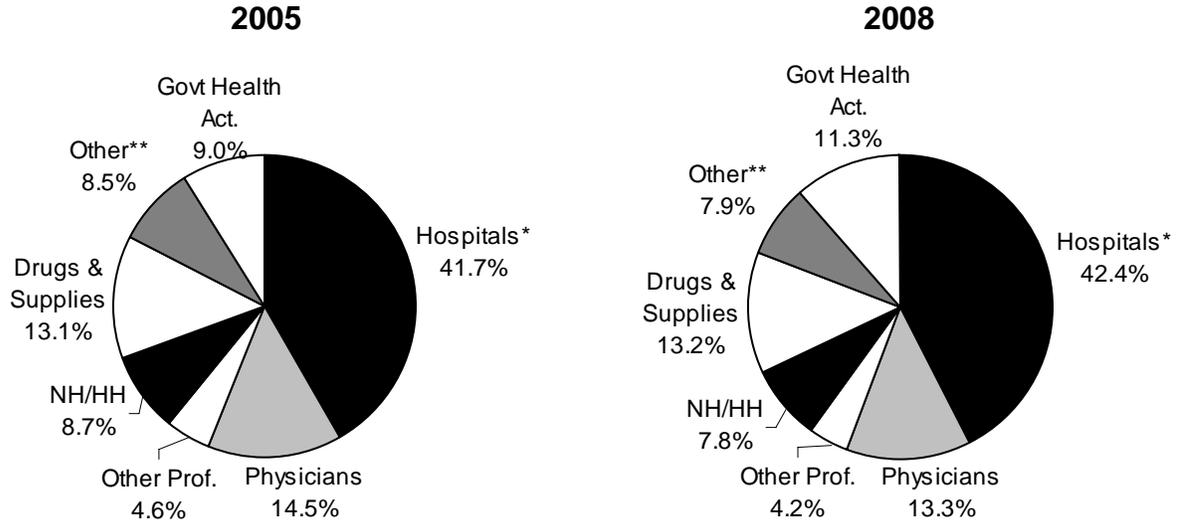


Figure 15

NH/HH = Nursing Home & Home Health.

* Hospitals include hospital-employed physicians, who accounted for between 5-6 percent of the totals in 2005 and 2008.

** Other includes services rendered by vision and durable medical equip. suppliers, dentists, and other miscellaneous providers.

Note: Although the relative share for each category may increase or decrease over time (see above figure), overall spending increases were reported in all categories from 2005 to 2008 (see Figure 17).

Which Vermont providers account for the most health care expenditures?

- Hospitals, which include acute care, the Veterans Administration, state psychiatric and private psychiatric hospitals, continue to be the largest provider category in Vermont in 2008, totaling \$1.9 billion (42 percent of total provider expenditures).
- Nationally, hospitals accounted for 31 percent of total Provider expenditures in 2008. This figure compares to 37 percent for Vermont after excluding Vermont’s hospital-employed physicians (\$240 million) that are included in the hospital category in the provider analysis. See *Spotlight on Hospital-Employed Physician Practices* for more information.
- The distribution of the Vermont health care dollar by provider service category has not shifted substantially from 2005 to 2008. Government Health Activities experienced the greatest shift, in part due to the beginning of the Global Commitment and Choices for Care waivers in 2006.
- BISHCA is working to try to improve the estimate for the Physician category. Current estimates have limited information as to the total number of physicians and their earnings as well as the defining and accounting for the hospital-employed physicians. BISHCA is working to further understand the issues involved and their impact on this analysis.

**Annual Health Care Expenditure Growth,
U.S. and Vermont Providers**

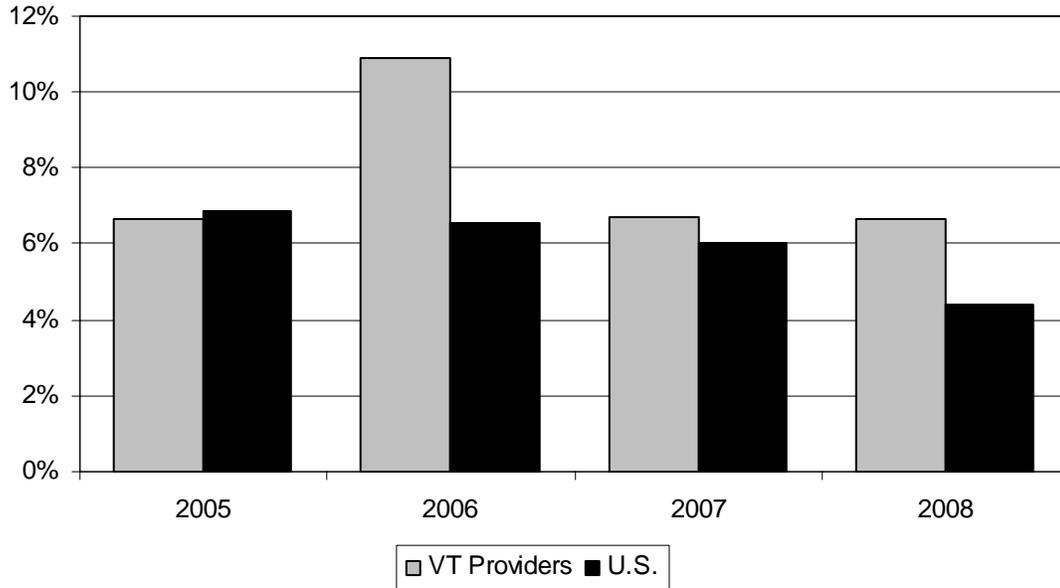


Figure 16

How fast are total Vermont health care provider expenditures growing?

- Health care expenditures by Vermont providers grew 6.7 percent in 2008. This is less than the 8.1 percent average annual growth from 2005 to 2008.
- The U.S. experienced a 5.7 percent average annual increase from 2005 to 2008.
- Similar to the Resident analysis, the higher-than-average increase in Vermont in 2006 was due to the beginning of the Global Commitment for Health and Choices for Care Medicaid waivers, the beginning of the Medicare Part D prescription drug program, and improved reporting of data. Please see the *Spotlight on Government Health Activities* for more information.
- Differences in BISHCA and CMS reporting taxonomies could account for some differences between Vermont and the U.S. See *Spotlight on Per Capita Health Care Costs* for more information.

**Vermont Provider Health Care Expenditures
Average Annual Growth by Provider Service Categories
(2005-2008)**

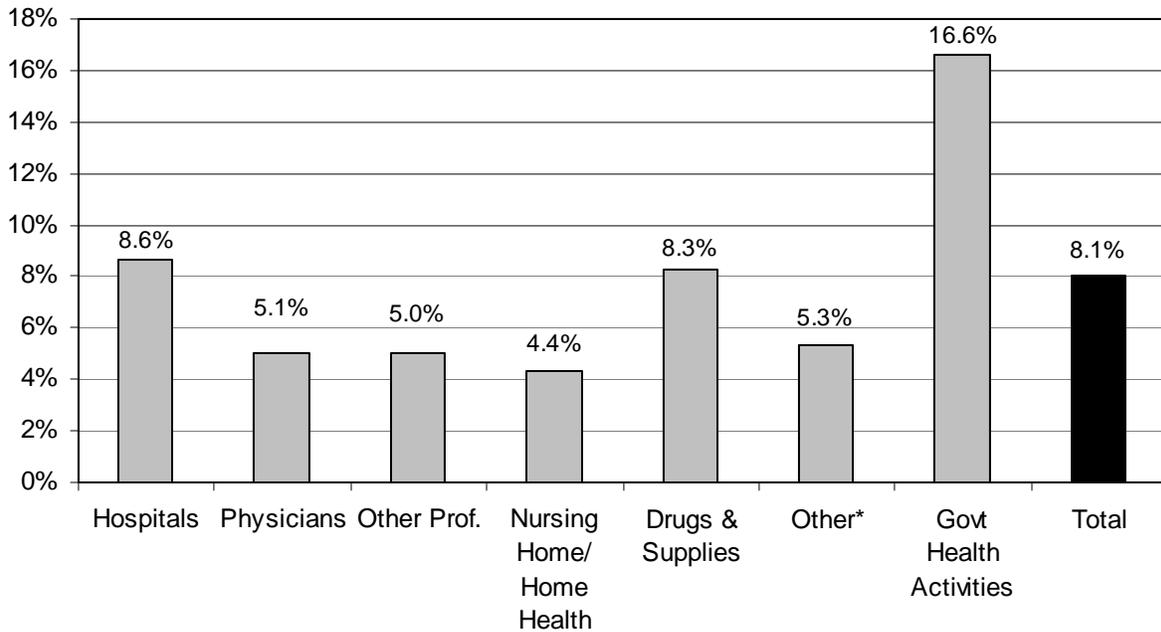


Figure 17

* Other includes services rendered by vision, durable medical equipment, dental, and other miscellaneous providers.

What are the annual growth trends for Vermont providers?

- Total Vermont Provider health care expenditures grew at an average annual rate of 8.1 percent from 2005 to 2008.
- Vermont hospital expenditures grew slightly faster than overall expenditures, at an average annual rate of 8.6 percent from 2005 to 2008. Hospital expenditures for the U.S. grew 5.7 percent annually from 2005 to 2008.
- The category of Government Health Activities was the fastest growing Provider category from 2005 to 2008, increasing at an average annual rate of close to 17 percent. The highest growth occurred from 2005 to 2006. This growth is explained by the reclassification of a number of expenditure categories into this category, the identification of spending not included in previous years' data, and the beginning of Global Commitment and Choices for Care. See *Spotlight on Government Health Activities* for more information.
- Nursing home and home health care expenditures experienced the lowest average annual rate of growth in Vermont from 2005 to 2008, growing at 4.4 percent annually.
- Major factors that contribute to health care expenditure growth include price inflation, population growth, and increases in the use and intensity of services.

