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ACA Implementation—Monitoring and Tracking

**Virtually Every State Experienced  
Deteriorating Access to Care for Adults  
over the Past Decade**

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## SUMMARY

We use the Behavioral Risk Factor Surveillance System (BRFSS) to examine state-level changes in three key access indicators over the past decade. Specifically, we explore changes in the likelihood of having unmet medical needs due to cost, receiving a routine checkup, and receiving a dental visit for all nonelderly adults and for the subgroup of uninsured adults. We also consider differentials in access between uninsured and insured adults within each state in 2010, and how these differences are reflected in the relationship between access to care and state-level uninsurance rates.

We find that the deterioration in access to care observed in national trends during the past decade was evident in virtually every state in the country. Similarly, consistent with the national trends, the situation deteriorated more for the uninsured than for other adults in most states,

which exacerbated the differentials in access and use between the insured and uninsured that had prevailed at the beginning of the previous decade. At the end of the decade, the uninsured in every state were at a dramatic disadvantage relative to the insured across the three access measures we examined. This analysis suggests that the potential benefits of the coverage expansion in the Affordable Care Act (ACA) are large and exist in every state.

We also found that states with higher uninsurance rates have worse access to care for all three measures, which implies that these states have the most to gain from the ACA. In particular, the ACA coverage expansion has the potential to reduce unmet needs due to costs and other cost-related barriers, problems that are more severe in states with high uninsurance rates.

## INTRODUCTION

In a recent analysis that used the National Health Interview Survey (NHIS) to assess changes in access to care among nonelderly adults, we found a marked deterioration in access between 2000 and 2010, with the most dramatic declines occurring among the uninsured.<sup>1</sup> The national analysis showed that the access declines over the past decade were not driven solely by the most recent recession or changes in the distribution of insurance coverage. Access had already been declining before the start of the recession, and declines in access occurred for adults with all types of health insurance. Our analysis also found that, by 2010, access problems for uninsured adults were particularly pronounced compared with adults who had public and private coverage. This paper builds on the national analysis by examining state-level changes in access to care among nonelderly adults over the past decade, and comparing access to care between insured and uninsured adults in each state in 2010.

Historically, states have been on the front lines of health policy, given the important choices they make that affect

coverage and access to care. The Affordable Care Act (ACA) continues states' prominent role by requiring them to implement a number of key provisions of the law. However, even if parts of the ACA are overturned in the courts or repealed, states will continue to make many decisions that can affect future health reforms. Therefore, it is useful to understand the extent to which the deterioration in access observed nationally is reflected widely across all states or is driven by a few states that had particularly large access declines. State-level analysis will also identify those places with the biggest access hurdles to overcome and therefore the largest potential gains from the ACA. This analysis will indicate whether access improvements under the ACA are likely to be widespread or more concentrated at the state level.

We use the Behavioral Risk Factor Surveillance System (BRFSS) to examine state-level changes in three key access indicators over the past decade. Specifically, we explore changes in the likelihood of having unmet medical needs due to cost, receiving a routine checkup, and receiving a dental visit for all nonelderly adults and

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for the subgroup of uninsured adults. We also consider differences in access between uninsured and insured adults within each state in 2010 and how that affects the relationship between access to care and state-level uninsurance rates.

Previous studies have examined state variation in access indicators as well as trends over time.<sup>2</sup> However, none has examined changes in access over the past decade for all states or compared access for the insured

with the uninsured at the state level. In addition, the most in-depth studies that examine state variations in access to care pre-date the passage of the ACA, and they therefore do not consider the potential benefits of the ACA or adverse consequences of its elimination. Although some studies have previously examined changes in state-level access for children, there is a lack of literature exploring both state variation in access and changes in access over time for nonelderly adults—the key target of the ACA coverage expansions.<sup>3</sup>

## DATA AND METHODS

Using BRFSS data, we examine state-level measures of access and utilization over the past decade. The BRFSS derives from surveys conducted by state health departments with support from the Centers for Disease Control and Prevention (CDC). The BRFSS consists of a core module asked in each state that includes questions on health and risk behaviors among noninstitutionalized adults, with additional modules conducted as state options. One adult per household is selected to answer questions about his/her health risk behaviors, preventive health choices, access to health care services, and basic demographic information.

We limit our sample to nonelderly adults (ages 19 to 64) and examine three measures of access and use for this population. We measure access to care by identifying those adults who were not able to see a doctor when needed due to cost, hereafter referred to as “unmet needs due to cost.” We measure health care use as receipt of a routine checkup and receipt of a dental visit (which includes visits to orthodontists). We interpret increases in unmet needs due to cost and decreases in routine checkups and dental visits as indicative of growing access problems. All three indicators refer to access and utilization patterns over the 12 months prior to the interview and all are available on the 2010 survey for every state. We use BRFSS estimates of unmet needs due to cost and routine checkups from the 2000 survey; because the dental visit indicator was not included on the 2000 survey, we use the dental visit estimate from the 2002 survey to estimate changes in access over the decade. As described in the appendix, all the estimates that we present from the BRFSS are weighted to align with external state-specific distributions with respect to race and ethnicity, age, gender, and education. In addition, the standard errors take into account the complex nature of the survey design.

We present estimates of the change in each access measure over the past decade for all adults in each state. BRFSS insurance coverage information is limited to an indicator for having any insurance coverage at the time of the survey. Thus, we can identify insured and uninsured adults, but we cannot identify the type of coverage for those with insurance or whether insurance status changed over the prior year (e.g., some of those with coverage at the time of the survey may have been uninsured at some point in the prior year, while some lacking coverage at the time of the survey may have been insured within the past year). We therefore present estimates for 2010 of each access measure for insured and uninsured adults, by state, and examine differences for each access measure between the insured and the uninsured in each state. We also compare the changes occurring for the uninsured to those occurring for the insured in each state over the past decade to assess the relative changes in each measure at the state level for the two groups.

Our main estimates focus on raw changes over time and differences within and across states in 2010. However, concerns about the comparability of the state samples over time, including the changing composition of the uninsured, led us to examine changes and differences that control for age, race/ethnicity, gender, and health status. We note instances where the findings are affected by these adjustments.

Using the 2010 BRFSS, we also rank states based on the uninsurance rate among nonelderly adults. We split the states into terciles, with the first tercile representing those states with the lowest levels of uninsurance and the third representing those with the highest uninsurance rates.<sup>4</sup> We then examine the prevalence of unmet needs due to cost, routine checkups, and dental visits for adults in each tercile.

Our analysis has several limitations. Due to data constraints, we cannot present trends in access for all the years between 2000 and 2010. This raises concerns that we may not be capturing a pattern of access declines across the decade, but instead a large drop in access due to the recent recession. We also do not identify what factors may have contributed to the deterioration in access over time (e.g., changes in personal characteristics, health status etc., changes in the distribution of the uninsured and insured across different markets, changes in cost sharing

provisions and benefits, or changes in the availability of care from safety net providers for the uninsured and other groups). Our previous work at the national level has shown, however, that the trends in declining access occurred throughout the decade and that accounting for changes in a wide variety of individual characteristics did not alter the findings. In addition to these concerns, the BRFSS presents a number of specific methodological challenges which are discussed in more detail in the technical appendix.

## RESULTS

**State-level Changes in Access.** Exhibit 1 reveals a worsening pattern for the three access measures—unmet needs due to cost, routine checkups, and dental visits—among nonelderly adults during the past decade in almost all states. The exceptions were Georgia, Massachusetts, Minnesota, and Virginia, where each experienced one significant access improvement and one significant access decline, and the District of Columbia and West Virginia, which did not experience a statistically significant change in any of the three measures. In Alabama and Wisconsin, improvement was found for one of the measures but declines occurred for the other two measures, while in all other states, access and use declined for one or more of the measures with no improvement in either of the two other measures.

In more than two-thirds of the states, 39 in total, the access picture got worse on at least two of the three measures (Exhibit 2). In 20 states, access declined for all three measures; in 19 states, there were declines for two of the three measures; while in 10 states, there were declines for one of the three measures. As noted above, two states (District of Columbia and West Virginia) saw no significant declines.<sup>5</sup> While we primarily focus on the changes in access over time, we also place those changes in the context of baseline levels of access, which are displayed in Appendix Table 1. West Virginia, for example, did not experience a significant increase in unmet needs due to cost over 10 years, but also had the highest level of unmet needs (20.9 percent) among all states in 2000 (Appendix Table 1).

Nationally, the share of adults receiving a routine checkup or dental visit decreased by 5.1 and 3.9 percentage points, respectively, over the last decade (Exhibit 3). The share experiencing unmet health needs due to cost rose by 6.0 percentage points, from 12.7 percent in 2000 to 18.7 percent in 2010 (Appendix Table 1). This implies

a total of 34.3 million nonelderly adults in the United States faced an unmet health need due to cost in 2010 (Appendix Table 2).

Over this period, rates of unmet needs due to cost rose in 42 states; receipt of routine checkups declined in 37 states and receipt of dental visit declined in 29 states. No state experienced a statistically significant decline in unmet needs, but there were statistically significant increases in the receipt of routine visits in three states—Alabama, Georgia, and Wisconsin—and in the receipt of dental visits in three states: Massachusetts, Minnesota, and Virginia.<sup>6</sup>

### **State-level Changes in Access Among the Uninsured.**

Consistent with the national patterns found on the NHIS, access declines were even more pronounced among uninsured adults (Exhibit 3). Among the uninsured, there were statistically significant increases in unmet needs in 27 states, receipt of routine checkups declined in 34 states, and receipt of dental visits declined in 27 states (Exhibit 3).<sup>7</sup> Nationally, the share of uninsured adults with unmet needs due to cost rose by 10.8 percentage points over the past decade and the shares with routine checkups and dental visits decreased by 11.6 and 9.0 percentage points, respectively; this compares to increases in unmet needs due to cost of 3.7 percentage points and decreases in the shares with routine checkups and dental visits of 2.6 and 2.0 percentage points, respectively, among insured adults (Exhibit 4).

