

Minnesota Health Care Spending and Projections

Minnesota Department of Health

''

June, 2010



Health Economics Program
Division of Health Policy
PO Box 64882
St Paul, MN 55164-0882
(651) 201-3550
www.health.state.mn.us/healthconomics

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Protecting, maintaining and improving the health of all Minnesotans

June 1, 2010

The Honorable Linda Berglin
Chair, Health and Human Services
Budget Division
Minnesota Senate
Room 309, State Capitol
75 Rev. Dr. Martin Luther King Jr. Blvd.
Saint Paul, MN 55155-1606

The Honorable Thomas Huntley
Chair, Health Care and Human Services
Finance Division
Minnesota House of Representatives
585 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
Saint Paul, MN 55155

The Honorable John Marty
Chair, Health, Housing, and Family
Security Division
Minnesota Senate
Room 328, State Capitol
75 Rev. Dr. Martin Luther King Jr. Blvd.
Saint Paul, MN 55155-1606

The Honorable Paul Thissen
Chair, Health Care and Human Services
Policy and Oversight Committee
Minnesota House of Representatives
351 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
Saint Paul, MN 55155

To the Honorable Chairs:

The 2008 Legislature required the Minnesota Department of Health (MDH) to annually estimate actual total health care spending for Minnesota residents (less Medicare and long-term care), calculate a baseline of projected health care spending, and determine the difference between actual and projected health care spending. If actual spending is less than projected spending, MDH must calculate the portion of this difference attributable to state-administered programs and certify to the Commissioner of Minnesota Management and Budget (MMB) whether or not the amount meets or exceeds \$50 million (Minnesota Statutes, section 62U.10).

MDH has performed this analysis for the first time in 2010 for health care spending in 2008. The results from this analysis, which are contained in the enclosed report and have been actuarially certified, show that estimated *actual* total health care spending (less Medicare and long-term care) for Minnesota residents in 2008 was \$24.7 billion. This is about 0.7 percent, or \$168.5 million *above* health care spending levels projected for 2008 (\$24.5 billion).

I have certified to the Commissioner of MMB that the conditions for a transfer of funds from the General to the Health Care Access Fund, as set forth by subdivision 4 of the authorizing legislation, have not been met for the 2011 fiscal year.

Questions or comments on the report may be directed to the Health Economics Program at (651) 201-3560.

Sincerely,

A handwritten signature in black ink that reads "Sanne Magnan". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Sanne Magnan, M.D., Ph.D.
Commissioner, Minnesota Department of Health
P.O. Box 64975
St. Paul, MN 55164-0975

Enclosure

Introduction

In May 2008, significant health care reform legislation was enacted in Minnesota. As part of this legislation, the Minnesota Department of Health (MDH) is required to:

- Estimate *actual* health care spending for residents of the state for the calendar year two years prior to the current year and obtain actuarial certification of these estimates;
- Calculate and revise as appropriate, annual *projected* health care spending for Minnesota residents and establish a health care spending baseline that assumes Minnesota reforms enacted in 2008 were not implemented;
- Determine the difference between estimated actual and projected health care spending; and
- If estimated actual spending is less than projected spending, calculate the portion of this difference attributable to state-administered programs.¹

As part of its responsibility to monitor trends in Minnesota's health care market, MDH has produced estimates of actual health care spending in Minnesota since 1993. Minnesota's estimation method generally follows the framework developed by the Centers for Medicare & Medicaid Services (CMS).^{2,3} In contrast to CMS, MDH relies on aggregated data from payers of health care expenditures rather than providers. MDH spending estimates represent the total volume of resources spent on health care services and goods for Minnesota residents during the year.⁴ Some of the major payers whose data are used in the estimation of health care spending in Minnesota include CMS health care expenditures for Minnesota Medicare beneficiaries, Minnesota Department of Human Services expenses for enrollees in public programs, and health care expenditures for private health plan members.

Starting with 2008 estimates of actual health care spending, MDH is required to obtain actuarial certification of its estimates and compare actual to projected spending. In developing estimates of actual spending and calculating health care spending projections, MDH must build on work done by CMS and make adjustments, based on technical assistance by an actuarial consultant, to specifically reflect spending for residents of Minnesota. In addition, for calculation of the projection baseline and the comparison of actual to projected spending, MDH must exclude Medicare⁵ and long-term care spending from its analysis. MDH contracted with Mathematica Policy Research, Inc. (Mathematica) and its partner on this project, Watson Wyatt & Company and its Health Care Chief Actuary, to provide technical assistance on MDH's estimation methods, certify MDH's estimate of actual health care spending in 2008, and prepare projections of health care spending.

¹ Minnesota Statutes, Section 62U.10

² Both MDH and CMS update historical data to reflect the most current available health expenditure data and methodology. As a result, estimates presented in this report may differ from earlier published estimates of historical health care spending.

³ Estimates of Minnesota health care spending differ from the state-level estimates published by CMS in their "State Health Expenditure Accounts". Unlike MDH estimates, CMS state estimates rely on methods to disaggregate national spending to individual states, while MDH estimates are based on actual state level expenditure data. Both estimates generally show a similar trend over time, but the CMS state estimates are generally higher than estimates prepared by MDH, particularly for some of the largest expenditure categories. CMS state estimates are available periodically, but with a long time lag (most recent year is 2004).

⁴ Not included in the estimate of spending are resources invested in medical sector structures and equipment and research by non-profit or government entities. The value of research and development spending by pharmaceutical and medical equipment manufacturers is considered included in product sales, i.e. spending for those service categories.

