IMPORTANCE  The Affordable Care Act (ACA) completed its second open enrollment period in February 2015. Assessing the law’s effects has major policy implications.

OBJECTIVES  To estimate national changes in self-reported coverage, access to care, and health during the ACA’s first 2 open enrollment periods and to assess differences between low-income adults in states that expanded Medicaid and in states that did not expand Medicaid.

DESIGN, SETTING, AND PARTICIPANTS  Analysis of the 2012-2015 Gallup-Healthways Well-Being Index, a daily national telephone survey. Using multivariable regression to adjust for pre-ACA trends and sociodemographics, we examined changes in outcomes for the nonelderly US adult population aged 18 through 64 years (n = 507 055) since the first open enrollment period began in October 2013. Linear regressions were used to model each outcome as a function of a linear monthly time trend and quarterly indicators. Then, pre-ACA (January 2012-September 2013) and post-ACA (January 2014-March 2015) changes for adults with incomes below 138% of the poverty level in Medicaid expansion states (n = 48 905 among 28 states and Washington, DC) vs nonexpansion states (n = 37 283 among 22 states) were compared using a differences-in-differences approach.

EXPOSURES  Beginning of the ACA’s first open enrollment period (October 2013).

MAIN OUTCOMES AND MEASURES  Self-reported rates of being uninsured, lacking a personal physician, lacking easy access to medicine, inability to afford needed care, overall health status, and health-related activity limitations.

RESULTS  Among the 507 055 adults in this survey, pre-ACA trends were significantly worsening for all outcomes. Compared with the pre-ACA trends, by the first quarter of 2015, the adjusted proportions who were uninsured decreased by 7.9 percentage points (95% CI, −9.1 to −6.7); who lacked a personal physician, −3.5 percentage points (95% CI, −4.8 to −2.2); who lacked easy access to medicine, −2.4 percentage points (95% CI, −3.3 to −1.5); who were unable to afford care, −5.5 percentage points (95% CI, −6.7 to −4.2); who reported fair/poor health, −3.4 percentage points (95% CI, −4.6 to −2.2); and the percentage of days with activities limited by health, −1.7 percentage points (95% CI, −2.4 to −0.9). Coverage changes were largest among minorities; for example, the decrease in the uninsured rate was larger among Latino adults (−11.9 percentage points [95% CI, −15.3 to −8.5]) than white adults (−6.1 percentage points [95% CI, −7.3 to −4.8]). Medicaid expansion was associated with significant reductions among low-income adults in the uninsured rate (differences-in-differences estimate, −5.2 percentage points [95% CI, −7.9 to −2.6]), lacking a personal physician (−1.8 percentage points [95% CI, −3.4 to −0.3]), and difficulty accessing medicine (−2.2 percentage points [95% CI, −3.8 to −0.7]).

CONCLUSIONS AND RELEVANCE  The ACA’s first 2 open enrollment periods were associated with significantly improved trends in self-reported coverage, access to primary care and medications, affordability, and health. Low-income adults in states that expanded Medicaid reported significant gains in insurance coverage and access compared with adults in states that did not expand Medicaid.

he Affordable Care Act’s (ACA’s) Medicaid expansion and new subsidized private coverage from insurance marketplaces have entered their second year. The law’s first 2 open enrollment periods are complete, the most recent finishing February 15, 2015. The US Department of Health and Human Services (HHS) reported that 11.7 million individuals signed up for marketplace coverage,1 and 12.2 million more were enrolled in Medicaid and the Children’s Health Insurance Program as of March 2015 compared with mid-2013.2 Surveys show significant decreases in the uninsured rate since early 2014,3-5 with coverage gains largest in states that expanded Medicaid.6-8 However, most analyses have not adjusted for factors other than the ACA that can affect coverage, including the economy and baseline trends.

Moreover, how coverage expansion is affecting access to care and health remains an important question. Several analyses have found preliminary declines in cost-related barriers to care under the ACA.8,9 Prior expansions (state Medicaid expansions, Massachusetts’ 2006 health reform, and the ACA’s 2010 provision allowing young adults to stay on their parents’ plans until age 26 years) also produced improvements in access to care and self-reported health within the first 2 years of coverage.10-15 Whether similar changes have occurred in the current coverage expansion is unknown.

The objectives of this study were to assess national changes in self-reported coverage, access to care, and health during the law’s first 2 open enrollment periods, and to assess differences between low-income adults in states that expanded Medicaid and their counterparts in nonexpanding states.

