

# Idaho's Health Care Costs and Options to Improve Health Care Access

## Report on Task 5: Trends in & Drivers of Health Expenditures in Idaho

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## EXECUTIVE SUMMARY

This report is one out of a series of five reports prepared for the Idaho Legislature, Office of Performance Evaluations (OPE) and Idaho Health Care Task Force as part of the project, "Idaho's Health Care Costs and Options to Improve Health Care Access." This report is on Task 5, a study of the trends in and drivers of health care expenditures in Idaho. The study focuses on trends in public and private health care spending in Idaho using the most recent data available. We rely on Idaho-specific data collected as part of Task 1 (Cataloging Public Health Expenditures in Idaho<sup>1</sup>) and Task 2 (Estimating Private Health Expenditures in Idaho<sup>2</sup>), and supplement with national data when state-level data are not available.

The intent of this and the other reports is to establish baseline data that can be used to help frame the policy debate and to answer specific questions that may arise during discussions of health reform options in the state. These reports document many aspects of health care spending and trends to help inform the work of Idaho policy makers as they debate the regulatory and/or market-based approaches they will employ to addressing health costs, coverage, and access. In particular, the cost and cost growth issues addressed in this report may warrant additional discussion by policy makers.

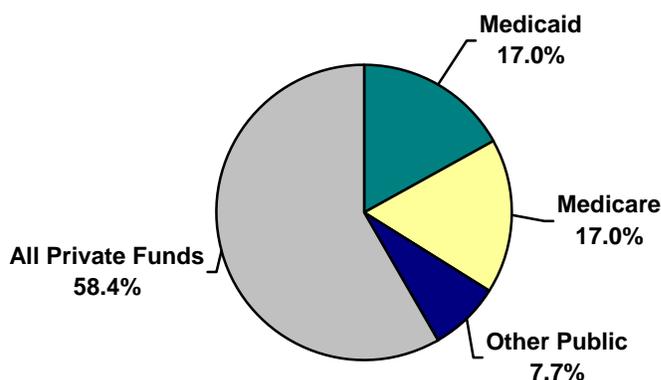
This summary describes Idaho's health care expenditures and trends, discusses key cost drivers, and outlines a preliminary analysis of the Catastrophic Care Program. In the body of the report, detailed cost and trend data are used to compare Idaho to the nation and to its neighboring states.

### Overview of Idaho's Health Care Expenditures and Trends

- *Idaho spends a smaller share of its resources on health care than the nation as a whole.* Public and private health care spending in Idaho totaled \$5.6 billion or 13.0 percent of the gross state product in 2004. This is less than the share (13.3%) of the national gross domestic product spent on health care for the U.S. in that year.
- *A greater share of health care spending in Idaho is from private funds compared to the national average.* (See figure on next page.) Private funds (health insurance payments to providers, individual and employer premiums, other individual spending for health care services) covered more than half (58.4 percent) of all health care expenditures in Idaho in 2004, while nationally, private funds covered 55.4 percent.
- *Idaho's annual average per capita health care spending growth rate of 7.1 percent is consistent with the national trend and lower than all six of Idaho's neighboring state the period 2000-2004.* Taking population growth into account, Idaho's overall per capita health care spending average growth rate of 7.1 percent is consistent with the national average per capita growth rate of (6.9 percent) and lower than all of its six neighboring states (ranging from 7.5 percent in Oregon to 8.2 percent in Nevada.)

## Idaho's Total Personal Health Care Expenditures (PHCE) by Funding Source (2004)

**Total Spending: \$5.3 Billion**



Notes: Medicaid and Medicare from CMS State Health Expenditure Accounts, 2004. Other Public based on national estimate from CMS National Health Expenditure Accounts (NHEA), 2004. For other public cost components see Figure 5.1.1 in body of report. Percentages do not total 100 percent due to rounding.

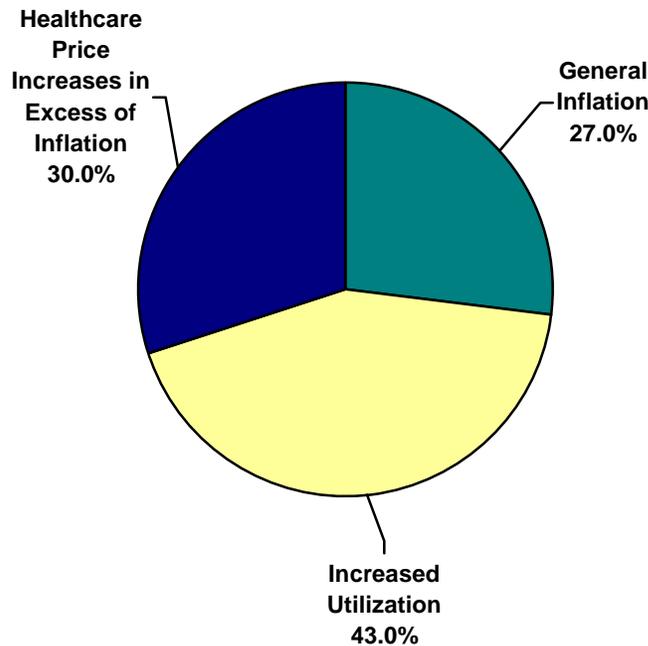
- Idaho's population has been growing faster than four of its six neighboring states and the U.S. overall, which contributes to the overall health care expenditure growth rate of 9.0 percent.* When looking at increases in the rate of growth of health care spending it is important to take into account population growth. Between 2000 and 2004, Idaho's population grew 7.3 percent compared to the US population growth rate of 4.0 percent. Of its six neighboring states, only Nevada had a significantly higher population growth rate during this period (15.6 percent).
- Idaho's private sector premiums continued to grow from 2002 through 2006.* Private sector premiums continue to grow for both the individual and group markets. Between 2002 and 2006, total premiums collected increased by a higher percentage than enrollment in both types of plan. Overall, total individual premiums grew by 34.0 percent during this five-year time span, whereas enrollment increased by 22.4 percent. For groups plans, total premiums grew by 59.7 percent, while enrollment in group plans increased only by 16.9 percent.

### Contributing Factors to Increases in Idaho's Health Care Spending

The figure on the following page shows the national factors contributing to the 8.8 percent increase in health insurance premiums between 2004 and 2005. Health care expenditure

increases are determined by the price of goods and services, as measured by general inflation (Consumer Price Index-CPI), the price of health care services in excess of general inflation (Medical CPI), and service utilization. Utilization is a function of increased use and advances in technology, which includes new medical treatments (e.g., prescription drugs, medical devices) and improved diagnostic testing. Utilization is also driven by the aging of the population and increases in the population with chronic disease; the management of these issues is affected by lifestyle choices. In this section, we focus on both the trends in prices and in utilization and list key drivers below.

**Factors Contributing to the 8.8 Percent Increase in Insurance Premiums (2004-2005)**



**Continued Increase in Public Program Enrollment**



In general, public program per capita spending as well as administrative costs are relatively low when compared to private health care spending in Idaho. However, expenditures for public programs continue to grow as enrollment in both Medicare and Medicaid grows. Between 2001 and 2005 Medicare enrollment grew by 9 percent and Medicaid/SCHIP enrollment grew by 22 percent, driving much of the increased spending in Idaho’s public health care programs.

- *While the private sector accounts for more health care spending in Idaho, spending on public programs (Medicare and Medicaid/SCHIP) is growing.* The share of total health care spending for public programs increased from 39.2 percent of total spending in 2000 to 41.6 percent in 2004. The private share of Idaho’s health care spending decreased from 60.8 percent to 58.4 percent in that same time period.

- ***Public program cost increases are tied to enrollment more than to per person spending.*** Idaho's low per person spending on public health care programs has helped to limit the increases in overall per capita health care spending. Between 2000 and 2004, the per person increases in Medicaid spending were 4.2 percent compared to a per capita increase of 9.5 percent for state employee health benefits.

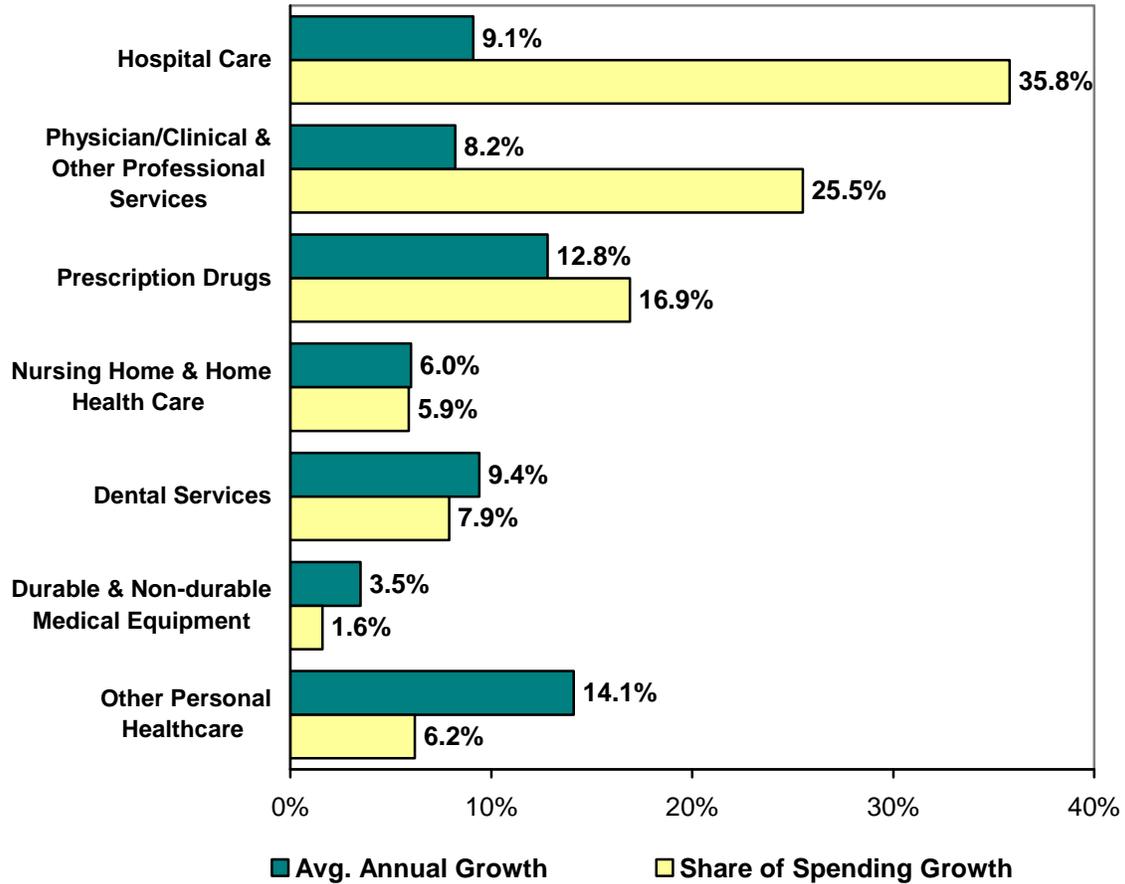
## **Spending on Hospital and Physician Services**

Hospitals and physician, clinical and other services represent key spending drivers and comprise almost two-thirds (63.1 percent) of health care spending in Idaho. Understanding trends in health care spending over time may require ongoing monitoring of utilization and costs.

- ***Hospital volume has increased over time and more of the growth is concentrated in the Boise area.*** The number of hospital discharges increased by 7.2 percent between 2001 and 2005 from 130,822 to 140,229 in 2005. Boise metropolitan statistical area (MSA) hospitals accounted for 45.8 percent of discharge activity in 2005 and the greatest increase in discharges between 2001 and 2005 (11.2 percent). Discharges for non-Boise MSA hospitals grew by only 3 percent during this same time period.
- ***Population changes can account for some of the increases in hospital discharges.*** While Idaho's population continues to grow, the Boise area has seen the greatest population increase, growing 12.3 percent between 2000 and 2004 compared to 5.8 percent for the remainder of the state.
- ***Boise-area hospitals had higher average net revenue per Medicare discharge in 2005 at \$13,917 per discharge compared to \$11,244 for non-Boise MSA hospitals.*** While it might reflect the complexity of cases treated in Boise-area hospitals, this difference is not consistent with the average net revenue for other payers. Medicaid net revenue per discharge was approximately \$9,300 for Boise and non-Boise area hospitals. Private pay net revenue per discharge was \$17,658 for all hospitals in the state, with Boise MSA hospitals just slightly lower (\$17,445) and non-Boise MSA hospitals slightly higher (\$17,897).
- ***Increases in the utilization of hospital services, technology and other hospital capital expansions are drivers of health care spending in Idaho.*** While the State of Idaho does not collect data on or regulate capital spending in the health care arena, there is some information on facility construction and expansion drawn from recent newspaper articles and provider system web sites. From these sources, we estimate that over \$350 million in hospital expansion projects are underway in Idaho.

- ***Medicare pays the lowest reimbursement rates compared to other payers but represents almost half of all spending in non-Boise area hospitals.*** In the Boise area, the private sector is the primary payer for hospital services. Outside of Boise, Medicare makes nearly half of all hospital payments. States are not empowered to shape Medicare payment rates and hospitals with a high volume of public program patients have limited ability to cost-shift to other payers. Another issue for policy makers to monitor is the balance in non-Boise hospitals between financial viability and maintaining adequate access to needed care.
- ***Idaho has Medicare discharge rates higher than the national average for back surgery and hip replacement.*** In general, Idaho's Medicare costs for the last two years of life are well below the national average, suggesting lower cost and lower utilization per Medicare beneficiary in Idaho. However, specific procedures and certain hospital service areas (Twin Falls and Lewiston) show significantly higher rates of back, knee, and hip procedures. There is considerable variation in a few procedures that may warrant discussion with local hospital and physician groups to address best practices and procedures and target areas where procedures should either be decreased or perhaps increased.
- ***Growth in Idaho's physician spending was consistent with the national average, but lower compared to its six neighboring states.*** The average annual growth rate, between 2000 and 2004, for spending on physician services in Idaho (8.2 percent) was the same as the growth rate for the U.S. overall (8.2 percent) and slightly lower than the growth rate for all six neighboring states – from a low of 9.1 percent in Wyoming to a high of 13.5 percent over this time period.
- ***Prescription drugs have one of the fastest rates of growth of all health services in Idaho (12.8 percent between 2000 and 2004) but accounted for a relatively small share of total spending.*** Yet, prescription drug expenditures represented only a small portion, 8.4 percent of total personal health care spending in 2004. As shown in the figure below, they contribute 16.9 percent of the share of average annual growth in Idaho's spending. In addition, Idaho's per capita utilization of prescription drugs (8.6 prescriptions per capita) was lower than the national prescription drug utilization rate of 10.6 prescription drugs per capita.

**Idaho's Personal Health Care Expenditures (PHCE): Growth Rates and Shares of Total Growth by Service Type (2000-2004)**



Source: Personal Health Care Expenditures (PHCE), All Payers 1980-2004, CMS Office of the Actuary, National Health Statistics Group. Data are as of February 2007.

Notes: Shares of spending growth do not total 100.0%

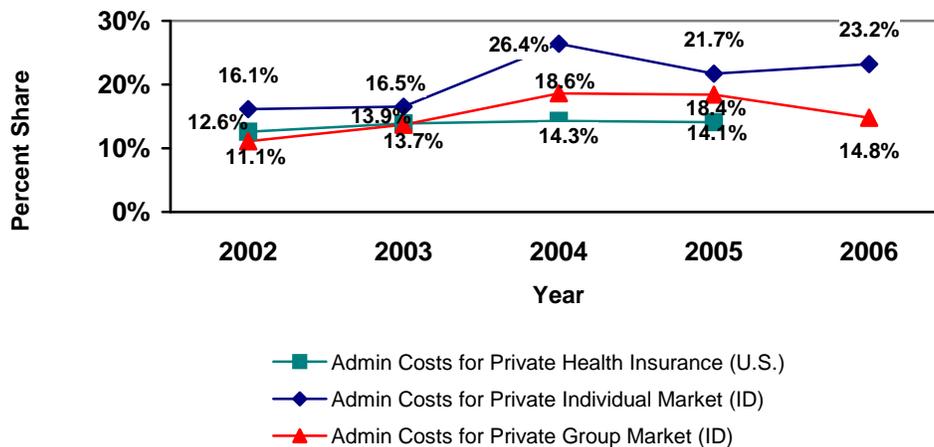
**Consolidation of Payer and Provider Markets**

A competitive market needs a sufficient presence of both supply (providers) and demand (payers) to ensure a successful functioning market. Consolidation in either the supply of or the demand for health care can disrupt the market equilibrium by shifting market power on one side or the other. While consolidation of the payer market is not unique to geographically large frontier states with relatively small populations, the consolidation can contribute to increases in private health care spending.

- Consolidation of private payer market limits competition to keep premium costs down.* Idaho has two primary insurers, Regence Blue Shield and Blue Cross of Idaho, which enroll approximately 96 percent of the private individual and group market in the state. The broader networks used by these plans and the market concentration of enrollees may reduce competition.

- **Consolidation of the private payer market has led to increased discussions about consolidation of the provider market.** The consolidation situation also raises concerns about dominant market power in both the payer and provider sectors of a competitive market for health care services. There are tensions between a consolidated payer market and increased incentives for physicians and other providers to consolidate to position themselves in a dominant payer market.
- **Compared to its neighbors, Idaho's private group market is slightly more concentrated and its individual market is similar.** While it is not unusual for a few large payers to emerge in states with large geographic areas and relatively small populations, for the latest year (2001) when comparable data are available, the largest three insurers in Idaho held 91 percent of the market. By contrast, the highest consolidation in a neighboring state is in Montana where the three largest insurers had 76 percent of the market. In the individual market, Idaho's three largest insurers had 92 percent of the market compared to Utah where the three largest insurers had 100 percent of the individual market and Wyoming where the three largest insurers had 87 percent of the market.<sup>1</sup>
- **Net costs of Idaho's individual and group markets are higher than for the nation as a whole.** The net cost of insurance is the difference between benefits and premiums. This difference includes administrative costs and, in some cases, additions to reserves, rate credits and dividends, premium taxes, and profits or losses. For the latest year of comparable data Idaho's administrative costs in the individual and group markets (21.7 percent and 18.4 percent) were well above the national average of 14.1 percent.

**Share of Administration Costs (Net Costs) of the Private Health Insurance for U.S. NHE, Idaho's Private Individual and Group Markets**



<sup>1</sup> Chottet, D. et al. (2003). Mapping State Health Insurance Markets, 2001: Structure and Changes. State Coverage Initiatives. Academy for Health Services Research and Policy. Available at <http://statecoverage.net/pdf/mapping2001.pdf>

## Other Lifestyle Factors

Health care costs related to factors including aging, chronic disease, smoking and obesity may be amenable to public health and primary care interventions. While aging is not a personal choice, healthy aging and healthy lifestyles certainly are.

- *The aging population will spur increased health care spending in Idaho similar to other states and the U.S. overall.* Idaho's share of the population 65 years and older is projected to increase by 15 percent to 18.3 percent of the total projected population by 2030.
- *On a positive note, Idaho has one of the lowest rates of adult smokers in the US.* Idaho showed a reduced level of smoking, from a high of 20.6 percent of the population in 1990 to 16.8 percent in 2006. Idaho ranked third across the states in having the lowest smoking rate. Health care costs for smokers are as much as 40 percent higher than for non-smokers.
- *Obesity rates continue to rise and contribute to increased costs of health care.* Currently Idaho has an obesity prevalence of 24.1 percent of the adult population, which is slightly lower than the national rate of 25.1 percent. Obesity-related health spending is estimated to account for 27 percent of inflation-adjusted per capita health spending in the U.S. including increased costs of heart disease and diabetes related care.

## Estimated Expenditures due to Lack of Routine Preventive Care

Idaho's County Medical Indigency Program and the state Catastrophic Health Care Cost Program provide financial assistance for episodic, catastrophic care for indigent uninsured Idaho residents. We used data from the state Catastrophic program to assess whether some of these hospitalizations could have been avoided with better primary and preventive services. In fiscal year (FY) 2006 these programs combined spent \$36.7 million in medical and related administration expenses, serving 5,249 cases across the state. In FY 2006 the state Catastrophic program alone spent approximately \$22.8 million for indigent care services.

- *In fiscal year 2006, an estimated 20 percent of state Catastrophic payments (\$4.6 million) were for events that might have been avoided had better primary and preventive care services been available.* This estimate was developed using the construct of ambulatory care sensitive conditions including appendectomies, coronary-related diagnoses and diabetes.
- *If mental health related hospitalizations are considered potentially avoidable given better routine preventive services, this would add 4 percent in savings, or \$911,000, in fiscal year 2006.*
- *Combining the ambulatory sensitive conditions and the mental health and substance abuse diagnoses, we estimate that approximately 24 percent of the state Catastrophic*

*expenditures of \$22.8 million in FY 2006 (representing approximately \$5 million) might have been avoided with improved access to routine preventive and primary care.*

It might be of interest to policy makers to consider the implications of using a portion of the state/county funding to develop a pilot demonstration to more formally assess the potential of better access to primary care and preventive services as a means to prevent costly treatment of episodic care that likely includes hospitalization.

## **Conclusion**

While Idaho is unique in its culture, heritage and approaches to public policy, it faces many of the same health reform issues that are confronting other states. These issues include the rising health care costs, growing number of uninsured adults, an increase in an elderly population and growing number of people considered obese.

There does not appear to be a lot of waste in the health care system in Idaho. In relation to the national average or neighboring states, there may be some opportunities for improved access in primary and prevention care through the Catastrophic Care Program. This program has grown out of historical indigent care program and serves an important component of the safety net for coverage for the uninsured. It is however, primarily focused on treatment as opposed to primary care and prevention. We estimate that at least a portion of these costs may be preventable and a pilot project in one or more counties to demonstrate a different approach might be considered.

We hope this data can be used to help frame the debate and answer specific questions that arise during continued discussions of health reform. While we have documented many different aspects of health care spending and the trends in spending, it will be important for Idaho policy makers to work together and set priorities in terms of regulatory and market-based approaches to the increasing coverage and access and constraining costs.

## INTRODUCTION AND BACKGROUND

At the request of its Health Care Task Force, the Idaho Legislature (Senate Bill 1340) appropriated funds in 2006 for a study on health care costs and the uninsured in the state. The bipartisan Joint Legislative Oversight Committee (JLOC), the legislative body responsible for directing all state agency performance evaluations, assigned oversight responsibility for the study to the Idaho Office of Performance Evaluations (OPE).