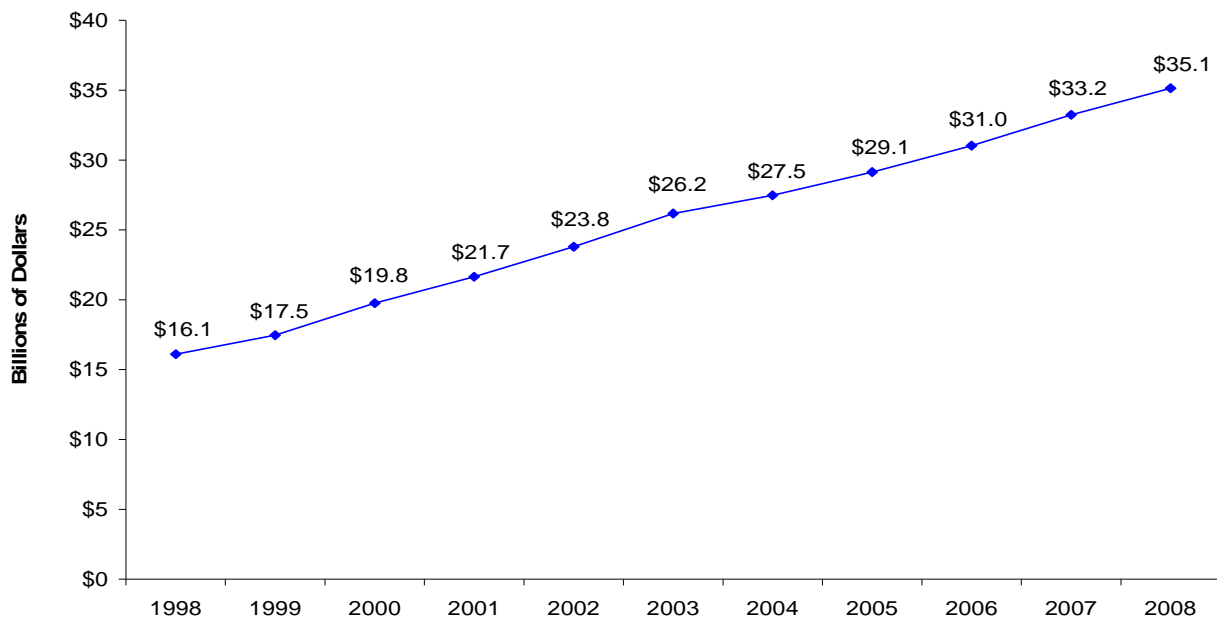
⁵ Medicare health care spending is defined as spending by Medicare as a "sponsor," meaning only spending by CMS as an entity is considered, not spending by enrollees towards their Medicare Advantage or Part D premiums, or Medicare Part A and B deductibles or copayments.

This report contains three sections. The first section provides detailed spending estimates for Minnesota for 2008. Section two presents projections of health care spending for Minnesota residents from 2008 through 2018. The third section includes a comparison of actual and projected spending for 2008.

Estimated Health Care Spending in Minnesota in 2008

Health care spending in Minnesota in 2008 reached an estimated \$35.1 billion, or \$6,720 per person. Spending grew by 5.7 percent in 2008, which is below the average annual growth rate for the most recent ten years (8.1 percent). Since 1998, health care spending in Minnesota has more than doubled (see Figure 1).

Figure 1
Ten Year Trend in Minnesota Health Care Spending



Source: MDH, Health Economics Program

For the purpose of calculating estimated actual and projected health care spending, MDH is required to exclude health care spending associated with Medicare and long-term care from its estimates. When excluding these categories, health care spending in Minnesota in 2008 was \$24.7 billion, about 70 percent of total health care spending for that year. Medicare accounts for \$5.9 billion of this difference and long-term care for about \$4.6 billion.

Actuarial certification of the 2008 estimates of actual total health care spending and total spending minus Medicare and long-term care is provided in Appendix A.

National Comparisons

In total, overall health care spending growth in 2008 was slower than in 2007. However, for the second consecutive year, total health care spending in Minnesota in 2008 grew more quickly than for the nation as a whole (5.7 percent compared to 4.4 percent). This is similar to the trend that occurred during the earlier part of the decade through 2003, when spending in Minnesota grew faster than for the nation overall. Public spending in both Minnesota and the U.S. grew at a faster rate than private spending (see Table 1); private spending grew at half the rate of public spending in Minnesota in 2008.

Table 1
Minnesota and U.S. Total Health Care Expenditure Growth

	<u>2007</u>		<u>2008</u>	
	MN	US	MN	US
Public Spending	8.0%	6.6%	8.2%	6.8%
Private Spending	6.5%	5.1%	4.0%	2.3%
Total Spending	7.1%	5.8%	5.7%	4.4%

Source: MDH, Health Economics Program

Despite recent faster growth in health care spending, Minnesota continues to spend less on health care per capita than the country as a whole (see Table 2). In 2008, this difference amounted to \$446 per capita, or 6.2 percent less per person (\$6,720 in Minnesota compared with \$7,166 nationally).

Minnesota also devotes a smaller portion of its economy to health care compared to the nation as a whole (13.4 percent compared to 15.1 percent).⁶ However, as shown in Table 2, both Minnesota and the nation are spending increasing shares of their total economies on health care.

Table 2
Minnesota and U.S. Per Capita Health Care Spending and Share of the Economy

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Per Capita Spending:					
Minnesota	\$5,409	\$5,706	\$6,029	\$6,403	\$6,720
U.S.	\$5,916	\$6,262	\$6,616	\$6,929	\$7,166
Health Care Spending as a Share of the Economy:					
Minnesota	12.3%	12.5%	12.9%	13.2%	13.4%
U.S.	14.6%	14.7%	14.7%	14.8%	15.1%

