SPOTLIGHT ON
MARYLAND

MHCC MARYLAND HEALTH CARE COMMISSION

STATE HEALTH CARE EXPENDITURES

ONE MISSION OF THE MARYLAND HEALTH CARE COMMISSION (MHCC) IS TO DEVELOP TIMELY AND ACCURATE INFORMATION FOR POLICYMAKERS, PURCHASERS, PROVIDERS, AND THE PUBLIC, TO PROMOTE INFORMED DECISIONMAKING.

HIGHLIGHTS

- In 2010, per capita personal health care spending for Maryland residents was $7,698, 9 percent higher than the national average.
- Between 2009 and 2010, per capita spending in Maryland grew 2.5 percent, compared with 2.8 percent nationally.
- The gap in the rate of growth in per capita personal income and per capita health care spending generally narrowed between 2000 and 2010.
- The share of personal income devoted to health care in Maryland was steady for 2009 and 2010, at just under 16 percent.
- Hospital care in Maryland accounted for 37 percent, and physician care for 24 percent, of total personal health care spending—similar to the United States as a whole.
- The mix of long-term care spending in Maryland and the United States differed, with a lower share of spending on home health care and a higher share of spending on nursing home care in Maryland.
- Maryland ranked 14th highest in per capita spending in 2009 among the 50 states.
- Spending in Maryland has been lower than in other states in the Mideast region, but the gap is narrowing.

This report provides information about total and per capita personal health care expenditures by Maryland residents in 2010, and the distribution of those expenditures by type of service. It compares expenditures in 2010 with those over the past decade, from 2000 through 2009. It also compares spending in Maryland with spending nationally, in other regions of the country, and in other states. All expenditures measure personal health care spending annually by type of service delivered and are in nominal terms.

MARYLAND'S HEALTH CARE SPENDING: 2000–2010

In 2010, Maryland residents spent an estimated $44.5 billion on personal health care,[1] including hospital care, professional services, prescription drugs, and long-term care. Total spending increased 3.5 percent from 2009, compared to a 3.7 percent increase nationally. On a per capita basis, personal health care expenditures were $7,698 in Maryland, 8.9 percent higher than the $7,066 national average.

With the exception of 2006, the growth in total personal health care spending has slowed in Maryland over the past decade, from 9.9 percent in 2001 to 3.5 percent in 2010 (data not shown). This is in line with the national trend, reflecting nationwide efforts to curb health care expenditures and the continuing slowdown in the overall economy. The growth rate in per capita health care spending also has been steadily falling, from 8.6 percent in 2001 to 2.5 percent in

[1] Personal health care expenditures measure the total amount spent to treat individuals but do not include government public health activity and administration or the net cost of health insurance. In this Spotlight, personal health care expenditures in Maryland represent the amount spent on health care received by Maryland residents. See the Methods box at the end for more information.

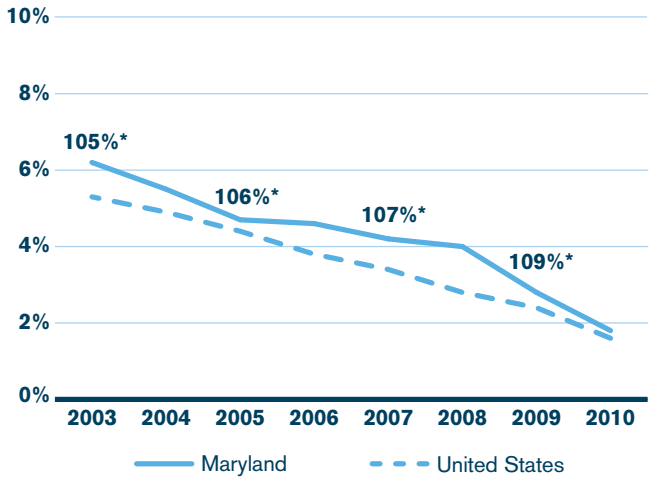
2010.[2] Compared to the United States as a whole, per capita spending in Maryland has grown somewhat faster for most of the decade.[3]

Spending in 2010 reflects broad national economic trends, including the recession, which began in 2009, and the beginnings of the recovery. 2010 represents the second year of very slow growth in aggregate spending—with both nominal health care spending and personal income growing at relatively similar rates. In 2010, the health care share of personal income remained steady at 17.7 percent nationally (see Figure 2). In Maryland, the share of personal income devoted to health care spending was 2 percentage points lower, at 15.7 percent.