Spotlight on Hospital-Employed Physician Practices

Expenditures for Vermont’s fourteen acute-care community hospitals totaled \$1.7 billion in 2008. These expenditures include a large share of physicians who were once in private practice but are now employed by the hospitals. This trend has emerged over the last several years as more physicians seek employment at community hospitals.

The 2008 *Expenditure Analysis* presents this spending as a hospital cost in the Provider analysis. In the Resident analysis, however, physician expenditures cannot be distinguished as to whether they come from hospital-employed physicians or physicians in private practice. This fact is important to note when trying to compare the Provider and Resident results since it explains some of the difference.

The Provider analysis includes expenditures for hospital-employed physician practices (\$240 million in 2008) in the hospital category. This is up from \$217 million in 2007. Physicians employed by Fletcher Allen Health Care, Vermont’s largest hospital, accounted for about \$193 million (80 percent) of the \$240 million.

Physician expenditures (not including hospital-employed physician practices) totaled about \$587 million in Vermont in 2008 (Provider analysis). With hospital-employed physician practices included, total physician expenditures were \$827 million.

BISHCA is working to try to improve the estimate for the Physician category. Current estimates have limited information as to the total number of physicians and their earnings as well as the defining and accounting for the hospital-employed physicians. BISHCA is working to further understand the issues involved and their impact on this analysis.

Vermont Community Hospitals & Physician Expenditures

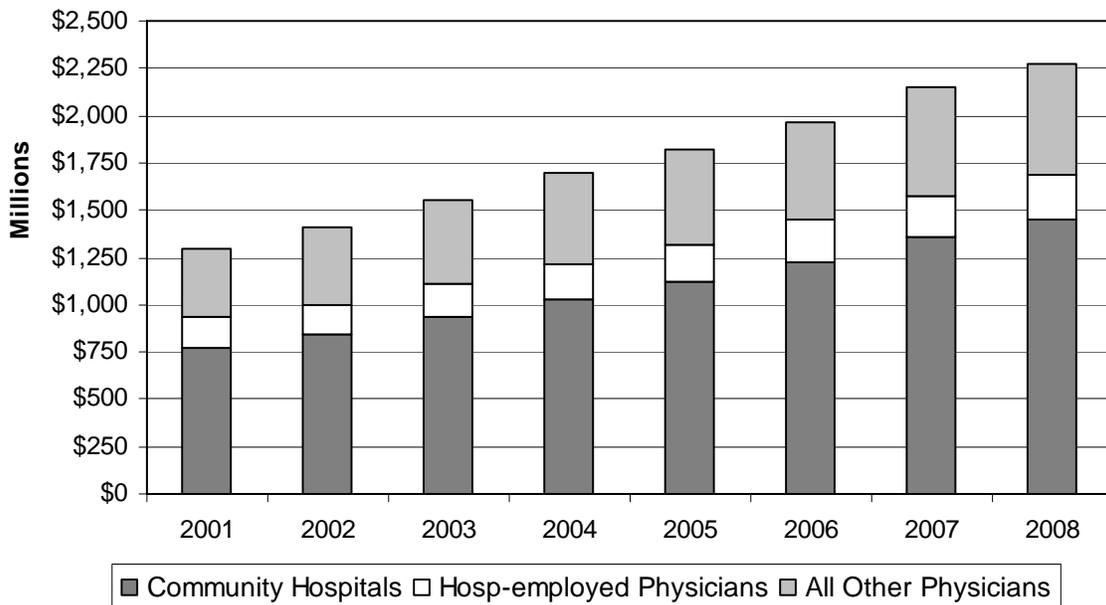


Figure 18

Spotlight on Hospital Inpatient In-Migration and Out-Migration

Many Vermont residents receive medical services from providers located in other states. Similarly, non-Vermonters use Vermont’s health care system. The flow of health care dollars among states can be attributed to a number of factors including the presence of border communities, the mix of services or specialties provided within a state, and different health plan benefits.

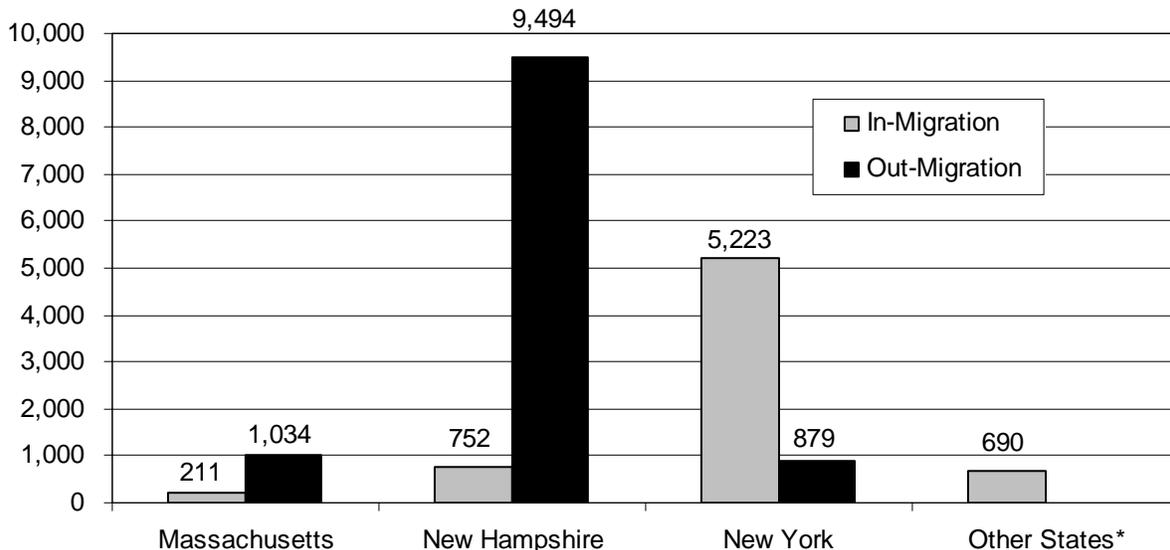
Utilization

In 2008, out of a total of 53,357 Vermont resident inpatient discharges, 11,407 (21 percent) were at hospitals in the bordering states of New Hampshire, New York, and Massachusetts. Dartmouth Hitchcock Medical Center in Lebanon, New Hampshire accounted for 70 percent (8,009) of these Vermont resident discharges in out-of-state hospitals.

For hospitals located within the State of Vermont, 14 percent (6,876 out of a total of 48,826) of inpatient discharges were attributed to non-residents in 2008. New York residents accounted for 76 percent (5,223) of the non-resident inpatient discharges from Vermont hospitals.

In 2008, since 11,407 Vermont residents were discharged from out-of-state hospitals and 6,876 out-of-state residents were discharged from Vermont hospitals, the *net migration* of inpatient discharges was 4,531 to out-of-state hospitals. This was a net increase in out-migration of 539 discharges (13.5 percent) over 2007.

2008 Inpatient Discharges
In-Migration of Non-VT Residents to VT Hospitals
Out-Migration of VT Residents to Non-VT Hospitals



* Out-migration data not available for Other States.

Source: 2008 Vermont Uniform Hospital Discharge Data Set.

Notes: VT residents use hospitals in other states in addition to NH, NY and MA, but reporting is currently unavailable. Data excludes discharges from the Veterans Administration Hospital and records with missing charges.

Figure 19

Charges

Average charges for Vermont residents at Vermont hospitals were \$17,029 in 2008, with an average DRG weight of 1.28. For Vermont residents in out-of-state hospitals (out-migration), the average charges were \$34,342, with a DRG weight of 1.83. This shows that, on average, Vermont residents are using more complex and expensive services at out-of-state hospitals than at Vermont hospitals. Out-of-state residents using Vermont hospitals (in-migration) were in between, with average charges of \$23,741 and a DRG weight of 1.64.

In 2008, the charges associated with the net out-migration of inpatient hospital discharges were \$228.5 million. This was an increase of 20.5 percent (\$38.9 million) over 2007, compared to a net increase of out-migration discharges of 13.5 percent (539 discharges).

Some of the possible reasons for the different relative uses of services are differences in the severity of illness, type of services provided, and payer mix. For example, the concentration of complex services in the use of out-of-state hospitals by Vermont residents (such as the Dartmouth Hitchcock Medical Center and the Albany Medical Center) are higher than the concentration of complex services in Vermont hospitals.

For more information on hospital in-migration and out-migration, please see the Vermont Hospital Migration Reports on BISHCA’s website.³⁷

2008 Vermont Inpatient Hospital Migration

	Discharges	Total Charges	Average Charges	Average DRG Wt*
Total Vermont Residents in Vermont Hospitals	41,950	\$714,364,915	\$17,029	1.28
Total Out-Migration (Vermont Residents in Out-Of-State Hospitals)	11,407	\$391,733,517	\$34,342	1.83
Total In-Migration (Out-of-State Residents in Vermont Hospitals)	6,876	\$163,243,212	\$23,741	1.64
Net Out-Migration	4,531	\$228,490,305	\$50,428	

Source: 2008 Vermont Uniform Hospital Discharge Data Set
 All figures exclude discharges from VA and records with missing charges; Vermont residents only;
 Number of discharges and average DRG weight exclude newborns; charges include newborns.

