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2019

# Scorecard on State Health System Performance

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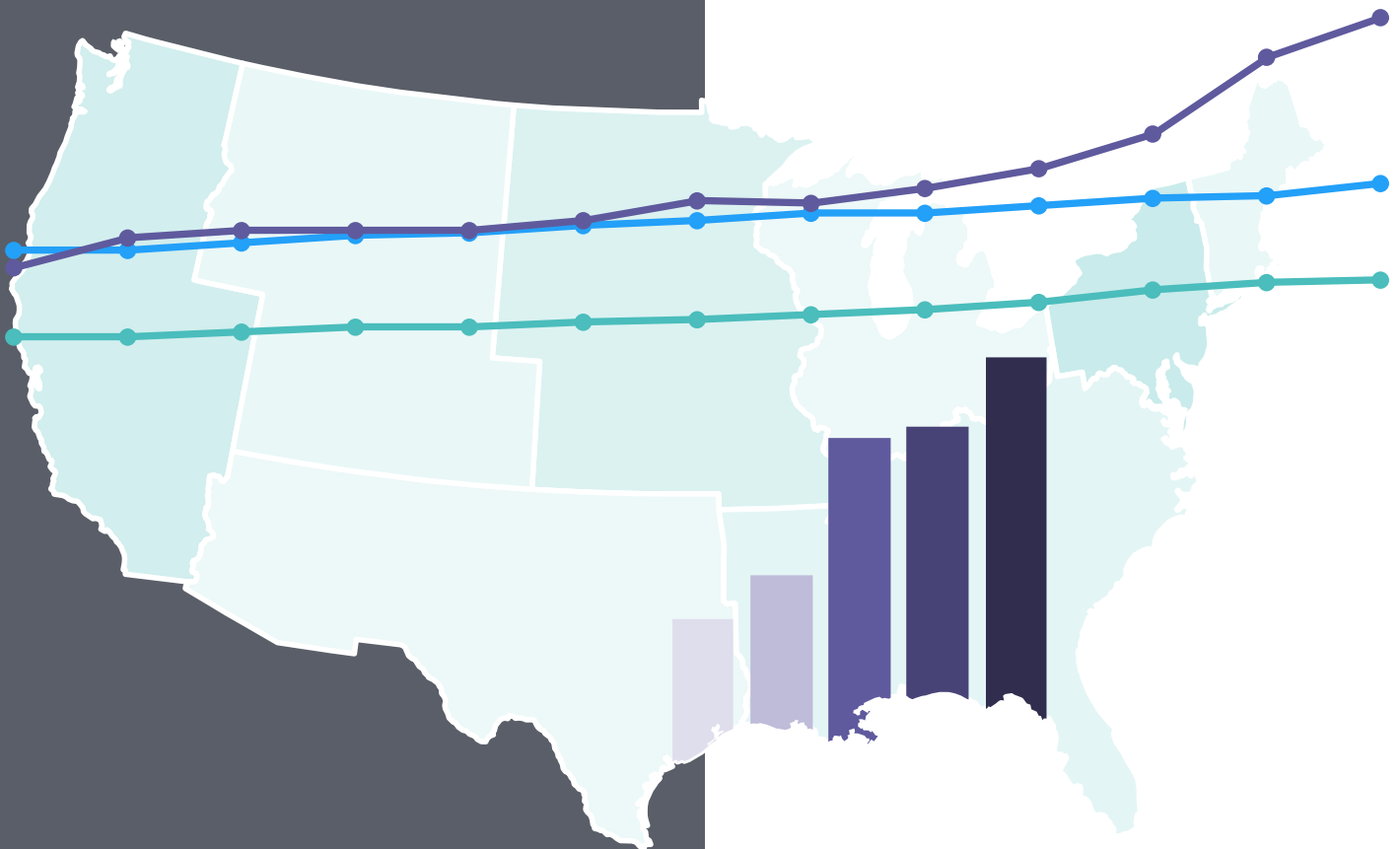
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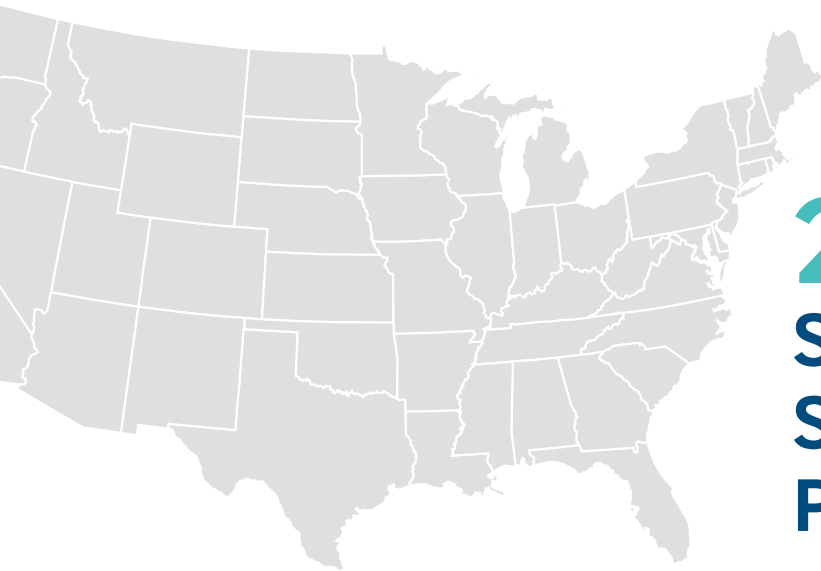
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# 2019

## Scorecard on State Health System Performance

### OVERVIEW

The Commonwealth Fund's *2019 Scorecard on State Health System Performance* reveals that most states are losing ground on key measures related to life expectancy as premature deaths from suicide, alcohol, and drug overdose continue to increase. Several states that most recently expanded eligibility for their Medicaid programs saw meaningful gains in access to health care; in other states prior gains eroded between 2016 and 2017. Finally, the *Scorecard* found that health care costs are placing an increasing financial burden on families across the nation.

Hawaii, Massachusetts, Minnesota, Washington, Connecticut, and Vermont are the top-ranked states in 2019 according to the *Scorecard*, which assesses all 50 states and the District of Columbia on 47 measures of access to health care, quality of care, service use and costs of care, health outcomes, and income-based health care disparities.

Overall, three highlights emerge from our analysis of the *Scorecard* results:

- **The rise in deaths from suicide, alcohol, and drug overdose is a national crisis, but different states are affected in different ways**
- **Uninsured rates are down following coverage expansions, but gains have stalled, and in some states have begun to erode**
- **Per capita spending growth in employer plans is outpacing that in Medicare**



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**HIGHLIGHTS**

**The rise in deaths from suicide, alcohol, and drug overdose is a national crisis, but states are affected in different ways**

By now, we are all too aware of the devastating effects of the opioid crisis. Opioid use disorder, as well as the emergence of highly lethal synthetic opioids (e.g., fentanyl and carfentanil) in the illicit drug supply, have fueled a rise in drug overdose deaths that have affected families across the country. Drug overdose deaths are part of the term “deaths of despair,” which also refer to deaths from suicide and alcohol.<sup>1</sup> Together, rising death rates from suicide, alcohol, and drug overdose contribute to the recent decline in average life expectancy at birth in the United States.<sup>2</sup>

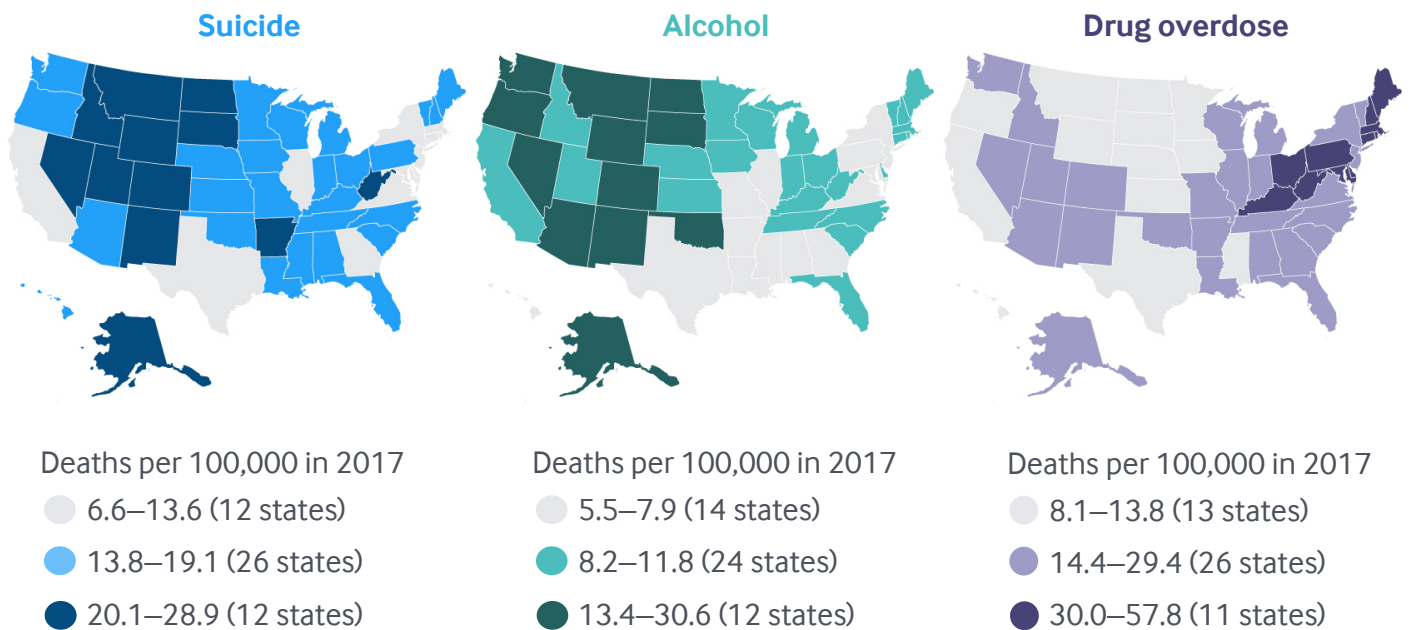
**Deaths from suicide, alcohol, and drug overdose manifest differently across states**

What’s often lost in national discussions about the increase of deaths from suicide, alcohol, and drug overdose is that different states have been affected in different ways.

States in New England, the Mid-Atlantic, and several Southeastern states have been particularly hard hit by the opioid epidemic (Exhibit 1).<sup>3</sup> West Virginia, Ohio, Pennsylvania, the District of Columbia, Kentucky, Delaware, and New Hampshire stand out as having the highest death rates from drug overdoses. In Pennsylvania, Maryland, and Ohio, mortality rates from drug overdoses were at least five times higher than rates for alcohol-related deaths and about three times higher than suicide rates (Appendix F3).

In other states, deaths from suicide and alcohol dominate. In 2017, Montana, Nebraska, the Dakotas, Oregon, and Wyoming saw higher rates of death from suicide and alcohol than from drugs. In 13 additional states, either suicide or deaths from alcohol (but not both) surpassed drug overdose deaths.<sup>4</sup>

**Exhibit 1. Deaths from suicide, alcohol, and drug overdose impact states differently**



Note: D.C. not counted in state tallies.

Data: 2005–2017 National Vital Statistics System (NVSS), via CDC WONDER.

**West Virginia and Ohio have been hard hit by the opioid epidemic; drug-related mortality in those states far outpaces rates in other parts of the country**

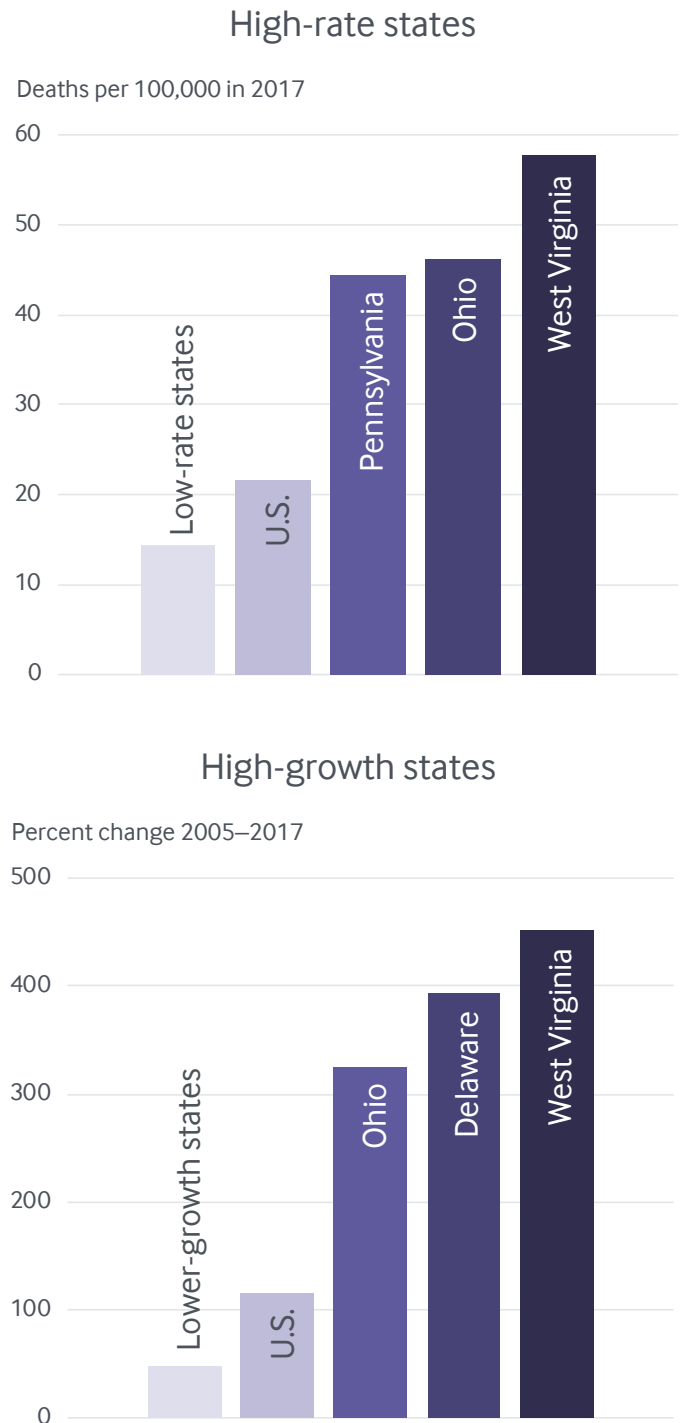
West Virginia has been hardest hit by the opioid epidemic. It had the highest rate of drug overdose deaths in 2017 (57.8 deaths per 100,000 residents) — more than two-and-a-half times the national average and 25 percent higher than the next highest state, Ohio, which had 46.3 deaths per 100,000 residents (Exhibit 2). West Virginia has also seen the sharpest growth in drug overdose deaths in recent history, with overdose mortality rates climbing from 10.5 deaths per 100,000 in 2005 to 57.8 in 2017 — a fivefold increase. While West Virginia stands out, it’s hardly alone. Additionally, drug-related mortality rates in Ohio, Pennsylvania, and the District of Columbia were at least double the U.S. average in 2017, and along with seven other states, have seen at least a threefold increase in overdose mortality since 2005 (Appendix F3).

**Growth trends: Deaths from suicide, alcohol, and drug overdose hit all-time highs in 2017**

Nationally speaking, the death rates from suicide, alcohol, and drug overdose each rose markedly in the past decade. The recent, sharp growth in drug overdose deaths is most alarming. The rate of death from drug overdose more than doubled across the country between 2005 and 2017 (Exhibit 3, Appendix F3).<sup>5</sup> While the overdose rate has somewhat moderated recently, the 10 percent jump between 2016 and 2017 is still among the highest annual increases the nation has seen.

Steady increases in suicides and deaths linked to alcohol are also concerning and represent yet another marker of complex socioeconomic and behavioral health problems across the nation. Nationally, suicide rates are up nearly 30 percent since 2005; they rose more sharply between 2016 and 2017 than during any other one-year period in recent history.<sup>6</sup> Similarly, the rate of death linked to alcohol has increased more rapidly in recent years, with average growth of 4 percent per year between 2013 and 2017, compared with 2 percent per year between 2005 and 2012.

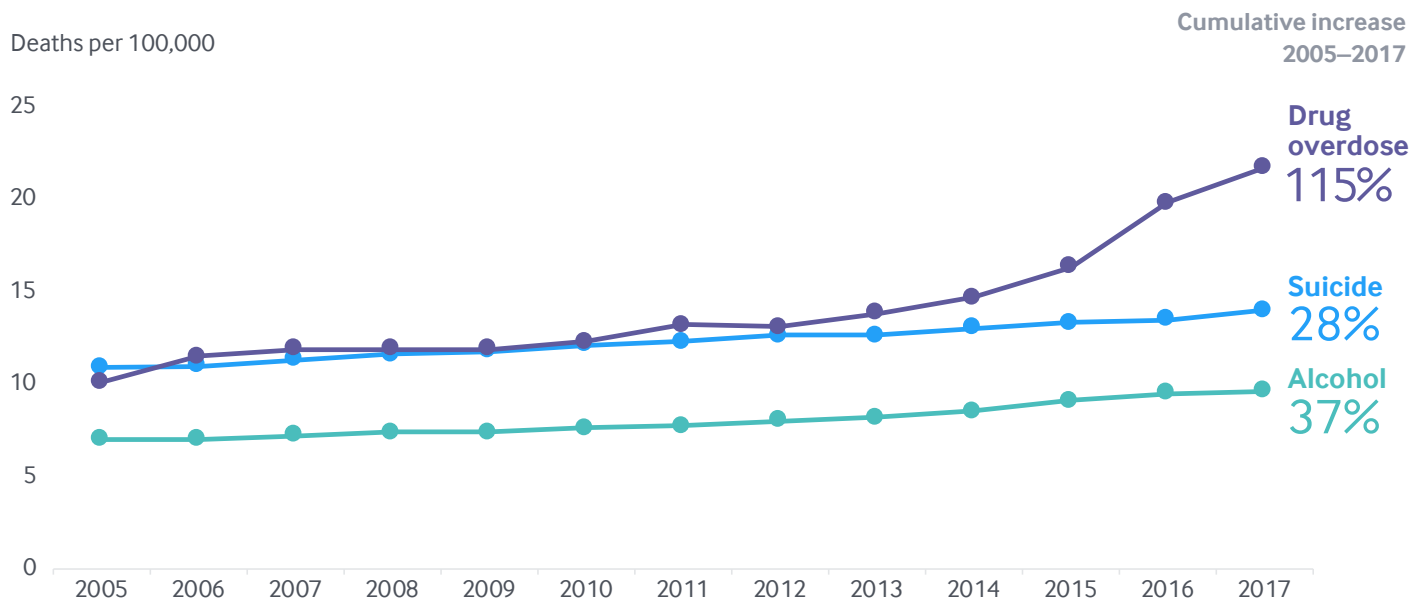
**Exhibit 2. Drug overdose deaths unequal across states, disproportionately impact Ohio and West Virginia**



Note: “Low-rate” and “lower growth” refer to the median value among the group of states with rates below the U.S. average.

Data: 2005–2017 National Vital Statistics System (NVSS), via CDC WONDER.

### Exhibit 3. Deaths from suicide, alcohol, and drug overdose on the rise



Data: 2005–2017 National Vital Statistics System (NVSS), via CDC WONDER.

#### Growth trends: Uneven growth in death rates across states suggests varying approaches needed to stem suicide and alcohol- and drug-related mortality

Focusing on national growth trends can mask important differences in trends in deaths from suicide, alcohol, and drug overdose across states. Deaths of each type rose in every state between 2005 and 2017, but the increases were far from uniform. Drug overdose mortality has risen the most, more than doubling in 26 states (Exhibit 4). States in New England, the Mid-Atlantic, the Great Lakes states, and several Southeastern and Plains states saw the most intense growth. Suicide and alcohol-related deaths also rose, but more modestly.

#### Uninsured rates are down following coverage expansions, but gains have stalled, and in some states have begun to erode

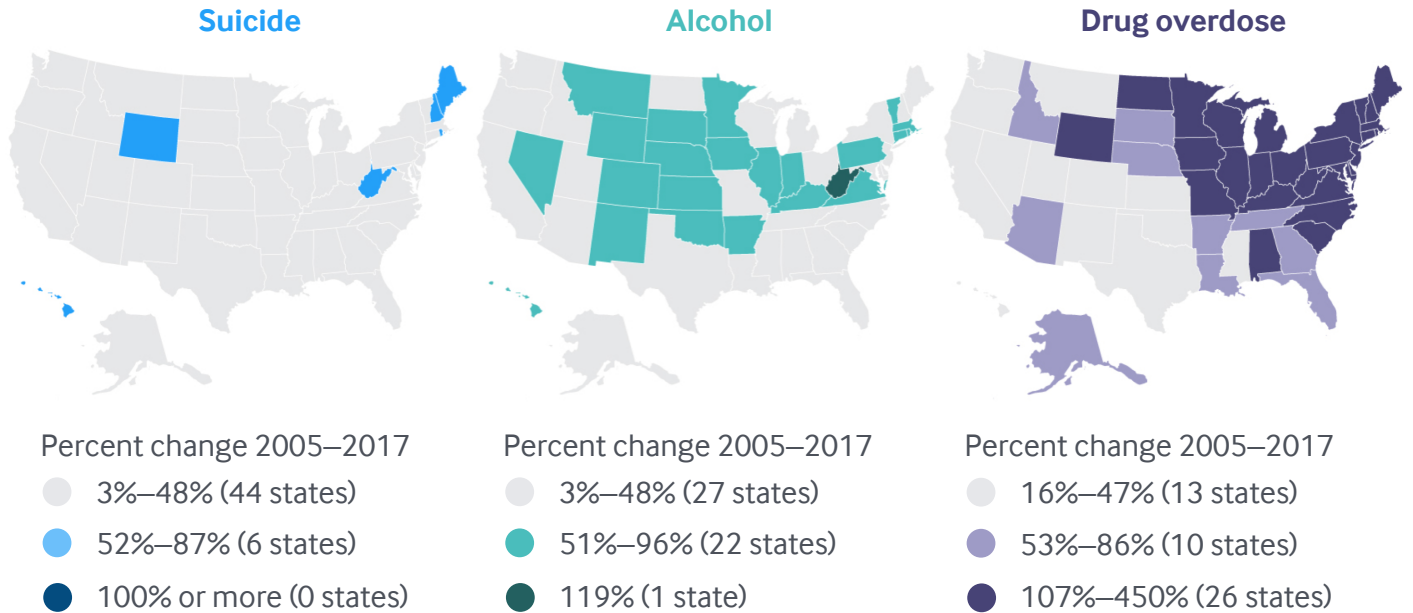
The 2019 State Scorecard found that the historic gains made by states in expanding health insurance coverage and

access to care following the Affordable Care Act's major coverage expansions in 2014 have stalled or even begun to erode in some states.

#### States' historic progress in expanding health insurance coverage and access to care has stalled

In nearly all states, there were widespread reductions in uninsured rates between 2013 and 2017, in the wake of the ACA's insurance market reforms and coverage expansions (Exhibit 5, Appendix C2). As more people gained coverage, fewer cited cost as a barrier to receiving needed care. But in most states, progress stalled after 2015. From 2016 to 2017, more than half of states simply held on to earlier gains; 16 states, including those that did and did not expand Medicaid, experienced upticks of 1 percentage point in their adult uninsured rate (Appendix C3).<sup>7</sup> One notable exception was Louisiana, where Medicaid expansion took effect in July 2016. Louisiana experienced a 3 percentage-point drop in its adult uninsured rate (from 15% to 12%) from the end of 2016 to the end of 2017. People with low income made the greatest gains (Appendices C3 and C4).

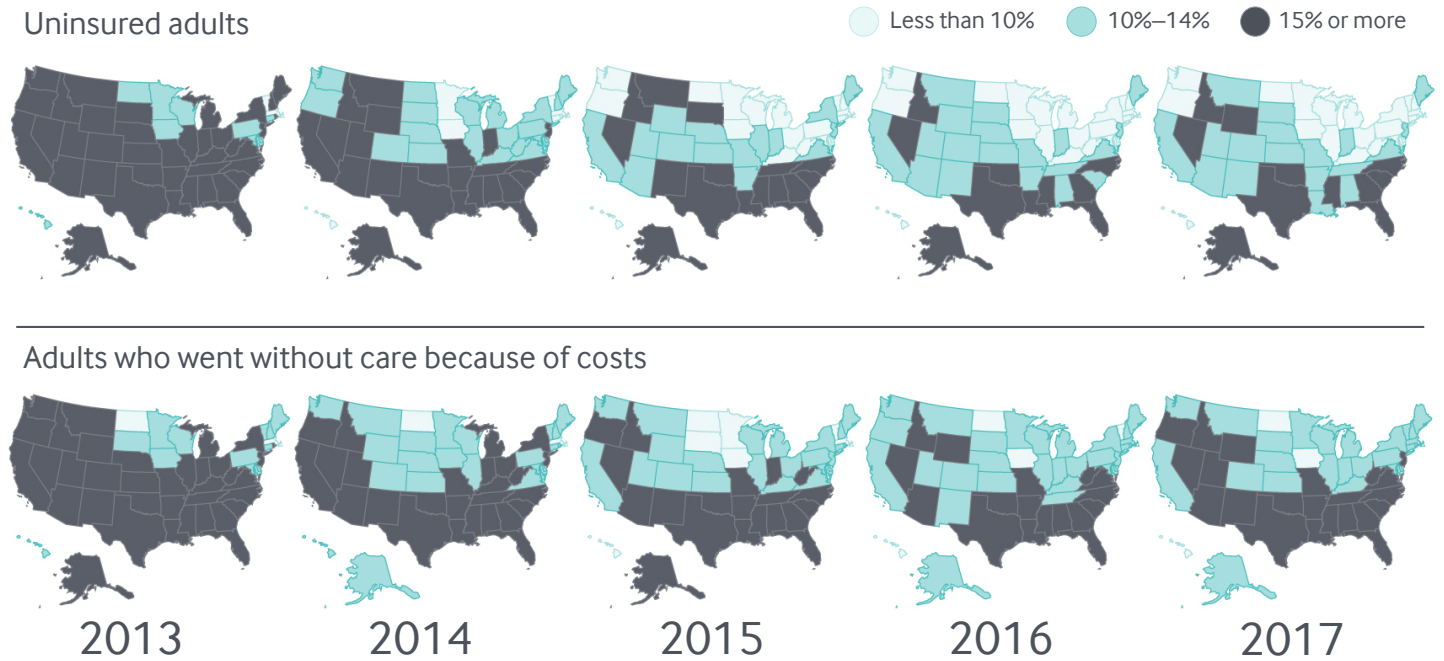
### Exhibit 4. Growth in deaths from suicide, alcohol, and drug overdose differ across states



Note: Growth is measured as the percent change in deaths per 100,000 between 2005 and 2017. D.C. not counted in state tallies. Map categories are fixed for all three death causes at 0%–49% increase, 50%–99% increase, and 100% or more increase.

Data: 2005–2017 National Vital Statistics System (NVSS), via CDC WONDER.

### Exhibit 5. Cost barriers to receiving care fell as uninsured rates fell following ACA coverage expansions



Notes: Adults who went without care is limited to adults ages 18–64 in this exhibit, though the Scorecard ranks states on a version of this measure that includes all adults age 18 and older.

Data: Uninsured (ages 19–64): U.S. Census Bureau, 2013–2017 One-Year American Community Surveys, Public Use Micro Sample (ACS PUMS); Cost barriers (ages 18–64): 2013–2017 Behavioral Risk Factor Surveillance System (BRFSS).

### Medicaid makes a difference in lowering uninsured rates

States' decisions about whether to expand their Medicaid programs have had stark implications for their uninsured rates. This is apparent in the sixfold variation across state uninsured rates in 2017, ranging from a low of 4 percent in Massachusetts (which expanded Medicaid along with coverage enhancements like extra subsidies) to a high of 24 percent in Texas (which did not expand) (Exhibit 6, Appendix C2). Among the 17 states that have yet to expand Medicaid, five had the highest uninsured rates, ranging from 18 percent to 24 percent.

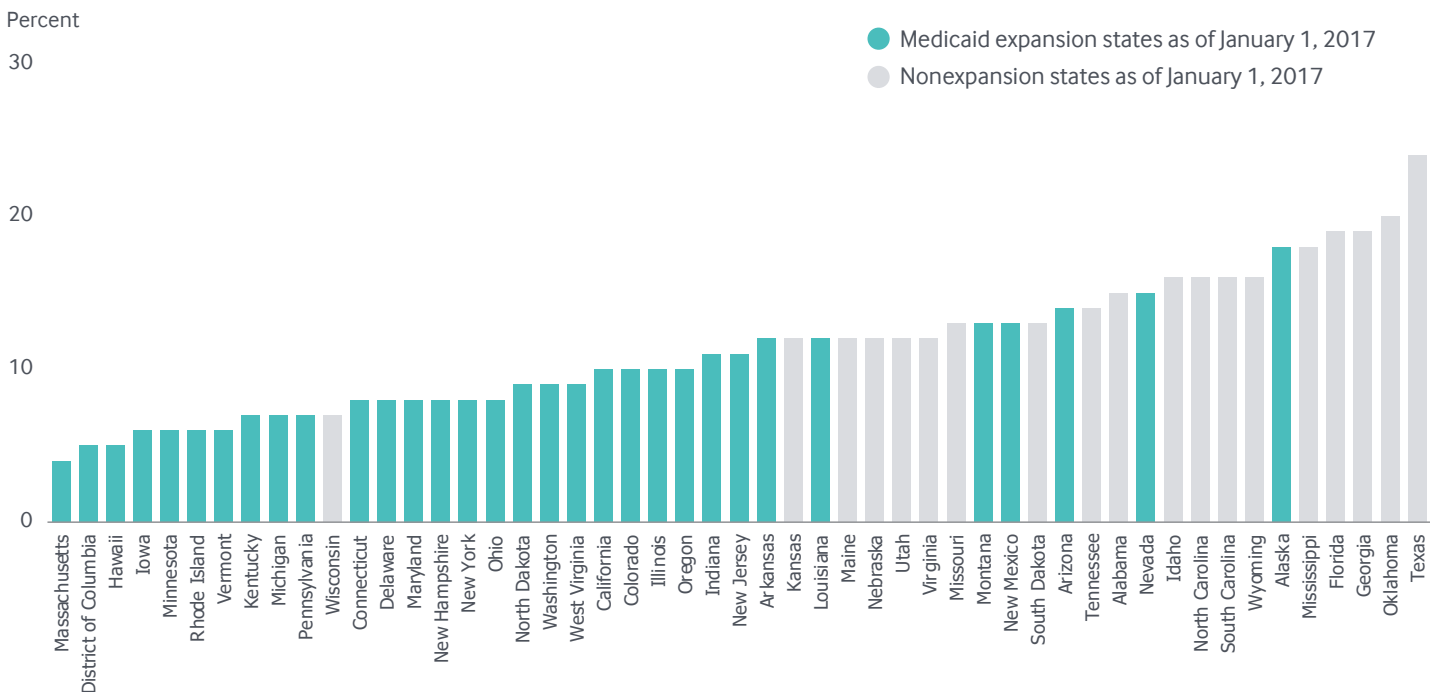
### In states that recently expanded Medicaid, uninsured rates among low-income adults dropped substantially in 2017

All states saw reductions in uninsured rates among low-income adults following the ACA's 2014 coverage

expansions, with states that expanded Medicaid seeing the largest drops. After falling through 2015, state uninsured rates among low-income adults did not change much between 2016 and 2017 (Exhibit 7).