Underlying changes in this ratio are changes in both spending and income—while both spending and income have grown more slowly in the past few years, health spending grew more quickly than income, resulting in an increasing share of spending to income in Maryland. Economic trends such as the recession tend to have an immediate impact on income, but the dampening effect of slower economic growth on health care spending may lag behind. Insurance contracts, for example, are negotiated a year or more in advance, and consumers' loss of health insurance coverage—even with job loss—may not be immediate due to coverage from other sources, including COBRA.

HOW WERE MARYLAND'S HEALTH CARE DOLLARS SPENT? Hospital care—including both inpatient and outpatient services—was the largest single category of personal health care expenditures in Maryland, accounting for more than one-third (37.3 percent) of total spending in 2010 (see Figure 3). Physician and clinical services was the next largest category, comprising slightly less than one-quarter of total expenditures. Prescription drugs and other non-durable medical products constituted another 15 percent, followed by 10 percent for long-term care (home health and nursing home care combined). The share of dental services and other health, residential, and personal care in total expenditures was similar, at 4.5 and 5.0 percent, respectively. Other professional services and durable medical products together accounted for less than 5 percent of total personal health care expenditures in Maryland in 2010.

FIGURE 1. Growth in Per Capita Personal Health Care Expenditures, Maryland and the United States, 2000–2010

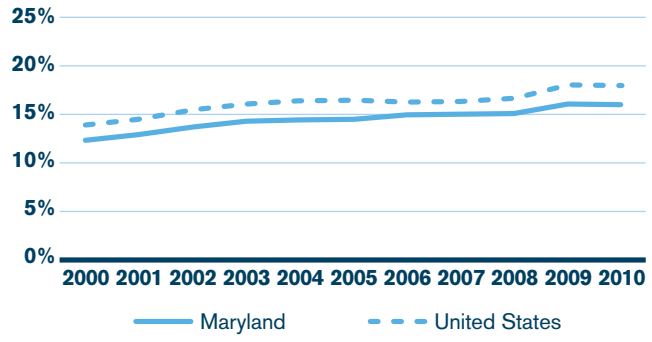


* Percentage ratio of Maryland-to-U.S. spending

NOTE: Growth rates are calculated as a 3-year moving average of the annual percentage change in spending. Moving averages are used to reduce the effect of short-term fluctuations so as to more easily observe underlying data trends. Percentage ratios are the average of ratios in the 3 corresponding years.

SOURCE: Tabulations of data from Centers for Medicare & Medicaid Services (CMS) and the Census Bureau. Personal health care expenditures in Maryland in 2010 were projected by Social & Scientific Systems, Inc. (SSS), using time series models.

FIGURE 2. Ratio of Per Capita Personal Health Care Expenditures to Personal Income, Maryland and the United States, 2000–2010

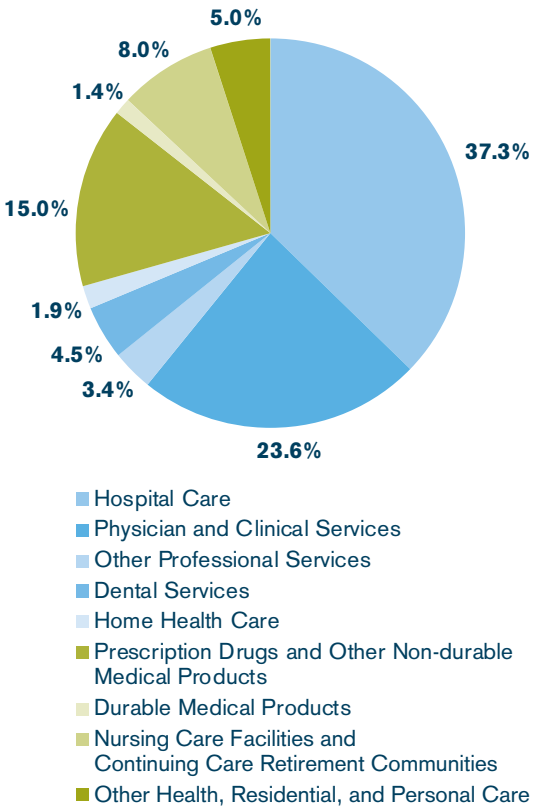


SOURCE: Tabulations of data from CMS and the Census Bureau. Personal health care expenditures in Maryland in 2010 were projected by SSS using time series models.

