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Limited Impact on Health and Access to Care for 19- to 25-Year-Olds Following the Patient Protection and Affordable Care Act

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Abstract

IMPORTANCE—The Patient Protection and Affordable Care Act (PPACA) allowed young adults to remain on their parents' insurance until 26 years of age. Reports indicate that this has expanded health coverage.

OBJECTIVE—To evaluate coverage, access to care, and health care use among 19- to 25-year-olds compared with 26- to 34-year-olds following PPACA implementation.

DESIGN, SETTING, AND PARTICIPANTS—Data from the Behavior Risk Factor Surveillance System and the National Health Interview Survey, which provide nationally representative measures of coverage, access to care, and health care use, were used to conduct the study among participants aged 19 to 25 years (young adults) and 26 to 34 years (adults) in 2009 and 2012.

EXPOSURE—Self-reported health insurance coverage.

MAIN OUTCOMES AND MEASURES—Health status, presence of a usual source of care, and ability to afford medications, dental care, or physician visits.

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RESULTS—Health coverage increased between 2009 and 2012 for 19- to 25-year-olds (68.3% to 71.7%). Using a difference-in-differences (DID) approach, after adjustment, the likelihood of having a usual source of care decreased in both groups but more significantly for 26- to 34-year-olds (DID, 2.8%; 95% CI, 0.45 to 5.15). There was no significant change in health status for 19- to 25-year-olds compared with 26- to 34-year-olds (DID, −0.5%; 95% CI, −1.87 to 0.87). There was no significant change for 19- to 25-year-olds compared with 26- to 34-year-olds in the percentage who reported receiving a routine checkup in the past year (DID, 0.3%; 95% CI, −2.25 to 2.85) or in the ability to afford prescription medications (DID, −0.4%; 95% CI, −2.93 to 1.93), dental care (DID, −2.6%; 95% CI, −5.61 to 0.61), or physician visits (DID, −1.7%; 95% CI, −3.66 to 0.26). There was also no change in the percentage who reported receiving a flu shot (DID, 1.9; 95% CI, −1.93 to 4.93). Insured individuals were more likely to report having a usual source of care and a recent routine checkup and were more likely to be able to afford health care than uninsured individuals.

CONCLUSIONS AND RELEVANCE—Implementation of the PPACA was associated with increased health insurance coverage for 19- to 25-year-olds without significant changes in perceived health care affordability or health status. Although the likelihood of having a usual source of care declined between 2009 and 2012 for all, this decrease was smaller among 19- to 25-year-olds, and younger adults were more likely than 26- to 34-year-olds to have a usual source of care.

Young adults aged 19 to 25 years have the lowest rates of health insurance coverage nationally, with nearly 1 in 3 lacking health insurance in 2009.[1] An early provision of the Patient Protection and Affordable Care Act (PPACA), implemented in September 2010, mandated that insurance companies allow adults younger than 26 years to remain beneficiaries on their parents' insurance. This provision was designed to expand coverage for young adults, who often may not have a source of insurance through an employer or otherwise. Reports from the Centers for Disease Control and Prevention, US Census Bureau, and Commonwealth Fund showed that the percentage of uninsured Americans decreased in 2011 for the first time in 4 years, a drop attributed partly to the documented coverage expansion among 19- to 25-year-olds.[2–4]

While increased insurance coverage is presumed to be good for this population, the PPACA's impact on young adults' health, access to care, and health care use remains unknown. It is unclear whether expansion of coverage alone is sufficient to improve health and access to care among young adults. One year after implementation, the expansion of coverage for 19- to 25-year-olds was associated with significant decreases in the number of young adults who delayed or did not receive care because of cost, but changes in having a usual source of care were not found.[5] In many settings, lack of insurance has been associated with worse access to and quality of health care.[6–9] However, expansion of coverage has not always been associated with improved health, as demonstrated through the RAND Health Insurance Experiment,[10] in which having coverage did not affect health except for the poorest and sickest patients. Persons aged 19 to 25 years may also interact with the health care system differently than older patients because they are generally healthier.