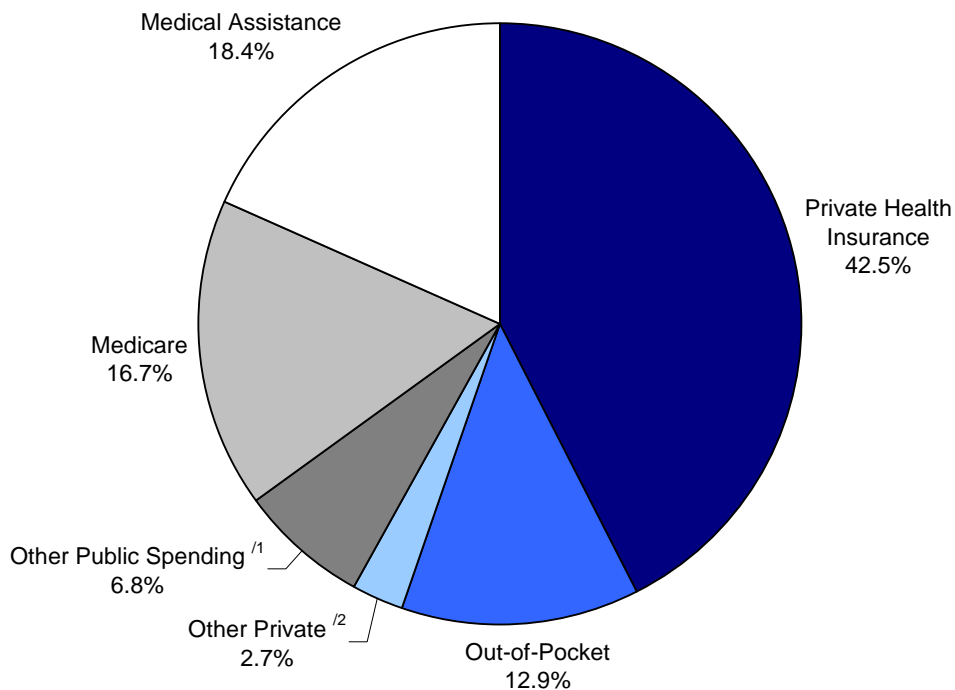
Source: MDH, Health Economics Program

⁶ The measure of national health care spending as a share of the economy used in this analysis is based on spending for “health care services and supplies,” a category that is most comparable to Minnesota’s spending estimates. Total spending for “national health expenditures” accounts for 16.2 percent of the economy.

Sources of Funds

Nearly 60 percent of total spending on health care in the state comes from private sources (private health insurance, consumer out-of-pocket payments and other private spending), with the remaining 40 percent coming from public sources (see Figure 2). Compared to national sources of funding, private health insurance and Medical Assistance represent a larger share of total health care spending in Minnesota, while Medicare and other public spending account for a smaller percentage (see Table 3).

Figure 2
Minnesota Health Care Spending in 2008 – Where it Came From



Source: MDH Health Economics Program

^{/1} Includes, among others, MinnesotaCare, General Assistance Medical Care, government workers' compensation, Veterans Affairs, and Minnesota Comprehensive Health Association

^{/2} Other major private payers include private workers' compensation and auto medical insurance

The distribution of total spending between public and private sources has been fairly stable over time. However, in recent years, spending from public sources has gradually increased as a share of total health care spending, while the share of total health care spending from private sources has declined (see Table 3). This trend is similar to that for the nation overall, although it is less pronounced in Minnesota. In Minnesota, the public share of total spending over the last five years grew by 1.5 percentage points; for the U.S. overall the growth was 2.5 percentage points.

In addition, there have been some shifts in the funding sources that make up the public and private shares of total health care spending. For example, Medicaid spending as percent of total spending has been fairly stable over time in Minnesota, but has declined for the nation as a whole. Over the past five years, Medicare's share of total spending both in Minnesota and nationally has grown by over two percentage points.

The increase in public spending is partially explained by enrollment trends in public programs. For instance, Medicare and Medicaid enrollment in Minnesota as a portion of the total population grew by four percent between 2007 and 2008, or by over 45,000 beneficiaries.

The share of total private spending coming from private health insurance began to decline in 2007, after increasing for a decade. This trend has carried into 2008. The share of total spending paid for by consumers out-of-pocket has been declining in recent years both in Minnesota and nationally, however consumer out-of-pocket payments have been increasing in absolute over time and as a share of consumer incomes.

Table 3
Minnesota and U.S. Shares of Health Care Spending by Payer

	2004	2005	2006	2007	2008
Minnesota					
Public Spending, Total	40.5%	40.4%	40.7%	41.0%	42.0%
Medicare	14.6%	15.4%	16.0%	16.3%	16.7%
Medicaid	18.6%	18.2%	18.0%	18.0%	18.4%
Other Public Spending ^{/1}	7.3%	6.9%	6.7%	6.7%	6.8%
Private Spending, Total	59.5%	59.6%	59.3%	59.0%	58.0%
Private Health Insurance	42.2%	42.7%	43.4%	43.1%	42.5%
Out-of-Pocket	14.2%	13.9%	13.2%	13.2%	12.9%
Other Private ^{/2}	3.1%	3.0%	2.8%	2.7%	2.7%
U.S.					
Public Spending, Total	45.3%	45.5%	46.4%	46.8%	47.8%
Medicare	18.0%	18.4%	20.4%	20.7%	21.5%
Medicaid	17.5%	17.6%	16.5%	16.5%	16.6%
Other Public Spending ^{/1}	9.9%	9.6%	9.5%	9.6%	9.7%
Private Spending, Total	54.7%	54.5%	53.6%	53.2%	52.2%
Private Health Insurance	37.3%	37.3%	36.8%	36.4%	35.9%
Out-of-Pocket	13.5%	13.4%	12.9%	12.9%	12.7%
Other Private ^{/2}	3.8%	3.8%	3.9%	4.0%	3.5%

^{/1} Major components of other public spending are MinnesotaCare, General Assistance Medical Care, government workers' compensation, Veterans Administration, Minnesota Comprehensive Health Association

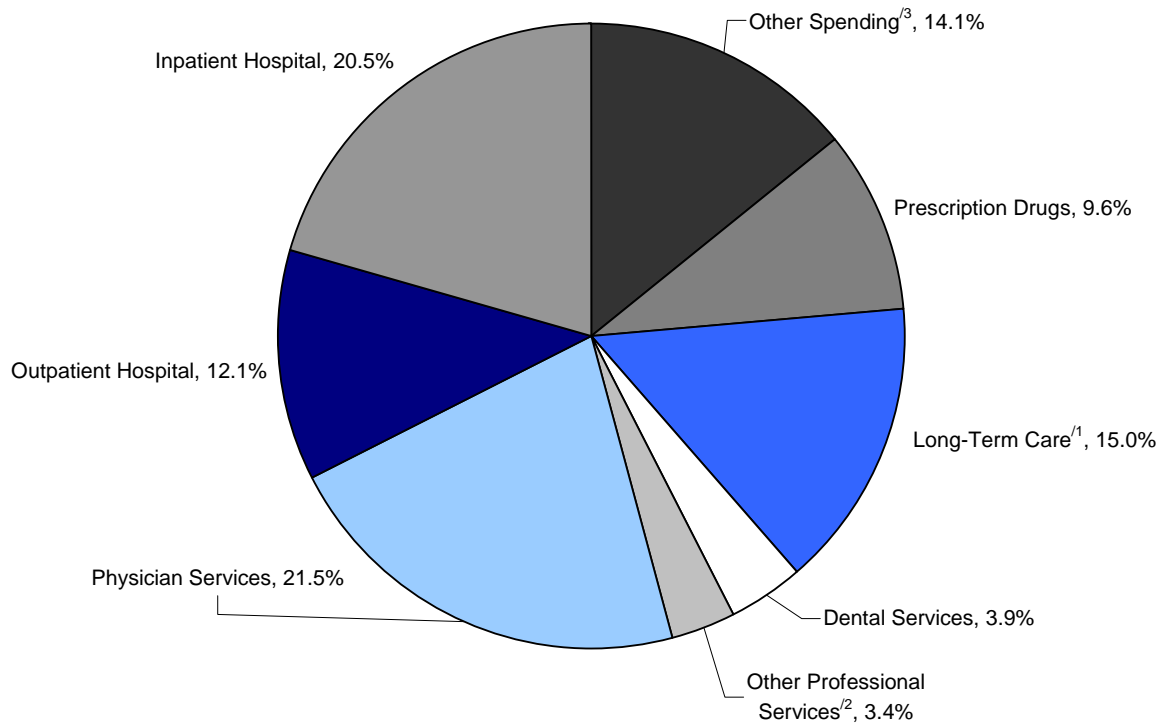
^{/2} Other major private payers include private workers' compensation and auto medical insurance