The notable exceptions to this trend were three states that expanded Medicaid in 2015 or later: Alaska (September 2015), Louisiana (July 2016), and Montana (January 2016). Uninsured rates among low-income adults in these states dropped by 8, 6, and 4 percentage points, respectively, from the end of 2016 to the end of 2017. These gains suggest the potential for improving uninsured rates among low-income adults in the latest batch of states that have either expanded Medicaid (Maine and Virginia in 2019) or are poised to (Idaho, Nebraska, and Utah passed ballot initiatives in November 2018 to expand the program). In contrast, the failure of a November ballot initiative in Montana to permanently reauthorize the state's full Medicaid expansion, which was due to "sunset" this summer, and subsequent legislation

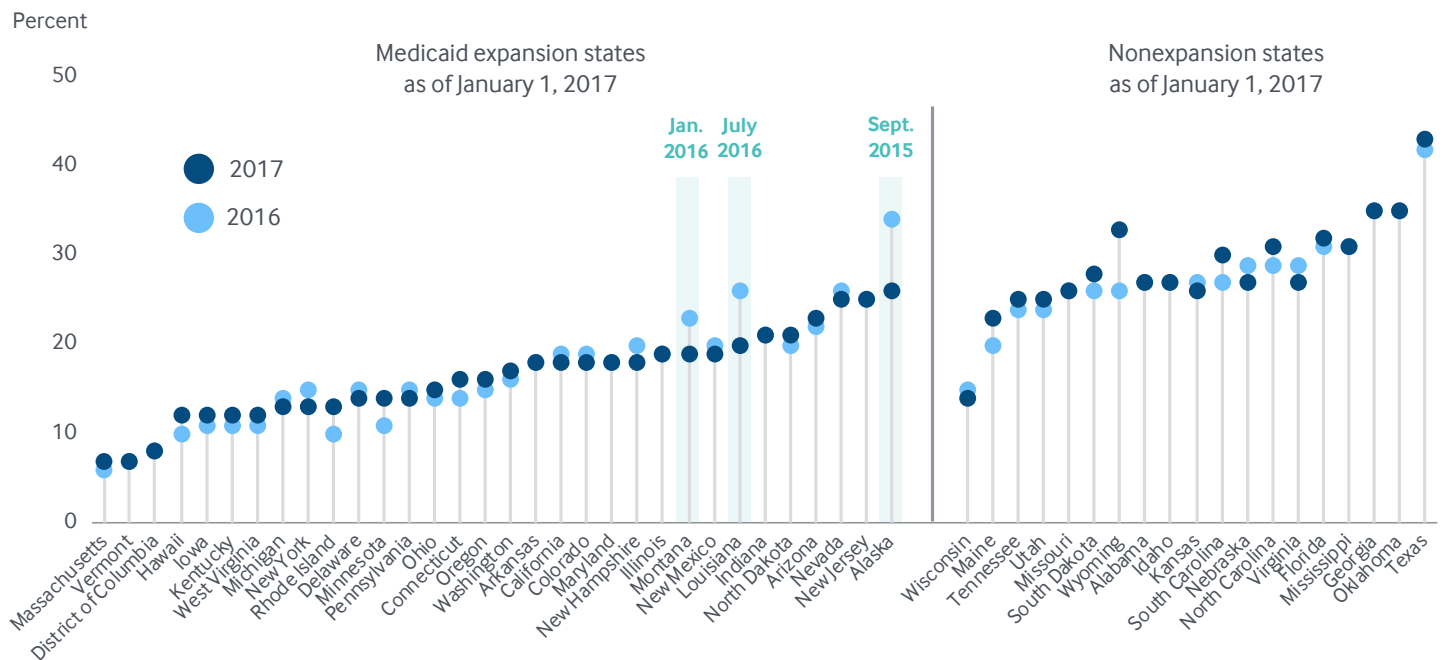
**Exhibit 6. Five of the 17 states that have yet to expand Medicaid had the highest adult uninsured rates in 2017**



Note: As of January 1, 2017, there were 19 states that had not expanded Medicaid. Maine and Virginia implemented Medicaid expansion in 2019; Idaho, Nebraska, and Utah passed ballot initiatives in November 2018 to expand Medicaid but have not yet implemented a full expansion; Utah made adults up to 100% of poverty eligible. Adults with incomes up to 100% of poverty are eligible for Medicaid in Wisconsin.

Data: U.S. Census Bureau, 2017 One-Year American Community Surveys. Public Use Micro Sample (ACS PUMS).

## Exhibit 7. States that more recently implemented Medicaid expansion saw the biggest drops in uninsured low-income adults in 2017



Notes: Low-income adults defined as adults ages 19–64 living in a household with income <200% of the federal poverty level. Medicaid expansion states are those states that expanded Medicaid by January 1, 2017. States arranged in order of their 2017 rate.

Data: U.S. Census Bureau, 2017 1-Year American Community Survey, American FactFinder and 2016 1-Year American Community Surveys, Public Use Micro Sample (ACS PUMS).

that would impose work requirements for enrollees, could endanger recent gains made there.<sup>8</sup> In Wyoming, Montana's neighbor — which has not expanded its Medicaid program — a third of low-income adults were uninsured in 2017.

Uninsured rates among people of color are also high in several of the states that have yet to expand Medicaid and are home to large African American and Hispanic populations. In Florida, Georgia, and Texas, for example, about 20 percent of black adults were uninsured in 2017, above the U.S. average of 14 percent ([Appendix C3](#)). More than a third of Hispanic adults in Texas and close to half of Hispanic adults in Georgia were uninsured in 2017. By contrast, uninsured rates among Hispanic adults in New York and in California, two states that did expand Medicaid, were 16 percent and 17 percent, respectively.<sup>9</sup>

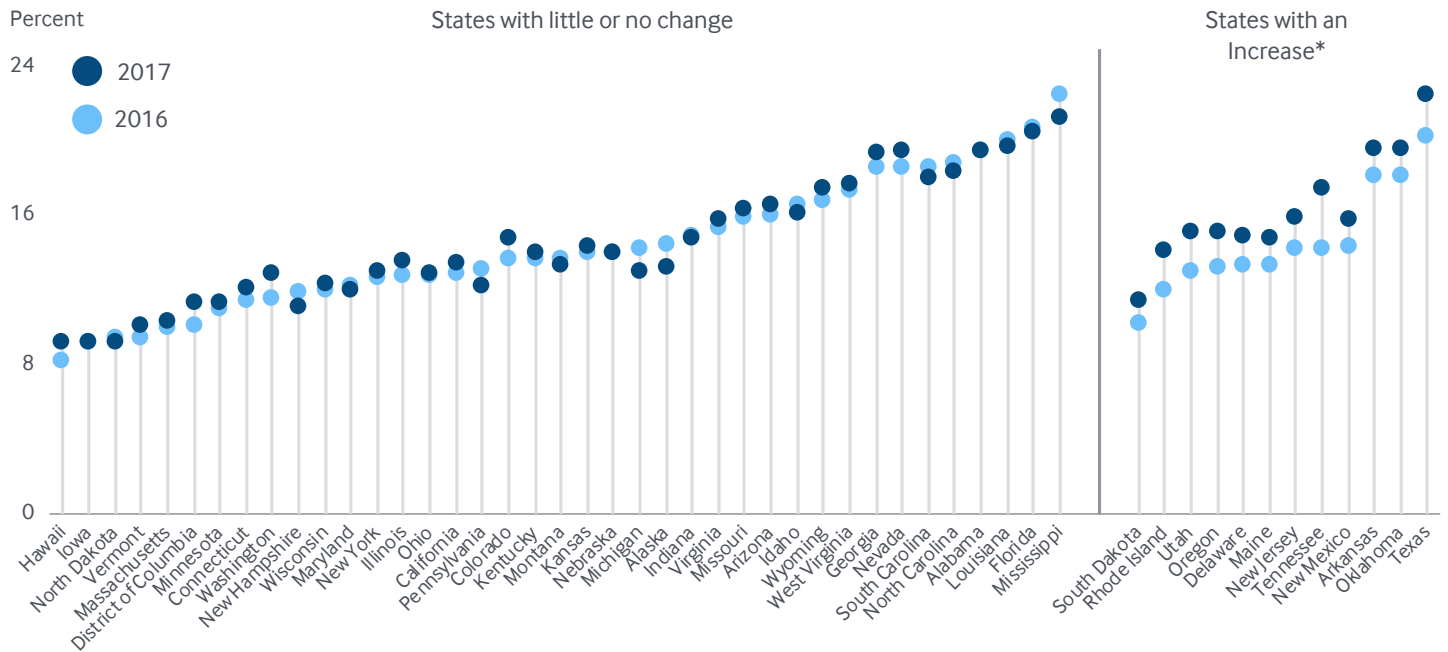
### Cost barriers to care on the rise

As the progress in expanding health coverage stalled, so too did gains in people's ability to access health care. Between 2016 and 2017, a dozen states had increases of at least 2 percentage points in the share of adults ages 18 to 64 who reported they had not gone to the doctor when needed because of cost ([Exhibit 8](#)).<sup>10</sup>

But it's also worth noting that as with uninsured rates among low-income adults, some states that expanded Medicaid after 2014 saw a decrease in the share of adults in this income group who skipped needed care because of cost between 2016 and 2017. In Alaska, for example, the rate of low-income adults who went without care because of cost dropped from 31 percent in 2016 to 13 percent in 2017; in Louisiana, the rate dropped from 37 percent to 28 percent ([Appendix C4](#)).



## Exhibit 8. The share of adults ages 18–64 who skipped needed care because of cost climbed by 2 percentage points or more in a dozen states between 2016 and 2017, eroding earlier gains



Note: States are arranged in rank order based on their 2016 value. \* Rate increase refers to change between 2016 and 2017 of at least 2 percentage points. Adults who went without care is limited to adults ages 18–64 in this exhibit, though the *Scorecard* ranks states on a version of this measure that includes all adults age 18 and older.

Data: 2016 and 2017 Behavioral Risk Factor Surveillance System (BRFSS).

## Per capita spending growth in employer plans is outpacing that in Medicare

Stalled progress in expanding health insurance coverage and access to care relates to rising health care costs as well as state and federal policies. In particular, the costs of private health plans are rising and people covered by such plans are increasingly exposed to high deductibles and out-of-pocket costs. As of the end of 2018, 30 million adults remained uninsured and an estimated 44 million people had insurance but had such high deductibles and out-of-pocket costs relative to their income that they were considered to be underinsured.<sup>11</sup> People with individual-market plans were underinsured at the highest rates, but the greatest recent growth occurred among people with employer plans.

A key factor in both uninsured and underinsured rates is the overall rate of growth in U.S. health care costs, especially compared with slow growth in U.S. median income. Health care costs are the primary driver of premium growth in

private insurance. Insurers and employers have tried to lower premiums by increasing deductibles and other cost-sharing for enrollees. Health care costs thus ultimately drive both consumers' decisions about whether to enroll in insurance and whether to get health care.

## Employee premium contributions are high relative to median income in many states

More than half of the U.S. population under age 65 — about 158 million people — get their health insurance through an employer.<sup>12</sup> The amount that employees contribute to their employer coverage is rising faster than median income in most states.<sup>13</sup> In 2017, employee premium contributions as a share of median income was 7 percent nationally ([Appendix C2](#)). This share increased in 19 states by 0.6 percentage points or more between 2013 and 2017, meeting the *Scorecard's* definition of worsening. Earlier research indicates that these higher premiums are not buying more generous health plans; deductibles are also growing in most states.<sup>14</sup>

Families spending the largest amount of their income on employer premiums live in the South and Southwest. In 11 states (Arizona, Delaware, Florida, Georgia, Louisiana, Mississippi, Nevada, New Mexico, North Carolina, Oklahoma, and Texas), premium contributions were 8 percent of median income or more, with a high of 10.2 percent in Louisiana (Exhibit 9, [Appendix C2](#)).

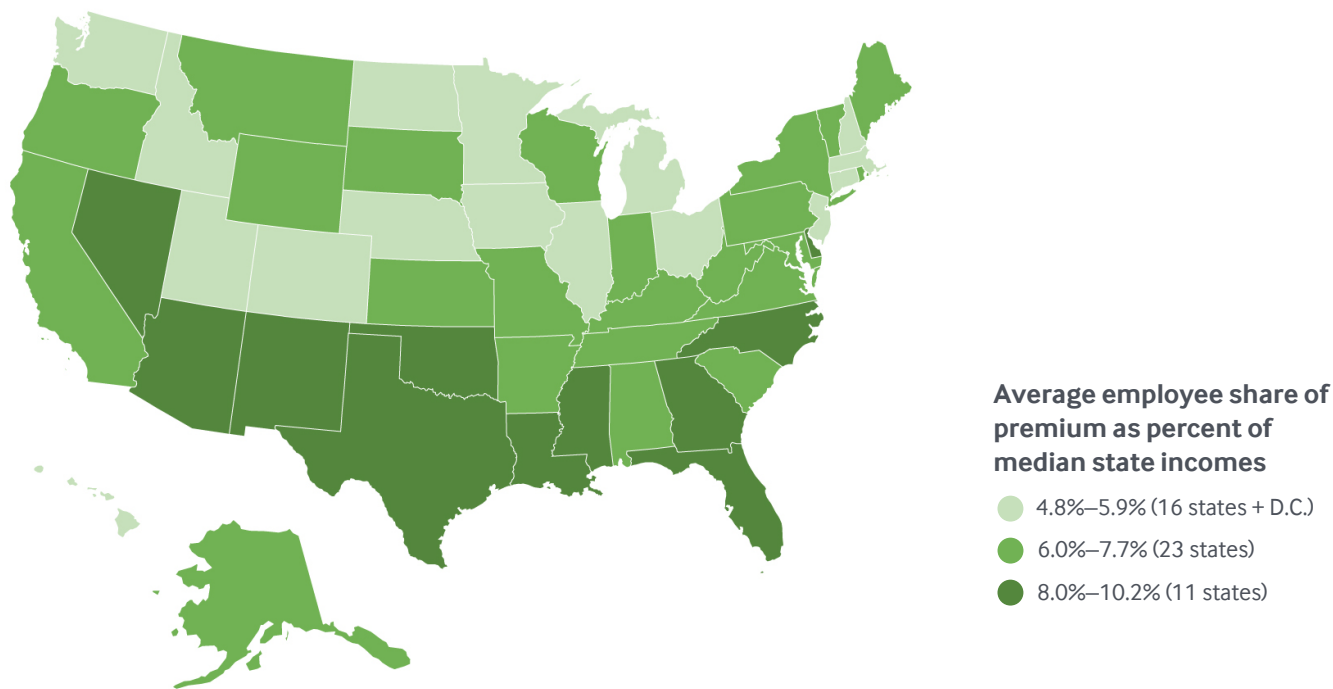
### States with higher employer premiums also have higher health care costs

States with the highest average employer premiums (both employer and employee contributions) also tended to have the highest per-enrollee health care costs (Exhibit 10). Medical costs comprise the largest share of premiums (80% to 95%), so it is not surprising that states with higher costs also had higher premiums.

What accounts for state variation in costs and premiums in employer health plans? There is growing evidence that prices paid by private insurers to health care providers, especially hospitals, rather than people's use of health care services, are the primary driver of cost and premium growth.<sup>15</sup> For example, the Health Care Cost Institute recently found that between 2013 and 2017, prices for inpatient services paid by private insurers climbed by 16 percent while utilization fell by 5 percent.<sup>16</sup> The analysis found similar patterns for outpatient and professional services as well as prescription drugs.

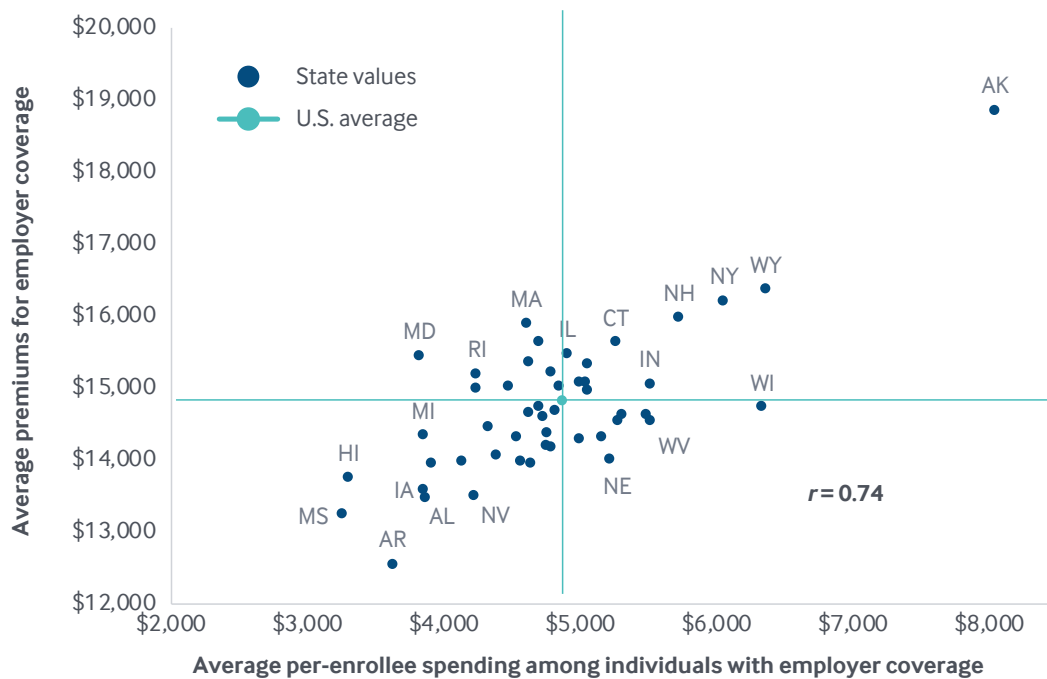
There is also evidence that prices explain the wide health care spending gap between the United States and other wealthy countries.<sup>17</sup> Other research has found that greater spending in the United States does not result in better health outcomes than in countries that spend less.<sup>18</sup>

## Exhibit 9. In 11 states, average employee health insurance contributions were 8 percent of median income or more in 2017



Data: Employee premium share: Medical Expenditure Panel Survey—Insurance Component (MEPS-IC, 2017); Median household income: Current Population Survey (2017–18).

## Exhibit 10. Higher premiums for employer coverage is associated with higher per-person spending, 2016



Note: X- and Y-axes do not start at \$0. Abbreviations left off some states clustered near the U.S. average for legibility.

Data: Employer coverage per-enrollee spending: 2016 Truven MarketScan Database, analysis by Michael E. Chernew, Harvard Medical School; Premiums for employer coverage: Medical Expenditure Panel Survey—Insurance Component (MEPS-IC, 2017).

### Per-enrollee costs grew faster in employer plans than in Medicare in most places

Recent research indicates that per capita costs in private insurance are rising faster than those in Medicare and that prices are a likely culprit. Cooper and colleagues found that between 2007 and 2014, health spending per insured enrollee in employer plans increased more rapidly and showed much more variability than per-beneficiary spending in Medicare.<sup>19</sup> Medicare sets prices for providers while prices in private plans are usually the result of confidential negotiation between providers and insurers or employers. A recent RAND analysis of a sample of hospitals in 25 states found that case-mix adjusted hospital prices paid by private insurers and employers were 241 percent higher than Medicare prices in 2017.<sup>20</sup>

Our analysis of another database of employer health insurance claims identified similar patterns across regions. Growth in per-enrollee spending among working-age adults with employer coverage outpaced growth in per-enrollee Medicare spending between 2013 to 2016 in five of eight

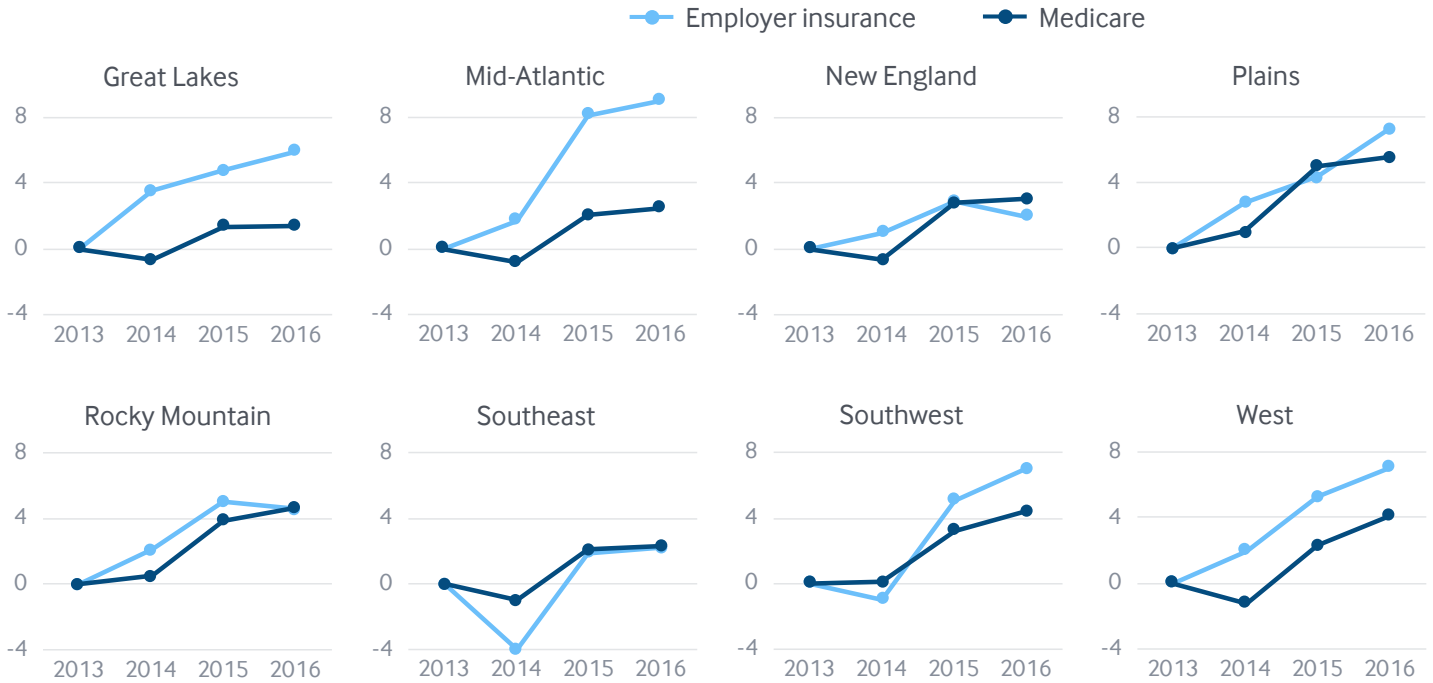
regions. Differences were widest in the Mid-Atlantic and Great Lakes states (Exhibit 11, [Appendix E2](#)).

### Growth in per-enrollee costs grew faster in employer plans than in Medicare in 31 states

Our analysis of cost trends at the state level between 2013 and 2016 found that per-enrollee spending growth in employer plans outpaced that of Medicare in 31 states. Per-beneficiary spending in Medicare climbed by 2.5 percent nationally, but ranged from a 1.5 percent decrease in Ohio to a 12.1 percent increase in Alaska (Exhibit 12, [Appendix E2](#)). Alaska was the only state where the growth rate exceeded 10 percent.

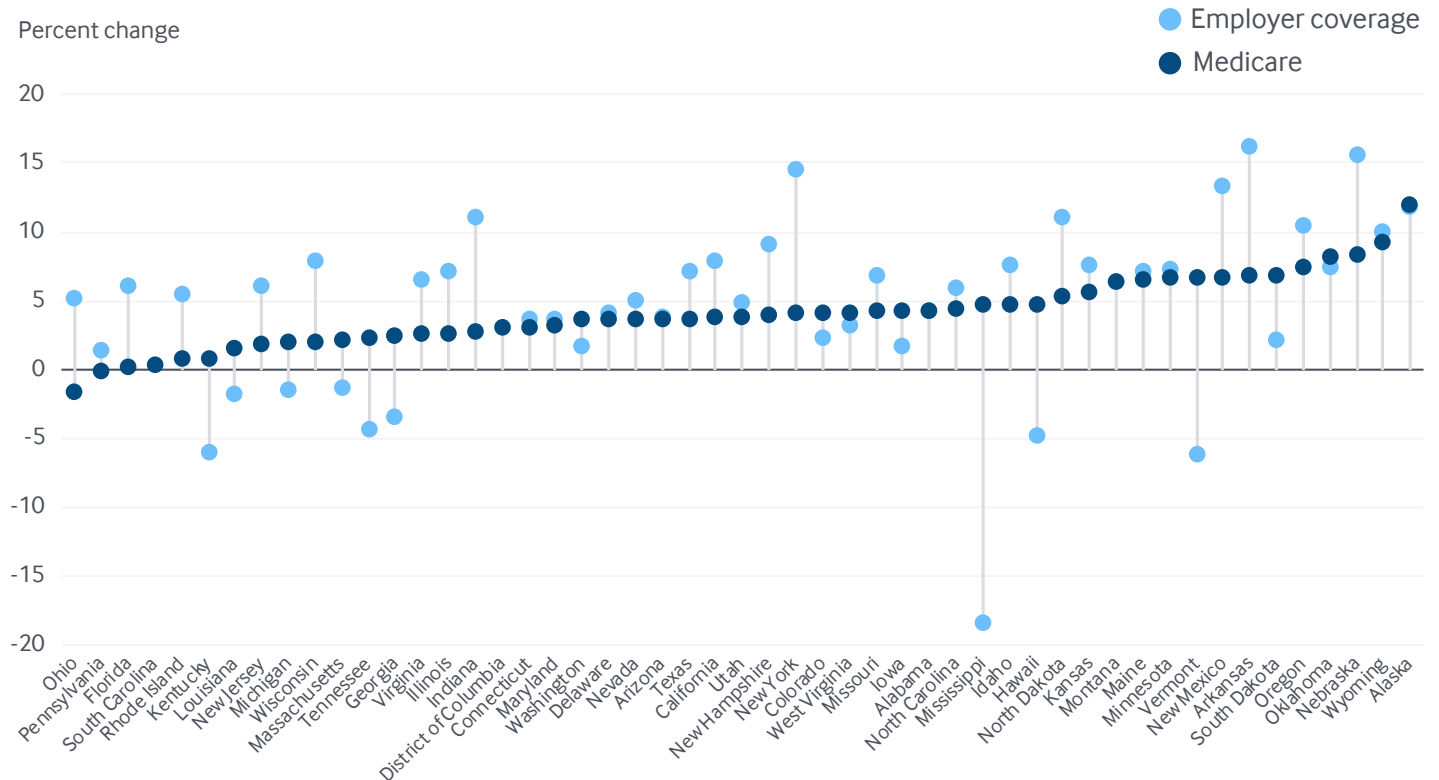
Per-enrollee spending among adults with employer coverage grew 3.9 percent between 2013 and 2016, but with more variation across states ([Appendix E2](#)). Per-enrollee spending increased by 10 percent or more in nine states, ranging from 10.1 percent in Wyoming to 16.2 percent in Alaska. Spending decreased in nine states, ranging from a drop of 18 percent in Mississippi to a decline of 1.2 percent in Massachusetts.

### Exhibit 11. Cumulative growth in per-enrollee spending among adults with employer insurance outpaced per capita Medicare spending growth in five of eight regions in 2013–2016



Data: Employer coverage: 2016 Truven MarketScan Database, analysis by Michael E. Chernew, Harvard Medical School; Medicare: 2016 administrative claims via May 2018 CMS Geographic Variation Public Use File.

### Exhibit 12. Cumulative change in per enrollee spending, 2013–2016



Data: Employer coverage: 2013–2016 Truven MarketScan Database, analysis by Michael E. Chernew, Harvard Medical School; Medicare: 2013–2016 administrative claims via May 2018 CMS Geographic Variation Public Use File.

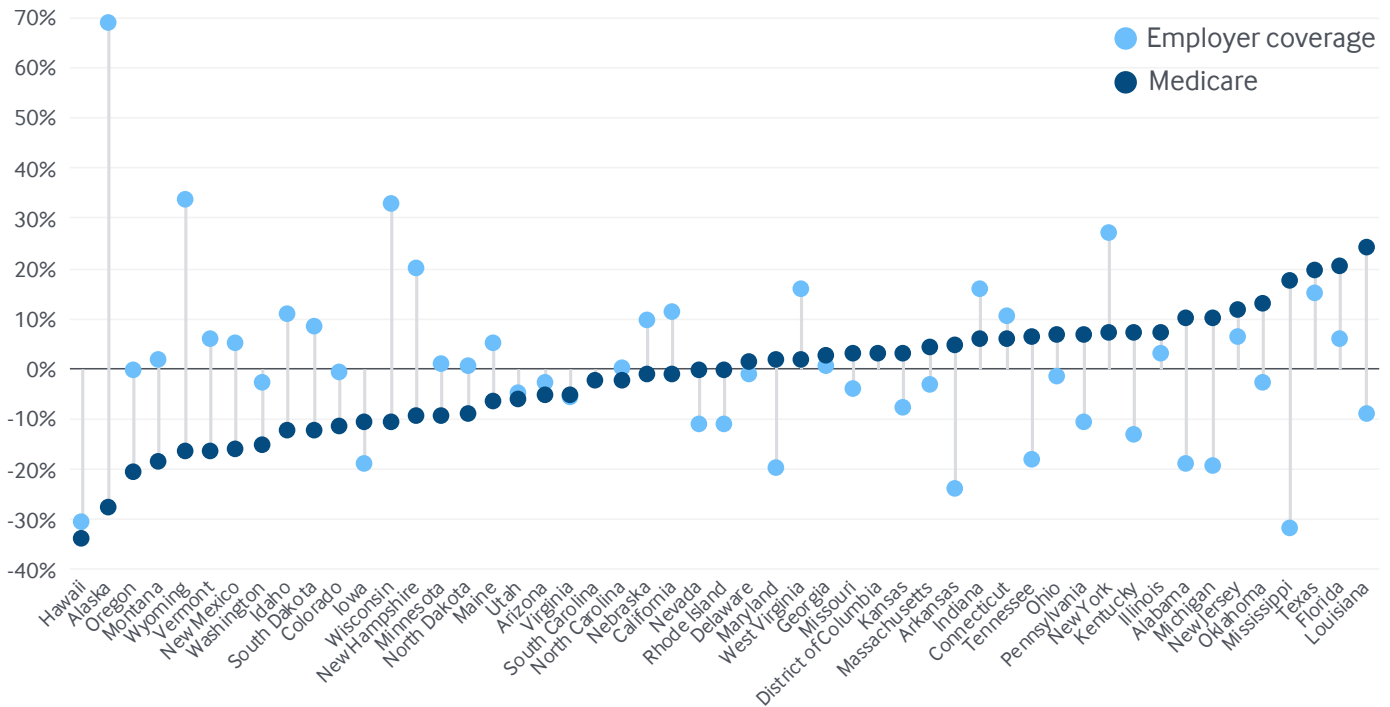
**Differences in prices paid to providers likely drive much of the interstate variation in employer health plan costs and premiums**

What drives the considerable variation in per-enrollee spending levels in Medicare and employer plans? Exhibit 13 compares spending among Medicare beneficiaries and those with employer coverage in the same state. Spending for each group is shown as the degree to which it diverges from the U.S. median.

Per-enrollee Medicare spending in Hawaii was 34 percent less than the U.S. median, whereas spending was 24 percent higher than the median in Louisiana. In employer plans, spending per member in Alaska was nearly 70 percent higher than the U.S. median, while in Mississippi per-member spending was about 30 percent lower than the median.

Since prices are fixed in the Medicare program with adjustments such as hospital type and regional characteristics, most of the state variation in per-beneficiary Medicare spending arises from differences in the amount of services beneficiaries in each state use.<sup>21</sup> In contrast, recent research suggests that much of the observed variation in per-enrollee spending in private health plans may stem from provider price variation resulting from local contract negotiations.

**Exhibit 13. Per-enrollee spending among adults with employer coverage and Medicare, relative to the U.S. median for each group, 2016**



Data: Employer coverage: 2016 Truven MarketScan Database, analysis by Michael E. Chernew, Harvard Medical School; Medicare: 2016 administrative claims via May 2018 CMS Geographic Variation Public Use File.

## CONCLUSION

The *2019 Scorecard on State Health System Performance* shows that states and the federal government face important challenges in promoting affordable health care and the best possible health outcomes for people across the country.

The widespread gains in expanding health insurance coverage and access to care following the 2010 passage of the Affordable Care Act have largely stalled since 2015; in 16 states, these coverage gains slightly eroded between 2016 and 2017. There are several reasons for this stalled progress and backsliding: lack of Medicaid expansion in 17 states; the fact that individual-market insurance remains unaffordable for many, including those with incomes just over the eligibility threshold for marketplace subsidies (about \$48,560 for an individual); and growing out-of-pocket costs for many with private plans, including employer plans. What's more, recent congressional and executive actions related to the individual health insurance market and Medicaid have curtailed enrollment in both. Finally, undocumented immigrants are ineligible for subsidized coverage.

At the same time, health care costs in employer plans continue to grow at a faster clip than median income, leaving many families paying more for their insurance but getting less.

Most alarming, in some states residents now face shorter life expectancies than just a few years ago, in part because of unrelenting increases in deaths linked to suicide, alcohol, and drug overdose.

All states can improve, including those that topped our *Scorecard* rankings. Indeed, many states are already taking important steps to expand access to high-quality care by:

### Expanding access to care

- Expanding Medicaid eligibility
  - As of June 2019, 33 states and the District of Columbia have expanded eligibility for their Medicaid programs to more low-income adults. In November 2018, voters in Idaho, Nebraska, and Utah passed ballot initiatives to do so, but lawmakers in these states have since taken steps to restrict the expansion.
  - However, 15 states, including eight that expanded Medicaid eligibility, have approved or pending waivers that allow them to make work status a requirement for Medicaid coverage. This will likely further erode coverage gains among adults with low incomes. Two of the approved waivers, in Arkansas and Kentucky, were blocked by court rulings, but not before more than 18,000 Arkansans lost their health coverage.<sup>22</sup>

National gains if all states achieved top rates\* of performance:

**18 million**

more adults and children insured, beyond those who already gained coverage through the ACA

**14 million**

fewer adults skipping care because of its cost

**27 million**

more adults with a usual source of care

**11 million**

more adults receiving recommended cancer screenings

**808,000**

more young children receiving all recommended vaccines

\* Performance benchmarks set at the level achieved by the top-performing state with available data for this indicator.