To better understand the impact of health care coverage expansion among 19- to 25-year-olds, we evaluated health, access to care, and health care use before and after implementation of the PPACA provision using data from 2 national health surveys.

Methods

Data

Data from 2 publicly available surveys—the Behavioral Risk Factor Surveillance System (BRFSS) and the National Health Interview Survey (NHIS)—were used to conduct the study. Data from 2009 (before PPACA implementation) and 2012 (2 years after implementation) were compared. The BRFSS is a telephone survey of noninstitutionalized adults 18 years or older that collects information on health status, behaviors, and access to care. The survey uses a stratified probability sampling design to allow for estimation of state-specific data and to create a nationally representative sample. In 2009, the BRFSS included more than 400 000 interviews, and response rates varied by state from 37% to 72%.[11] In 2012, response rates varied by state from 27.7% to 60.4%.[11] The NHIS is an in-person survey conducted by the Centers for Disease Control and Prevention and the National Center for Health Statistics that includes approximately 100 000 participants per year in the family core portion of the survey.[12] Both surveys use complex survey designs and design weights to create representative samples of the noninstitutionalized US adult population. Ethical approval was not required for this study because the study used publicly available, deidentified data.

Study Population

We selected 2 cohorts of individuals: young adults (19–25 years) and adults (26–34 years) from both surveys. Young adults were the primary cohort of interest, and adults were selected as the comparison group, consistent with Sommers et al,[5] because an ideal comparison group of 19- to 25-year-olds who were not affected by the PPACA provision does not exist.

Statistical Analysis

Demographic data, as well as data regarding health status, access to care, and health care use, were compared for 2009 and 2012. In a univariate analysis, variables were compared using the Pearson χ^2 test for proportions and *t* tests for continuous variables. We used an α level of $P < .05$ to determine statistical significance. All our analyses properly subsetted the data (ie, used subpopulation functions), used the survey design weights, and accounted for each survey's complex survey design.

To examine whether the PPACA improved the health, access to care, and health care use for young adults, we used a difference-in-differences (DID) approach to help account for countervailing trends. We compared young adults (19–25 years) with their slightly older counterparts (26–34 years). The DID approach allowed us to examine whether changes occurred across time and whether any change (positive or negative) was more pronounced for one group compared with the other. Comparisons were adjusted for race and ethnicity, sex, income, employment status, and educational level. Sensitivity analyses were conducted

based on insurance coverage status. We conducted all analyses in Stata, version 12.1 (StataCorp).

Results

Demographic characteristics were compared between the young adult (19–25 years) and older adult (26–34 years) populations (Table 1 and Table 2). The mean age for young adults was approximately 22 years in both survey years and cohorts, and the mean age for the older adults was approximately 30 years in both survey years and cohorts. There was an increase in the percentage of individuals living in poverty in both age groups between 2009 and 2012 (annual household income <$15 000 increased from 17.7% to 22.1% for 19- to 25-year-olds and from 10.0% to 13.8% for 26- to 34-year-olds according to BRFSS data). Older adults were much more likely to have graduated from college in both surveys. The proportion of the population in each race was approximately the same across surveys, cohorts, and survey years (approximately 58% non-Hispanic white, 13% non-Hispanic black, 5% Asian, 3% non-Hispanic other, and 20% Hispanic). There were slightly lower numbers of non-Hispanic other respondents in the NHIS cohorts (approximately 1%). Male and female sex was equally represented in both age groups and survey cohorts.