[2] These are actual annual growth rates in per capita health care expenditures and are not shown in Figure 1, where 3-year averages are displayed.

[3] The rate of growth in Maryland was higher than that nationally for all years shown except for 2005 and 2010. The use of a moving average in Figure 1 makes it appear as if Maryland's rate of growth is higher throughout the period.

FIGURE 3. Share of Total Personal Health Care Expenditures by Type of Service, Maryland, 2010

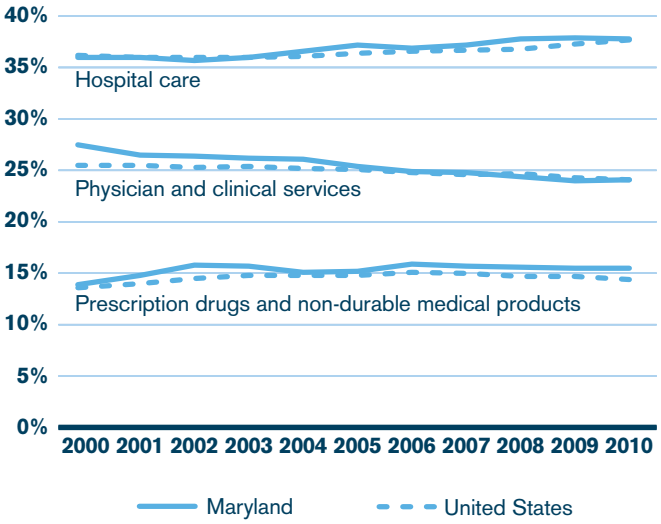


SOURCE: Projected by SSS using time series models.

The composition of spending was quite similar in Maryland and the United States as a whole, differing primarily in three areas—prescription drugs and non-durable medical products; other health, residential, and personal care; and the composition of long-term care. Spending on prescription drugs and non-durable medical products was slightly higher in Maryland than nationally—15.0 versus 13.9 percent, respectively. In contrast, the share of other health, residential, and personal care was slightly lower in Maryland than in the United States overall—5.0 percent compared to 5.9 percent. The percentage of spending attributable to long-term care was similar in Maryland and the United States (10.0 percent and 9.8 percent, respectively), but the composition differed, with nursing home spending 1.5 percentage points higher in Maryland than in the United States as a whole, and spending on home health care 1.3 percentage points lower in Maryland than nationally.

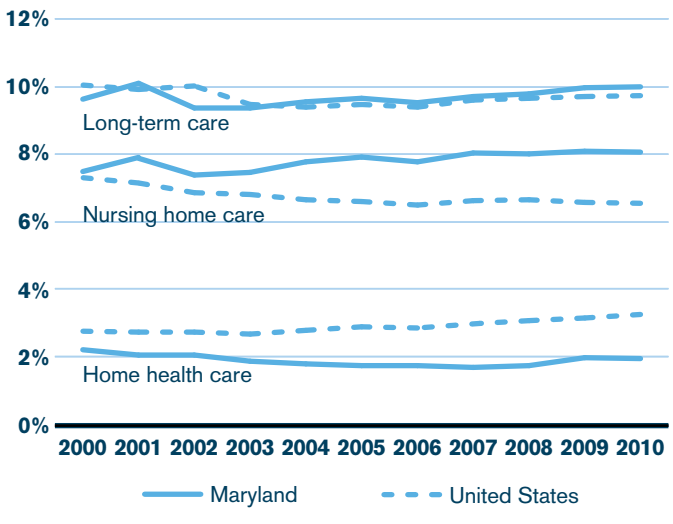
Over the past decade, hospital care and prescription drugs and non-durable medical products have gained share in Maryland, while the share of spending on physician and clinical services has fallen (see Figure 4). The share of spending for hospital care increased slightly in both 2004 and 2005, and then again in 2008. For prescription drugs, the increase in share took place mainly in the early part of the decade,

FIGURE 4. Trend in Share of Personal Health Care Expenditures for Selected Types of Services, Maryland and the United States, 2000–2010



SOURCE: Tabulations of data from CMS and the Census Bureau. Personal health care expenditures in Maryland in 2010 were projected by SSS using time series models.