Relative to the insured, the uninsured experienced significantly larger increases in the extent of unmet needs due to cost in 23 states and significantly larger declines in receipt of routine checkups and dental visits in 28 and 20 states, respectively (Exhibit 4). Eight states experienced a significantly larger deterioration for the uninsured than for the insured on all three measures, 14 states did so for two

of the three measured, 21 states did so for one measure, and just eight had no statistically significant differences in the changes for the insured and uninsured on any of these three measures of the past decade.<sup>8</sup>

There were statistically significant access declines for uninsured adults on two or more of the three measures in 30 states (Exhibit 5).<sup>9</sup> In 13 states, the uninsured experienced statistically significant declines in access on all three measures; in 17 states, the uninsured experienced statistically significant declines in two of the three measures; and in 15 states, the uninsured experienced a statistically significant decline in one measure. Six states showed no significant access declines for the uninsured, but state-level estimates for the uninsured are subject to sample size constraints, which introduces more imprecision in the estimates for the uninsured, particularly in the estimates of change.<sup>10</sup>

**Differences in Access Between Uninsured and Insured Adults in 2010.** At the end of the last decade, disparities in access to health care between insured and uninsured adults were large and statistically significant both nationally and in every state (Exhibit 6). Nationally, uninsured adults were 36.9 percentage points more likely than their insured counterparts to have unmet health needs due to cost (48.1 and 11.2 percent, respectively) and 31.8 and 34.8 percentage points less likely to have received a routine checkup (37.9 and 69.7 percent, respectively) or dental visit (37.5 and 72.3 percent, respectively).<sup>11</sup>

Although the uninsured consistently have lower access than the insured in each state, the extent of the differential for a particular measure varies across states. For example, the gap in unmet needs due to cost between insured and uninsured adults varies from fewer than 20 percentage points in one state to more than 40 percentage points in several states (Exhibit 7). The median state-level difference in unmet needs due to cost between the insured and uninsured populations in 2010 is 34.3 percentage points (data not shown). Exhibits 8 and 9 also show wide variation across states in the differential between insured adults and uninsured adults in terms of receipt of routine checkups and dental visits, respectively. We find that in states where the gap between the

uninsured and the insured is larger in terms of one of the measures, there also tends to be a larger difference in terms of the two other measures, although the effect is not particularly strong.<sup>12</sup>

**State Variation in Access in 2010.** Given these large differences in access between the insured and uninsured in all states, we would expect access to care among all nonelderly adults to be better in states that had lower uninsured rates in 2010 compared with states with higher uninsured rates. Exhibit 10 demonstrates precisely this pattern, with one exception that is discussed below. For states in the lowest tercile of uninsured rates for adults, 13.7 percent of adults reported that they had unmet needs due to cost; this compares with 18.0 and 23.3 percent, respectively, for states in the middle and highest terciles. Similarly, 68.5 and 72.0 percent of adults received routine checkups and dental visits, respectively, in the states that ranked in the lowest tercile of uninsured rates. In the middle tercile, the comparable rates were 60.4 and 66.3 percent, and states with the highest uninsurance had rates of 62.6 and 59.0 percent, respectively. The differences across terciles were statistically significant for each measure. The one exception to the prevailing pattern of worse access for adults in states with higher uninsured rates was that the share of adults with a routine checkup was slightly but statistically significantly lower for adults in states in the middle tercile with respect to uninsurance than it was for adults in states in the highest tercile with respect to uninsured rates (60.4 percent compared with 62.6 percent). We also find that access to care is better for *both* uninsured and insured adults in the states with the lowest uninsured rates for adults compared with their counterparts in states with the highest uninsured rates (data not shown).<sup>13</sup> This suggests that both insured and uninsured adults face additional barriers to accessing care in states where a larger proportion of adults are uninsured. This may reflect more systemic problems, including low incomes and high unemployment, which are correlated with high uninsurance rates. However, it may also be the case that a large uninsured population exerts financial pressure on the system, making it more difficult for providers to serve all patients.<sup>14</sup>

## DISCUSSION

This study shows that the deterioration in access to care observed nationally during the past decade was evident in virtually every state in the country. Similarly,

consistent with national trends, the situation deteriorated more for the uninsured than for insured adults in most states. While this analysis does not allow us to explain

what caused access to decline so dramatically for the uninsured over the decade, our national analysis has shown that evidence of large declines in access for the uninsured persists even after controlling for changes in the characteristics of the uninsured over time. Notably, observable changes in age, sex, race, income, employment status, and self-reported health status among the uninsured do not explain the large declines in access experienced at the national level.

At the end of the decade, the uninsured in every state were at a dramatic disadvantage relative to the insured across the three access measures we examined. It appears that the health care safety net that is designed, in part, to serve those without coverage is not acting as an effective substitute for health insurance in any state when it comes to meeting health care needs and providing basic health care services.<sup>15</sup> This suggests that the potential benefits of the coverage expansion in the ACA are large and exist in every state.

Furthermore, the fact that the states with higher uninsurance rates have worse access to care indicates that these states have the most to gain from the ACA. In particular, the ACA coverage expansion has the potential

to reduce unmet needs due to cost and improve access to medical care, problems that are more severe in high uninsurance rate states. However, the potential effects of health reform on dental care are less clear, given that the ACA does not mandate dental care for adults. Therefore, improving access to dental care for adults will likely require targeted efforts outside of the ACA.

Our findings suggest that the repeal of the ACA, or a Supreme Court decision that blocks its key provisions, would likely result in continued deterioration in access for adults in almost all states. One notable exception is Massachusetts, where its own health reform effort appears to have provided some protection against the adverse access changes that we found elsewhere. Moreover, among all states, adults in Massachusetts have the second lowest level of unmet needs due to cost and the highest share receiving a dental visit and a routine checkup in 2010 (Appendix Table 1). The analysis presented in this paper also suggests that states that intentionally delay ACA implementation or are less aggressive in seeking to enroll people on Medicaid or subsidized exchange plans will not see the potential benefits of the ACA as soon as states that move more aggressively to expand coverage.<sup>16</sup>

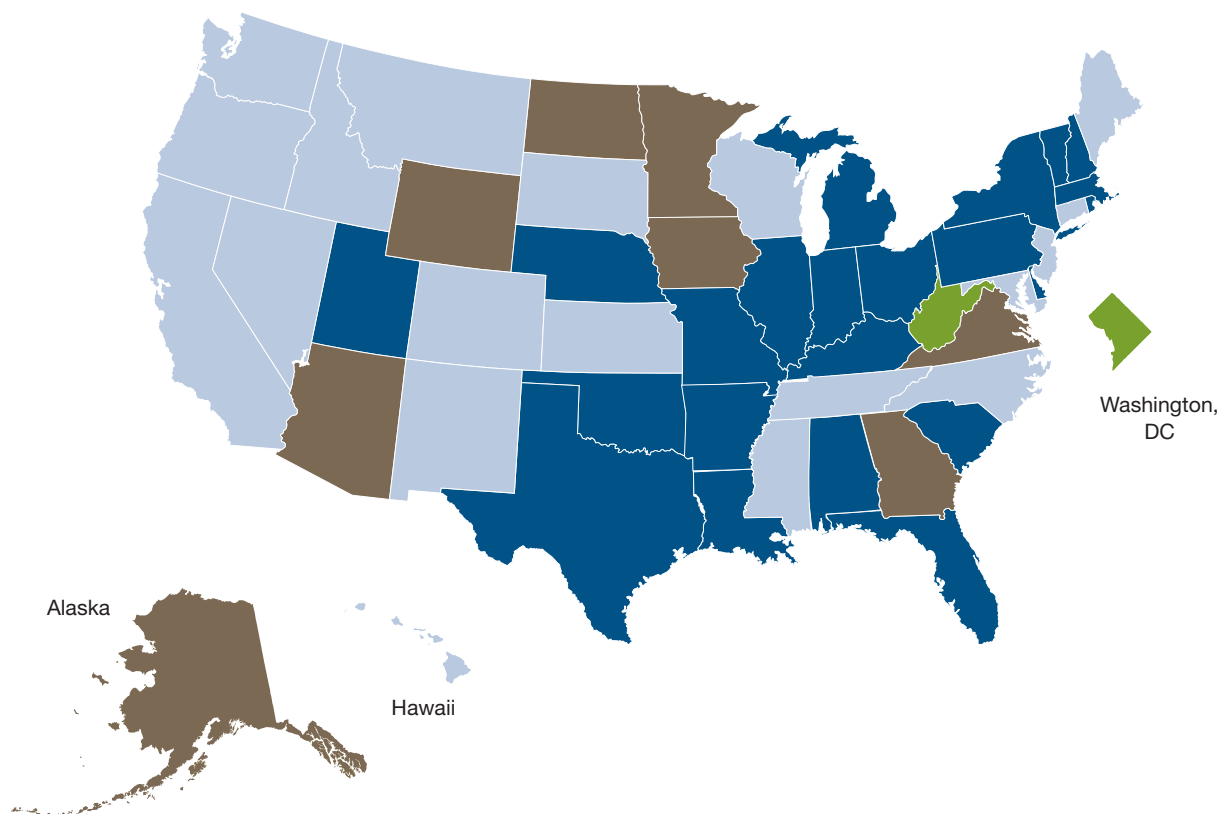
## EXHIBIT 1: Access Changes for Adults Between 2000(02) and 2010, by State

	Percentage point difference in:			Total Significant Increases in Access	Total Significant Decreases in Access
	Share with Unmet Needs Due to Cost	Share who had a Routine Checkup	Share who had a Dental Visit		
<b>United States</b>	<b>6.0***</b>	<b>-5.1***</b>	<b>-3.9***</b>	<b>0</b>	<b>3</b>
1 Alabama	6.4***	5.5***	-7.1***	1	2
2 Alaska	0.6	-6.5***	2.5	0	1
3 Arizona	2.5	-9.0***	-1.6	0	1
4 Arkansas	4.6***	-8.2***	-4.4**	0	3
5 California	5.1***	0.4	-3.1***	0	2
6 Colorado	5.8***	-8.3***	-1.1	0	2
7 Connecticut	2.8**	-4.8***	-0.9	0	2
8 Delaware	5.3***	-3.1*	-4.5**	0	3
9 District of Columbia	-1.2	-2.6	-0.4	0	0
10 Florida	9.2***	-9.7***	-10.3***	0	3
11 Georgia	9.0***	3.0**	-0.6	1	1
12 Hawaii	2.3**	-17.0***	1.4	0	2
13 Idaho	3.2***	-6.7***	-2.2	0	2
14 Illinois	7.7***	-9.9***	-7.9***	0	3
15 Indiana	7.0***	-8.2***	-2.7**	0	3
16 Iowa	2.2**	1.8	0.2	0	1
17 Kansas	5.4***	-1.5	-3.3***	0	2
18 Kentucky	5.5***	-12.8***	-8.6***	0	3
19 Louisiana	8.8***	-4.0***	-5.8***	0	3
20 Maine	0.5	-7.3***	-5.9***	0	2
21 Maryland	5.1***	-1.1	-3.2**	0	2
22 Massachusetts	1.2*	-0.3	1.9*	1	1
23 Michigan	7.6***	-11.2***	-7.2***	0	3
24 Minnesota	2.6**	2.7	2.8**	1	1
25 Mississippi	6.2***	-5.1***	-5.8***	0	3
26 Missouri	5.1***	-11.3***	-3.6**	0	3
27 Montana	1.9	-11.6***	-8.0***	0	2
28 Nebraska	6.1***	-12.5***	-7.4***	0	3
29 Nevada	4.9**	-7.0***	-0.6	0	2
30 New Hampshire	3.0**	-4.4***	-4.5***	0	3
31 New Jersey	8.1***	-3.0**	-2.5	0	2
32 New Mexico	5.8***	-6.5***	-2.3	0	2
33 New York	5.0***	-9.6***	-3.0**	0	3
34 North Carolina	7.4***	-0.4	-3.1**	0	2
35 North Dakota	-0.2	-6.0***	1.2	0	1
36 Ohio	4.5***	-5.6***	-5.4***	0	3
37 Oklahoma	8.8***	-12.4***	-7.9***	0	3
38 Oregon	4.6***	-12.3***	-1.7	0	2
39 Pennsylvania	4.3***	-6.4***	-2.8***	0	3
40 Rhode Island	6.9***	-3.8**	-3.3**	0	3
41 South Carolina	6.4***	-11.9***	-8.1***	0	3
42 South Dakota	2.1**	-5.0***	-0.7	0	2
43 Tennessee	10.8***	-0.6	-9.8***	0	2
44 Texas	7.0***	-8.0***	-5.3***	0	3
45 Utah	4.4***	-3.7**	-2.5*	0	3
46 Vermont	0.6	-8.2***	-0.9	0	1
47 Virginia	5.1***	3.5	6.8***	1	1
48 Washington	6.1***	-6.3***	-1.5	0	2
49 West Virginia	1.1	1.3	-2.2	0	0
50 Wisconsin	4.5***	3.6**	-6.5***	1	2
51 Wyoming	-0.1	-4.0**	-1.5	0	1

Source: 2000, 2002, and 2010 Behavioral Risk Factor Surveillance System.