Methods
This study used a survey approved by the Gallup Corporation’s institutional review board. The authors at HHS only had access to deidentified data, which is exempted as nonhuman subjects research under the HHS Common Rule.

Study Design
This study examined changes in trends over time for the uninsured rate, measures of access to care, and self-reported health status under the ACA using multivariable regression to adjust for important confounders such as unemployment and income. Two alternative models were used, one using quarterly indicators to measure changes from the baseline pre-ACA trend and the other using an interrupted time-series design in which the slope of changes in each outcome was allowed to shift as of October 2013, when the first open enrollment period began. The data spanned January 1, 2012, through March 31, 2015. The study period began in 2012 because major insurance changes were occurring throughout 2010-2011 due to the ACA’s dependent coverage provision.7,16-17

Although there is no clear control group to assess the law’s overall effect across all income groups, the Medicaid expansion, which began on January 1, 2014, in most participating states, did offer a natural control group for lower-income adults: states that elected not to expand Medicaid. A differences-in-differences design was used to compare changes in outcomes among low-income adults in expansion vs nonexpansion states.

Data
The data source for these analyses was the Gallup-Healthways Well-Being Index (WBI), a continuously fielded daily telephone survey of US adults that includes cell phone and landline users in all 50 states and Washington, DC. The WBI offers several advantages: a large national sample, rapid availability of data allowing for analysis of results after the end of the second open enrollment period, and several outcomes related to access to care and health. The survey’s primary limitation is its low response rate, between 5% and 10%, similar to other household telephone polls without financial incentives for participation.18,19 However, previous research showed that the WBI provides estimates of changes in the uninsured rate over time and estimates related to access to care and health status that correlate closely to those from federal surveys generally considered the gold standard for these outcomes.20 Moreover, previously published analyses with the WBI have shown strong correlation with official enrollment statistics for the ACA and with subsequently released survey data from the federal interview surveys.7,8,21,22 Following previous work,8 these results were weighted to national demographic benchmarks from census data to mitigate potential nonresponse bias (additional details on the WBI are in the eMethods in the Supplement).23

The main study outcomes were 6 self-reported measures: being uninsured, not having a personal physician, whether it is “easy to get” medications, difficulties affording needed medical care for an individual or family member in the past year, overall health status, and percentage of days in the past month in which activities were limited by poor health (for question wording, see the eMethods in the Supplement). To facilitate comparison, all measures were converted so that higher proportions indicated adverse outcomes (being uninsured, lacking a personal physician, poor health status, etc).

Statistical Analysis
The first part of the analysis used the full national sample of nonelderly adults, aged 18 through 64 years, surveyed between January 1, 2012, and March 31, 2015. Linear regressions modeled each outcome as a function of a linear monthly time trend and quarterly indicators since the beginning of the first open enrollment period in October 2013. Although coverage in the marketplaces did not begin until January 2014, October 2013 through December 2013 was treated as part of the ACA implementation period because some open enrollment applicants were found eligible for Medicaid during this time, and other respondents may have reported having coverage even though it did not take effect until January 1, 2014. The quarterly indicators (culminating in the first quarter of 2015) measured changes from the baseline trend in each outcome. The models adjusted for age, sex, race/ethnicity, marital status, employment, income, urban vs rural residence, state-year spe...
Results

The full sample included 507,055 adults, and the low-income sample included 48,905 in the 28 states and Washington, DC that expanded Medicaid prior to March 2015 and 37,283 adults in the 22 states that had not expanded Medicaid (Table 1). Compared with the full sample, the low-income sample was younger and less likely to be white, male, or employed. Roughly half of both samples reported at least 1 chronic condition.

Trends in Self-reported Coverage, Access, and Health

Interrupted time-series models (eTable 1 in the Supplement) showed that for all 6 outcomes, post-ACA changes demonstrated significant improvements from the pre-ACA adverse trends. For 5 of 6 variables, the coefficient for the adjusted post-ACA trend was larger than the coefficient for the pre-ACA trend, indicating a net reversal in trend after the ACA's first open enrollment period. For the uninsured rate, with the superimposed regression-based trend was −0.44% per month (95% CI, −0.45% to −0.39%), yielding an absolute change of −0.34% per month (95% CI, −0.39% to −0.30%). Figure 2 shows the adjusted scatterplot for the uninsured rate, with the superimposed regression-based time trends (eFigures 1-5 in the Supplement show similar scatterplots for the remaining outcomes). For days limited by poor health, the pre-ACA adverse trend slowed but did not reverse after October 2013.