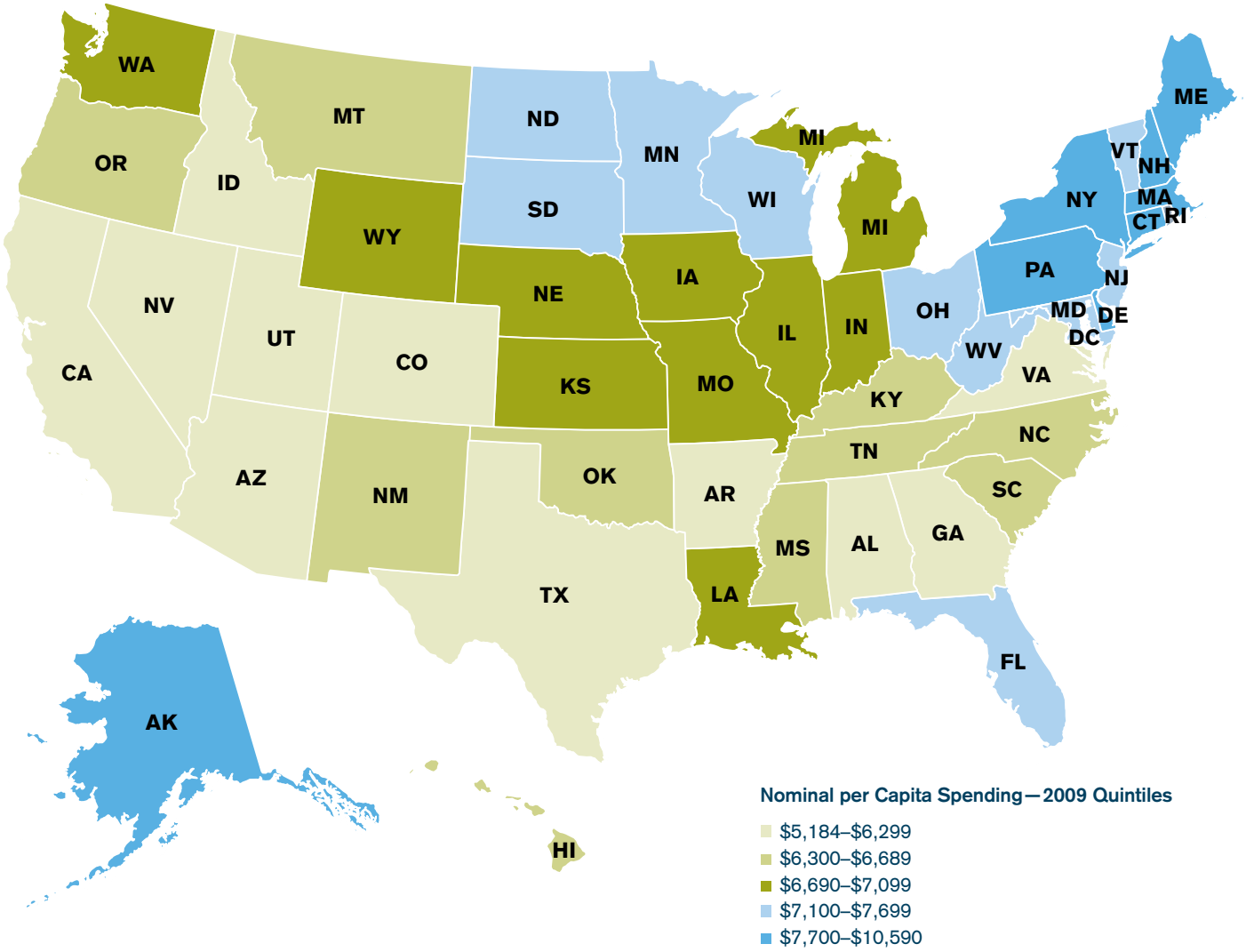
FIGURE 5. Trend in Share of Expenditures for Long-Term Care by Types of Service, Maryland and the United States, 2000–2010



NOTE: Percentages are the shares of Personal Health Care Expenditures in each year.