Source: MDH Health Economics Program, Centers for Medicare and Medicaid Services

Spending by Type of Service

Figure 3 illustrates that in Minnesota, hospital care (inpatient and outpatient) and physician services represent the largest categories of total health care spending, accounting together for over half of total spending (54.1 percent). This pattern in the distribution of spending is similar to that for the nation as a whole, and it persists when Medicare and long-term care spending is removed.

Figure 3
Minnesota Health Care Spending in 2008 – Where it Went



Source: MDH Health Economics Program

¹ Includes home health care

² Includes services provided by health practitioners who are not physicians or dentists

³ All other spending, including chemical dependency and mental health services, durable medical goods, and non-medical health care spending

The distribution of health care spending in Minnesota across service categories has generally been stable over time. However, as shown in Table 4, there have been slight changes in the distribution of spending across categories in recent years. For example, hospital care (inpatient and outpatient) has steadily increased as a share of total spending, from 30.3 percent in 2004 to 32.6 percent in 2008. This is mainly attributable to growth in spending for outpatient hospital care. Outpatient spending grew at an average annual rate of 11.2 percent since 2004, well above the overall average annual rate of growth of 6.4 percent for all service types during this time period. The shares of spending for physician services and other professional services have also increased compared to 2004. In contrast, the shares of spending for prescription drugs and long-term care have declined.

Growth rates in spending by type of service varied in Minnesota in 2008. Outpatient hospital care and other professional services were among the fastest growing categories of spending in 2008, with growth rates of 13.1 percent and 8.6 percent, respectively. Over the past five years, these two categories have grown at rates significantly higher than overall health care spending in the state. Other spending, which includes spending for durable goods, chemical dependency and mental health, and non-medical health

care spending such as administrative cost and the net cost of insurance,⁷ also grew at a faster rate than overall spending over the past two years. In contrast, growth rates for prescription drugs and physician services in Minnesota have been declining in recent years, with drug spending actually contracting since 2005.

Table 4
Minnesota Total Health Care Spending by Type of Expense

Millions of Dollars					
	2004	2005	2006	2007	2008
Inpatient Hospital	\$5,543	\$5,906	\$6,383	\$6,814	\$7,214
Outpatient Hospital	\$2,780	\$3,134	\$3,414	\$3,756	\$4,247
Physician Services	\$5,642	\$6,085	\$6,746	\$7,322	\$7,540
Long-Term Care (incl. Home Care)	\$4,373	\$4,553	\$4,678	\$4,958	\$5,268
Prescription Drugs	\$3,426	\$3,502	\$3,474	\$3,462	\$3,378
Dental	\$975	\$1,107	\$1,166	\$1,280	\$1,356
Other Professional Services ¹	\$807	\$894	\$1,002	\$1,112	\$1,208
Other Spending ²	\$3,927	\$3,957	\$4,174	\$4,537	\$4,939
Total	\$27,473	\$29,139	\$31,037	\$33,242	\$35,149
Distribution of Spending					
Inpatient Hospital	20.2%	20.3%	20.6%	20.5%	20.5%
Outpatient Hospital	10.1%	10.8%	11.0%	11.3%	12.1%
Physician Services	20.5%	20.9%	21.7%	22.0%	21.5%
Long-Term Care (incl. Home Care)	15.9%	15.6%	15.1%	14.9%	15.0%
Prescription Drugs	12.5%	12.0%	11.2%	10.4%	9.6%
Dental	3.5%	3.8%	3.8%	3.9%	3.9%
Other Professional Services ¹	2.9%	3.1%	3.2%	3.3%	3.4%
Other Spending ²	14.3%	13.6%	13.4%	13.6%	14.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Rates of Growth					
Inpatient Hospital		6.5%	8.1%	6.8%	5.9%
Outpatient Hospital		12.8%	8.9%	10.0%	13.1%
Physician Services		7.9%	10.9%	8.5%	3.0%
Long-Term Care (incl. Home Care)		4.1%	2.8%	6.0%	6.2%
Prescription Drugs		2.2%	-0.8%	-0.3%	-2.5%
Dental		13.5%	5.3%	9.8%	5.9%
Other Professional Services ¹		10.8%	12.0%	11.0%	8.6%
Other Spending ²		0.8%	5.5%	8.7%	8.9%
Total		6.1%	6.5%	7.1%	5.7%

Source: MDH Health Economics Program

¹ Includes services provided by health practitioners who are not physicians or dentists

² All other spending, including chemical dependency and mental health services, durable medical goods, and non-medical health care spending

⁷ The net cost of insurance is defined as the difference between premiums and expenses.

Health Care Spending Projections

As mentioned in the introduction to this report, MDH is required to establish baseline health care spending projections for Minnesota and annually compare them to estimated actual spending, beginning with estimates for calendar year 2008. This section presents baseline health care spending projections for Minnesota from 2008 through 2018, both in total and excluding Medicare and long-term care, as well as the methodology used for developing the baseline projections. **As required by law, these projections do not include the impact of health care reforms enacted in Minnesota in 2008. Thus, differences between estimated actual spending and projections reported in this section form the basis for estimating savings associated with Minnesota health care reforms enacted in 2008.**

Methodology

MDH contracted with Mathematica to develop the baseline projection model and make periodic updates to reflect changes in the factors used to project health care spending.⁸ The methods used are similar to those employed by CMS to project national health care expenditures. The projections of health care spending are derived from two sources: 1) a series of econometric models of private health care spending, and 2) public health care spending projections based on forecasts from the Minnesota Department of Human Services and the CMS actuary.