Adjusted changes in the first quarter of 2015 by subgroup are shown in Table 3. Changes in insurance and access to medications varied significantly by race/ethnicity, with greater changes among minorities. The reduction in the uninsured rate among Latino adults (−11.9% [95% CI, −12.6% to −11.3%]) was significantly greater than the reduction among White non-Hispanic adults (−2.4% [95% CI, −3.2% to −1.6%]) (P < .001).

Analyses were conducted using Stata, version 12.0. Statistical significance was set at P ≤ .05, using 2-tailed tests.

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Outcomes by State Participation in Medicaid Expansion

The results of the differences-in-differences analysis of the Medicaid expansion (Table 4) demonstrated that the uninsured rate declined among low-income adults in both expansion and nonexpansion states, but with a significantly greater reduction in the expansion states (differences-in-differences estimate, −5.2 percentage points [95% CI, −7.9 to −2.6]). Lacking a personal physician, 0.4% to 0.6%; fair or poor health, 0.3% to 0.5%; cannot afford care, 0.4% to 0.6%; uninsured rate, 0.4% to 0.6%; percentage of the previous 30 days with activities limited by poor health, 0.2% to 0.3%; and no easy access to medicine, 0.2% to 0.4%.

Sample for each variable contains adults aged 18 to 64 years (n = 507 055). The dotted vertical line represents the beginning of the Affordable Care Act’s (ACA’s) initial open enrollment period on October 1, 2013. All estimates presented are monthly unadjusted means. Monthly standard errors: no personal physician, 0.4% to 0.6%; fair or poor health, 0.3% to 0.5%; cannot afford care, 0.4% to 0.6%; uninsured rate, 0.4% to 0.6%; percentage of the previous 30 days with activities limited by poor health, 0.2% to 0.3%; and no easy access to medicine, 0.2% to 0.4%.

−15.3% to −8.5%) was greater than the reduction among white adults (−6.1% [95% CI, −7.3% to −4.8%]; between-group difference, <.001). Changes in the uninsured rate, lack of a personal physician, and self-reported health did not vary significantly by sex, rurality, or the presence of chronic medical conditions. Improvement in access to medicine was significantly greater for urban residents than rural residents, and affordability of care improved significantly more for men than women.
Abbreviation: ACA, Affordable Care Act.

Table 2. Adjusted Changes in Self-reported Coverage, Access to Care, and Health After the ACA’s First Open Enrollment Period

<table>
<thead>
<tr>
<th>Sample Size, No.*</th>
<th>Pre-ACA</th>
<th>Adjusted Change From Trend*</th>
<th>Post-ACA, First Quarter of 2014</th>
<th>Post-ACA, Third Quarter of 2014</th>
<th>Post-ACA, First Quarter of 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured</td>
<td>507 055</td>
<td>20.3 (20.2 to 20.5)</td>
<td>19.0 (18.4 to 19.5)</td>
<td>16.2 (15.7 to 16.8)</td>
<td>14.5 (14.0 to 15.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.12 (0.08 to 0.15)</td>
<td>−2.8 (−3.7 to −1.9)</td>
<td>−5.5 (−6.4 to −4.6)</td>
<td>−7.9 (−9.1 to −6.7)</td>
</tr>
<tr>
<td>No personal physician</td>
<td>506 188</td>
<td>25.7 (25.5 to 25.9)</td>
<td>26.8 (26.1 to 27.4)</td>
<td>25.9 (25.3 to 26.5)</td>
<td>25.8 (25.2 to 26.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.13 (0.09 to 0.17)</td>
<td>−1.4 (−2.4 to −0.4)</td>
<td>−2.1 (−3.1 to −1.1)</td>
<td>−3.5 (−4.8 to −2.2)</td>
</tr>
<tr>
<td>No easy access to medicine</td>
<td>502 019</td>
<td>8.6 (8.5 to 8.8)</td>
<td>8.2 (7.8 to 8.6)</td>
<td>8.2 (7.8 to 8.6)</td>
<td>8.0 (7.6 to 8.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.10 (0.07 to 0.13)</td>
<td>−1.5 (−2.2 to −0.8)</td>
<td>−1.6 (−2.3 to −0.9)</td>
<td>−2.4 (−3.3 to −1.5)</td>
</tr>
<tr>
<td>Cannot afford care</td>
<td>504 818</td>
<td>20.4 (20.2 to 20.6)</td>
<td>20.1 (19.5 to 20.7)</td>
<td>18.7 (18.1 to 19.2)</td>
<td>17.8 (17.3 to 18.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.15 (0.11 to 0.19)</td>
<td>−2.3 (−3.2 to −1.3)</td>
<td>−3.3 (−4.2 to −2.4)</td>
<td>−5.5 (−6.7 to −4.2)</td>
</tr>
<tr>
<td>Fair/poor health</td>
<td>507 055</td>
<td>18.3 (18.1 to 18.5)</td>
<td>19.8 (19.2 to 20.4)</td>
<td>18.8 (18.3 to 19.4)</td>
<td>18.8 (18.3 to 19.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.15 (0.11 to 0.18)</td>
<td>−1.2 (−2.1 to −0.3)</td>
<td>−2.3 (−3.1 to −1.4)</td>
<td>−3.4 (−4.6 to −2.2)</td>
</tr>
<tr>
<td>% of Last 30 days in which activities were limited by poor health</td>
<td>502 134</td>
<td>9.8 (9.7 to 9.9)</td>
<td>10.4 (10.1 to 10.7)</td>
<td>10.2 (9.9 to 10.5)</td>
<td>10.5 (10.2 to 10.9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.07 (0.05 to 0.10)</td>
<td>−1.2 (−1.7 to −0.6)</td>
<td>−0.9 (−1.5 to −0.4)</td>
<td>−1.7 (−2.4 to −0.9)</td>
</tr>
</tbody>
</table>