NOTE: Adults are ages 19 to 64. The changes for unmet needs and routine checkup compare the years 2000 and 2010, while dental visit compares 2002 and 2010. Estimates with \*(\*\*)(\*\*\*) indicate that changes are significant at the 0.10 (0.05) (0.01) percent level.

## EXHIBIT 2: Access Declines for Adults over the Previous Decade



Number of Statistically Significant Access Declines: ■ 0 ■ 1 ■ 2 ■ 3

Source: 2000, 2002, and 2010 BRFSS.

NOTE: Adults are ages 19 to 64. The three access measures analyzed are unmet needs due to cost, had a routine checkup, and had a dental visit. All of these indicators measure access and use over the past 12 months. Changes in access shown are those with statistical significance above the 0.1 percent level.

## EXHIBIT 3: Summary of Access Changes for Adults between 2000(02) and 2010, by Insurance Status

	Share with Unmet Needs Due to Cost	Share who had a Routine Checkup	Share who had a Dental Visit
<b>Total</b>			
<b>Percentage Point Difference</b>	<b>6.0***</b>	<b>-5.1***</b>	<b>-3.9***</b>
No. of States with Significant Increases in Access	0	3	3
No. of States with Significant Decreases in Access	42	37	29
<b>Uninsured</b>			
<b>Percentage Point Difference</b>	<b>10.8***</b>	<b>-11.6***</b>	<b>-9.0***</b>
No. of States with Significant Increases in Access	0	0	0
No. of States with Significant Decreases in Access	27	34	27

Source: 2000, 2002, and 2010 Behavioral Risk Factor Surveillance System.

NOTE: Adults are ages 19 to 64. The changes for unmet needs and routine checkup compare the years 2000 and 2010, while dental visit compares 2002 and 2010. Estimates with \*\*\* indicate that changes are significant at the 0.01 percent level. Due to small sample sizes and in some cases, large variance, statistically significant changes for uninsured adults could not be determined in some states.



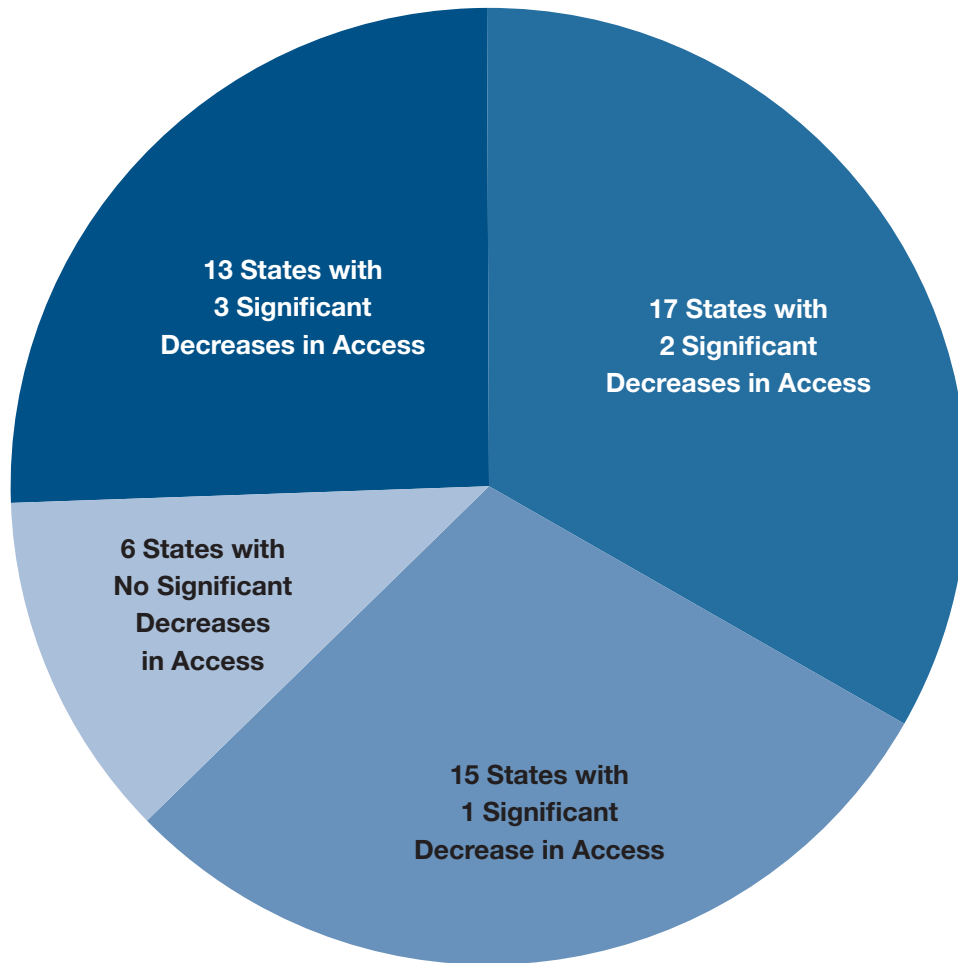
## EXHIBIT 4: Comparing Access Changes from 2000(02) to 2010 for Insured and Uninsured Adults, by State

	Percentage Point Difference in Share with Unmet Needs Due to Cost			Percentage Point Difference in Share with Routine Checkup			Percentage Point Difference in Share with Dental Visit		
	Uninsured	Insured	Uninsured–	Uninsured	Insured	Uninsured–	Uninsured	Insured	Uninsured–
			Insured			Insured			Insured
<b>United States</b>	<b>10.8</b>	<b>3.7</b>	<b>7.1***</b>	<b>-11.6</b>	<b>-2.6</b>	<b>-9.0***</b>	<b>-9.0</b>	<b>-2.0</b>	<b>-7.0***</b>
1 Alabama	14.9	3.5	11.4**	-0.2	7.6	-7.8*	-6.9	-6.3	-0.6
2 Alaska	-4.8	2.4	-7.3	-18.3	-4.3	-14.0**	3.8	1.7	2.0
3 Arizona	-1.7	4.6	-6.4	-8.5	-10.1	1.6	-8.6	-0.3	-8.4
4 Arkansas	10.0	0.9	9.2*	-17.8	-2.7	-15.1***	-15.2	1.7	-17.0***
5 California	3.8	5.8	-2.0	-13.9	4.0	-17.9***	-3.9	-2.0	-2.0
6 Colorado	9.1	3.8	5.3	-16.5	-5.7	-10.8**	-2.2	-0.6	-1.6
7 Connecticut	4.5	1.9	2.6	-10.0	-3.7	-6.3	-0.9	-1.0	0.1
8 Delaware	9.8	3.9	5.9	-10.8	-1.3	-9.5	-2.2	-4.0	1.8
9 District of Columbia	-2.0	0.9	-2.9	-17.3	-2.1	-15.2**	-4.3	-1.6	-2.7
10 Florida	16.9	5.4	11.5***	-14.4	-7.1	-7.3**	-18.5	-6.9	-11.6***
11 Georgia	18.8	3.7	15.1***	-5.1	6.9	-12.0***	-7.4	3.0	-10.3**
12 Hawaii	-4.6	2.8	-7.4	-4.1	-18.0	13.8**	-4.2	1.4	-5.6
13 Idaho	4.8	1.0	3.7	-9.3	-4.3	-5.0	-6.8	1.0	-7.8**
14 Illinois	25.4	3.1	22.4***	-12.1	-8.9	-3.2	-13.3	-6.6	-6.7
15 Indiana	15.9	2.9	13.1***	-12.1	-5.1	-7.0	-10.7	0.2	-10.9***
16 Iowa	-3.7	2.4	-6.0	5.2	1.7	3.6	2.7	0.7	2.0
17 Kansas	10.5	2.5	8.0**	-3.7	0.5	-4.2	-13.8	0.2	-14.0***
18 Kentucky	9.3	2.0	7.4**	-20.9	-9.1	-11.8***	-7.0	-8.6	1.6
19 Louisiana	16.9	5.9	11.0***	-11.3	-1.4	-9.9***	-8.1	-5.8	-2.4
20 Maine	4.7	0.2	4.4	-11.5	-7.1	-4.4	-11.3	-5.2	-6.1
21 Maryland	18.2	2.7	15.6***	-8.6	0.6	-9.1*	-6.8	-1.9	-5.0
22 Massachusetts	10.8	1.8	9.0*	-7.5	-1.0	-6.5	-4.4	0.7	-5.2
23 Michigan	0.6	6.1	-5.5	-15.9	-7.8	-8.1	-10.9	-5.2	-5.7
24 Minnesota	8.7	1.3	7.3	7.5	3.1	4.4	7.7	3.1	4.6
25 Mississippi	13.3	2.4	10.9***	-11.7	-1.8	-9.9**	-12.7	-3.3	-9.4***
26 Missouri	6.5	3.0	3.6	-18.6	-7.9	-10.7**	-3.5	-2.9	-0.6
27 Montana	-2.5	1.9	-4.4	-18.1	-8.6	-9.5**	-13.6	-6.1	-7.6**
28 Nebraska	11.6	3.1	8.6*	-14.3	-10.9	-3.4	-16.3	-4.7	-11.6**
29 Nevada	5.8	1.3	4.6	-14.2	-2.2	-11.9*	-7.1	1.6	-8.7*
30 New Hampshire	1.4	1.4	0.0	-19.1	-0.9	-18.2***	-19.9	-1.7	-18.2***
31 New Jersey	27.8	4.4	23.4***	-5.2	-2.3	-2.9	-9.5	-1.5	-8.0
32 New Mexico	12.4	4.7	7.8**	-6.8	-7.5	0.7	-1.6	-2.8	1.3
33 New York	14.4	3.5	10.9***	-17.8	-8.3	-9.5**	-10.6	-1.9	-8.7**
34 North Carolina	15.1	2.2	12.9***	-6.1	3.8	-9.9**	-3.4	-0.9	-2.5
35 North Dakota	7.5	-1.3	8.8*	-3.6	-6.5	2.9	2.7	1.4	1.3
36 Ohio	3.3	3.1	0.2	-12.7	-3.2	-9.5*	-12.2	-2.6	-9.5**
37 Oklahoma	11.1	6.8	4.3	-23.0	-8.3	-14.8***	-10.7	-6.5	-4.2
38 Oregon	8.2	2.5	5.7	-10.5	-11.4	0.9	-10.5	1.1	-11.6**
39 Pennsylvania	6.6	2.7	3.9	-12.2	-4.4	-7.8*	-4.8	-1.5	-3.3
40 Rhode Island	18.3	3.0	15.3***	-8.2	-1.5	-6.6	-7.1	-1.5	-5.7
41 South Carolina	7.2	4.1	3.1	-16.8	-8.5	-8.3**	-16.8	-3.7	-13.1***
42 South Dakota	8.1	1.0	7.1	-15.3	-3.3	-11.9***	-4.6	0.1	-4.7
43 Tennessee	19.1	5.4	13.7***	-8.1	3.9	-12.0**	-24.2	-4.6	-19.6***
44 Texas	9.7	3.8	5.9**	-12.3	-4.6	-7.8***	-10.1	-2.8	-7.3***
45 Utah	-2.3	3.2	-5.6	-0.5	-2.6	2.2	-8.5	0.1	-8.6**
46 Vermont	0.8	0.9	-0.1	-16.3	-7.4	-8.9*	-5.8	-1.4	-4.4
47 Virginia	17.6	1.7	15.8***	6.9	3.7	3.2	2.4	7.9	-5.5
48 Washington	5.8	3.4	2.4	-7.2	-3.7	-3.5	-5.1	1.6	-6.6*
49 West Virginia	5.8	1.2	4.6	-9.2	3.5	-12.8***	-4.0	-1.5	-2.5
50 Wisconsin	12.8	1.6	11.2*	-5.6	6.4	-12.0**	-17.5	-4.1	-13.4**
51 Wyoming	0.0	-1.1	1.1	0.0	-1.5	1.5	0.0	1.3	-1.3
Number of States with Statistically Significantly Larger Access Declines for the Uninsured			23			28			20