* DRG weights indicate the relative costs for treating patients during the prior year. For example, a DRG with a weight of 2.0 means that charges were historically twice the national average whereas a DRG with a weight of 0.5 was half the national average.

Table 5

**2009-2012
Forecast**

Three-Year Projections of Health Care Expenditures

This section describes projected expenditures for Vermont health care providers and on behalf of Vermont residents for the period 2009-2012.

Background

This section was prepared to meet the requirement under 18 V.S.A. § 9406 (b)(1-4) that directs the Department of Banking, Insurance, Securities and Health Care Administration (BISHCA) to annually prepare a three-year projection of health care expenditures made on behalf of Vermont residents. The statute requires that the projections be considered in the evaluation of health insurance rate and trend filings that are submitted to BISHCA, as well as used in connection with the hospital budget review process and the Certificate of Need process. The projections of Vermont health care expenditures are also used in the development of the Unified Health Care Budget.

A Three-Year Forecast report was published January 15, 2010.

Forecast Models

BISHCA models a forecast for both Resident data and Provider data. As their base, the two models use the 2008 Vermont health care expenditures (Resident and Provider) as reported to and calculated by BISHCA. These expenditures can be found in the matrices at the back of this report. In both models, most of the projected expenditures for Vermont in 2009-2012 are estimated using the provider services projections reported by the U.S. Centers for Medicare and Medicaid Services (CMS) National Health Expenditure (NHE) model.³⁸ Community hospital projections, however, are based upon data submitted to BISHCA during the annual hospital budget review process, and include projected 2009 and budgeted 2010 data.

For the Provider model, provider service expenditures are projected forward, and then allocated by payer based on the most recent payer distributions that have been reported through 2008. For the Resident model, each payer's (e.g., Medicare, private insurance) provider service expenditures are projected forward from the 2008 base. The one exception is that Medicaid is projected independently in the Resident model based on budgeted growth rates and other information from the Vermont Agency of Human Services (AHS).

The projections for the Global Commitment for Health (Medicaid) are included in the Resident model. The projections are based on data available at the time of publication. However, we have learned that new changes to the State budget might affect this projection. Aside from the Medicaid projections, the forecast model assumes no significant changes in enrollment or significant program policy changes in Medicare or Medicaid. A technical documentation report is available on BISHCA's web site and has a more complete discussion of the forecast model.³⁹

Projected Expenditures

The following table shows Vermont resident health care expenditures in 2008, as projected for 2012, and the average annual change.

Resident Expenditures by Provider			
(\$ in millions)	Actual 2008	Projected 2012	2009-2012 Average Annual Change
Hospitals	\$1,638.5	\$2,123.4	6.7%
Physicians	\$696.6	\$849.1	5.1%
Dentists	\$212.4	\$250.4	4.2%
Other Professional	\$157.9	\$198.5	5.9%
Home Health	\$106.8	\$137.4	6.5%
Drugs & Supplies	\$567.3	\$698.7	5.3%
Vision & DME	\$90.7	\$112.4	5.5%
Nursing Homes	\$255.7	\$335.8	7.0%
Admin/Net Cost Ins.	\$348.3	\$461.3	7.3%
Other/Unclassified	\$34.7	\$49.9	9.5%
Govt Health Activities	\$497.3	\$703.9	9.1%
TOTAL	\$4,606.2	\$5,920.8	6.5%

Resident Expenditures by Payer			
(\$ in millions)	Actual 2008	Projected 2012	2009-2012 Average Annual Change
Out-of-Pocket	\$595.5	\$717.2	4.8%
Private	\$1,904.5	\$2,378.5	5.7%
Medicare	\$863.4	\$1,087.5	5.9%
Medicaid	\$1,060.4	\$1,501.0	9.1%
Other Govt	\$182.3	\$236.5	6.7%
TOTAL	\$4,606.2	\$5,920.8	6.5%

Note: Vermont data is from the Resident analysis. 2008 are actual; 2009-2012 are projected.

Table 6

Update to Projections

National health care spending was recently projected by CMS. Although the data was released too late to be included in the forecast analysis in this report, initial findings show that the impact of this update results in slower projected growth for Vermont than previously estimated over the forecast period (less than 0.3% slower growth each year). This results in an average annual increase in health care spending of 6.3 percent from 2009-2012, rather than the 6.5 percent shown above.

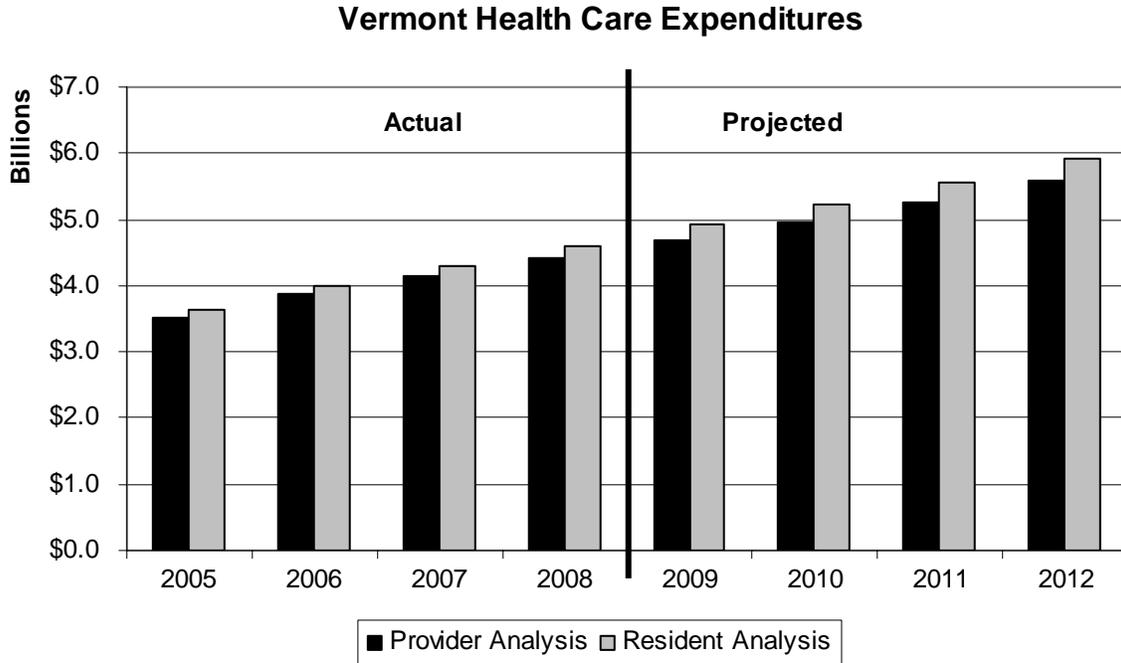


Figure 20

What are Vermont residents’ total health care expenditures expected to be in the next few years?

- Total health care expenditures for Vermont residents are expected to reach \$4.9 billion in 2009 and close to \$5.9 billion by 2012. This is an average annual increase of 6.5 percent.
- Vermont per capita health care expenditures (calculated based on the Resident analysis) are projected to be approximately \$9,463 in 2012. This compares to \$7,414 per capita in 2008.
- The average annual increase in Vermont per capita health care expenditures in the 2009-2012 period is projected to be 6.3 percent. National per capita health care spending is projected to grow at an average annual rate of 4.8 percent during the same period. Vermont’s per capita health care costs are projected to exceed the U.S. per capita costs in 2011 for the first time.
- There are a number of reasons that may explain Vermont’s per capita difference with national data, including sources of data, definitions, methodologies, timing, and adjustments. Please see *Spotlight on Per Capita Health Care Costs* for more information.
- To put the projections in perspective, the average annual growth trend from 2005 to 2008 for Vermont per capita health care expenditures was 8.3 percent compared to 4.7 percent for the U.S. Some of the variance is explained because of differences in reporting by CMS.

Note: The differences between the Resident and Provider analyses are due to different populations, accounting techniques, reporting definitions, and fiscal year considerations.

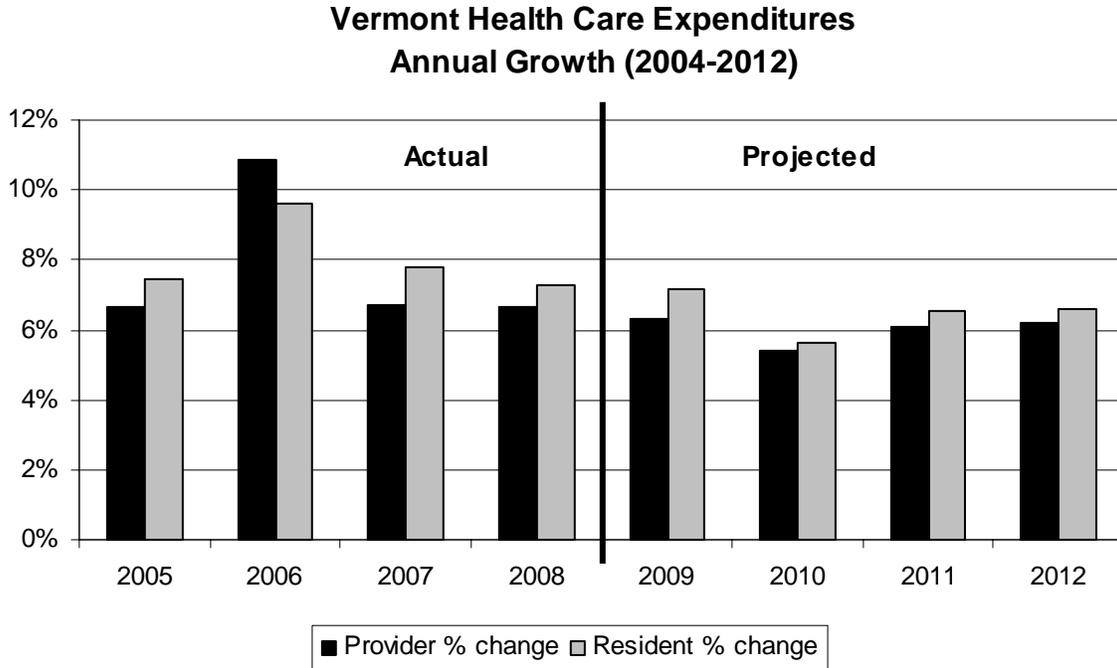


Figure 21

What are the spending trends from 2005 to 2012?