The econometric models for private spending are macroeconomic projection models - they extract the historical relationship between health care spending in Minnesota and relevant macroeconomic variables⁹ to forecast future health care spending in the state.¹⁰

Baseline Projections

MDH published initial baseline health care spending projections through 2018 in June of 2009. These projections were built with forecasted macroeconomic variables that did not yet incorporate the anticipated effect of the recent economic recession.¹¹ In addition, CMS has since revised the price indices used in those models and made significant modifications to its methodology to improve the forecast for the economic recession and recovery. Under Minnesota law, the projection model may be adjusted to account for these types of events.¹² Thus, the baseline projections presented below differ from those published by MDH last year because they incorporate revisions to macroeconomic variables and methodology, changes to CMS price indices and methodology, and updated Minnesota-specific health spending estimates.

The baseline projections do not incorporate the impact of recently passed federal health reform legislation, “The Patient Protection and Affordable Care Act.” The potential impact of federal health reform on projections of Minnesota spending is discussed later within this section of the report.

⁸ A technical report with detailed methodological descriptions produced by Mathematica is available upon request.

⁹ In general, the models include a national series of price indices specific to health sectors, national real per capita GDP, and Minnesota real per capita income.

¹⁰ Wherever possible, the models incorporate Minnesota-specific versions of macroeconomic and health sector variables. In addition, both private and public projections are based on historical spending estimates constructed by MDH, which use a variety of data sources described earlier in the report.

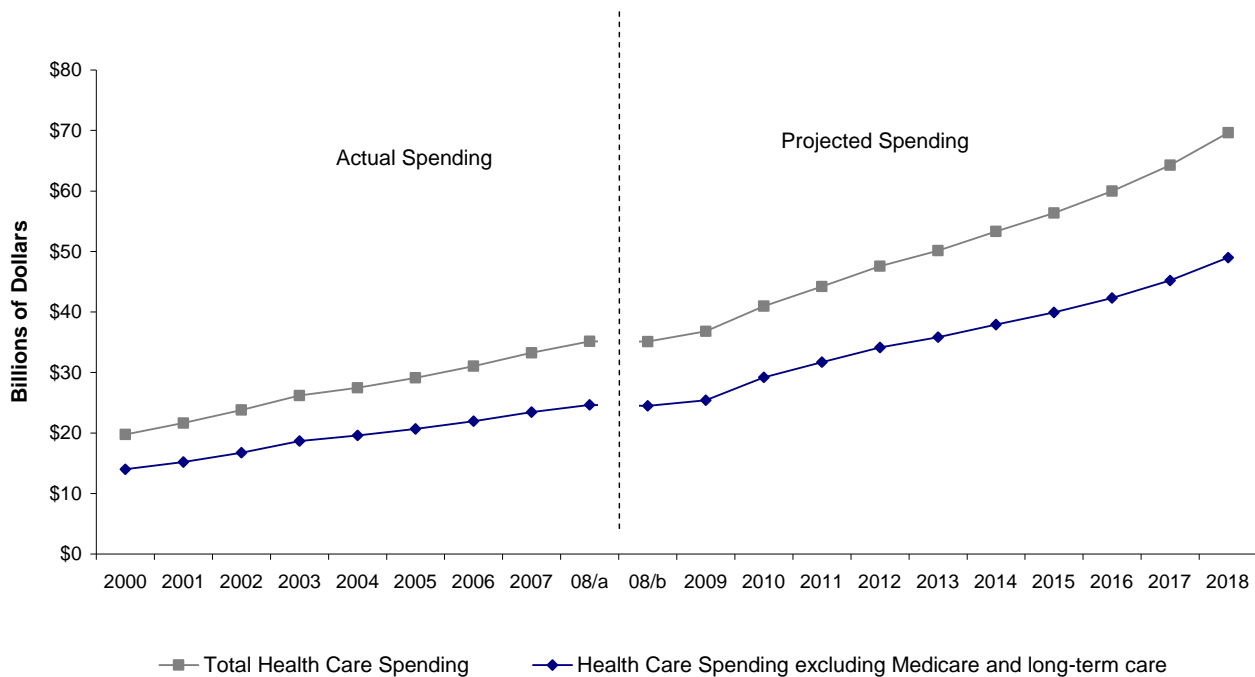
¹¹ To incorporate the impact of the recent economic recession, variables related to unemployment and uninsurance were added to the models.

¹² Minnesota Statutes, Section 62U.10, Subd.2 (c)

As shown in Figure 4, total health care spending in Minnesota is projected to reach \$69.6 billion by 2018. The projected average annual growth rate from 2008 to 2018 is 7.1 percent, which is below the average annual growth rate for the most recent ten years (8.0 percent).

For the purpose of determining savings associated with Minnesota health reforms, MDH is required to exclude health care spending associated with Medicare and long-term care from the baseline projection. Thus, excluding Medicare and long-term care, health care spending is expected to reach \$49.0 billion in 2018. The projected average annual growth rate from 2008 to 2018 for non-Medicare and non-long-term care spending is 7.2 percent, which is below the average annual growth rate for the most recent ten years (8.7 percent).

Figure 4
Health Care Spending in Minnesota, 2000 to 2018



Source: MDH historical spending estimates and projections from Mathematica Policy Research, Inc.