SOURCE: Tabulations of data from CMS and the Census Bureau. Personal health care expenditures in Maryland in 2010 were projected by SSS using time series models.

FIGURE 6. Per Capita Personal Health Care Spending by State, 2009



NOTE: Spending is in nominal dollars (i.e., not adjusted for inflation).

SOURCE: Tabulations of data from CMS and the Census Bureau.

remaining fairly flat between 2005 and 2010. The share of spending attributable to physician and clinical services has experienced a steady decline over the whole period, with the exception of 2009 to 2010, when the estimated share was virtually unchanged.

As shown in Figure 5, the share of spending devoted to long-term care[4] in Maryland was between 9 and 10 percent throughout the decade—it rose from 2000 to 2001, declined in 2002 and 2003, and then experienced a gradual but small increase through 2010. For the United States overall, the pattern across years was somewhat different, but the range of between 9 and 10 percent was similar. However, the composition of long-term care spending differed between Maryland and the nation as a whole. The share of spending on nursing home care in Maryland has been consistently above the national average. Conversely, the state's share of spending on home health services has remained below the national average. These services tend to be substitutes for one another, with home health care as the less costly alternative.

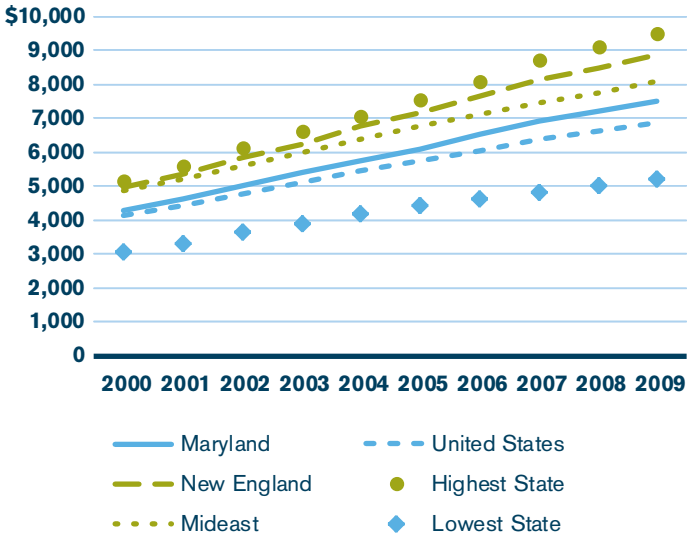
[4] Expenditures for services provided through Medicaid's home and community-based waiver programs are included in Other Health, Residential, and Personal Care.

HOW DOES SPENDING IN MARYLAND COMPARE WITH OTHER STATES? Maryland's per capita health care spending of $7,512 in 2009[5] placed it 14th among the 50 states and approximately 10 percent above the median for all states ($6,850). The range of spending across states is shown in the map in Figure 6; states were ranked from highest to lowest in terms of spending and divided into five groups of 10 states each, or quintiles.[6] Maryland is in the second highest quintile. Compared to Maryland, spending in the highest-spending state (Massachusetts) was 26 percent higher, while that of the lowest-spending state (Utah) was just over 30 percent less. Per capita spending is generally higher in the northeastern part of the United States, followed by the Mideast, which includes Maryland, and Great Lakes regions.[7] States with the lowest spending are located primarily in the Southwest and Rocky Mountain areas of the country.