The 2007 study, “Idaho’s Health Care Costs and Options to Improve Health Care Access,” is a five-part study to compile state-specific data and information on health care expenditures to inform the Health Care Task Force and State Legislature at large. The five tasks include the following:

1. Catalog public health care expenditures in Idaho.
2. Estimate private spending for health care in the state.
3. Summarize available data about Idaho’s uninsured and insured.
4. Compile information on programs in other states to address the uninsured.
5. Analyze factors that drive health care costs in Idaho.

The State Health Access Data Assistance Center (SHADAC) at the University of Minnesota School of Public Health was commissioned by OPE to oversee three of these tasks: Tasks 1, 2, and 5. This report focuses on Task 5 and presents information on trends and drivers of health care expenditures in Idaho. Reports on Tasks 1 and 2 are available separately.<sup>1,2</sup>

### Study Scope

This report focuses on trends and drivers of public and private health care costs in Idaho and emphasizes public and private categories of overall health care spending, as well as key public programs (Medicare, Medicaid/CHIP, and state employee health benefits.) Other state programs, such as correctional health care spending, public health expenditures, and community health centers, constitute less than 8 percent of total health care expenditures and are not the focus of this report.<sup>1</sup>

Per the interests of state legislators and OPE staff, this report addresses the following questions:

1. How much have health care costs in Idaho increased over the past five years?
2. How does health care cost growth in Idaho compare to cost growth in neighboring states and for the nation as a whole?
3. What are the primary factors that contribute to Idaho’s cost growth? Cost factors could include, but are not limited to, general inflation, medical inflation, population growth, and increased type of service utilization.
4. What type of services (e.g., inpatient hospital care, outpatient service, home health care, prescription drugs, and durable medical equipment) contribute most to health care cost growth in Idaho?

5. How do administrative costs in Idaho (for both private insurance and public health care programs) compare to those in other states?
6. How does Idaho compare to neighboring states and the nation as a whole with regard to how frequently specific medical procedures are performed? What types of medical procedures are performed at a higher rate in Idaho than in other states?
7. To what extent do indigent care services paid for by Idaho counties and the state's Catastrophic Health Care Cost Program involve conditions resulting from the lack of routine preventive care?
8. Are there regions in the state where health care costs are increasing at rates faster than the statewide or nationwide average? Conversely, are there areas of slower growth?

## **Data and Methods**

No single data source provides a complete picture of public and private health care spending trends and drivers in Idaho. Several data sources were used, including: the Centers for Medicare and Medicaid Services (CMS) National and State Health Care Expenditures Accounts<sup>3</sup>; public health care expenditures by program type and private health insurance market data as collected and reported as part of Tasks 1 and 2<sup>1,2</sup>; the Dartmouth Atlas of Health Care; and the American Hospital Association. In addition, we relied on academic journals and industry reports on drivers of U.S. health care spending.

## **Organization of the Report**

The balance of this report is organized into eight sections corresponding with the key questions outlined above. We begin with an overview of health care spending in Idaho and situate Idaho's health care expenditures in the broader context using data from CMS. Each section begins with highlights followed by the data and other supporting information.

## 5.1. OVERVIEW OF IDAHO'S HEALTH CARE EXPENDITURES

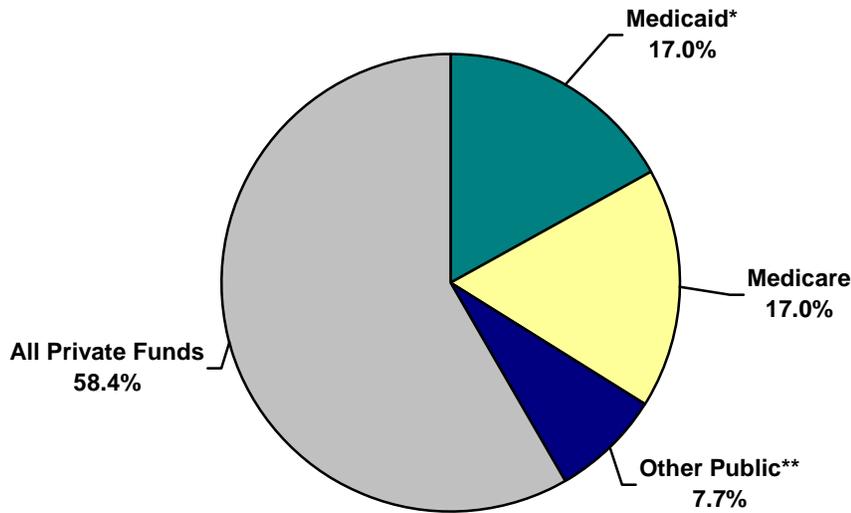
This section presents an overview of the personal health care expenditures (PHCE) for Idaho in 2004 using data from the CMS National and State Health Expenditure Accounts. These data include health care expenditures by funding source (public and private) and the distribution of health care dollars across service types.

### Highlights

- In 2004, total public and private health care spending in Idaho was \$5.6 billion, accounting for 13.0 percent of the gross state product in 2004.<sup>4</sup>
- In 2004, private funds accounted for 58.4 percent of all health care spending in Idaho, or \$3.2 billion. The balance of health care spending in Idaho, 41.6 percent or \$2.3 billion, came from public (government) funds.
- Hospital care accounted for the largest component of spending with 35.6 percent of all health care spending, followed by physician/clinical and other professional services, which collectively accounted for 27.5 percent. Combined hospital and physician services accounted for 63.1 percent of all health care spending in Idaho in 2004.  
(Note: Percentages do not total 100 percent due to rounding.)

Figure 5.1.1 provides an overview of the distribution of health care spending in Idaho by funding source in 2004. Private sources accounted for 58.4 percent of spending while public spending accounted for 41.6 percent. Medicare and Medicaid accounted for the majority of public spending, with each accounting for 17.0 percent of total health care spending in 2004.

**Figure 5.1.1. Idaho’s Total Personal Health Care Expenditures (PHCE) by Funding Source (2004)**



**Total Expenditures: \$5.6 billion**

Source: Medicaid and Medicare totals are from the CMS State Health Expenditure Accounts, 2004, Office of the Actuary, National Health Statistics Group. Other public funds are estimated for Idaho based on the national estimate for these funds from the CMS National Health Expenditure Accounts (NHEA), 2004. All private funds are estimated for Idaho and represent the residual share of funds.

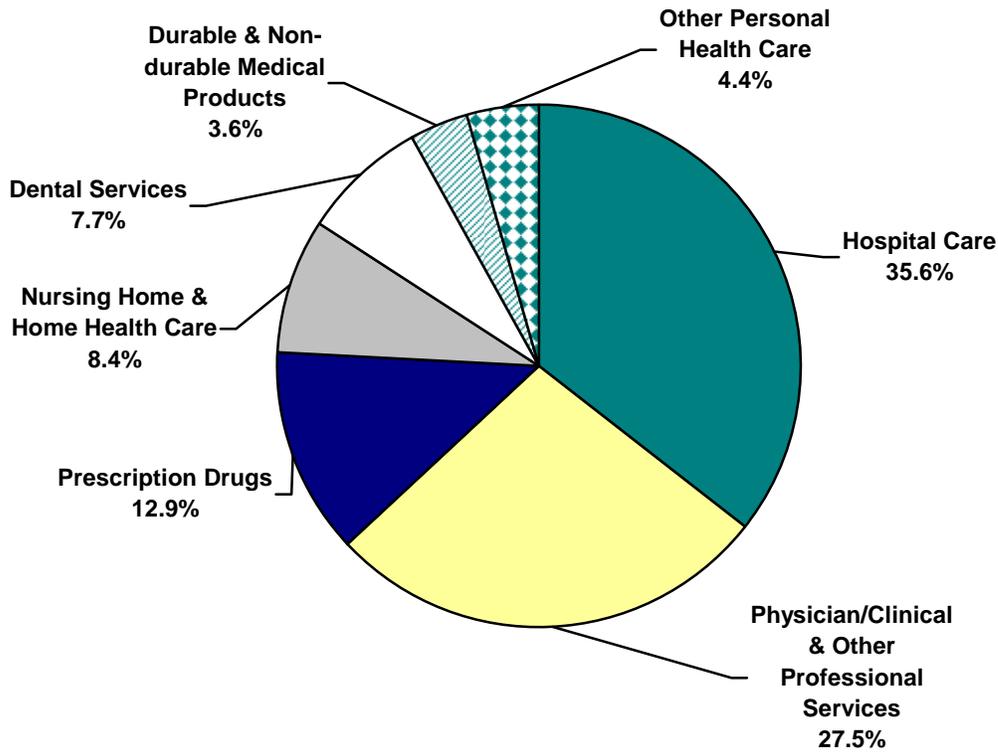
Notes: \*Medicaid includes state & federal Medicaid dollars.

\*\* Other Public includes state & local subsidies to hospitals & home health agencies; school health programs; Medicaid CHIP expansion; CHIP; maternal & child health; vocational rehab medical payments; temporary disability insurance medical payments; public health service & other federal hospitals, Indian Health Service; alcoholism/drug abuse/mental health programs.

†Percentages do not total 100 percent due to rounding.

Figure 5.1.2 shows the distribution of Idaho’s public and private health care spending by type of service in 2004. Hospital care represented the largest component of spending with 35.6 percent (\$2 billion) in expenditures, followed by physician/clinical and other professional services accounting for 27.5 percent (\$1.5 billion), and spending for prescription drugs at 12.9 percent (\$0.7 billion). Nursing home and home health care (8.4 percent), dental services (7.7 percent), other personal healthcare (4.4 percent), and durable and non-durable medical equipment (3.6 percent) made up the remaining shares of health care spending in the state.

**Figure 5.1.2. Idaho’s Personal Health Care Expenditures (PHCE) by Service Type (2004)**



**Total Expenditures: \$5.6 billion**

Source: Idaho Personal Health Care Expenditures (PHCE), All Payers, 1980-2004. CMS, Office of the Actuary, National Health Statistics Group.<sup>5</sup>

Notes: Percentages do not total 100 percent due to rounding.

## 5.2. TRENDS IN IDAHO'S HEALTH CARE EXPENDITURE GROWTH

This section presents trends in overall health care expenditure growth in Idaho over the five years from 2000 to 2004 using data from the CMS State Health Expenditure Accounts (SHEA). Average annual growth trends for this period are presented by funding source and program type in Table 5.2.1.<sup>6</sup>

Estimates of Idaho's per capita costs for public health care expenditure trends by program type (i.e., Medicare, Medicaid/CHIP, and state/local employee health care benefit programs) are calculated using total expenditures (including medical and administrative expenses, when available) per participant/enrollee in the program. The estimated per capita average annual growth rates are calculated using data for the years reported under Task 1.<sup>1</sup> Table 5.2.2. shows private health care expenditure trends, per capita average annual growth rates for the individual and the private markets, for 2002-2006 as reported in Task 2.<sup>2</sup>

### Highlights

- From 2000 to 2004, spending on personal health care services in Idaho increased by 41.2 percent with an average annual growth rate of 9.0 percent.
- The 10.6 percent average annual growth rate for public health expenditures outpaces the 7.9 percent average annual growth rate for private health spending.
- Increases in enrollment largely drove the higher average annual growth rate for public programs. The per capita increases (related to growth in enrollment) were 4.2 percent for Medicaid/SCHIP and 9.5 percent for state employee health benefits.
- The share of total health care spending attributed to public programs increased from 39.2 percent of total spending in 2000 to 41.6 percent in 2004. Over that same period, the private share of Idaho's health care spending decreased from 60.8 percent to 58.4 percent.

Table 5.2.1 provides information on the change in Idaho’s distribution of health care spending between public and private sources between 2000 and 2004. Private funds made up the majority of Idaho’s total health care spending in 2000 (60.8 percent) and in 2004 (58.4 percent), with public funds making up 39.2 percent in 2000 and 41.6 percent in 2004. Even though private funds made up over half of total health care spending in both these years, on average, public expenditures grew faster per year (10.6 percent) than private (7.9 percent).

Medicaid had the greatest increase between 2000 and 2004 at 56.3 percent. Medicaid’s share of total personal health care spending increased slightly over that same period (15.3 percent to 17.0 percent), and the average annual growth for Medicaid was 11.8 percent, compared to Medicare at 9.7 percent and other programs at 8.2 percent.

**Table 5.2.1. Idaho’s Personal Health Care Expenditures (PHCE): Percent Change and Average Annual Growth Rates by Source of Funds & Program Type (2000-2004)**

| Idaho PHCE                | 2000<br>(millions) | 2004<br>(millions) | % change | Avg. Annual<br>Growth |
|---------------------------|--------------------|--------------------|----------|-----------------------|
| <b>Overall PHCE</b>       | \$3,999            | \$5,648            | 41.2%    | 9.0%                  |
| <b>By Source of Funds</b> |                    |                    |          |                       |
| Public*                   | \$1,568            | \$2,350            | 49.9%    | 10.6%                 |
| Private                   | \$2,431            | \$3,298            | 35.7%    | 7.9%                  |
| <b>By Program Type</b>    |                    |                    |          |                       |
| Medicare                  | \$662              | \$958              | 44.7%    | 9.7%                  |
| Medicaid                  | \$613              | \$958              | 56.3%    | 11.8%                 |
| Other                     | \$2,724            | \$3,732            | 37.0%    | 8.2%                  |

Source: Personal Health Care Expenditures (PHCE), All Payers 1980-2004, CMS Office of the Actuary, National Health Statistics Group. Data are as of February 2007.

Notes: \*Public funds include Medicare, Medicaid and Other Public Funds. Private funds were estimated based on the national estimates for these funds from the CMS National Health Expenditure Accounts (NHEA) for 2000 and 2004. Other program type refers to non-Medicare, Medicaid programs and represents the residual share of funds.

Idaho’s growing overall public health care spending may be explained in part by increases in enrollment in key public programs, e.g., Medicare and Medicaid, as shown in Figure 5.2.2. Medicare enrollment increased 9 percent between 2002 and 2005 growing from 172,787 to 188,414 enrollees. Medicaid enrollment grew 22 percent from 152,499 to 185,918 enrollees between 2002 and 2006.

While increased Medicare and Medicaid enrollment drives up overall expenditures, the per capita growth rates for public programs remained relatively low at 6.5 percent for Medicare (2002-2005) and 4.2 percent Medicaid/CHIP (2002-2006). By contrast, state employee health benefit spending increased 9.5 percent between 2002 and 2006; and local employee health benefit spending increased 17.6 percent between 2005 and 2006.

Smaller in size and coverage than the private group market, the private individual market saw greater enrollment growth (22.4 percent) than the private group market (16.9 percent) between

2002 and 2006. Over that same period, the per capita average annual growth rate for the private individual market was 2.3 percent, compared to 8.1 percent in the private group market.

**Table 5.2.2. Idaho's Expenditures by Public Program/Private Market: Expenditure by Per Capita Costs and Average Annual Rate of Change**

| Program Type                           | Year 1      | Year 2      | Per Capita Avg. Annual Growth |
|--|-------------|-------------|-------------------------------|
| <b>PUBLIC PROGRAMS</b>                 |             |             |                               |
| <b>Medicare</b>                        | <b>2002</b> | <b>2005</b> |                               |
| Total costs (millions)                 | \$790       | \$1,039     |                               |
| Population                             | 172,787     | 188,414     |                               |
| Per Capita Cost                        | \$4,572     | \$5,515     | 6.5%                          |
| <b>Medicaid/CHIP</b>                   | <b>2002</b> | <b>2006</b> |                               |
| Total Costs (millions)                 | \$805       | \$1,157     |                               |
| Population                             | 152,499     | 185,918     |                               |
| Per Capita Cost                        | \$5,279     | \$6,221     | 4.2%                          |
| <b>State Employee Health Benefits</b>  | <b>2002</b> | <b>2006</b> |                               |
| Total Costs (millions)                 | \$101       | \$141       |                               |
| Population                             | 47,620      | 46,387      |                               |
| Per Capita Cost                        | \$2,117     | \$3,043     | 9.5%                          |
| <b>Local Employee Health Benefits</b>  | <b>2004</b> | <b>2006</b> |                               |
| Medical Costs (millions)               | \$134       | \$179       |                               |
| Population                             | 78,373      | 75,331      |                               |
| Per Capita Cost                        | \$1,716     | \$2,372     | 17.6%                         |
| <b>PRIVATE MARKET</b>                  |             |             |                               |
| <b>Private Individual Health Plans</b> | <b>2002</b> | <b>2006</b> |                               |
| Total Premiums (millions)              | \$109.9     | \$147.3     |                               |
| Population                             | 76,139      | 93,181      |                               |
| Per Capita Cost                        | \$1,443     | \$1,581     | 2.3%                          |
| <b>Private Group Health Plans</b>      | <b>2002</b> | <b>2006</b> |                               |
| Total Premiums (millions)              | \$576.8     | \$921.0     |                               |
| Population                             | 296,220     | 346,226     |                               |
| Per Capita Cost                        | \$1,947     | \$2,660     | 8.1%                          |

Source: See Task 1 and Task 2 reports for details on public and private programs/plans, respectively.<sup>1,2</sup>

Notes: Cost calculations are described in the report notes.<sup>7</sup>

### 5.3. COMPARISONS IN HEALTH CARE EXPENDITURE GROWTH WITH U.S. & NEIGHBORING STATES

This section compares health care expenditure growth in Idaho to the nation as a whole as well as to Idaho's six neighboring states (Montana, Nevada, Oregon, Utah, Washington, and Wyoming) over the five years from 2000 to 2004 using data from the CMS SHEA. Table 5.3.1 presents expenditure growth rates by source of funds (estimates of public and private) and program type (Medicare, Medicaid, and Other). Expenditure growth comparisons are also made across service types (Hospital Care, Physician/Clinical & Other Professional Services, Dental, Home Health & Nursing Home, Durable & Non-durable Medical Equipment, Prescription Drugs and Other Personal Health Care) are also presented in Table 5.3.2.

#### Highlights

- ***Idaho's overall growth rate in health care spending was higher than the national average and three of its six neighboring states.*** Idaho's average annual rate of growth in health care spending was 9.0 percent compared to 8.0 percent for the U.S. from 2000 to 2004. Growth in Idaho was also higher than in Montana and Wyoming (8.3 percent each) as well as in Oregon (8.7 percent). Nevada's average annual health care spending growth rate (12.2 percent) was the highest among Idaho's neighboring states and well above the U.S. average (8.0 percent) for the five year period.
- ***Idaho and its neighboring states all had higher health care expenditure growth rates than the national average of 8.0 percent.*** Expenditure growth rates ranged from 8.3 percent in Wyoming and Montana to 12.2 percent in Nevada. Idaho's rate of 9.0 percent was in the middle of the range.
- ***From a growth perspective, Idaho's public spending outpaced the nation and three neighboring states, while private spending outpaced the nation and two neighboring states.*** Idaho's public health care expenditures grew 10.6 percent annually on average from 2000 to 2004. This is higher than the nation (9.2 percent) as well as Montana (9.6 percent), Oregon (7.9 percent), and Washington (8.6 percent). Idaho's private health care expenditures grew 7.9 percent annually on average from 2000 to 2004. This is also higher than the nation (7.1 percent) as well as Montana (7.6 percent) and Wyoming (6.7 percent).
- ***Idaho's Medicaid spending growth outpaced the nation as well as four of its six neighboring states.*** The average annual growth rate for Idaho's spending for Medicaid was 11.8 percent and was higher than the national Medicaid spending growth rate of 9.6 percent, as well as Medicaid spending growth in Montana (9.9 percent), Oregon (4.1 percent), Utah (11.3 percent), and Washington (7.0 percent).

**Table 5.3.1. Idaho, U.S. & Six Neighboring States: Percent Change & Average Annual Growth Rates in Personal Health Care Expenditures (PHCE) by Source of Funds & Program Type (2000-2004)**

| (dollars in millions)     | U.S.        | ID      | MT      | NV       | OR       | UT      | WA       | WY      |
|---------------------------|-------------|---------|---------|----------|----------|---------|----------|---------|
| <b>Overall</b>            |             |         |         |          |          |         |          |         |
| 2000                      | \$1,139,855 | \$3,999 | \$3,339 | \$6,876  | \$12,563 | \$6,792 | \$22,502 | \$1,653 |
| 2004                      | \$1,551,255 | \$5,648 | \$4,599 | \$10,886 | \$17,519 | \$9,957 | \$31,934 | \$2,270 |
| % change                  | 36.1%       | 41.2%   | 37.7%   | 58.3%    | 39.4%    | 46.6%   | 41.9%    | 37.3%   |
| Avg. Annual Growth Rate   | 8.0%        | 9.0%    | 8.3%    | 12.2%    | 8.7%     | 10.0%   | 9.1%     | 8.3%    |
| <b>By Source of Funds</b> |             |         |         |          |          |         |          |         |
| <b>Public</b>             |             |         |         |          |          |         |          |         |
| 2000                      | \$486,776   | \$1,568 | \$1,251 | \$2,372  | \$5,135  | \$2,224 | \$8,888  | \$586   |
| 2004                      | \$692,409   | \$2,350 | \$1,803 | \$3,940  | \$6,966  | \$3,467 | \$12,369 | \$887   |
| % change                  | 42.2%       | 49.9%   | 44.1%   | 66.1%    | 35.7%    | 55.9%   | 39.2%    | 51.4%   |
| Avg. Annual Growth Rate   | 9.2%        | 10.6%   | 9.6%    | 13.5%    | 7.9%     | 11.7%   | 8.6%     | 10.9%   |
| <b>Private</b>            |             |         |         |          |          |         |          |         |
| 2000                      | \$653,079   | \$2,431 | \$2,088 | \$4,504  | \$7,428  | \$4,568 | \$13,614 | \$1,067 |
| 2004                      | \$858,846   | \$3,298 | \$2,796 | \$6,946  | \$10,553 | \$6,490 | \$19,565 | \$1,383 |
| % change                  | 31.5%       | 35.7%   | 33.9%   | 54.2%    | 42.1%    | 42.1%   | 43.7%    | 29.6%   |
| Avg. Annual Growth Rate   | 7.1%        | 7.9%    | 7.6%    | 11.4%    | 9.2%     | 9.2%    | 9.5%     | 6.7%    |
| <b>By Program Type</b>    |             |         |         |          |          |         |          |         |
| <b>Medicare</b>           |             |         |         |          |          |         |          |         |
| 2000                      | \$216,407   | \$662   | \$564   | \$1,298  | \$2,152  | \$918   | \$3,477  | \$243   |
| 2004                      | \$303,417   | \$958   | \$803   | \$2,126  | \$3,194  | \$1,462 | \$4,974  | \$342   |
| % change                  | 40.2%       | 44.7%   | 42.4%   | 63.8%    | 48.4%    | 59.3%   | 43.1%    | 40.7%   |
| Avg. Annual Growth Rate   | 8.8%        | 9.7%    | 9.2%    | 13.1%    | 10.4%    | 12.3%   | 9.4%     | 8.9%    |
| <b>Medicaid</b>           |             |         |         |          |          |         |          |         |
| 2000                      | \$186,972   | \$613   | \$443   | \$571    | \$2,064  | \$809   | \$3,765  | \$222   |
| 2004                      | \$269,892   | \$958   | \$647   | \$978    | \$2,427  | \$1,241 | \$4,943  | \$371   |
| % change                  | 44.3%       | 56.3%   | 46.0%   | 71.3%    | 17.6%    | 53.4%   | 31.3%    | 67.1%   |
| Avg. Annual Growth Rate   | 9.6%        | 11.8%   | 9.9%    | 14.4%    | 4.1%     | 11.3%   | 7.0%     | 13.7%   |
| <b>Other</b>              |             |         |         |          |          |         |          |         |
| 2000                      | \$736,476   | \$2,724 | \$2,332 | \$5,007  | \$8,347  | \$5,065 | \$15,260 | \$1,188 |
| 2004                      | \$977,946   | \$3,732 | \$3,149 | \$7,782  | \$11,898 | \$7,254 | \$22,017 | \$1,557 |
| % change                  | 32.8%       | 37.0%   | 35.0%   | 55.4%    | 42.5%    | 43.2%   | 44.3%    | 31.1%   |
| Avg. Annual Growth Rate   | 7.3%        | 8.2%    | 7.8%    | 11.7%    | 9.3%     | 9.4%    | 9.6%     | 7.0%    |

Source: Personal Health Care Expenditures (PHCE), All Payers 1980-2004, CMS Office of the Actuary, National Health Statistics Group. Data are as of February 2007.