Source: 2000, 2002, and 2010 Behavioral Risk Factor Surveillance System.

NOTE: Adults are ages 19 to 64. The changes for unmet needs and routine checkup compare the years 2000 and 2010, while dental visit compares 2002 and 2010. Estimates marked with \*(\*\*)(\*\*\*) indicate that the difference between insured and uninsured is significant at the 0.1(0.05)(0.01) percent level.

## EXHIBIT 5: Number of States with Decreases in Access Between 2000(02) and 2010 for Uninsured Adults



Source: 2000, 2002, and 2010 Behavioral Risk Factor Surveillance System.

NOTES: Adults are ages 19 to 64. The changes for unmet needs and routine checkup compare the years 2000 and 2010, while dental visit compares 2002 and 2010. Significant changes are those at the 0.1 percent level. Due to small sample sizes and in some cases, large variance, statistically significant changes for uninsured adults could not be determined in some states.

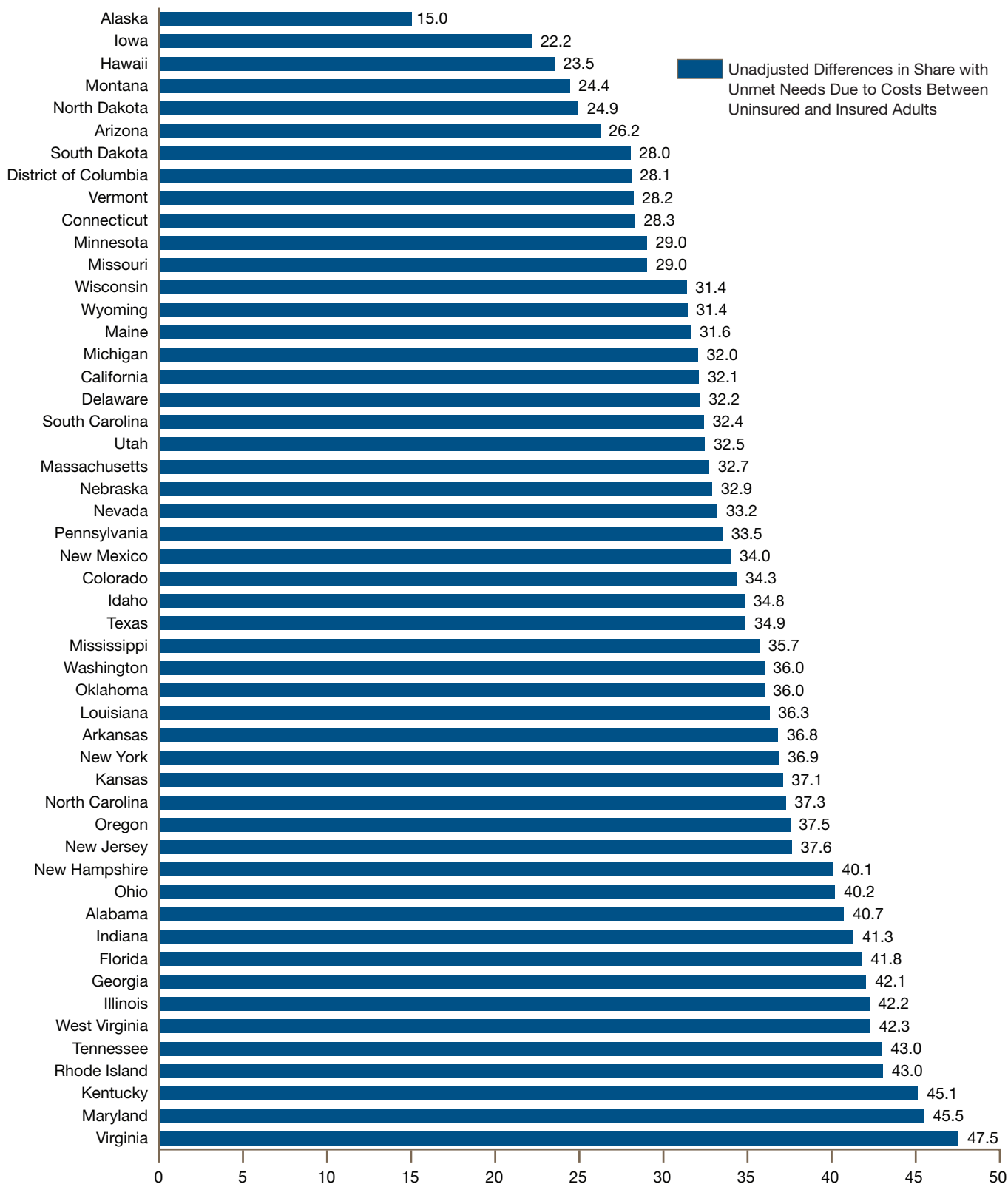
## EXHIBIT 6: Mean Access Measures in 2010, by Insurance Status and State

	Share with Unmet Needs Due to Cost		Share who Had a Routine Checkup		Share who Had a Dental Visit	
	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured
<b>United States</b>	<b>11.2%</b>	<b>48.1%*</b>	<b>69.7%</b>	<b>37.9%*</b>	<b>72.3%</b>	<b>37.5%*</b>
1 Alabama	12.2	53.0*	78.3	49.0*	67.8	39.0*
2 Alaska	11.4	26.4*	67.0	42.3*	72.6	46.3*
3 Arizona	11.5	37.8*	67.2	36.6*	67.7	39.0*
4 Arkansas	11.3	48.1*	63.9	28.7*	68.0	27.5*
5 California	13.1	45.2*	67.5	32.4*	72.2	36.4*
6 Colorado	10.6	45.0*	61.7	32.8*	70.8	37.4*
7 Connecticut	8.7	37.0*	70.7	44.6*	82.4	56.7*
8 Delaware	11.0	43.2*	76.6	47.0*	72.0	41.6*
9 District of Columbia	9.2	37.3*	78.5	52.2*	75.4	47.3*
10 Florida	14.2	56.0*	72.2	33.6*	66.6	32.0*
11 Georgia	12.7	54.7*	79.2	50.1*	73.2	37.7*
12 Hawaii	7.6	31.1*	59.2	34.4*	69.1	38.3*
13 Idaho	11.4	46.3*	58.9	26.8*	73.4	40.0*
14 Illinois	8.6	50.9*	62.3	44.5*	72.1	39.6*
15 Indiana	11.4	52.7*	64.3	35.4*	71.5	36.5*
16 Iowa	6.7	28.9*	71.2	51.5*	78.8	49.9*
17 Kansas	8.5	45.5*	71.6	42.5*	75.4	38.3*
18 Kentucky	11.9	57.0*	65.4	30.8*	66.6	34.7*
19 Louisiana	14.1	50.4*	78.1	51.6*	67.5	39.7*
20 Maine	8.3	40.0*	71.0	35.4*	69.9	39.5*
21 Maryland	9.0	54.5*	78.9	48.0*	76.4	43.4*
22 Massachusetts	6.7	39.5*	78.8	47.1*	81.6	50.0*
23 Michigan	11.9	43.9*	67.0	34.5*	74.2	38.5*
24 Minnesota	8.5	37.5*	71.0	48.7*	80.3	58.4*
25 Mississippi	16.3	52.0*	69.7	42.7*	62.1	33.1*
26 Missouri	10.9	39.9*	64.5	29.4*	67.1	35.5*
27 Montana	9.9	34.4*	55.9	26.5*	64.4	33.6*
28 Nebraska	7.3	40.2*	56.4	34.7*	72.3	40.1*
29 Nevada	12.5	45.7*	64.9	32.9*	71.6	36.7*
30 New Hampshire	8.2	48.3*	72.6	32.1*	79.0	37.7*
31 New Jersey	10.4	48.0*	77.3	52.4*	77.5	50.5*
32 New Mexico	12.4	46.4*	64.4	36.2*	69.1	37.9*
33 New York	9.7	46.6*	74.2	37.1*	73.5	43.0*
34 North Carolina	12.3	49.6*	78.6	46.2*	73.8	39.9*
35 North Dakota	4.7	29.6*	63.2	48.7*	74.9	46.0*
36 Ohio	11.2	51.4*	70.4	39.7*	73.9	38.5*
37 Oklahoma	12.7	48.7*	60.1	28.0*	61.6	31.1*
38 Oregon	11.9	49.5*	54.9	30.3*	74.2	37.8*
39 Pennsylvania	9.2	42.7*	67.9	39.7*	74.3	43.4*
40 Rhode Island	8.3	51.3*	79.8	48.7*	80.3	47.8*
41 South Carolina	13.6	46.0*	69.8	36.6*	68.3	29.7*
42 South Dakota	7.0	35.0*	66.6	43.0*	76.0	47.2*
43 Tennessee	12.6	55.6*	82.2	47.8*	68.6	34.7*
44 Texas	13.8	48.7*	65.2	34.2*	65.1	30.5*
45 Utah	10.7	43.2*	60.2	37.7*	76.4	46.4*
46 Vermont	7.2	35.4*	63.9	31.7*	76.2	46.8*
47 Virginia	8.7	56.2*	74.3	49.4*	81.6	44.3*
48 Washington	9.6	45.6*	62.9	31.3*	75.4	39.1*
49 West Virginia	12.6	54.9*	78.3	36.2*	65.9	38.7*
50 Wisconsin	8.3	39.6*	67.8	33.8*	77.1	38.3*
51 Wyoming	7.7	39.2*	58.2	29.6*	73.3	38.6*

Source: 2010 Behavioral Risk Factor Surveillance System.