^{/a} Actual spending; ^{/b} Projected spending

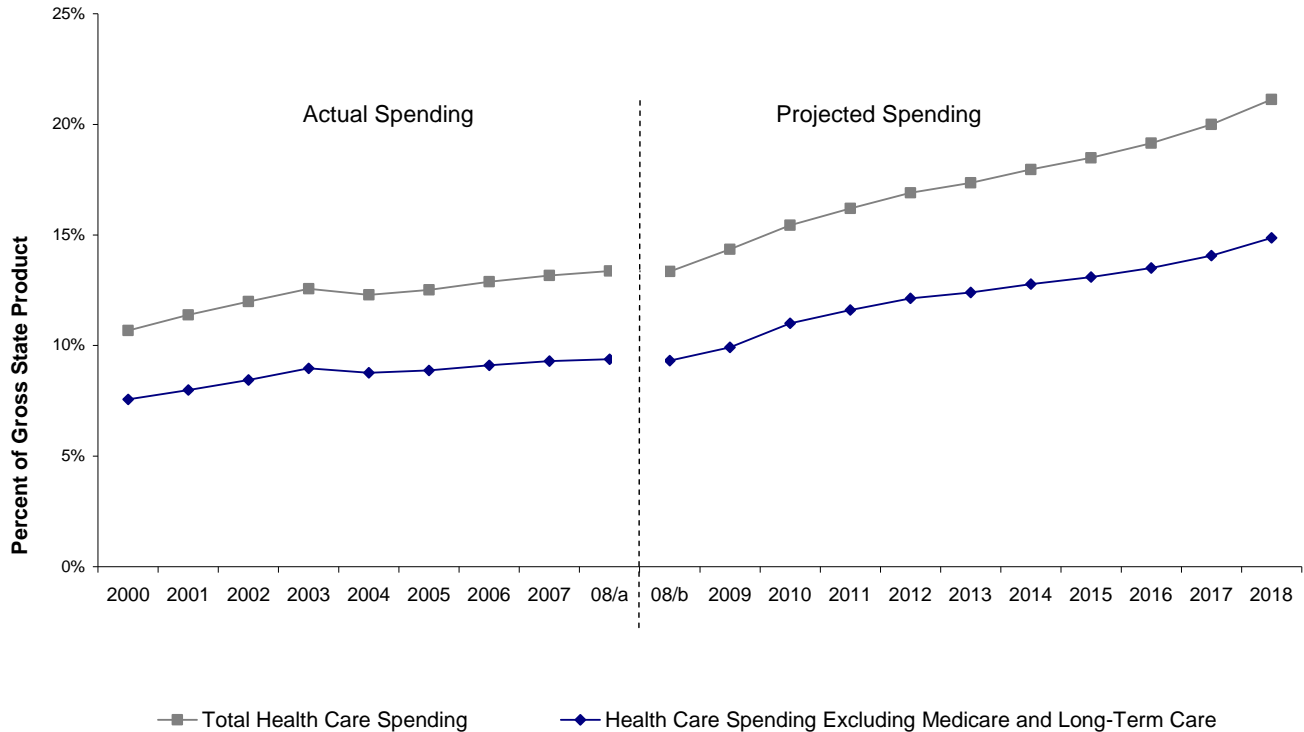
Note: Projections do not include the impact of health care reforms enacted in Minnesota in 2008.

Consistent with historical trends, the percentage of Minnesota's economy (the gross state product) that is spent on health care is projected to increase. As shown in Figure 5, total health care expenditures accounted for 13.4 percent of the state's economy in 2008. By 2018, an estimated 21.1 percent of Minnesota's gross state product is projected to be consumed by health care.

Non-Medicare and non-long-term care expenditures represented 9.4 percent of the gross state product in 2008. By 2018, this figure is projected to increase to 14.9 percent.

Figure 5

Minnesota Health Care Spending as a Share of the Economy, 2000 to 2018



Sources: Spending estimates - MDH historical spending estimates; projections from Mathematica Policy Research. Gross state product - historical data from the U.S. Department of Commerce, Bureau of Economic Analysis; projections used in the February 2009 state budget forecast

^{/a} Actual spending; ^{/b} Projected spending

Note: Projections do not include the impact of health care reforms enacted in Minnesota in 2008.

Table 5 shows the distribution of health care spending paid by private and public sources. By 2018, the share of total health care expenditures paid by public sources is expected to increase to 46.3 percent (compared to 42.0 percent in 2008), with a corresponding decrease in the share paid by private sources.

Similar to projections for total spending, the share of non-Medicare, non-long-term care spending paid by private sources is expected to decrease in future years. By 2018, approximately 71.1 percent of these expenditures are projected to be paid by private sources, down from 77.4 percent in 2008.

Table 5**Public and Private Health Care Spending in Minnesota, 2000 to 2018 (billions of dollars)**

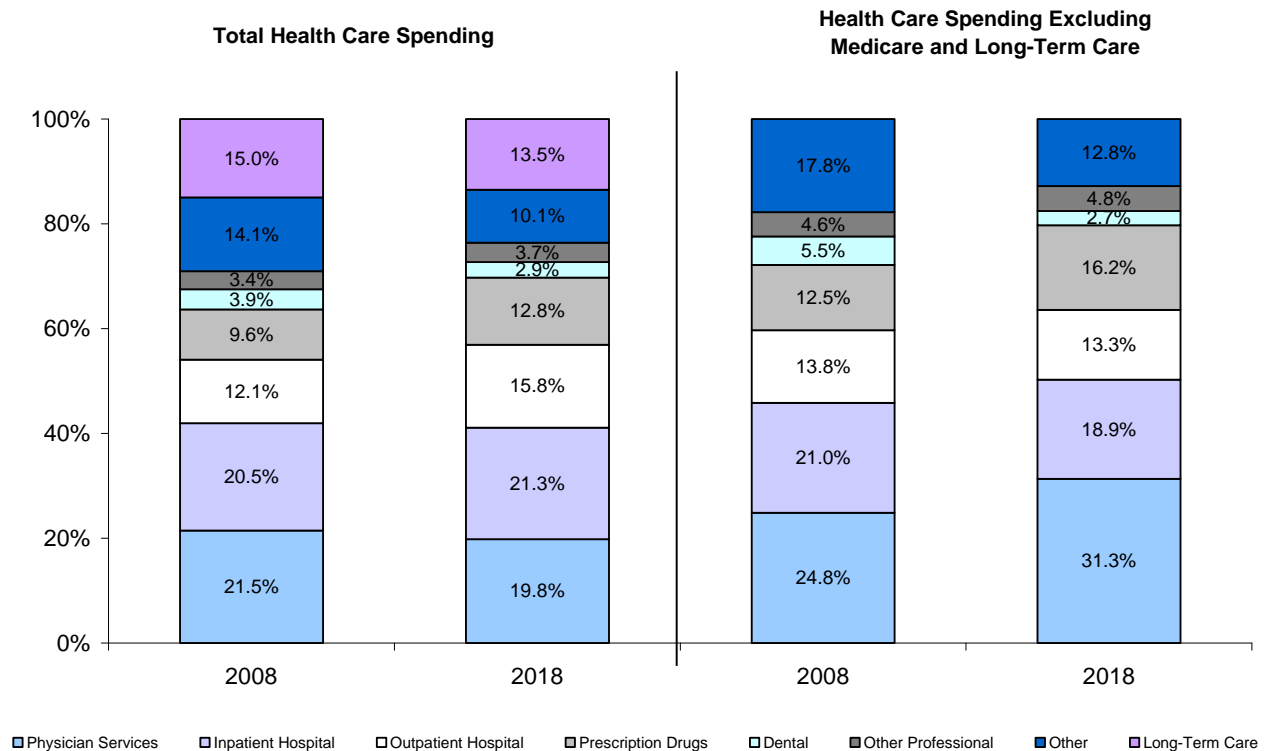
	Total Health Care Spending			Spending Excluding Medicare and Long-term Care		
	Private	Public	Total	Private	Public	Total
Actual						
2000	\$12.2	\$7.5	\$19.8	\$11.3	\$2.7	\$14.0
2001	\$13.1	\$8.6	\$21.7	\$12.1	\$3.1	\$15.2
2002	\$14.2	\$9.6	\$23.8	\$13.1	\$3.7	\$16.8
2003	\$15.7	\$10.5	\$26.2	\$14.5	\$4.2	\$18.7
2004	\$16.3	\$11.1	\$27.5	\$15.2	\$4.4	\$19.6
2005	\$17.4	\$11.8	\$29.1	\$16.2	\$4.5	\$20.7
2006	\$18.4	\$12.6	\$31.0	\$17.2	\$4.7	\$21.9
2007	\$19.6	\$13.6	\$33.2	\$18.4	\$5.1	\$23.5
2008	\$20.4	\$14.7	\$35.1	\$19.1	\$5.6	\$24.7
Projected						
2008	\$20.3	\$14.8	\$35.1	\$18.9	\$5.6	\$24.5
2009	\$20.8	\$16.0	\$36.8	\$19.2	\$6.2	\$25.4
2010	\$24.1	\$16.9	\$41.0	\$22.4	\$6.7	\$29.2
2011	\$26.0	\$18.2	\$44.2	\$24.3	\$7.4	\$31.7
2012	\$27.8	\$19.8	\$47.6	\$25.9	\$8.2	\$34.1
2013	\$28.9	\$21.2	\$50.1	\$26.9	\$8.9	\$35.8
2014	\$30.3	\$23.0	\$53.3	\$28.2	\$9.7	\$37.9
2015	\$31.5	\$24.9	\$56.4	\$29.3	\$10.7	\$39.9
2016	\$33.0	\$27.0	\$60.0	\$30.6	\$11.7	\$42.3
2017	\$34.8	\$29.5	\$64.3	\$32.4	\$12.8	\$45.2
2018	\$37.4	\$32.2	\$69.6	\$34.9	\$14.1	\$49.0