Notes: Public funds include Medicare, Medicaid and Other Public Funds. Private funds for all seven states were estimated based on the national estimates for these funds from the CMS National Health Expenditure Accounts (NHEA) for 2000 and 2004. Other program type refers to non-Medicare, Medicaid programs and represents the residual share of funds.

## Distribution of Health Care Spending by Type of Service

Table 5.3.2 compares Idaho and its six neighboring states on the distribution of health care spending by type of service showing relative and average annual growth rates for each between 2000 and 2004. Key points include:

- There was variation in rates of growth by type of service comparing Idaho with its neighboring states. For example, the average annual growth rate for hospital spending in Idaho (9.1 percent) was similar to the growth rate for hospitals in Oregon (9.3 percent), higher than the growth rates in Wyoming (7.4 percent) and Montana (7.9 percent), and lower than Oregon (9.3 percent), Washington (9.7 percent), Utah (10.4 percent) and Nevada (12.5 percent).
- Hospital care growth rates in Idaho were higher than the national average and two of its six neighboring states. Idaho hospital spending accounted for 35.6 percent of the total personal health care spending, which is slightly smaller than the 36.5 percent share of hospital spending at the national level. Idaho had a 9.1 percent average annual average growth rate for hospital services, which is higher than the U.S. growth of 8.0 percent.
- Growth in spending on physician services was consistent with the national average, but lower compared to Idaho's six neighboring states. The average annual growth rate for spending on physician services in Idaho was the same as the rate for the U.S. overall (8.2 percent) and lower than the rate for all six neighboring states. Nevada had the highest average annual growth rate of 13.5 percent over this time period.
- Idaho's health care spending for prescription drugs grew at a faster average annual rate than the U.S. and five of its six neighboring states. Idaho's average annual growth rate of 12.8 percent over the five year period was higher than the U.S. overall (11.9 percent) and higher than all neighboring states except Nevada, which had a growth rate of 13.7 percent.
- Idaho's health care spending on other personal health care grew at a faster rate than its neighboring states and the U.S. overall. Idaho's average annual rate of growth for health care spending on other personal health care grew at a faster rate (14.1 percent) compared to the national average annual rate (9.5 percent) and all neighboring states, though Wyoming's rate was very close (14.0 percent.)
- Growth in Idaho spending for other health care services was higher than the national average. Several health care services had higher average annual growth rates in Idaho than in the U.S. as a whole. These include dental (9.4 vs. 7.1 percent), home health and nursing home (6.0 vs. 5.8 percent), other personal health care services (14.1 vs. 9.5 percent), prescription drugs (12.8 vs. 11.9 percent), and medical equipment (3.5 vs. 3.1 percent).<sup>8</sup>

**Table 5.3.2. Idaho, U.S. & Six Neighboring States: Percent Change & Average Annual Growth in Personal Health Care Expenditures (PHCE) by Service Type (2000-2004)**

| Service Type<br>(dollars in millions)                       | U.S.      | ID      | MT      | NV      | OR      | UT      | WA       | WY    |
|---|-----------|---------|---------|---------|---------|---------|----------|-------|
| <b>Hospital Care</b>  |           |         |         |         |         |         |          |       |
| 2000  | \$417,049 | \$1,417 | \$1,409 | \$2,225 | \$4,202 | \$2,488 | \$7,519  | \$667 |
| 2004  | \$566,886 | \$2,008 | \$1,911 | \$3,570 | \$5,997 | \$3,700 | \$10,891 | \$887 |
| % change  | 35.9%     | 41.7%   | 35.6%   | 60.4%   | 42.7%   | 48.7%   | 44.8%    | 33.0% |
| Avg. Annual Growth Rate                                     | 8.0%      | 9.1%    | 7.9%    | 12.5%   | 9.3%    | 10.4%   | 9.7%     | 7.4%  |
| <b>Physician/Clinical &amp; Other Professional Services</b> |           |         |         |         |         |         |          |       |
| 2000  | \$325,695 | \$1,133 | \$864   | \$2,321 | \$3,874 | \$1,833 | \$6,924  | \$449 |
| 2004  | \$446,349 | \$1,553 | \$1,273 | \$3,853 | \$5,871 | \$2,797 | \$10,481 | \$635 |
| % change  | 37.0%     | 37.1%   | 47.3%   | 66.0%   | 51.5%   | 52.6%   | 51.4%    | 41.4% |
| Avg. Annual Growth Rate                                     | 8.2%      | 8.2%    | 10.2%   | 13.5%   | 11.0%   | 11.1%   | 10.9%    | 9.1%  |
| <b>Dental</b>   |           |         |         |         |         |         |          |       |
| 2000  | \$61,975  | \$304   | \$177   | \$477   | \$1,002 | \$537   | \$1,906  | \$84  |
| 2004  | \$81,476  | \$435   | \$237   | \$707   | \$1,266 | \$741   | \$2,527  | \$115 |
| % change  | 31.5%     | 43.1%   | 33.9%   | 48.2%   | 26.3%   | 38.0%   | 32.6%    | 36.9% |
| Avg. Annual Growth Rate                                     | 7.1%      | 9.4%    | 7.6%    | 10.3%   | 6.0%    | 8.4%    | 7.3%     | 8.2%  |
| <b>Home Health &amp; Nursing Home</b>                       |           |         |         |         |         |         |          |       |
| 2000  | \$125,776 | \$375   | \$321   | \$396   | \$962   | \$499   | \$2,113  | \$133 |
| 2004  | \$157,725 | \$473   | \$409   | \$557   | \$1,095 | \$683   | \$2,692  | \$170 |
| % change  | 25.4%     | 26.1%   | 27.4%   | 40.7%   | 13.8%   | 36.9%   | 27.4%    | 27.8% |
| Avg. Annual Growth Rate                                     | 5.8%      | 6.0%    | 6.2%    | 8.9%    | 3.3%    | 8.2%    | 6.2%     | 6.3%  |
| <b>Durable &amp; Non-durable Medical Equipment</b>          |           |         |         |         |         |         |          |       |
| 2000  | \$49,496  | \$176   | \$143   | \$576   | \$709   | \$483   | \$1,014  | \$73  |
| 2004  | \$55,889  | \$202   | \$163   | \$774   | \$810   | \$588   | \$1,117  | \$81  |
| % change  | 12.9%     | 14.8%   | 14.0%   | 34.4%   | 14.2%   | 21.7%   | 10.2%    | 11.0% |
| Avg. Annual Growth Rate                                     | 3.1%      | 3.5%    | 3.3%    | 7.7%    | 3.4%    | 5.0%    | 2.4%     | 2.6%  |
| <b>Prescription Drugs</b>                                   |           |         |         |         |         |         |          |       |
| 2000  | \$120,803 | \$448   | \$304   | \$737   | \$1,108 | \$768   | \$2,188  | \$177 |
| 2004  | \$189,651 | \$726   | \$419   | \$1,231 | \$1,508 | \$1,178 | \$3,162  | \$263 |
| % change  | 57.0%     | 62.1%   | 37.8%   | 67.0%   | 36.1%   | 53.4%   | 44.5%    | 48.6% |
| Avg. Annual Growth Rate                                     | 11.9%     | 12.8%   | 8.4%    | 13.7%   | 8.0%    | 11.3%   | 9.6%     | 10.4% |
| <b>Other Personal Health Care</b>                           |           |         |         |         |         |         |          |       |
| 2000  | \$37,076  | \$148   | \$121   | \$143   | \$706   | \$183   | \$838    | \$71  |
| 2004  | \$53,278  | \$251   | \$188   | \$194   | \$972   | \$270   | \$1,065  | \$120 |
| % change  | 43.7%     | 69.6%   | 55.4%   | 35.7%   | 37.7%   | 47.5%   | 27.1%    | 69.0% |
| Avg. Annual Growth Rate                                     | 9.5%      | 14.1%   | 11.6%   | 7.9%    | 8.3%    | 10.2%   | 6.2%     | 14.0% |

Source: Personal Health Care Expenditures (PHCE), All Payers 1980-2004, CMS Office of the Actuary, National Health Statistics Group. Data are as of February 2007.

## 5.4. COMPONENTS & DRIVERS OF HEALTH CARE EXPENDITURE GROWTH

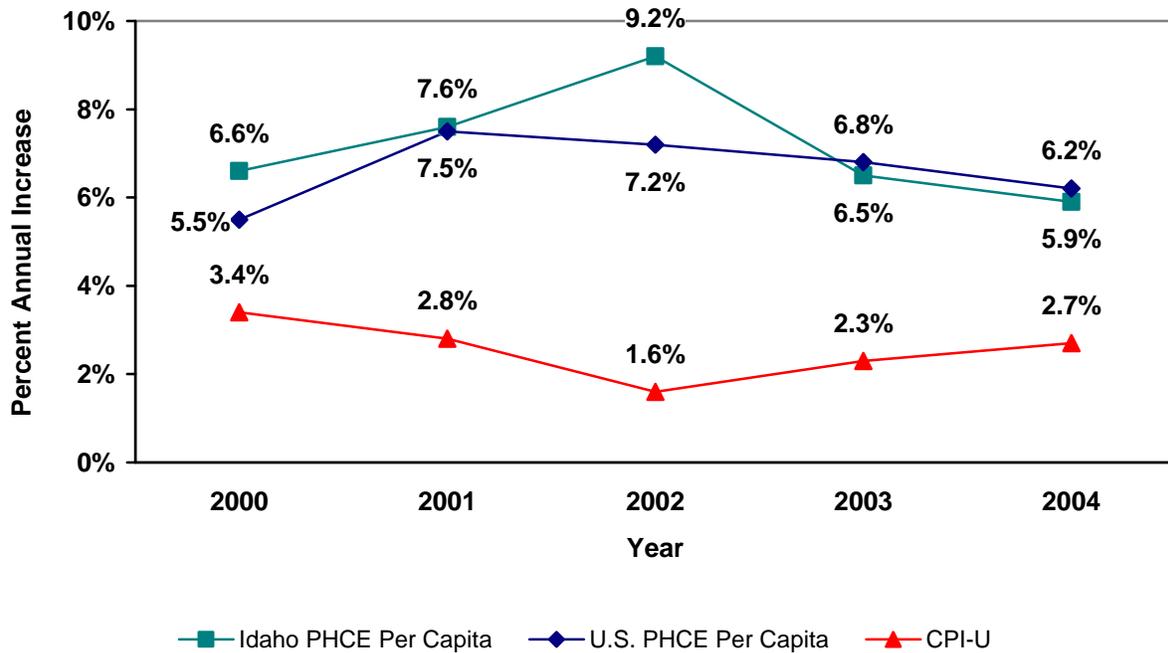
This section addresses trends and underlying cost drivers in Idaho's health insurance market. Growth and trends in Idaho's health care spending and for the U.S. as a whole are compared to the Consumer Price Index-All Urban Consumers (CPI-U). We address cost drivers underlying national premium increases and provide Idaho-specific data on services contributing to health care spending growth. We also provide more detailed Idaho-specific data on cost drivers, including the aging of the population, lifestyle factors (obesity and smoking), and technology as represented by recent capital investments in Idaho.

### Overview of Idaho Spending Trends

Idaho's overall average annual growth rate in personal health care spending (9.0 percent) was higher than the national average (8.0 percent) but consistent with its neighboring states with the exception of Nevada, which had a significantly higher growth rate of 12.2 percent between 2000 and 2004 (see Table 5.3.1).

Both in Idaho and nationally, changes in per capita health spending growth are consistently higher than trends in the general economy as measured by changes in the CPI-U.<sup>9</sup> Figure 5.4.1 shows the annual increase in personal health spending per capita for Idaho and the U.S. compared to the CPI-U.<sup>10</sup> In the most recent years available, there has been a slight decrease in the health care spending for the U.S. and Idaho with Idaho tracking just under the U.S. increase in health care spending.

**Figure 5.4.1 Percent Annual Increase in Idaho and US Personal Health Care Expenditures per Capita, and the US Consumer Price Index (CPI-U), (2000-2004)**

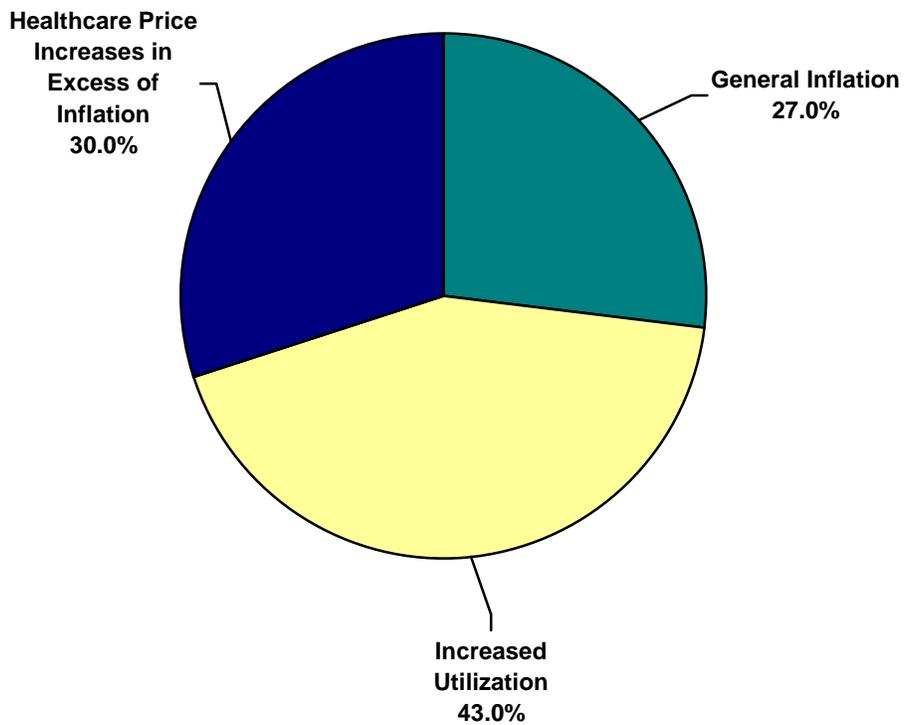


Source: Annual increase in Idaho and U.S. PHCE Per Capita from CMS, Office of the Actuary, National Health Statistics Group, (see Health Expenditures by State of Residence: State-specific Tables, 1991-2004.) CPI-U data are from Bureau of Labor Statistics.<sup>11</sup>

Estimates of personal health care spending are one component of the premium rates charged in the private health insurance market. Over the long run, premiums and spending should be roughly equal. However, in the short term there are cycles when premiums exceed costs in some years and are lower than costs in other years.

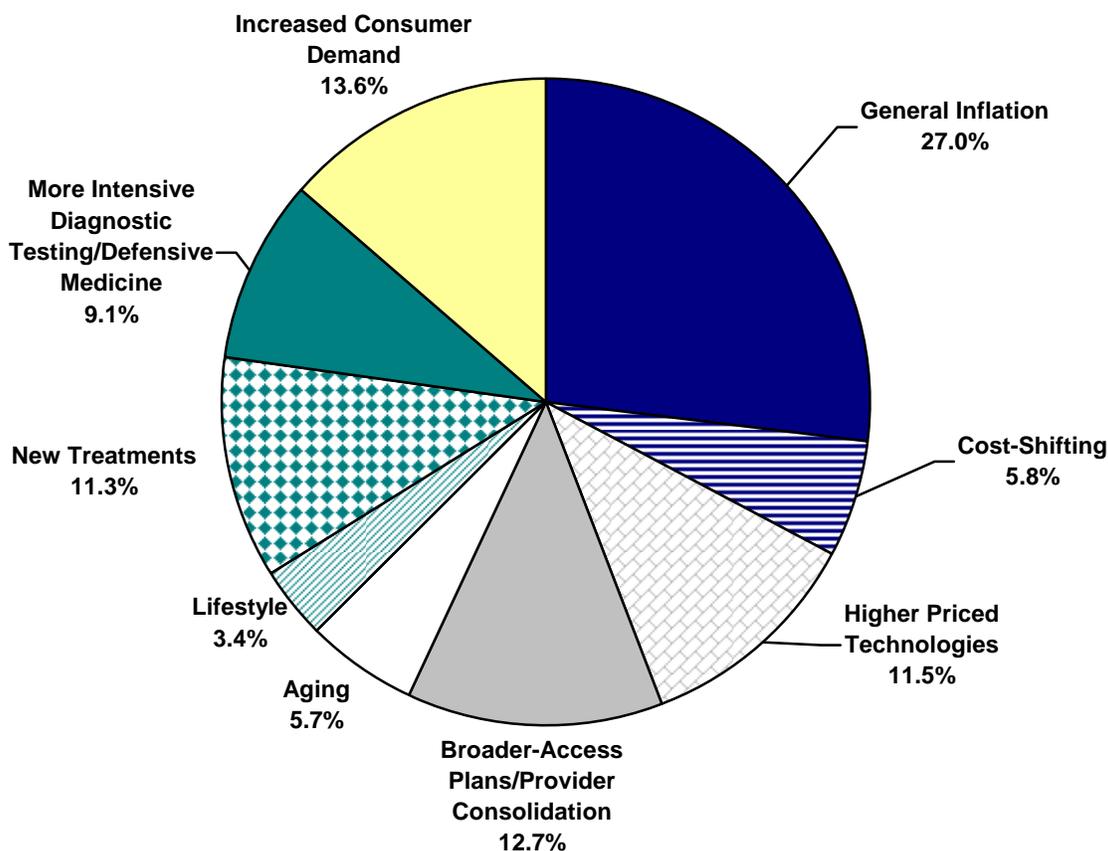
A recent PricewaterhouseCoopers report identified factors driving the 8.8 percent overall premium increase in US private health insurance (2004-2005)<sup>12</sup> as illustrated in figure 5.4.2. These health care spending drivers are affected by the price of goods and services, as measured by general inflation (CPI-U), health care prices in excess of general inflation as measured by CPI for medical services, and service utilization. Service utilization is based on the number and type of medical treatments, diagnostic testing, the aging of the population, and lifestyle choices (See Figure 5.4.3).

**Figure 5.4.2. Factors Contributing to the 8.8 Percent Increase in Insurance Premiums (2004-2005)**



Source: PricewaterhouseCoopers report on "The Factors Fuelling Rising Healthcare Costs 2006." Prepared for America's Health Insurance Plans.<sup>13</sup>

**Figure 5.4.3. Increase in Premium Costs by Component (2005)**



Source: PricewaterhouseCoopers report on “The Factors Fuelling Rising Healthcare Costs 2006. Prepared for America’s Health Insurance Plans.” Available at:

<http://www.pwc.com/extweb/pwcpublishings.nsf/docid/E4C0FC004429297A852571090065A70B>

Notes: Components contributing to the 8.8% increase in premium scaled to 100% to show relative contribution to premium increase. The components—aging, lifestyle, new treatments, more intensive diagnostic testing/defensive medicine, and increased consumer demand, make up increased utilization (3.8%); the components—cost-shifting, higher priced technologies, and broader-access plans/provider consolidation make up the healthcare price increases in excess of inflation component (2.6%). Cost shifting refers to the practice of charging different rates to different patients for the same service.<sup>14</sup> Some payers (primarily private) pay higher rates to make up for losses from other payers (primarily public).

## Drivers of Health Care Spending Growth by Type of Service

In addition to tracking growth in health insurance premiums and underlying costs, we analyzed the drivers of spending growth by type of health care service, considering two key components: (1) the share of total spending accounted for by each health care service type (Table 5.4.1), and (2) the growth of spending for different service types (Figure 5.4.4).

Key summary points include:

- Hospitals and physician services make up almost two-thirds (63.1 percent) of health care spending in Idaho and represent key drivers of health care spending.
- Table 5.4.1 compares the distribution of health care spending by service type for the U.S. and Idaho for 2004. Hospital and physician services make up about two-thirds of spending, at 65.3 percent for the U.S. and 63.1 percent in Idaho.