NOTE: Adults are ages 19 to 64. For the uninsured estimates marked with \*, the difference between insured and uninsured estimates is significant at the 0.01 percent level.

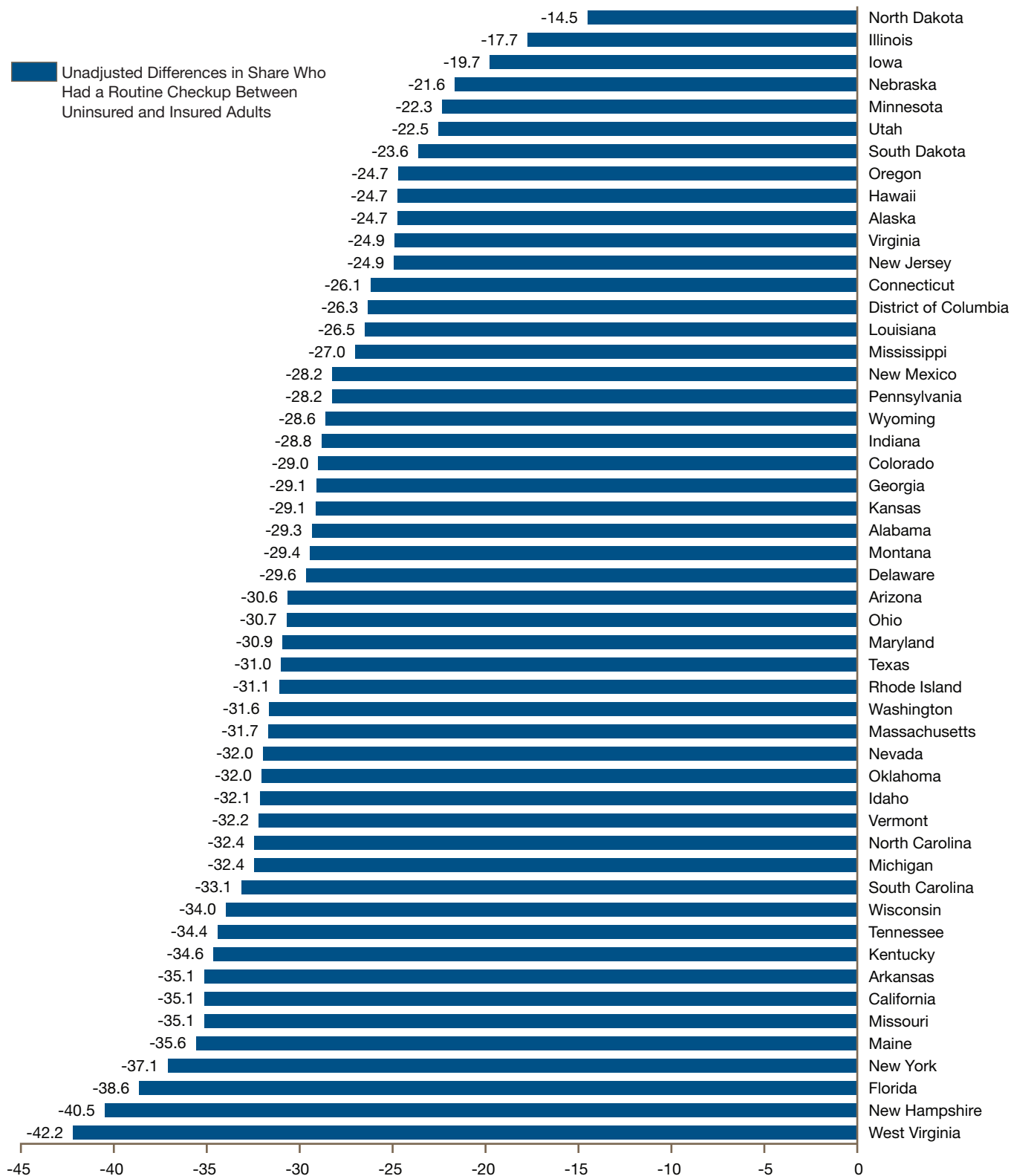
## EXHIBIT 7: Percentage Point Difference in Share with Unmet Needs Due to Costs Between Uninsured and Insured Adults in 2010, by State



Source: 2010 Behavioral Risk Factor Surveillance System.

NOTES: Adults are ages 19 to 64. Unmet need is that experienced by the respondent over the past 12 months. In 2010, the differences in share with unmet needs due to cost between insured and uninsured are statistically significant at the 0.01 percent level for each state.

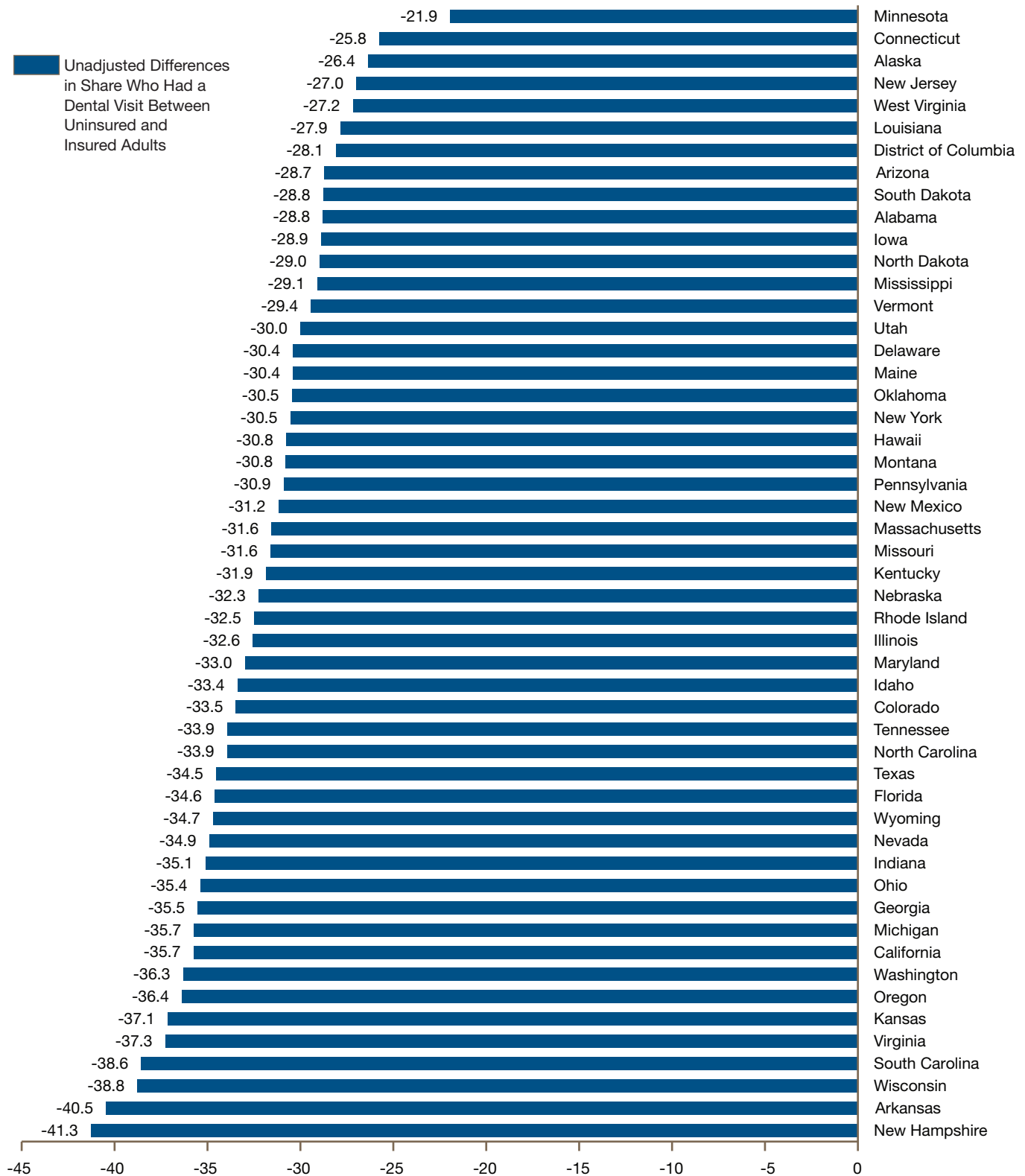
## EXHIBIT 8: Percentage Point Difference in Share Who Had a Routine Checkup Between Uninsured and Insured Adults in 2010, by State



Source: 2010 Behavioral Risk Factor Surveillance System.

NOTES: Adults are ages 19 to 64. Routine checkup is that received by the respondent over the past 12 months. In 2010, the differences in share with a routine checkup between insured and uninsured are statistically significant at the 0.01 percent level for each state.

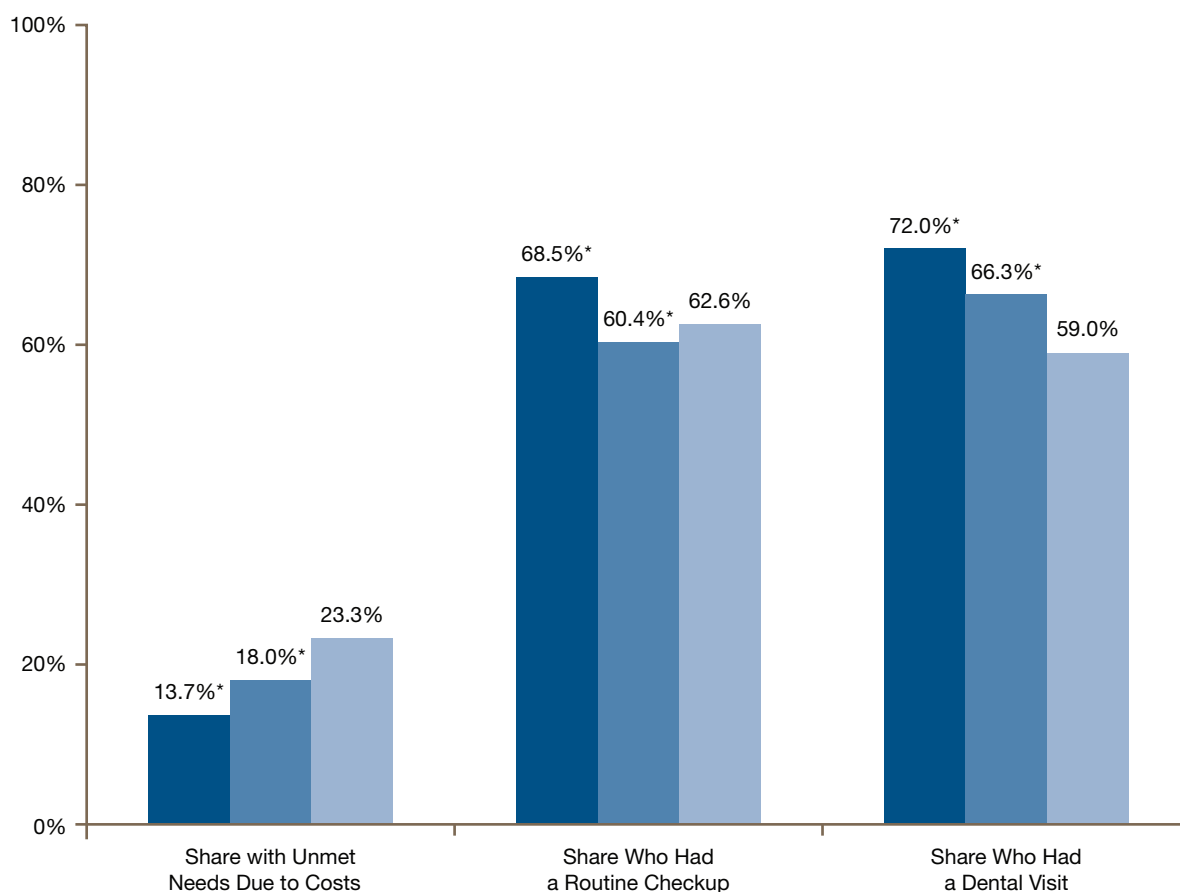
## EXHIBIT 9: Percentage Point Difference in Share Who Had a Dental Visit Between Uninsured and Insured Adults in 2010, by State



Source: 2010 Behavioral Risk Factor Surveillance System.