Univariate Analyses

Health care coverage increased for 19- to 25-year-olds during the study period, as anticipated (68.3% to 71.7%; difference, 3.4%; 95% CI, 1.5 to 5.1), and declined significantly for 26- to 34-year-olds (77.8% to 70.3%; difference, −7.5%; 95% CI, −8.7 to −6.3) (Table 3). Self-reported overall health status did not change significantly from 2009 to 2012 for young adults (fair or poor health status decreased from 9.3% to 8.9%; difference, −0.4%; 95% CI, −1.5 to 0.7) (Table 3). We found a small but significant decline in the percentage of young adults with a usual source of care (62.0% to 58.8%; difference, −3.2%; 95% CI, −5.2 to −1.4). There was no significant difference in the percentage of young adults who reported a visit to a physician for a routine checkup in the past year (56.8% vs 56.3%; difference, −0.5%; 95% CI, −2.4 to 1.3) or in the percentage who reported being unable to see a physician because of cost (21.5% vs 20.5%; difference, −1.0%; 95% CI, −2.5 to 0.6). The percentage of 19- to 25-year-olds who reported being unable to afford prescription medications or dental care declined between 2009 and 2012 (11.0% to 7.9%; difference, −3.1%; 95% CI, −5.1 to −1.2 and 18.7% to 14.1%; difference, −4.6%; 95% CI, −7.1 to −2.1, respectively). Young adults were also more likely to report obtaining a flu shot (16.5% vs 21.1%; difference, 4.6%; 95% CI, 2.1 to 7.2). In sensitivity analyses comparing those with and without coverage, those with insurance were more likely than their uninsured counterparts to have a usual source of care (Table 3). Insured individuals were also more likely to report visiting a physician for a routine checkup, obtaining a flu shot, and being able to afford physician visits, prescription medications, and dental care than uninsured individuals.

Multivariable Analyses

Analyses using a DID approach, adjusting for race and ethnicity, sex, income, employment status, and educational level, found a significant increase in health care coverage for 19- to

25-year-olds when compared with their older counterparts (DID between age groups between 2009 and 2012, 7.7 %; 95% CI, 5.54 to 9.86) (Table 4). While the likelihood of having a usual source of care decreased for 19- to 25-year-olds and 26- to 34-year-olds between 2009 and 2012, it did so more substantially for the older age group (−6.1% change vs −3.3% change; DID, 2.8%; 95% CI, 0.45 to 5.15). There was no significant change during the study period in self-reported overall health status for 19-to 25-year-olds compared with 26- to 34-year-olds (DID, −0.5%; 95% CI, −1.87 to 0.87). There was no significant difference between 2009 and 2012 for 19- to -25-year-olds compared with 26- to 34-year-olds in the percentage who reported having a routine checkup in the past year; being able to afford to see a physician, obtain prescription medications, or receive dental care; and receiving a flu shot (Table 4). Although space constraints prevent their presentation, we observed these same patterns across several sociodemographic variables (eg, race, ethnicity, and educational level).

Discussion

The PPACA included a specific provision, implemented in 2010, to expand insurance coverage to young adults (19–25 years) through their parents' insurance. In this study, we found an increase in coverage among young adults after implementation of the PPACA (2012), as expected, without significant changes in health status compared with the preimplementation period (2009). Despite increased coverage of an estimated 3 million people,[13] the proportion of respondents with a usual source of care declined significantly among 19- to 25-year-olds. This decline, however, was less steep than that of 26- to 34-year-olds during the same time. The ability to afford prescription medications improved for 19- to 25-year-olds and 26- to 34-year-olds during the study period, with no significant difference between the 2 age cohorts. Sensitivity analyses evaluating individuals with and without health care coverage found that those with insurance fared better on all indicators.

Our results add to the work of Sommers et al,[5] who used data from the NHIS and the Annual Social and Economic Supplement to the Census Bureau's Current Population Survey. The results of our study agree with those of Sommers et al with respect to the expansion of health care coverage. However, our results differ in the findings regarding having a usual source of care and ability to afford care. We found that the percentage of 19- to 25-year-olds with a usual source of care declined significantly between 2009 and 2012. When compared with 26- to 34-year-olds, this decline was less significant for 19- to 25-year-olds, but it remains that young adults, regardless of age, were significantly less likely to have a usual source of care in 2012 compared with 2009. We did not find significant improvements in the ability of 19- to 25-year-olds to afford health care coverage during the study period when compared with 26- to 34-year-olds.

There is evidence indicating a positive impact of insurance on health outcomes with increased use of preventive services, including Pap smears, and increased likelihood of having a usual source of care.[7–9,14] While our findings reinforce this conclusion, with insured individuals faring better than those who were uninsured, the overall decline in having a usual source of care for both age cohorts suggests that the link between coverage and health care use is complicated depending on interest and ability to obtain health care.