- Ensuring well-functioning individual insurance markets<sup>23</sup>
  - The Affordable Care Act’s reinsurance program, which protected insurers against unexpectedly high claims and helped to reduce marketplace premiums, expired at the end of 2016. Seven states are now operating their own reinsurance programs to stabilize and strengthen their individual insurance market; Alaska’s program reduced premiums by 20 percent in 2018.<sup>24</sup> Additional states are seeking federal approval to establish reinsurance programs. Several congressional bills include proposals for reinstating a federal reinsurance program.<sup>25</sup>

### Taking steps to mitigate health care cost growth

- Some health reform bills recently introduced in Congress propose to lower U.S. health care costs by paying providers at or near Medicare rates.<sup>26</sup> The health reform bills that would use Medicare payment rates include single-payer or Medicare-for-All proposals, as well as those that give consumers a choice of enrolling in a Medicare-like public plan. Some states are attempting similar reforms. Washington will launch a public-plan option in 2021 that will cap what providers are paid at 160 percent of Medicare rates. Some states including New Mexico are crafting a Medicaid buy-in option. But paying providers in employer and other private insurance plans at or near Medicare rates could be put in place without a public plan or single-payer system.<sup>27</sup>
- Several states are using value-based purchasing in their Medicaid and state employee benefits programs in order to promote higher-quality, lower-cost care.<sup>28</sup>
- Colorado, Michigan, and Oklahoma are changing the way they pay for prescription drugs in Medicaid by requesting federal waivers to negotiate with drugmakers based on how well the drug works, rather than accepting market pricing.<sup>29</sup>
- Some states are promoting secure and efficient platforms for health care providers, health plans, and state programs to exchange information in order to monitor and improve health care quality.<sup>30</sup>

### Promoting the best possible outcomes

- Several states are working to build an adequate primary care workforce, especially in underserved areas, by offering tuition assistance, changing the scope of practice laws, raising the primary care reimbursement rate, and other steps.<sup>31</sup>

National gains if all states achieved top rates\* of performance:

**10 million**

more children would receive recommended annual medical and dental visits

**296,000\*\***

fewer hospital readmissions

**6.7 million\*\***

fewer emergency room visits for nonemergency care or conditions treatable with primary care

**90,000**

fewer deaths before age 75 from treatable diseases

\* Performance benchmarks set at the level achieved by the top-performing state with available data for this indicator.

\*\* Estimate based on working-age population, ages 18–64, with employer-sponsored insurance, and Medicare beneficiaries age 65 and older.

Working in partnership with the federal government, states have an opportunity to do more in developing and implementing new initiatives to curb the opioid crisis. State efforts to counter the surge in drug overdose deaths include improving access to opioid overdose reversal medications such as naloxone — efforts that have been bolstered by Medicaid expansion — and passed legislation that sets guidelines or limits for opioid prescriptions.<sup>32</sup> These are important steps, but there is more to be done in preventing and treating opioid use disorder and responding to overdoses. Reversing the upward trend in deaths from suicide, alcohol, and drug overdose will require greater cooperation across sectors, at both the state and federal level, including the public health, care delivery, and criminal justice systems.<sup>35</sup>

Ultimately, national improvement in health system performance will require the support of the federal government. States with fewer resources and those that are less engaged in efforts to expand insurance coverage, reduce health care costs, and improve care quality will continue to lag others. Some states that have taken steps to improve, for example by implementing reinsurance programs to lower premiums, are struggling to finance their efforts over the long term.

While many states have assumed greater responsibility for improving health system performance in recent years, they will need a strong federal partnership to build and sustain their progress.



## 2019 state rankings on health system performance

### Which states lead the overall rankings?

Hawaii, Massachusetts, Minnesota, Washington, Connecticut, and Vermont

### Which states are ranked at the bottom?

Arkansas, Nevada, Texas, Oklahoma, and Mississippi

### What are the leading states by region?

(See [Scorecard Methods](#) for states in each region)

**Great Lakes** Wisconsin

**Mid-Atlantic** New York

**New England** Massachusetts

**Plains** Minnesota

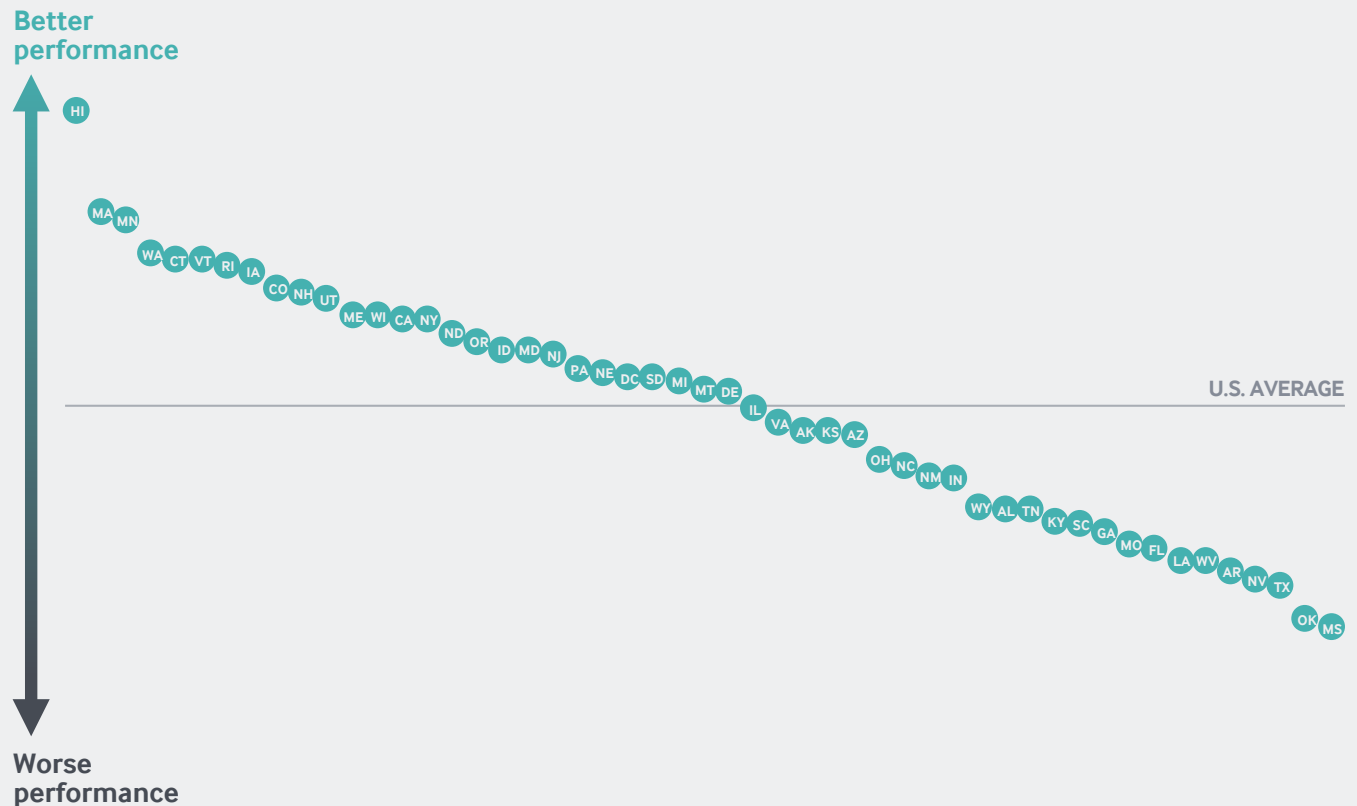
**Rocky Mountain** Colorado

**Southeast** Virginia

**Southwest** Arizona

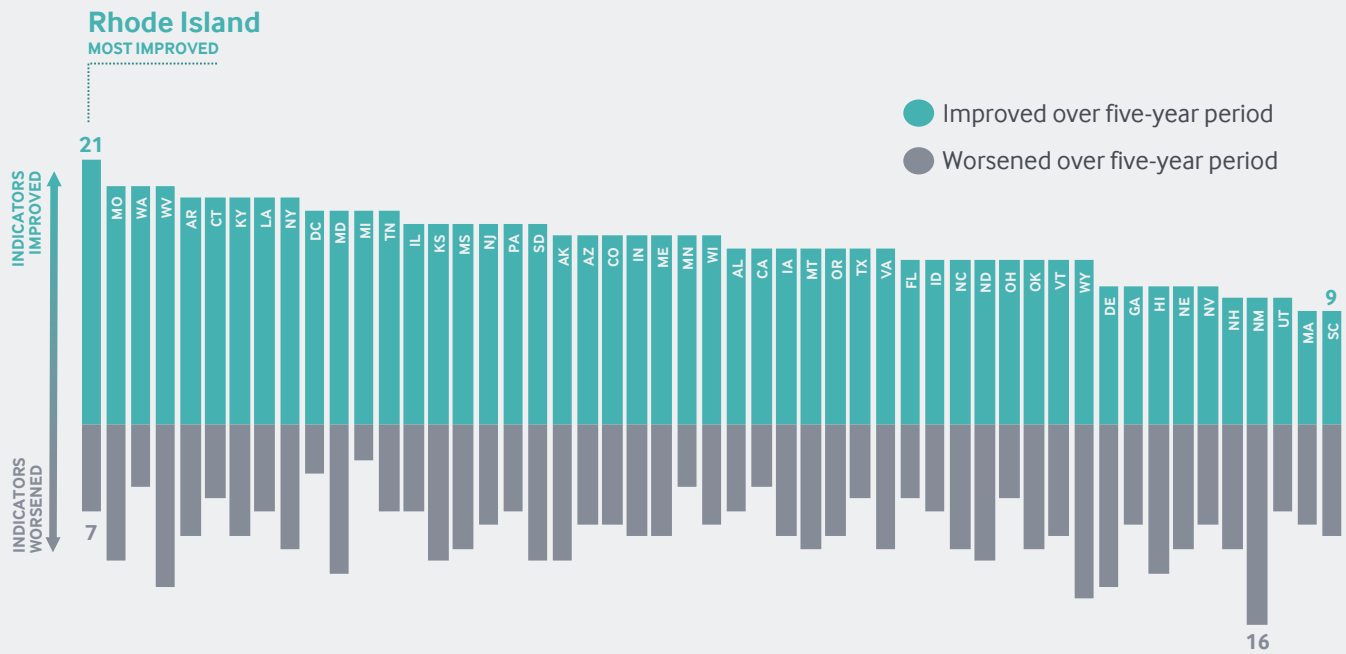
**West Hawaii**

Exhibit 14. Overall health system performance



States are arranged in rank order from left (best) to right (worst), based on their overall 2019 State Scorecard rank.

### Exhibit 15. More improvement than decline



Notes: Based on five-year trends for 45 of 47 total indicators (Disparity dimension not included); trend data are not available for all indicators. Bar length equals the total number of indicators with any improvement or worsening with an absolute value greater than 0.5 standard deviations (StDev) of the state distribution.

#### Which states moved up the most in the rankings between 2013 and 2017, and which states dropped?

California had the largest jump in rankings, up 12 spots. New York and Washington each moved up 10 spots in the rankings, and Rhode Island rose nine spots.

Delaware fell 17 spots in the rankings, while Wyoming, Virginia, and Maryland fell 11, nine, and seven spots, respectively.

#### Which states improved on the most indicators?

Rhode Island improved on 21 of 45 indicators we track over time, the most of any state. Missouri, Washington, and West Virginia each improved on 19 indicators.

Delaware, Hawaii, New Mexico, and Wyoming each got worse on more indicators than they improved on.

#### What's the trend?

On balance, the 2019 State Scorecard finds more improvement than decline between 2013 and 2017, but trends are mixed. Almost all states improved on more indicators than they worsened, but no state improved on a majority of indicators. Most states (42) saw little or no change on more indicators than they improved on.

## SCORECARD METHODS

The Commonwealth Fund's *2019 Scorecard on State Health System Performance* evaluates states on 47 performance indicators grouped into four dimensions:

- **Access and Affordability (7 indicators):** includes rates of insurance coverage for children and adults, as well as individuals' out-of-pocket expenses for health insurance and medical care, cost-related barriers to receiving care, and receipt of dental care.
- **Prevention and Treatment (15 indicators):** includes measures of receipt of preventive care and needed mental health care, as well as measures of quality in ambulatory, hospital, postacute, and long-term care settings.
- **Potentially Avoidable Hospital Use and Cost (13 indicators; including several measures reported separately for distinct age groups):** includes indicators of hospital and emergency department use that might be reduced with timely and effective care and follow-up care, as well as estimates of per-person spending among Medicare beneficiaries and working-age adults with employer-sponsored insurance.
- **Healthy Lives (12 indicators):** includes measures of premature death, health status, health risk behaviors including smoking and obesity, and tooth loss.

**DISPARITIES BASED ON INCOME.** The *Scorecard* reports on performance differences within states associated with individuals' income level for 19 of the 47 indicators. For each indicator, we measure the difference between rates for a state's low-income population (generally less than 200% of the federal poverty level) and higher-income population (generally 400% or more of the federal poverty level). States are ranked on the relative magnitude of the resulting disparities in performance.

The following principles guided the development of the *Scorecard*:

**PERFORMANCE METRICS.** The 47 metrics selected for this report span health care system performance, representing important

dimensions and measurable aspects of care. Where possible, indicators align with those used in previous state scorecards. Several indicators used in previous versions of the scorecard have been dropped either because all states improved to the point where no meaningful variations existed (e.g., measures that assessed hospitals on processes of care) or the data to construct the measures were no longer available. New indicators have been added to the scorecard series over time in response to evolving priorities. See the box on [page 21](#) for more detail on changes in indicators.

**MEASURING CHANGE OVER TIME.** We were able to track performance over time for 45 of the 47 indicators. Not all indicators could be trended because of changes in the underlying data or measure definitions.

There were generally four to five years between indicators' baseline and current-year data observation, though the starting and ending points depended on data availability. We chose this short time horizon to capture the immediate effects of changes relative to the policy and delivery system environment, such as coverage expansions under the Affordable Care Act and other reforms.

We considered a change in an indicator's value between the baseline and current year data points to be meaningful if it was at least one-half (0.5) of a standard deviation larger than the indicator's combined distribution over the two time points — a common approach used in social science research.

To assess change over time in the disparity dimension, we count how often the disparity narrowed within a state, so long as there was also an improvement in the observed rate for the state's low-income population.

**DATA SOURCES.** Indicators draw from publicly available data sources, including government-sponsored surveys, registries, publicly reported quality indicators, vital statistics, mortality data, and administrative databases. The most current data available were used in this report whenever possible. [Appendix H](#) provides detail on the data sources and time frames.

**SCORING AND RANKING METHODOLOGY.** For each indicator, a state's standardized z-score is calculated by subtracting the 51-state average (including the District of Columbia as if it were a state) from the state's observed rate, and then dividing by the standard deviation of all observed state rates. States' standardized z-scores are averaged across all indicators within the performance dimension, and dimension scores are averaged into an overall

score. Ranks are assigned based on the overall score. This approach gives each dimension equal weight, and within each dimension it weights all indicators equally.

The z-score more precisely portrays differences in performance across states (see Exhibit 14 on [page 17](#)) than the simple ranking approach used in our scorecards prior to 2018. It is also better suited to accommodate the different scales used across scorecard indicators (e.g., percentages, dollars, and population-based rates). This method also aligns with methods used in the Commonwealth Fund's international health system rankings.

As in previous scorecards, if historical data were not available for a particular indicator in the baseline period, the current year data point was used as a substitute, thus ensuring that ranks in each time period were based on the same number of indicators.

**REGIONAL COMPARISONS.** The Scorecard groups states into the eight regions used by the Bureau of Economic Analysis to measure and compare economic activity. The regions are: Great Lakes (Illinois, Indiana, Michigan, Ohio, Wisconsin); Mid-Atlantic (Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania); New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont); Plains (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota); Rocky Mountain (Colorado, Idaho, Montana, Utah, Wyoming); Southeast (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia); Southwest (Arizona, New Mexico, Oklahoma, Texas); and West (Alaska, California, Hawaii, Nevada, Oregon, Washington).

### METHODOLOGICAL CHANGES FROM THE 2018 STATE SCORECARD

- The Centers for Medicare and Medicaid Services (CMS) changed the way it reports survey responses from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) in its Hospital Compare public use data. This change impacted one of the measures we used to evaluate hospitalized patients' experiences. Rather than constructing our own composite of hospitalized patients' experiences, as was done in the *2018 State Scorecard*, we substituted a CMS-constructed composite summary of hospitals' HCAHPS scores. This composite has a 100-point scale, with 100 points representing the highest possible patient experience summary score. We convert this into a measure suitable for use in the *2019 State Scorecard* by calculating the share of hospitals in a state with HCAHPS patient experience summary scores lower than the national median.
- The *2018 State Scorecard* reported deaths from suicide, alcohol, and drug overdose in a single composite, referred to as "deaths of despair." In 2019, we report each component separately to better capture variations among states in the underlying causes of death.
- In previous years, the indicator measuring "high out-of-pocket medical spending relative to income" included over-the-counter drug costs. Since these costs were excluded from the most recent data (2016–17), we also removed them from our baseline estimate (2013–14) for comparability.
- Several indicators in the *2018 State Scorecard* were grouped and reported for separate age stratifications within the same measurement construct (e.g., potentially avoidable emergency department visits among working-age adults and Medicare beneficiaries). An adjustment was made to down-weight each age group within the construct for scoring. The same data are used in the *2019 State Scorecard*, but we no longer make the scoring adjustment. Sensitivity analyses indicate that this change has no impact on state rankings.

**Data in the 2019 State Scorecard are generally comparable with those in the 2018 State Scorecard. However, because of changes in indicators and methodology, rankings in these two scorecards are not comparable to those reported in previous scorecard editions.**

## NOTES

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3. The *Scorecard* groups states into the eight regions used by the Bureau of Economic Analysis to measure and compare economic activity. The regions are: Great Lakes (Illinois, Indiana, Michigan, Ohio, Wisconsin); Mid-Atlantic (Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania); New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont); Plains (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota); Rocky Mountain (Colorado, Idaho, Montana, Utah, Wyoming); Southeast (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia); Southwest (Arizona, New Mexico, Oklahoma, Texas); and West (Alaska, California, Hawaii, Nevada, Oregon, Washington).
4. Alaska, Arkansas, Colorado, Hawaii, Idaho, Iowa, Kansas, Minnesota, Mississippi, New Mexico, Texas, Utah, and Washington.
5. 2005 was selected as the baseline in this comparison because it was the last year in which drug deaths were lower than suicide deaths, and the last point from which the 2017 rate was more than double.
6. 2016 data are not reported in the Scorecard Appendices, but can be found in the Commonwealth Fund’s online [Health System Data Center](#).
7. In its analysis of state uninsured rates among the total civilian noninstitutionalized population, the U.S. Census Bureau found statistically significant upticks of between 0.3 and 1 percentage point in 14 states between 2016 and 2017. Edward R. Berchick, Emily Hood, and Jessica C. Barnett, [Health Insurance Coverage in the United States: 2017](#), Current Population Reports, P60-264 (U.S. Census Bureau, Sept. 2018).
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10. Exhibit 7 on [page 8](#) uses data that are limited to the working-age adult population ages 18–64, and these are the values discussed here and shown in [Appendix C4](#). Note that states are ranked on a version of this indicator that includes all adults age 18 and older. These rates can be found in [Appendix C2](#).
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APPENDIX A1. State Scorecard Data Years and Databases

Indicator	Past year	Current year	Database
<b>Access and Affordability</b>			
1 Uninsured adults	2013	2017	American Community Survey, Public Use Microdata Sample (ACS PUMS)
2 Uninsured children	2013	2017	American Community Survey, Public Use Microdata Sample (ACS PUMS)
3 Adults without a usual source of care	2013	2017	Behavioral Risk Factor Surveillance System (BRFSS)
4 Adults who went without care because of cost	2013	2017	Behavioral Risk Factor Surveillance System (BRFSS)
5 High out-of-pocket medical spending	2013-14	2016-17	Current Population Survey Annual Social and Economic Supplement (CPS ASEC)
6 Employee insurance costs as a share of median income	2013	2017	Medical Expenditure Panel Survey Insurance Component (MEPS-IC)
7 Adults without a dental visit	2012	2016	Behavioral Risk Factor Surveillance System (BRFSS)
<b>Prevention and Treatment</b>			
8 Adults without all recommended cancer screenings	2012	2016	Behavioral Risk Factor Surveillance System (BRFSS)
9 Adults without all recommended vaccines	2013	2017	Behavioral Risk Factor Surveillance System (BRFSS)
10 Diabetic adults without an annual hemoglobin A1c test	2015	2016	Truven MarketScan
11 Elderly patients who received a high-risk prescription drug	--	2015	Medicare Part D Claims
12 Children without a medical home	2016	2017	National Survey of Children's Health (NSCH)
13 Children without a medical and dental preventive care visit	2016	2017	National Survey of Children's Health (NSCH)
14 Children who did not receive needed mental health care	2016	2017	National Survey of Children's Health (NSCH)
15 Children without all recommended vaccines	2012	2016	National Immunization Survey (NIS)
16 Hospital 30-day mortality	07/2010 - 06/2013	07/2014 - 06/2017	CMS Hospital Compare
17 Central line--associated blood stream infection (CLABSII)	2015	2016	CDC Healthcare-Associated Infections (HAI) Progress Report
18 Hospitals with lower-than-average patient experience ratings	--	2017	Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), via CMS Hospital Compare
19 Home health patients without improved mobility	2013	2017	Outcome and Assessment Information Set (OASIS), via CMS home Health Compare
20 Nursing home residents with an antipsychotic medication	2013	2017	Minimum Dataset (MDS), via CMS Nursing Home Compare
21 Adults with any mental illness reporting unmet need	2009-11	2014-16	National Survey on Drug Use and Health (NSDUH), via State of Mental Health in America
22 Adults with any mental illness who did not receive treatment	2009-11	2014-16	National Survey on Drug Use and Health (NSDUH), via State of Mental Health in America
<b>Avoidable Hospital Use and Cost</b>			
23 Hospital admissions for pediatric asthma	2012	2015	Healthcare Cost and Utilization Project (HCUP), via AHRQ National Healthcare Quality Report
Potentially avoidable emergency department visits			
24 Ages 18-64, per 1,000 employer-insured enrollees	2015	2016	Truven MarketScan
25 Age 65 and older, per 1,000 Medicare beneficiaries	2012	2015	Chronic Conditions Data Warehouse (CCW), via CMS Geographic Variation Public Use File
Admissions for ambulatory care--sensitive conditions			
26 Ages 18-64, per 1,000 employer-insured enrollees	2015	2016	Truven MarketScan
27 Ages 65 and older, per 1,000 Medicare beneficiaries	2013	2017	Chronic Conditions Data Warehouse (CCW), via CMS Geographic Variation Public Use File
30-day hospital readmissions			
28 Ages 18-64, per 1,000 employer-insured enrollees	2015	2016	Truven MarketScan
29 Age 65 and older, per 1,000 Medicare beneficiaries	2013	2017	Chronic Conditions Data Warehouse (CCW), via CMS Geographic Variation Public Use File
30 Skilled nursing facility patients with a hospital readmission	2012	2016	Residential History File
31 Nursing home residents with a hospital admission	2012	2016	Residential History File
32 Home health patients with a hospital admission	2013	2017	Medicare Claims, via CMS Home Health Compare
33 Adults with inappropriate lower-back imaging	2015	2016	Truven MarketScan
34 Employer-sponsored insurance spending per enrollee	2013	2016	Truven MarketScan
35 Medicare spending per beneficiary	2013	2017	Chronic Conditions Data Warehouse (CCW), via CMS Geographic Variation Public Use File
<b>Healthy Lives</b>			
36 Mortality amenable to health care	2010-11	2014-15	CDC National Vital Statistics System (NVSS): Restricted Use Mortality Microdata
37 Breast cancer deaths	2013	2017	CDC National Vital Statistics System (NVSS): WONDER
38 Colorectal cancer deaths	2013	2017	CDC National Vital Statistics System (NVSS): WONDER
39 Suicide deaths	2013	2017	CDC National Vital Statistics System (NVSS): WONDER
40 Alcohol deaths	2013	2017	CDC National Vital Statistics System (NVSS): WONDER
41 Drug poisoning deaths	2013	2017	CDC National Vital Statistics System (NVSS): WONDER
42 Infant mortality	2012	2016	CDC National Vital Statistics System (NVSS): WONDER
43 Adults who report fair or poor health	2013	2017	Behavioral Risk Factor Surveillance System (BRFSS)
44 Adults who smoke	2013	2017	Behavioral Risk Factor Surveillance System (BRFSS)
45 Adults who are obese	2013	2017	Behavioral Risk Factor Surveillance System (BRFSS)
46 Children who are overweight or obese	2016	2017	National Survey of Children's Health (NSCH)
47 Adults who have lost six or more teeth	2012	2016	Behavioral Risk Factor Surveillance System (BRFSS)

Note: (-) Previous data not available or its definition is not comparable over time.

APPENDIX A2. List of Indicators in the Scorecard on State Health System Performance

Indicator	Data years represented		U.S. average rate		Range of state performance	
	Baseline	2019 Scorecard	Baseline	2019 Scorecard	Baseline	2019 Scorecard
<b>Access and Affordability</b>						
1 Uninsured adults	2013	2017	20%	12%	5 - 30	4 - 24
2 Uninsured children	2013	2017	8%	5%	2 - 14	1 - 11
3 Adults without a usual source of care	2013	2017	24%	23%	12 - 35	12 - 34
4 Adults who went without care because of cost	2013	2017	16%	14%	7 - 22	8 - 20
5 High out-of-pocket medical spending	2013-14	2016-17	11%	10%	7 - 17	5 - 15
6 Employee insurance costs as a share of median income	2013	2017	6.5%	6.9%	4.4 - 9	4.8 - 10.2
7 Adults without a dental visit	2012	2016	15%	16%	10 - 20	10 - 20
<b>Prevention and Treatment</b>						
8 Adults without all recommended cancer screenings	2012	2016	31%	32%	21 - 40	24 - 40
9 Adults without all recommended vaccines	2013	2017	64%	62%	53 - 72	54 - 69
10 Diabetic adults without an annual hemoglobin A1c test	2015	2016	16.9%	12.0%	11 - 23.7	5.6 - 22.5
11 Elderly patients who received a high-risk prescription drug	--	2015	--	11%	--	5 - 16
12 Children without a medical home	2016	2017	51%	51%	40 - 66	39 - 64
13 Children without a medical and dental preventive care visit	2016	2017	32%	32%	20 - 41	18 - 43
14 Children who did not receive needed mental health care	2016	2017	18%	22%	5 - 34	4 - 48
15 Children without all recommended vaccines	2012	2016	32%	29%	20 - 40	15 - 42
16 Hospital 30-day mortality	2010-13	2014-17	13.2%	13.9%	12.2 - 14.1	12.8 - 15.1
17 Central line--associated blood stream infection (CLABSIs)	2015	2016	0.99	0.89	0.32 - 1.43	0.36 - 1.14
18 Hospitals with lower-than-average patient experience ratings	--	2017	--	45.0%	--	9 - 100
19 Home health patients without improved mobility	2013	2017	39.0%	25.0%	34 - 51	20 - 35
20 Nursing home residents with an antipsychotic medication	2013	2017	21.0%	15.0%	11 - 27	7 - 20
21 Adults with any mental illness reporting unmet need	2009-11	2014-16	21.0%	21.0%	14 - 30	16 - 26
22 Adults with any mental illness who did not receive treatment	2009-11	2014-16	59.0%	56.0%	45 - 73	42 - 68
<b>Avoidable Hospital Use and Cost</b>						
23 Hospital admissions for pediatric asthma	2012	2015	142.9	87.2	27.6 - 231.5	21.7 - 183.4
Potentially avoidable emergency department visits						
24 Ages 18-64, per 1,000 employer-insured enrollees	2015	2016	159.0	142.2	130 - 203.4	115.9 - 186.8
25 Age 65 and older, per 1,000 Medicare beneficiaries	2012	2015	187.8	196.9	130.8 - 247.9	138.3 - 250.8
Admissions for ambulatory care--sensitive conditions						
26 Ages 18-64, per 1,000 employer-insured enrollees	2015	2016	4.6	5.3	3.3 - 6.1	5.6 - 7.9
27 Ages 65 and older, per 1,000 Medicare beneficiaries	2013	2017	47.7	43.9	24.3 - 72.4	21.7 - 60.1
30-day hospital readmissions						
28 Ages 18-64, per 1,000 employer-insured enrollees	2015	2016	2.9	3.1	1.2 - 5.5	2.4 - 3.6
29 Age 65 and older, per 1,000 Medicare beneficiaries	2013	2017	43.5	41.0	21.4 - 57.2	19.7 - 51.5
30 Skilled nursing facility patients with a hospital readmission	2012	2016	20%	19%	13 - 26	11 - 24
31 Nursing home residents with a hospital admission	2012	2016	17%	15%	7 - 30	5 - 28
32 Home health patients with a hospital admission	2013	2017	16%	16%	14 - 18	14 - 18
33 Adults with inappropriate lower-back imaging	2015	2016	71.1%	68.9%	59.2 - 83.7	57.7 - 76.5
34 Employer-sponsored insurance spending per enrollee	2013	2016	\$4,697	\$4,882	\$3,117 - \$7,186	\$3,255 - \$8,042
35 Medicare spending per beneficiary	2013	2017	\$9,081	\$9,534	\$5,674 - \$10,991	\$6,195 - \$11,257
<b>Healthy Lives</b>						
36 Mortality amenable to health care	2010-11	2014-15	85.3	84.3	57.1 - 133.2	54.7 - 142.4
37 Breast cancer deaths	2013	2017	20.8	19.9	15.5 - 29.8	15.6 - 25.5
38 Colorectal cancer deaths	2013	2017	14.6	12.9	10.9 - 19.8	9.3 - 16.4
39 Suicide deaths	2013	2017	12.6	14.0	5.7 - 23.7	6.6 - 28.9
40 Alcohol deaths	2013	2017	8.2	9.6	4.5 - 22.7	5.5 - 30.6
41 Drug poisoning deaths	2013	2017	13.8	21.7	2.8 - 32.2	8.1 - 57.8
42 Infant mortality	2012	2016	6.0	5.9	4.2 - 8.9	3.5 - 9
43 Adults who report fair or poor health	2013	2017	16%	17%	10 - 22	9 - 24
44 Adults who smoke	2013	2017	18%	16%	10 - 27	9 - 26
45 Adults who are obese	2013	2017	29%	31%	22 - 37	23 - 40
46 Children who are overweight or obese	2016	2017	31%	31%	19 - 38	21 - 41
47 Adults who have lost six or more teeth	2012	2016	10%	10%	6 - 23	6 - 21

Notes: (--) Previous data are not shown because of changes in the indicators' definitions or data were not available. \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more.