NOTES: Adults are ages 19 to 64. Dental visit is that received by the respondent over the past 12 months. In 2010, the differences in share with a dental visit between insured and uninsured are statistically significant at the 0.01 percent level for each state.

## EXHIBIT 10: Access to Care for Adults in 2010, Ranked by State Uninsured Rate



Tercile 1: Mean Uninsurance 13.9%
  Tercile 2: Mean Uninsurance 19.5%
  Tercile 3: Mean Uninsurance 26.4%

Source: 2010 Behavioral Risk Factor Surveillance System.

NOTES: Adults are ages 19 to 64. Measures refer to access and utilization over the past 12 months. States were ranked from highest to lowest based on rates of uninsurance for nonelderly adults, and were then split into three equal categories based on that ranking. Estimates marked with \* indicate that the difference between it and the estimate from Tercile 3 is significant at the 0.01 percent level.

## TECHNICAL APPENDIX

Because of concerns about potential biases associated with estimating changes based on the BRFSS with the weights that were developed by CDC in 2000, 2002, and 2010, we implemented reweighting procedures that included post-stratification to U.S. Census Bureau population totals for education and whether a person was of Hispanic origin, in addition to sex, age, and race.<sup>17</sup> We added those two dimensions because of substantial increases over the past decade in the share of the U.S. population that is Hispanic, and because recent research suggests that the inclusion of education may reduce the degree of bias in BRFSS estimates due to nonresponse and noncoverage.<sup>18</sup> To post-stratify on education, we collapsed the BRFSS education question into five categories that match Census categories. In addition, we modified the CDC procedure to ensure that the BRFSS share of non-white non-Hispanic respondents lined up with the Census-estimated share for every state and analysis year. (Previously, the CDC had done this post-stratification only in selected states or selected regions within states.) Our procedure maintained the age and sex controls used by the CDC and kept the range of final weights in each state very close to the weights published by CDC. All of the estimates reported in this paper are based on the reweighted data. The reweighting did not affect the top-line conclusions emerging from this study, but it did raise our confidence in the estimates.

When we assessed variation in uninsurance rates across states in 2000 and 2010 based on the BRFSS, we found similar patterns to those found on the Current Population Survey (CPS) for those two years (Appendix Table 3) despite the many differences between the two surveys, including how insurance coverage is measured. The correlation between the CPS and BRFSS state-by-state uninsurance rates was 0.89 in 2000 and 0.91 in 2010. Although the size of the national increase in uninsurance between 2000 and 2010 on the CPS is larger than that

on the BRFSS (5.6 percentage points compared with 2.9 percentage points), the NHIS—which, like the BRFSS, asks respondents about insurance coverage at the time of the survey—shows an increase in the uninsured rate among adults of 3.7 percentage points, which is closer to that found on the BRFSS (Appendix Tables 3 and 4). If, however, there are states where the BRFSS does underestimate the actual increase in uninsurance, this may result in understating the deterioration in access for adults.

In addition to these concerns, the BRFSS has two other potential limitations. First, the BRFSS relies on a random-digit dialing (RDD) sample frame; the representativeness of this technique has been questioned due to the potential bias induced by the rise of cell-phone only households as well as increasing levels of nonresponse to RDD surveys. This may not have been fully addressed by the new weights we developed.<sup>19,20</sup> However, the general national patterns of change over the past decade found on the BRFSS for the three access and use measures examined here, and the differences in these three measures between the insured and the uninsured, line up fairly closely with those found on the NHIS (Appendix Table 4).<sup>21</sup>

Second, almost 15 percent of the BRFSS respondents have missing income information in each year, and because the income data are collected in a limited set of categories that do not change over time, deriving comparable estimates of income relative to the federal poverty level is not possible. Previous studies have dealt with the incompleteness of the BRFSS income data in various ways, including dropping observations with missing data, excluding income data from the analysis, and using a variety of imputation methods.<sup>22</sup> Given these issues, we focus our primary analysis on the unadjusted estimates of access and use for nonelderly adults. When we do assess adjusted differences and changes, we do not control for income.



## APPENDIX TABLE 1: Changes in Access to Care for Adults between 2000(02) and 2010, by State

	Share with Unmet Needs Due to Cost			Share with Routine Checkup			Share with Dental Visit		
	2000	2010	% point change, 2000-2010	2000	2010	% point change, 2000-2010	2002	2010	% point change, 2002-2010
<b>United States</b>	<b>12.7%</b>	<b>18.7%</b>	<b>6.0***</b>	<b>68.3%</b>	<b>63.2%</b>	<b>-5.1***</b>	<b>69.1%</b>	<b>65.2%</b>	<b>-3.9***</b>
1 Alabama	14.8%	21.2%	6.4***	66.4%	71.9%	5.5***	68.7%	61.6%	-7.1***
2 Alaska	13.7%	14.3%	0.6	69.1%	62.6%	-6.5***	65.0%	67.5%	2.5
3 Arizona	14.5%	17.0%	2.5	69.9%	60.8%	-9.0***	63.3%	61.7%	-1.6
4 Arkansas	16.9%	21.5%	4.6***	62.0%	53.8%	-8.2***	60.7%	56.3%	-4.4**
5 California	14.7%	19.9%	5.1***	59.7%	60.1%	0.4	67.8%	64.6%	-3.1***
6 Colorado	11.8%	17.6%	5.8***	64.3%	56.0%	-8.3***	65.1%	64.0%	-1.1
7 Connecticut	9.7%	12.4%	2.8**	72.1%	67.3%	-4.8***	79.9%	79.1%	-0.9
8 Delaware	10.2%	15.5%	5.3***	75.5%	72.5%	-3.1*	72.1%	67.6%	-4.5**
9 District of Columbia	12.7%	11.5%	-1.2	78.9%	76.3%	-2.6	73.6%	73.1%	-0.4
10 Florida	15.9%	25.1%	9.2***	72.0%	62.3%	-9.7***	68.0%	57.8%	-10.3***
11 Georgia	13.6%	22.6%	9.0***	69.4%	72.4%	3.0**	65.5%	64.8%	-0.6
12 Hawaii	7.3%	9.7%	2.3**	74.0%	57.0%	-17.0***	65.0%	66.4%	1.4
13 Idaho	17.4%	20.6%	3.2***	57.1%	50.5%	-6.7***	66.8%	64.6%	-2.2
14 Illinois	8.3%	16.0%	7.7***	69.1%	59.2%	-9.9***	74.3%	66.4%	-7.9***
15 Indiana	12.5%	19.5%	7.0***	66.4%	58.2%	-8.2***	67.1%	64.4%	-2.7**
16 Iowa	7.7%	9.9%	2.2**	66.7%	68.5%	1.8	74.5%	74.7%	0.2
17 Kansas	10.0%	15.3%	5.4***	67.7%	66.2%	-1.5	72.0%	68.6%	-3.3***
18 Kentucky	16.8%	22.3%	5.5***	70.4%	57.6%	-12.8***	67.9%	59.3%	-8.6***
19 Louisiana	15.0%	23.9%	8.8***	75.0%	71.0%	-4.0***	65.9%	60.1%	-5.8***
20 Maine	12.9%	13.5%	0.5	72.6%	65.3%	-7.3***	70.9%	65.0%	-5.9***
21 Maryland	10.3%	15.4%	5.1***	75.5%	74.5%	-1.1	74.8%	71.7%	-3.2**
22 Massachusetts	7.4%	8.7%	1.2*	77.1%	76.8%	-0.3	77.9%	79.8%	1.9*
23 Michigan	10.1%	17.7%	7.6***	72.1%	60.9%	-11.2***	75.0%	67.8%	-7.2***
24 Minnesota	9.1%	11.7%	2.6**	65.5%	68.2%	2.7	74.9%	77.7%	2.8**
25 Mississippi	19.9%	26.0%	6.2***	67.5%	62.3%	-5.1***	59.9%	54.1%	-5.8***
26 Missouri	11.6%	16.6%	5.1***	68.9%	57.5%	-11.3***	64.7%	61.1%	-3.6**
27 Montana	13.7%	15.6%	1.9	60.5%	48.9%	-11.6***	65.2%	57.2%	-8.0***
28 Nebraska	7.1%	13.2%	6.1***	65.1%	52.6%	-12.5***	74.0%	66.6%	-7.4***
29 Nevada	16.4%	21.3%	4.9**	63.5%	56.5%	-7.0***	62.9%	62.4%	-0.6
30 New Hampshire	11.2%	14.2%	3.0**	71.0%	66.6%	-4.4***	77.3%	72.8%	-4.5***
31 New Jersey	8.1%	16.2%	8.1***	76.3%	73.4%	-3.0**	75.8%	73.3%	-2.5
32 New Mexico	15.5%	21.3%	5.8***	63.4%	57.0%	-6.5***	63.0%	60.7%	-2.3
33 New York	10.5%	15.5%	5.0***	77.9%	68.3%	-9.6***	71.6%	68.5%	-3.0**
34 North Carolina	14.0%	21.4%	7.4***	71.2%	70.8%	-0.4	68.7%	65.6%	-3.1**
35 North Dakota	8.4%	8.2%	-0.2	67.2%	61.1%	-6.0***	69.9%	71.1%	1.2
36 Ohio	13.9%	18.3%	4.5***	70.5%	64.9%	-5.6***	72.8%	67.4%	-5.4***
37 Oklahoma	12.9%	21.7%	8.8***	64.6%	52.1%	-12.4***	61.8%	53.9%	-7.9***
38 Oregon	15.2%	19.8%	4.6***	61.7%	49.4%	-12.3***	68.0%	66.2%	-1.7
39 Pennsylvania	10.2%	14.5%	4.3***	69.9%	63.4%	-6.4***	72.1%	69.4%	-2.8***
40 Rhode Island	9.1%	16.0%	6.9***	78.1%	74.3%	-3.8**	77.7%	74.4%	-3.3**
41 South Carolina	14.9%	21.2%	6.4***	73.7%	61.8%	-11.9***	67.1%	59.0%	-8.1***
42 South Dakota	8.9%	10.9%	2.1**	68.2%	63.2%	-5.0***	72.5%	71.8%	-0.7
43 Tennessee	11.2%	22.0%	10.8***	75.3%	74.7%	-0.6	71.1%	61.3%	-9.8***
44 Texas	18.2%	25.3%	7.0***	63.2%	55.2%	-8.0***	59.0%	53.7%	-5.3***
45 Utah	13.0%	17.4%	4.4***	59.3%	55.6%	-3.7**	72.7%	70.2%	-2.5*
46 Vermont	9.9%	10.5%	0.6	68.4%	60.2%	-8.2***	73.8%	73.0%	-0.9
47 Virginia	11.5%	16.7%	5.1***	66.7%	70.2%	3.5	68.5%	75.3%	6.8***
48 Washington	10.7%	16.9%	6.1***	62.7%	56.4%	-6.3***	69.5%	68.0%	-1.5
49 West Virginia	20.9%	22.0%	1.1	67.6%	68.9%	1.3	61.9%	59.7%	-2.2
50 Wisconsin	8.5%	13.0%	4.5***	59.2%	62.8%	3.6**	77.8%	71.3%	-6.5***
51 Wyoming	14.3%	14.2%	-0.1	56.1%	52.1%	-4.0**	67.6%	66.1%	-1.5

Source: 2000, 2002, and 2010 Behavioral Risk Factor Surveillance System.