The impact of interest (or lack thereof) on the ability to obtain health care may be more pronounced in young adults, as they are generally healthy and may have very little need to access health care. In addition, many 19- to 25-year-olds may be newly insured as a result of the PPACA provision, and the short duration for which they have had insurance may play a role in whether they have a usual source of care.

It is also important to note that, because this population is, overall, quite healthy, self-perceived health status may not be a useful metric among young adults. Other studies have found that, in general, young adults are healthy, with more than 96% reporting being in excellent, very good, or good health.[15] Assessment of health in young adults may need to focus more on specific behaviors, such as sexual health, alcohol and drug use, and exercise, to better determine trends in health in young adults.[15] In addition, a focus on young adult populations with special health needs, including chronic disease and disability, may better elucidate the impact of health care coverage.[16,17]

While no prior interventions have expanded coverage to young adults specifically that would allow us to study the impact, 2 randomized trials have evaluated the impact on health of expanding insurance coverage and decreasing barriers to accessing health care. The RAND Health Insurance Experiment found that eliminating barriers to health care increased both necessary and unnecessary care but did not affect health (except for the poorest and most sick).[10] The Oregon Health Insurance Experiment[18] found improved self-reported health among insured participants as well as lower out-of-pocket medical expenditures and medical debt. Recent findings from this study demonstrate that coverage alone may not be sufficient to improve patterns of use.[19] Individuals with Medicaid coverage were found to have significantly higher rates of emergency department use than their uninsured counterparts despite the fact that emergency department visits have often been thought to serve as a marker of lack of access to other sources of health care. The high emergency department rates among those with coverage may represent severity of illness, a preference for emergency department care over primary care, or an inability to find an available primary care provider. In our study, respondents in both age groups reported a decrease in having a usual source of care. This outcome may reflect difficulty accessing care or reluctance to establish care and could represent a broader trend. Young adults, given their overall healthy status, may not desire regular primary care, and thus an expansion in coverage may not lead these individuals to have a usual source. The proportion of young adults who reported a recent physician's visit, although more common among insured respondents, has declined yearly since 2003; this trend continued after implementation of the PPACA. Reasons for this decrease remain unclear.

The results of this study must be interpreted in the context of the challenges of studying this issue in this population. First, and most importantly, the BRFSS and NHIS are survey-based data sources; as a result, all outcomes are self-reported and are not objective measures of health. Second, although the agencies that conduct these surveys strive to provide weights that account for nonresponse and other issues, the potential for nonresponse bias influencing our findings remains. Third, although, like Sommers et al,[5] we used a DID approach to compare effects across 2 groups (a group of interest and a comparison group), the possibility remains that 26- to 34-year-olds do not serve as an adequate comparison group. We

attempted to address any differences in these populations by controlling for potential confounders, including income and employment status. Fourth, the study period encompasses a period marked by a significant economic downturn; as a result, there may be countervailing trends that affect coverage and health care use. These countervailing trends may include greater poverty or a higher percentage of individuals who are unemployed as a result of the economic recession. We attempt to address this by using a DID approach (expecting that 19- to 25-year-olds and 26- to 34-year-olds would face similar economic pressures) and by controlling for relevant demographic characteristics, such as employment status and income. However, studies[20] suggest that use of health care services may have decreased during the economic downturn regardless of coverage. Fifth, young adults may be some of the least frequent users of the health care system, and assessing changes in their overall use may be challenging. In addition, changes in health status likely require a longer duration than 1 year to manifest. Sixth, perceptions of health and well-being may relate to many things other than health care coverage, and the relationship between health care coverage and use is not a direct link. Last, one of the unique limitations of studying this legislation is that there are a number of factors not revealed in this national survey that may affect the insurance status of young adults, including whether their parents remain employed, whether employers shift from policies that cover dependents to those that do not, and whether employers shift to policies that only provide catastrophic coverage. These factors must be evaluated over time to fully understand the nature of insurance coverage for young adults.