* The adjusted change from trend is based on multivariable linear regression models controlling for the pre-ACA linear time trend, state, age, sex, race/ethnicity, marital status, urban vs rural residence, employment status, income, state-year unemployment rate, and calendar month. All adjusted changes were significant at P<.01.

Changes in fair/poor health or activity limitations due to health. Results were similar when using an alternative imputation approach for income or excluding missing values (eTable 2 in the Supplement).

Pre-ACA trends for study outcomes did not differ significantly by expansion status, except for difficulty affording care, which was slightly worsening in expansion states relative to nonexpansion states prior to 2014 (eTable 3 in the Supplement).

Figure 3 shows the unadjusted time trend in the uninsured rates for low-income adults in expansion vs nonexpansion states, demonstrating a divergence beginning in January 2014.

Discussion

This analysis of a large national survey of US adults demonstrated significant improvements in trends for self-reported coverage, access to a personal physician and medications, and health after the ACA’s first and second open enrollment periods. Consistent with other research,28 we found that national trends in coverage and access prior to the ACA were worsening. Those trends improved after October 2013, when the ACA’s open enrollment began. Subgroup analyses demonstrated that the largest improvements in coverage and access to medicine occurred among racial/ethnic minorities. The results suggest that the ACA may be associated with reductions in long-standing disparities in access to care.29 one of the goals of the ACA.
### Table 3. Changes in Self-reported Coverage, Access to Care, and Health After the ACA’s First Open Enrollment Period by Subgroup