- The figure above highlights the projected annual rates of growth in health care spending for both the Resident and Provider views in Vermont through 2012. After growing above 10 percent in 2001 and 2002 (not shown), the average annual increase from 2005 to 2008 was 8.2 percent in the Resident analysis and 8.1 percent in the Provider analysis. Note that without the methodology change in out-of-pocket spending in the Resident analysis, Vermont residents’ average annual spending growth rate would be about 7.7 percent.
- The forecast (which is primarily based upon a national model) predicts an average annual increase from 2009 to 2012 of 6.5 percent for the Resident analysis and 6.0 percent for the Provider analysis.
- The forecast model assumes no significant changes in enrollment or significant program policy changes in Medicare or Medicaid.

**Vermont Provider Health Care Expenditures
Projected Average Annual Increase by Provider
(2009-2012)**

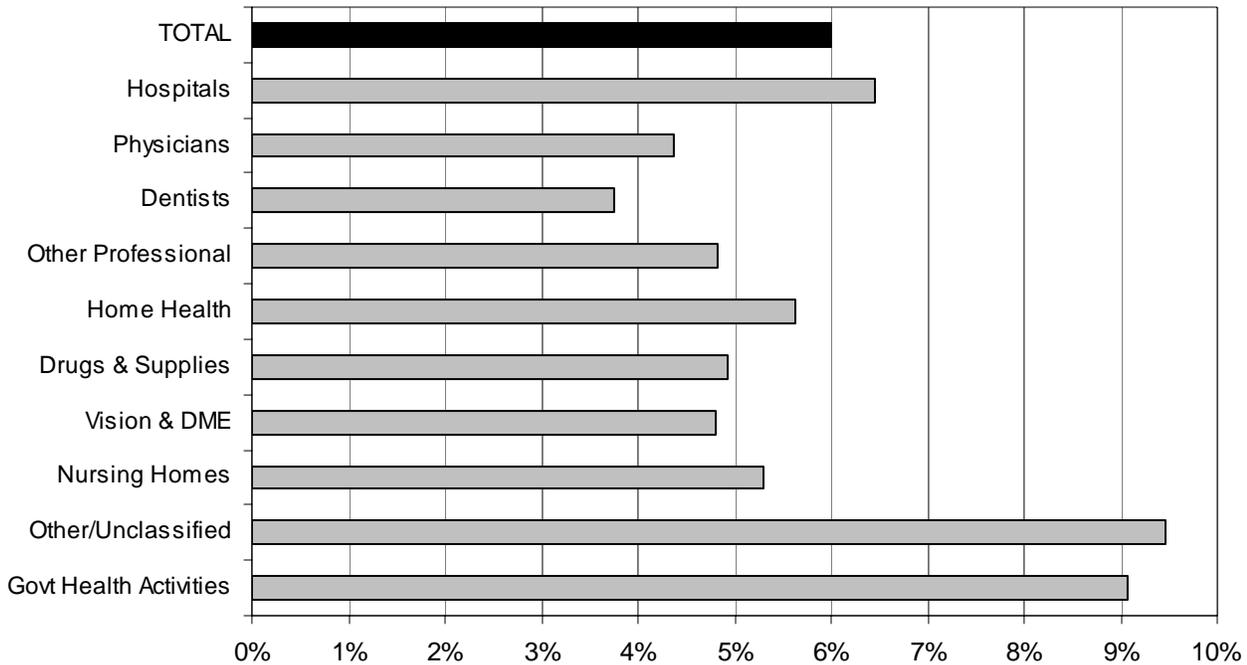


Figure 22

How fast are different health care provider services projected to grow?

- Overall, Vermont provider services are projected to experience an average annual increase of 6 percent in the 2009-2012 projection period.
- Other/unclassified services are projected to grow the fastest at 9.5 percent. However, they represent only about 1 percent of total resident spending and small expenditure changes can result in large percentage changes for the category.
- The next highest growing category is government health activities, which showed an average annual growth of 9.1 percent. Over 90 percent of the expenditures in this category are funded by Medicaid. The projections only include data available at the time of publication, and we have learned that new changes to the State budget may affect these projections. Please see *Spotlight on Government Health Activities* for more information on this category of spending.
- Expenditures for dental services are projected to grow the least among the providers, less than 4 percent annually from 2009 to 2012.
- The increases in Vermont *resident* expenditures by provider are similar to the increases in Vermont *provider* expenditures in the figure above since both models are primarily dependent upon provider growth projections. The increases in the totals of the two models (Resident and Provider), however, can be different because of the relative weighting of their respective populations.

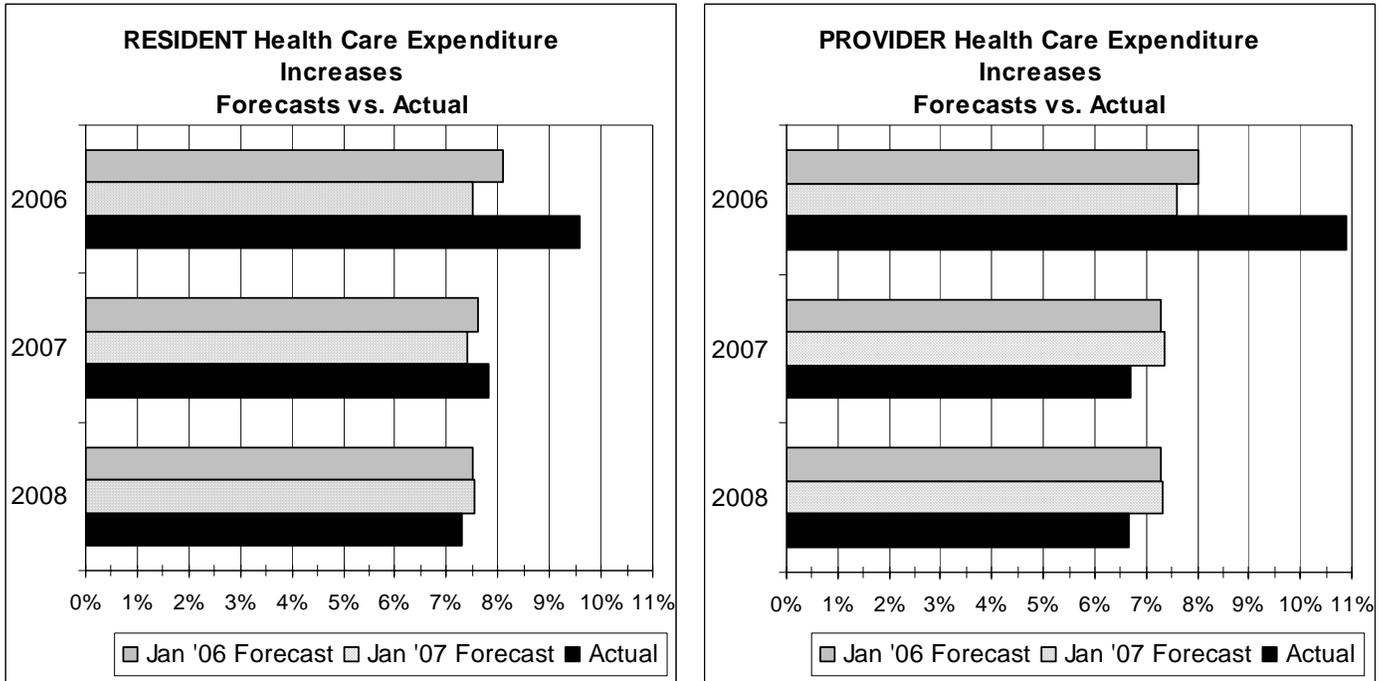


Figure 23

How do previous forecasts compare with actual results?

- The figures above show resident and provider increases in expenditures from the January 2006 Forecast and the January 2007 Forecast compared to actual data. Variability for individual payers and providers can be greater than the aggregate total variability.
- 2006 actual data reflected the start of the Medicare Part D Prescription Drug Program and the beginning of Vermont’s Global Commitment for Health Waiver. These programs resulted in higher actual expenditures compared to the forecasts. Because BISHCA does not attempt to project changes in policy, these programs and their associated spending were not included in the forecasts done in January 2006 and January 2007.
- Other changes occur that can affect the comparison of forecasts to actual data. For example, workers’ compensation expenditures were not included in the January 2006 Resident Forecast but have since been added to the Resident model. Similarly, the manner in which bad debt in the community hospitals is accounted for and reported changed after the January 2007 forecast.