Per capita personal health care spending in Maryland is shown in Figure 7 for the period from 2000 through 2009. Spending for the United States as a whole, for selected regions, and for the state that has the highest and lowest spending in each year also is shown for comparison purposes. As noted earlier, in each year, per capita spending in Maryland was higher than nationally, with the gap growing over time—per capita personal health care expenditures were 9.3 percent higher in Maryland than in the United States in 2009, compared to only 2.9 percent in 2000. Spending in the New England region was higher than that in Maryland throughout 2000–2009, with the gap in spending staying virtually the same at 16–18 percent. Spending in the Mideast region was also higher than that in Maryland throughout 2000–2009, with Maryland per capita spending the lowest of all states in the region. However, the gap between the Mideast region and Maryland narrowed considerably, from a 14 percent to a 7 percent difference, due to a faster rate of growth in Maryland's spending. Compared with 2000, Maryland's ranking among all states has moved up, from 17th place in 2000 to 14th in 2009.

Figure 8 shows the growth rate in per capita personal health care expenditures for Maryland, the United States, and selected regions between 2000 and 2009. The growth rate is calculated as a 3-year moving average to reduce short-term fluctuations and allow easier observation of underlying data trends. Over this time period, the growth rate in per capita personal health care expenditures was generally higher in Maryland than in the United States overall, with the

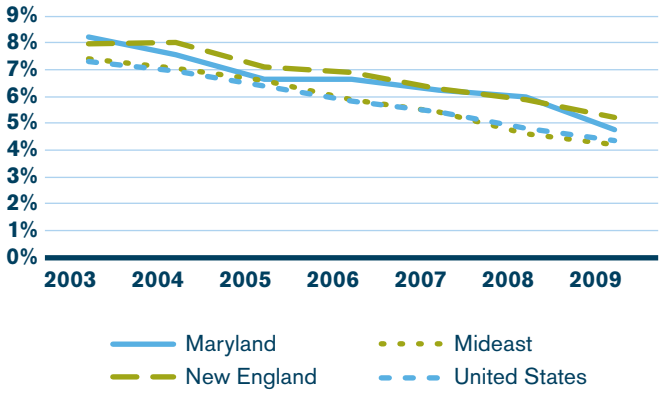
FIGURE 7. Per Capita Personal Health Care Spending for Maryland, the United States, and Selected Regions, 2000–2009



NOTE: Spending is in nominal dollars (i.e., not adjusted for inflation).

SOURCE: Tabulations of data from CMS and the Census Bureau.

FIGURE 8. Average Growth in Per Capita Personal Health Care Expenditures, Maryland, the United States, and Selected Regions, 2000–2009



NOTE: Growth rates are calculated as a 3-year moving average of the annual percentage change in spending. Moving averages are used to reduce the effect of short-term fluctuations so as to more easily observe underlying data trends. Percentage ratios are the average of ratios in the 3 corresponding years.

SOURCE: Tabulations of data from CMS and the Census Bureau.

[5] State-level spending is provided for 2009 because it is the most recent year for which data are available for all states.

[6] The District of Columbia was excluded from this discussion because the high level of integration of health care markets across the metropolitan area results in spending estimates that are somewhat unreliable.

[7] Regions are defined according to the U.S. Bureau of Economic Analysis *(http://www.bea.gov/regional/about.cfm)*.

difference narrowing between 2000 and 2005 and increasing from 2005 to 2009.[8] Growth in Maryland's spending was also generally higher than that in the Mideast region overall, but state spending grew more slowly than that in New England for most of the period.

IMPLICATIONS While the rate of growth in per capita personal health care spending has declined in Maryland in recent years, state spending remained significantly above the national average for 2010. The moderation in spending growth experienced over the past several years has likely been influenced by the economic downturn. As the economy recovers, spending growth is likely to regain momentum unless there are fundamental changes in health care delivery and financing.

The tremendous geographic variation in spending across the United States—with twofold differences between the lowest and highest-spending states—underlies the collective inability to contain spending. Over the past decade, Maryland has moved from the 17th to the 14th highest-ranked state in per capita spending. The level and rate of growth of health care spending are determined by a number of factors, including population characteristics, supply-side forces such as provider availability, and other market and regulatory factors. Despite numerous studies, the relationship between spending and quality is not well understood. It is likely that the impact of spending on quality varies by patient population and health condition, with some spending improving health outcomes and other spending being a marker of system inefficiency.[9] Understanding the differences and carefully targeting spending where it can improve health is essential to slow spending growth.