**Table 5.4.1. Idaho & U.S. PHCE: Distribution of Service Type (2004)**

| Service Type                                     | Service Distribution (2004) |               |
|--|-----------------------------|---------------|
|  | U.S.                        | Idaho         |
| Hospital Care                                    | 36.5%                       | 35.6%         |
| Physician/Clinical & Other Professional Services | 28.8%                       | 27.5%         |
| Dental Services                                  | 5.3%                        | 12.9%         |
| Prescription Drugs                               | 12.2%                       | 8.4%          |
| Durable & Non-durable Medical Equipment          | 3.6%                        | 7.7%          |
| Nursing Home & Home Health Care                  | 10.2%                       | 3.6%          |
| Other Personal Healthcare                        | 3.4%                        | 4.4%          |
| <b>Total</b>                                     | <b>100.0%</b>               | <b>100.0%</b> |

Source: CMS National and State Health Expenditure Account, All Payers 1980-2004. Office of the Actuary, National Health Statistics Group

Notes: Average annual growth rate for U.S. PHCE (2000-2004): 8.0%  
Average annual growth of Idaho PHCE (2000-2004): 9.1%

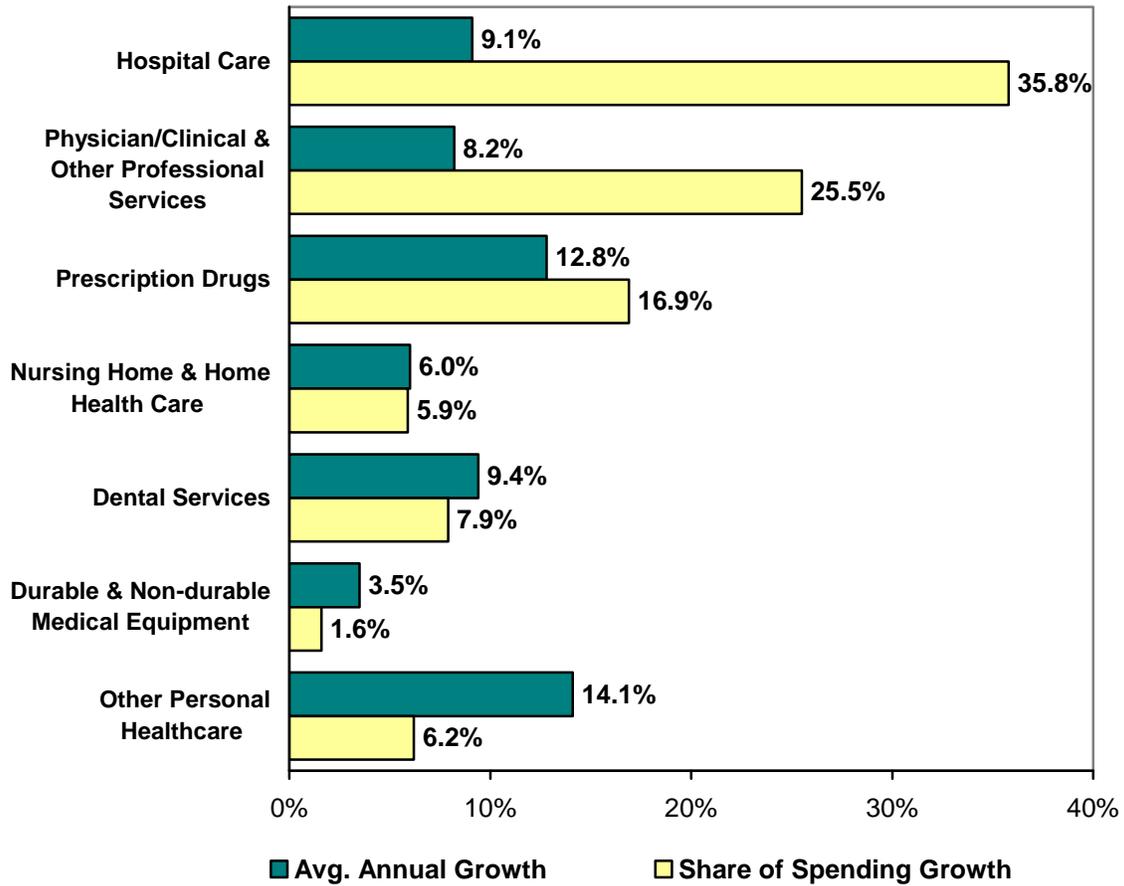
Key Summary points include:

- The fastest growing service type in Idaho between 2000 and 2004 was other personal healthcare-related services (14.1 percent). These service expenditures constitute 4.4 percent of total personal health care dollars in 2004, and contribute 6.2 percent of the share of average annual growth in Idaho's spending.
- Prescription drugs showed the second fastest average annual rate of growth of all other services (12.8 percent between 2000 and 2004). These expenditures represent 8.4 percent of the total personal health care dollars in 2004 and contribute 16.9 percent of the share of average annual growth in Idaho's spending.

Figure 5.4.4 shows the growth rates by service type for 2000-2004 as well the share of total spending growth accounted for by each service type in this time period. In Idaho, the category of other personal healthcare-related services grew the fastest. The category includes Medicaid home- and community-based waiver services, care delivered in non-traditional health care settings (e.g., senior centers or homes), and industrial in-plant services provided by employees.<sup>15</sup> Other personal health care-related services represented only 4.4 percent of total personal health care dollars in 2004, and contributed 6.2 percent of the share of total growth.

Prescription drugs showed the second highest growth rate in this time period with an average of 12.8 percent annually. This represents 8.4 percent of the total spending in 2004, and contributes 16.9 percent to the total spending growth. Spending for these two categories of services outpaced others, but accounted for only 23.1 percent of the total growth in health care spending from 2000 to 2004. Conversely, while the average annual spending increases for hospital and physician services were lower (9.1 and 8.2 percent respectively), these two services accounted for almost two-thirds (61.3 percent) of total spending growth in Idaho in this time period.

**Figure 5.4.4. Idaho's Personal Health Care Expenditures (PHCE): Growth Rates & Shares of Total Growth by Service Type (2000-2004)**



Source: Personal Health Care Expenditures (PHCE), All Payers 1980-2004, CMS Office of the Actuary, National Health Statistics Group. Data are as of February 2007.  
 Notes: Shares of spending growth do not total 100.0%

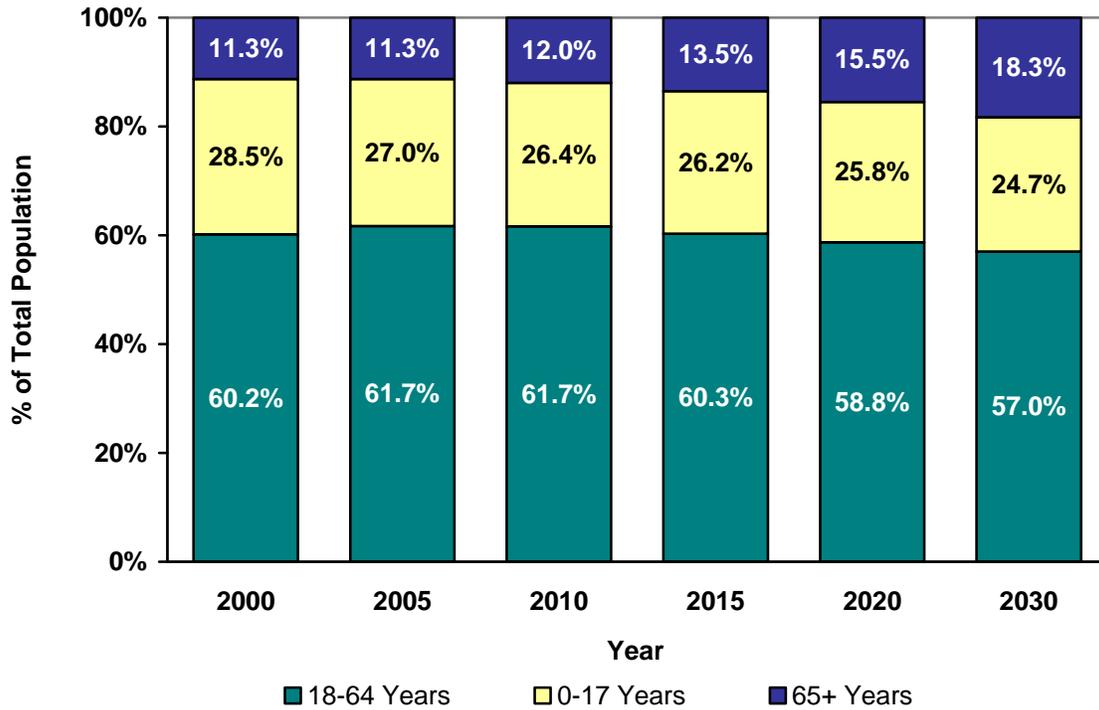
### Other Factors: Aging of the Population

The baby boom generation in Idaho’s population as a whole is getting older, yet the impact of this trend on demand for health care services is still relatively small. The greater impact will be in 2030 when the youngest of the baby boomers reaches age 65. Not surprisingly, average health care cost per person over age 65 was \$14,797 in 2004, 5.6 times more than the costs for children (\$2,650) and 3.3 times the average cost of a working-age adult (\$4,511).<sup>16</sup> Much of these costs will be borne by Medicare and supplemental insurance. The state will be liable for those seniors with incomes low enough to qualify for Medicaid.

Figure 5.4.5 shows the changing distribution of Idaho’s population by age group, with projections through 2030. In 2000, 11.3 percent of Idaho’s population was age 65 and older; by 2030 the proportion is expected to reach 18.3 percent, a 62 percent increase. Both working age

adults (age 18-64) and children (age 0-17) show a decline in their share of the population. The largest decline is among children 17 years and younger; their share of the population is expected to decline from 28.5 percent in 2000 to 24.7 percent by 2030, a decrease of 15.4 percent.

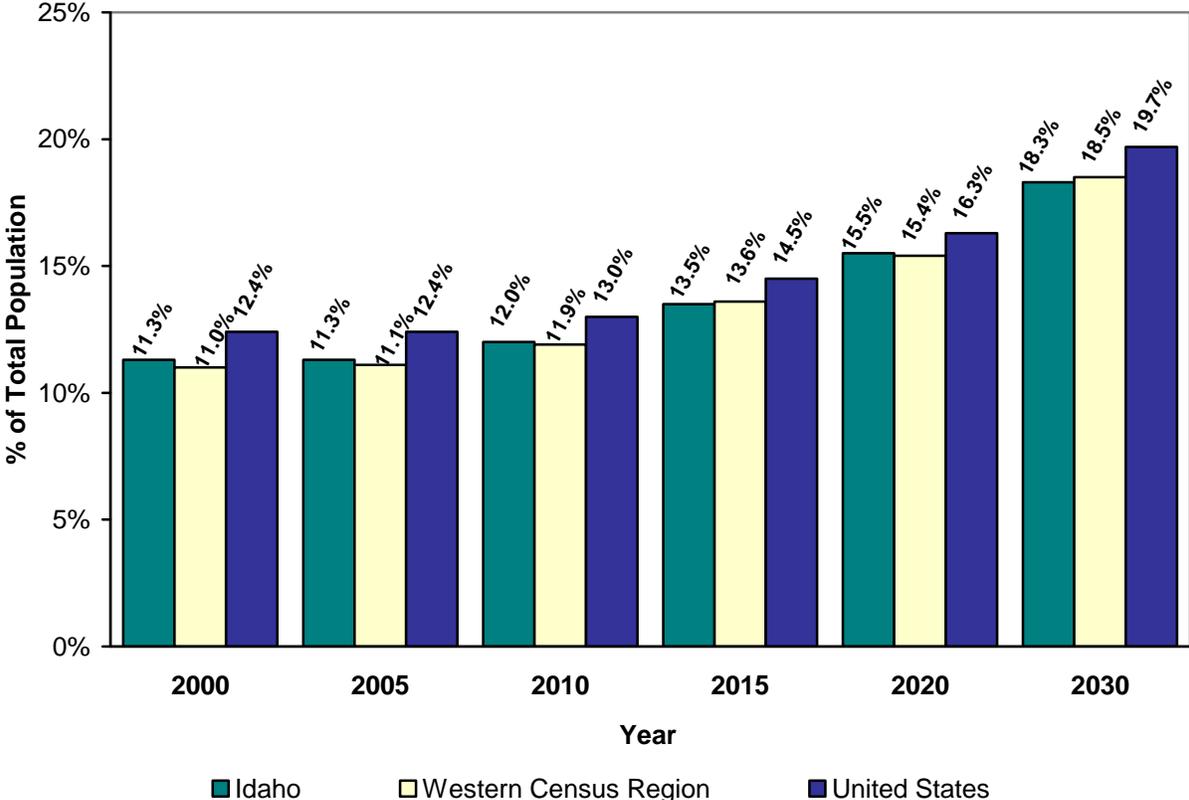
**Figure 5.4.5. Idaho's Age Group Distribution as a Percent of Total Projected Population (2000-2030)**



Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005. Internet release date, April 2005. Projections available at <http://www.census.gov/population/projections/SummaryTabB1.pdf>

Figure 5.4.6 shows trends for the percent of population age 65 and older through the year 2030, comparing Idaho to the Western Census region and the U.S. overall. In general, both Idaho and the Western Census region have a smaller proportion of elderly population than the U.S. as a whole. Idaho's proportion of population age 65 and older varies just slightly from the Western Census region proportions for all projections.

**Figure 5.4.6. Percent Distribution of Projected Population of Age 65 Years and Older for Idaho, U.S. and the West Census Region (2000-2030)**



Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005. Internet release date, April 2005. Projections available at <http://www.census.gov/population/projections/SummaryTabB1.pdf>

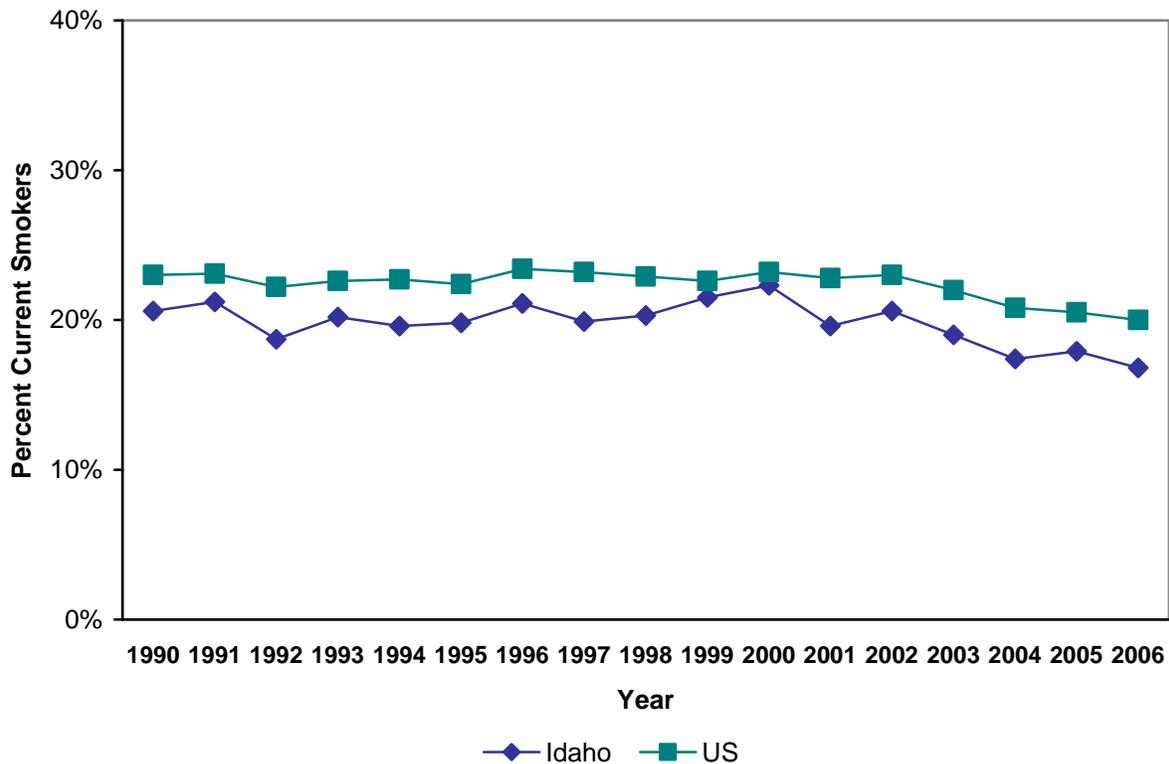
Notes: Western Census region consists of: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming

## Other Factors: Smoking and Obesity

Lifestyle factors such as smoking rates and obesity may influence the use of health care services and potentially increase health care spending over time. According to the recently released United Health Foundation report, America's Health Rankings™, there are several strengths and challenges that Idaho faces with respect to smoking and obesity rates.<sup>17</sup>

On the positive side, Idaho showed a reduced level of smoking, from 20.6 percent of the population in 1990 to 16.8 percent in 2006. Idaho ranked third among states in the U.S. in having the lowest smoking rate.<sup>18</sup> Figure 5.4.7 illustrates Idaho's rate of adult smokers between 1990 and 2006, showing a consistent decline since the year 2000. Over the years, Idaho's rate has been consistently lower than the national average. This is an important policy issue as health care costs for smokers are as much as 40 percent higher than for non-smokers,<sup>19</sup> and the annual cost of smoking can range between 6 and 14 percent of personal health care expenditures.<sup>20</sup>

**Figure 5.4.7. Current Adult Smoker Trends for Idaho and the U.S. (1990-2006)**



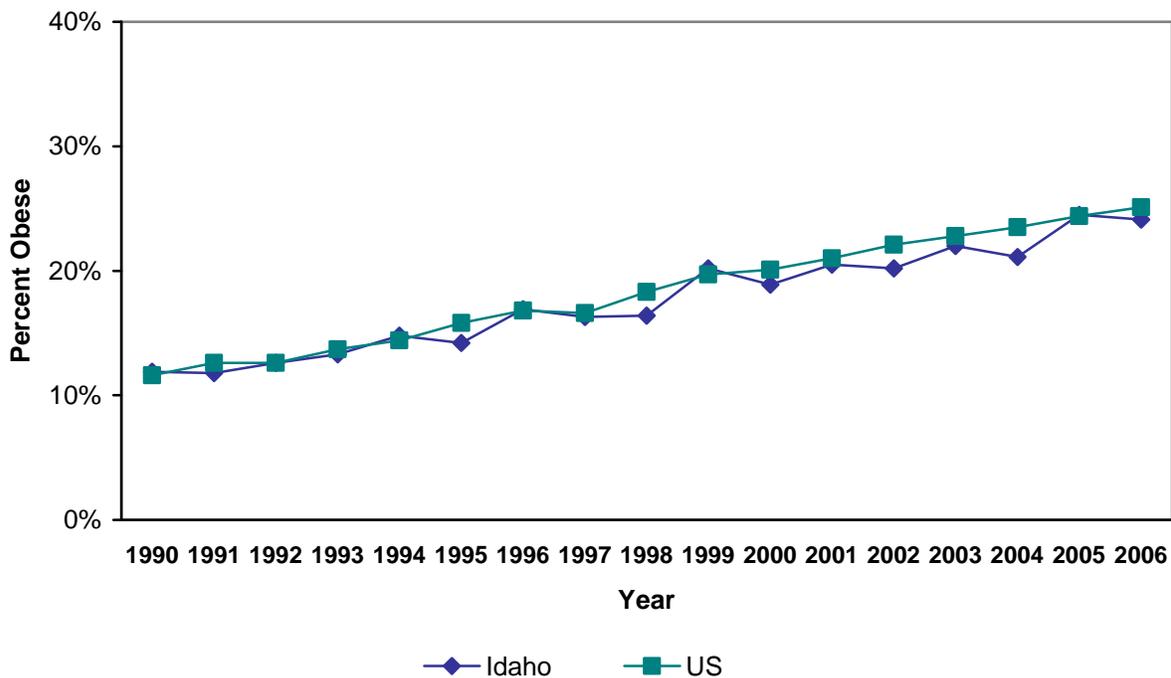
Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services 1990-2006

Notes: Data are based on all respondents 18 and older who have ever smoked 100 cigarettes in their lifetime and reported smoking every day or some days.

One of the public health challenges for Idaho and the nation as a whole is the increased rate of obesity. Figure 5.4.8 shows the rate of obesity (self-reported body mass index, or BMI, greater than 30.0) between 1990 and 2006. Obesity is measured by BMI, which is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems. An adult who has a BMI between 25 and 29.9 is considered overweight; an adult who has a BMI of 30 or higher is considered obese.<sup>21</sup>

Idaho's prevalence of obesity is 24.1 percent of the adult population, and is slightly lower than the national average of 25.1 percent. Being overweight or obese is associated with higher health care costs. It has been estimated that obesity-related health spending accounted for 27 percent of inflation-adjusted per capita health spending in the U.S. This estimate includes 41 percent of the rise in health care spending for heart disease spending and 38 percent for diabetes-related health care.<sup>22</sup>

**Figure 5.4.8. Adult Obesity Trends for Idaho and the U.S. (1990-2006)**



Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey (BRFSS) Data. Atlanta, Georgia: U.S. Department of Health and Human Services, 1990-2003, 2005-06. Data for 2004 is from the Idaho Report on "Behavioral Risk Factors: Results From the 2005 Behavioral Risk Factor Surveillance System." Boise: Idaho Department of Health and Welfare, Division of Health, Bureau of Health Policy and Vital Statistics, 2006. Available at: <http://www.healthandwelfare.idaho.gov/>

Notes: Obesity data for U.S. was unavailable from CDC, BRFSS for 2002 and 2003. These were estimated by SHADAC. Obesity data are based on respondents that self-report their BMI as greater than 30.0. BMI is defined as weight in kilograms divided by height in meters squared ( $w/h^{**2}$ ).

## Additional Factors to Consider

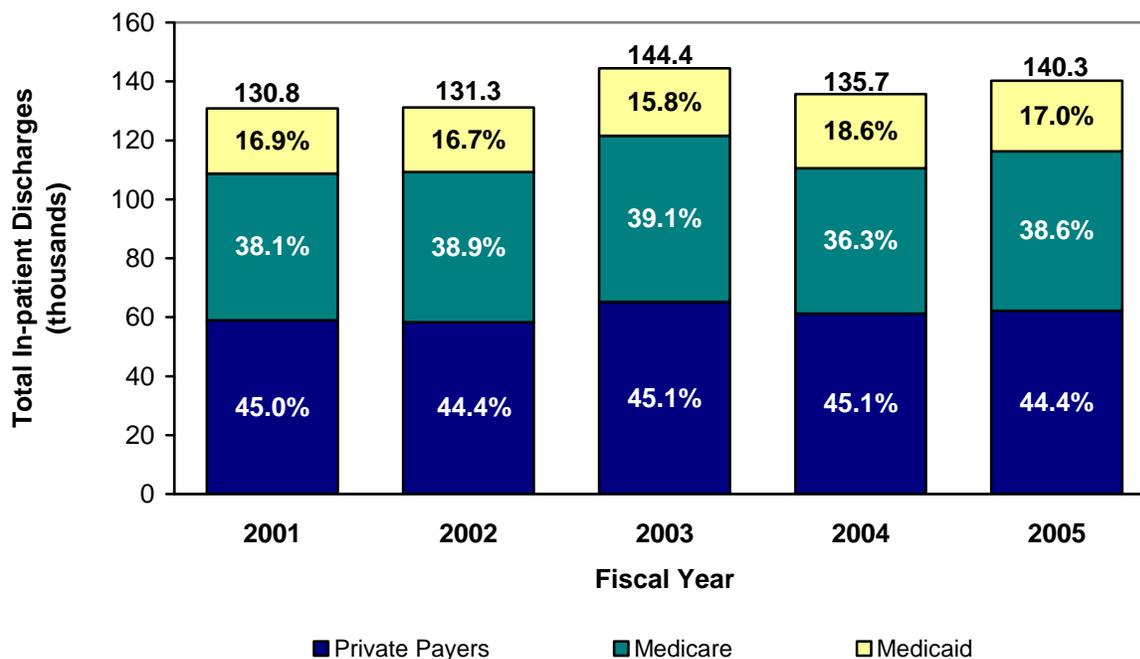
Other market factors that contribute to the trends in health care spending include the increase in the use of hospital services and procedures, consolidation of the payer and provider markets, and the development and capitalization of new products and facilities. Each will be discussed in turn.