NOTE: Adults are ages 19 to 64. The changes for unmet needs and routine checkup compare the years 2000 and 2010, while dental visit compares 2002 and 2010. Estimates with \*(\*\*)(\*\*\*) indicate that changes are significant at the 0.10 (0.05) (0.01) percent level.

## APPENDIX TABLE 2: Estimated Number of Non-elderly Adults with Unmet Needs due to Cost, by State in 2010

		Total Non-Elderly Adults with Unmet Needs	95% Confidence Interval	
			Lower Bound	Upper Bound
<b>United States</b>		<b>34,258,000</b>	<b>34,300,000</b>	<b>35,700,000</b>
1	Alabama	587,000	534,000	640,000
2	Alaska	61,000	50,000	73,000
3	Arizona	677,000	580,000	775,000
4	Arkansas	357,000	306,000	409,000
5	California	4,571,000	4,314,000	4,827,000
6	Colorado	552,000	506,000	598,000
7	Connecticut	261,000	223,000	299,000
8	Delaware	81,000	67,000	94,000
9	District of Columbia	46,000	39,000	54,000
10	Florida	2,781,000	2,581,000	2,982,000
11	Georgia	1,394,000	1,247,000	1,542,000
12	Hawaii	76,000	65,000	88,000
13	Idaho	189,000	171,000	207,000
14	Illinois	1,266,000	1,088,000	1,444,000
15	Indiana	748,000	683,000	813,000
16	Iowa	176,000	151,000	201,000
17	Kansas	260,000	234,000	285,000
18	Kentucky	590,000	534,000	646,000
19	Louisiana	648,000	587,000	708,000
20	Maine	109,000	97,000	121,000
21	Maryland	530,000	469,000	591,000
22	Massachusetts	356,000	315,000	396,000
23	Michigan	1,050,000	955,000	1,145,000
24	Minnesota	377,000	323,000	432,000
25	Mississippi	457,000	421,000	493,000
26	Missouri	594,000	524,000	663,000
27	Montana	92,000	82,000	102,000
28	Nebraska	138,000	123,000	154,000
29	Nevada	340,000	287,000	392,000
30	New Hampshire	117,000	103,000	131,000
31	New Jersey	864,000	787,000	940,000
32	New Mexico	252,000	225,000	278,000
33	New York	1,848,000	1,652,000	2,044,000
34	North Carolina	1,236,000	1,145,000	1,328,000
35	North Dakota	31,000	25,000	37,000
36	Ohio	1,277,000	1,159,000	1,396,000
37	Oklahoma	478,000	441,000	514,000
38	Oregon	466,000	405,000	528,000
39	Pennsylvania	1,097,000	1,000,000	1,195,000
40	Rhode Island	103,000	90,000	117,000
41	South Carolina	579,000	520,000	638,000
42	South Dakota	51,000	43,000	59,000
43	Tennessee	857,000	757,000	957,000
44	Texas	3,797,000	3,500,000	4,094,000
45	Utah	281,000	257,000	305,000
46	Vermont	40,000	35,000	46,000
47	Virginia	825,000	674,000	976,000
48	Washington	691,000	644,000	738,000
49	West Virginia	246,000	220,000	272,000
50	Wisconsin	448,000	370,000	527,000
51	Wyoming	46,000	41,000	51,000

Source: 2010 Behavioral Risk Factor Surveillance System.

NOTE: Adults are ages 19 to 64. Population estimates and confidence interval bounds are rounded to the nearest thousand.

### APPENDIX TABLE 3: Comparison of Share of Nonelderly Adults with No Insurance Coverage, by Year, State, and Source of Data

	CPS			BRFSS		
	2000	2010	2000–2010	2000	2010	2000–2010
<b>United States</b>	<b>16.5%</b>	<b>22.0%</b>	<b>5.6%</b>	<b>17.7%</b>	<b>20.6%</b>	<b>2.9%</b>
1 Alabama	16.3	21.2	5.0	20.9	21.9	1.0
2 Alaska	21.3	22.3	1.0	21.0	20.2	-0.9
3 Arizona	20.1	23.9	3.8	23.6	20.9	-2.7
4 Arkansas	18.9	27.2	8.3	22.9	28.3	5.4
5 California	21.8	26.0	4.2	21.9	21.1	-0.8
6 Colorado	15.2	17.3	2.1	17.5	20.4	2.9
7 Connecticut	12.2	14.8	2.6	11.2	13.4	2.2
8 Delaware	11.4	15.6	4.1	11.4	13.7	2.3
9 District of Columbia	16.1	16.3	0.2	14.4	8.3	-6.1
10 Florida	20.4	28.6	8.2	23.4	26.2	2.7
11 Georgia	17.1	26.4	9.3	17.0	23.9	6.9
12 Hawaii	9.9	11.7	1.8	8.3	8.9	0.5
13 Idaho	18.9	27.6	8.7	22.5	26.3	3.9
14 Illinois	15.3	20.3	5.1	14.2	17.6	3.5
15 Indiana	12.2	19.5	7.2	13.9	19.9	6.0
16 Iowa	10.3	16.5	6.2	12.0	14.4	2.4
17 Kansas	12.2	18.0	5.9	13.7	18.5	4.7
18 Kentucky	17.0	20.8	3.8	18.2	23.2	5.0
19 Louisiana	20.8	28.7	8.0	27.3	26.9	-0.5
20 Maine	13.5	13.6	0.0	17.8	16.2	-1.5
21 Maryland	11.3	16.7	5.4	13.2	14.3	1.1
22 Massachusetts	9.3	7.3	-2.0	10.4	6.0	-4.5
23 Michigan	10.7	19.0	8.3	11.5	18.2	6.7
24 Minnesota	9.9	13.3	3.4	8.8	11.5	2.7
25 Mississippi	18.1	29.2	11.1	24.4	27.7	3.2
26 Missouri	11.3	19.0	7.8	14.4	20.0	5.6
27 Montana	19.9	26.1	6.1	19.8	23.6	3.8
28 Nebraska	10.3	17.1	6.8	12.2	18.0	5.8
29 Nevada	18.4	26.8	8.3	18.0	26.9	8.9
30 New Hampshire	10.4	14.0	3.6	11.3	15.2	3.9
31 New Jersey	13.5	20.6	7.2	15.2	15.8	0.5
32 New Mexico	29.5	29.6	0.1	29.4	26.4	-3.0
33 New York	19.6	20.1	0.6	16.6	15.8	-0.8
34 North Carolina	15.7	23.8	8.0	15.9	24.6	8.7
35 North Dakota	12.6	17.2	4.6	15.3	14.1	-1.1
36 Ohio	12.2	18.4	6.3	14.4	17.9	3.5
37 Oklahoma	22.3	23.3	0.9	21.9	25.4	3.5
38 Oregon	14.8	21.7	6.9	18.3	21.7	3.4
39 Pennsylvania	10.0	14.7	4.7	12.5	15.8	3.3
40 Rhode Island	10.1	15.8	5.7	13.8	17.9	4.1
41 South Carolina	14.3	27.7	13.4	18.7	23.9	5.2
42 South Dakota	13.8	18.7	4.8	14.0	14.6	0.6
43 Tennessee	14.0	20.4	6.4	13.7	21.9	8.2
44 Texas	25.2	31.9	6.7	28.7	32.8	4.0
45 Utah	13.5	17.2	3.7	14.4	20.6	6.2
46 Vermont	10.3	12.9	2.6	12.5	11.0	-1.5
47 Virginia	12.0	18.9	6.9	14.3	16.9	2.6
48 Washington	17.2	20.0	2.8	13.6	20.5	6.9
49 West Virginia	17.3	20.1	2.8	25.2	22.6	-2.6
50 Wisconsin	9.4	13.3	3.9	9.5	15.0	5.5
51 Wyoming	18.2	23.3	5.0	21.8	20.9	-0.9

Source: 2000 and 2010, CPS and BRFSS.

NOTE: Nonelderly adults are ages 19 to 64.

## APPENDIX TABLE 4: Comparison of Characteristics of Nonelderly Adults, by Year and Source of Data

### NHIS

	2000	2010	Percentage Point Change, 2000-2010
<b>Access Measures</b>			
Unmet (non-dental) Medical Need	9.6%	16.7%	7.1*
Any Office Visit	81.6%	80.3%	-1.3*
Any Dentist Visit	65.5%	61.0%	-4.4*
<b>Demographic, Socioeconomic, and Health Status Controls</b>			
Age (Years)	39.8	40.9	1.1*#
Female	51.2%	50.8%	-0.3
Health Fair/Poor	8.8%	10.5%	1.7*
Health Good	22.4%	25.4%	3.0*
Health Very Good	33.3%	33.5%	0.2
Health Excellent	35.6%	30.7%	-4.9*
Hispanic	11.2%	15.1%	3.9*
Black, Non-Hispanic	11.6%	12.4%	0.8
Other Race, Non-Hispanic	4.5%	5.7%	1.2*
White, Non-Hispanic	72.7%	66.7%	-6.0*
Insured	82.2%	78.5%	-3.7*
ESI or Other Private Insurance	75.7%	67.3%	-8.5*
Medicaid or Other Public Insurance	4.7%	8.5%	3.8*
Medicare	1.8%	2.7%	0.9*
Uninsured	17.8%	21.5%	3.7*

### BRFSS

	2000	2002	2010	Percentage Point Change, 2000(02)-2010
<b>Access Measures</b>				
Did Not See a Doctor When Needed Due to Cost, Past 12 Months	12.7%		18.7%	6.0*
Had Routine Checkup, Past 12 Months	68.3%		63.2%	-5.1*
Any Dentist Visit, Past 12 Months		69.1%	65.2%	-3.9*
<b>Demographic, Socioeconomic, and Health Status Controls</b>				
Age (Years)	40.0		41.9	1.9*#
Female	51.0%		51.1%	0.1
Health Fair/Poor	13.7%		16.0%	2.3*
Health Good	29.5%		30.6%	1.1*
Health Very Good	34.1%		32.9%	-1.2*
Health Excellent	22.6%		20.4%	-2.2*
Hispanic	12.5%		16.1%	3.6*
Black, Non-Hispanic	10.7%		11.0%	0.3
Other Race, Non-Hispanic	5.0%		8.0%	3.0*
White, Non-Hispanic	71.8%		64.9%	-6.9*
Has Health Insurance	82.3%		79.4%	-2.9*

Source: 2000 and 2010 NHIS, 2000, 2002, and 2010 BRFSS.