Source: MDH historical spending estimates and projections from Mathematica Policy Research, Inc.
Note: Projections do not include the impact of health care reforms enacted in Minnesota in 2008.

As shown in Figure 6, the percentage of total spending that goes to physician services is projected to decline to 19.8 percent in 2018 (from 21.5 percent in 2008), offset by increases in the share of spending for prescription drugs, outpatient hospital, and inpatient hospital services.

The share of total spending less Medicare and long-term care that goes to physician services is projected to increase to 31.3 percent in 2018, from 24.8 percent in 2008 and the share going to prescription drugs is projected to increase to 16.2 percent in 2018 from 12.5 percent in 2008, with offsetting declines to the share of spending going to outpatient and inpatient hospital services.

Figure 6
Projected Distribution of Health Care Spending in Minnesota by Type of Service



Source: MDH historical spending estimates and projections from Mathematica Policy Research, Inc.
 Note: Projections do not include the impact of health care reforms enacted in Minnesota in 2008.

Potential Effects of Federal Health Reform on Minnesota Spending Projections

Because many implementation aspects of the recently enacted federal “Patient Protection and Affordable Care Act” are not fully determined at this early stage after passage, it is difficult to develop firm estimates of the impact on health care spending in Minnesota. Initial estimates developed in consultation with Mathematica build largely on broad assumptions made by the CMS Office of the Actuary¹³ and the impact of similar legislation enacted in Massachusetts in 2006.

Given the timing of federal reform passage, our initial estimate relies on a simplified approach and develops high end projections of the impact of federal reform on Minnesota health care spending. For example, this approach does not take into account that the uninsured are likely to have different levels of spending than the insured. A more complete analysis, to be provided in 2011, will take these and other factors into account when estimating the impact of federal reform on Minnesota health care spending.

¹³ CMS Office of the Actuary. “Estimated Financial Effects of the Patient Protection and Affordable Care Act.” http://www.cms.gov/ActuarialStudies/Downloads/PPACA_2010-04-22.pdf.

The initial estimate predicts that Minnesota health care spending on the high end will grow by 2 to 3 percent in aggregate over the 2010 to 2018 period compared to baseline projections. Given that many of the reforms become effective in 2014, most of the spending increase will occur after this time. Most of this growth is likely to come from private spending growth, in part because many of the uninsured and those currently covered by MinnesotaCare and the Minnesota Comprehensive Health Association will obtain private coverage through the Exchange. Public spending minus Medicare changes very little until the Medicaid expansion becomes effective. However, state decisions pertaining to the manner in which federal health reform provisions are implemented will determine how and when these provisions impact Minnesota health care spending.

Comparisons of Estimated Actual and Projected Spending

As shown in Table 6, total estimated actual health care spending in Minnesota in 2008 was very similar to projected levels of spending for 2008. Estimated actual total spending in 2008 exceeded projected spending by \$63.8 million, or a difference of 0.2 percent. Total estimated actual spending less Medicare and long-term care topped projected spending by \$168.5 million, or a difference of 0.7 percent.

Table 6

Difference Between Estimated Actual and Projected Health Care Spending in Minnesota in 2008 (millions of dollars)

	Actual Spending	Projected Spending	Actual Less Projected	%
Total Spending	\$35,149.3	\$35,085.5	\$63.8	0.2%
Public	\$14,747.0	\$14,757.8	-\$10.8	-0.1%
Private	\$20,402.3	\$20,327.7	\$74.6	0.4%
Total Spending less Medicare and Long Term Care	\$24,662.9	\$24,494.3	\$168.5	0.7%
Public	\$5,577.7	\$5,577.7	\$0.0	0.0%
Private	\$19,085.2	\$18,916.6	\$168.5	0.9%

Source: MDH historical spending estimates and projections from Mathematica Policy Research, Inc.