Conclusions

This study evaluating nationally representative data surrounding the implementation of the PPACA confirms that health care coverage for young adults has increased but that young adults do not report improved health status, affordability of health care, or use of flu vaccination compared with their older counterparts. Persons aged 19 to 25 years were more likely to have a usual source of care than those aged 26 to 34 years, but both age groups saw declines in this measure of access to care. Understanding the PPACA's full impact on young adults may require a focus on those who consume more health care, such as those with chronic disease. Insured patients fared better than their uninsured counterparts on all metrics of access to care, affordability, and health care use, however, and these results underscore the idea that insurance may be necessary, but not sufficient, to alter health care use and overall health. Health policy must continue to address access and quality in addition to coverage.

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Table 1

Behavioral Risk Factor Surveillance System Cohort Demographic Information

	Persons Aged 19–25 y		Persons Aged 26–34 y	
Characteristic	**2009**	**2012**	**2009**	**2012**
Total participants, weighted, No.	24 483 817	29 532 874	38 307 824	36 183 642
Age, mean (SD), y	21.9	21.9	30.4	30.1
Sex, %				
Male	52.1	51.6	49.4	49.8
Female	47.9	48.4	50.6	50.2
Race/ethnicity, %				
Non-Hispanic white	58.2	57.2	62.1	57.2
Non-Hispanic black	11.7	14.0	11.3	13.6
Asian	5.0	6.1	4.5	5.2
Non-Hispanic other	3.4	2.9	2.8	2.6
Hispanic	21.6	19.8	19.3	21.4
Current employment status, %				
Employed	50.8	52.6	71.0	71.7
Not employed	16.3	12.5	10.5	10.3
Other (eg, student, retired)	32.9	34.9	18.5	17.9
Annual household income of <$15 000, %[a]	17.7	22.1	10.0	13.8
Educational level, %				
High school or less	43.5	42.4	34.3	40.0
Some college	39.0	42.8	26.0	29.9
Graduated from college	17.4	14.7	39.7	30.0
Insurance type, %				
None	32.7	25.3	25.8	27.4
Medicaid only	8.7	9.5	7.9	7.4
Private only	49.5	53.0	56.6	54.2
Other	9.1	12.2	9.7	11.0

[a] Approximately 133% of federal poverty level.

Table 2

National Health Interview Survey Cohort Demographic Information

	Persons Aged 19–25 y		Persons Aged 26–34 y	
Characteristic	**2009**	**2012**	**2009**	**2012**
Total participants, unweighted, No.	28 723 061	30 542 129	36 587 535	37 223 237
Age, mean (SD), y	22.0	21.9	29.9	30.0
Sex, %				
Male	49.9	49.5	49.3	49.6
Female	50.1	50.5	50.6	50.4
Race/ethnicity, %				
Non-Hispanic white	61.7	59.3	60.1	58.3
Non-Hispanic black	13.8	14.1	13.9	13.1
Asian	4.8	5.3	5.4	6.6
Non-Hispanic other	1.1	1.0	0.8	0.8
Hispanic	18.5	20.2	19.8	21.1
Current employment status, %				
Employed	63.7	60.8	75.0	75.2
Not employed	12.5	14.7	8.6	8.4
Other (eg, student, retired)	23.9	24.5	16.3	16.4
Annual household income, %				
<100% FPL	24.8	27.6	13.9	15.9
Educational level, %				
High school or less	40.8	38.8	36.0	34.1
Some college	44.9	46.2	30.5	31.0
Graduated from college	14.3	15.0	33.5	34.9

Abbreviation: FPL, federal poverty level.

