As coverage is expanded under the Affordable Care Act and Maryland’s new waiver test takes effect, state policymakers will be closely monitoring health care spending. This report provides information about total and per capita personal health care expenditures\(^1\) by Maryland residents in 2012, and the distribution of those expenditures by type of service and payer source. It compares expenditures in 2012 with those from 2000 through 2011. It also compares spending in Maryland with spending nationally. All expenditures measure personal health care spending annually by type of service delivered and are in nominal terms.

---

\(^1\) 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 on page 8 for more information.
Per Capita Health Care Spending in Maryland Continues To Outpace the Nation

- The rate of growth in per capita spending for Maryland (4.1 percent) was higher than the 3.2 percent observed for the nation as a whole.

- Between 2011 and 2012, per capita spending in Maryland grew faster than the rate of growth between 2010 and 2011.

- Per capita spending has been consistently higher in Maryland than in the nation overall, with the gap increasing over time. The ratio of per capita spending in Maryland to the United States increased from about 105 percent in 2004 to 111 percent in 2012. (See Figure 1)

**FIGURE 1. Growth in Per Capita Personal Health Care Expenditures, Maryland and the United States, 2003–2012**

*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 the Centers for Medicare & Medicaid Services (CMS) and the U.S. Census Bureau. Personal health care expenditures in Maryland in 2010, 2011, and 2012 were projected by Social & Scientific Systems, Inc. (SSS), using time series models.
Marylanders Earn More but Spend a Lower Proportion of Income on Health Care

- In 2012, Maryland residents spent an average of 16.2 percent of their personal income on health care, compared with 17.6 percent spent nationally. (See Figure 2)

- Both per capita spending and income were higher for Maryland than for the nation overall, but the gap in income was larger. In 2012, personal income in Maryland was 22 percent higher than it was nationally, while health care spending was 12 percent higher—so the share of income devoted to health care spending in Maryland was lower than in the United States.

**FIGURE 2. Ratio of Per Capita Personal Health Care Expenditures (PHE) to Personal Income (PI), Maryland and the United States, 2000–2012**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio of PHE/PI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>14%</td>
</tr>
<tr>
<td>2001</td>
<td>15%</td>
</tr>
<tr>
<td>2002</td>
<td>16%</td>
</tr>
<tr>
<td>2003</td>
<td>16%</td>
</tr>
<tr>
<td>2004</td>
<td>16%</td>
</tr>
<tr>
<td>2005</td>
<td>17%</td>
</tr>
<tr>
<td>2006</td>
<td>18%</td>
</tr>
<tr>
<td>2007</td>
<td>18%</td>
</tr>
<tr>
<td>2008</td>
<td>18%</td>
</tr>
<tr>
<td>2009</td>
<td>18%</td>
</tr>
<tr>
<td>2010</td>
<td>18%</td>
</tr>
<tr>
<td>2011</td>
<td>18%</td>
</tr>
<tr>
<td>2012</td>
<td>18%</td>
</tr>
</tbody>
</table>

**2012 Ratio PHE/PI**

- **Maryland**: 8,397/51,971 = 16.2
- **United States**: 7,520/42,693 = 17.6

**SOURCE**: Tabulations of data from CMS and the U.S. Census Bureau. Health care expenditures in Maryland in 2010, 2011, and 2012 were projected by SSS using time series models.
HOW WERE MARYLAND’S HEALTH CARE DOLLARS SPENT?

BY TYPE OF SERVICE

Bulk of Maryland’s Health Care Dollars Go Toward Hospital Care (See Figure 3)

- The single largest share of personal health care expenditures was attributable to hospital care — including both inpatient and outpatient services — accounting for 37 percent of Maryland’s total health care expenditures in 2012.
- Physician and clinical services made up the next largest share, at nearly a quarter of total health care expenditures (23 percent).
- Prescription drugs and other nondurable medical products made up another 15.7 percent, followed by almost 10 percent for long-term care (nursing home and home health care combined).
- Dental services and other health, residential, and personal care accounted for 4.4 percent and 5.2 percent of total spending, respectively.

FIGURE 3. Share of Total Personal Health Care Expenditures by Type of Service, Maryland, 2012

SOURCE: Tabulations of data from CMS. Personal health care expenditures in Maryland in 2010, 2011, and 2012 were projected by SSS using time series models.
BY SOURCE OF PAYER

Greater Proportion of Privately Insured/Out-of-Pocket Payments Compared With National Average

- Spending reimbursed by private health insurers or paid out of pocket by individuals accounted for the majority of personal health care expenditures by payer in Maryland in 2012 at 63 percent. (See Figure 4)
- Medicare had the next largest share at 22 percent, followed by Medicaid at 15 percent. (See Figure 4)
- Compared with the United States overall, the share of spending paid by private payers or paid out of pocket was about 3 percentage points higher in Maryland.
- Shares of spending paid by Medicare and Medicaid were higher in the United States than in Maryland.

FIGURE 4. Share of Total Personal Health Care Expenditures by Payer in Maryland, 2012

SOURCE: Tabulations of data from CMS. Personal health care expenditures in Maryland in 2010, 2011, and 2012 were projected by SSS using time series models.
WHY IS THE SHARE OF HOME HEALTH SPENDING LOWER IN MARYLAND THAN IN THE UNITED STATES?