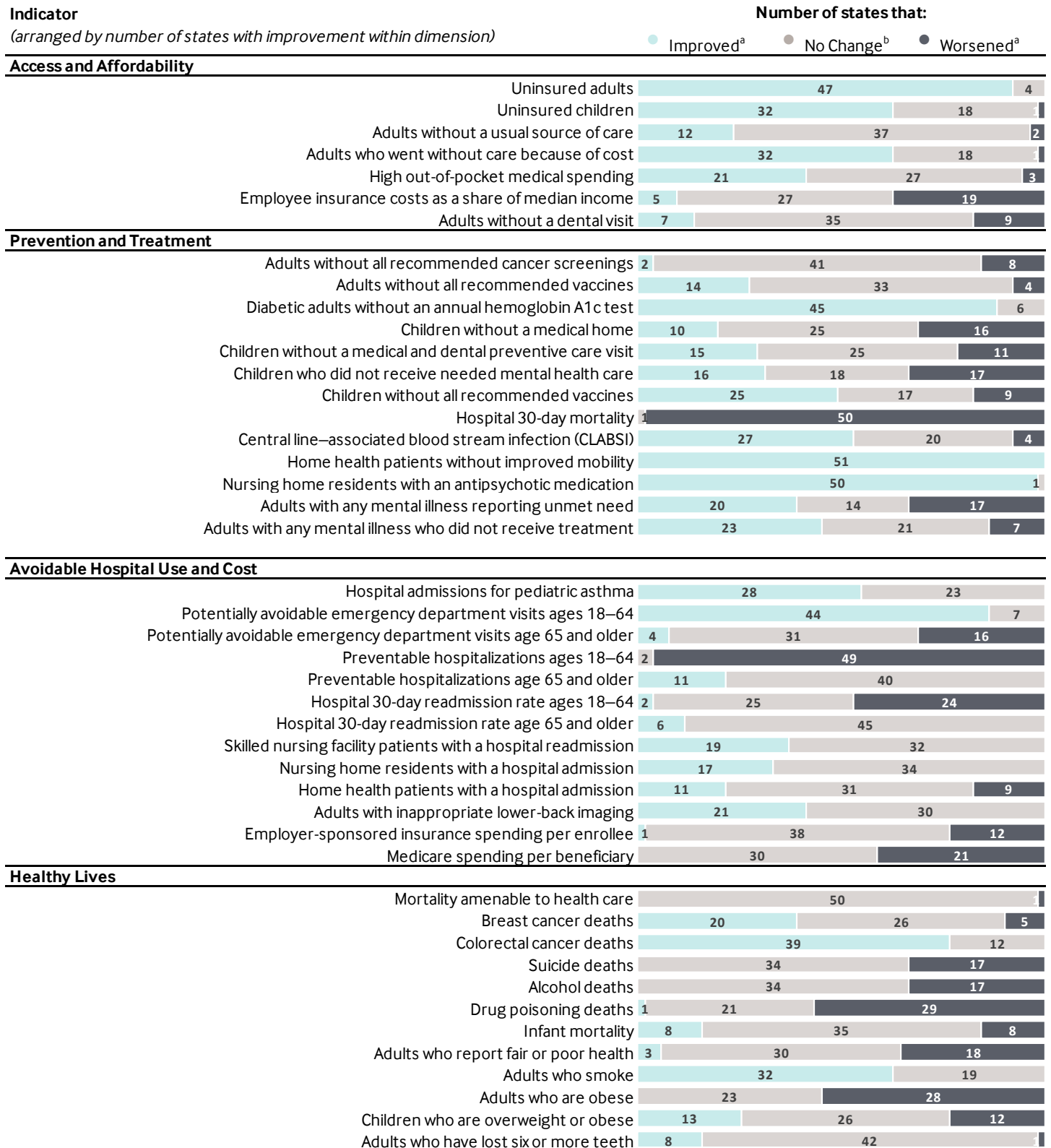
APPENDIX A3. National and Regional Performance Benchmarks

Indicator	National		Great Lakes		Mid-Atlantic		New England Best state(s) <sup>a</sup>	
	Rate	Best state(s) <sup>a</sup>	Rate	Best state(s) <sup>a</sup>	Rate	Best state(s) <sup>a</sup>	Rate	Best state(s) <sup>a</sup>
<b>Access and Affordability</b>								
1 Uninsured adults	4%	MA	7	MI, WI	5	DC	4	MA
2 Uninsured children	1%	MA	3	IL, MI	3	DE, NY	1	MA
3 Adults without a usual source of care	12%	RI	15	MI	15	PA	12	RI
4 Adults who went without care because of cost	8%	HI, IA, ND	11	MI, OH, WI	10	MD, PA	9	MA, VT
5 High out-of-pocket medical spending	5%	DC	8	WI	5	DC	6	RI
6 Employee insurance costs as a share of median income	4.8%	MI	4.8	MI	5.6	DC	5.4	MA
7 Adults without a dental visit	10%	CT	12	WI	13	NJ	10	CT
<b>Prevention and Treatment</b>								
8 Adults without all recommended cancer screenings	24%	CT	28	WI	25	DC	24	CT
9 Adults without all recommended vaccines	54%	SD	61	OH	55	MD	55	RI
10 Diabetic adults without an annual hemoglobin A1c test	5.6	MN	10.1	MI	10.8	MD	9.2	ME
11 Elderly patients who received a high-risk prescription drug	5%	HI	8	WI	8	NY, PA	7	MA
12 Children without a medical home	39%	VT	45	IN, OH	45	MD	39	VT
13 Children without a medical and dental preventive care visit	18%	CT	31	IN, MI, WI	21	DC	18	CT
14 Children who did not receive needed mental health care	4%	NE, RI	5	IN	6	PA	4	RI
15 Children without all recommended vaccines	15%	MA	21	WI	22	DE	15	MA
16 Hospital 30-day mortality	12.8%	MA	13.3	OH	13.0	DE	12.8	MA
17 Central line-associated blood stream infection (CLABSI)	0.36	WY	0.70	IL	0.82	NJ	0.68	VT
18 Hospitals with lower-than-average patient experience ratings	9%	ID	18	WI	33	DE	15	NH
19 Home health patients without improved mobility	20%	AL, MS	26	MI, OH, WI	22	MD	24	MA
20 Nursing home residents with an antipsychotic medication	7%	HI	13	MI, WI	11	DC, NJ	15	NH
21 Adults with any mental illness reporting unmet need	16%	HI	18	WI	20	NJ, NY	17	ME, RI
22 Adults with any mental illness who did not receive treatment	42%	ME	53	MI, OH, WI	48	DE	42	ME
<b>Avoidable Hospital Use and Cost</b>								
23 Hospital admissions for pediatric asthma	21.7	VT	62.1	WI	93.3	MD	21.7	VT
Potentially avoidable emergency department visits								
24 Ages 18–64, per 1,000 employer-insured enrollees	115.9	UT	141.9	MI	122.4	NY	125.6	MA
25 Age 65 and older, per 1,000 Medicare beneficiaries	138.3	HI	193.8	WI	178.8	NY	173.5	VT
Admissions for ambulatory care—sensitive conditions								
26 Ages 18–64, per 1,000 employer-insured enrollees	5.6	WA	6.7	WI	6.2	NY	6.1	MA
27 Ages 65 and older, per 1,000 Medicare beneficiaries	21.7	HI	36.6	WI	41.9	MD	34.8	VT
30-day hospital readmissions								
28 Ages 18–64, per 1,000 employer-insured enrollees	2.4	UT	3.2	OH	3.0	MD	2.7	ME
29 Age 65 and older, per 1,000 Medicare beneficiaries	19.7	HI	33.5	WI	36.6	DE	30.6	VT
30 Skilled nursing facility patients with a hospital readmission	11%	AK	17	WI	19	DC, DE, MD, PA	16	ME, VT
31 Nursing home residents with a hospital admission	5%	HI	11	WI	12	PA	8	RI
32 Home health patients with a hospital admission	14%	AK, CA, ID, UT	16	IL	15	DC, MD	16	CT, ME, VT
33 Adults with inappropriate lower-back imaging	57.7%	AL	67.8	IL	66.5	MD	66.8	RI
34 Employer-sponsored insurance spending per enrollee	\$3,255	MS	4,904	IL	3,819	MD	4,242	RI
35 Medicare spending per beneficiary	\$6,195	HI	9,850	IL	9,205	DE	7,626	VT
<b>Healthy Lives</b>								
36 Mortality amenable to health care	54.7	MN	69.4	WI	73.1	NJ	57.7	NH
37 Breast cancer deaths	15.6	HI	17.4	WI	17.9	NY	16.3	NH
38 Colorectal cancer deaths	9.3	CT	11.6	WI	12.2	NY	9.3	CT
39 Suicide deaths	6.6	DC	15.4	WI	6.6	DC	9.5	MA
40 Alcohol deaths	5.5	MD	11.2	WI	5.5	MD	8.2	CT
41 Drug poisoning deaths	8.1	NE	21.2	WI	19.4	NY	23.2	VT
42 Infant mortality	3.5	VT	6.3	WI	4.0	NJ	3.5	VT
43 Adults who report fair or poor health	9%	DC	16	WI	9	DC	12	CT
44 Adults who smoke	9%	UT	16	WI	14	DC, MD, NJ, NY	13	CT
45 Adults who are obese	23%	CO, DC	33	WI	23	DC	26	MA
46 Children who are overweight or obese	21%	CT	26	WI	29	DE, PA	21	CT
47 Adults who have lost six or more teeth	6%	CA, DC, HI, UT	10	WI	6	DC	7	CT

APPENDIX A3. National and Regional Performance Benchmarks (continued)

Indicator	Plains		Rocky Mountain		Southeast		Southwest		West	
	Rate	Best state(s) <sup>a</sup>	Rate	Best state(s) <sup>a</sup>	Rate	Best state(s) <sup>a</sup>	Rate	Best state(s) <sup>a</sup>	Rate	Best state(s) <sup>a</sup>
<b>Access and Affordability</b>										
1 Uninsured adults	6	IA, MN	10	CO	13	KY	13	NM	5	HI
2 Uninsured children	3	IA, MN	4	CO	5	AL, LA, WV	5	NM	2	HI
3 Adults without a usual source of care	17	IA	25	ID	25	KY	25	OK	17	HI
4 Adults who went without care because of cost	8	IA, ND	11	MT	14	KY	14	AZ, NM	8	HI
5 High out-of-pocket medical spending	8	MN	12	CO, ID, MT	8	KY	8	NM	7	HI
6 Employee insurance costs as a share of median income	5.1	IA	5.0	UT	8.0	WV	8.0	TX	5.1	WA
7 Adults without a dental visit	12	IA, MN	14	UT	17	VA	17	AZ	12	HI
<b>Prevention and Treatment</b>										
8 Adults without all recommended cancer screenings	29	MN	32	CO	35	NC	35	AZ	26	HI
9 Adults without all recommended vaccines	54	SD	57	CO	58	NC, VA, WV	58	OK	57	WA
10 Diabetic adults without an annual hemoglobin A1c test	5.6	MN	10.3	MT	9.6	NC	9.6	TX	7.1	WA
11 Elderly patients who received a high-risk prescription drug	7	MN, SD	9	MT	11	VA	11	NM	5	HI
12 Children without a medical home	41	NE	49	CO	54	NC	54	OK	44	WA
13 Children without a medical and dental preventive care visit	24	IA	22	CO	34	VA, WV	34	AZ	28	WA
14 Children who did not receive needed mental health care	4	NE	8	MT	9	WV	9	OK	10	OR
15 Children without all recommended vaccines	19	NE	24	CO	30	NC	30	AZ	24	WA
16 Hospital 30-day mortality	13.6	MN	13.8	CO	13.7	LA	13.7	AZ, TX	13.4	CA
17 Central line-associated blood stream infection (CLABSI)	0.64	IA	0.36	WY	0.76	VA	0.76	AZ	0.53	HI
18 Hospitals with lower-than-average patient experience ratings	14	KS	9	ID	33	LA	33	TX	21	OR
19 Home health patients without improved mobility	24	KS, MO, ND	21	UT	24	AL, MS	24	OK	26	WA
20 Nursing home residents with an antipsychotic medication	14	MN	13	WY	14	NC	14	AZ	7	HI
21 Adults with any mental illness reporting unmet need	17	NE	21	MT, UT, WY	17	AL	17	TX	16	HI
22 Adults with any mental illness who did not receive treatment	43	MN	54	CO, MT	55	KY, NC	55	OK	54	WA
<b>Avoidable Hospital Use and Cost</b>										
23 Hospital admissions for pediatric asthma	42.0	NE	44.3	MT	67.6	TN	67.6	TX	46.3	OR
Potentially avoidable emergency department visits										
24 Ages 18–64, per 1,000 employer-insured enrollees	125.9	SD	115.9	UT	143.5	KY	143.5	NM	117.7	CA
25 Age 65 and older, per 1,000 Medicare beneficiaries	155.1	SD	151.4	UT	191.0	SC	191.0	AZ	138.3	HI
Admissions for ambulatory care—sensitive conditions										
26 Ages 18–64, per 1,000 employer-insured enrollees	6.2	MN	5.8	CO	6.4	NC	6.4	AZ	5.6	WA
27 Ages 65 and older, per 1,000 Medicare beneficiaries	35.3	MN	23.3	UT	28.3	SC	28.3	AZ	21.7	HI
30-day hospital readmissions										
28 Ages 18–64, per 1,000 employer-insured enrollees	3.0	ND	2.4	UT	3.0	AL	3.0	NM	2.7	WA
29 Age 65 and older, per 1,000 Medicare beneficiaries	30.7	SD	22.6	UT	28.6	SC	28.6	NM	19.7	HI
30 Skilled nursing facility patients with a hospital readmission	15	ND, NE, SD	13	ID, UT	18	NC, TN, VA	18	NM	11	AK
31 Nursing home residents with a hospital admission	7	MN	9	CO	7	VA	7	AZ	5	HI
32 Home health patients with a hospital admission	15	ND	14	ID, UT	15	FL	15	AZ, NM, OK, TX	14	AK, CA
33 Adults with inappropriate lower-back imaging	64.5	MO	68.9	MT	64.2	AL	64.2	TX	62.4	NV
34 Employer-sponsored insurance spending per enrollee	3,851	IA	4,537	UT	4,624	MS	4,624	AZ	3,299	HI
35 Medicare spending per beneficiary	8,120	SD	7,552	MT	7,729	VA	7,729	NM	6,195	HI
<b>Healthy Lives</b>										
36 Mortality amenable to health care	54.7	MN	60.7	UT	73.5	VA	73.5	AZ	62.4	WA
37 Breast cancer deaths	16.7	MN	16.5	WY	18.1	FL	18.1	AZ	15.6	HI
38 Colorectal cancer deaths	10.2	ND	9.8	UT, WY	12.2	NC	12.2	AZ	11.2	HI
39 Suicide deaths	13.8	MN	20.3	CO	13.4	VA	13.4	TX	10.5	CA
40 Alcohol deaths	7.9	MO	9.3	UT	7.9	MS	7.9	TX	5.8	HI
41 Drug poisoning deaths	8.1	NE	11.7	MT	10.5	MS	10.5	TX	11.7	CA
42 Infant mortality	4.9	SD	4.8	CO	5.3	VA	5.3	AZ	4.2	CA
43 Adults who report fair or poor health	11	MN	12	UT	18	VA	18	AZ	13	HI
44 Adults who smoke	14	MN	9	UT	16	FL, VA	16	AZ, TX	11	CA
45 Adults who are obese	28	MN	23	CO	30	FL	30	NM	25	CA, HI
46 Children who are overweight or obese	22	ND	23	ID	24	AR	24	AZ	24	AK, OR
47 Adults who have lost six or more teeth	7	MN, NE	6	UT	7	VA	7	TX	6	CA, HI

APPENDIX A4. Change in State Health System Performance by Indicator



Notes: Only Scorecard indicators with trends are shown. Trend data generally reflect the two- to three-year period ending in 2015 or 2016—refer to Appendix Exhibit A1 for additional detail (trend data were not available for all indicators). For purposes of this analysis we count District of Columbia as a state. (a) Improvement or worsening refers to a change between the baseline and current time periods of at least 0.5 standard deviations. (b) Includes the number of states with no change or without sufficient data for this subpopulation to assess change over time.

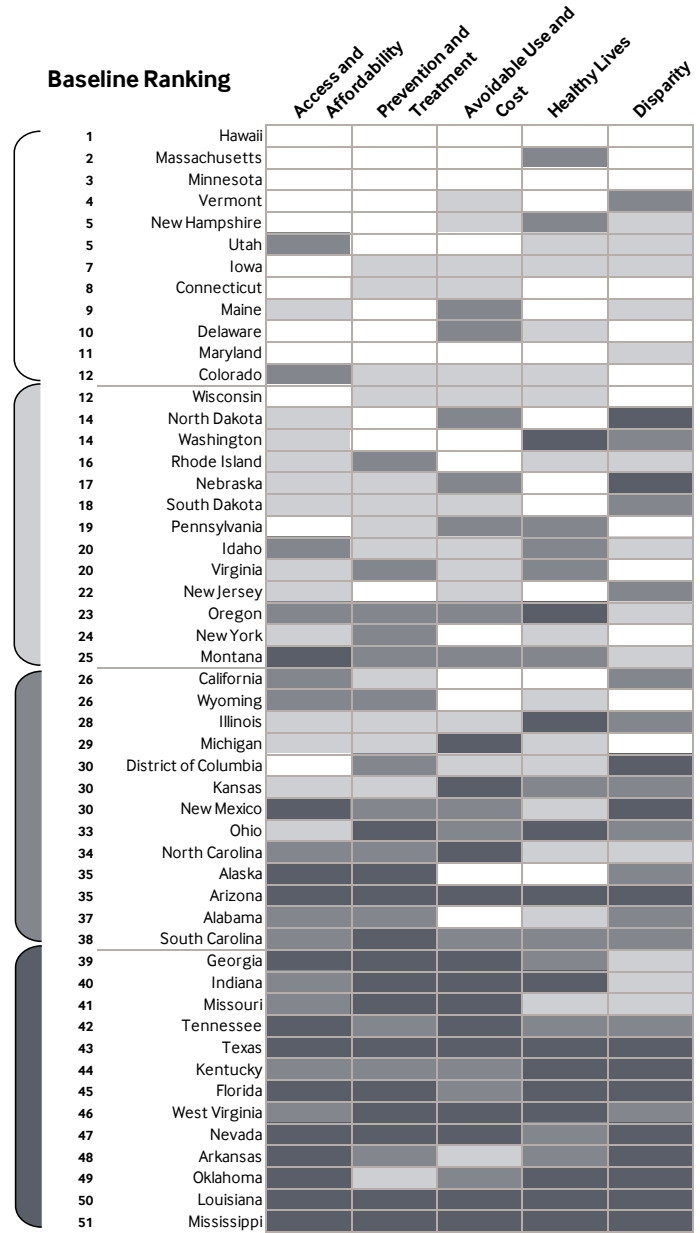
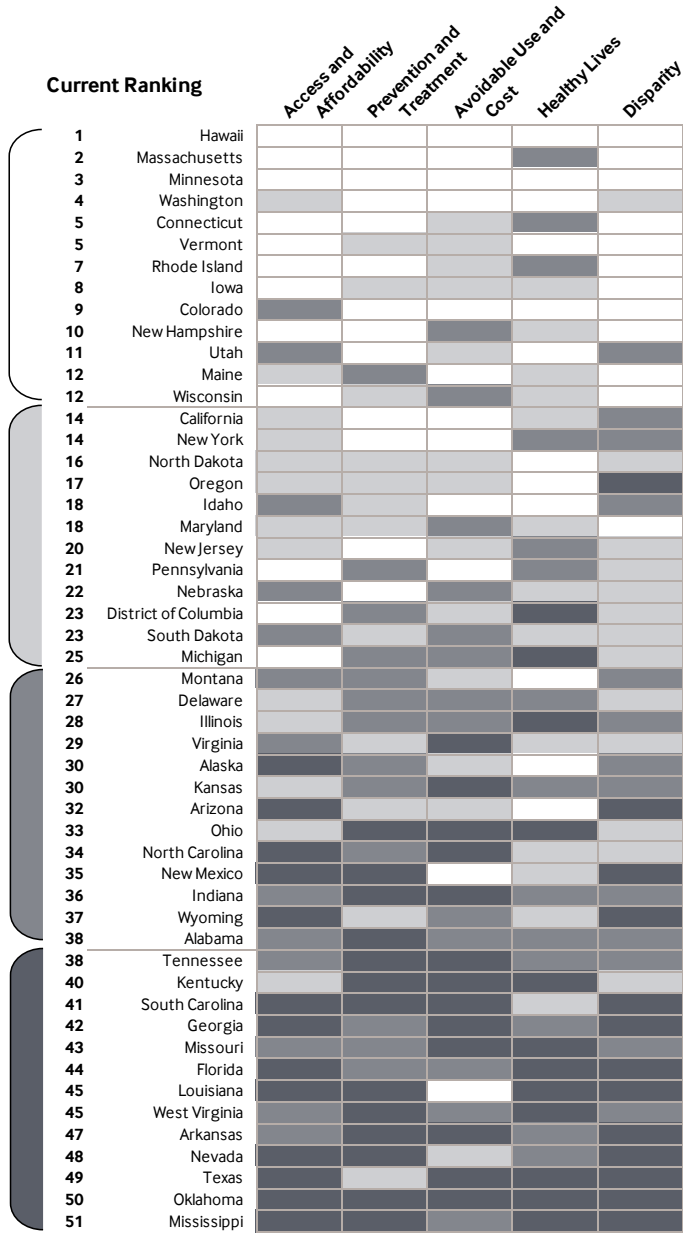
## APPENDIX A5. National Cumulative Impact if All States Achieved Top State Rate

Indicator	If all states improved their performance to the level of the best-performing state for this indicator, then:	
Insured adults	<b>15,517,664</b>	more adults (ages 19–64) would be covered by health insurance (public or private), and therefore would be more likely to receive health care when needed.
Insured children	<b>3,124,225</b>	more children (ages 0–18) would be covered by health insurance (public or private), and therefore would be more likely to receive health care when needed.
Went without care because of cost	<b>14,951,586</b>	fewer adults (age 18 and older) would go without needed health care because of cost.
High out-of-pocket medical spending	<b>13,603,821</b>	fewer individuals would be burdened by high out-of-pocket spending on medical care.
Adult usual source of care	<b>27,411,240</b>	more adults (age 18 and older) would have a usual source of care to help ensure that care is coordinated and accessible when needed.
Adult cancer screening	<b>11,714,671</b>	more adults would receive age- and gender-appropriate recommended cancer screenings, including tests for colon, breast, and cervical cancers.
Adult vaccines	<b>19,935,447</b>	more adults would receive age- appropriate recommended vaccines.
Children with a medical home	<b>8,875,559</b>	more children (ages 0–17) would have a medical home to help ensure that care is coordinated and accessible when needed.
Children vaccines	<b>808,883</b>	more children (ages 19–35 months) would receive all recommended vaccines.
Children with preventive medical and dental visits	<b>10,354,819</b>	more children (ages 0–17) would receive annual preventive medical and dental care visits each year.
Medicare received a high-risk drug	<b>210,760</b>	fewer Medicare beneficiaries would receive an inappropriately prescribed medication.
Preventable hospital admissions among children	<b>48,446</b>	fewer children (ages 2–17) would be hospitalized for asthma exacerbations.
Hospital readmissions	<b>296,928</b>	fewer employer-insured adults and elderly Medicare beneficiaries would experience a hospital readmission within 30 days of discharge.
Potentially avoidable emergency department visits	<b>6,767,282</b>	fewer employer-insured adults and elderly Medicare beneficiaries would seek care in emergency departments for nonemergent or primary-care-treatable conditions.
Mortality amenable to health care	<b>90,162</b>	fewer premature deaths (before age 75) might occur from causes that are potentially treatable or preventable with timely and appropriate health care.
Breast cancer deaths	<b>7,083</b>	fewer women would die from breast cancer.
Colon cancer deaths	<b>11,634</b>	fewer individuals would die from colon cancer.
Suicides	<b>23,914</b>	fewer individuals would take their own lives.
Adults who smoke	<b>17,443,517</b>	fewer adults would smoke, reducing their risk of lung and heart disease.
Adults who are obese	<b>15,849,074</b>	fewer adults would be obese, with body weights that increase their risk for disease and long-term complications.
Children who are overweight or obese	<b>3,379,093</b>	fewer children (ages 10–17) would be overweight or obese, thus reducing the potential for poor health as they transition into adulthood.

### APPENDIX B0. State Scorecard Summary of Health System Performance Across Dimensions

#### Overall performance

- Top quartile
- Second quartile
- Third quartile
- Bottom quartile





## APPENDIX B1. Summary of State Rankings in Current and Previous Scorecards

State	2019 Scorecard rankings						Overall ranking in the baseline time period <sup>a</sup>
	Overall ranking	Access and Affordability	Prevention and Treatment	Avoidable Use and Cost	Healthy Lives	Disparity	
Alabama	38	35	30	34	46	36	37
Alaska	30	39	38	8	36	14	35
Arizona	32	44	41	10	20	16	35
Arkansas	47	37	47	38	45	50	48
California	14	22	35	14	5	4	26
Colorado	9	31	10	5	10	11	12
Connecticut	5	6	9	27	1	22	8
Delaware	27	20	13	28	35	28	10
District of Columbia	23	8	21	44	28	23	30
Florida	44	47	44	49	31	32	45
Georgia	42	46	40	32	37	43	39
Hawaii	1	2	5	1	3	1	1
Idaho	18	35	33	3	17	8	20
Illinois	28	18	31	40	29	29	28
Indiana	36	27	34	36	41	43	40
Iowa	8	5	2	13	22	19	7
Kansas	30	23	29	35	27	40	30
Kentucky	40	23	20	48	49	40	44
Louisiana	45	43	48	47	47	9	50
Maine	12	14	7	16	30	12	9
Maryland	18	14	11	20	25	35	11
Massachusetts	2	1	1	31	4	7	2
Michigan	25	10	17	41	32	26	29
Minnesota	3	9	3	11	2	5	3
Mississippi	51	45	46	50	50	34	51
Missouri	43	33	37	45	38	51	41
Montana	26	32	36	7	26	25	25
Nebraska	22	29	14	21	12	31	17
Nevada	48	50	51	38	39	24	47
New Hampshire	10	4	8	18	9	38	5
New Jersey	20	19	22	30	12	21	22
New Mexico	35	40	49	16	42	3	30
New York	14	17	26	36	7	2	24
North Carolina	34	42	15	24	33	46	34
North Dakota	16	21	24	9	16	19	14
Ohio	33	16	25	42	43	42	33
Oklahoma	50	49	42	46	48	45	49
Oregon	17	23	39	6	14	17	23
Pennsylvania	21	12	19	33	34	9	19
Rhode Island	7	3	5	26	11	13	16
South Carolina	41	41	42	25	40	47	38
South Dakota	23	28	16	15	20	32	18
Tennessee	38	38	27	29	44	39	42
Texas	49	51	45	42	23	48	43
Utah	11	34	31	2	5	15	5
Vermont	5	7	4	12	14	17	4
Virginia	29	30	23	22	19	49	20
Washington	4	13	18	3	8	6	14
West Virginia	45	26	27	51	51	30	46
Wisconsin	12	11	11	23	18	27	12
Wyoming	37	48	50	18	23	37	26

Notes: (a) The baseline period generally reflects two to three years prior to the time of observation for the latest year of data available. This is not the same ranking as reported in our 2017 State Scorecard and should not be compared to the 2017 ranking because of changes in the underlying set of performance indicators evaluated in the two reports.

## APPENDIX B2. Summary of Indicator Rankings by State

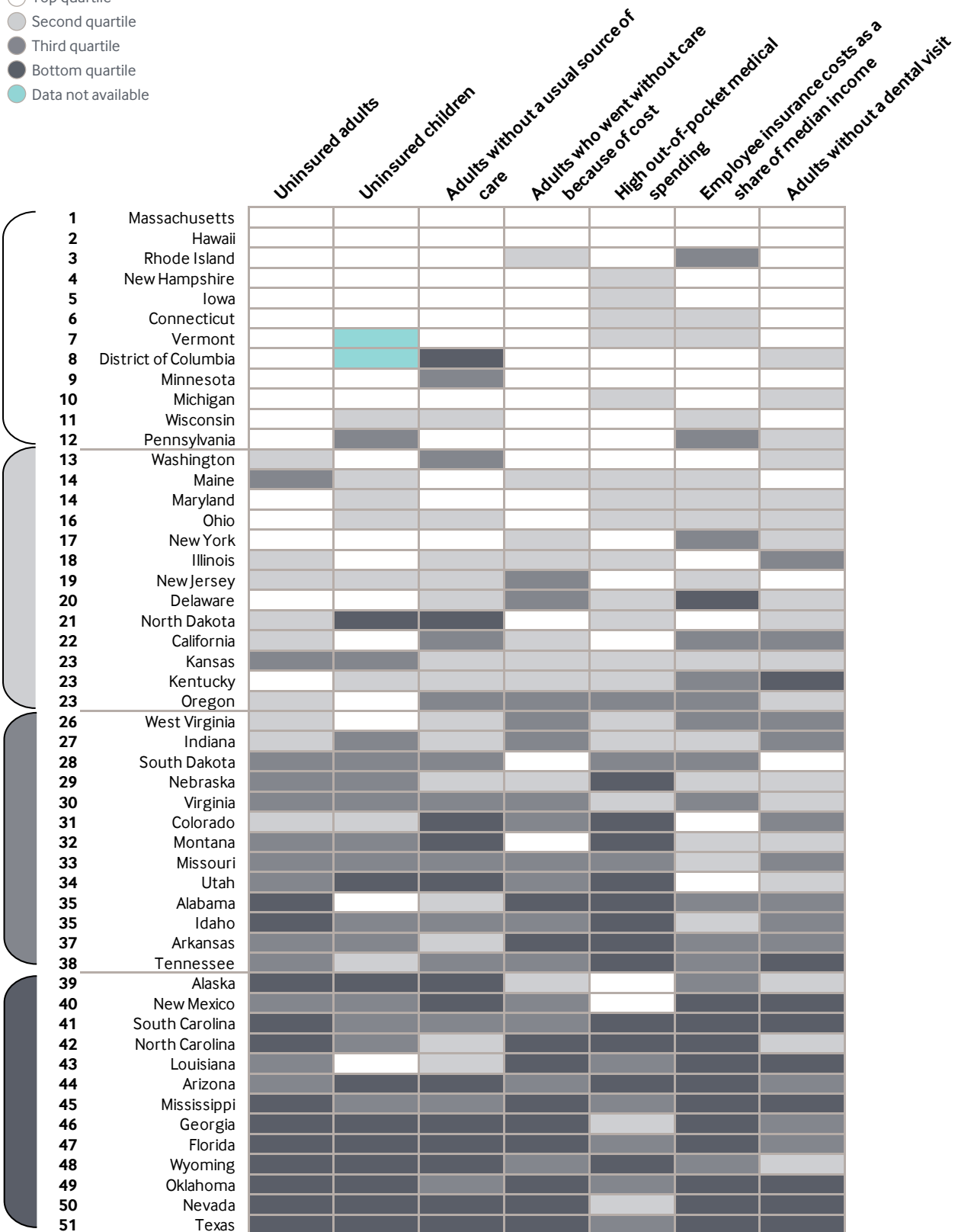
Overall ranking	State	No. of indicators scored (of 47)	Top 5 states	Top quartile	2nd quartile	3rd quartile	Bottom quartile	Bottom 5 states	No. of indicators with trend (of 45)	No. of indicators improved	No. of indicators worsened	Net change
38	Alabama	46	5	8	7	9	22	11	44	14	7	7
30	Alaska	46	9	11	11	9	15	10	41	15	11	4
32	Arizona	47	3	8	16	12	11	3	45	15	8	7
47	Arkansas	47	2	4	8	11	24	11	45	18	9	9
14	California	47	10	17	10	12	8	2	45	14	5	9
9	Colorado	47	9	20	16	7	4	0	45	15	8	7
5	Connecticut	47	12	23	10	9	5	0	45	18	6	12
27	Delaware	46	3	10	16	13	7	2	44	11	13	-2
23	District of Columbia	39	12	14	7	5	13	8	35	17	4	13
44	Florida	47	1	4	8	13	22	9	45	13	6	7
42	Georgia	47	1	5	7	18	17	5	45	11	8	3
1	Hawaii	47	25	29	12	4	2	2	43	11	12	-1
18	Idaho	46	8	15	10	10	11	4	44	13	7	6
28	Illinois	47	1	7	13	20	7	2	45	16	7	9
36	Indiana	47	1	5	11	19	12	2	45	15	9	6
8	Iowa	47	10	22	19	3	3	3	45	14	9	5
30	Kansas	47	1	3	21	17	6	2	45	16	11	5
40	Kentucky	47	1	5	15	6	21	14	45	18	9	9
45	Louisiana	46	2	4	11	8	23	18	44	18	7	11
12	Maine	46	6	12	21	8	5	0	44	15	9	6
18	Maryland	46	7	19	10	13	4	2	45	17	12	5
2	Massachusetts	47	17	29	7	6	5	2	45	9	8	1
25	Michigan	47	3	8	17	17	5	2	45	17	3	14
3	Minnesota	47	13	28	11	6	2	0	45	15	5	10
51	Mississippi	46	3	7	1	9	29	23	44	16	10	6
43	Missouri	47	0	4	8	24	11	5	45	19	11	8
26	Montana	47	4	15	16	7	9	6	45	14	10	4
22	Nebraska	47	10	15	15	10	7	5	45	11	10	1
48	Nevada	46	1	4	6	12	24	14	44	11	8	3
10	New Hampshire	46	11	22	15	4	5	3	44	10	10	0
20	New Jersey	47	7	12	17	11	7	3	45	16	8	8
35	New Mexico	47	2	6	8	19	14	11	44	10	16	-6
14	New York	47	8	15	16	10	6	3	45	18	10	8
34	North Carolina	47	2	9	13	16	9	1	45	13	10	3
16	North Dakota	47	7	17	14	9	7	1	43	13	11	2
33	Ohio	47	0	5	17	11	14	1	45	13	6	7
50	Oklahoma	47	1	2	10	7	28	18	45	13	10	3
17	Oregon	47	8	16	15	8	8	4	45	14	9	5
21	Pennsylvania	47	4	12	12	18	5	3	44	16	7	9
7	Rhode Island	45	15	21	12	5	7	2	43	21	7	14
41	South Carolina	40	0	2	9	18	11	3	38	9	9	0
23	South Dakota	47	7	15	12	16	4	2	45	16	11	5
38	Tennessee	46	4	6	8	15	17	4	44	17	7	10
49	Texas	47	4	8	5	13	21	12	45	14	6	8
11	Utah	46	15	19	11	11	5	3	44	10	7	3
5	Vermont	46	10	23	13	8	2	1	44	13	9	4
29	Virginia	47	1	8	23	11	5	1	45	14	10	4
4	Washington	47	9	26	12	5	4	1	45	19	5	14
45	West Virginia	47	2	6	8	10	23	14	45	19	13	6
12	Wisconsin	46	5	16	18	8	4	2	44	15	8	7
37	Wyoming	46	5	11	8	12	15	11	44	13	14	-1

Notes: Improvement or worsening refers to a change between the baseline and current time periods of at least 0.5 standard deviations.