### 1. Continued Increases in Inpatient Hospital Services

Hospital discharges in Idaho increased, growing from 130,822 in 2001 to 140,229 in 2005, a 7.2 percent increase. Idaho's population increased 8.2 percent in this same time frame, and per capita discharges increased from 0.098 in 2001 to 0.099 in 2005. As noted previously, hospital care is one of the key drivers of healthcare spending, making up over one-third of Idaho's annual healthcare spending. Any increase in hospital use and costs will impact the overall healthcare spending in Idaho.

As shown in Figure 5.4.9, the distribution across payers remains generally consistent, with an average of 44.8 percent of hospital discharges attributed to private payers, 38.2 percent to Medicare and 17.0 percent to Medicaid (averages across all years from 2001 to 2005). Note that these data do not distinguish more complex cases from simpler inpatient cases, such as a normal birth delivery. In states that have a hospital discharge data set, additional analysis of inpatient stays and their cost and outcomes is possible.

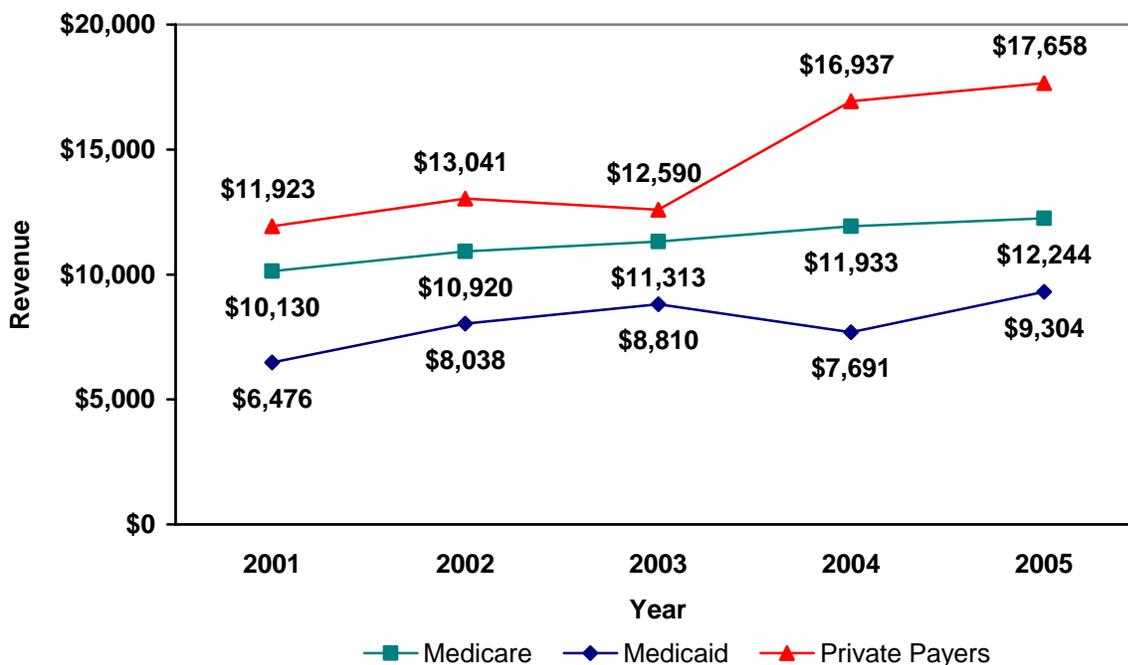
**Figure 5.4.9. Trends in Idaho Inpatient Hospital Discharges by Payer (2001-2005)**



Source: AHA Annual Survey Database. Health Forum LLC, an affiliate of the American Hospital Association, 2007. Data compiled by AHA analyst upon request.

We also find a consistent growth in the net hospital revenue per discharge. Figure 5.4.10 shows the increase in net Idaho hospital revenue by payer for 2001 and 2005. Medicare-related net hospital revenue per discharge has been growing steadily; however, Medicaid-related revenue per discharge decreased in 2004 but is on the increase again. Private payer revenue has grown the fastest from 2003 through 2005.

**Figure 5.4.10. Idaho's Net Hospital Revenue per Discharge by Payer (2001-2005)**



Source: Net revenue and discharge data are from the AHA Annual Survey Database. Health Forum LLC, an affiliate of the American Hospital Association, 2007.

## 2. Generally Unregulated and Consolidated Markets

Idaho has two primary health insurance plans, Regence Blue Shield and Blue Cross of Idaho, which enroll approximately 96.5 percent of the private individual and group market in the state.<sup>2</sup> Additionally, many of the plans offered are open-access plans with a broad array of providers, minimizing the ability to modify utilization or practice patterns to achieve both efficiency as well as quality care. Broader networks and consolidated markets reduce the amount of competition in the system.<sup>23</sup>

While Idaho does have some regulatory oversight of private health insurance premiums, there are few mandated benefits and a relatively broad range in its use of rate bands. For example, Idaho does not have any mental health parity rules, continuity of care requirements, or colorectal/prostate cancer screening requirements. Rate bands limit how much insurers can vary premiums for each policyholder based on health and claims of the policyholder. These

limits force insurers to spread some risk more broadly across all policyholders. The extent to which premiums can vary under rate bands depends on the size of the rate band permitted. Idaho allows a band on +/- 50 percent for health, age defined (compared to the National Association of Insurance Commissioners model act of +/-26 percent) and for renewal up to 15 percent for claims, health, and duration.<sup>24</sup>

### 3. Increased Spending on Capital and Technology

We also looked at the area of capital expansion and the increased use of technology, both of which have been shown by national studies to contribute to increased utilization and higher health care spending. In general, technological advances have been considered worthwhile in terms of benefits that exceed costs. However, there are pervasive problems. Opportunities to prevent the need for high-tech interventions are often missed, including overuse, misuse, and underuse of care.<sup>25</sup>

Expanding hospital and ambulatory facility capacity may be associated with increased costs.<sup>26</sup> One national report showed that \$22 billion in new hospital and other facility construction was underway at the end of 2005.<sup>27</sup> While the State of Idaho does not collect data on or regulate capital spending in the health care arena, there is some information on facility construction and expansion drawn from recent newspaper articles and provider system web sites. Table 5.4.2 presents a list of facility projects in Idaho. This is not an exhaustive list but an attempt to highlight the number and type of capital projects underway in Idaho, as these projects contribute to overall health care expenditures in the state.

**Table 5.4.2. Major Health Facilities Construction Projects in Idaho**

| Organization                                  | City          | Project   | Estimated Investment | Completion Date                                |
|---|---------------|---|----------------------|--|
| Portneuf Medical Center (PMC)                 | Pocatello     | New hospital  | \$150.0 million      |  |
| St. Alphonsus                                 | Boise         | Center for Advanced Healing (hospital tower)  | \$161.2 million      | November 2007                                  |
| St. Alphonsus                                 | Boise         | Hospital expansions: maternity, cancer care, NICU   | \$17.5 million       | 2006   |
| St. Alphonsus                                 | Boise         | Eagle Health Plaza (free-standing emergency dept., primary care, imaging, vision, physicians offices, outpatient surgery) | \$17.0 million       |  |
| West Valley Medical Center                    | Caldwell      | Emergency department expansion  |                      |  |
| Walter Knox Memorial Hospital                 | Emmett        | Hospital expansion  | \$6.0 million        | 2005   |
| Mercy Medical Center                          | Nampa         | Hospital expansion  |                      |  |
| St. Luke's Idaho Elks Rehabilitation Services | Boise         | Two new clinics   |                      | 2007   |
| Kootenai Medical Center                       | Coeur d'Alene | Post Falls cancer center  | \$3.0 million        | Deferred, possibly in favor of larger facility |

Source: A. Baumgarten (2007) consultant analysis.

## 5.5. ADMINISTRATION EXPENDITURES

This section presents health care administration expenditures for key public programs and the private insurance market in Idaho reported as part of Tasks 1 and 2.<sup>1,2</sup> Health care administration expenditures generally represent the transaction costs incurred in exchanging the information and resources necessary to provide health care services. These are incurred by private and public insurers, physicians, hospitals, employers, and government regulatory agencies.

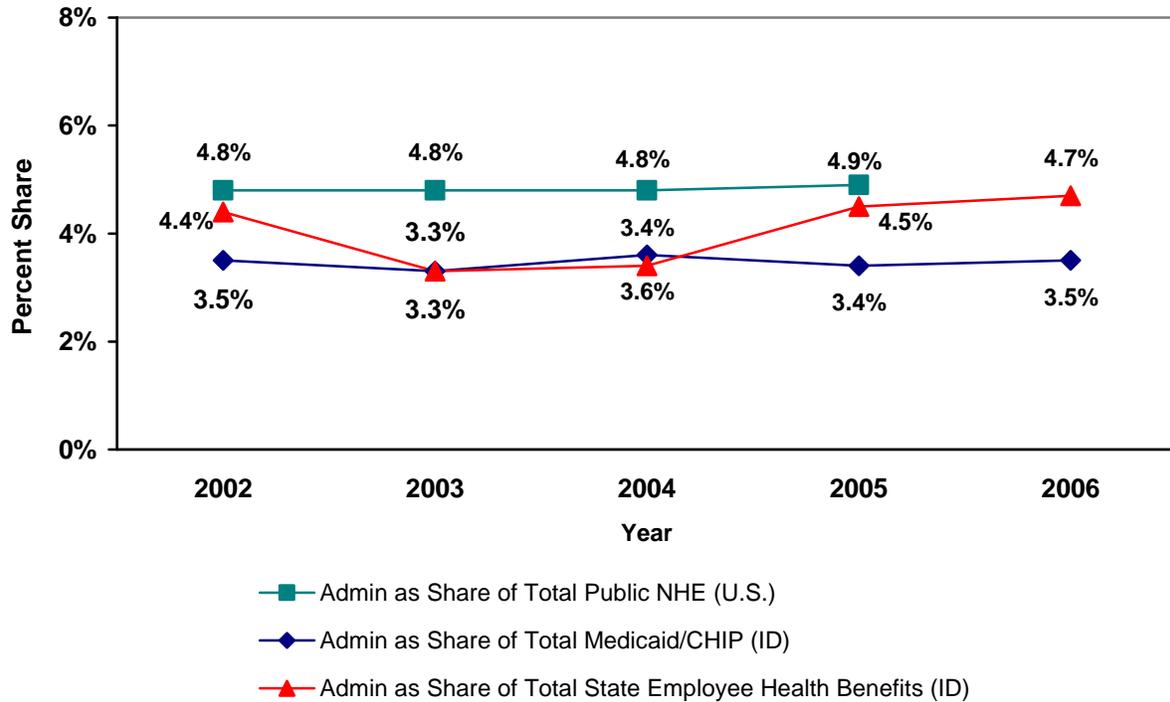
### Public Program Administration Expenditures

The share of administration expenditures for Idaho's key public programs – such as Medicaid/CHIP and the state employee health benefits – is compared to the distribution of public administration expenses at the national level. National data are available from the CMS National Health Expenditure Accounts (NHEA) and are summarized in Figure 5.5.1.

### Highlights

- Idaho's administration expenditures for Medicaid/CHIP programs were consistently low, ranging from 3.3 to 3.6 percent of total health care spending during the 2002 to 2006 reporting years. Spending for the state employee health benefits program had more variation but was also low, ranging from 3.3 to 4.7 percent.
- Idaho's administration expenditures for public programs have tracked consistently below the national average. The national average increased from 4.8 percent in 2002 to 4.9 percent in 2005, compared to Idaho's administration range of 3.3 to 3.6 percent.
- Idaho's administration expenditures for public programs have been a consistent percent of total program health spending over time. In 2006, there was a slight increase in administration expenses for Medicaid/CHIP (3.5 percent) and in state employee health benefits (4.7 percent).

**Figure 5.5.1. Share of Administration Expenditures for Total Public National Health Expenditures, Idaho’s Medicaid/CHIP Program, and Idaho’s State Employee Health Benefits**



Source: Administration expenditures as the share of total public national health care expenditure was from the CMS National Health Expenditures Table 3: by Source of Funds and Type of Expenditure: CY 2000-2005. Available at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/tables.pdf> Data for Idaho’s Medicaid/CHIP program was provided by the Idaho Dept. of Health and Welfare, Division of Management Services. Data for Idaho’s state employee health benefits program was provided by the Idaho Dept. of Administration.

Notes: At the national level, share of public administration costs were calculated based on the National Health Expenditures which include health services and supplies and investment expenses. These include federal, and state and local costs.

## Private Administrative Costs

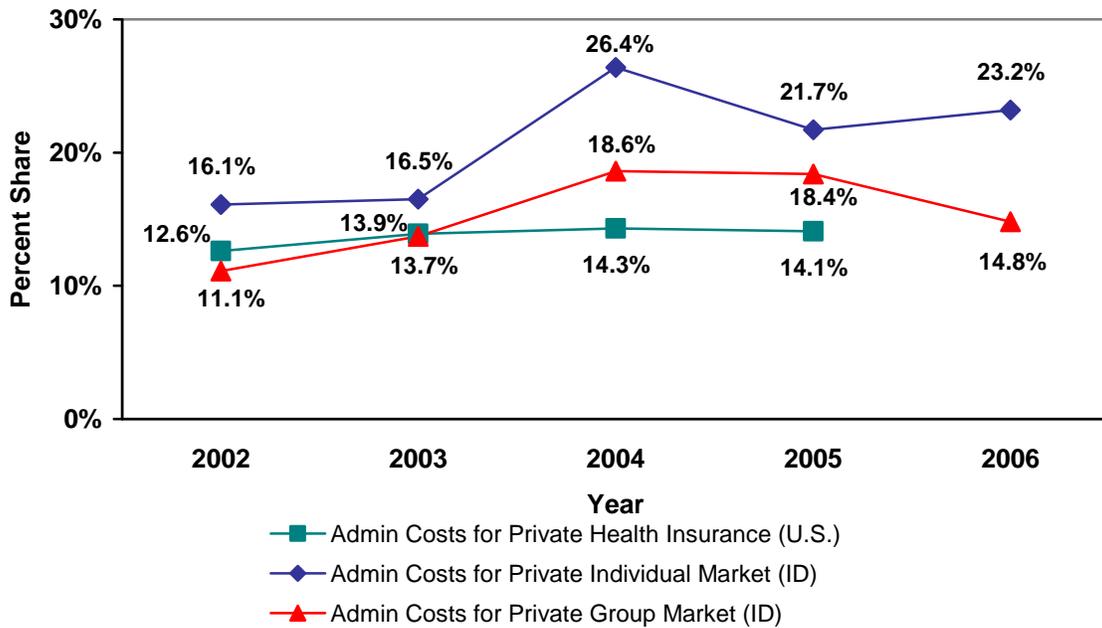
Administrative costs in the private health insurance market are defined differently than for the public market, primarily because marketing and underwriting expenses are also included. In this section we compare the share of administration expenditures for private payers. The share of net cost of private health insurance (which includes administration expenditures)<sup>28</sup> at the national level is compared to the individual and the group net cost of private health insurance in Idaho (which also include administration expenditures). These trends are summarized in Figure 5.5.2.

## Highlights

- The net cost of private health insurance (including administration expenditures) in Idaho's *individual* market was higher for all years as compared to the U.S. Idaho's costs ranged from 16.1 percent in 2002 to 21.7 percent in 2005. The U.S. costs ranged from 12.6 percent in 2002 to 14.1 percent in 2005.
- The net cost of private health insurance (including administration expenditures) in Idaho's *group* market was lower in 2002 (11.1 percent) compared to the U.S. (12.6 percent). This net cost for the group market was about the same as the U.S. in 2003 (13.7 percent for Idaho and 13.9 percent for the U.S.). In 2004 and 2005 Idaho's group market costs were higher (18.6 and 18.4 percent, respectively) compared to the U.S. (14.3 and 14.1 percent, respectively).
- In Idaho, the net cost of private health insurance (including administration expenditures) in the individual market was higher in all years compared to the group market. The individual market ranged from 16.1 percent in 2002 to 23.2 percent in 2006. The group market ranged from 11.1 percent 2002 to 14.8 percent in 2006.

As shown in Figure 5.5.2, the net cost of private health insurance (which includes administration costs) at the national level grew consistently from 12.6 percent in 2002 to 14.1 percent in 2005, and in all years was higher than the public national administration cost share (see Figure 5.5.1 above). The net cost of private health insurance in Idaho (which includes administration costs) increased in 2004 to 26.4 percent in the individual market and 18.6 percent in the group market. Since then, these costs decreased in 2005 (21.7 percent) and were on the increase again in 2006 (23.2 percent) in Idaho's individual market. Costs in the group market appear to be tapered, decreasing to 14.8 percent in 2006.

**Figure 5.5.2. Share of Administration Costs of the Private Health Insurance for U.S. NHE, Idaho's Private Individual and Group Markets**



Source: Administration costs as the share of total private national health insurance, health services and supplies is from the CMS National Health Expenditures Table 3: by Source of Funds and Type of Expenditure: CY 2000-2005. Available at

<http://www.cms.hhs.gov/NationalHealthExpendData/downloads/tables.pdf>

Data for Idaho's private individual and group market is from the annual statements and supplemental data provided by Blue Cross of Idaho and Regence Blue Shield of Idaho.

Notes: These data refer to the net cost of private health insurance which include among other things, administration costs.<sup>29</sup>

## 5.6. MEDICAL PROCEDURE PROFILE

For this section of our analysis on medical procedures and regional health care service utilization within Idaho, we refer to the Dartmouth Atlas of Health Care.<sup>30</sup> The Atlas includes summary statistics on recent utilization and spending for Medicare patients (in this case, for the year 2003). It also provides hospital and intensive care use for the last two years of life for beneficiaries who died in that year. Data are available at the state, regional and hospital service area (HSA) levels. HSAs represent the local health care markets for community-based inpatient care. For this report data were generated for eight Idaho HSAs: Boise, Caldwell, Coeur D'Alene, Idaho Falls, Lewiston, Nampa, Pocatello, and Twin Falls.<sup>31</sup> The data are adjusted for age, race, and sex of individuals for more accurate comparisons. This is a unique data set providing an important assessment of variations for a select set of procedures.

The Dartmouth Atlas Project considers three different causes for variation in hospital medical care use.<sup>32</sup> The first is called "underuse of effective care" and refers to types of care that have been more clearly proven to be beneficial to patients. The second category is "misuse of preference-sensitive care" and refers to care in which the patient decides which type of treatment he or she prefers. When rates for this type of care vary greater than patient preferences themselves, it is presumed that one explanation could be physician practice style differences. The third category is the "overuse of supply-sensitive care" and refers to care that is likely only to be used when there is excess supply available. Currently, only the second and third categories can be evaluated using publicly-available data.

We use these data to present 1) within state regional variation in health care expenditures and 2) Idaho expenditures compared to its six neighboring states. The final component of this section provides comparative data for utilization of prescription drugs per capita comparing Idaho with the other states and the U.S. average.

## Overview

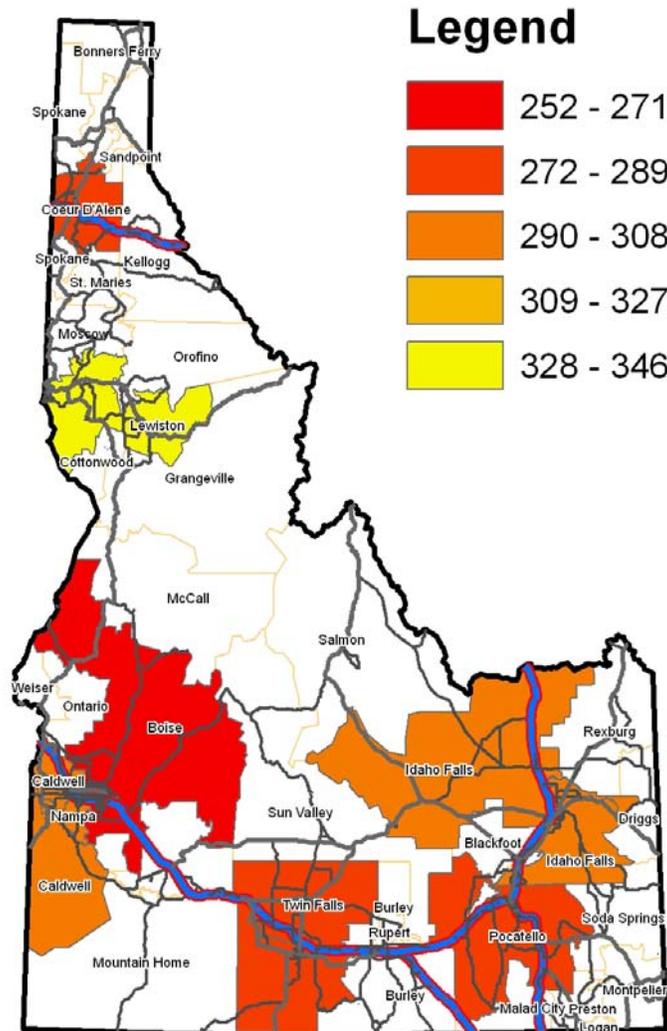
A report by the Center for Evaluative Clinical Studies at the Dartmouth Medical School presents information on Medicare enrollees with severe chronic conditions in their last two years of life at the national level.<sup>33</sup> According to the report, Idaho Medicare costs for the last two years of life are well below the national average, suggesting a lower cost and lower utilization per Medicare beneficiary in Idaho. Based on the ratio of rates of Medicare inpatient and Part B spending for Medicare beneficiaries in their last two years of life to the U.S. average, for example, Idaho is represented in the lowest category, between 81 and 85 percent, for 2000-2003.