Definitions and Data Sources: Resident (Payer) Matrix

Expenditure Categories	Definition	Data Sources for Payer Matrix	Allocation to Provider Services
Out-of-Pocket	Includes expenditures made directly by consumers to purchase health care services and supplies: includes deductibles and coinsurance. Excludes payments for insurance premiums that are included in the insurance expenditure category.	Average of NHE per capita data and data from Market Decisions (from the 2008 VT Household Health Insurance Survey).	Allocation based on NHE distributions, line item data from Market Decisions, and other Resident expenditures.
<u>Insurance</u>			
- Private	Includes expenditures made by BCBSVT, MVP, CIGNA and other private commercial payers that sell benefit plans regulated by BISHCA. Includes comprehensive major medical insurance, Medicare supplement insurance, long-term care, and dental insurance. Excludes accident only and disability insurance.	BCBSVT, CIGNA, and MVP reported 2008 data by provider service category. Other private commercial insurance expenditures were calculated from the 2008 Annual Statement Supplement filed with BISHCA.	Allocation as reported by BCBSVT, CIGNA, and MVP. Other private allocation based on BCBSVT and MVP distribution.
- Self-Insured	Includes expenditures by companies that assume financial risk and directly pay for health services for their employees. These plans are exempt from state regulation under ERISA.	The estimate of self-insured lives is a residual based on subtracting data for lives enrolled in fully insured plans, Medicare, Medicaid and the uninsured from the total population. Total lives were multiplied by the Vermont State Employees Medical and Dental Plans' premium rates.	Allocation based on BCBSVT and MVP distribution.
- Workers' Compensation	Includes the medical component of workers' compensation claims. Some of these claims are self-insured and some are private insurance.	Calculated with data from A.M. Best, the National Council on Compensation Ins., and the National Academy of Social Ins.	Allocation based on 2008 workers' compensation medical payments in Oregon.
<u>Medicare</u>	Includes expenditures made by the federal government on behalf of beneficiaries of the national Medicare program, including the elderly and disabled.	2007 claims data for Medicare beneficiaries who are VT residents regardless of location of covered services received, and inflated by a 3-year average increase, with adjustments for drugs and admin.	Allocation from 2007 claims data for VT beneficiaries.
<u>Medicaid</u>	Includes health expenditures for beneficiaries of VT's medical assistance program, a federal-state health insurance program for certain low-income and medically needy people and aged, blind, and disabled residents. The program provides medical and prescription drug coverage.	2008 Medicaid expenditure claims data prepared by AHS. Global Commitment, Long-Term Care, SCHIP, and MCO Investments are included in the data.	Allocation based on claims data and input from AHS.
<u>Other Federal</u>	Includes federal expenditures to operate the V.A. Hospital, grants administered by the VT Dept. of Health for health care services not covered through the Medicare or Medicaid program, and expenditures on federally qualified health centers.	2008 data from the V.A. Hospital, AHS, and the Bi-State Primary Care Association.	Allocation based on input from AHS.
<u>State & Local</u>	Includes public health activities and payments made by the state government for health care services that are not covered through the Medicare or Medicaid program.	2008 data from AHS, the VT State Hospital, the V.A. Hospital, and DHCA.	Allocation based on input from AHS.

Note: The data matrices at the end of this report have been shaded according to data quality. White areas are relatively well documented and refer to Vermont specific sources. Gray areas have Vermont based information from which reasonable estimates can be calculated. Dark gray areas are based on estimates where there is no reliable Vermont specific information. Generally, national sources are used to make estimates in these areas.

Acronyms: AHS	Agency of Human Services	DME	Durable medical equipment
BCBSVT	Blue Cross Blue Shield of Vermont	ERISA	Employment Retirement Income Security Act of 1974
BISHCA	Department of Banking, Insurance, Securities and Health Care Administration	NHE	National Health Expenditures model
CIGNA	Connecticut General Life Ins Co of Amer.	V.A.	Veterans' Administration
DHCA	Division of Health Care Administration	VPQHC	Vermont Program for Quality in Health Care
		SCHIP	State Children's Health Insurance Program

Definitions and Data Sources: Provider Matrix

Expenditure Categories	Definition	Data Sources for Provider Matrix	Allocation to Payers of Services	Forecast Method
<u>Hospitals</u>	Includes net revenues from all inpatient and outpatient acute care services and paid physician salaries and expenses at VT community hospitals, Brattleboro Retreat, VT State Hospital, and V.A. Hospital.	2008 data from all VT non-profit community hospitals, VT State Hospital, V.A. Hospital, and Brattleboro Retreat.	Government expenditures allocated as reported by hospitals. Private expenditures allocated based on resident matrix.	NHE hospital % projection increases except for Community Hospital 2009 projected and 2010 budget from BISHCA hospital budget process, and Brattleboro Retreat 3-year moving average with NHE %.
<u>Physician Services</u>	Includes revenue for all physicians (including osteopathic physicians), rural health clinics, federally qualified health centers, nurse practitioners, and physician assistants. Salaries and expenses paid for Vermont hospital-owned physician practices are excluded (see Hospitals).	2002 U.S. Economic Census, inflated to 2008 with NHE data.	Allocation based on resident matrix. Represents total net practice revenue, not physician net income.	NHE physician % projections.
<u>Dental Services</u>	Includes revenue for dental and oral surgery services.	2002 U.S. Economic Census, inflated to 2008 with NHE data.	Allocation based on resident matrix.	NHE dental % projections.
<u>Other Professional Services</u>	Includes all revenue for services provided by licensed health care professionals who are not physicians or dentists and who directly bill for their services. Includes: chiropractic services, physical therapy services, podiatrist services, psychological services, and all other expenditures for services provided by health professionals that are not specifically identified.	Chiropractic, physical therapy, psychological, podiatrist, and other professional services data from 2002 U.S. Economic Census, inflated to 2008 with NHE data.	Allocation based on resident matrix.	NHE other professional % projections.
<u>Home Health Care</u>	Includes revenue from all services provided by home health agencies.	2008 data from the VT Assembly of Home Health Agencies (non-profit agencies), Professional Nurses Service (PNS), and Associates in Physical & Occupational Therapy.	Expenditures allocated based on resident matrix except government expenditures reported by VT Assembly of Home Health Agencies and PNS.	Average of 3-year moving average and NHE home health % projections.
<u>Drugs and Supplies</u>	Includes all revenue for prescription drugs and non-durable supplies that are purchased by prescription. Non-prescription drugs are included.	2008 Verispan, L.L.C. data (Henry J. Kaiser Family Foundation, State Health Facts Online) averaged with 2008 NHE drugs growth rate. Estimate for supplies added.	Allocation based on resident matrix.	Weighted average of NHE prescription drugs and non-durable medical supplies % projections.
<u>Vision Products & DME</u>	Includes all revenue for products that aid sight and for all services provided by optometrists and opticians. Also includes expenditures for durable medical equipment purchased from independent vendors.	2002 U.S. Economic Census, inflated to 2008 with NHE data.	Allocation based on resident matrix.	Weighted average of NHE other professional and durable medical equipment % projections.
<u>Nursing Home Care</u>	Includes all revenues received by nursing homes, including intermediate care facilities and skilled nursing facilities.	Expenditure data reported to AHS Division of Rate Setting for 2008. Estimates added for non-Medicaid homes.	Government expenditures allocated as reported by nursing homes to AHS. Private expenditures distributed based on resident matrix.	Average of 3-year moving average and NHE nursing home % projections.
<u>Other/ Unclassified Health Services</u>	Includes all services not specified elsewhere, including college health fees, office-based business health spending, and some public school health spending.	University of Vermont, Vermont Department of Education, others.	Expenditures are classified primarily as out-of-pocket and state & local.	NHE other personal health care % projections.
<u>Government Health Activities</u>	Includes all expenditures for health activities through AHS, public mental health funding, case management services, and VT Department of Corrections health-related spending. State and Federal grants and DHCA expenditures are also included.	AHS and DHCA.	Allocated as reported by AHS. AHS does not include employee or operating costs, only grant programs. DHCA includes employee and operating costs and contract with VPQHC.	Resident Medicaid annual increases projected separately based on AHS/OVHA projections, and applied to this category.

Data Matrices & Tables

2008 Vermont Health Care Expenditures - Resident Analysis

(all amounts in thousands)

All dollar amounts are reported in thousands - Multiply expenditures by 1,000 to arrive at the full expenditure amount.