APPENDIX C1. Access & Affordability: Dimension and Indicator Ranking

Overall performance

- Top quartile
- Second quartile
- Third quartile
- Bottom quartile
- Data not available



## APPENDIX C2. Access &amp; Affordability: Dimension Ranking and Indicator Rates

	Adults ages 19–64 uninsured		Children ages 0–18 uninsured		Adults without a usual source of care		Adults age 18 and older who went without care because of cost in past year	
	2013	2017	2013	2017	2013	2017	2013	2017
<b>United States</b>	<b>20%</b>	<b>12% *</b>	<b>8%</b>	<b>5% *</b>	<b>24%</b>	<b>23%</b>	<b>16%</b>	<b>14% *</b>
Alabama	20	15 *	5	3 *	22	21	16	17
Alaska	24	18 *	12	10 *	33	31	14	12 *
Arizona	24	14 *	13	8 *	32	27 *	17	14 *
Arkansas	24	12 *	6	5	23	20 *	21	16 *
California	24	10 *	8	3 *	29	24 *	16	12 *
Colorado	19	10 *	9	4 *	24	26	15	13 *
Connecticut	13	8 *	4	3	15	15	12	10 *
Delaware	14	8 *	5	3 *	14	18 *	12	13
District of Columbia	8	5	3	--	24	26	11	11
Florida	29	19 *	12	7 *	27	28	21	16 *
Georgia	26	19 *	10	7 *	28	28	20	17 *
Hawaii	10	5 *	3	2	15	17	9	8
Idaho	23	16 *	9	5 *	28	25 *	16	14 *
Illinois	18	10 *	5	3 *	20	18	14	12 *
Indiana	19	11 *	9	6 *	20	19	16	13 *
Iowa	12	6 *	5	3 *	19	17	10	8 *
Kansas	18	12 *	7	5 *	22	22	14	12 *
Kentucky	21	7 *	6	4 *	22	18 *	19	12 *
Louisiana	25	12 *	6	3 *	26	22 *	20	17 *
Maine	16	12 *	5	4	13	13	10	12 *
Maryland	14	8 *	5	4	21	17 *	13	10 *
Massachusetts	5	4	2	1	12	14	9	9
Michigan	16	7 *	5	3 *	17	15	15	11 *
Minnesota	11	6 *	6	3 *	27	25	10	10
Mississippi	25	18 *	8	5 *	23	24	22	18 *
Missouri	18	13 *	7	5 *	21	24 *	16	14 *
Montana	23	13 *	11	6 *	30	29	14	11 *
Nebraska	15	12	6	6	21	20	13	12
Nevada	27	15 *	14	8 *	35	34	17	17
New Hampshire	16	8 *	4	3	12	13	12	10 *
New Jersey	19	11 *	6	4 *	19	21	15	14
New Mexico	28	13 *	9	5 *	31	29	18	14 *
New York	15	8 *	4	3	19	17	15	12 *
North Carolina	23	16 *	6	5	27	21 *	18	16 *
North Dakota	14	9 *	8	7	27	29	7	8
Ohio	16	8 *	5	4	19	19	15	11 *
Oklahoma	25	20 *	11	8 *	26	25	17	17
Oregon	21	10 *	7	3 *	26	23 *	18	13 *
Pennsylvania	14	7 *	5	5	14	15	12	10 *
Rhode Island	17	6 *	6	2 *	16	12 *	14	12 *
South Carolina	23	16 *	7	5 *	24	23	19	15 *
South Dakota	17	13 *	7	6	24	24	10	10
Tennessee	20	14 *	6	4 *	23	23	18	15 *
Texas	30	24 *	13	11 *	33	32	19	20
Utah	18	12 *	9	7 *	28	29	15	14
Vermont	10	6 *	--	--	13	13	9	9
Virginia	17	12 *	6	5	24	23	15	14
Washington	20	9 *	7	3 *	28	24 *	15	11 *
West Virginia	20	9 *	5	3 *	23	19 *	18	15 *
Wisconsin	13	7 *	5	4	19	18	12	11
Wyoming	18	16	7	10 *	31	32	14	15
<b>Change</b>								
States Improved		47		32		12		32
States Worsened		0		1		2		1

Notes: \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more. — Indicates that estimates are not available.

## APPENDIX C2. Access &amp; Affordability: Dimension Ranking and Indicator Rates (continued)

	High out-of-pocket medical spending		Employee insurance costs as a share of median income		Adults without a dental visit	
	2013-14	2016-17	2013	2017	2012	2016
<b>United States</b>	<b>11%</b>	<b>10%</b>	<b>6.5%</b>	<b>6.9%</b>	<b>15%</b>	<b>16%</b>
Alabama	13	12	6.5	6.9	18	16 *
Alaska	14	8 *	5.9	7.2 *	14	15
Arizona	12	12	8.0	8.8 *	17	17
Arkansas	16	13 *	7.2	7.5	19	16 *
California	9	8	7.0	7.2	16	16
Colorado	10	12 *	5.1	5.6	16	16
Connecticut	10	9	5.9	5.9	11	10
Delaware	9	9	7.6	8.5 *	12	14 *
District of Columbia	8	5 *	6.2	5.6 *	16	14 *
Florida	11	11	9.0	8.0 *	18	17
Georgia	11	10	7.2	8.0 *	16	17
Hawaii	8	7	4.4	5.3 *	15	12 *
Idaho	17	12 *	5.7	5.9	13	16 *
Illinois	9	9	6.4	5.5 *	15	17 *
Indiana	12	10 *	6.5	6.0	15	16
Iowa	12	10 *	5.5	5.1	12	12
Kansas	10	10	6.3	6.0	13	14
Kentucky	12	9 *	7.4	7.3	16	18 *
Louisiana	13	11 *	8.1	10.2 *	20	20
Maine	11	9 *	6.9	6.2 *	13	13
Maryland	7	9 *	5.4	6.2 *	13	15 *
Massachusetts	7	8	5.5	5.4	11	12
Michigan	11	10	5.9	4.8 *	14	14
Minnesota	9	8	4.9	5.4	11	12
Mississippi	15	11 *	8.5	8.6	19	18
Missouri	12	11	6.3	6.3	15	17 *
Montana	15	12 *	5.4	6.1 *	17	15 *
Nebraska	12	13	6.0	5.9	15	14
Nevada	13	10 *	8.0	8.2	20	19
New Hampshire	9	9	4.9	5.6 *	10	11
New Jersey	9	8	5.2	5.9 *	15	13 *
New Mexico	10	8 *	7.7	9.3 *	18	19
New York	8	7	6.6	7.6 *	15	15
North Carolina	14	14	7.8	8.2	15	15
North Dakota	12	10 *	4.9	5.5	15	14
Ohio	10	9	5.5	5.7	14	15
Oklahoma	12	11	7.9	8.1	18	18
Oregon	15	11 *	6.2	6.4	15	14
Pennsylvania	9	8	5.2	6.6 *	13	15 *
Rhode Island	9	6 *	5.8	6.9 *	12	11
South Carolina	11	12	7.1	7.7 *	18	18
South Dakota	14	11 *	6.8	6.9	11	13 *
Tennessee	17	12 *	7.5	7.6	17	18
Texas	12	11	7.9	8.0	18	19
Utah	14	13	4.6	5.0	16	14 *
Vermont	9	10	5.7	6.1	11	12
Virginia	9	10	5.7	6.9 *	12	14 *
Washington	10	8 *	5.0	5.1	14	15
West Virginia	12	10 *	5.0	6.4 *	18	17
Wisconsin	12	8 *	5.0	6.0 *	12	12
Wyoming	13	15 *	4.9	6.4 *	15	15
<b>Change</b>						
States Improved		21		5		7
States Worsened		3		19		9

Notes: \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more. — Indicates that estimates are not available.

## APPENDIX C3. Uninsured Adults Ages 19–64 by Income and by Race/Ethnicity

	Total Population			(< 200% FPL)			(2017 only)			
	2013	2016	2017	2013	2016	2017	Black	Hispanic	Other	White
<b>United States</b>	<b>20%</b>	<b>12%</b>	<b>12%</b>	<b>38%</b>	<b>23%</b>	<b>23%</b>	<b>14%</b>	<b>25%</b>	<b>10%</b>	<b>8%</b>
Alabama	20	14	15	37	27	27	16	45	14	12
Alaska	24	18	18	46	34	26	--	--	31	14
Arizona	24	14	14	41	22	23	10	22	14	9
Arkansas	24	12	12	40	18	18	10	35	18	9
California	24	10	10	41	19	18	8	17	6	6
Colorado	19	10	10	35	19	18	11	21	9	7
Connecticut	13	7	8	28	14	16	9	20	8	5
Delaware	14	8	8	26	15	14	7	26	8	5
District of Columbia	8	5	5	12	8	8	5	12	--	3
Florida	29	18	19	46	31	32	21	27	16	15
Georgia	26	18	19	46	35	35	19	45	17	14
Hawaii	10	5	5	21	10	12	--	7	5	6
Idaho	23	15	16	37	27	27	--	35	15	14
Illinois	18	9	10	36	19	19	11	24	8	6
Indiana	19	11	11	37	21	21	15	29	12	9
Iowa	12	6	6	26	11	12	--	19	13	5
Kansas	18	12	12	37	27	26	15	28	13	9
Kentucky	21	7	7	38	11	12	9	30	12	6
Louisiana	25	15	12	42	26	20	13	38	16	10
Maine	16	11	12	26	20	23	--	--	18	11
Maryland	14	8	8	30	18	18	7	32	6	4
Massachusetts	5	4	4	11	6	7	6	7	5	3
Michigan	16	8	7	30	14	13	10	18	7	6
Minnesota	11	6	6	23	11	14	9	25	9	4
Mississippi	25	18	18	39	31	31	21	39	24	15
Missouri	18	13	13	36	26	26	18	25	18	11
Montana	23	12	13	40	23	19	--	--	30	11
Nebraska	15	12	12	35	29	27	14	32	17	9
Nevada	27	15	15	47	26	25	13	25	12	10
New Hampshire	16	9	8	34	20	18	--	--	13	8
New Jersey	19	11	11	43	25	25	11	26	8	6
New Mexico	28	13	13	43	20	19	--	15	22	8
New York	15	9	8	26	15	13	9	16	9	5
North Carolina	23	15	16	42	29	31	16	44	14	12
North Dakota	14	9	9	28	20	21	--	--	26	7
Ohio	16	8	8	30	14	15	11	22	8	7
Oklahoma	25	20	20	42	35	35	23	38	30	15
Oregon	21	9	10	37	15	16	--	25	9	8
Pennsylvania	14	8	7	29	15	14	9	17	9	6
Rhode Island	17	6	6	32	10	13	--	17	11	4
South Carolina	23	15	16	39	27	30	18	43	16	13
South Dakota	17	12	13	36	26	28	--	--	40	9
Tennessee	20	14	14	37	24	25	15	43	13	12
Texas	30	23	24	52	42	43	20	37	15	14
Utah	18	12	12	35	24	25	--	33	12	8
Vermont	10	5	6	14	7	7	--	--	--	6
Virginia	17	12	12	38	29	27	15	31	10	9
Washington	20	9	9	40	16	17	10	27	7	6
West Virginia	20	8	9	35	11	12	9	--	--	9
Wisconsin	13	7	7	26	15	14	10	20	11	5
Wyoming	18	15	16	37	26	33	--	34	18	14

Notes: — Indicates that estimates are not available.

## APPENDIX C4. Adults Ages 18–64 Who Went Without Care Because of Cost by Income and by Race/Ethnicity

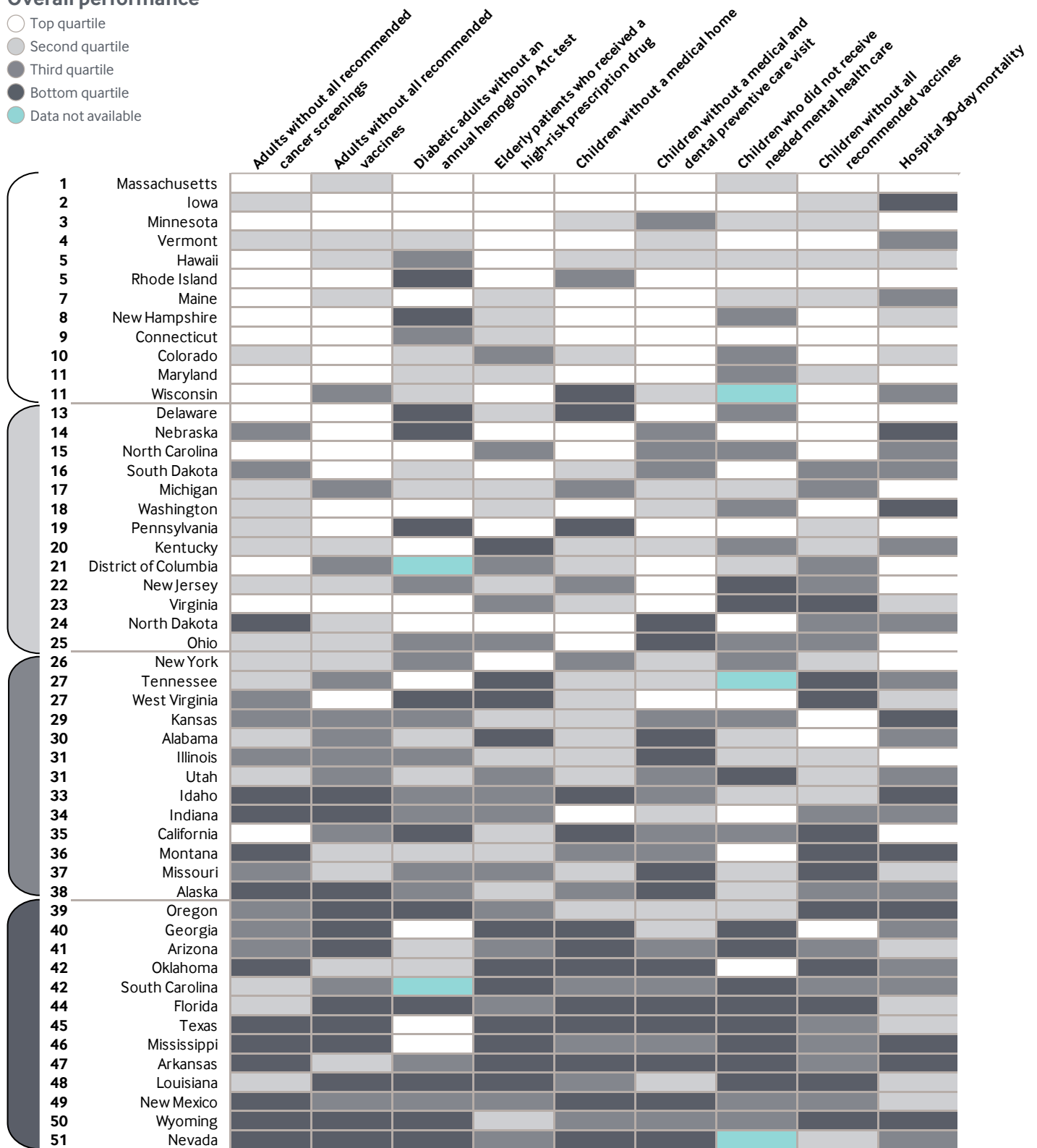
	Total Population			(< 200% FPL)			(2017 only)			
	2013	2016	2017	2013	2016	2017	Black	Hispanic	Other	White
<b>United States</b>	<b>19%</b>	<b>15%</b>	<b>16%</b>	<b>33%</b>	<b>26%</b>	<b>26%</b>	<b>19%</b>	<b>22%</b>	<b>14%</b>	<b>13%</b>
Alabama	19	19	19	37	38	32	21	12	27	19
Alaska	16	14	13	26	31	13	--	16	9	14
Arizona	20	16	17	37	25	21	16	21	14	14
Arkansas	25	18	20	39	26	28	20	36	21	17
California	18	13	14	29	21	21	16	18	8	11
Colorado	17	14	15	33	23	24	10	21	16	13
Connecticut	14	11	12	24	17	21	12	21	13	10
Delaware	14	13	15	26	23	22	14	26	8	14
District of Columbia	12	10	11	17	21	12	12	21	14	7
Florida	26	21	21	41	35	31	20	24	18	18
Georgia	23	19	19	39	35	33	20	24	12	18
Hawaii	10	8	9	18	18	18	9	11	9	9
Idaho	19	17	16	34	32	29	--	21	22	15
Illinois	16	13	14	31	20	22	15	19	12	12
Indiana	18	15	15	36	27	26	18	24	21	13
Iowa	12	9	9	24	18	16	18	19	11	8
Kansas	16	14	14	34	30	31	23	20	14	13
Kentucky	22	14	14	39	21	19	11	24	18	14
Louisiana	23	20	20	40	37	28	23	32	21	17
Maine	12	13	15	16	22	19	--	30	32	14
Maryland	15	12	12	30	24	25	12	29	13	8
Massachusetts	10	10	10	19	16	15	12	18	9	9
Michigan	18	14	13	29	20	19	18	18	15	12
Minnesota	12	11	11	24	18	18	20	22	12	10
Mississippi	25	22	21	38	37	33	24	--	22	19
Missouri	19	16	16	36	33	30	25	20	17	15
Montana	16	14	13	30	22	21	--	11	16	13
Nebraska	15	14	14	31	30	28	23	21	19	12
Nevada	20	19	20	32	29	34	13	29	17	16
New Hampshire	14	12	11	34	23	21	--	11	13	11
New Jersey	18	14	16	33	25	24	19	27	12	11
New Mexico	21	14	16	32	20	19	--	19	12	12
New York	17	13	13	28	18	20	14	20	14	10
North Carolina	21	19	18	40	37	35	21	30	19	16
North Dakota	8	9	9	19	17	21	19	21	17	7
Ohio	17	13	13	28	21	17	17	19	21	11
Oklahoma	20	18	20	38	33	32	25	24	19	19
Oregon	22	13	15	41	20	25	13	17	19	14
Pennsylvania	14	13	12	27	22	18	15	15	13	11
Rhode Island	17	12	14	29	21	22	14	24	19	11
South Carolina	23	19	18	38	32	30	20	26	25	16
South Dakota	11	10	12	23	18	30	--	22	18	10
Tennessee	21	14	17	33	25	23	21	18	32	15
Texas	22	20	22	39	36	40	27	27	20	18
Utah	17	13	15	33	24	26	--	21	21	13
Vermont	11	10	10	18	13	11	--	11	9	10
Virginia	18	15	16	34	38	33	19	26	13	14
Washington	18	12	13	35	19	19	17	21	13	11
West Virginia	22	17	18	38	22	22	16	--	23	17
Wisconsin	14	12	12	23	20	26	12	17	20	11
Wyoming	17	17	17	33	27	37	--	25	17	17

Notes: — Indicates that estimates are not available.

APPENDIX D1. Prevention & Treatment: Dimension and Indicator Ranking

Overall performance

- Top quartile
- Second quartile
- Third quartile
- Bottom quartile
- Data not available

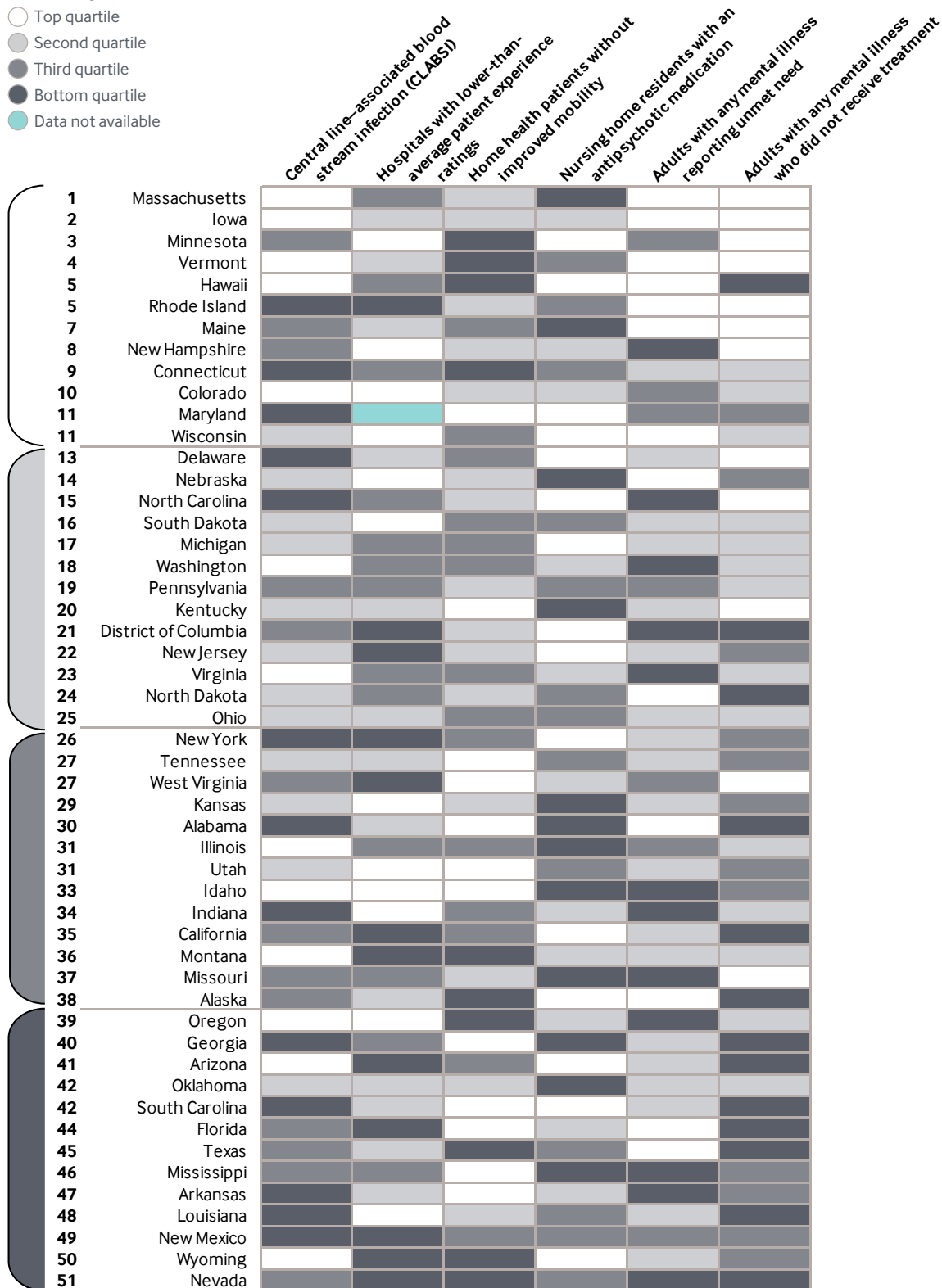




APPENDIX D1. Prevention & Treatment: Dimension and Indicator Ranking (continued)

Overall performance

- Top quartile
- Second quartile
- Third quartile
- Bottom quartile
- Data not available



APPENDIX D2. Prevention & Treatment: Dimension Ranking and Indicator Rates

	Adults without all recommended cancer screenings		Adults without all recommended vaccines		Diabetic adults without an annual hemoglobin A1c test		Elderly patients who received a high-risk prescription drug	Children without a medical home		Children without a medical and dental preventive care visit	
	2012	2016	2013	2017	2015	2016	2015	2016	2017	2016	2017
<b>United States</b>	<b>31%</b>	<b>32%</b>	<b>64%</b>	<b>62%</b>	<b>16.9</b>	<b>12.0 *</b>	<b>11</b>	<b>51%</b>	<b>51%</b>	<b>32%</b>	<b>32%</b>
Alabama	32	32	62	62	15.2	10.4 *	15	49	50	32	35 *
Alaska	37	36	67	66	16.4	11.5 *	10	52	52	37	37
Arizona	37	35	69	65 *	15.9	10.7 *	12	55	56	31	34 *
Arkansas	39	36 *	63	61	17.7	13.2 *	13	52	57 *	41	36 *
California	27	28	66	62 *	19.2	15.2 *	10	58	56	39	33 *
Colorado	31	32	58	57	16.6	10.5 *	11	51	49	29	22 *
Connecticut	25	24	63	56 *	20.9	13.1 *	9	46	43 *	23	18 *
Delaware	25	28 *	57	57	20.8	14.8 *	10	48	55 *	28	26
District of Columbia	25	25	64	62	--	--	11	51	46 *	26	21 *
Florida	32	33	72	65 *	18.9	13.3 *	12	58	59	38	35 *
Georgia	28	34 *	68	65 *	14.8	9.7 *	14	51	54 *	28	29
Hawaii	30	26 *	57	59	15.2	11.8 *	5	50	49	31	29
Idaho	39	40	68	66	16.4	12.8 *	11	50	55 *	33	32
Illinois	33	34	66	64	17.8	12.2 *	9	50	48	28	38 *
Indiana	37	37	67	65	18.4	12.2 *	11	47	45	32	31
Iowa	29	31	56	56	15.1	9.1 *	8	42	45 *	30	24 *
Kansas	32	34	60	63 *	16.2	12.0 *	10	49	50	36	32 *
Kentucky	35	33	62	61	14.4	8.9 *	14	46	48	33	31
Louisiana	33	32	61	67 *	17.0	18.7	16	51	53	32	31
Maine	27	29	59	58	16.8	9.2 *	10	46	42 *	22	23
Maryland	25	29 *	58	55 *	16.4	10.8 *	10	42	45 *	26	24
Massachusetts	21	26 *	53	59 *	16.3	10.0 *	7	42	40	22	21
Michigan	29	31	67	64 *	15.5	10.1 *	9	50	51	33	31
Minnesota	27	29	56	56	11.0	5.6 *	7	45	48 *	35	34
Mississippi	37	36	65	66	14.8	9.3 *	16	49	52 *	41	32 *
Missouri	34	35	60	58	17.9	13.2 *	11	51	48 *	38	42 *
Montana	40	38	63	61	16.0	10.3 *	9	47	52 *	32	33
Nebraska	34	35	57	55	18.5	17.2	8	45	41 *	35	34
Nevada	37	36	71	69	19.6	15.6 *	12	66	64	38	41 *
New Hampshire	25	27	61	57 *	20.9	14.8 *	9	42	42	21	23
New Jersey	31	31	66	61 *	18.6	13.2 *	9	50	52	26	24
New Mexico	37	40 *	64	62	19.6	12.2 *	11	55	58 *	28	35 *
New York	28	31 *	65	61 *	21.2	12.9 *	8	48	51 *	31	27 *
North Carolina	29	28	56	57	13.4	7.5 *	12	46	45	27	33 *
North Dakota	36	36	61	60	14.6	9.2 *	8	49	45 *	41	36 *
Ohio	33	33	62	61	18.4	12.0 *	11	48	45 *	32	36 *
Oklahoma	39	40	59	58	15.8	10.1 *	16	55	54	36	43 *
Oregon	33	34	67	65	16.0	14.3	11	49	47	33	30 *
Pennsylvania	31	33	63	57 *	18.9	14.2 *	8	45	58 *	26	25
Rhode Island	24	26	58	55 *	23.7	16.2 *	8	50	52	28	23 *
South Carolina	32	33	63	62	--	--	15	49	51	25	33 *
South Dakota	32	34	53	54	13.2	10.3 *	7	46	50 *	39	34 *
Tennessee	33	33	58	64 *	13.5	9.0 *	14	46	47	34	28 *
Texas	34	37 *	66	65	15.0	9.6 *	13	59	56 *	36	37
Utah	32	33	65	64	15.2	10.9 *	11	43	50 *	34	32
Vermont	27	30 *	58	59	19.3	10.4 *	8	40	39	20	27 *
Virginia	28	29	59	57	14.2	10.0 *	11	51	46 *	28	26
Washington	31	32	61	57 *	12.7	7.1 *	10	52	44 *	27	28
West Virginia	34	35	58	57	19.6	15.1 *	13	48	50	28	26
Wisconsin	29	28	65	63	13.7	10.5 *	8	48	54 *	31	31
Wyoming	39	40	68	65 *	22.4	22.5	10	48	53 *	34	33
<b>Change</b>											
States Improved		2		14		45			10		15
States Worsened		8		4		0			16		11

Notes: \* Denotes a change of at least 0.5 standard deviations. — Indicates that estimates are not available.

APPENDIX D2. Prevention & Treatment: Dimension Ranking and Indicator Rates (continued)

	Children who did not receive needed mental health care		Children without all recommended vaccines		Hospital 30-day mortality		Central line-associated bloodstream infections (CLABSI), Standardized Infection Ratio		Hospitals with lower-than-average patient experience ratings	Home health patients without improved mobility	
	2016	2017	2012	2016	07/2010	07/2014	2015	2016	2017	2013	2017
					-	-					
<b>United States</b>	<b>18%</b>	<b>22%</b>	<b>32</b>	<b>29 *</b>	<b>13.2%</b>	<b>13.9% *</b>	<b>0.99</b>	<b>0.89 *</b>	<b>45%</b>	<b>39%</b>	<b>25% *</b>
Alabama	19	12 *	32	29 *	13.7	14.3 *	1.41	1.12 *	38	35	20 *
Alaska	24	11 *	40	31 *	13.7	14.4 *	1.09	0.87 *	29	51	35 *
Arizona	22	25	32	30	13.1	13.7 *	0.85	0.76	64	42	27 *
Arkansas	15	31 *	34	32	14.1	15.1 *	1.10	1.00	34	39	21 *
California	16	24 *	33	35	13.0	13.4 *	0.97	0.94	58	41	27 *
Colorado	27	16 *	28	24 *	12.9	13.8 *	0.90	0.72 *	12	38	25 *
Connecticut	15	6 *	23	24	13.0	13.4 *	1.16	1.03 *	52	41	29 *
Delaware	9	23 *	27	22 *	12.2	13.0 *	1.05	0.97	33	42	27 *
District of Columbia	16	11 *	27	32 *	12.4	13.2 *	1.16	0.95 *	100	40	24 *
Florida	18	33 *	31	33	13.1	13.8 *	1.10	0.91 *	63	35	22 *
Georgia	34	31	25	23	13.4	14.1 *	1.17	1.14	42	39	23 *
Hawaii	23	11 *	20	25 *	13.4	13.8 *	0.32	0.53 *	45	45	32 *
Idaho	13	13	37	26 *	13.6	14.5 *	0.64	0.39 *	9	37	23 *
Illinois	15	13	31	29	12.9	13.6 *	0.82	0.70 *	44	39	27 *
Indiana	18	5 *	39	31 *	13.4	14.1 *	1.12	0.99 *	21	41	27 *
Iowa	7	9	25	27	13.4	14.8 *	0.93	0.64 *	32	38	25 *
Kansas	14	19 *	35	24 *	13.0	14.6 *	0.80	0.85	14	39	24 *
Kentucky	18	17	32	25 *	13.3	14.3 *	1.07	0.77 *	38	36	22 *
Louisiana	25	26	32	33	13.3	13.7 *	1.43	1.13 *	20	40	25 *
Maine	17	10 *	27	29	13.4	14.1 *	0.80	0.93 *	41	38	26 *
Maryland	11	20 *	33	26 *	12.8	13.6 *	1.12	1.10	--	37	22 *
Massachusetts	13	11	26	15 *	12.4	12.8 *	0.75	0.76	47	37	24 *
Michigan	7	11	30	30	13.0	13.6 *	0.94	0.78 *	42	39	26 *
Minnesota	9	13	34	26 *	12.8	13.6 *	0.78	0.86	23	43	29 *
Mississippi	22	28 *	23	30 *	13.4	14.6 *	1.11	0.92 *	43	36	20 *
Missouri	22	12 *	36	33 *	13.2	14.0 *	1.06	0.93 *	45	38	24 *
Montana	8	8	34	36	13.2	14.6 *	0.93	0.69 *	56	44	30 *
Nebraska	20	4 *	27	19 *	13.3	14.8 *	1.16	0.78 *	21	41	25 *
Nevada	26	--	35	28 *	13.8	14.2 *	0.95	0.94	79	40	28 *
New Hampshire	5	14 *	20	22	13.3	13.7 *	1.04	0.96	15	41	25 *
New Jersey	23	41 *	29	30	12.7	13.1 *	1.13	0.82 *	70	37	25 *
New Mexico	9	18 *	28	32 *	13.3	14.0 *	1.00	1.05	77	41	27 *
New York	17	24 *	36	28 *	13.1	13.6 *	1.07	0.98	76	41	26 *
North Carolina	30	16 *	25	22 *	13.7	14.3 *	1.06	1.04	44	39	24 *
North Dakota	10	7	28	32 *	12.7	14.2 *	0.79	0.84	50	44	24 *
Ohio	15	23 *	33	32	12.9	13.3 *	0.88	0.84	38	39	26 *
Oklahoma	11	9	39	33 *	13.2	14.3 *	0.95	0.82 *	40	40	24 *
Oregon	10	10	33	42 *	13.9	14.7 *	0.80	0.68 *	21	44	29 *
Pennsylvania	13	6 *	32	26 *	12.9	13.6 *	0.94	0.95	50	37	24 *
Rhode Island	16	4 *	28	24 *	13.2	13.0	1.07	1.03	55	37	25 *
South Carolina	19	48 *	28	30	13.5	14.2 *	1.10	0.96 *	37	36	23 *
South Dakota	17	9 *	36	30 *	13.1	14.4 *	0.65	0.77 *	17	42	27 *
Tennessee	15	--	27	33 *	13.5	14.3 *	0.90	0.78 *	41	37	21 *
Texas	24	40 *	35	31 *	13.0	13.7 *	0.97	0.87 *	33	44	30 *
Utah	18	38 *	27	28	13.5	14.4 *	0.82	0.84	26	34	21 *
Vermont	16	9 *	37	23 *	13.8	14.4 *	1.13	0.68 *	33	40	28 *
Virginia	14	35 *	30	34 *	13.5	13.8 *	0.92	0.68 *	51	37	26 *
Washington	20	24	35	24 *	13.9	14.6 *	0.87	0.71 *	48	44	26 *
West Virginia	24	9 *	39	35 *	13.2	14.0 *	0.74	0.86 *	68	37	21 *
Wisconsin	9	--	25	21 *	13.5	14.2 *	0.77	0.80	18	41	26 *
Wyoming	7	24 *	33	37 *	13.0	14.8 *	0.67	0.36 *	62	42	31 *
<b>Change</b>											
States Improved		16		25		0		27			51
States Worsened		17		9		50		4			0

Notes: \* Denotes a change of at least 0.5 standard deviations. — Indicates that estimates are not available.