Idaho's lower rate of Medicare costs can be partly attributed to the greater use of primary care physicians compared to specialists and lower utilization of physicians in general. Idaho has the fourth highest ratio of primary care to medical specialists, at 1.29 compared to the national average of 1.04. Idaho's primary to specialty care ratio is higher than five of its neighboring states. Wyoming is the only neighboring state with a higher ratio, at 1.49. Neighboring states with lower ratios include Oregon (1.27), Montana (1.24), Washington (1.07), Utah (0.98), and Nevada (0.77). Finally, according to the Center for Evaluative Clinical Sciences report, based on the number of physician visits to Medicare beneficiaries in the last six months of life, Idaho has one of the lowest rates, at 18.1 visits per beneficiary, compared to the high of more than 34 visits in California, District of Columbia, Florida, and Hawaii. The national average was 29.0 visits. It is interesting to note that the geographically larger and less densely populated states have lower physician visits in general.

### Within-State Variation Utilization of Procedures

We found variation when assessing specific procedures for Medicare beneficiaries for Idaho overall and for specific Hospital Services Areas (HSAs) within the state. Figure 5.6.1 provides the HSAs by discharge rate per 1,000 Medicare beneficiaries.

**Figure 5.6.1. Idaho's Discharge Rate (per 1,000 Medicare Beneficiaries) for Non-Suppressed HSAs (2003)**



Source: The Dartmouth Atlas of Health Care, 2007. Discharge rates for 2003 generated using the Dartmouth Atlas Data Tables by SHADAC. Available at [http://cecsweb.dartmouth.edu/release1.1/datatools/datafb\\_s1.php](http://cecsweb.dartmouth.edu/release1.1/datatools/datafb_s1.php)

While, for most procedures identified, Idaho has lower rates than the national average, there are six hospital procedures in which the rates of discharge per 1,000 Medicare beneficiaries were greater than the national average. Table 5.6.1 provides the national and Idaho average discharge rates and presents the ratio of Idaho's rate to national average. For all medical discharges, Idaho's ratio to the nation is 0.76. Idaho's surgical procedure rate is much closer to the national average with a ratio of 0.99. The combined ratio (medical and surgical discharges) for Idaho is 0.83.

The procedures for which Idaho had higher utilization ratios compared to the nation include: angina (1.22); cholecystectomy (1.13)<sup>34</sup>; hip replacement (1.44); knee replacement (1.44); transurethral resection of the prostate for benign prostatic hyperplasia, or TURP for BHP (1.27)<sup>35</sup>; and back surgery (1.74).

The Lewiston Health Service Area, which had the lowest hospital discharge rate per 1,000 population, also had the highest number of procedures. Utilization was greater than both the state and national average in 2003. Table 5.6.1 provides the ratio of each identifiable Health Service Area in Idaho to the Idaho state average of discharges per 1,000 population per procedure in 2003. The procedures and discharges in Lewiston with high utilization and the ratio compared to the state average include: medical back problems (2.02), syncope and collapse (1.87), dehydration (1.63), chest pain (1.53), chronic obstructive pulmonary disease, or COPD (1.49), hip fracture repair (1.49), knee replacement (1.42), cholecystectomy (1.38), back surgery (1.36), septicemia (1.30), kidney/urinary infections (1.27), nutritional and metabolic disorders (1.27), high variation medical discharge (1.24), ambulatory sensitive conditions (1.21), discharges excluding ambulatory sensitive conditions (1.21), and hip replacement (1.20).

Idaho Falls and Pocatello HSAs also had a higher ratio of medical discharges compared to the state, at 1.04 and 1.03, respectively. Boise HSA had a much lower ratio, at 0.83. Assessing only surgical discharges, HSAs with higher ratios include Lewiston (1.19), Nampa (1.12), Idaho Falls (1.10), and Caldwell (1.06).

**Table 5.6.1. Ratio of Procedure Rate in Idaho HSAs Compared to U.S. & Idaho State Average (2003)**

| Procedure (Rates per 1000 Medicare enrollees 2003) | National Average | Idaho State Average | Idaho /Nation | Boise /State | Caldwell /State | Coeur D'Alene /State | Idaho Falls /State | Lewiston /State | Nampa /State | Pocatello /State | Twin Falls /State |
|--|------------------|---------------------|---------------|--------------|-----------------|----------------------|--------------------|-----------------|--------------|------------------|-------------------|
| <b>All Medical Discharges</b>                      | <b>244.86</b>    | <b>185.99</b>       | <b>0.76</b>   | <b>0.83</b>  | <b>1.00</b>     | <b>1.00</b>          | <b>1.04</b>        | <b>1.21</b>     | <b>0.96</b>  | <b>1.03</b>      | <b>0.99</b>       |
| High Variation Medical Discharges                  | 216.88           | 164.22              | 0.76          | 0.82         | 0.97            | 0.98                 | 1.05               | 1.24            | 0.96         | 1.04             | 0.99              |
| Medical Discharges Excluding ACS Events            | 167.81           | 127.90              | 0.76          | 0.84         | 1.02            | 0.99                 | 1.03               | 1.21            | 1.00         | 1.00             | 0.98              |
| ACS Conditions                                     | 79.58            | 59.39               | 0.75          | 0.79         | 0.94            | 1.00                 | 1.10               | 1.21            | 0.89         | 1.08             | 1.04              |
| Low/Mod. Variation Medical                         | 27.98            | 21.77               | 0.78          | 0.86         | 1.17            | 1.13                 | 0.97               | 1.01            | 0.95         | 0.94             | 1.02              |
| Congestive Heart Failure                           | 22.90            | 14.62               | 0.64          | 0.87         | 1.09            | 1.04                 | 0.97               | 1.06            | 0.89         | 1.13             | 0.89              |
| Bacterial Pneumonia                                | 19.33            | 18.70               | 0.97          | 0.71         | 0.88            | 1.06                 | 1.23               | 1.10            | 1.05         | 0.96             | 1.11              |
| COPD Discharges                                    | 10.92            | 7.42                | 0.68          | 0.89         | 1.19            | 0.90                 | 0.97               | 1.49            | 0.68         | 1.02             | 1.23              |
| Gastro-Intestinal Hemorrhage                       | 9.33             | 8.03                | 0.86          | 0.89         | 0.98            | 0.97                 | 1.08               | 1.07            | 0.81         | 1.14             | 1.20              |
| Nutritional and Metabolic                          | 9.29             | 6.63                | 0.71          | 1.03         | 0.83            | 0.62                 | 0.88               | 1.27            | 0.77         | 1.22             | 1.00              |
| Cardiac Arrhythmia                                 | 9.28             | 7.89                | 0.85          | 0.71         | 0.76            | 1.15                 | 0.76               | 1.30            | 1.41         | 1.32             | 0.98              |
| Acute Myocardial Infarction                        | 8.44             | 5.54                | 0.66          | 0.69         | 1.49            | 1.20                 | 0.65               | 1.12            | 1.29         | 0.84             | 1.07              |
| Cerebrovasc. Disorders (ex. TIA)                   | 7.56             | 6.02                | 0.80          | 1.03         | 1.05            | 1.64                 | 1.10               | 1.01            | 1.04         | 0.67             | 0.72              |
| Kidney/Urinary Infection                           | 7.51             | 5.62                | 0.75          | 0.83         | 0.92            | 0.97                 | 1.23               | 1.27            | 0.83         | 1.32             | 1.05              |
| Chest Pain   | 6.59             | 5.36                | 0.81          | 0.50         | 1.02            | 1.02                 | 1.13               | 1.53            | 1.02         | 1.09             | 0.90              |
| Septicemia   | 6.37             | 3.25                | 0.51          | 0.88         | 1.21            | 0.88                 | 1.36               | 1.30            | 0.75         | 1.17             | 0.96              |
| Dehydration  | 6.00             | 3.74                | 0.62          | 0.94         | 0.76            | 0.72                 | 0.87               | 1.63            | 0.71         | 1.14             | 0.78              |
| Respiratory Infections                             | 5.61             | 3.53                | 0.63          | 0.95         | 1.30            | 0.98                 | 0.67               | 1.87            | 1.66         | 0.92             | 0.78              |
| Syncope and Collapse                               | 5.42             | 2.80                | 0.52          | 0.72         | 0.75            | 1.34                 | 1.05               | 1.08            | 1.05         | 1.16             | 0.99              |
| Gastro-Intestinal Obstruction                      | 3.60             | 3.30                | 0.92          | 0.76         | 0.66            | 1.03                 | 1.00               |                 |              | 1.11             | 1.00              |
| Cellulitis   | 3.08             | 1.75                | 0.57          | 0.64         | 1.01            | 1.50                 |                    |                 |              |                  | 1.07              |
| Medical Back Problems                              | 3.07             | 2.71                | 0.88          | 1.05         |                 | 0.43                 | 1.10               | 2.02            |              |                  | 1.29              |
| Pleural Effusion and Respiratory                   | 2.79             | 2.04                | 0.73          | 1.07         |                 | 1.63                 | 0.68               |                 |              |                  | 0.75              |
| Transient Ischemic Attack                          | 2.65             | 2.21                | 0.83          | 0.71         |                 |                      | 1.06               |                 |              |                  | 1.08              |
| Diabetes   | 2.34             | 1.43                | 0.61          | 0.52         |                 | 0.73                 |                    |                 |              |                  |                   |
| Asthma   | 2.30             | 1.86                | 0.81          | 0.80         |                 | 1.21                 |                    |                 |              |                  |                   |
| Respiratory Neoplasms                              | 2.07             | 1.48                | 0.71          | 1.26         |                 | 1.07                 |                    |                 |              |                  |                   |
| Seizure and Headache                               | 1.83             | 1.07                | 0.58          | 0.93         |                 |                      |                    |                 |              |                  |                   |
| Convulsions  | 1.38             | 0.81                | 0.59          | 0.90         |                 |                      |                    |                 |              |                  |                   |
| Biliary Tract Disorders                            | 1.38             | 1.21                | 0.88          | 0.67         |                 |                      |                    |                 |              |                  |                   |
| Gastroenteritis                                    | 1.36             | 0.98                | 0.72          | 0.65         |                 |                      |                    |                 |              |                  |                   |
| Hypertension                                       | 1.30             | 0.78                | 0.60          | 0.72         |                 |                      |                    |                 |              |                  |                   |
| Angina   | 1.16             | 1.41                | 1.22          |              |                 |                      |                    |                 |              |                  |                   |
| <b>All Surgical Discharges</b>                     | <b>102.12</b>    | <b>100.84</b>       | <b>0.99</b>   | <b>0.96</b>  | <b>1.06</b>     | <b>0.90</b>          | <b>1.10</b>        | <b>1.19</b>     | <b>1.12</b>  | <b>0.90</b>      | <b>1.02</b>       |
| Coronary Angiography                               | 22.77            | 16.20               | 0.71          | 1.01         | 0.92            | 0.97                 | 1.25               | 0.91            | 1.19         | 0.94             | 0.85              |
| Percutaneous Coronary Interventions                | 11.27            | 8.46                | 0.75          | 1.16         | 1.02            | 0.93                 | 1.05               | 0.78            | 1.28         | 0.93             | 0.69              |
| Hip Fracture Repair                                | 7.53             | 6.76                | 0.90          | 0.88         | 1.22            | 1.03                 | 0.92               | 1.49            | 0.99         | 1.08             | 0.88              |
| Knee Replacement                                   | 6.88             | 9.92                | 1.44          | 0.97         | 0.86            | 0.81                 | 0.89               | 1.42            | 1.15         | 0.98             | 0.98              |
| TURP for BPH per 1,000 Male Medicare Enrollees     | 5.23             | 6.62                | 1.27          | 0.52         |                 | 0.92                 | 1.47               |                 |              |                  | 0.94              |
| Coronary Artery Bypass Grafting (CABG)             | 5.18             | 3.94                | 0.76          | 0.69         | 0.84            | 1.61                 | 1.04               | 1.10            | 0.75         | 0.84             | 0.90              |
| Cholecystectomy                                    | 4.29             | 4.83                | 1.13          | 0.67         |                 | 0.74                 | 1.67               | 1.38            | 1.07         | 0.99             | 1.13              |
| Back Surgery                                       | 4.02             | 7.00                | 1.74          | 1.04         |                 | 0.62                 | 1.24               | 1.36            | 1.28         | 0.63             | 1.03              |
| Hip Replacement                                    | 3.18             | 4.59                | 1.44          | 1.05         |                 | 0.76                 | 0.90               | 1.20            |              | 1.07             | 1.24              |
| Carotid Endarterectomy                             | 3.02             | 1.87                | 0.62          | 1.28         |                 | 0.90                 | 0.85               | 0.89            |              |                  | 1.04              |
| Resection for Colon Cancer                         | 1.76             | 1.60                | 0.91          | 0.98         |                 |                      |                    |                 |              |                  |                   |
| Lower Extremity Revascularization                  | 1.41             | 0.82                | 0.58          | 0.82         |                 |                      |                    |                 |              |                  |                   |
| Aortic/Mitral Valve Replacement                    | 1.39             | 1.28                | 0.92          | 0.70         |                 |                      |                    |                 |              |                  |                   |
| Mastectomy for Cancer per 1,000 Females            | 1.19             | 1.15                | 0.97          |              |                 |                      |                    |                 |              |                  |                   |
| Abdominal Aortic Aneurysm Repair                   | 0.97             | 0.76                | 0.78          | 0.93         |                 |                      |                    |                 |              |                  |                   |
| <b>All Hospital Discharges</b>                     | <b>347.37</b>    | <b>287.85</b>       | <b>0.83</b>   | <b>0.87</b>  | <b>1.02</b>     | <b>0.96</b>          | <b>1.07</b>        | <b>1.20</b>     | <b>1.02</b>  | <b>0.98</b>      | <b>1.00</b>       |

Source: The Dartmouth Atlas of Health Care, 2007. Procedure rates for 2003 generated using the Dartmouth Atlas Data Tables by SHADAC. Available at [http://cecsweb.dartmouth.edu/release1.1/datatools/datatb\\_sl.php](http://cecsweb.dartmouth.edu/release1.1/datatools/datatb_sl.php); Note: Missing values are caused by low prevalence and suppressed for confidentiality concerns.

## Regional (six-state) Comparison of Utilization by Procedure

Compared to the national average Idaho is similar to each of its six surrounding states for Medicare discharges per 1,000 beneficiaries. Surgical discharges are slightly higher than the medical discharges compared to the national average.

Table 5.6.2 shows the comparison of Idaho to its six neighboring states on the Dartmouth Atlas medical and surgical discharges. All states had medical discharges with rates below the national average. Washington had the lowest medical discharge ratio at 0.70 of the national average, and Montana the closest to the national average at 0.93. Idaho's ratio was 0.76 compared to the national average.

The rates for surgical discharges are slightly higher, with all six states hovering around the national average of 102.12 surgical discharges per 1,000 Medicare beneficiaries. Idaho's ratio was 0.99 compared to the national average, with Montana and Wyoming slightly higher (1.02 and 1.04, respectively).

Idaho and its neighboring six states have discharge rates higher than the national average for back surgery and hip replacement. Table 5.6.2 shows the consistently high rates for these procedures by state. For back surgery Wyoming had the highest discharge ratio, at 2.15 compared to the national average, followed by Montana (1.83) and Idaho (1.74). Idaho has the highest ratio for hip replacement (1.44) followed by Utah (1.42) and Wyoming (1.40). Nevada's rate of discharges for hip replacement was consistent with the national average.

Idaho and three neighboring states (Montana, Utah, and Wyoming) had higher rates of angina discharges compared to the national rate per 1,000 Medicare beneficiaries. Table 5.6.2 compares the discharge rates for angina compared to the national average. Unlike back surgery and hip replacement, we found more variation when comparing the angina discharges with Idaho discharges with a ratio of 1.22 compared to the national average, consistent with Montana (1.29), Wyoming (1.28), and Oregon (1.18). The other three states had ratios far below the national average discharge rates for angina with Nevada at 0.65, Utah at 0.60, and Washington at 0.65.

**Table 5.6.2. Ratio of Procedure Rates in Idaho Compared to U.S. and Idaho's Neighboring States (2003)**

| Procedure (Rates per 1000 Medi care enrollees 2003) | National Average | State Average | Idaho /Nation | Montana /Nation | Nevada /Nation | Oregon /Nation | Utah /Nation | Washington /Nation | Wyoming /Nation |
|---|------------------|---------------|---------------|-----------------|----------------|----------------|--------------|--------------------|-----------------|
| <b>All Medical Discharges</b>                       | <b>244.86</b>    | <b>185.99</b> | <b>0.76</b>   | <b>0.93</b>     | <b>0.81</b>    | <b>0.75</b>    | <b>0.65</b>  | <b>0.70</b>        | <b>0.89</b>     |
| High Variation Medical Discharges                   | 216.88           | 164.22        | 0.76          | 0.94            | 0.81           | 0.74           | 0.65         | 0.68               | 0.89            |
| Medical Discharges Excluding ACS Events             | 167.81           | 127.90        | 0.76          | 0.95            | 0.82           | 0.78           | 0.65         | 0.72               | 0.88            |
| ACS Conditions                                      | 79.58            | 59.39         | 0.75          | 0.88            | 0.80           | 0.68           | 0.63         | 0.63               | 0.88            |
| Low/Mod. Variation Medical                          | 27.98            | 21.77         | 0.78          | 0.81            | 0.83           | 0.90           | 0.64         | 0.82               | 0.84            |
| Congestive Heart Failure                            | 22.90            | 14.62         | 0.64          | 0.67            | 0.73           | 0.62           | 0.53         | 0.61               | 0.72            |
| Bacterial Pneumonia                                 | 19.33            | 18.70         | 0.97          | 1.04            | 0.88           | 0.83           | 0.90         | 0.75               | 1.05            |
| COPD Discharges                                     | 10.92            | 7.42          | 0.68          | 0.93            | 0.85           | 0.62           | 0.31         | 0.57               | 0.93            |
| Gastro-Intestinal Hemorrhage                        | 9.33             | 8.03          | 0.86          | 0.95            | 0.91           | 0.86           | 0.74         | 0.83               | 1.01            |
| Nutritional and Metabolic                           | 9.29             | 6.63          | 0.71          | 1.00            | 0.83           | 0.71           | 0.65         | 0.61               | 1.10            |
| Cardiac Arrhythmia                                  | 9.28             | 7.89          | 0.85          | 0.91            | 0.79           | 0.86           | 0.59         | 0.75               | 0.89            |
| Acute Myocardial Infarction                         | 8.44             | 5.54          | 0.66          | 0.59            | 0.65           | 0.94           | 0.44         | 0.77               | 0.71            |
| Cerebrovasc. Disorders (ex. TIA)                    | 7.56             | 6.02          | 0.80          | 0.80            | 0.93           | 0.85           | 0.66         | 0.85               | 0.76            |
| Kidney/Urinary Infection                            | 7.51             | 5.62          | 0.75          | 0.79            | 0.71           | 0.67           | 0.82         | 0.65               | 0.75            |
| Chest Pain  | 6.59             | 5.36          | 0.81          | 0.93            | 1.03           | 0.98           | 0.72         | 0.62               | 0.86            |
| Septicemia  | 6.37             | 3.25          | 0.51          | 0.68            | 0.82           | 0.61           | 0.59         | 0.77               | 0.55            |
| Dehydration   | 6.00             | 3.74          | 0.62          | 0.89            | 0.85           | 0.58           | 0.60         | 0.52               | 1.03            |
| Respiratory Infections                              | 5.61             | 3.53          | 0.63          | 0.73            | 0.62           | 0.64           | 0.52         | 0.94               | 0.55            |
| Syncope and Collapse                                | 5.42             | 2.80          | 0.52          | 0.79            | 0.83           | 0.65           | 0.53         | 0.43               | 0.71            |
| Gastro-Intestinal Obstruction                       | 3.60             | 3.30          | 0.92          | 1.08            | 0.89           | 0.95           | 0.96         | 0.81               | 1.04            |
| Cellulitis  | 3.08             | 1.75          | 0.57          | 0.94            | 0.69           | 0.63           | 0.69         | 0.61               | 0.61            |
| Medical Back Problems                               | 3.07             | 2.71          | 0.88          | 1.44            | 0.93           | 0.75           | 0.72         | 0.60               | 1.14            |
| Pleural Effusion and Respiratory                    | 2.79             | 2.04          | 0.73          | 0.71            | 0.85           | 0.63           | 0.61         | 0.85               | 0.85            |
| Transient Ischemic Attack                           | 2.65             | 2.21          | 0.83          | 1.09            | 0.88           | 1.08           | 0.91         | 0.87               | 0.92            |
| Diabetes  | 2.34             | 1.43          | 0.61          | 0.86            | 0.80           | 0.62           | 0.69         | 0.59               | 0.79            |
| Asthma  | 2.30             | 1.86          | 0.81          | 0.93            | 0.70           | 0.73           | 0.72         | 0.64               | 0.93            |
| Respiratory Neoplasms                               | 2.07             | 1.48          | 0.71          | 0.90            | 0.89           | 0.77           | 0.38         | 0.84               | 0.91            |
| Seizure and Headache                                | 1.83             | 1.07          | 0.58          | 0.93            | 0.78           | 0.77           | 0.43         | 0.67               | 0.91            |
| Convulsions   | 1.38             | 0.81          | 0.59          | 0.81            | 0.85           | 0.76           | 0.41         | 0.68               | 0.84            |
| Biliary Tract Disorders                             | 1.38             | 1.21          | 0.88          | 1.12            | 0.67           | 0.75           | 0.60         | 0.69               | 1.09            |
| Gastroenteritis                                     | 1.36             | 0.98          | 0.72          | 1.37            | 0.79           | 0.50           | 0.40         | 0.51               | 0.97            |
| Hypertension  | 1.30             | 0.78          | 0.60          | 0.90            | 0.92           | 0.52           | 0.43         | 0.30               | 1.15            |
| Angina  | 1.16             | 1.41          | 1.22          | 1.29            | 0.65           | 1.18           | 0.60         | 0.65               | 1.28            |
| <b>All Surgical Discharges</b>                      | <b>102.12</b>    | <b>100.84</b> | <b>0.99</b>   | <b>1.02</b>     | <b>0.86</b>    | <b>0.92</b>    | <b>0.94</b>  | <b>0.86</b>        | <b>1.04</b>     |
| Coronary Angiography                                | 22.77            | 16.20         | 0.71          | 0.87            | 0.81           | 0.66           | 0.83         | 0.66               | 0.85            |
| Percutaneous Coronary Interventions                 | 11.27            | 8.46          | 0.75          | 0.96            | 0.77           | 0.65           | 0.90         | 0.70               | 0.94            |
| Hip Fracture Repair                                 | 7.53             | 6.76          | 0.90          | 0.95            | 1.02           | 0.95           | 0.93         | 0.91               | 1.02            |
| Knee Replacement                                    | 6.88             | 9.92          | 1.44          | 1.21            | 0.77           | 1.00           | 1.52         | 1.05               | 1.29            |
| TURP for BPH per 1,000 Male Medicare Enrollees      | 5.23             | 6.62          | 1.27          | 1.00            | 0.74           | 1.08           | 0.83         | 0.89               | 0.96            |
| Coronary Artery Bypass Grafting (CABG)              | 5.18             | 3.94          | 0.76          | 0.83            | 0.74           | 0.81           | 0.86         | 0.77               | 0.90            |
| Cholecystectomy                                     | 4.29             | 4.83          | 1.13          | 1.08            | 0.75           | 0.95           | 1.03         | 0.81               | 1.03            |
| Back Surgery  | 4.02             | 7.00          | 1.74          | 1.83            | 1.14           | 1.71           | 1.33         | 1.21               | 2.15            |
| Hip Replacement                                     | 3.18             | 4.59          | 1.44          | 1.34            | 1.00           | 1.21           | 1.42         | 1.28               | 1.40            |
| Carotid Endarterectomy                              | 3.02             | 1.87          | 0.62          | 0.92            | 0.90           | 0.88           | 0.51         | 0.76               | 0.87            |
| Resection for Colon Cancer                          | 1.76             | 1.60          | 0.91          | 0.86            | 0.90           | 0.96           | 0.74         | 0.93               | 0.93            |
| Lower Extremity Revascularization                   | 1.41             | 0.82          | 0.58          | 0.56            | 0.72           | 1.08           | 0.48         | 0.86               | 0.63            |
| Aortic/Mitral Valve Replacement                     | 1.39             | 1.28          | 0.92          | 1.14            | 0.78           | 1.09           | 1.20         | 1.02               | 0.89            |
| Mastectomy for Cancer per 1,000 Females             | 1.19             | 1.15          | 0.97          | 1.45            | 0.79           | 1.13           | 0.94         | 0.92               | 1.18            |
| Abdominal Aortic Aneurysm Repair                    | 0.97             | 0.76          | 0.78          | 0.98            | 0.97           | 0.92           | 0.48         | 0.86               | 1.03            |
| <b>All Hospital Discharges</b>                      | <b>347.37</b>    | <b>287.85</b> | <b>0.83</b>   | <b>0.96</b>     | <b>0.83</b>    | <b>0.80</b>    | <b>0.74</b>  | <b>0.75</b>        | <b>0.93</b>     |