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size, No.</th>
<th>First Quarter of 2015 Adjusted Change Compared With Pre-ACA Trend</th>
<th>% of Last 30 Days in Which Activities Were Limited By Poor Health</th>
<th>P Value&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Uninsured (Adjusted Change (95% CI)&lt;sup&gt;a&lt;/sup&gt;)</td>
<td>No Personal Physician (Adjusted Change (95% CI)&lt;sup&gt;a&lt;/sup&gt;)</td>
<td>Cannot Afford Care (Adjusted Change (95% CI)&lt;sup&gt;a&lt;/sup&gt;)</td>
</tr>
<tr>
<td><strong>Full sample</strong></td>
<td>507 055</td>
<td>-7.9 (-9.1 to -6.7)</td>
<td>-3.5 (-4.8 to -2.2)</td>
<td>-2.4 (-3.3 to -1.5)</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Latino white</td>
<td>347 849</td>
<td>-6.1 (-7.3 to -4.8)</td>
<td>-3.0 (-4.4 to -1.6)</td>
<td>-0.8 (-1.8 to -0.1)</td>
</tr>
<tr>
<td>Latino</td>
<td>55 126</td>
<td>-11.9 (-15.3 to -8.5)</td>
<td>-3.5 (-7.0 to -0.1)</td>
<td>-5.1 (-7.6 to -2.5)</td>
</tr>
<tr>
<td>Non-Latino black</td>
<td>41 905</td>
<td>-10.8 (-14.1 to -7.4)</td>
<td>-5.8 (-9.4 to -2.2)</td>
<td>-4.4 (-7.1 to -1.8)</td>
</tr>
<tr>
<td>Other&lt;sup&gt;c&lt;/sup&gt;</td>
<td>62 175</td>
<td>-10.6 (-13.8 to -7.4)</td>
<td>-4.3 (-7.9 to -0.7)</td>
<td>-6.1 (-8.6 to -3.5)</td>
</tr>
<tr>
<td><strong>Chronic medical conditions&lt;sup&gt;d&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>262 318</td>
<td>-7.7 (-9.2 to -6.2)</td>
<td>-3.4 (-4.9 to -1.9)</td>
<td>-2.8 (-4.0 to -1.5)</td>
</tr>
<tr>
<td>No</td>
<td>244 737</td>
<td>-8.3 (-9.8 to -6.7)</td>
<td>-4.2 (-6.0 to -2.5)</td>
<td>-1.9 (-3.0 to -0.8)</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Urban</td>
<td>401 291</td>
<td>-7.9 (-9.2 to -6.6)</td>
<td>-3.6 (-5.0 to -2.2)</td>
<td>-3.1 (-4.0 to -2.1)</td>
</tr>
<tr>
<td>Rural</td>
<td>105 764</td>
<td>-8.0 (-10.3 to -5.6)</td>
<td>-3.4 (-5.8 to -0.9)</td>
<td>-3.1 (-4.0 to -2.1)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>266 200</td>
<td>-7.3 (-8.8 to -5.7)</td>
<td>-2.9 (-4.7 to -1.2)</td>
<td>-2.4 (-3.5 to -1.2)</td>
</tr>
<tr>
<td>Women</td>
<td>240 855</td>
<td>-8.6 (-10.1 to -7.0)</td>
<td>-4.1 (-5.7 to -2.5)</td>
<td>-2.5 (-3.7 to -1.2)</td>
</tr>
</tbody>
</table>

Abbreviation: ACA, Affordable Care Act.

<sup>a</sup> The adjusted change from trend is based on multivariable linear regression models controlling for the pre-ACA linear time trend, state, age, sex, race/ethnicity, marital status, urban vs rural residence, employment status, income, state/year unemployment rate, and calendar month. Each subgroup model (race, chronic condition, urban/rural, and sex) included interaction terms for each subgroup with the time trend and quarterly indicators from the fourth quarter of 2013 through the first quarter of 2015 (only the latter is reported in this Table for simplicity), as well as a binary indicator for each listed subgroup.

<sup>b</sup> The between-group P value reports the adjusted Wald test of equivalence across subgroups of the first quarter of 2015 adjusted change estimates.

<sup>c</sup> Includes individuals reporting more than 1 race and those who did not provide an answer to this question.

<sup>d</sup> Chronic conditions in the survey are hypertension, high cholesterol, diabetes, depression, prior myocardial infarction, asthma, or cancer.
The dotted vertical line indicates the beginning of the Affordable Care Act’s (ACA’s) Medicaid expansion on January 1, 2014.

Whether these changes are related directly to the ACA’s coverage expansions is not possible to determine with a time-series study design. For instance, the economic recovery may have also influenced the study outcomes, though the analysis did adjust for several potential confounders including income, individual employment, and state unemployment rates. The pattern of coverage gains accompanied by improved self-reported health has been documented previously in a randomized trial of Medicaid expansion and several quasi-experimental studies of coverage expansions. From a clinical perspective, it is notable that we detected positive trends in self-reported health and functional status among individuals with chronic medical conditions, who may potentially benefit most from expanded coverage. These results might reflect changes in the management of chronic conditions, peace of mind from gaining insurance, or factors unrelated to the ACA. Meanwhile, coverage gains for adults with and without such conditions were similar, showing no evidence of adverse selection.