## APPENDIX D2. Prevention &amp; Treatment: Dimension Ranking and Indicator Rates (continued)

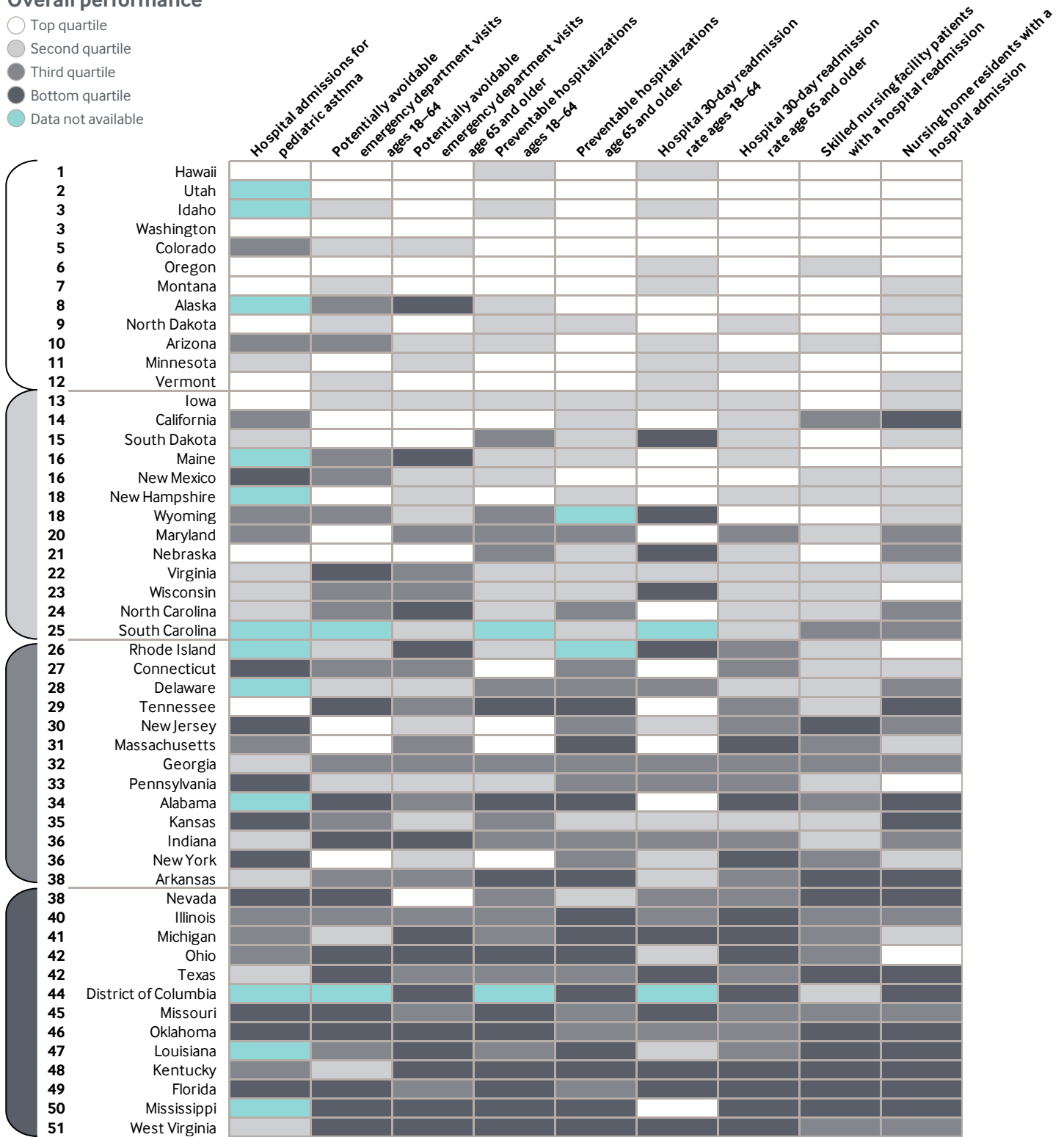
	Nursing home residents with an antipsychotic medication		Adults with any mental illness reporting unmet need		Adults with any mental illness who did not receive treatment	
	2013	2017	2009-11	2014-16	2009-11	2014-16
<b>United States</b>	<b>21%</b>	<b>15% *</b>	<b>21%</b>	<b>21%</b>	<b>59%</b>	<b>56% *</b>
Alabama	22	19 *	21	17 *	59	59
Alaska	13	12	22	18 *	67	62 *
Arizona	20	14 *	30	21 *	59	63 *
Arkansas	24	15 *	28	23 *	58	57
California	17	11 *	21	20	64	62
Colorado	17	15 *	23	22	55	54
Connecticut	21	16 *	25	21 *	58	54 *
Delaware	17	14 *	16	21 *	58	48 *
District of Columbia	16	11 *	24	26 *	65	58 *
Florida	22	15 *	20	19	63	61
Georgia	22	19 *	20	21	59	59
Hawaii	11	7 *	14	16 *	73	68 *
Idaho	20	18 *	23	25 *	54	56
Illinois	25	19 *	22	22	58	54 *
Indiana	21	15 *	23	25 *	57	55
Iowa	20	15 *	18	19	55	46 *
Kansas	22	19 *	30	21 *	49	56 *
Kentucky	22	19 *	19	20	55	51 *
Louisiana	27	17 *	23	20 *	65	61 *
Maine	21	18 *	16	17	47	42 *
Maryland	16	13 *	20	22 *	57	56
Massachusetts	22	18 *	21	19 *	49	49
Michigan	15	13 *	23	20 *	60	53 *
Minnesota	16	14 *	25	22 *	57	43 *
Mississippi	25	19 *	21	23 *	67	57 *
Missouri	24	19 *	27	24 *	56	52 *
Montana	18	15 *	24	21 *	51	54 *
Nebraska	23	18 *	16	17	53	56 *
Nevada	21	16 *	22	26 *	68	63 *
New Hampshire	21	15 *	24	25	57	46 *
New Jersey	16	11 *	15	20 *	68	57 *
New Mexico	19	16 *	25	22 *	55	56
New York	19	12 *	17	20 *	61	57 *
North Carolina	16	13 *	22	24 *	59	51 *
North Dakota	19	17 *	17	19 *	55	58 *
Ohio	23	16 *	20	20	54	53
Oklahoma	23	20 *	18	20 *	60	55 *
Oregon	18	15 *	26	25	56	55
Pennsylvania	19	16 *	21	22	54	54
Rhode Island	18	16 *	27	17 *	47	48
South Carolina	17	14 *	22	21	54	60 *
South Dakota	19	17 *	17	20 *	53	53
Tennessee	24	17 *	16	21 *	57	57
Texas	27	16 *	20	17 *	65	62 *
Utah	25	16 *	23	21 *	57	57
Vermont	20	17 *	24	19 *	45	46
Virginia	20	15 *	22	24 *	53	54
Washington	19	15 *	26	24 *	53	54
West Virginia	18	15 *	26	22 *	48	52 *
Wisconsin	16	13 *	22	18 *	60	53 *
Wyoming	18	13 *	17	21 *	61	56 *
<b>Change</b>						
States Improved		50		20		23
States Worsened		0		17		7

Notes: \* Denotes a change of at least 0.5 standard deviations. — Indicates that estimates are not available.

APPENDIX E1. Prevention & Treatment: Dimension and Indicator Ranking

Overall performance

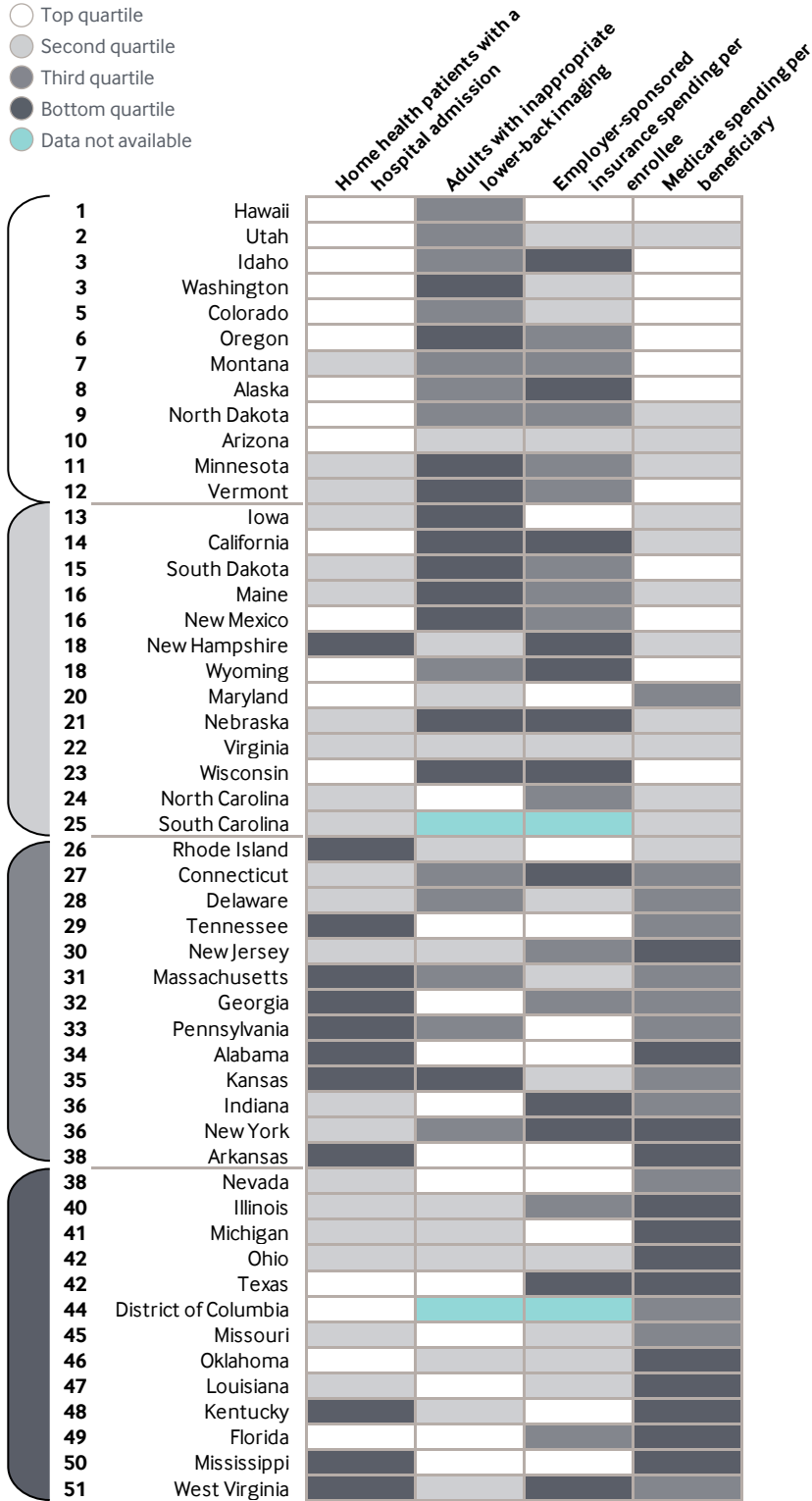
- Top quartile
- Second quartile
- Third quartile
- Bottom quartile
- Data not available



APPENDIX E1. Prevention & Treatment: Dimension and Indicator Ranking (continued)

Overall performance

- Top quartile
- Second quartile
- Third quartile
- Bottom quartile
- Data not available



## APPENDIX E2. Avoidable Hospital Use &amp; Cost: Dimension Ranking and Indicator Rates

	Hospital admissions for pediatric asthma (rate per 100,000)		Potentially avoidable emergency department visits ages 18–64 (rate per 1,000)		Potentially avoidable emergency department visits age 65 and older (rate per 1,000)		Preventable hospitalizations ages 18–64 (rate per 1,000)	
	2012	2015	2015	2016	2012	2015	2015	2016
<b>United States</b>	<b>142.9</b>	<b>87.2 *</b>	<b>159.0</b>	<b>142.2 *</b>	<b>187.8</b>	<b>196.9</b>	<b>4.6</b>	<b>5.3 *</b>
Alabama	--	--	171.5	157.4 *	191.7	199.5	6.0	7.9 *
Alaska	61.9	--	166.0	149.8 *	204.7	212.9	4.4	6.5 *
Arizona	124.7	84.4 *	175.7	148.8 *	177.9	191.0 *	4.6	6.4 *
Arkansas	80.6	69.0	157.1	144.0 *	185.0	200.2 *	5.3	7.3 *
California	95.8	86.8	130.0	117.7 *	166.9	173.8	3.6	5.9 *
Colorado	129.1	100.4 *	147.4	133.1 *	172.7	177.4	3.5	5.8 *
Connecticut	136.3	103.4 *	162.9	142.8 *	189.3	207.9 *	3.9	6.2 *
Delaware	--	--	150.6	141.2 *	159.0	179.0 *	5.2	7.1 *
District of Columbia	--	--	--	--	247.9	242.2	--	--
Florida	143.1	120.6 *	177.6	163.8 *	178.9	199.0 *	5.7	7.8 *
Georgia	96.6	58.1 *	164.0	149.9 *	200.6	197.1	5.1	7.2 *
Hawaii	68.6	50.1	137.6	122.3 *	130.8	138.3	4.3	6.5 *
Idaho	--	--	133.5	137.9	162.1	172.9	3.6	6.4 *
Illinois	119.5	85.3 *	154.4	142.4 *	192.0	199.3	4.8	7.0 *
Indiana	102.4	62.5 *	171.5	151.7 *	199.9	209.7	5.6	7.2 *
Iowa	71.2	46.8 *	151.1	134.6 *	183.6	186.2	4.4	6.5 *
Kansas	160.4	103.8 *	160.8	145.0 *	172.9	188.7 *	5.3	7.2 *
Kentucky	151.8	85.3 *	151.2	136.4 *	218.7	236.3 *	5.4	7.6 *
Louisiana	203.0	--	173.9	150.3 *	236.3	238.3	5.6	6.9 *
Maine	76.3	--	172.4	150.2 *	232.5	219.3 *	3.8	6.4 *
Maryland	136.9	93.3 *	148.5	131.7 *	192.9	193.6	4.7	7.1 *
Massachusetts	141.1	97.7 *	142.1	125.6 *	208.9	207.9	4.0	6.1 *
Michigan	94.0	94.2	159.4	141.9 *	214.2	222.9	4.9	7.1 *
Minnesota	82.3	53.2 *	139.2	127.6 *	180.5	185.7	3.8	6.2 *
Mississippi	--	--	182.6	155.0 *	230.9	246.2 *	6.1	7.4 *
Missouri	161.2	110.1 *	203.4	186.8 *	196.7	209.4 *	5.1	7.3 *
Montana	76.6	44.3 *	144.6	136.4	158.5	163.3	4.1	6.2 *
Nebraska	82.1	42.0 *	140.3	131.7	152.6	157.5	4.7	6.9 *
Nevada	112.3	109.7	186.7	184.9	165.4	164.3	4.9	7.1 *
New Hampshire	--	--	155.5	131.7 *	192.2	183.1	3.9	6.3 *
New Jersey	162.7	112.1 *	145.3	125.6 *	170.3	179.6	4.6	6.3 *
New Mexico	--	158.3	149.2	143.5	169.9	193.5 *	3.9	6.6 *
New York	231.5	183.4 *	155.0	122.4 *	172.6	178.8	4.7	6.2 *
North Carolina	113.3	77.7 *	159.2	142.5 *	197.4	217.1 *	4.4	6.5 *
North Dakota	--	44.4	161.7	133.1 *	187.2	168.2 *	3.9	6.5 *
Ohio	127.9	102.3 *	177.0	158.3 *	218.7	230.2	5.3	7.3 *
Oklahoma	189.1	109.1 *	172.3	157.4 *	211.1	236.5 *	5.2	7.3 *
Oregon	41.0	46.3	137.1	124.8 *	161.9	166.7	3.5	6.1 *
Pennsylvania	--	107.1	158.6	140.3 *	186.7	193.5	4.6	6.7 *
Rhode Island	149.0	--	157.9	135.9 *	187.7	212.2 *	4.2	6.6 *
South Carolina	133.0	--	--	--	176.4	188.8	--	--
South Dakota	76.2	62.2	143.3	125.9 *	168.3	155.1 *	4.2	6.8 *
Tennessee	72.9	49.9 *	168.3	152.5 *	199.8	204.9	5.7	7.3 *
Texas	114.3	67.6 *	175.6	159.9 *	185.6	198.3 *	5.3	7.2 *
Utah	93.4	--	131.9	115.9 *	146.9	151.4	4.0	6.3 *
Vermont	27.6	21.7	163.5	137.4 *	186.6	173.5 *	4.1	6.3 *
Virginia	100.0	56.0 *	168.4	150.9 *	193.2	195.3	4.6	6.7 *
Washington	83.6	52.5 *	137.5	125.8 *	157.3	175.0 *	3.3	5.6 *
West Virginia	98.1	56.8 *	181.7	159.5 *	226.5	250.8 *	5.5	7.9 *
Wisconsin	86.0	62.1 *	163.8	142.4 *	182.1	193.8	4.3	6.7 *
Wyoming	122.7	94.3 *	165.8	144.5 *	168.9	177.9	5.0	6.9 *
<b>Change</b>								
States Improved		28		44		4		0
States Worsened		0		0		16		49

Notes: \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more. Spending estimates exclude prescription drug costs and are adjusted for regional wage differences; Medicare estimates reflect only the age 65+ Medicare fee-for-service population. — Indicates that estimates are not available.

## APPENDIX E2. Avoidable Hospital Use &amp; Cost: Dimension Ranking and Indicator Rates (continued)

	Preventable hospitalizations age 65 and older (rate per 1,000)		Hospital 30-day readmission rate ages 18–64 (rate per 1,000)		Hospital 30-day readmission rate age 65 and older (rate per 1,000)		Skilled nursing facility patients with a hospital readmission		Nursing home residents with a hospital admission	
	2013	2017	2015	2016	2013	2017	2012	2016	2012	2016
<b>United States</b>	<b>47.7</b>	<b>43.9</b>	<b>2.9</b>	<b>3.1</b>	<b>43.5</b>	<b>41.0</b>	<b>20%</b>	<b>19%</b>	<b>17%</b>	<b>15%</b>
Alabama	55.8	56.4	1.2	2.5 *	43.9	45.5	22	20 *	21	19
Alaska	--	25.9	2.6	3.0 *	26.1	24.1	--	11	--	13
Arizona	32.8	28.3	3.3	3.2	33.2	29.7	20	19	9	7
Arkansas	55.0	50.3	3.0	3.1	44.7	43.9	25	22 *	26	23 *
California	37.1	35.9	2.4	3.0 *	38.0	37.9	22	20 *	20	19
Colorado	28.7	25.1	2.3	2.9 *	26.5	25.2	16	15	10	9
Connecticut	48.1	43.4	2.4	2.9 *	46.0	43.4	20	19	16	13 *
Delaware	47.9	44.1	2.7	3.3 *	40.1	36.6	20	19	19	16 *
District of Columbia	52.4	51.6	--	--	56.0	48.3 *	--	19	--	19
Florida	49.2	47.8	3.9	3.6	49.2	48.1	22	21	23	21
Georgia	48.4	45.0	2.9	3.3 *	40.9	40.1	21	20	19	16 *
Hawaii	24.3	21.7	2.8	3.1 *	21.4	19.7	--	13	--	5
Idaho	27.7	25.0	2.5	3.1 *	24.8	23.2	14	13	11	11
Illinois	50.9	50.0	3.2	3.3	49.6	47.2	23	20 *	22	17 *
Indiana	54.6	48.6 *	3.1	3.3	44.2	40.4	20	18 *	19	17
Iowa	42.4	37.6	2.7	3.1 *	34.0	31.1	17	16	15	14
Kansas	46.2	40.4 *	2.9	3.2 *	38.6	37.7	19	17 *	20	19
Kentucky	72.4	60.1 *	3.0	3.4 *	57.2	50.7 *	22	21	24	21 *
Louisiana	66.8	57.7 *	3.0	3.2	50.7	45.1 *	26	24 *	30	26 *
Maine	43.8	38.2 *	2.1	2.7 *	36.1	34.7	17	16	12	12
Maryland	48.4	41.9 *	2.6	3.0 *	52.2	42.4 *	22	19 *	17	16
Massachusetts	53.1	52.1	2.8	3.0	45.6	48.3	19	20	14	13
Michigan	53.7	52.0	3.4	3.5	54.8	51.5	23	20 *	18	15 *
Minnesota	36.9	35.3	3.1	3.2	36.9	37.2	17	16	7	7
Mississippi	66.2	58.2 *	2.9	3.0	50.4	47.4	24	22 *	29	28
Missouri	50.7	47.2	3.5	3.6	45.9	44.5	22	20 *	20	17 *
Montana	35.6	30.5	3.3	3.2	28.5	25.9	13	14	12	13
Nebraska	42.1	36.5 *	3.0	3.5 *	33.4	33.4	16	15	16	16
Nevada	37.7	38.9	3.6	3.3 *	36.9	40.8	23	24	20	20
New Hampshire	42.4	40.8	2.3	2.9 *	33.7	35.4	16	17	14	13
New Jersey	50.1	46.0	3.2	3.1	49.3	45.1	24	21 *	21	18 *
New Mexico	37.5	30.1 *	2.9	3.0	30.9	28.6	18	18	13	13
New York	49.0	44.5	5.5	3.1 *	51.3	47.0	23	20 *	17	13 *
North Carolina	44.9	44.6	2.6	3.0 *	39.1	37.8	20	19	18	16
North Dakota	--	40.8	2.7	3.0	35.4	34.4	16	15	15	14
Ohio	58.4	50.6 *	3.4	3.2	52.7	46.0 *	21	20	15	12 *
Oklahoma	53.5	48.9	3.2	3.3	43.2	41.8	23	22	24	23
Oregon	30.8	28.0	2.7	3.1 *	26.2	25.6	17	17	8	9
Pennsylvania	52.6	48.4	3.1	3.3	48.8	44.9	21	19 *	16	12 *
Rhode Island	47.1	--	3.4	3.4	43.8	45.1	21	19 *	10	8
South Carolina	42.6	39.5	--	--	36.9	33.7	20	20	20	18
South Dakota	43.0	38.5	3.4	3.6	31.7	30.7	15	15	15	15
Tennessee	55.8	50.9	1.9	2.8 *	46.1	42.7	21	19 *	22	19 *
Texas	50.6	46.0	3.4	3.5	41.5	41.1	22	21	23	20 *
Utah	26.9	23.3	1.4	2.4 *	25.3	22.6	14	13	11	10
Vermont	39.5	34.8	3.2	3.2	29.3	30.6	16	16	15	15
Virginia	44.8	41.0	2.5	3.2 *	42.7	37.9 *	21	19 *	20	15 *
Washington	31.5	28.5	2.2	2.7 *	30.6	28.7	17	15 *	13	12
West Virginia	67.0	59.5 *	3.0	3.6 *	55.8	51.5	23	20 *	19	16 *
Wisconsin	39.9	36.6	3.2	3.5	36.6	33.5	17	17	12	11
Wyoming	--	--	2.9	3.4 *	29.5	26.7	15	15	13	15
<b>Change</b>										
States Improved		11		2		6		19		17
States Worsened		0		24		0		0		0

Notes: \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more. Spending estimates exclude prescription drug costs and are adjusted for regional wage differences; Medicare estimates reflect only the age 65+ Medicare fee-for-service population. — Indicates that estimates are not available.



## APPENDIX E2. Avoidable Hospital Use &amp; Cost: Dimension Ranking and Indicator Rates (continued)

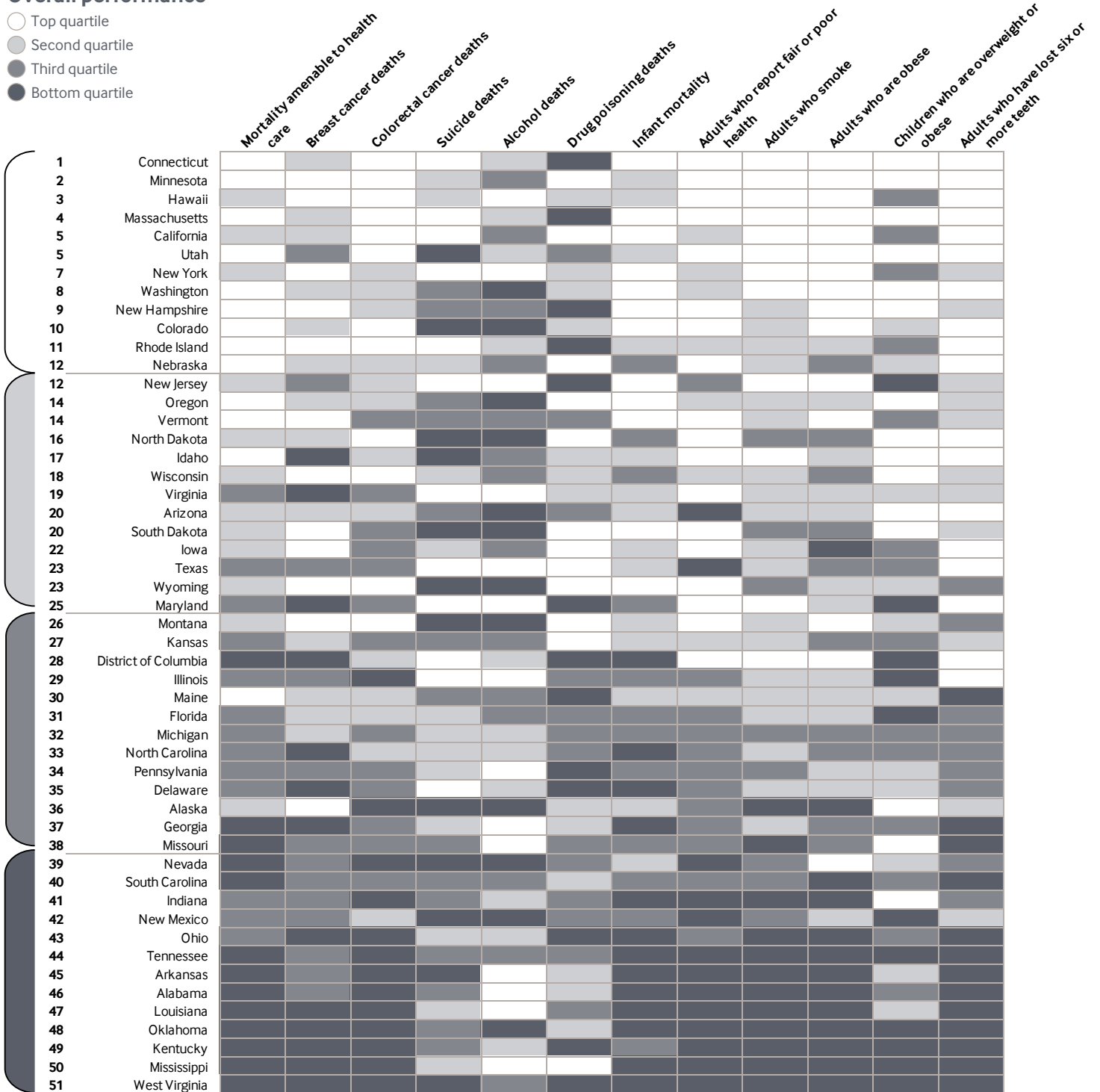
	Home health patients with a hospital admission		Adults with inappropriate lower-back imaging		Employer-sponsored insurance spending per enrollee		Medicare spending per beneficiary	
	2013	2017	2015	2016	2013	2016	2013	2017
<b>United States</b>	<b>16%</b>	<b>16%</b>	<b>71%</b>	<b>69%</b>	<b>\$4,697</b>	<b>\$4,882</b>	<b>\$9,081</b>	<b>\$9,534</b>
Alabama	17	17	59	58	3,706	3,867	9,479	10,463 *
Alaska	14	14	75	69 *	7,186	8,042 *	5,792	6,626 *
Arizona	15	15	68	67	4,453	4,624	8,197	8,751
Arkansas	17	17	68	65 *	3,117	3,623 *	8,798	9,799 *
California	15	14 *	75	74	4,915	5,307 *	8,564	9,116
Colorado	14	15 *	74	70 *	4,625	4,736	7,628	8,158
Connecticut	16	16	67	68	5,067	5,259	9,255	9,760
Delaware	16	16	72	69 *	4,509	4,700	8,792	9,205
District of Columbia	18	15 *	--	--	3,548	--	8,981	9,408
Florida	15	15	65	66	4,748	5,044	10,812	10,953
Georgia	16	17 *	65	64	4,951	4,786	9,014	9,484
Hawaii	14	15 *	77	71 *	3,460	3,299	5,674	6,195
Idaho	14	14	78	69 *	4,906	5,282	7,526	8,020
Illinois	16	16	70	68	4,575	4,904	9,402	9,850
Indiana	16	16	68	66	4,955	5,510 *	9,251	9,640
Iowa	16	16	77	76	3,784	3,851	7,711	8,335 *
Kansas	17	17	75	72 *	4,079	4,391	8,786	9,612 *
Kentucky	18	17 *	67	67	4,393	4,134	9,553	9,900
Louisiana	16	16	61	61	4,404	4,330	10,991	11,257
Maine	16	16	77	73 *	4,661	4,998	7,886	8,604 *
Maryland	17	15 *	66	67	3,683	3,819	8,869	9,395
Massachusetts	16	17 *	73	71	4,659	4,603	9,165	9,545
Michigan	16	16	67	68	3,903	3,848	9,722	10,001
Minnesota	16	16	79	73 *	4,483	4,814	7,644	8,421 *
Mississippi	17	17	64	64	3,982	3,255 *	10,090	10,819 *
Missouri	16	16	71	65 *	4,266	4,563	8,878	9,528 *
Montana	15	16 *	77	69 *	4,553	4,847	6,884	7,552 *
Nebraska	16	16	76	75	4,507	5,215 *	8,203	9,115 *
Nevada	15	16 *	68	62 *	4,022	4,227	8,648	9,203
New Hampshire	17	18 *	71	68 *	5,245	5,725 *	7,824	8,352
New Jersey	16	16	68	68	4,771	5,063	9,849	10,208
New Mexico	15	15	74	73	4,407	4,995 *	7,061	7,729 *
New York	17	16 *	70	70	5,279	6,053 *	9,239	9,933 *
North Carolina	16	16	66	65	4,497	4,764	8,422	9,003 *
North Dakota	15	15	84	72 *	4,306	4,786 *	7,777	8,494 *
Ohio	16	16	68	67	4,464	4,696	9,757	9,862
Oklahoma	16	15 *	68	66	4,312	4,634	9,391	10,498 *
Oregon	14	15 *	80	76 *	4,300	4,754 *	6,629	7,324 *
Pennsylvania	17	17	73	70 *	4,185	4,246	9,633	9,753
Rhode Island	15	17 *	70	67 *	4,018	4,242	8,907	9,141
South Carolina	16	16	--	--	--	--	8,744	9,002
South Dakota	17	16 *	82	74 *	5,042	5,157	7,380	8,120 *
Tennessee	17	17	64	63	4,081	3,906	9,331	9,762
Texas	15	15	65	64	5,110	5,481	10,381	10,848
Utah	14	14	74	70 *	4,322	4,537	8,116	8,654
Vermont	16	16	77	75 *	5,384	5,054	7,030	7,626 *
Virginia	17	16 *	66	66	4,203	4,483	8,294	8,745
Washington	15	15	78	77	4,545	4,629	7,359	7,800
West Virginia	18	17 *	65	66	5,345	5,522	8,792	9,502 *
Wisconsin	16	15 *	73	72	5,871	6,335 *	7,888	8,229
Wyoming	17	15 *	73	69 *	5,779	6,360 *	6,856	7,613 *
<b>Change</b>								
States Improved		11		21		1		0
States Worsened		9		0		12		21

Notes: \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more. Spending estimates exclude prescription drug costs and are adjusted for regional wage differences; Medicare estimates reflect only the age 65+ Medicare fee-for-service population. — Indicates that estimates are not available.