	Percent of Total	Total	Out-of-Pocket	Private Insurance	Medicare	Vermont Medicaid	Other Federal	State & Local
Hospitals	35.6%	\$1,638,453	\$47,907	\$874,858	\$447,050	\$171,253	\$75,856	\$21,530
Community Hospitals	33.1%	\$1,526,174	\$47,907	\$862,804	\$444,067	\$171,253	\$135	\$8
Veterans Hospital	1.7%	\$77,452	\$0	\$1,570	\$0	\$0	\$75,720	\$162
Psychiatric Hosp: State	0.5%	\$22,079	\$0	\$718	\$0	\$0	\$0	\$21,361
Psychiatric Hosp: Private	0.3%	\$12,749	\$0	\$9,766	\$2,983	\$0	\$0	\$0
Physician Services*	15.1%	\$696,608	\$103,502	\$383,560	\$110,494	\$92,768	\$6,279	\$4
Dental Services	4.6%	\$212,396	\$131,618	\$64,012	\$0	\$16,507	\$4	\$255
Other Professional Services	3.4%	\$157,926	\$33,909	\$83,716	\$17,332	\$22,969	\$0	\$0
Chiropractor Services	0.4%	\$20,213	\$4,340	\$14,213	\$1,468	\$192	\$0	\$0
Physical Therapy Services	0.9%	\$40,269	\$8,646	\$25,150	\$4,660	\$1,812	\$0	\$0
Psychological Services	0.9%	\$43,415	\$9,322	\$17,986	\$2,215	\$13,892	\$0	\$0
Podiatrist Services	0.1%	\$5,018	\$1,077	\$2,308	\$1,386	\$246	\$0	\$0
Other	1.1%	\$49,010	\$10,523	\$24,059	\$7,603	\$6,826	\$0	\$0
Home Health Care	2.3%	\$106,764	\$13,537	\$5,155	\$56,829	\$26,158	\$4	\$5,080
Drugs & Supplies	12.3%	\$567,297	\$140,399	\$250,957	\$95,873	\$68,803	\$854	\$10,411
Vision Products & DME	2.0%	\$90,749	\$48,447	\$13,990	\$20,955	\$7,350	\$3	\$3
Nursing Home Care	5.6%	\$255,725	\$76,223	\$6,065	\$52,889	\$115,577	\$0	\$4,971
Other/Unclassified Health Services	0.8%	\$34,746	\$0	\$1,097	\$16,192	\$2,994	\$2	\$14,461
Admin/Net Cost of Health Insurance	7.6%	\$348,290	N/A	\$221,081	\$45,815	\$81,394	\$0	\$0
Change in surplus	N/A	n.a.	N/A	(\$9,840)	n.a.	\$0	\$0	\$0
Administration	N/A	n.a.	N/A	\$106,777	n.a.	\$81,394	\$0	\$0
Government Health Care Activities**	10.8%	\$497,270	n.a.	n.a.	n.a.	\$454,669	\$16,824	\$25,777
TOTAL VERMONT EXPENDITURES	100.0%	\$4,606,224	\$595,542	\$1,904,491	\$863,428	\$1,060,444	\$99,826	\$82,493
Percent of total expenditures		100.0%	12.9%	41.3%	18.7%	23.0%	2.2%	1.8%

* Hospital-employed physician practices are included in the Physician Services category in the Resident Matrix.

** See Spotlight on Government Health Care Activities in this report for further detail.

	Payer reported data
	Allocations estimated from VT specific data
	Amounts imputed from National Health Expenditures or other indirect sources
N/A	Not Applicable
n.a.	Not Available

2008 Vermont Health Care Expenditures - Resident Analysis Private Insurance Detail

(all amounts in thousands)

All dollar amounts are reported in thousands - Multiply expenditures by 1,000 to arrive at the full expenditure amount.

	Percent of Total	Total Private Insurance	Self-Insured	BCBS VT	MVP	Workers' Comp	Other Private
Hospitals	45.9%	\$874,858	\$324,928	\$202,306	\$56,389	\$27,168	\$264,067
Community Hospitals	45.3%	\$862,804	\$319,928	\$200,400	\$54,314	\$27,168	\$260,993
Veterans Hospital	0.1%	\$1,570	\$627	\$488	\$12	\$0	\$443
Psychiatric Hosp: State	0.0%	\$718	\$39	\$31	\$0	\$0	\$648
Psychiatric Hosp: Private	0.5%	\$9,766	\$4,333	\$1,388	\$2,062	\$0	\$1,983
Physician Services*	20.1%	\$383,560	\$138,447	\$84,823	\$25,403	\$27,545	\$107,342
Dental Services	3.4%	\$64,012	\$30,655	\$1,218	\$297	\$284	\$31,557
Other Professional Services	4.4%	\$83,716	\$25,456	\$18,445	\$1,822	\$18,039	\$19,953
Chiropractor Services	0.7%	\$14,213	\$4,641	\$3,642	\$54	\$1,923	\$3,953
Physical Therapy Services	1.3%	\$25,150	\$6,911	\$4,731	\$772	\$6,655	\$6,083
Psychological Services	0.9%	\$17,986	\$7,067	\$5,364	\$263	\$81	\$5,211
Podiatrist Services	0.1%	\$2,308	\$841	\$533	\$137	\$97	\$700
Other	1.3%	\$24,059	\$5,995	\$4,176	\$597	\$9,284	\$4,006
Home Health Care	0.3%	\$5,155	\$1,839	\$1,199	\$265	\$647	\$1,204
Drugs & Supplies	13.2%	\$250,957	\$94,562	\$61,185	\$14,101	\$5,917	\$75,191
Vision Products & DME	0.7%	\$13,990	\$5,101	\$3,440	\$621	\$62	\$4,766
Nursing Home Care	0.3%	\$6,065	\$2,328	\$1,802	\$52	\$245	\$1,638
Other/Unclassified Health Services	0.1%	\$1,097	\$456	\$271	\$92	\$0	\$278
Admin/Net Cost of Health Insurance	11.6%	\$221,081	\$46,300	\$34,208	\$16,429	\$42,605	\$81,538
Change in surplus	-0.5%	(\$9,840)	n.a.	(\$12,426)	\$2,587	n.a.	n.a.
Administration	5.6%	\$106,777	\$46,300	\$46,635	\$13,843	n.a.	n.a.
Government Health Care Activities**	N/A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL VERMONT EXPENDITURES	100.0%	\$1,904,491	\$670,072	\$408,899	\$115,471	\$122,515	\$587,534
Percent of total expenditures		100.0%	35.2%	21.5%	6.1%	6.4%	30.8%

* Hospital-employed physician practices are included in the Physician Services category in the Resident Matrix.

** See Spotlight on Government Health Care Activities in this report for further detail.

	Payer reported data
	Allocations estimated from VT specific data
	Amounts imputed from National Health Expenditures or other indirect sources
N/A	Not Applicable
n.a.	Not Available

2008 Vermont Health Care Expenditures - Provider Analysis

(all amounts in thousands)

All dollar amounts are reported in thousands - Multiply expenditures by 1,000 to arrive at the full expenditure amount.

	Percent of Total	Total	Out-of-Pocket	Private Insurance	Medicare	Vermont Medicaid	Other Federal	State & Local
Hospitals	42.4%	\$1,872,379	\$57,212	\$959,991	\$514,010	\$195,521	\$116,787	\$28,858
Community Hospitals	38.2%	\$1,689,174	\$53,023	\$942,390	\$508,897	\$184,864	\$0	\$0
Veterans Hospital	2.9%	\$127,514	\$3,897	\$6,963	\$0	\$0	\$116,493	\$162
Psychiatric Hosp: State	0.5%	\$21,499	\$73	\$0	\$0	\$0	\$65	\$21,361
Psychiatric Hosp: Private	0.8%	\$34,191	\$219	\$10,639	\$5,112	\$10,657	\$228	\$7,336
Physician Services*	13.3%	\$586,728	\$87,176	\$335,532	\$100,942	\$57,582	\$5,493	\$3
Dental Services	5.4%	\$237,685	\$147,289	\$71,634	\$0	\$18,473	\$4	\$285
Other Professional Services	4.2%	\$185,630	\$39,857	\$99,284	\$20,626	\$25,863	\$0	\$0
Chiropractor Services	0.7%	\$32,929	\$7,070	\$23,154	\$2,391	\$314	\$0	\$0
Physical Therapy Services	0.8%	\$35,411	\$7,603	\$22,116	\$4,098	\$1,594	\$0	\$0
Psychological Services	1.0%	\$44,565	\$9,569	\$18,462	\$2,274	\$14,260	\$0	\$0
Podiatrist Services	0.1%	\$4,801	\$1,031	\$2,209	\$1,326	\$236	\$0	\$0
Other	1.5%	\$67,925	\$14,584	\$33,343	\$10,537	\$9,460	\$0	\$0
Home Health Care	2.3%	\$100,440	\$6,524	\$7,865	\$50,267	\$30,234	\$470	\$5,080
Drugs & Supplies	13.2%	\$584,238	\$144,592	\$258,451	\$98,736	\$70,857	\$880	\$10,722
Vision Products & DME	1.8%	\$78,615	\$41,969	\$12,120	\$18,153	\$6,368	\$3	\$3
Nursing Home Care	5.5%	\$244,732	\$41,938	\$2,957	\$62,617	\$127,872	\$3,891	\$5,457
Other/Unclassified Health Services	0.7%	\$30,976	\$13,063	\$2,951	\$0	\$500	\$0	\$14,462
Admin/Net Cost of Health Insurance	N/A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Change in surplus	N/A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Administration	N/A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Government Health Care Activities**	11.3%	\$497,270	\$0	\$0	\$0	\$454,669	\$16,824	\$25,777
TOTAL VERMONT EXPENDITURES	100.0%	\$4,418,692	\$579,620	\$1,750,785	\$865,350	\$987,938	\$144,351	\$90,648
Percent of total expenditures		100.0%	13.1%	39.6%	19.6%	22.4%	3.3%	2.1%

* Hospital-employed physician practices are included in the Community Hospital category in the Provider Matrix.

** See Spotlight on Government Health Care Activities in this report for further detail.

	Provider reported data
	Allocations estimated from VT specific data
	Amounts imputed from National Health Expenditures or other indirect sources
N/A	Not Applicable
n.a.	Not Available

2008 Vermont Health Care Expenditures - Provider Analysis Private Insurance Detail

(all amounts in thousands)

All dollar amounts are reported in thousands - Multiply expenditures by 1,000 to arrive at the full expenditure amount.