Analyses presented in this Spotlight series over the past several years have indicated that the pattern of long-term care spending is different in Maryland than in the United States as a whole, with Maryland having a lower share of health care spending going to home health care and a higher share going to nursing home care than the national average. Because there are state-specific differences not reflected in the National Health Expenditure Accounts (NHEA) in how services are categorized, these observed differences may be due to classification issues rather than real differences in utilization. Some of the possible sources of differences are described below. Without additional data, however, it is not currently possible to determine whether the observed lower spending represents a true difference (either in volume or prices) or is attributable to data differences.

What are the differences in how home health agencies (HHAs) are defined in Maryland compared with the NHEA approach?

- The NHEA uses NAICS code 6216 to define home health services
  - Defines home health care providers as private-sector establishments primarily engaged in providing skilled nursing services in the home, along with a range of other services, including, but not limited to, personal care, physical therapy, and speech therapy.
  - Excludes medical equipment sales or rentals not billed through HHAs and non-medical types of home care (e.g., Meals on Wheels, chore-worker services, friendly visits, or other custodial services).
- On a state-by-state basis, however, definitions of what constitutes HHAs and how these agencies are licensed vary. In Maryland, there are three types of agencies that fall under the broader category of home care services. See box for details.

TYPES OF HOME CARE AGENCIES

- Home health agencies (HHAs) provide nursing services, home health aides, and one or more other services such as physical therapy, occupational therapy, and social services and are certified by Medicare. Medicare-certified HHAs accept Medicare, Medicaid, and private insurance.
- Residential service agencies (RSAs) provide supportive home care services such as assistance with ADLs and/or housekeeping services and may provide one or more home care service, including provision of oxygen or medical equipment (wheelchairs, walkers, and hospital beds), but do not provide nursing services. RSA services are often paid by the person using services but may be paid by insurance under some circumstances. An RSA cannot participate in the Medicare program, and RSA services are primarily provided through Medicaid’s HCBS waiver program. Also, DME companies are required to be licensed as RSAs in Maryland and may participate in Medicare under Part B, which further complicates cross-state comparisons.
- Nursing referral service agencies screen and refer licensed nurses, home health aides, homemakers, live-in caretakers, and companions for individuals needing help in their homes. The person seeking assistance contracts directly with the individual who will provide the service and may pay either the agency or the provider for services.
Such licensing distinctions may not exist in other states. In addition, states also may have private-duty home care agencies that are not Medicare certified.

These licensing distinctions, variation in how states define HHAs, and lack of systematic, state-level data make it challenging to establish whether home health services are being classified in a consistent manner across states compared with how they are classified nationally.

These inconsistencies might result in home health spending not being accurately captured at the state level and driving the differences we are seeing in home health spending between Maryland and the United States.

Are there differences in underlying industry structure, supply of facilities or services, or demand?

The supply of home health services might differ between Maryland and the United States due to factors such as the number of HHAs in Maryland compared with the number nationally or the number of other types of state-specific licensed home care providers.

In contrast to measures of supply of nursing home services such as nursing home beds, there is no comparable measure of the supply of home health services because most services are provided in the home and on an intermittent basis.

- Supply of home health aides is difficult to estimate and to compare across states because many aides tend to be independent contractors and/or part-time employed, which may vary by jurisdiction.

Data from Medicare indicate that in general home health visits (per 1,000 enrollees) in Maryland are fewer than in most other states. However, these data do not include Medicaid beneficiaries or privately insured users of home health services. Differences in the number of visits between Maryland and other states may be attributable to a number of factors, including differences in patient characteristics or preferences that drive demand. None of these data provide information on the appropriateness of utilization.
METHODS

DATA SOURCES. Expenditure estimates for Maryland and other states for the years 2000–2009 come from the Centers for Medicare & Medicaid Services (CMS) 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 Expenditure Accounts. Relying on CMS’ health expenditure accounts to produce Maryland spending estimates 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 IS INCLUDED IN SPENDING. All expenditures measure personal health care spending annually by type of service delivered and source of payer 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 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 Nondurable Medical Products category. Nursing Home 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 spending in 2010, 2011, and 2012 by type of service and source of payer. The predicted Maryland spending in 2010, 2011, and 2012 by type of service and source of payer was controlled by applying the ratios of the predicted 2010, 2011, and 2012 Maryland-to-national spending estimates (for each service category and payer source) to the CMS-published national spending data for 2010, 2011, and 2012, respectively.

OTHER ADJUSTMENTS. CMS estimates are published by “vintage,” meaning that estimates for earlier years may change as new information becomes available when CMS updates the time series. Estimates in this report are recalibrated to the 2013 National Health Expenditure Accounts and so may differ slightly from estimates published by MHCC in prior years.

Acknowledgments

The preparation of this Spotlight was conducted under contract with Social & Scientific Systems, Inc. (SSS), of Silver Spring, Maryland. The principal authors are Niranjana Kowlessar, PhD; Lan Zhao, PhD; and Claudia Schur, PhD. Bryan Sayer contributed to the analysis.