### APPENDIX F1. Healthy Lives: Dimension and Indicator Ranking

#### Overall performance

- Top quartile
- Second quartile
- Third quartile
- Bottom quartile



## APPENDIX F2. Healthy Lives: Dimension Ranking and Indicator Rates

	Mortality amenable to health care (rate per 100,000)		Breast cancer deaths (rate per 100,000)		Colorectal cancer deaths (rate per 100,000)		Infant mortality (rate per 1,000)		Adults who report fair or poor health	
	2010-11	2014-15	2013	2017	2013	2017	2012	2016	2013	2017
<b>United States</b>	<b>85.3</b>	<b>84.3</b>	<b>20.8</b>	<b>19.9</b>	<b>14.6</b>	<b>12.9 *</b>	<b>6.0</b>	<b>5.9</b>	<b>16%</b>	<b>17%</b>
Alabama	111.8	110.4	21.4	21.3	17.7	15.2 *	8.9	9.0	20	20
Alaska	72.1	73.2	19.3	16.3 *	16.4	15.4	5.1	5.2	14	17 *
Arizona	73.8	73.5	20.6	18.1 *	13.3	12.2 *	5.8	5.3	16	18 *
Arkansas	115.7	123.6	21.4	20.8	17.7	14.9 *	7.1	8.2 *	22	21
California	73.4	70.8	20.1	19.4	13.2	11.7 *	4.5	4.2	18	16 *
Colorado	62.3	62.7	18.1	19.4 *	12.3	11.1 *	4.6	4.8	12	14 *
Connecticut	63.8	59.1	18.7	18.4	11.9	9.3 *	5.3	4.8	11	12
Delaware	87.7	83.4	21.3	22.3	13.8	12.9	7.6	7.8	16	17
District of Columbia	130.3	127.9	29.8	24.3 *	14.3	12.6 *	7.9	7.2 *	11	9 *
Florida	80.9	80.9	19.6	18.6	13.7	12.5 *	6.1	6.1	18	17
Georgia	103.0	103.5	22.5	21.8	14.9	14.0	6.2	7.5 *	17	17
Hawaii	70.0	76.1	15.5	15.6	14.2	11.2 *	4.9	6.0 *	12	13
Idaho	65.8	64.9	22.1	21.6	13.4	12.7	5.4	5.8	13	14
Illinois	90.2	87.7	22.2	20.4 *	15.9	14.1 *	6.5	6.4	15	17 *
Indiana	93.1	92.2	21.8	21.0	15.4	14.8	6.7	7.4 *	16	19 *
Iowa	73.0	70.6	18.7	18.0	15.6	12.9 *	5.3	6.0 *	12	13
Kansas	78.2	80.1	18.5	18.5	15.4	13.9 *	6.3	6.0	14	15
Kentucky	106.6	108.6	21.1	21.4	17.1	16.0 *	7.2	6.8	21	23 *
Louisiana	121.2	124.9	23.9	23.6	18.4	15.8 *	8.1	8.0	20	20
Maine	65.3	66.2	18.8	18.6	12.5	12.4	7.0	5.8 *	13	15 *
Maryland	91.8	90.3	21.5	21.6	14.3	12.8 *	6.4	6.5	13	14
Massachusetts	63.7	59.9	18.4	18.5	13.1	10.7 *	4.2	3.9	12	14 *
Michigan	92.5	92.2	21.2	19.3 *	14.8	12.8 *	6.9	6.4	16	17
Minnesota	57.1	54.7	19.6	16.7 *	12.8	11.1 *	5.0	5.1	11	11
Mississippi	133.2	142.4	23.3	25.5 *	18.8	16.4 *	8.9	8.7	21	22
Missouri	94.9	95.7	22.0	21.2	15.7	13.6 *	6.6	6.6	17	17
Montana	69.3	71.2	19.9	17.8 *	12.4	11.7	5.9	5.8	14	14
Nebraska	66.1	68.2	21.0	19.5 *	15.2	12.7 *	4.7	6.1 *	12	13
Nevada	93.7	95.5	22.5	21.1 *	16.8	16.2	4.9	5.8 *	16	19 *
New Hampshire	60.2	57.7	19.8	16.3 *	12.8	12.4	4.2	3.7	11	13 *
New Jersey	78.5	73.1	23.2	19.9 *	14.9	12.6 *	4.4	4.0	15	17 *
New Mexico	77.8	80.0	17.3	20.4 *	14.5	12.7 *	6.8	6.2	19	20
New York	82.2	77.1	20.6	17.9 *	14.0	12.2 *	5.0	4.5	16	15
North Carolina	93.9	93.6	20.4	21.5 *	13.3	12.1 *	7.4	7.2	17	17
North Dakota	69.9	73.3	17.9	19.6 *	15.9	10.2 *	6.3	6.4	12	13
Ohio	96.0	94.5	22.9	22.0	16.3	14.3 *	7.5	7.4	16	17
Oklahoma	113.9	126.3 *	22.9	22.4	17.5	16.1 *	7.5	7.5	19	20
Oregon	65.0	62.6	19.9	18.4 *	14.4	11.9 *	5.4	4.7 *	16	16
Pennsylvania	85.8	82.6	21.8	20.9	15.9	13.6 *	7.1	6.2 *	15	17 *
Rhode Island	73.3	68.2	19.4	16.6 *	13.2	10.0 *	6.5	5.6 *	14	16 *
South Carolina	102.8	99.2	21.3	20.7	15.0	12.8 *	7.5	7.0	17	17
South Dakota	75.2	75.8	19.9	17.3 *	16.7	13.3 *	8.3	4.9 *	10	12 *
Tennessee	110.2	113.3	22.4	20.9 *	16.6	14.4 *	7.2	7.4	21	18 *
Texas	93.3	95.3	20.2	19.7	14.7	13.0 *	5.8	5.7	17	19 *
Utah	61.9	60.7	20.3	20.1	10.9	9.8 *	4.8	5.4 *	11	12
Vermont	57.9	61.4	18.5	17.4 *	14.3	13.8	4.3	3.5 *	11	13 *
Virginia	83.4	80.2	21.1	21.8	13.8	12.9	6.5	5.9	14	14
Washington	64.1	62.4	20.5	19.3 *	12.8	11.9	5.3	4.3 *	15	15
West Virginia	104.8	106.9	21.6	22.5	19.8	15.2 *	7.2	7.2	22	24 *
Wisconsin	72.1	69.4	20.4	17.4 *	14.1	11.6 *	5.7	6.3	14	16 *
Wyoming	76.0	73.8	20.5	16.5 *	12.6	9.8 *	5.6	5.0	14	14
<b>Change</b>										
States Improved		0		20		39		8		3
States Worsened		1		5		0		8		18

Notes: \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more.

## APPENDIX F2. Healthy Lives: Dimension Ranking and Indicator Rates (continued)

	Adults who smoke		Adults who are obese		Children who are overweight or obese		Adults who have lost six or more teeth	
	2013	2017	2013	2017	2016	2017	2012	2016
<b>United States</b>	<b>18%</b>	<b>16% *</b>	<b>29%</b>	<b>31% *</b>	<b>31%</b>	<b>31%</b>	<b>10%</b>	<b>10%</b>
Alabama	21	21	33	38 *	35	33	17	15 *
Alaska	23	21 *	28	34 *	26	24	9	10
Arizona	16	16	28	31 *	27	24 *	10	8 *
Arkansas	26	22 *	37	36	34	27 *	17	16
California	12	11	25	25	31	30	7	6
Colorado	18	15 *	22	23	27	28	7	7
Connecticut	16	13 *	25	27 *	30	21 *	8	7
Delaware	20	17 *	31	31	31	29	10	11
District of Columbia	19	14 *	23	23	34	36	7	6
Florida	17	16	27	30 *	37	36	11	12
Georgia	19	17 *	31	32	32	33	13	13
Hawaii	13	13	23	25 *	25	30 *	6	6
Idaho	17	14 *	30	30	26	23 *	9	8
Illinois	18	15 *	30	31	27	34 *	9	8
Indiana	22	22	32	34 *	34	26 *	13	12
Iowa	19	17 *	32	38 *	30	33 *	9	8
Kansas	20	17 *	31	33 *	31	32	10	9
Kentucky	26	25	34	35	34	40 *	16	17
Louisiana	24	23	33	37 *	34	28 *	17	14 *
Maine	20	17 *	29	30	28	29	14	14
Maryland	16	14 *	29	31 *	34	36	9	7 *
Massachusetts	17	14 *	24	26 *	27	26	9	8
Michigan	21	19 *	32	32	32	33	11	11
Minnesota	18	14 *	26	28 *	28	25 *	7	7
Mississippi	25	22 *	37	38	37	41 *	18	18
Missouri	22	21	31	33 *	29	26 *	12	14 *
Montana	19	17 *	25	26	23	28 *	11	11
Nebraska	18	15 *	30	33 *	29	29	8	7
Nevada	19	18	27	27	30	28	11	11
New Hampshire	16	16	27	28	24	25	10	10
New Jersey	16	14 *	27	28	32	35 *	9	9
New Mexico	19	18	28	30 *	25	34 *	10	10
New York	17	14 *	25	25	32	31	10	9
North Carolina	20	17 *	30	33 *	31	30	13	12
North Dakota	21	18 *	31	33 *	37	22 *	9	8
Ohio	23	21 *	31	35 *	33	32	13	14
Oklahoma	24	20 *	34	38 *	34	37 *	14	14
Oregon	17	16	27	29 *	20	24 *	10	10
Pennsylvania	21	19 *	30	31	32	29 *	11	11
Rhode Island	17	15 *	27	31 *	36	31 *	9	8
South Carolina	22	19 *	33	36 *	33	33	15	13 *
South Dakota	20	19	30	32 *	31	24 *	9	9
Tennessee	23	23	35	34	38	38	18	13 *
Texas	16	16	32	33	33	31	8	7
Utah	10	9	24	25	19	26 *	6	6
Vermont	17	16	25	28 *	22	33 *	11	10
Virginia	19	16 *	27	31 *	27	28	11	9 *
Washington	16	14 *	27	28	25	25	8	7
West Virginia	27	26	37	40 *	35	35	23	21 *
Wisconsin	19	16 *	29	33 *	30	26 *	11	10
Wyoming	21	19 *	29	29	27	29	11	12
<b>Change</b>								
States Improved		32		0		13		8
States Worsened		0		28		12		1

Notes: \* Denotes a change of at least 0.5 standard deviations. \*\* Denotes a change of 1.0 standard deviation or more.

## APPENDIX F3. Deaths from Suicide, Alcohol, and Drugs, 2005-2017

	Suicide deaths (rate per 100,000)				Alcohol deaths (rate per 100,000)			
	2005	2013	2017	% Change 2005- 2017	2005	2013	2017	% Change 2005- 2017
<b>United States</b>	<b>10.9</b>	<b>12.6</b>	<b>14.0</b>	<b>28%</b>	<b>7.0</b>	<b>8.2</b>	<b>9.6</b>	<b>37%</b>
Alabama	11.5	14.4	16.6	44	5.2	4.7	6.8	31
Alaska	19.9	23.2	27.0	36	19.5	16.7	20.2	4
Arizona	16.4	17.5	18.2	11	11.3	16.0	16.2	43
Arkansas	14.3	17.3	20.8	45	4.9	5.9	7.9	61
California	9.1	10.2	10.5	15	11.2	11.2	11.6	4
Colorado	17.2	18.6	20.3	18	10.5	13.8	16.5	57
Connecticut	8.1	8.7	10.5	30	4.8	6.8	8.2	71
Delaware	9.7	12.5	11.6	20	6.2	6.0	9.2	48
District of Columbia	5.4	5.7	6.6	22	14.5	9.9	9.3	-36
Florida	12.5	13.8	14.0	12	8.0	8.8	9.9	24
Georgia	10.6	12.0	13.6	28	5.7	6.2	7.3	28
Hawaii	8.2	11.8	15.2	85	3.5	4.5	5.8	66
Idaho	16.5	19.2	23.2	41	9.5	11.9	11.6	22
Illinois	8.6	9.9	11.2	30	4.4	5.8	7.7	75
Indiana	11.8	14.2	16.3	38	4.9	7.3	9.6	96
Iowa	11.2	14.4	15.0	34	6.1	9.0	11.5	89
Kansas	13.3	14.7	19.1	44	6.3	6.8	9.8	56
Kentucky	13.4	15.5	16.9	26	5.6	6.6	9.6	71
Louisiana	11.0	12.4	15.2	38	4.6	5.8	6.6	43
Maine	12.4	17.4	18.9	52	8.2	8.5	11.3	38
Maryland	8.4	9.2	9.8	17	4.7	4.8	5.5	17
Massachusetts	7.2	8.2	9.5	32	5.5	6.2	8.4	53
Michigan	11.0	12.9	14.1	28	6.8	7.8	9.1	34
Minnesota	10.5	12.1	13.8	31	6.5	8.7	10.0	54
Mississippi	12.7	13.0	15.0	18	5.5	5.3	6.3	15
Missouri	12.5	15.6	18.5	48	5.5	6.5	7.9	44
Montana	21.7	23.7	28.9	33	12.1	16.8	20.7	71
Nebraska	10.9	11.6	14.7	35	6.4	9.1	11.8	84
Nevada	19.8	18.6	20.3	3	8.9	11.8	14.8	66
New Hampshire	12.0	12.8	18.9	58	7.5	10.3	10.3	37
New Jersey	6.1	8.0	8.3	36	5.2	5.4	6.3	21
New Mexico	17.8	20.3	23.3	31	16.2	22.7	30.6	89
New York	6.0	8.1	8.1	35	5.2	6.7	7.0	35
North Carolina	11.5	12.6	14.3	24	6.7	7.6	8.4	25
North Dakota	13.7	17.3	20.1	47	10.9	13.5	14.0	28
Ohio	11.5	12.9	14.8	29	6.1	6.8	8.9	46
Oklahoma	14.8	17.2	19.1	29	9.3	11.4	14.1	52
Oregon	14.9	16.8	19.0	28	13.4	15.5	17.4	30
Pennsylvania	11.1	13.4	15.0	35	3.5	5.2	6.0	71
Rhode Island	6.3	12.2	11.8	87	4.9	10.1	9.6	96
South Carolina	11.8	14.0	16.3	38	8.3	7.4	10.5	27
South Dakota	15.4	18.0	22.5	46	11.0	13.7	20.2	84
Tennessee	14.0	15.4	16.8	20	6.9	8.3	10.2	48
Texas	10.9	11.7	13.4	23	5.8	6.5	7.9	36
Utah	15.4	21.4	22.7	47	6.7	8.4	9.3	39
Vermont	12.5	16.8	18.3	46	7.5	12.7	11.8	57
Virginia	11.2	12.5	13.4	20	4.4	5.2	7.1	61
Washington	12.8	14.0	16.9	32	9.4	13.3	13.4	43
West Virginia	13.2	16.4	21.1	60	5.3	7.3	11.6	119
Wisconsin	11.6	14.4	15.4	33	7.9	8.9	11.2	42
Wyoming	17.3	21.5	26.9	55	11.6	16.3	20.3	75

Notes: — Indicates that estimates are not available.

## APPENDIX F3. Deaths from Suicide, Alcohol, and Drugs, 2005-2017 (continued)

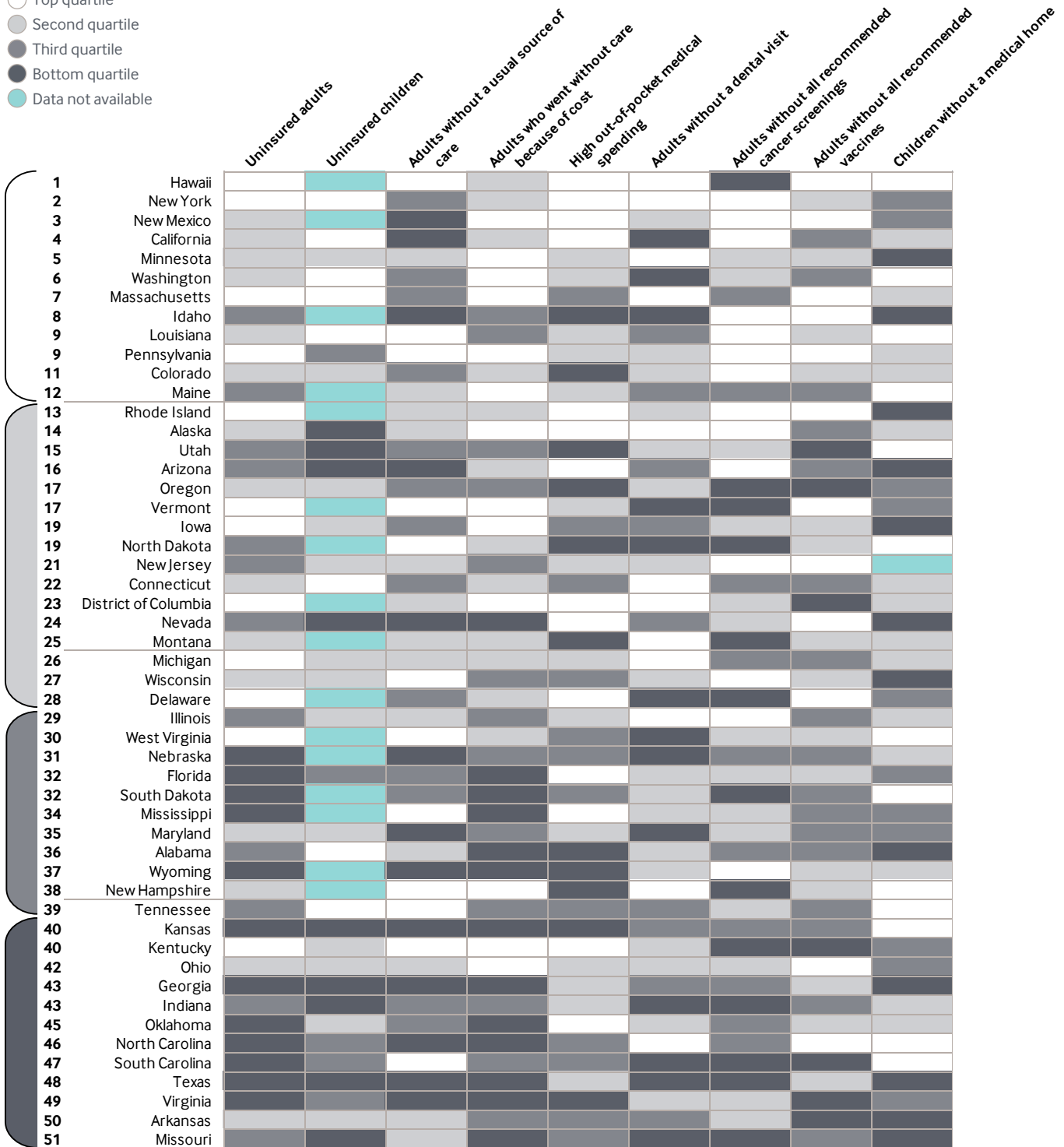
	Drug poisoning deaths (rate per 100,000)			
	2005	2013	2017	% Change 2005- 2017
<b>United States</b>	<b>10.1</b>	<b>13.8</b>	<b>21.7</b>	<b>115%</b>
Alabama	6.3	12.7	18.0	186
Alaska	11.4	14.4	20.2	77
Arizona	14.1	18.7	22.2	57
Arkansas	10.1	11.1	15.5	53
California	9.0	11.1	11.7	30
Colorado	12.7	15.5	17.6	39
Connecticut	8.5	16.0	30.9	264
Delaware	7.5	18.7	37.0	393
District of Columbia	13.7	15.0	44.0	221
Florida	13.5	12.6	25.1	86
Georgia	8.2	10.8	14.7	79
Hawaii	9.4	11.0	13.8	47
Idaho	8.1	13.4	14.4	78
Illinois	8.4	12.1	21.6	157
Indiana	9.8	16.6	29.4	200
Iowa	4.8	9.3	11.5	140
Kansas	9.1	12.0	11.8	30
Kentucky	15.3	23.7	37.2	143
Louisiana	14.7	17.8	24.5	67
Maine	12.4	13.2	34.4	177
Maryland	11.4	14.6	36.3	218
Massachusetts	12.0	16.0	31.8	165
Michigan	9.8	15.9	27.8	184
Minnesota	5.4	9.6	13.3	146
Mississippi	8.8	10.8	12.2	39
Missouri	10.7	17.5	23.4	119
Montana	10.1	14.5	11.7	16
Nebraska	5.0	6.5	8.1	62
Nevada	18.7	21.1	21.6	16
New Hampshire	10.7	15.1	37.0	246
New Jersey	9.4	14.5	30.0	219
New Mexico	20.1	22.6	24.8	23
New York	4.8	11.3	19.4	304
North Carolina	11.4	12.9	24.1	111
North Dakota	--	2.8	9.2	--
Ohio	10.9	20.8	46.3	325
Oklahoma	13.8	20.6	20.1	46
Oregon	10.4	11.3	12.4	19
Pennsylvania	13.2	19.4	44.3	236
Rhode Island	14.3	22.4	31.0	117
South Carolina	9.9	13.0	20.5	107
South Dakota	5.5	6.9	8.5	55
Tennessee	14.5	18.1	26.6	83
Texas	8.5	9.3	10.5	24
Utah	19.3	22.1	22.3	16
Vermont	8.5	15.1	23.2	173
Virginia	7.5	10.2	17.9	139
Washington	13.0	13.4	15.2	17
West Virginia	10.5	32.2	57.8	450
Wisconsin	9.3	15.0	21.2	128
Wyoming	4.9	17.2	12.2	149

Notes: — Indicates that estimates are not available.

APPENDIX G1. Disparity: Dimension and Indicator Ranking

Overall performance

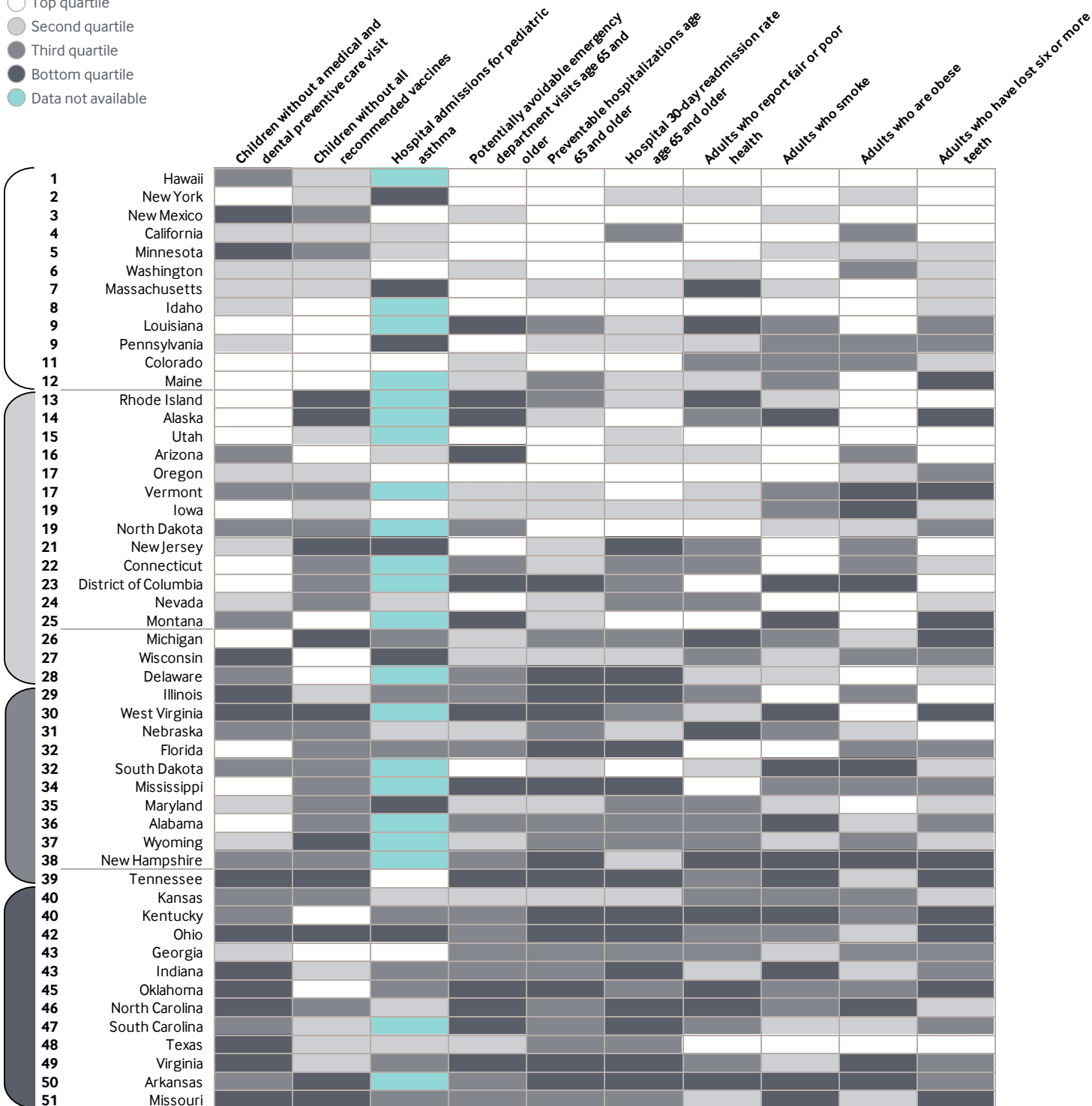
- Top quartile
- Second quartile
- Third quartile
- Bottom quartile
- Data not available



APPENDIX G1. Disparity: Dimension and Indicator Ranking (continued)

Overall performance

- Top quartile
- Second quartile
- Third quartile
- Bottom quartile
- Data not available





**APPENDIX G2. Disparity: Indicator Rates for Low-Income Population and Difference from Higher-Income Population**

	Uninsured adults		Uninsured children		Adults without a usual source of care		Adults age 18 and older who went without care because of cost in past year		High out-of-pocket medical spending		Adults without a dental visit		Adults without all recommended cancer screenings	
	2017		2017		2017		2017		2016-17		2016		2016	
	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity
<b>United States</b>	<b>23%</b>	<b>-19</b>	<b>7%</b>	<b>-5</b>	<b>28%</b>	<b>-12</b>	<b>23%</b>	<b>-16</b>	<b>25%</b>	<b>-23</b>	<b>24%</b>	<b>-13</b>	<b>35%</b>	<b>-10</b>
Alabama	27 *	-22	4 *	-2	24 *	-8	27 *	-20	29	-28	25 *	-13	37 *	-13
Alaska	26 *	-15	12 *	-7	31 *	-6	14 *	-4	24	-20	14 *	-5	34 *	1
Arizona	23 *	-17	11 *	-7	34 *	-13	19 *	-11	24	-21	26 *	-14	34 *	-6
Arkansas	18 *	-13	6	-4	21 *	-7	25 *	-17	28	-26	23 *	-14	38 *	-10
California	18 *	-14	4 *	-2	34 *	-16	20 *	-13	20	-18	25 *	-15	29 *	-6
Colorado	18 *	-14	6 *	-4	30	-10	21 *	-13	31	-28	24 *	-13	34 *	-7
Connecticut	16 *	-13	4	-2	20 *	-12	18 *	-12	28	-26	17 *	-10	31 *	-11
Delaware	14 *	-11	--	--	24 *	-11	21 *	-12	23	-21	24 *	-16	35 *	-16
District of Columbia	8 *	-6	--	--	26	-6	12 *	-7	20	-19	14 *	-4	28 *	-8
Florida	32 *	-24	9 *	-5	30 *	-11	26 *	-19	24	-22	26	-12	36 *	-8
Georgia	35 *	-29	10 *	-7	33 *	-14	29 *	-21	25	-24	25	-14	36	-12
Hawaii	12 *	-9	3	--	17 *	-5	15 *	-11	21	-19	18	-8	36 *	-18
Idaho	27 *	-20	4	--	34 *	-13	24 *	-17	32	-29	25 *	-15	39 *	-5
Illinois	19 *	-16	4 *	-3	21 *	-9	20 *	-14	26	-24	21 *	-8	33 *	-6
Indiana	21 *	-17	9 *	-7	25 *	-10	23 *	-16	27	-24	25 *	-15	42 *	-14
Iowa	12 *	-10	4	-3	26 *	-12	14 *	-9	28	-26	22 *	-14	33 *	-8
Kansas	26 *	-23	8 *	-6	29 *	-14	26 *	-20	29	-28	23 *	-14	38	-11
Kentucky	12 *	-9	5 *	-4	16 *	-1	17 *	-10	24	-22	24 *	-13	38	-14
Louisiana	20 *	-14	3 *	-1	22 *	-5	25 *	-17	25	-23	29 *	-14	33 *	-7
Maine	23 *	-19	5	--	14	-6	14	-7	26	-25	21 *	-14	35 *	-13
Maryland	18 *	-15	6	-4	27 *	-17	22 *	-18	26	-25	26 *	-16	33	-8
Massachusetts	7 *	-5	2	-1	20 *	-12	14 *	-8	27	-26	17 *	-9	33 *	-11
Michigan	13 *	-10	4 *	-3	18 *	-7	17 *	-11	26	-24	19 *	-10	35	-12
Minnesota	14 *	-12	5 *	-4	27 *	-6	15 *	-9	26	-25	18 *	-10	33 *	-9
Mississippi	31 *	-26	5	--	26	-5	29 *	-20	23	-21	24 *	-11	34 *	-10
Missouri	26 *	-22	8 *	-6	26	-9	25 *	-19	29	-27	29 *	-16	43 *	-19
Montana	19 *	-13	10	--	31	-6	20 *	-12	35	-33	20 *	-6	47 *	-15
Nebraska	27 *	-23	11	--	27 *	-14	24 *	-18	29	-26	24 *	-16	39 *	-12
Nevada	25 *	-18	10 *	-6	44	-16	31 *	-22	24	-21	25 *	-14	36 *	-8
New Hampshire	18 *	-15	--	--	13 *	-5	16 *	-10	32	-30	15 *	-9	38 *	-16
New Jersey	25 *	-21	6 *	-4	23 *	-9	23 *	-17	24	-23	20 *	-11	32 *	-5
New Mexico	19 *	-14	5	--	32 *	-13	18 *	-10	19	-17	24 *	-13	39	-6
New York	13 *	-9	4 *	-2	21 *	-11	18 *	-11	20	-19	20 *	-9	33 *	-7
North Carolina	31 *	-26	7 *	-5	32	-17	31 *	-23	30	-27	19 *	-7	33 *	-11
North Dakota	21 *	-18	13	--	24	-1	16	-13	33	-31	25 *	-15	43	-15
Ohio	15 *	-12	5 *	-3	19 *	-6	17 *	-10	25	-23	22 *	-13	36	-10
Oklahoma	35 *	-27	8 *	-3	28 *	-12	28 *	-21	25	-22	26 *	-13	41 *	-11
Oregon	16 *	-12	5 *	-3	29 *	-12	22 *	-15	31	-29	21 *	-11	42 *	-18
Pennsylvania	14 *	-11	7 *	-5	13 *	-3	14 *	-7	26	-25	22	-11	33 *	-6
Rhode Island	13 *	-10	--	--	15 *	-8	18 *	-11	21	-20	17 *	-11	26 *	-5
South Carolina	30 *	-25	7 *	-5	23 *	-4	25 *	-18	28	-26	27 *	-17	38 *	-15
South Dakota	28 *	-25	10	--	30	-11	26 *	-20	30	-27	20	-11	38	-15
Tennessee	25 *	-20	5 *	-2	20 *	-4	20 *	-14	29	-27	27	-14	35 *	-10
Texas	43 *	-35	13 *	-8	45	-22	37 *	-28	25	-23	31 *	-19	44 *	-19
Utah	25 *	-20	11 *	-8	36	-12	24 *	-15	34	-31	22 *	-12	36 *	-10
Vermont	7 *	-2	--	--	12 *	-3	11 *	-6	27	-25	22 *	-16	42 *	-18
Virginia	27 *	-23	7 *	-5	33 *	-17	27 *	-20	30	-28	21 *	-12	33 *	-9
Washington	17 *	-13	3 *	-1	30 *	-12	17 *	-9	25	-23	26	-15	35 *	-8
West Virginia	12 *	-8	2	--	22 *	-5	20 *	-12	27	-26	25 *	-15	36 *	-10
Wisconsin	14 *	-12	6 *	-4	20 *	-5	21 *	-14	28	-26	17 *	-11	29 *	-7
Wyoming	33 *	-26	17	--	39 *	-14	32 *	-24	33	-29	22	-12	40 *	-6

Notes: Rates are for the states' low income population, generally those whose household income is under 200% FPL. Disparity is the difference between the states' low-income and higher-income (400%+ FPL) populations. (\*) denotes meaningful improvement or worsening from the baseline period. Baseline data not shown, refer to state profiles at [datacenter.commonwealthfund.org](http://datacenter.commonwealthfund.org) for baseline data.