The analysis of the Medicaid expansion among low-income adults represents a stronger research design than the time-series analysis because it included a control group to account for secular trends unrelated to the ACA, although this analysis had a much smaller sample. This analysis provides evidence of significant positive changes among low-income adults in coverage, access to primary care, and access to medications compared with nonexpansion states. These findings are consistent with recent reports showing increases in coverage and Medicaid prescription drug spending in expansion states in 2014 compared with nonexpansion states. As states continue to debate whether to expand Medicaid under the ACA, these results add to the growing body of research indicating that such expansions are associated with significant benefits for low-income populations. However, in contrast to prior Medicaid studies, we did not find statistically significant changes in self-reported health. This could potentially be due to differences between the underlying features of the ACA Medicaid expansion vs prior state Medicaid expansions. Alternatively, it may reflect the limited statistical power of this analysis, with a sample size roughly one-sixth as large as the time-series analysis. For instance, the 95% CI for changes in fair/poor health included a reduction of 1.7 percentage points, which would represent a 5% relative reduction from the baseline mean of 34.2%; this would be a clinically meaningful change, but the estimates are not precise enough to rule it out.

Our study has several important limitations. First, to provide timely analysis of a rich set of ACA-related outcomes, we used the WBI national telephone survey, which has a much lower response rate (ranging from 5%-10%) during the study period, and that has also declined in recent...
years) than federal surveys that typically become available a minimum of 6 to 12 months after data collection. Nonresponse bias can be mitigated—but not necessarily eliminated—through appropriate demographic weighting, which we have done.18,23 More importantly, WBI data from 2008-2012 have been compared with government surveys and found to produce similar estimates of insurance coverage changes over time and access to care20; in addition, previously published estimates of changes under the ACA based on the WBI have been consistent with subsequently released data from government sources.7,8,16,24,36 Although the WBI historically has produced estimates of the uninsured rate approximately 2 percentage points lower than federal surveys and slightly higher estimates of the proportion in fair/poor health (see the eMethods in the Supplement), these differences should have minimal influence on our study design, which assessed changes in outcomes over time, rather than the absolute level of each outcome.

The WBI is not reliable at distinguishing between different types of insurance, which is why this analysis focused on the uninsured rate.29 The WBI’s household income measure is limited and does not correspond directly to the definition of family income used for ACA eligibility determinations, which led us to test multiple alternative approaches to defining the low-income sample.

Another key limitation is the lack of a control group for the time-series analysis of adults across the full income range, because all states are affected by numerous provisions of the law. This limited our study to an observational analysis exploring changes in trends after adjustment for potential confounders. The Medicaid expansion analysis used a more rigorous design but was still subject to potential bias from any unmeasured confounders that differentially changed over time in expansion vs nonexpansion states.

In addition, surveys are subject to recall bias and social desirability bias. In part, this may explain the improvements in health trends reported in the national sample, as some individuals’ perceptions of health may be influenced by the law or by acquiring insurance even if underlying physiologic measures have not necessarily improved.31 However, social desirability seems an unlikely explanation for these results, as the ACA remains a polarizing law with nearly equal numbers of Americans opposing it and supporting it.37 Future research using claims data and other objective measures will be necessary to better understand changes in utilization and health outcomes related to the ACA.

Conclusions
The ACA’s first 2 open enrollment periods were associated with significantly improved trends in self-reported coverage, access to primary care and medications, affordability, and health. Low-income adults in states that expanded Medicaid reported significant gains in insurance coverage and access, compared with adults in states that did not expand Medicaid.

ARTICLE INFORMATION
Author Contributions: Dr Sommers had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.
Study concept and design: Sommers.
Acquisition, analysis, or interpretation of data: All authors.
Drafting of the manuscript: Sommers.
Critical revision of the manuscript for important intellectual content: Sommers, Gunja, Finegold, Musco.
Statistical analysis: Sommers, Gunja.
Obtained funding: Musco.
Administrative, technical, or material support: Finegold, Musco.
Study supervision: Sommers.
Conflict of Interest Disclosures: All authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Sommers reports receiving grants from AHRO, National Institute for Health Care Management, and Commonwealth Fund; travel expenses from Georgia Budget and Policy Institute, America’s Health Insurance Plan, and Healthcare Channel; and personal fees and travel expenses from University of Michigan, MedPAC, Johns Hopkins University, and University of Pennsylvania. No other disclosures were reported.
Funding/Support: This research was supported by the authors’ employment at the US Department of Health and Human Services (HHS) and did not receive any external grants or corporate funding.

Role of the Sponsor: Data used in this study were purchased from Gallup by HHS. HHS reviewed and approved this article before submission.

Disclaimer: This work does not represent the official views of the US Department of Health and Human Services.

REFERENCES