Source: The Dartmouth Atlas of Health Care, 2007. Surgical procedure rates for 2003 generated using the Dartmouth Atlas Data Tables by SHADAC. Available at [http://cecsweb.dartmouth.edu/release1.1/datatools/datatb\\_s1.php](http://cecsweb.dartmouth.edu/release1.1/datatools/datatb_s1.php)

## Regional Utilization of Prescription Drugs

In 2004, Idaho's per capita utilization of prescription drugs was relatively lower than the national prescription drug utilization rate, at 8.6 prescriptions per capita compared to 10.6 per capita for the U.S. Prescription drug sales vary by state in the U.S. As shown in Table 5.6.3, the per capita annual number of prescriptions average 10.6 nationwide and range from a low of 6.5 in Alaska to 15.5 in Tennessee. Idaho falls closer to the low end of this range, at 8.6.

Retail prescription sales totaled \$168 billion in 2004 and ranged from a low of \$284 million in Wyoming to \$14.1 billion in California. Idaho's total retail prescription sales in 2004 were \$682 million.<sup>36</sup>

**Table 5.6.3. Retail Prescriptions Filled at Pharmacies by State:  
Prescriptions Per Capita and Retail Prescription Sales (2004)**

| State                | Prescriptions Per Capita | Sales (\$mil.)   | State          | Prescriptions Per Capita | Sales (\$mil.) |
|----------------------|--------------------------|------------------|----------------|--------------------------|----------------|
| <b>United States</b> | <b>10.6</b>              | <b>\$168,041</b> | Montana        | 9                        | \$434          |
| Alabama              | 13.6                     | \$3,090          | Nebraska       | 10.8                     | \$993          |
| Alaska               | 6.5                      | \$298            | Nevada         | 8.1                      | \$990          |
| Arizona              | 8.8                      | \$2,420          | New Hampshire  | 10.1                     | \$710          |
| Arkansas             | 14.2                     | \$1,857          | New Jersey     | 10                       | \$5,801        |
| California           | 7.3                      | \$14,087         | New Mexico     | 9.3                      | \$812          |
| Colorado             | 8                        | \$1,990          | New York       | 10.3                     | \$13,131       |
| Connecticut          | 11.4                     | \$2,311          | North Carolina | 13.3                     | \$6,247        |
| Delaware             | 11.6                     | \$562            | North Dakota   | 9.4                      | \$333          |
| District of Columbia | 9.4                      | \$384            | Ohio           | 10.9                     | \$6,469        |
| Florida              | 12                       | \$10,634         | Oklahoma       | 10.9                     | \$2,023        |
| Georgia              | 11                       | \$4,928          | Oregon         | 8.8                      | \$1,540        |
| Hawaii               | 6.9                      | \$512            | Pennsylvania   | 11                       | \$7,486        |
| <b>Idaho</b>         | <b>8.6</b>               | <b>\$682</b>     | Rhode Island   | 10.7                     | \$635          |
| Illinois             | 11.5                     | \$7,141          | South Carolina | 13.6                     | \$2,821        |
| Indiana              | 12.1                     | \$3,814          | South Dakota   | 10.6                     | \$415          |
| Iowa                 | 13                       | \$1,956          | Tennessee      | 15.5                     | \$4,506        |
| Kansas               | 11.9                     | \$1,693          | Texas          | 9.8                      | \$11,710       |
| Kentucky             | 15.4                     | \$3,104          | Utah           | 8.9                      | \$1,119        |
| Louisiana            | 13.5                     | \$3,027          | Vermont        | 10.7                     | \$389          |
| Maine                | 11                       | \$825            | Virginia       | 9.8                      | \$4,059        |
| Maryland             | 10                       | \$3,703          | Washington     | 8.4                      | \$2,882        |
| Massachusetts        | 12.3                     | \$4,309          | West Virginia  | 15                       | \$1,462        |
| Michigan             | 9.8                      | \$5,719          | Wisconsin      | 11.4                     | \$3,226        |
| Minnesota            | 10                       | \$2,841          | Wyoming        | 10.1                     | \$284          |
| Mississippi          | 13.6                     | \$2,033          |                |                          |                |
| Missouri             | 12.5                     | \$3,637          |                |                          |                |

Source: Data based on Vector One™: National by Verispan, L.L.C.<sup>37</sup>

## 5.7 ESTIMATED EXPENDITURES DUE TO LACK OF ROUTINE PREVENTIVE CARE

Idaho's County Medical Indigency Program as well as the state Catastrophic Health Care Cost Program (hereafter, the state Catastrophic program) provide financial assistance for episodic, catastrophic care for indigent Idaho residents. In this section we use the detailed data available from the state Catastrophic program to assess whether some of these hospitalizations could have been avoided with better primary and preventive services.

Under Idaho law, counties are responsible to provide financial assistance for medical expenses under \$10,000 per 12-month period per recipient. The state Catastrophic program acts as a type of reinsurance tool for counties, and pays for eligible medical expenses in excess of \$10,000. In fiscal year (FY) 2006 these programs combined spent \$36.7 million in medical and related administration expenses, serving 5,249 cases across the state.<sup>1</sup> In FY 2006 the state Catastrophic program alone spent approximately \$22.8 million for indigent care services.<sup>1,38</sup>

Annual reports from the state Catastrophic program to the Idaho legislature summarize payments on a per-case basis. Additional data on expenditures by diagnosis were made available by the Idaho Office of the State Controller, and the diagnostic codes/categories used to catalog expenditures and claims data were provided by the Catastrophic program contract administrator's office. These diagnostic categories are quite broad—for instance, the single largest category, labeled "General," accounted for 26.7 percent of the \$22.8 million in payments made in FY 2006. The next largest categories, cancer and coronary diseases, together accounted for more than 40 percent of the payments. Table 5.7.1 summarizes the payments for FYs 2005 and 2006.

**Table 5.7.1. Idaho's State Catastrophic Program: Expenditures by Diagnostic Category (FY 2005-2006)**

| Diagnostic Category | 2005              |               | 2006              |               |
|---------------------|-------------------|---------------|-------------------|---------------|
|                     | \$<br>(thousands) | %             | \$<br>(thousands) | %             |
| General             | \$4,879           | 26.7%         | \$6,072           | 26.7%         |
| Cancer              | \$4,098           | 22.4%         | \$5,290           | 23.2%         |
| Coronary            | \$4,070           | 22.3%         | \$3,957           | 17.4%         |
| Accident-Vehicle    | \$1,629           | 8.9%          | \$2,023           | 8.9%          |
| Chronic Disease     | \$1,391           | 7.6%          | \$2,167           | 9.5%          |
| Accident-General    | \$1,310           | 7.2%          | \$2,214           | 9.7%          |
| Mental Health       | \$525             | 2.9%          | \$875             | 3.8%          |
| Birth               | \$240             | 1.3%          | \$132             | 0.6%          |
| Infectious Disease  | \$129             | 0.7%          | \$40              | 0.2%          |
| <b>Total</b>        | <b>\$18,272</b>   | <b>100.0%</b> | <b>\$22,772</b>   | <b>100.0%</b> |

Source: Idaho Office of the State Controller, categorized by SHADAC based on diagnosis groupings provided by the State Catastrophic Health Care Cost Program.

Notes: Categories were compiled using Diagnostic Codes provided by the Catastrophic Health Care Cost Program, Contract Administrator. Examples of diagnoses included in categories are stroke (General); Diabetes (Chronic Disease); alcoholic/drug related (Accident General); Hepatitis (Infectious Disease).

A key concern to policy makers is whether any of these high-cost hospital stays could have been avoided with appropriate routine preventive services. Given that the cases referred to the state Catastrophic program are those with medical expenses in excess of \$10,000, we assumed that hospital inpatient costs accounted for a significant share of the total program expenditures. We use the following methodology to provide preliminary estimates of the impact of providing more primary and preventive care.

To provide this preliminary estimate we use the construct of ambulatory care sensitive conditions (ACSC) as an indicator to assess the availability of and access to routine preventive care across Idaho counties. ACSCs are defined as “conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease.”<sup>39</sup> The Agency for Healthcare Research and Quality (AHRQ) identifies various ACSCs referred to by the principal diagnosis made.<sup>40</sup> While ACSCs are based on hospital inpatient data, they are a potential indicator of the general health care system, and in particular of the access to routine primary and preventive care.

It is important to note that not all ACSCs are preventable, treatable at the primary care level, or avoidable. The ACSCs also do not include surgical procedures or primary diagnoses involving substance abuse or mental health problems, which are often prevalent among the low-income, underinsured or uninsured populations. In our assessment presented below we estimate both

with and without substance abuse and mental health categories as we believe at least some of these costs could have been prevented with health promotion and early intervention.

We attempted to crosswalk the diagnoses that are reported in the filings of the state Catastrophic program to the list of ACSC/ICD-9-CM<sup>41</sup> codes as shown in Table 5.7.2.<sup>42</sup> While not a perfect match, we assumed mental health-related diagnoses are preventable, given access and availability of routine, primary, and preventive services. We conclude the following:

### **Highlights**

- In FY 2006, an estimated 20 percent of total diagnosis-related expenditures, or \$4.5 million, was spent in potentially avoidable ACSCs including conditions such as appendectomies, coronary-related diagnoses, and diabetes.
- If mental health related hospitalizations (which include depression, suicide, and schizophrenia) are considered potentially avoidable with better routine, preventive services, they would add an estimated 4 percent, or \$875,000 in savings in FY 2006. While difficult to pinpoint those cases that are indeed preventable, we do believe that some component of mental health costs should be included in this calculation.
- In total, we estimate that 24 percent of health care costs, representing approximately \$5 million, could have been potentially avoidable with better access to routine prevention and primary care.

### **Additional Information on Methodology**

Table 5.7.2 shows the ACSC/ICD-9-CM codes<sup>43</sup> identifiable from the diagnostic categories/codes as provided by the state Catastrophic program. These identifiable conditions common to the ACSC/ICD-9-CM codes and the state Catastrophic program's diagnostic categories/codes include appendectomies, coronary-related diagnoses (including angioplasties and bypass) and diabetes (including both adult and juvenile).

**Table 5.7.2. Crosswalk between ASCS/ICD-9-CM and State Catastrophic Program's Diagnostic Categories**

| Diagnostic Codes/Categories from the State Catastrophic Program   | ACSC/ICD-9-CM Codes   |
|---|---|
| [20] Coronary<br>[22] Coronary Bypass<br>[23] Coronary Angioplasty  | [36.1] Coronary artery bypass surgery<br>[36.01, 36.02, 36.05] Coronary angioplasty       |
| [50] Transplants<br>[51] Liver Transplant<br>[52] Heart Transplant<br>[53] Kidney Transplant<br>[54] Lung Transplant<br>[55] Bone Marrow Transplant | [37.5, 50.5, 55.6, 41.0] Organ and bone marrow transplant surgeries                       |
| [73] Appendectomy   | [540, 541, 542] Appendicitis with appendectomy  |
| [81] Diabetes (Juvenile)<br>[82] Diabetes (Adult)   | [250.1, 250.2, 250.3] Diabetes "A"<br>[250.8, 250.9] Diabetes "B"<br>[250.0] Diabetes "C" |
| [91] Tuberculosis   | [011] Pulmonary tuberculosis  |
|   | [012-018] Other tuberculosis  |

Source: Diagnostic Codes/Categories from the State Catastrophic Program provided by the Contract Administrator, ACSC-ICD-9-CM Codes are from AHRQ.

Table 5.7.3 presents the share of expenditures associated with these diagnoses. Expenditures for transplants and tuberculosis-related diagnoses were not reported by the state Catastrophic program. These constitute approximately 20 percent of the total diagnosis-related expenses, or \$4.6 million for FY 2006. These are likely underestimates as indigents who received care for these conditions could have also been classified under the general diagnostic category as opposed to the specific diagnostic code.

If one assumes that care sought for mental health (which includes diagnosis related depression and suicide) can be potentially reduced or avoided given routine, preventive care, then the state Catastrophic program could have potentially realized an additional estimated savings of 4 percent, or \$911,000 in FY 2006. In essence, the total costs that could have been prevented in FY 2006 are an estimated 24 percent, or \$5 million. The mental health category includes only care that exceeded \$10,000 in treatment costs, suggesting a hospital or treatment center stay.

**Table 5.7.3. ACSCs Identified in the State Catastrophic Program’s Diagnostic Categories by Estimated Share of Total Expenditure (FY 2006)**

| <b>Catastrophic Program Diagnostic Category/<br/>ACSC/ ICD-9-CM Codes</b> | <b>Share of Total<br/>Catastrophic Program<br/>Costs (FY 2006)</b> |
|---|--|
| <b>ACSC/Catastrophic Program Diagnostic Category</b>                      |  |
| Appendectomy*   | 0.6%   |
| Coronary**  | 17.4%  |
| Diabetes (Adult & Juvenile)   | 1.9%   |
| Transplants**   | ...  |
| Tuberculosis (Pulmonary & Other)  | ...  |
| Subtotal  | 19.8%  |
| <b>Other CAT Diagnostic Category</b>                                      |  |
| Mental Health***  | 3.8%   |
| <b>All Other Categories</b>   | 76.3%  |
| <b>Total Expenditures</b>   | <b>\$22,771,604</b>  |

Source: Diagnostic Codes for the State Catastrophic Health Care Cost Program provided by the Idaho Office of the State Controller. ACSC/ICD-9-CM Codes available at AHRQ.

Notes: \*Refers to a “marker” or “reference condition per ACSC by AHRQ.”

\*\*Refers to “referral sensitive” surgeries per ACSC by AHRQ.

\*\*\*Refers to conditions potentially preventable with appropriate health and mental health treatment. Transplants include organ transplants such as liver, kidney, and bone marrow. Total does not add to 100.0% due to rounding.

## 5.8 REGIONAL HEALTH CARE EXPENDITURES

To assess within-state variation in health care cost increases we examined the rate of growth in hospital net revenue by payer source. We chose hospital spending growth as our indicator of geographic variation in health care spending as: 1) there was regional data available across the state; and 2) hospital costs represent 35.6 percent of all health care spending in the state of Idaho, the single largest health care spending category.

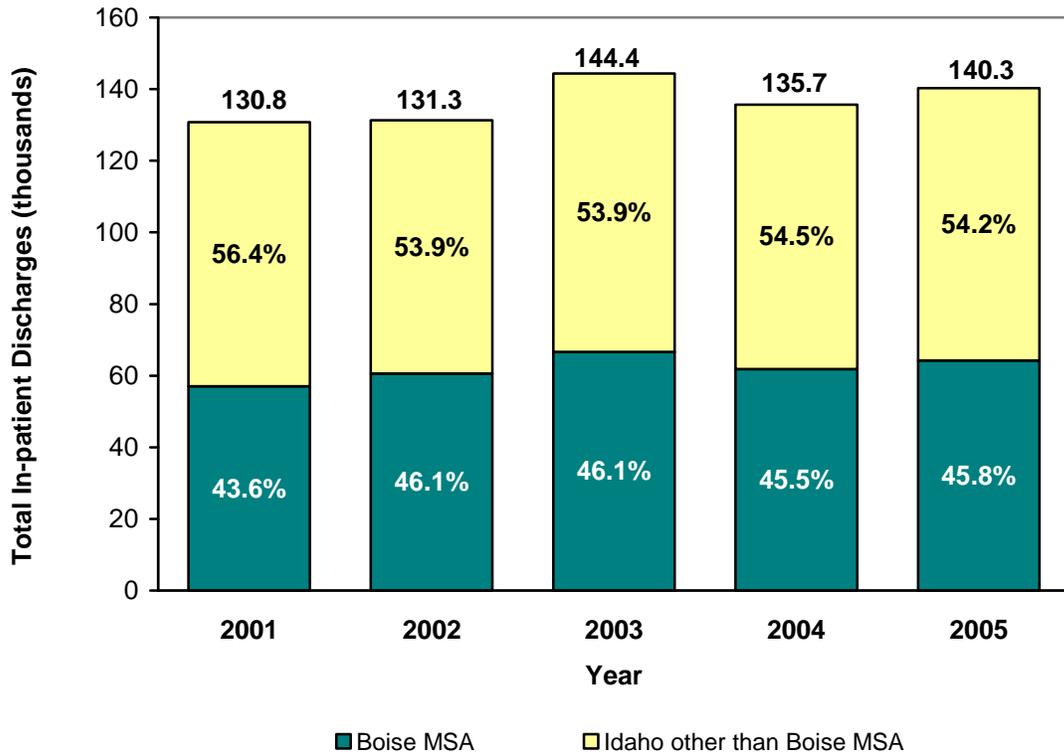
This analysis includes a geographic breakdown of hospital discharges and expenditures. The geographic breakdowns included are the Boise metropolitan statistical area (MSA) versus the rest of the state. Analysis of other Idaho MSAs was not available because the American Hospital Association (AHA) restricts access to hospital financial data, requiring the minimum requirement of five hospitals. The Boise MSA included seven hospitals for 2001 through 2004, and eight hospitals for 2005. The non-Boise area included 38 hospitals for 2001 and 2005, and 36 hospitals for 2002 through 2004. Additional information on geographic variation on use of hospital procedures, providing hospital utilization by procedure, can be found in section 5.6.

We first present hospital discharges and changes between 2001 and 2005 for Idaho overall and then for Boise-area hospitals and non-Boise hospitals overall by payer source. We then provide similar information for hospital net revenue per discharges.

### **Hospital Discharges**

The number of hospital discharges increased by 7.2 percent between 2001 and 2005, from 130,822 to 140,229 discharges. Figure 5.8.1 shows that Boise MSA hospitals accounted for 45.8 percent of discharge activity in 2005 and the greatest increase in discharges between 2001 and 2005 (11.2 percent). Discharges for non-Boise MSA hospitals grew by only 3 percent during this same time period. The Boise area also experienced the greatest population growth, at 12.3 percent in that time period, compared to 5.8 percent for all of Idaho outside of the Boise MSA.

**Figure 5.8.1. Trends in Idaho Inpatient Hospital Discharges by Geographic Area (2001-2005)**

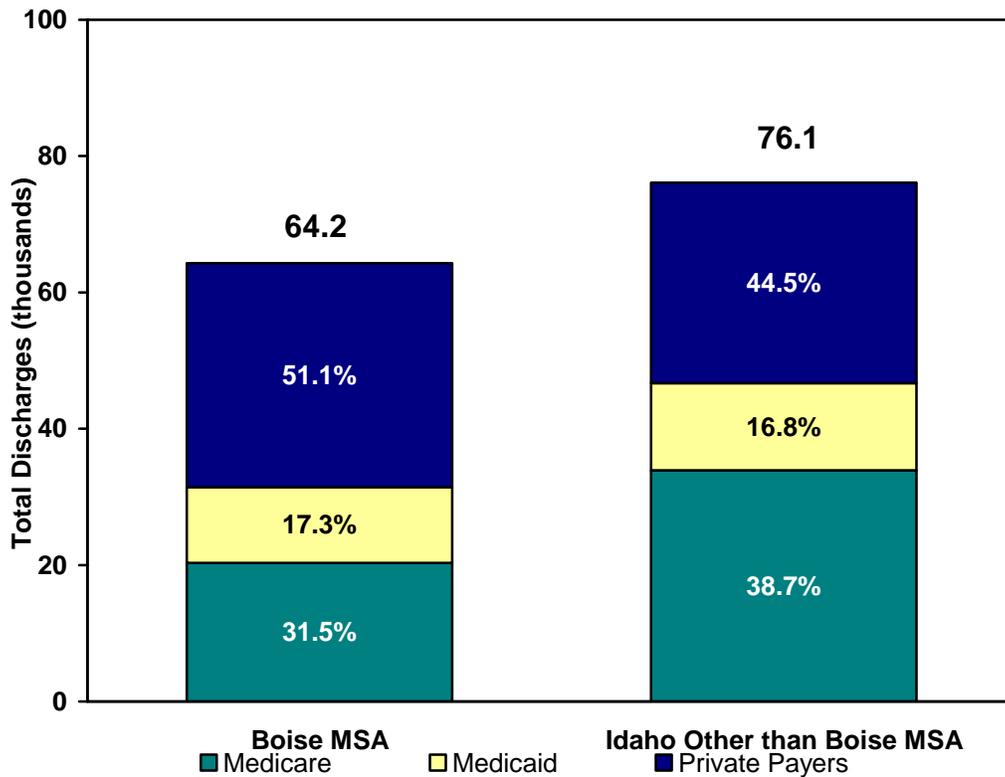


Source: American Hospital Association (AHA) Annual Survey Database. Health Forum LLC, an affiliate of the American Hospital Association, 2007. Table compiled by survey analyst (revenue data) and Sara Beazley (utilization data), AHA Resource Center

## Highlights

- Private payers constitute half (51.1 percent) of hospital discharges for Boise-area hospitals in 2005. Medicare and Medicaid accounted for the balance of the discharges for the Boise-area hospitals, at 31.5 percent and 17.3 percent, respectively.
- For non-Boise hospitals, Medicare is the primary payer, accounting for 44.5 percent of discharges in 2005. Private payers make up 38.7 percent of discharges and Medicaid represents 16.8 percent of the discharges for the non-Boise area hospitals.