**APPENDIX G2. Disparity: Indicator Rates for Low-Income Population and Difference from Higher-Income Population (continued)**

	Adults without all recommended vaccines		Children without a medical home		Children without a medical and dental preventive care visit		Children without all recommended vaccines		Hospital admissions for pediatric asthma (rate per 100,000)		Potentially avoidable emergency department visits age 65 and older (rate per 1,000)	
	2017		2017		2017		2016		2015		2014	
	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity
<b>United States</b>	<b>65%</b>	<b>-8</b>	<b>63%</b>	<b>-25</b>	<b>39%</b>	<b>-16</b>	<b>33</b>	<b>-10</b>	<b>--</b>	<b>--</b>	<b>366</b>	<b>-192</b>
Alabama	67	-8	66 *	-29	34 *	1	27	-14	--	--	396 *	-226
Alaska	71 *	-8	59 *	-22	38 *	-5	42	-23	--	--	453	-281
Arizona	70 *	-9	66 *	-32	39 *	-14	27 *	9	105 *	-57	413 *	-236
Arkansas	65	-11	70 *	-32	42	-17	36 *	-16	80	--	385 *	-214
California	67 *	-8	64 *	-20	39 *	-12	38 *	-10	126 *	-68	301 *	-156
Colorado	57 *	-6	58 *	-20	21 *	-3	23 *	-3	130 *	-44	339 *	-177
Connecticut	61 *	-10	57 *	-21	21 *	-7	30 *	-13	--	--	379 *	-209
Delaware	58 *	-5	66 *	-27	34 *	-14	22 *	-3	--	--	385 *	-228
District of Columbia	69	-13	56	-23	25 *	-3	35 *	-11	--	--	430 *	-259
Florida	69 *	-7	68 *	-25	35 *	-4	41	-15	169 *	-110	370 *	-193
Georgia	69 *	-7	70 *	-31	34 *	-11	25	-3	72 *	-37	396 *	-228
Hawaii	58 *	-4	51	-14	36	-16	28 *	-10	--	--	232 *	-101
Idaho	67 *	-2	63 *	-35	34	-10	24 *	-3	--	--	294 *	-135
Illinois	69 *	-9	59 *	-20	58 *	-39	32	-10	153 *	-93	400 *	-216
Indiana	71 *	-10	60 *	-23	40 *	-21	30 *	-6	122 *	-97	408 *	-222
Iowa	60 *	-6	62 *	-33	27 *	-6	32 *	-10	64 *	-20	353 *	-183
Kansas	68	-10	56 *	-19	38 *	-17	33	-14	156 *	-78	349 *	-176
Kentucky	66 *	-12	59 *	-28	35	-16	23 *	4	107 *	-83	427 *	-225
Louisiana	71 *	-6	59 *	-13	28	-3	32 *	8	--	--	441	-248
Maine	61 *	-9	47 *	-17	23 *	-2	30 *	-3	--	--	355 *	-177
Maryland	60	-10	61 *	-26	32	-12	33 *	-14	364 *	-309	358 *	-184
Massachusetts	59	-3	54 *	-23	30 *	-13	19	-7	206	-154	343 *	-154
Michigan	68	-10	63 *	-20	33 *	-6	38 *	-19	160 *	-107	399 *	-191
Minnesota	58 *	-6	66 *	-29	45 *	-21	34	-13	112 *	-68	332 *	-156
Mississippi	69	-8	61	-24	34	-7	32	-11	--	--	466 *	-278
Missouri	61 *	-8	61	-29	62 *	-40	41	-28	163 *	-83	411 *	-219
Montana	66	-7	62 *	-23	39 *	-18	40	-5	--	--	384 *	-239
Nebraska	60 *	-10	51 *	-20	42 *	-16	26	-12	69 *	-48	320 *	-175
Nevada	69 *	-1	72	-33	49	-13	33	-13	147 *	-69	305	-157
New Hampshire	60 *	-6	53 *	-15	33	-15	31 *	-15	--	--	390 *	-218
New Jersey	60 *	-3	--	--	31 *	-10	39 *	-20	277 *	-207	320 *	-157
New Mexico	65 *	-5	68 *	-28	42 *	-19	35 *	-14	153	-46	348 *	-181
New York	64 *	-6	62 *	-26	32 *	-7	32 *	-8	436 *	-337	283	-122
North Carolina	58 *	-5	49 *	-9	46 *	-22	25	-13	91 *	-55	445 *	-265
North Dakota	63	-7	57	-16	47	-15	40	-15	--	--	358 *	-200
Ohio	62 *	-3	56	-28	50 *	-33	43 *	-28	199 *	-158	436 *	-227
Oklahoma	59 *	-6	65 *	-20	50 *	-19	33 *	-1	150	-112	458 *	-247
Oregon	69 *	-11	59 *	-24	35 *	-13	41 *	-8	59	-15	309 *	-158
Pennsylvania	60 *	-2	69	-22	30 *	-13	28 *	-2	278	-229	330 *	-150
Rhode Island	56 *	-2	68 *	-34	26 *	-1	32 *	-19	--	--	437 *	-255
South Carolina	67 *	-11	58	-18	37 *	-15	34 *	-9	--	--	440 *	-274
South Dakota	58	-10	60	-16	43 *	-18	36	-15	--	--	289 *	-147
Tennessee	67 *	-9	54 *	-17	36	-20	41 *	-28	60 *	-37	411 *	-232
Texas	67 *	-6	68	-34	47 *	-23	31 *	-6	87 *	-47	361 *	-183
Utah	70 *	-11	58 *	-19	39 *	-7	31 *	-10	--	--	276	-131
Vermont	59 *	-3	57 *	-25	35	-14	29	-15	--	--	321 *	-172
Virginia	65 *	-16	55	-24	37 *	-21	37 *	-6	119 *	-86	423 *	-246
Washington	62 *	-10	52 *	-16	33 *	-9	28	-10	47	7	317 *	-161
West Virginia	60 *	-6	55	-11	32	-19	43	-24	59	--	444 *	-230
Wisconsin	67 *	-7	73 *	-39	43 *	-29	21 *	1	174 *	-135	369 *	-191
Wyoming	68	-7	65 *	-23	43 *	-13	48 *	-20	--	--	341 *	-177

Notes: Rates are for the states' low-income population, generally those whose household income is under 200% FPL. Disparity is the difference between the states' low-income and higher-income (400%+ FPL) populations. \* Denotes meaningful improvement or worsening from the baseline period. Baseline data not shown; refer to state profiles at [datacenter.commonwealthfund.org](http://datacenter.commonwealthfund.org) for baseline data. Trend data not available for children without all components of a medical home, and children without a medical and dental preventive care visit. — Indicates that estimates are not available.

**APPENDIX G2. Disparity: Indicator Rates for Low-Income Population and Difference from Higher-Income Population (continued)**

	Preventable hospitalizations age 65 and older (rate per 1,000)		Hospital 30-day readmission rate age 65 and older (rate per 1,000)		Adults who report fair or poor health		Adults who smoke		Adults who are obese		Adults who have lost six or more teeth	
	2015		2015		2017		2017		2017		2016	
	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity	Rate	Disparity
<b>United States</b>	<b>99</b>	<b>-56</b>	<b>63</b>	<b>-33</b>	<b>30%</b>	<b>-22</b>	<b>24%</b>	<b>-13</b>	<b>39%</b>	<b>-10</b>	<b>17%</b>	<b>-12</b>
Alabama	118 *	-66	69 *	-36	33 *	-23	33 *	-20	44	-8	22 *	-15
Alaska	77	-51	34 *	-18	33 *	-23	39 *	-26	39	-7	23 *	-18
Arizona	64 *	-36	46 *	-22	30 *	-22	21	-11	39	-11	12 *	-8
Arkansas	120	-75	70 *	-41	39 *	-31	35 *	-24	52 *	-17	23	-17
California	68 *	-40	51 *	-28	27 *	-19	13 *	-3	34 *	-13	9 *	-6
Colorado	61	-37	36 *	-18	30 *	-24	26 *	-16	34 *	-12	14 *	-11
Connecticut	94	-51	66 *	-33	28 *	-23	17 *	-9	38	-13	13 *	-10
Delaware	109 *	-67	70 *	-43	29 *	-21	26 *	-14	36 *	-7	18	-12
District of Columbia	109 *	-72	61 *	-36	20 *	-16	30	-25	45 *	-27	12 *	-9
Florida	122 *	-76	91 *	-56	26 *	-18	22 *	-12	39 *	-13	21 *	-16
Georgia	101 *	-59	63 *	-35	31	-23	25 *	-13	44 *	-11	22	-15
Hawaii	52 *	-29	29 *	-14	19 *	-11	15 *	-4	33	-7	12 *	-9
Idaho	61	-37	28 *	-13	24 *	-17	22 *	-12	35 *	-5	14 *	-12
Illinois	119 *	-71	74 *	-38	31 *	-25	22 *	-11	41 *	-13	12 *	-7
Indiana	112	-65	69 *	-39	31	-21	34	-20	39	-8	21 *	-15
Iowa	88 *	-49	44 *	-21	26 *	-20	29 *	-18	51 *	-17	16 *	-12
Kansas	92 *	-50	53 *	-28	30 *	-23	30 *	-19	45 *	-13	16	-12
Kentucky	146 *	-88	80 *	-44	40	-28	40 *	-23	45	-11	33 *	-25
Louisiana	115	-63	61 *	-28	33 *	-26	33 *	-18	44	-6	22 *	-14
Maine	93 *	-55	42 *	-20	28 *	-21	29	-18	32 *	-3	25 *	-19
Maryland	99 *	-54	67 *	-30	32 *	-25	23 *	-14	38	-5	14 *	-10
Massachusetts	97 *	-44	63 *	-24	31 *	-27	22	-13	31 *	-7	16	-12
Michigan	110 *	-56	77 *	-36	32 *	-26	31	-19	39 *	-8	23 *	-19
Minnesota	68 *	-28	43 *	-16	21 *	-16	22 *	-13	37 *	-9	16 *	-13
Mississippi	128	-81	72	-42	27 *	-17	30 *	-16	45 *	-11	26 *	-17
Missouri	109	-62	70 *	-36	29 *	-22	37 *	-23	41 *	-10	28 *	-22
Montana	76	-44	29 *	-14	24	-19	35 *	-26	33	-7	24 *	-20
Nebraska	98 *	-59	46	-23	31 *	-27	27	-16	41 *	-10	12	-8
Nevada	85	-54	58 *	-34	35 *	-25	22 *	-8	31 *	-5	16 *	-11
New Hampshire	117 *	-70	50 *	-24	38 *	-32	30 *	-20	42 *	-16	23 *	-19
New Jersey	103 *	-53	77 *	-39	31 *	-24	16 *	-6	36 *	-11	15 *	-9
New Mexico	63	-34	40 *	-18	25 *	-17	23 *	-13	34	-6	11 *	-7
New York	88 *	-41	59 *	-21	29	-21	17 *	-8	32 *	-8	13	-8
North Carolina	108 *	-67	66 *	-39	36 *	-30	26	-16	48	-16	19 *	-13
North Dakota	83 *	-42	32	-13	24 *	-17	29 *	-15	41	-9	18 *	-14
Ohio	121	-68	74 *	-39	33 *	-25	32 *	-19	45	-10	26 *	-21
Oklahoma	126	-79	69 *	-38	36 *	-28	30 *	-17	47 *	-11	26 *	-20
Oregon	62 *	-33	32 *	-14	28 *	-19	19 *	-9	38	-10	19 *	-16
Pennsylvania	101 *	-50	64 *	-28	31 *	-22	30 *	-16	40 *	-11	21 *	-15
Rhode Island	111 *	-62	61 *	-23	32 *	-27	24 *	-15	39	-7	12 *	-9
South Carolina	101	-62	69 *	-42	30 *	-24	27 *	-15	45	-10	21	-17
South Dakota	89	-52	39	-19	26 *	-20	35	-21	45 *	-17	17 *	-11
Tennessee	122	-76	73 *	-41	30 *	-23	33 *	-22	43 *	-9	24 *	-18
Texas	100 *	-56	59 *	-30	29	-19	20 *	-9	39 *	-6	10 *	-6
Utah	53 *	-29	38 *	-21	24 *	-19	15 *	-10	30 *	-6	9 *	-6
Vermont	75	-42	30 *	-12	26 *	-21	27 *	-18	42 *	-16	24 *	-19
Virginia	112	-71	76 *	-46	30	-23	26 *	-15	44 *	-14	20 *	-16
Washington	70 *	-40	40 *	-20	29 *	-21	22 *	-12	39 *	-13	14 *	-11
West Virginia	132	-73	68 *	-30	34 *	-22	37 *	-23	43 *	-6	33	-24
Wisconsin	89 *	-50	45 *	-20	32 *	-24	26 *	-15	42 *	-12	19 *	-15
Wyoming	101 *	-66	48 *	-28	31 *	-24	25 *	-13	38 *	-11	19 *	-12

Notes: Rates are for the states' low-income population, generally those whose household income is under 200% FPL. Disparity is the difference between the states' low-income and higher-income (400%+ FPL) populations. \* Denotes meaningful improvement or worsening from the baseline period. Baseline data not shown; refer to state profiles at [datacenter.commonwealthfund.org](http://datacenter.commonwealthfund.org) for baseline data.

## APPENDIX H. State Scorecard Indicator Descriptions and Source Notes

### ABBREVIATIONS

ACS PUMS = American Community Survey, Public Use Micro Sample

AHRQ = Agency for Healthcare Research and Quality

BRFSS = Behavioral Risk Factor Surveillance System

CAHMI = Child and Adolescent Health Measurement Initiative

CCW = Chronic Conditions Warehouse

CDC = Centers for Disease Control and Prevention

CMS = Centers for Medicare and Medicaid Services

CPS ASEC = Current Population Survey, Annual Social and Economic Supplement

HCAHPS = Hospital Consumer Assessment of Healthcare Providers and Systems Survey

HCUP NIS = Healthcare Cost and Utilization Project, Nationwide Inpatient Sample

HCUP SID = Healthcare Cost and Utilization Project, State Inpatient Databases

MDS = Minimum Data Set

MedPAR = Medicare Provider and Analytic Review

MEPS IC = Medical Expenditure Panel Survey, Insurance Component

NCCDPHP = National Center for Chronic Disease Prevention and Health Promotion

NCHS = National Center for Health Statistics

NCIRD = National Center for Immunization and Respiratory Diseases

NIS PUF = National Immunization Survey, Public Use Data File

NSCH = National Survey of Children's Health

NSDUH = National Survey of Drug Use and Health

NVSS-I = National Vital Statistics System–Linked Birth and Infant Death Data

NVSS-M = National Vital Statistics System–Mortality Data

OASIS = Outcome and Assessment Information Set

SAF = Standard Analytic Files

SAMHSA = Substance Abuse and Mental Health Services Administration

WONDER = Wide-ranging Online Data for Epidemiologic Research

### DEFINITIONS FOR INDICATORS

**1. Adults ages 19–64 uninsured:** Percent of adults ages 19–64 without health insurance coverage. Authors' analysis of 2013 and 2017 1-year ACS PUMS (U.S. Census Bureau).

**2. Children ages 0–18 uninsured:** Percent of children ages 0–18 without health insurance coverage. Authors' analysis of 2013 and 2017 1-year ACS PUMS (U.S. Census Bureau).

**3. Adults without a usual source of care:** Percent of adults age 18 and older who did not have one (or more) person they think of as their personal health care provider. Authors' analysis of 2013 and 2017 BRFSS (CDC, NCCDPHP).

**4. Adults who went without care because of cost in the past year:** Percent of adults age 18 and older who reported a time in the past 12 months when they needed to see a doctor but could not because of cost. Authors' analysis of 2013 and 2017 BRFSS (CDC, NCCDPHP).

**5. Individuals with high out-of-pocket medical spending:** Percent of individuals residing in households where all residents are

under age 65 with out-of-pocket medical spending that equaled 10 percent or more of income, or 5 percent or more of income if low-income (under 200% of federal poverty level), not including over-the-counter drug costs or health insurance premiums if insured. This measure includes both insured and uninsured individuals. Two years of data are combined to ensure adequate sample size for state-level estimation. Ougni Chakraborty, Robert F. Wagner School of Public Service, New York University, analysis of 2014, 2015, 2017, and 2018 CPS ASEC (U.S. Census Bureau).

**6. Employee health insurance contributions as a share of median income:** We compared employees' average contributions to their employer-sponsored health insurance premiums as a percent of state median household incomes for the under-65 population in each state. Premium contribution data are originally reported separately for single-person and family plans; we therefore used a weighted average of single and family premium contributions compared with single and family median household incomes. Authors' analysis of 2013 and 2017 MEPS-IC (AHRQ) and 2014 and 2018 CPS ASEC (U.S. Census Bureau).

## APPENDIX H. State Scorecard Indicator Descriptions and Source Notes (continued)

**7. Adults without a dental visit in past year:** Percent of adults age 18 and older who did not visit a dentist, or dental clinic within the past year. Authors' analysis of 2012 and 2016 BRFSS (CDC, NCCDPHP).

**8. Adults without all age- and gender-appropriate cancer screenings:** Percent of adults ages 50–74 who did not receive sigmoidoscopy or colonoscopy in the last ten years or a fecal occult blood test in the last two years; a mammogram in the last two years (women ages 50–74 only); and a pap smear in the last three years (women ages 25–64 only). Authors' analysis of 2012 and 2016 BRFSS (CDC, NCCDPHP).

**9. Adults without all age-appropriate vaccines:** Percent of adults age 18 and older who did not receive a flu shot in the past year and a pneumonia vaccine ever if age 65 and older. Authors' analysis of 2013 and 2017 BRFSS (CDC, NCCDPHP).

**10. Diabetic adults ages 18–64 without a hemoglobin A1c test:** The share of adult diabetic patients ages 18–64 who did not have at least one hemoglobin A1c test during the year (expressed as a rate per 100 employer-insured enrollees). Michael E. Chernew and Andrew Hicks, Harvard Medical School Department of Health Care Policy, analysis of the 2015 and 2016 Truven Marketscan Database.

**11. Medicare beneficiaries received a high-risk drug:** Percent of fee-for-service Medicare beneficiaries ages 65 and older who received at least one drug from a list of 13 classes of high-risk prescriptions that should be avoided by the elderly. J. Zheng, Harvard University, analysis of 2015 Medicare Part D claims.

**12. Children without all components of a medical home:** Percent of children ages 0–17 who did not have all of the following, according to parents' reports: a personal doctor or nurse, a usual source for sick and well care, family-centered care, any problems getting needed referrals, and effective care coordination when needed. For more information, see [www.childhealthdata.org](http://www.childhealthdata.org). Authors' analysis of 2016 and 2017 NSCH (CAHMI).

**13. Children without a medical and dental preventive care visit in the past year:** Percent of children ages 0–17 who did not have a preventive medical visit and, if ages 1–17, a preventive dental visit in the past year, according to parents' reports. For more information, see [www.childhealthdata.org](http://www.childhealthdata.org). Authors' analysis of 2016 and 2017 NSCH (CAHMI).

**14. Children who did not receive needed mental health treatment:** Percent of children ages 3–17 who had any kind of emotional, developmental, or behavioral problem that required treatment or counseling and who did not receive treatment from a mental health professional (as defined) during the past 12 months, according to parents' reports. For more information, see

[www.childhealthdata.org](http://www.childhealthdata.org). Authors' analysis of 2016 and 2017 NSCH (CAHMI).

**15. Children ages 19–35 months who did not receive all recommended vaccines:** Percent of children ages 19–35 months who did not receive at least 4 doses of diphtheria, tetanus, and acellular pertussis (DTaP/DT/DTP) vaccine; at least 3 doses of poliovirus vaccine; at least 1 dose of measles-containing vaccine (including mumps-rubella (MMR) vaccine); the full series of Haemophilus influenzae type b (Hib) vaccine (3 or 4 doses depending on product type); at least 3 doses of hepatitis B vaccine (HepB); at least 1 dose of varicella vaccine, and at least 4 doses of pneumococcal conjugate vaccine (PCV). Data from the 2013 and 2017, NIS-PUF (CDC, NCIRD).

**16. Hospital 30-day mortality:** Risk-standardized, all-cause 30-day mortality rates for fee-for-service Medicare patients age 65 and older hospitalized with a principal diagnosis of heart attack, heart failure, pneumonia or stroke between July 2010 and June 2013, and July 2013 and June 2016. All-cause mortality is defined as death from any cause within 30 days after the index admission, regardless of whether the patient dies while still in the hospital or after discharge. Authors' analysis of Medicare enrollment and claims data retrieved from 4th Quarter 2018 and 4th Quarter 2014 Hospital Compare (CMS).

**17. Central line-associated bloodstream infections (CLABSI), Standardized Infection Ratio (SIR):** All CLABSIs reported to the National Healthcare Safety Network from all applicable hospital locations, including intensive care units, neonatal intensive care units, and wards. The standardized infection ratio compares the observed number of CLABSIs reported by hospitals within the state to the predicted number of infections based on the referent period, adjusting for key risk factors. Data are from the CDC's 2015 and 2016 National and State Healthcare-Associated Infections Progress Reports.

**18. Hospital patients discharged without instructions for home recovery:** Percent of hospitals in the state with of hospitals in a state with HCAHPS patient experience summary scores lower than the national median. Authors' analysis of 2017 HCAHPS as administered to adults discharged from acute care hospitals. Retrieved from 4th Quarter 2018 Hospital Compare (CMS).

**19. Home health patients who did not get better at walking or moving around:** Percent of all home health episodes in which a person did not improve at walking or moving around compared to a prior assessment. Episodes for which the patient, at start or resumption of care, was able to ambulate independently are excluded. Authors' analysis of 2013 and 2017 OASIS. Data retrieved from 3rd quarter 2018 and 2nd quarter 2014 Home Health Compare (CMS).

## APPENDIX H. State Scorecard Indicator Descriptions and Source Notes (continued)

### 20. Nursing home residents with an antipsychotic medication:

Percent of long-stay nursing home residents who received an antipsychotic medication, excluding residents with Schizophrenia, Tourette's syndrome, and Huntington's disease. Authors' analysis of 2013–2017 MDS. Data retrieved from June 2018 and June 2014 Nursing Home Compare (CMS).

### 21. Adults with any mental illness (AMI) reporting unmet need:

Percent of adults ages 18 or older with AMI (defined below) who reported a perceived need for mental health treatment or counseling in the past 12 months that was not received. This measure could include adults who reported that they received some type of mental health service in the past 12 months; an unmet need for services after adults had received some services would indicate a perceived need for additional services that they did not receive. Data are from the 2009–2011 and 2014–2016 NSDUH (SAMHSA), as reported in Mental Health America's *2019 State of Mental Health in America* (<http://www.mentalhealthamerica.net>).

### 22. Adults with any mental illness (AMI) who did not receive treatment:

Percent of adults ages 18 or older with AMI (defined below) who reported they did not receive mental health treatment in the past 12 months. Mental health treatment is defined as receiving treatment or counseling for any problem with emotions, nerves, or mental health in the 12 months prior to the interview in any inpatient or outpatient setting, or the use of prescription medication for treatment of any mental or emotional condition that was not caused by the use of alcohol or drugs. Data are from the 2009–2011 and 2014–2016 NSDUH (SAMHSA), as reported in Mental Health America's *2019 State of Mental Health in America* (<http://www.mentalhealthamerica.net>).

*Note:* Adults with any mental illness (AMI) is defined as adults ages 18 or older who currently or at any time in the past year have had a diagnosable mental, behavioral, or emotional disorder (other than a developmental or substance use disorder) of sufficient duration to meet diagnostic criteria specified within the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, regardless of the level of impairment in carrying out major life activities. AMI was estimated based on a statistical model of a clinical diagnosis and responses to questions on distress, impairment, past year major depressive episode, past year suicidal thoughts, and age. For more information, see: SAMHSA, NSDUH, Methodological Summary and Definitions, <https://www.samhsa.gov/data/sites/default/files/NSDUH-MethodSummDefsHTML-2015/NSDUH-MethodSummDefsHTML-2015/NSDUH-MethodSummDefs-2015.htm>.

### 23. Hospital admissions for pediatric asthma, per 100,000 children:

Excludes patients with cystic fibrosis or anomalies of

the respiratory system, and transfers from other institutions. Authors' analysis of 2012 and 2015 HCUP SID (AHRQ); not all states participate in HCUP. Estimates for total U.S. are from the HCUP NIS (AHRQ).

### 24 & 25. Potentially avoidable emergency department (ED)

**visits:** Potentially avoidable ED visits were those that, based on diagnoses recorded during the visit and the health care service the patient received, were considered to be either nonemergent (care was not needed within 12 hours), or emergent (care needed within 12 hours) but that could have been treated safely and effectively in a primary care setting. This definition excludes any ED visit that resulted in an admission, as well as ED visits where the level of care provided in the ED was clinically indicated. This approach uses the New York University Center for Health and Public Service Research emergency department algorithm developed by John Billings, Nina Parikh, and Tod Mijanovich (see: *Emergency Room Use — The New York Story*, The Commonwealth Fund, Nov. 2000, <http://www.commonwealthfund.org/publications/issue-briefs/2000/nov/emergency-room-use--the-new-york-story>).

**Ages 18–64, per 1,000 employer-insured enrollees:** Michael E. Chernew and Andrew Hicks, Harvard Medical School Department of Health Care Policy, analysis of the 2015 and 2016 Truven Marketscan Database.

**Ages 65 and older, per 1,000 Medicare beneficiaries:** Jie Zheng, Harvard University, analysis of 2012 and 2015 Medicare Enrollment and SAF Claims Data 20% sample of fee-for-service Medicare beneficiaries ages 65 and older (CMS, CCW).

### 26 & 27. Admissions for ambulatory care-sensitive conditions:

Hospital admissions for one of the following eight ambulatory care-sensitive (ACS) conditions: long-term diabetes complications, lower extremity amputation among patients with diabetes, asthma or chronic obstructive pulmonary disease, hypertension, congestive heart failure, dehydration, bacterial pneumonia, and urinary tract infection.

**Ages 18–64, per 1,000 employer-insured enrollees:** Michael E. Chernew and Andrew Hicks, Harvard Medical School Department of Health Care Policy, analysis of the 2015 and 2016 Truven Marketscan Database.

**Ages 65–74 and older, per 1,000 Medicare beneficiaries:** Admissions of fee-for-service Medicare beneficiaries ages 65–74 or ages 75 and older (measure reported separately for each age group but combined into a population-weighted average). Authors' analysis of 2013 and 2017 CCW data, retrieved from the February 2019 CMS Geographic Variation Public Use File (CMS, Office of Information Products and Analytics).

## APPENDIX H. State Scorecard Indicator Descriptions and Source Notes (continued)

**28 & 29. 30-day hospital readmissions:** All hospital admissions among patients who were readmitted within 30 days of an acute hospital stay for any cause. A correction was made to account for likely transfers between hospitals.

**Ages 18–64, per 1,000 employer-insured enrollees:** Michael E. Chernew and Andrew Hicks, Harvard Medical School Department of Health Care Policy, analysis of the 2015 and 2016 Truven Marketscan Database.

**Age 65 and older, per 1,000 Medicare beneficiaries:** Readmissions among fee-for-service Medicare beneficiaries ages 65 and older. Authors' analysis of 2013 and 2017 CCW data, retrieved from the February 2019 CMS Geographic Variation Public Use File (CMS, Office of Information Products and Analytics).

**30. Short-stay nursing home residents with a 30-day readmission to the hospital:** Percent of newly admitted nursing home residents who are rehospitalized within 30 days of being discharged from a hospital to the nursing home. Vincent Mor, Brown University, analysis of 2012 and 2016 Medicare enrollment data, MDS, and MedPAR File (CMS).

**31. Long-stay nursing home residents with a hospital admission:** Percent of long-stay residents (residing in a nursing home for at least 90 consecutive days) who were hospitalized within six months of baseline assessment. Vincent Mor, Brown University, analysis of 2012 and 2016 Medicare enrollment data, MDS, and MedPAR File (CMS).

**32. Home health patients with a hospital admission:** Percent of home health episodes among fee-for-service Medicare beneficiaries during which the patient was admitted to an acute-care hospital. Authors' analysis data from CMS Medicare claims data. Data retrieved from 4th quarter 2018 and 3rd quarter 2014 Home Health Compare (CMS), representing patient experiences in 2017 and 2013.

**33. Adults ages 18–50 with low back pain who had an imaging study at diagnosis:** The share of employer-insured adults ages 18–50 who had a new primary diagnosis of low back pain with an imaging study (plain X-ray, MRI, or CT scan) within 28 days of the diagnosis (expressed as a rate per 100 enrollees). Enrollees who have a diagnosis for which an imaging study may be clinically appropriate (cancer, recent trauma, IV drug abuse, or neurologic impairment) are excluded. Michael E. Chernew and Andrew Hicks, Harvard Medical School Department of Health Care Policy, analysis of the 2015 and 2016 Truven Marketscan Database.

**34. Total employer-sponsored insurance spending per enrollee:** Total spending per enrollee in employer-sponsored insurance

plans estimated from a regression model of reimbursed costs for health care services from all sources of payment including the health plan, enrollee, and any third party payers incurred in 2013 and in 2015. Outpatient prescription drug charges are excluded. Enrollees with capitated plans and their associated claims are also excluded. Estimates for each state were adjusted for enrollees' age and sex, the interaction of age and sex, partial year enrollment and regional wage differences. Michael E. Chernew and Andrew Hicks, Harvard Medical School Department of Health Care Policy, analysis of the 2015 and 2016 Truven Marketscan Database.

**35. Total Medicare (Parts A and B) reimbursements per enrollee:** Total Medicare fee-for-service reimbursements include payments for both Part A and Part B but exclude Part D (prescription drug costs) and extra CMS payments for graduate medical education and for treating low-income patients. Reimbursements reflect only the age 65 and older Medicare fee-for-service population. Authors' analysis of 2013 and 2017 CCW data, retrieved from the February 2019 CMS Geographic Variation Public Use File (CMS, Office of Information Products and Analytics).

**36. Mortality amenable to health care, deaths per 100,000 population:** Number of deaths before age 75 per 100,000 population that resulted from causes considered at least partially treatable or preventable with timely and appropriate medical care (see list), as described in E. Nolte and M. McKee, "Measuring the Health of Nations: Analysis of Mortality Amenable to Health Care," *British Medical Journal*, Nov. 15, 2003, 327 (7424): 1129–32. Authors' analysis of mortality data from CDC restricted-use Multiple Cause-of-Death file (NCHS) and U.S. Census Bureau population data, 2003–2015.

Causes of death	Ages
Intestinal infections	0–14
Tuberculosis	0–74
Other infections (diphtheria, tetanus, septicaemia, poliomyelitis)	0–74
Whooping cough	0–14
Measles	1–14
Malignant neoplasm of colon and rectum	0–74
Malignant neoplasm of skin	0–74
Malignant neoplasm of breast	0–74
Malignant neoplasm of cervix uteri	0–74
Malignant neoplasm of cervix uteri and body of uterus	0–44
Malignant neoplasm of testis	0–74
Hodgkin's disease	0–74
Leukemia	0–44
Diseases of the thyroid	0–74
Diabetes mellitus	0–49
Epilepsy	0–74
Chronic rheumatic heart disease	0–74
Hypertensive disease	0–74

**APPENDIX H. State Scorecard Indicator Descriptions and Source Notes (continued)**

Cerebrovascular disease	0–74
All respiratory diseases (excluding pneumonia and influenza)	1–14
Influenza	0–74
Pneumonia	0–74
Peptic ulcer	0–74
Appendicitis	0–74
Abdominal hernia	0–74
Cholelithiasis and cholecystitis	0–74
Nephritis and nephrosis	0–74
Benign prostatic hyperplasia	0–74
Maternal death	All
Congenital cardiovascular anomalies	0–74
Perinatal deaths, all causes, excluding stillbirths	All
Misadventures to patients during surgical and medical care	All
Ischaemic heart disease: 50% of mortality rates included	0–74

**46. Children who are overweight or obese:** Children ages 10–17 who are overweight or obese (BMI  $\geq$  85th percentile). Overweight is defined as an age- and gender-specific body mass index (BMI-for-age) between the 85th and 94th percentile of the CDC growth charts. Obese is defined as a BMI-for-age at or above the 95th percentile. BMI was calculated based on parent-reported height and weight. For more information, see [www.nschdata.org](http://www.nschdata.org). Authors' analysis of 2017 NSCH (CAHMI).

**47. Adults who have lost six or more teeth:** Percent of adults ages 18–64 who have lost six or more teeth because of tooth decay, infection, or gum disease. Authors' analysis of 2012 and 2016 BRFSS (CDC, NCCDPHP).

**37. Breast cancer deaths per 100,000 female population:** Authors' analysis of NVSS–M, 2013 and 2016 (NCHS), retrieved using CDC WONDER.

**38. Colorectal cancer deaths per 100,000 population:** Authors' analysis of NVSS–M, 2013 and 2016 (NCHS), retrieved using CDC WONDER.

**39. Suicide deaths per 100,000 population:** Authors' analysis of NVSS–M, 2013 and 2016 (NCHS), retrieved using CDC WONDER.

**40. Alcohol-related deaths per 100,000 population:** Authors' analysis of NVSS–M, 2013 and 2017 (NCHS), retrieved using CDC WONDER.

**41. Drug poisoning deaths per 100,000 population:** Authors' analysis of NVSS–M, 2013 and 2017 (NCHS), retrieved using CDC WONDER.

**42. Infant mortality, deaths per 1,000 live births:** Authors' analysis of NVSS–I, 2012 and 2016 (NCHS), retrieved using CDC WONDER.

**43. Adults who report fair/poor health:** Percent of adults age 18 and older who reported being in fair or poor health. Authors' analysis of 2013 and 2017 BRFSS (CDC, NCCDPHP).

**44. Adults who smoke:** Percent of adults age 18 and older who ever smoked 100 or more cigarettes (five packs) and currently smoke every day or some days. Authors' analysis of 2013 and 2017 BRFSS (CDC, NCCDPHP).

**45. Adults who are obese:** Percent of adults ages 18–64 who are obese (Body Mass Index [BMI]  $\geq$  30). BMI was calculated based on reported height and weight. Authors' analysis of 2013 and 2017 BRFSS (CDC, NCCDPHP).





# The Commonwealth Fund

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