NOTES: Nonelderly adults are ages 19 to 64. Percentage point changes with \* are statistically significant at the 0.05 percent level. Changes in age, marked with #, are not percentage point changes but are just the differences in mean age between the 2000 and 2010 survey populations.

# ENDNOTES

1. See G. Kenney, S. McMorrow, S. Zuckerman, and D. Goin, "A Decade of Health Care Access Declines for Adults Holds Implications for Changes in The Affordable Care Act." *Health Affairs* 31, no. 5 (2012).
2. State Health Access Data Assistance Center (SHADAC), *State Health Access Profile: A Chartbook of Health Care Access Indicators for States* (Minneapolis, MN: SHADAC, December 2007); Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS), Health, United States, 2010 Chartbook (Hyattsville, MD: NCHS, 2010). Available at: <http://www.cdc.gov/nchs/data/hus/hus10.pdf#listfigures>.
3. Available at: [http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2011/Feb/Child%20Health%20Scorecard/1468\\_How\\_securing\\_a\\_healthy\\_future\\_state\\_scorecard\\_child\\_hlt\\_sys\\_performance\\_2011\\_web\\_final\\_v8.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2011/Feb/Child%20Health%20Scorecard/1468_How_securing_a_healthy_future_state_scorecard_child_hlt_sys_performance_2011_web_final_v8.pdf).
4. When categorizing the states into terciles based on rates of uninsurance in 2010, we found that the BRFFS and Current Population Survey yielded similar groupings. Only 14 states (out of 51) changed groups when switching between surveys.
5. The pattern of change across states over the past decade was similar for all nonelderly adults when we examined adjusted differences that control for age, race/ethnicity, gender, and health status: 19 states experienced declines in all three measures; 19 states experienced declines in two of the three measures; 11 states experienced a decline in just one measure; and two states experienced no statistically significant decline in any of the three measures.
6. Similar to the unadjusted comparisons, in the adjusted comparisons, no state experienced a statistically significant decrease in the share with unmet needs, and none experienced statistically significant increases in the share with a routine visit. Three states experienced a statistically significant increase in the share with a dental visit.
7. The patterns were similar in terms of the adjusted changes for the uninsured: 29 states experienced a statistically significant increase in unmet needs due to costs; 40 states experienced a statistically significant decrease in the share with a routine visit, and 26 states experienced a statistically significant decrease in the share with a dental visit. In the adjusted changes, however, one state (Minnesota) had a statistically significant increase in the share with a dental visit.
8. Tests of differences in the state-level changes for the uninsured compared with the insured are made using a significance level of 0.1.
9. Similarly, in terms of the adjusted differences, there were statistically significant declines in all three of the access measures for the uninsured in 15 states; in two of the three measures in 19 states; in just one measure in 12 states, and in none of the measures in 5 states.
10. In the typical state, the BRFFS sample size in a given year is approximately six times larger for all adults than for uninsured adults.
11. When we examine adjusted differences between the insured and the uninsured for 2010, we find slightly lower national differentials (36.9 percentage points vs. 33.2 percentage points in terms of unmet needs, 31.8 vs. 30.7 percentage points in terms of routine checkup receipt, and 34.8 vs. 30.1 percentage points in terms of dental visit receipt). Although there is a tendency across states for the adjusted differences to be smaller than the unadjusted differences, even for the adjusted differences, the uninsured have worse access than the insured for each measure and the gap is greater than 20 percentage points in the vast majority of cases.
12. The correlation between the state-level gap of the insured and uninsured is 0.4 for receipt of a routine checkup and dental visit, -0.36 for unmet needs due to cost and receipt of routine checkup, and -0.42 for unmet needs due to cost and proportion with a dental visit.
13. Insured adults in states with the lowest uninsurance rates are less likely to have an unmet need (8.9 percent vs. 13.1 percent), more likely to have a routine checkup (72.8 percent vs. 71.4 percent), and more likely to have a dental visit (76.4 percent vs. 68.0 percent) than those in states with the highest uninsurance rates. Uninsured adults in states with the lowest uninsurance rates are less likely to have an unmet need (43.7 percent vs. 51.7 percent), more likely to have a routine checkup (41.9 percent vs. 38.1 percent) and more likely to have a dental visit (45.3 percent vs. 33.9 percent) than those in states with the highest uninsurance rates.
14. McMorrow, Stacey, "Spillover Effects of the Uninsured" (2009). Publicly accessible Penn Dissertations. Paper 63. <http://repository.upenn.edu/edissertations/63>; Gresenz, C.R. and J.J. Escarce. 2011. "Spillover Effects of Community Uninsurance on Working-age Adults and Seniors: An Instrumental Variables Analysis" *Medical Care* 49(9): e14-e21.; Pagan, J.A. and M.V. Pauly. 2006. "Community-Level Uninsurance and the Unmet Medical Needs of Insured and Uninsured Adults." *Health Services Research* 41(3): 788-803.; Pauly, M.V. and J.A. Pagan. 2007. "Spillovers and Vulnerability: The Case of Community Uninsurance" *Health Affairs* 26(5): 1304-1314.
15. A. Finkelstein, S. Taubman, B. Wright, M. Bernstein, J. Gruber, J.P. Newhouse et al., "The Oregon Health Insurance Experiment: Evidence from the First Year" (Cambridge, MA: National Bureau of Economic Research, July 2011). Available from: <http://www.nber.org/papers/w17190.pdf>; Institute of Medicine, "America's Uninsured Crisis: Consequences for Health and Health Care" (Washington, DC: National Academies Press, 2009).
16. F. Blavin, J. Holahan, G. Kenney, and V. Chen, "A Decade of Coverage Losses: Implications for the Affordable Care Act" (Washington, DC: The Urban Institute, February 2012). Available at <http://www.urban.org/publications/412514.html>.
17. For the three years of BRFFS that we analyze, the weights provided by the CDC for BRFFS were post-stratified to population distributions for each state from the U.S. Census Bureau on age and sex by state; in some states and in years, the weights were also post-stratified to population shares of non-Hispanic whites or to age or race distributions within regions of the state. Although the degree of post-stratification has changed over time, we were concerned that such procedures were insufficient to account for possible changes in BRFFS estimates resulting from the increased share of households without landline telephones and reductions in response rates on the BRFFS.
18. Michael P. Battaglia, Martin R. Frankel, and Michael Link, "An Examination of Poststratification Techniques for the Behavioral Risk Factor Surveillance System," ASA Section on Survey Research Methods (2006), 2727-2733. Available at: <http://www.amstat.org/sections/srms/proceedings/y2006/files/jsm2006-000144.pdf>.
19. The CDC is currently conducting pilot studies to examine ways to improve data quality (<http://www.cdc.gov/brfss/pubs/methodology.htm>). There are also plans to implement new weighting methodology in 2011, using iterative proportional fitting (raking). All states will include the following margins in the post-stratification weighting process: age by gender, race/ethnicity, education, marital status, interruption in telephone service, gender by race/ethnicity, age by race/ethnicity, and telephone usage groups. See [http://claudie.com/PDF\\_Files/WeightingDual%20FrameRegional%20Training09.pdf](http://claudie.com/PDF_Files/WeightingDual%20FrameRegional%20Training09.pdf) for details.
20. The Council of American Survey Research Organizations (CASRO) response rate is a calculation of the number of completed interviews over the number of eligible units in a state sample. In 2000, the median CASRO state response rate was 48.9 percent, with a maximum of 71.8 percent in Montana and a minimum of 28.8 percent in New Jersey. In 2002, the median rate was 58.3 percent, with a maximum of 82.6 percent in Minnesota and a minimum of 42.2 percent in New Jersey. In 2010, the median response rate was 54.6 percent, with a minimum of 39.1 percent in Oregon and a maximum of 68.8 percent in Nebraska.
21. The BRFFS shows an increase in unmet needs of 6.0 percentage points from 2000 to 2010, compared with 7.1 percentage points on the NHIS. Declines of 5.1 and 3.9 percentage points on routine checkups and dental visits on the BRFFS compare with declines of 1.3 and 4.4 percentage points on the NHIS. Office visits and routine checkups are capturing slightly different concepts, which may explain the discrepancy found on that measure. The BRFFS also measures the dental visit decline over a shorter time period, which may explain the somewhat smaller decline.
22. G. Guy, "The Effects of Cost Sharing on Access to Care among Childless Adults," *Health Services Research* 45, no. 5 (Dec 2010), 1720-1739. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1475-6773.2010.01162.x/pdf>; C. A. DuBard and Z. Gizlice, "Language Spoken and Differences in Health Status, Access to Care, and Receipt of Preventive Services Among U.S. Hispanics," *American Journal of Public Health* 98, no. 11 (Nov 2008), 2021-2028; W. Davis, V. Parsons, D. Xie, N. Schenker, M. Town, T. Raghunathan, and E. Feuer, "State-Based Estimates of Mammography Screening Rates Based on Information from Two Health Surveys," *Public Health Reports* 125, no. 4 (July-Aug 2010), 567-578. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2882608/pdf/phr125000567.pdf>; D. Hayes, A. Fan, R. Smith, and J. Bombard, "Trends in Selected Chronic Conditions and Behavioral Risk Factors Among Women of Reproductive Age, Behavioral Risk Factor Surveillance System, 2001-2009," *Public Health Research, Practice and Policy* 8, no. 6 (Nov 2011), 1-8. Available at: [http://www.cdc.gov/pdcd/issues/2011/nov/pdf/10\\_0083.pdf](http://www.cdc.gov/pdcd/issues/2011/nov/pdf/10_0083.pdf); J.W. LeMaster, F. Chanetsa, J. Kapp, and B. Waterman, "Racial Disparities in Diabetes-related Preventive Care: Results from the Missouri Behavioral Risk Factor Surveillance System," *Preventing Chronic Disease* 3, no. 3 (July 2006), A86; C. Smigal, A. Jemal, E. Ward, V. Cokkinides, R. Smith, H. Howe, and M. Thun, "Trends in Breast Cancer by Race and Ethnicity: Update 2006," *CA - A Cancer Journal for Clinicians* 56, no. 3 (May-Jun 2006), 168-83, Available at: <http://onlinelibrary.wiley.com/doi/10.3322/canjclin.56.3.168/pdf>.