Continued implementation of the Affordable Care Act (ACA) will increase the number of Maryland residents with insurance coverage through both Medicaid and private insurance. One inevitable result will be an increase in the level and growth rate of total health care expenditures (at least through 2014). Per capita spending may rise or fall, depending on the health and spending habits of the newly insured. The decisions made in implementing Maryland's Health Benefit Exchange will shape the expansion of coverage and its associated costs, thus having a major impact on future utilization and spending. Changes in the organization and delivery of care, and new emphases on linking payment and quality/outcomes, are essential components of the ACA. The Act specifically provides for experimentation, recognizing that no one formula has, as yet, shown broad success in reining in spending.

A number of Maryland's initiatives are expected to constrain spending growth. Maryland's long-standing experience in controlling the growth in hospital spending through all-payer rate-setting has been implemented with sufficient flexibility to allow evolution over time. The greatest promise will be in the integration of initiatives in the outpatient setting to control the growth of institutional spending. The Medicaid program will continue its efforts at long-term care reform through replacing institutional care with services provided to all Medicaid participants in their communities. Maryland's Patient Centered Medical Home program, established during the 2010 legislative session, emphasizes the role of primary care in improving patient health status and provides financial incentives for: patients' increased access to providers; clinicians' adoption of electronic health records and patient registries; and increased coordination of care for all patients. Adoption of these advanced primary care strategies is expected to result in improved care at lower cost, especially with regard to chronically ill patients.

[8] As noted earlier, the difference between Maryland and the United States in the rate of growth in spending narrowed again in 2010. The 2010 data are not shown in Figure 8 because data are not available for other states.

[9] Fisher, Elliott, *et al.* "Health Care Spending, Quality, and Outcomes: More Isn't Always Better," February 27, 2009 *(http://www.dartmouthatlas.org/downloads/.../Spending_Brief_022709.pdf)*.

Congressional Budget Office. *Geographic Variation in Health Care Spending*, February 2008.

Agency for Healthcare Research and Quality Press Release, *Modest Health Care Quality Gains Outpaced by Spending*, March 3, 2008 *(http://www.ahrq.gov/news/press/pr2008/qrdr07pr.htm)*.

METHODS

DATA SOURCES—This year's report departs from the format and methods used in prior years. Expenditure estimates for Maryland and other states for the years 2000–2009 come from the Centers for Medicare & Medicaid Services' *Health Expenditures by State of Residence (2011)*, available online at http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip

The national expenditure estimates are from CMS' National Health Expenditures Accounts. Relying on CMS' health expenditures accounts allows for more consistent comparisons with spending trends nationally and in other states and substantially reduces the level of resources required to develop the estimates; however, there are a few limitations in terms of the level of granularity achieved.

WHAT'S INCLUDED IN SPENDING—All expenditures measure personal health care spending annually by type of service delivered and are in nominal terms. Personal health care spending excludes administration and the net cost of private health insurance, as well as government spending on public health. The estimates of expenditures in Maryland are for Maryland residents. Spending is based on the location of the health care provider and then adjusted for the flow of residents between states in order to estimate resident-based expenditures for health care services.

The estimates include major spending components, but estimates are not available for all specific services of interest. It is not possible to separate out certain components of spending, such as outpatient versus inpatient spending in hospitals and alternative therapies. Hospital care includes hospital-based nursing care facilities and home health care. Prescription drug spending accounts for about 85 percent of the Prescription Drugs and Other Non-durable Medical Products category. Nursing care facilities include continuing care retirement communities. Other Health, Residential, and Personal Care includes expenditures for residential care facilities, Medicaid home and community-based waiver programs, ambulance providers, and medical care delivered in nontraditional settings (such as community centers and schools).

THE PREDICTION MODEL—Time series models using CMS spending data for Maryland and the United States for 1991 to 2009 were used to predict Maryland and U.S. spending in 2010 by type of service. Spending for 2010 in Maryland was estimated for each service category by applying the ratios of the *predicted 2010* Maryland-to-national spending estimates (for each service category) to the CMS-published national spending data for 2010.

OTHER ADJUSTMENTS—CMS estimates are published by "vintage," meaning that estimates are updated as new information such as population data from the Bureau of the Census or data from the Economic Census become available. Estimates in this report are recalibrated to the 2010 National Health Accounts.

ACKNOWLEDGEMENT

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