**Figure 5.8.2. Idaho Inpatient Hospital Discharges by Payer and Geographic Area (2005)**



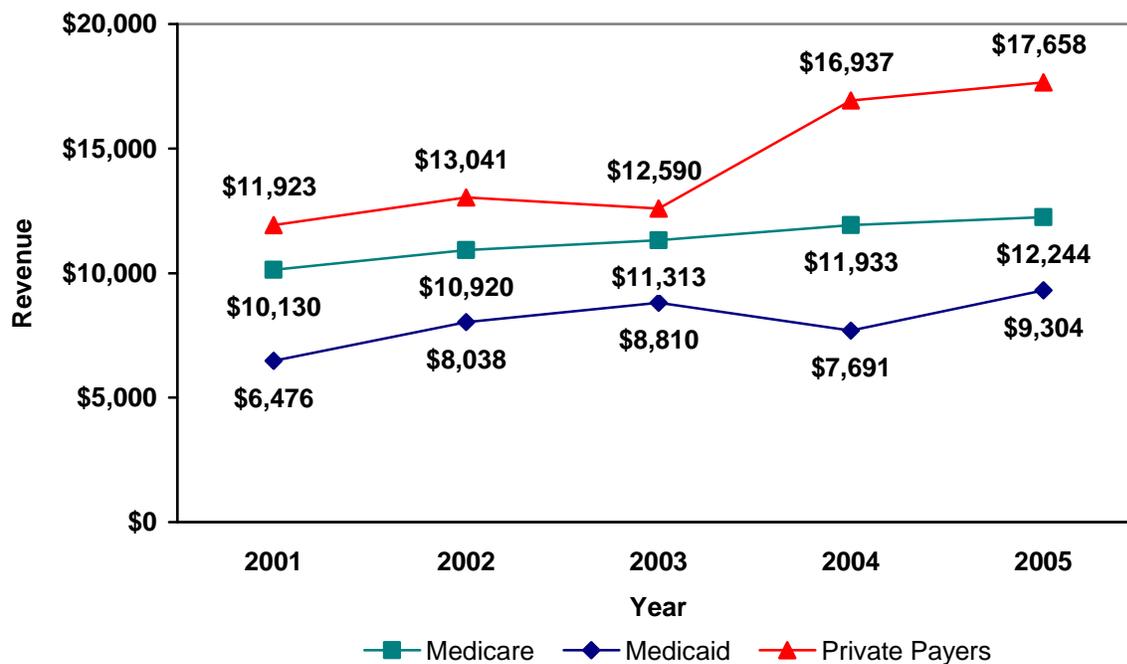
Source: Author's analysis of American Hospital Association (AHA) Annual Survey Database. Health Forum LLC, an affiliate of the American Hospital Association, 2007.

## Net Revenue per Discharge

As hospital discharges have increased, so has hospital patient care revenue. We examined patient care revenue received by hospitals from all payers net of payer discounts. Figure 5.8.3 shows the aggregate increase from 2001 to 2005 for all Idaho hospitals by payer type. Medicaid had the lowest net revenue per discharge, from \$6,476 in 2001 to \$9,304 in 2005. This represents an increase of 43.7 percent with an annual average increase of 9.5 percent.

- Medicare had higher net revenue per discharge than Medicaid, but more moderate increases over time. Medicare net discharge revenue averaged \$10,130 in 2001 increasing to \$12,244 in 2005, representing a 20.9 percent increase over 2001 and an annual average increase of 4.9 percent. Medicaid net discharge revenue averaged \$6,476 in 2001 increasing to \$9,304 in 2005, representing a 43.6 percent increase over 2001 and an annual average increase of 9.5 percent.
- Private payers had the highest net revenue per discharge compared to Medicare and Medicaid and show the most dramatic increase over time. In 2001, private payers had net revenue per discharge of \$11,921 (1.8 times the Medicaid amount) and increased to \$17,658 in 2005, representing a 48.1 percent increase over 2001 and an annual average increase of 10.3 percent.

**Figure 5.8.3. Net Hospital Revenue per Discharge by Payer (2001-2005)**

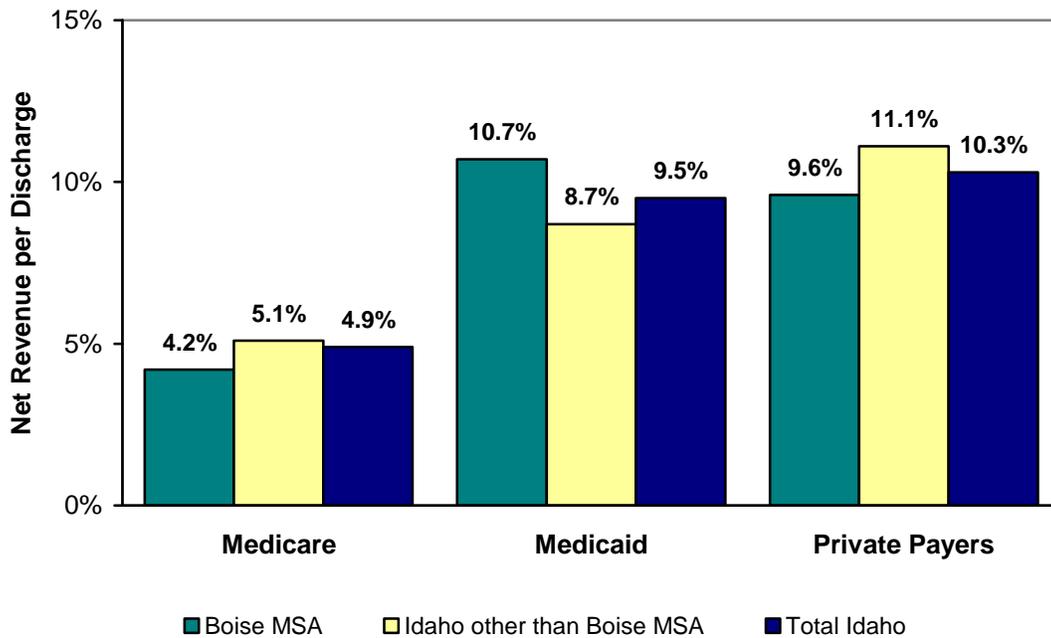


Source: American Hospital Association (AHA) Annual Survey Database. Health Forum LLC, an affiliate of the American Hospital Association, 2007.

Another perspective on revenue growth is average annual growth in net revenue per discharge by geographic area. Figure 5.8.4 shows that for all Idaho hospitals the average annual rate of growth in net revenue was 4.9 percent for Medicare, 9.5 percent for Medicaid, and 10.3 percent for private payers.

The average annual rate of growth for Medicare was low for all Idaho hospitals compared to Medicaid and private payers from 2001 through 2005. Boise area hospitals had a higher rate of net revenue growth for Medicaid discharges, at 10.7 percent compared to 8.7 percent for non-Boise area hospitals, but a lower rate of growth in revenues from private payers (9.6 percent compared to 11.1 percent)

**Figure 5.8.4. Idaho Average Annual Change in Net Revenue for Hospital Discharges by Payer and Geographic Area (2001-2005)**



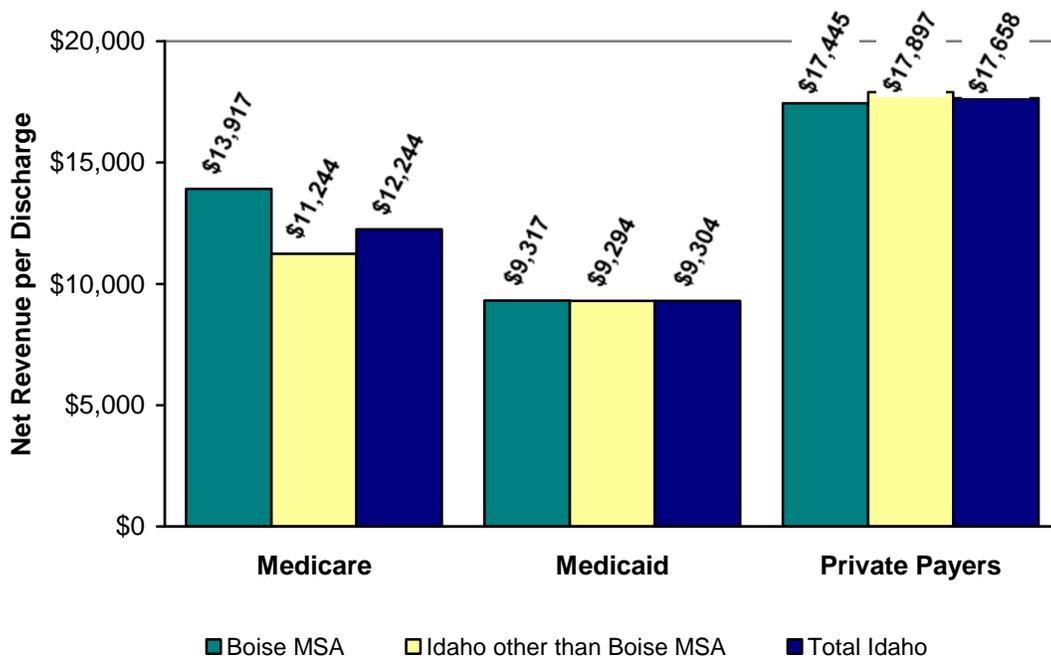
Source: American Hospital Association (AHA) Annual Survey Database. Health Forum LLC, an affiliate of the American Hospital Association, 2007.

Net revenue per discharge (Figure 5.8.5) shows the most geographic variation for Medicare discharges, but little variation for Medicaid or private payer discharges.

Even though the rate of Medicare revenue was lower for Boise-area hospitals (compared to non-Boise area hospitals) Boise-area hospitals had a higher average net revenue per Medicare discharge in 2005, at \$13,917 per discharge compared to \$11,244 for non-Boise MSA hospitals.

Medicaid net revenue per discharge was consistent at approximately \$9,300 per discharge for both regions and the state as a whole. Private payer net revenue per discharge was \$17,658 for all hospitals in the state, with Boise area hospitals just slightly lower (\$17,445) and non-Boise area hospitals slightly higher (\$17,897).

**Figure 5.8.5. Idaho Net Revenue for Hospital Discharges by Payer and Geographic Area (2005)**



Source: American Hospital Association (AHA) Annual Survey Data

## CONCLUSIONS

This report is the fifth in a series of five reports to document public and private health care spending and trends in Idaho and levels of health insurance coverage. While Idaho is unique in its culture, heritage and approaches to public policy, it faces many of the same of health reform issues that are confronting other states. These include rising health care costs, growing number of uninsured adults, and an increase in elderly population and those with chronic disease.

It is the intent that these reports provide baseline data as analysts and policy makers consider reform options and coverage strategies specific to the unique needs of Idaho.

While there does not appear to be significant excess capacity in the health care system in Idaho, at least in relation to the national average or neighboring states, there may be some opportunities for improved access in primary and prevention care through the Catastrophic Care Program. This program has grown out of historical indigent care programs and serves an important component of the safety net for coverage for the uninsured. It is, however, primarily focused on treatment as opposed to primary care and prevention. We estimate that at least a portion of these costs may be preventable and a pilot project in one or more counties to demonstrate a different approach might be considered.

We hope this data can be used to help frame the debate and answer specific questions that arise during continued discussions of health reform. While we have documented many different aspects of health care spending and the trends in spending, it will be important for Idaho policy makers to work together and set priorities in terms of regulatory and market-based approaches to the increasing coverage and access and constraining costs.

## NOTES

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- <sup>1</sup> Spencer, D., et al. "Idaho's Health Care Costs and Options to Improve Health Care Access, Final Report on Task 1: Cataloging Public Health Expenditures in Idaho." Minneapolis MN: State Health Access Data Assistance Center; December 2007
- <sup>2</sup> Spencer, D., et al. "Idaho's Health Care Costs and Options to Improve Health Care Access, Final Report on Task 2: Private Health Expenditures in Idaho." Minneapolis MN: State Health Access Data Assistance Center; December 2007
- <sup>3</sup> Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. (2007). Overview: National Health Expenditure Data. Accessed July 2007. Available at [http://www.cms.hhs.gov/NationalHealthExpendData/01\\_Overview.asp](http://www.cms.hhs.gov/NationalHealthExpendData/01_Overview.asp)
- <sup>4</sup> Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group (2006). United States Personal Health Care Expenditures (PHCE), All Payers 1980-2004. Available at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/nhestatespecific2004.pdf>
- <sup>5</sup> Ibid.
- <sup>6</sup> The formula used in estimating average annual growth rates throughout this report is:  $[(P_n/P_o)^{1/N} - 1] \times 100$ , where  $P_n$ : later time period;  $P_o$ : earlier time period;  $N$ : interval between the two time periods. This is also available at <http://www.cdc.gov/nchs/datawh/nchsdefs/averageannualrateofchange.htm>
- <sup>7</sup> Medicare per capita costs are calculated using available (2002) and projected (2005) expenditures, and population includes those enrolled in Part A and/or Part B from CMS for 2002-2005. Medicaid/CHIP per capita costs are calculated using final appropriation for Medicaid/CHIP and population is in terms of average monthly eligibles for FYs 2002-2006. State employee health benefits per capita costs are calculated using medical claims, administration and other associated expenses (premium tax, etc.) and population is in terms of total employees/retirees/dependents enrolled for FYs 2002-2006. Local (city, county, and school district) employee per capita costs are calculated using combined medical claims data from the Blue Cross of Idaho and Regence Blue Shield of Idaho, and population is in terms of number of members per month. Individual and group health plan per capita costs are calculated using premiums for individual and group comprehensive (hospital and medical only) plans and population is in term of total members at the end of the year for both markets.
- <sup>8</sup> Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group (2006). United States Personal Health Care Expenditures (PHCE), All Payers 1980-2004. Available at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/nhestatespecific2004.pdf>
- <sup>9</sup> Kaiser Family Foundation (2006). Trends and Indicators in the Changing Health Care Marketplace. Available at: <http://www.kff.org/insurance/7031/print-secl.cfm>
- <sup>10</sup> Bureau of Labor Statistics (2007). "Consumer Price Index – All Urban Consumers." Available at <http://www.bls.gov/data/>; select "CPI-All Urban Consumers (current series)", then select "Most requested statistics", then select "U.S. All Items, 1982-84=100 CUUR0000SA0."
- <sup>11</sup> Ibid.
- <sup>12</sup> PricewaterhouseCoopers (2006). "The Factors Fueling Rising HealthCare Costs, 2006." Prepared for America's Health Insurance Plans.
- <sup>13</sup> Ibid.
- <sup>14</sup> Meyer, J.A. and W.R. Johnson (1983). "Cost Shifting in Health Care: An Economic Analysis." *Health Affairs* 2(2): 20-35.

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- <sup>15</sup> Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group (2006). United States Personal Health Care Expenditures (PHCE), All Payers 1980-2004. Available at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/nhestatespecific2004.pdf>
- <sup>16</sup> Hartman, M., A. Catlin, D. Lassman, J. Cylus, and S. Heffler (2007). "U.S. Health Spending by Age, Selected Years Through 2004." *Health Affairs* 26(Nov. 6): w1-12. , doi: 10.1377/hlthaff.27.1.w1
- <sup>17</sup> United Health Foundation (2007). "America's Health Rankings™ . State by State Snapshots: Idaho." Minnetonka, MN: United Health Foundation. Available at <http://www.unitedhealthfoundation.org/ahr2007/states/pdfs/Idaho.pdf>
- <sup>18</sup> Ibid.
- <sup>19</sup> Barendregt, J.J., L. Bonneux, and P.J. van der Maas (1997). "The Health Care Costs of Smoking." *New England Journal of Medicine* 337(15):1052-1057.
- <sup>20</sup> Max, W. (2001). "The Financial Impact of Smoking on Health-related Costs: A Review of the Literature." *American Journal of Health Promotion* 15(5): 321-331.
- <sup>21</sup> Centers for Disease Control and Prevention, Defining Overweight and Obesity web page, <http://www.cdc.gov/nccdphp/dnpa/obesity/defining.htm>.
- <sup>22</sup> Thorpe, K.E., C.S. Florence, D.H. Howard, and P. Joski (2004). "The Impact of Obesity on Rising Medical Spending," *Health Affairs* (23) October 20; 10.1377/hlthaff.w4.480
- <sup>23</sup> PricewaterhouseCoopers (2006). "The Factors Fueling Rising HealthCare Costs, 2006." Prepared for America's Health Insurance Plans.
- <sup>24</sup> Kofman, M. and K. Pollitz. (2006). "Health Insurance Regulation by States and the Federal Government: A Review of Current Approaches and Proposals for Change". Washington DC: M.P.P Health Policy Institute, Georgetown University. Available at: <http://www.allhealth.org/briefingmaterials/HealthInsuranceReportKofmanandPollitz-95.pdf>
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- <sup>26</sup> Bazzoli, G.J., A. Gerland, and J. May (2006). "Construction Activity in U.S. Hospitals". *Health Affairs* 25(3): 783-791.
- <sup>27</sup> Carpenter, D., and S. Hoppszallern. (2006). "The Boom Goes On: 2006 Hospital Building Report." Hospitals and Health Networks, March 2006. Available at [http://www.hhnmag.com/hhnmag/html/2006\\_Article\\_Index.html](http://www.hhnmag.com/hhnmag/html/2006_Article_Index.html)
- <sup>28</sup> Centers for Medicare and Medicaid Services (no date). National Health Expenditures Accounts: Definitions, Sources, and Methods Used in the NHEA 2005, available at: <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-05.pdf>
- <sup>29</sup> Ibid.
- <sup>30</sup> The Dartmouth Institute (2007). Dartmouth Atlas Project. Data available at [www.dartmouthatlas.org](http://www.dartmouthatlas.org)
- <sup>31</sup> The Dartmouth Institute (2007). The Dartmouth Atlas of Health Care Data Tables. Available at: [http://cecsweb.dartmouth.edu/release1.1/datatools/datatb\\_s1.php](http://cecsweb.dartmouth.edu/release1.1/datatools/datatb_s1.php)
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- <sup>34</sup> Surgical removal of the gall bladder usually to treat gallstones. A cholecystectomy is performed when attempts to treat gallstones with ultrasound to shatter the stones or medications to dissolve them have not proven feasible.
- <sup>35</sup> A procedure called TURP (transurethral resection of the prostate) is used for 90 percent of all prostate surgeries done for Benign prostatic hyperplasia (BPH or Benign enlargement of the prostate (BEP) refers to the increase in size of the prostate in middle-aged and elderly men.
- <sup>36</sup> Kaiser Family Foundation (2006). Trends and Indicators in the Changing Health Care Marketplace. Available at: <http://www.kff.org/insurance/7031/print-sec1.cfm>
- <sup>37</sup> Notes: These data are based on Vector One™: National by Verispan, L.L.C., which collects data from a panel of retail pharmacies, third party payers, and data providers. Retail pharmacies include independent pharmacies, chain pharmacies, food stores, and mass merchandisers found in 814 defined regional zones. These data describe the number of prescriptions filled by retail pharmacies only and exclude those filled by mail order. The total sales reflect the amount the pharmacies are paid for all prescriptions filled. Although not included in the Retail Prescription Sales amounts, mail order sales totaled \$41.3 billion or 19% of total sales in 2004 according to industry statistics report by the National Association of Chain Drug Stores (<http://www.nacds.org/wmspage.cfm?parm1=507>).
- <sup>38</sup> It should be noted that it is probable that these are under estimated since indigents who received care for these conditions could have also been classified under the general diagnostic category as opposed to the specific diagnostic code, as communicated by the Idaho Office of the State Controller.
- <sup>39</sup> Agency for Healthcare Research and Quality (2007). "Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions." AHRQ Pub. no. 02-R0203, available at [http://www.qualityindicators.ahrq.gov/downloads/pqi/pqi\\_guide\\_v31.pdf](http://www.qualityindicators.ahrq.gov/downloads/pqi/pqi_guide_v31.pdf)
- <sup>40</sup> Billings J. (2003). "Using Administrative Data To Monitor Access, Identify Disparities, and Assess Performance of the Safety Net. Tools for Monitoring the Health Care Safety Net. September 2003. Agency for Healthcare Research and Quality, Rockville, MD. Available at <http://www.ahrq.gov/data/safetynet/billings.htm>
- <sup>41</sup> ICD-9-CM refers to the International Classification of Diseases, Clinical Modification. These are used to code and classify morbidity data from the inpatient and outpatient records, physician offices, and most National Center for Health Statistics (NCHS). See <http://www.cdc.gov/nchs/icd9.htm> for more details.
- <sup>42</sup> Billings J. (2003). "Using Administrative Data To Monitor Access, Identify Disparities, and Assess Performance of the Safety Net. Tools for Monitoring the Health Care Safety Net." September 2003. Agency for Healthcare Research and Quality, Rockville, MD. Available at <http://www.ahrq.gov/data/safetynet/billings.htm>
- <sup>43</sup> Ibid.