	Percent of Total	Total Private Insurance	Self-Insured	BCBS VT	MVP	Workers' Comp	Other Private
Hospitals	54.8%	\$959,991	\$357,811	\$223,102	\$61,774	\$27,403	\$289,902
Community Hospitals	53.8%	\$942,390	\$350,323	\$219,439	\$59,474	\$27,365	\$285,788
Veterans Hospital	0.4%	\$6,963	\$2,768	\$2,151	\$53	\$37	\$1,953
Psychiatric Hosp: State	0.0%	\$0	\$0	\$0	\$0	\$0	\$0
Psychiatric Hosp: Private	0.6%	\$10,639	\$4,720	\$1,512	\$2,246	\$0	\$2,160
Physician Services*	19.2%	\$335,532	\$121,111	\$74,202	\$22,222	\$24,096	\$93,901
Dental Services	4.1%	\$71,634	\$34,305	\$1,363	\$332	\$318	\$35,314
Other Professional Services	5.7%	\$99,284	\$30,007	\$21,896	\$1,994	\$22,027	\$23,360
Chiropractor Services	1.3%	\$23,154	\$7,561	\$5,933	\$87	\$3,132	\$6,441
Physical Therapy Services	1.3%	\$22,116	\$6,077	\$4,160	\$679	\$5,852	\$5,349
Psychological Services	1.1%	\$18,462	\$7,255	\$5,506	\$270	\$83	\$5,349
Podiatrist Services	0.1%	\$2,209	\$805	\$510	\$131	\$93	\$670
Other	1.9%	\$33,343	\$8,309	\$5,788	\$827	\$12,867	\$5,552
Home Health Care	0.4%	\$7,865	\$1	\$2,391	\$473	\$34	\$4,967
Drugs & Supplies	14.8%	\$258,451	\$97,386	\$63,012	\$14,522	\$6,094	\$77,436
Vision Products & DME	0.7%	\$12,120	\$4,419	\$2,980	\$538	\$54	\$4,129
Nursing Home Care	0.2%	\$2,957	\$1,135	\$878	\$25	\$120	\$799
Other/Unclassified Health Services	0.2%	\$2,951	\$2,951	\$0	\$0	\$0	\$0
Admin/Net Cost of Health Insurance	N/A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Change in surplus	N/A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Administration	N/A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Government Health Care Activities**	0.0%	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL VERMONT EXPENDITURES	100.0%	\$1,750,785	\$649,125	\$389,825	\$101,880	\$80,145	\$529,809
Percent of total expenditures		100.0%	37.1%	22.3%	5.8%	4.6%	30.3%

* Hospital-employed physician practices are included in the Community Hospital category in the Provider Matrix.

** See Spotlight on Government Health Care Activities in this report for further detail.

	Provider reported data
	Allocations estimated from VT specific data
	Amounts imputed from National Health Expenditures or other indirect sources
N/A	Not Applicable
n.a.	Not Available

2005-2012 Vermont Resident Health Care Expenditures

(\$ in thousands)

PAYERS	2005	2006	2007	2008	Projected			
					2009	2010	2011	2012
Out-of-Pocket	\$493,722	\$493,986	\$579,321	\$595,542	\$622,681	\$649,345	\$681,830	\$717,207
Private Insurance	\$1,511,694	\$1,633,371	\$1,785,531	\$1,904,491	\$2,020,473	\$2,127,840	\$2,249,596	\$2,378,504
Medicare	\$590,902	\$730,539	\$795,103	\$863,428	\$917,025	\$968,649	\$1,025,813	\$1,087,546
Medicaid	\$914,567	\$950,774	\$963,730	\$1,060,444	\$1,180,748	\$1,261,368	\$1,375,980	\$1,501,005
Other Government	\$123,018	\$173,952	\$169,878	\$182,319	\$195,170	\$206,452	\$220,664	\$236,500
TOTAL RESIDENT EXPENDITURES	\$3,633,904	\$3,982,622	\$4,293,563	\$4,606,224	\$4,936,097	\$5,213,654	\$5,553,883	\$5,920,762
Annual Percent Change	7.5%	9.6%	7.8%	7.3%	7.2%	5.6%	6.5%	6.6%

PROVIDERS	2005	2006	2007	2008	Projected			
					2009	2010	2011	2012
Hospitals	\$1,192,802	\$1,351,601	\$1,449,847	\$1,638,453	\$1,752,718	\$1,867,527	\$1,990,427	\$2,123,403
Physician Services	\$575,958	\$601,545	\$658,585	\$696,608	\$743,129	\$769,085	\$806,868	\$849,103
Dental Services	\$125,880	\$124,531	\$198,349	\$212,396	\$218,271	\$228,121	\$238,870	\$250,384
Other Professional Services	\$139,133	\$157,762	\$152,756	\$157,926	\$169,069	\$176,555	\$187,245	\$198,455
Home Health Care	\$125,705	\$87,949	\$95,349	\$106,764	\$114,040	\$120,396	\$128,238	\$137,426
Drugs & Supplies	\$523,401	\$561,870	\$538,992	\$567,297	\$591,689	\$618,919	\$657,110	\$698,669
Vision Products & DME	\$66,063	\$70,102	\$89,392	\$90,749	\$99,375	\$102,746	\$107,105	\$112,406
Nursing Home Care	\$207,723	\$216,337	\$240,599	\$255,725	\$275,778	\$292,417	\$313,457	\$335,816
Other/Unclassified Health Services	\$64,337	\$37,364	\$34,399	\$34,746	\$37,660	\$41,252	\$45,345	\$49,927
Admin/Net Cost of Health Insurance	\$299,025	\$320,484	\$386,601	\$348,290	\$380,685	\$405,147	\$433,985	\$461,314
Government Health Care Activities	\$313,876	\$453,075	\$448,693	\$497,270	\$553,684	\$591,489	\$645,233	\$703,861
TOTAL RESIDENT EXPENDITURES	\$3,633,904	\$3,982,622	\$4,293,563	\$4,606,224	\$4,936,097	\$5,213,654	\$5,553,883	\$5,920,762
Annual Percent Change	7.5%	9.6%	7.8%	7.3%	7.2%	5.6%	6.5%	6.6%

2005-2012 Vermont Provider Health Care Expenditures

(\$ in thousands)

PAYERS	2005	2006	2007	2008	Projected			
					2009	2010	2011	2012
Out-of-Pocket	\$513,514	\$538,686	\$565,056	\$579,620	\$605,584	\$632,312	\$664,764	\$700,141
Private Insurance	\$1,327,132	\$1,470,286	\$1,595,586	\$1,750,785	\$1,853,131	\$1,951,402	\$2,062,455	\$2,182,930
Medicare	\$636,288	\$735,045	\$843,950	\$865,350	\$918,173	\$969,739	\$1,026,359	\$1,087,947
Medicaid	\$863,150	\$922,722	\$921,084	\$987,938	\$1,068,839	\$1,132,984	\$1,215,486	\$1,305,049
Other Government	\$161,240	\$215,498	\$216,539	\$234,999	\$250,797	\$264,942	\$282,499	\$302,098
TOTAL PROVIDER EXPENDITURES	\$3,501,323	\$3,882,238	\$4,142,214	\$4,418,692	\$4,696,524	\$4,951,379	\$5,251,563	\$5,578,164
Annual Percent Change	6.6%	10.9%	6.7%	6.7%	6.3%	5.4%	6.1%	6.2%

PROVIDERS	2005	2006	2007	2008	Projected			
					2009	2010	2011	2012
Hospitals	\$1,459,843	\$1,607,094	\$1,748,089	\$1,872,379	\$1,998,155	\$2,127,723	\$2,260,881	\$2,404,904
Physician Services	\$505,970	\$521,826	\$571,072	\$586,728	\$620,675	\$639,012	\$665,938	\$696,298
Dental Services	\$203,427	\$214,537	\$226,151	\$237,685	\$242,438	\$252,863	\$263,736	\$275,341
Other Professional Services	\$160,419	\$166,814	\$175,786	\$185,630	\$193,798	\$201,550	\$212,635	\$224,117
Home Health Care	\$93,398	\$96,280	\$97,632	\$100,440	\$105,741	\$111,180	\$117,424	\$125,024
Drugs & Supplies	\$460,196	\$504,254	\$543,165	\$584,238	\$606,903	\$632,824	\$669,062	\$708,471
Vision Products & DME	\$68,166	\$72,904	\$73,179	\$78,615	\$84,760	\$87,375	\$90,688	\$94,810
Nursing Home Care	\$210,370	\$218,373	\$228,356	\$244,732	\$256,947	\$270,665	\$285,597	\$300,852
Other/Unclassified Health Services	\$25,658	\$27,080	\$30,092	\$30,976	\$33,423	\$36,698	\$40,368	\$44,486
Admin/Net Cost of Health Insurance	n.a.	n.a.	n.a.	n.a.	\$0	\$0	\$0	\$0
Government Health Care Activities	\$313,876	\$453,075	\$448,693	\$497,270	\$553,684	\$591,489	\$645,233	\$703,861
TOTAL PROVIDER EXPENDITURES	\$3,501,323	\$3,882,238	\$4,142,214	\$4,418,692	\$4,696,524	\$4,951,379	\$5,251,563	\$5,578,164
Annual Percent Change	6.6%	10.9%	6.7%	6.7%	6.3%	5.4%	6.1%	6.2%

Summary of Data Revisions

BISHCA is committed to continually updating and revising the data and methodologies incorporated in this annual report in order to more accurately reflect Vermont's health care expenditures in the different payer and provider categories. These refinements can change the expenditure levels reported in prior reports. Besides the notable revisions described below, this latest analysis incorporates other minor updates to prior data. Revisions include the following:

1. There is a noteworthy methodology change with 2008 data based on more accurate information. The change is in the calculation of **out-of-pocket** (OOP) health care spending. BISHCA recently received data on OOP spending from the 2008 Vermont Household Health Insurance Survey, and the data indicated higher OOP expenditures than were calculated previously. The result is a higher estimate for 2008 resident expenditures by close to \$70 million, primarily for OOP spending for physician and dental services, with a reduction in OOP drug spending. BISHCA also revised 2007 data with this methodology, using imputed values.
2. The estimate for **self-insured** health care spending for 2007 was also revised. Data published last year did not include an estimate for employees of federal health plans. The revised estimate increased the self-insured total by about \$63 million.
3. **Medicare** data for 2008 was not available at the time this report was published due to the timing of the release of the data from CMS. However, BISHCA received 2007 Medicare data, which allowed BISHCA to update the Medicare estimates prepared for last year's 2007 expenditure report. This updated data slightly lowers (by less than \$2 million) the 2007 Medicare spending in the Resident analysis. In addition, estimates for Medicare prescription drug costs and administrative costs associated with the **Medicare Part D** prescription drug program have also been updated based on more recent national data. The Vermont estimates for 2006 through 2008 for this program are based on national data due to the current lack of available State-specific data.
4. As noted in the *Spotlight on Government Health Activities*, the State entered into two agreements with CMS in 2006 called the **Global Commitment to Health and Choices for Care**, which changed the manner in which **Vermont's Medicaid program** dollars are accounted for by CMS. In addition, reporting improvements occurred with 2006 and 2007 Medicaid data, which has allowed the data to be categorized and reported more accurately. Revisions since the publication of the *2007 Expenditure Analysis* lowered total Medicaid spending by \$28 million in 2006 and \$33 million in 2007. In each of these years, most of the revision is to correct reported spending for mental health clinics. BISHCA continues to work with AHS to further define how best to analyze and present the health care dollars that flow through the various AHS departments.
5. BISHCA is working to try to improve the estimate for the **Physician category**. Current estimates have limited information as to the total number of physicians and their earnings as well as the defining and accounting for the hospital-employed physicians. BISHCA is working to further understand the issues involved and their impact on this analysis.

The reader should be cautious when examining long-term trends in the data because of revisions over the years. Please contact BISHCA for further information or if you would like to provide input to assist in refining the analysis further.

Endnotes:

¹ For example, since an estimated 35% of the patients at the Veteran's Hospital in White River Junction, VT are not Vermont residents, the spending associated with those patients is *not* included in the Vermont resident analysis but *is* included in the Vermont provider analysis. In addition, in the resident analysis, out-of-pocket and self-insured expenditures are estimated due to the unavailability of specific data.

² <http://www.bishca.state.vt.us/health-care/health-insurers/vermont-healthcare-claims-uniform-reporting-and-evaluation-system-vhcure>

³ Hartman, M. et al., "Health Spending Growth At A Historic Low in 2008", Health Affairs, January 2010; 29 No. 1 (2010): 147-155.

⁴ For example, there was a methodology change in calculating out-of-pocket (OOP) expenditures in 2007 and 2008 due to the availability of more Vermont-specific data. This increased 2007 OOP spending by about \$68 million and 2008 OOP spending by about \$70 million. Without these more accurate data, the 2006-2007 increase in total health care spending would have been 6.1% vs. 7.8%. The 2007-2008 increase would be about the same. Also, the 2005-2008 average annual increase in total spending would have been about 7.7% instead of 8.2% without the methodology change.

⁵ Payers of health care include private insurers (self-funded, workers' compensation, and private health insurers like Blue Cross Blue Shield of Vermont, MVP, CIGNA, etc.), government programs (Medicare, Medicaid, state and federal grants), and out-of-pocket expenditures made directly by individuals.

⁶ Hartman, M. et al., "Health Spending Growth At A Historic Low in 2008", Health Affairs, January 2010; 29 No. 1 (2010): 147-155.

⁷ Kaiser Family Foundation's State Health Facts Online: Medicaid Benefits Online Database, <http://www.kff.org/medicaidbenefits/index.cfm>

⁸ The increase in other government expenditures is in part due to better reporting of AHS data beginning with 2006 data. Some notable reporting changes are the inclusion of expenditure estimates for preventive health care that were not previously captured, and the categorization of some drug spending that was previously captured in Medicaid reporting. BISHCA is working with AHS to further understand and define spending in this category.

⁹ Truffer, C. et al., "Health Spending Projections Through 2019: The Recession's Impact Continues", Health Affairs, February 2010; 29 No. 3 (2010); published online February 4, 2010.

¹⁰ Vermont's per capita health care costs are the average amount spent on health care for each Vermont resident.

¹¹ Total NHE spending.

¹² Martin, Anne B., "Health Spending By State Of Residence, 1991-2004", Health Affairs, November/December 2007; 26(6): w651-w663.

¹³ The 9.3 percent average annual growth rate includes an adjustment for the addition of medical workers' compensation costs beginning in 2003.

¹⁴ Shifts in enrollment can occur over time. For more information about the health insurance market in Vermont, please visit the Division of Health Care Administration at BISHCA's web site at

<http://www.bishca.state.vt.us/health-care/research-data-reports/vermont-household-health-insurance-survey-vhhis>.

¹⁵ Calculated primarily from insurance data filed in the Annual Statement Supplement Report (ASSR). Estimate added for a portion of self-funded that is not reported through the ASSR.

¹⁶ Under insured group plans, a health insurance company is ultimately liable for paying health care claims because an employer or an association has purchased a contract for group health insurance. Persons who cannot obtain group health coverage from an employer or association can purchase individual or non-group health insurance directly from an insurance company (or its producers).

¹⁷ <http://www.bishca.state.vt.us/sites/default/files/FAQ2008IssueBrief%20-%202009-01-2009.pdf>

¹⁸ <http://www.bishca.state.vt.us/health-care/research-data-reports/vermont-household-health-insurance-survey-vhhis>

¹⁹ Federal fiscal year (FFY) runs from October 1 in one year to September 30 of the following year. For example, FFY 2008 is from October 1, 2007 to September 30, 2008.

²⁰ Unless otherwise noted, Medicare data are from the 2007 Vermont Medicare Annual Report prepared for BISHCA by Dan Gottlieb of The Dartmouth Institute for Health Policy & Clinical Practice (TDI). Contact BISHCA for more information about this analysis.

²¹ The number of enrollees included here is different from the number of enrollees for Medicare shown in the *Spotlight on Vermont Resident Health Insurance* due to how the enrollees are defined and whether they are counted at a point in time vs. having at least one month of benefit eligibility.

²² Also includes skilled nursing facility (SNF) rehab stays, some long term hospital stays, hospice, and durable medical goods.

²³ A "snowbird" is one who travels to warm climates for the winter. (Merriam-Webster dictionary)

²⁴ Less than 0.5%.

²⁵ Diagnostic Related Group (DRG) is the method CMS uses to group admission types and pay hospitals capitated rates.

²⁶ The Dartmouth Atlas of Health Care, <http://www.dartmouthatlas.org/index.shtm>.

²⁷ The data included here from the Dartmouth Atlas of Health Care are adjusted for the age, sex and race distribution for the non-HMO, over 65 national Medicare population.

²⁸ Wennberg, J. et al, The Dartmouth Institute for Health Policy & Clinical Practice, "Tracking the Care of Patients with Severe Chronic Illness: The Dartmouth Atlas of Health Care 2008", 2008, pages 22-23. See http://www.dartmouthatlas.org/atlas/2008_Chronic_Care_Atlas.pdf.

²⁹ Susan W. Tolle, Virginia P. Tilden. "Changing End-of-Life Planning: The Oregon Experience", *Journal of Palliative Medicine*. April 1, 2002, 5(2): 311-317. doi:10.1089/109662102753641322. See <http://www.liebertonline.com/doi/abs/10.1089/109662102753641322?cookieSet=1&journalCode=jpm>.

³⁰ The Dartmouth Atlas of Health Care, Aligning Forces for Quality report, "Regional and Racial Variation in Health Care among Medicare Beneficiaries", December 2008 update, <http://www.dartmouthatlas.org/af4q.shtm>.

³¹ The Dartmouth Atlas of Health Care, Aligning Forces for Quality report, "Regional and Racial Variation in Health Care among Medicare Beneficiaries", December 2008 update, <http://www.dartmouthatlas.org/af4q.shtm>.

³² Riley, Gerald F., "Long-Term Trends In The Concentration Of Medicare Spending", *Health Affairs*, May/June 2007; 26(3): 808-816.

³³ Riley, Gerald F., "Long-Term Trends In The Concentration Of Medicare Spending", *Health Affairs*, May/June 2007; 26(3): 808-816.

³⁴ Hartman, M. et al., "Health Spending Growth At A Historic Low in 2008", *Health Affairs*, January 2010; 29 no. 1 (2010): 147-155.

³⁵ Hartman, M. et al., "Health Spending Growth At A Historic Low in 2008", *Health Affairs*, January 2010; 29 no. 1 (2010): 147-155.

³⁶ Catlin, A. et al., "National Health Spending In 2006: A Year Of Change For Prescription Drugs", *Health Affairs*, January/February 2008; 27(1): 14-29.

³⁷ For more information about hospital migration, please visit the BISHCA's web site:

<http://www.bishca.state.vt.us/health-care/research-data-reports/vermont-hospital-migration-report-vhmr>.

³⁸ For more information about the National Health Expenditure Data, please visit the Centers for Medicare and Medicaid Services' web site at www.cms.hhs.gov/NationalHealthExpendData/.

³⁹ For more information about the Forecast, please see BISHCA's web site at <http://www.bishca.state.vt.us/health-care/hospitals-health-care-practitioners/health-care-expenditure-analysis-reports> and look for "Technical Documentation" under the *2008 Vermont Health Care Expenditure Analysis*.