Table 7 is provided to show the state-administered share of total health care spending minus Medicare and long-term care. When estimated actual health care spending in Minnesota is *below* projected levels of spending, MDH is required to calculate the share of the difference attributable to state-administered programs. Although this condition was not met in 2008, this table illustrates that health care spending by Medical Assistance, MinnesotaCare, General Assistance Medical Care and the State Employee Group Insurance Program in 2008 accounted for \$4.6 billion or 18.7 percent of spending in Minnesota.

Table 7
Spending for State Administered Programs in Minnesota as a Percent of Total Estimated Actual Health Care Spending, 2008

	Actual Spending (Billions)	Percent
Total Spending ^{/1}	\$24.7	
Total State Administered Programs ^{/2}	\$4.6	18.7%
Medical Assistance	\$3.3	13.4%
MinnesotaCare	\$0.5	2.0%
General Assistance Medical Care	\$0.3	1.1%
State Employee Group Insurance Program	\$0.5	2.2%

^{/1} Excludes spending for Medicare and long-term care.

^{/2} Excludes spending for long-term care

Summary and Discussion

Under Minnesota's health reform law of 2008, MDH is required to estimate actual health care spending, calculate projections of health care spending with the assumption that Minnesota reforms enacted in 2008 were not implemented, and compare actual to projected spending. If actual spending is less than projected spending, MDH is required to calculate the share of the difference attributable to state-administered programs. This is the first annual report comparing actual to projected health care spending.

In 2008, health care spending in Minnesota reached an estimated \$35.1 billion in total and \$24.7 billion with the exclusion of spending for Medicare and long-term care. Estimated actual total spending in 2008 was \$63.8 million above spending projected for 2008, or a difference of 0.2 percent. Total estimated actual spending less Medicare and long-term care was \$168.5 million above what was projected for 2008, or a difference of 0.7 percent.

Given that the 2008 Minnesota reforms were enacted during the middle of 2008 and that the effective dates of the reform components did not start until 2009, it is not surprising that the difference between actual and projected spending is small. In fact, the small difference between actual and projected spending for 2008 is a good indication that the projection model is accurately reflecting recent changes in economic conditions and federal policy not related to Minnesota reforms.¹⁴

However, all projection models are inherently subject to uncertainties and will require revisions over time, particularly during times when historically established relationships between variables used to create projections are interrupted by events such as a deep economic recession or significant changes in federal health care policy. Under Minnesota Law, the projection model may be adjusted to account for

¹⁴ The difference between actual and projected spending for Minnesota for 2008 is within the range experienced by CMS. The CMS projection model has predicted actual spending for the first year of a projection window within a range of -0.9 to 1.7 percent. Source: CMS. "Accuracy Analysis of the Short-Term (11-Year) National Health Expenditure Projections." <http://www.cms.gov/NationalHealthExpendData/downloads/ProjectionAccuracy.pdf>

these type of events. For example, significant revisions to the variables and methodology used by MDH and CMS last year were necessary to account for the recent economic recession. Revisions to MDH and CMS projection variables and methods will also be necessary in future years to incorporate changes associated with the long-term implementation of federal health reform.

**Appendix A: Actuarial Certification of Minnesota 2008 Health Care
Spending Estimates**



May 20, 2010

Ms. April Todd-Malmlov
Director, Health Economics Program
Minnesota Department of Health
85 E Seventh Place, Suite 220
Saint Paul, MN 55101

Dear Ms. Todd-Malmlov:

Actuarial Certification

Over the course of the past several months Towers Watson has provided actuarial review of the preliminary and final estimates of state-wide health expenditures in Minnesota developed by the Minnesota Department of Health (MDH). Our review considered the extensive tables that MDH provided, presenting sources of funding and categories of state health care expenditures for 2008 and previous years. Our review also included examination of supporting documentation, discussion of data sources and methodologies, and requests for additional documentation and clarification.

Based on this information, we find that the data sources and methodologies that MDH has used are valid and reasonable. We further certify that the health spending estimates for 2008, including state-wide health care expenditures totaling \$35.1 billion and total spending less Medicare and long-term care in the amount of \$24.7 billion, are reasonable based on our review of the data used, the methodologies employed, and health care spending trends observed nationally. The tables on the following page summarize these estimates.

Best Regards,

Stuart H. Alden, FSA, MAAA, FCA
Towers Watson

cc: Deborah Chollet – Mathematica Policy Research
Roland McDevitt – Towers Watson

Table 1
Where Minnesota Health Care Spending Came From in 2008

Source of Funding	Total Spending (Millions)	%	Total Spending Less Medicare & LTC (Millions)	%
Medicare	\$ 5,871	16.7%	n/a	-
Medical Assistance	\$ 6,472	18.4%	\$ 3,308	13.4%
Other Public	\$ 2,404	6.8%	\$ 2,269	9.2%
Private Health Insurance	\$ 14,925	42.5%	\$ 14,735	59.7%
Other Private	\$ 948	2.7%	\$ 948	3.8%
Out of Pocket	\$ 4,529	12.9%	\$ 3,402	13.8%
All Sources of Funding	\$ 35,149	100.0%	\$ 24,663	100.0%

Major sources of "other public" include the state public health programs (MinnesotaCare and General Assistance Medical Care), Minnesota Comprehensive Health Association, public workers compensation, public health spending, and Veterans Administration.

"Other private" includes private workers compensation and auto medical insurance.

Table 2
Where Minnesota Health Care Dollars Were Spent in 2008

Spending Category	Total Spending (Millions)	%	Total Spending Less Medicare & LTC (Millions)	%
Hospital	\$ 11,461	32.6%	\$ 8,592	34.8%
Physician Services	\$ 7,540	21.5%	\$ 6,125	24.8%
Long Term Care (incl. Home Care)	\$ 5,268	15.0%	n/a	-
Prescription Drugs	\$ 3,378	9.6%	\$ 3,075	12.5%
Dental	\$ 1,356	3.9%	\$ 1,349	5.5%
Other Professional Services	\$ 1,208	3.4%	\$ 1,140	4.6%
Other Spending	\$ 4,939	14.1%	\$ 4,382	17.8%
Total Spending	\$ 35,149	100.0%	\$ 24,663	100.0%

"Other professional services" includes spending for services by private-duty nurses, chiropractors, podiatrists, and other health practitioners who are not physicians or dentists.

"Other spending" includes spending for durable medical goods, chemical and mental health, administration and the net cost of insurance.