Table 3

Health Status, Access to Care, and Health Care Use

Characteristic	Persons Aged 19–25 y			Persons Aged 26–34 y		
	2009	2012	Difference (95% CI)	2009	2012	Difference (95% CI)
Health care coverage, %[a]	68.3	71.7	3.4 (1.5 to 5.1)	77.8	70.3	−7.5 (−8.7 to −6.3)
Overall health, %[a]						
Fair or poor	9.3	8.9	−0.4 (−1.5 to 0.7)	10.0	11.7	1.7 (0.9 to 2.6)
Have a usual source of care, %[a]	62.0	58.8	−3.2 (−5.2 to −1.4)	69.4	61.6	−7.8 (−9.1 to −6.5)
With health care coverage	74.4	69.9	−4.5 (−6.5 to −2.6)	78.9	74.2	−4.7 (−6.0 to −3.4)
Without health care coverage	35.3	30.8	−4.5 (−7.9 to −1.1)	36.1	31.6	−4.5 (−7.2 to −1.9)
Visit to physician for routine checkup in past year, %[a]	56.8	56.3	−0.5 (−2.4 to 1.3)	57.6	55.9	−1.7 (−3.1 to −0.5)
With health care coverage	65.1	63.5	−1.6 (−3.7 to 0.4)	63.5	63.7	0.2 (−1.1 to 1.6)
Without health care coverage	38.3	37.8	−0.5 (−4.0 to 3.0)	36.6	36.5	−0.1 (−2.9 to 2.8)
Unable to see a physician in the past year because of cost, %[a]	21.5	20.5	−1.0 (−2.5 to 0.6)	20.2	22.3	2.1 (1.0 to 3.2)
With health care coverage	12.4	11.9	−0.5 (−1.9 to 0.9)	11.7	12.2	0.5 (−0.5 to 1.4)
Without health care coverage	41.6	42.9	1.3 (−2.3 to 4.8)	49.8	46.4	−3.4 (−6.2 to −0.6)
Unable to afford prescription medications in past year, %[b]	11.0	7.9	−3.1 (−5.1 to −1.2)	12.7	10.0	−2.7 (−4.3 to −1.1)
With health care coverage	5.6	4.8	−0.8 (−2.4 to 0.8)	7.8	6.1	−1.7 (−3.2 to −0.3)
Without health care coverage	22.0	17.5	−4.5 (−8.9 to −0.1)	26.5	20.0	−6.5 (−10.4 to −2.5)
Unable to afford dental care in the past year, %[b]	18.7	14.1	−4.6 (−7.1 to −2.1)	19.6	17.6	−2.0 (−3.9 to −0.1)
With health care coverage	10.4	9.1	−1.3 (−3.5 to 1.0)	12.5	11.6	−0.9 (−2.7 to 0.9)
Without health care coverage	35.7	29.2	−6.5 (−11.6 to −1.4)	39.7	33.2	−6.5 (−10.8 to −2.1)

Characteristic	Persons Aged 19–25 y			Persons Aged 26–34 y		
	2009	2012	Difference (95% CI)	2009	2012	Difference (95% CI)
Flu shot in the past year, %[b]	16.5	21.1	4.6 (2.1 to 7.2)	21.9	24.6	2.7 (0.5 to 4.9)
With health care coverage	20.1	24.7	4.6 (1.4 to 7.8)	25.8	29.4	3.6 (1.0 to 6.3)
Without health care coverage	9.3	10.2	0.9 (−1.7 to 3.3)	11.1	12.0	0.9 (−2.3 to 4.1)
Ever had the hepatitis B vaccine, %[b]	58.4	55.3	−3.1 (−6.4 to 0.3)	44.2	48.3	4.1 (1.4 to 6.7)
With health care coverage	62.5	59.6	−2.9 (−6.8 to 1.0)	47.9	51.5	3.6 (0.6 to 6.6)
Without health care coverage	50.3	42.4	−7.9 (−13.1 to −2.7)	33.7	40.0	6.3 (1.9 to 10.7)
Tetanus shot in the past 10 y, %[b]	66.3	67.8	1.5 (−1.7 to 4.8)	61.4	63.4	2.0 (−0.5 to 4.4)
With health care coverage	70.4	71.0	0.6 (−3.2 to 4.4)	63.0	66.8	3.8 (1.1 to 6.5)
Without health care coverage	58.5	58.3	−0.2 (−5.1 to 4.6)	57.0	54.7	−2.3 (−6.8 to 2.2)

[a] Behavioral Risk Factor Surveillance System data.

[b] National Health Interview Survey data.

Table 4

Changes in Health Care Coverage, Access to Care, and Health Care Use[a]

Characteristic	Persons Aged 19–25 y (Baseline)	Change Before and After PPACA Implementation		DID Between Age Groups (95% CI)
		Persons Aged 19–25 y	Persons Aged 26–34 y	
Health care coverage, %[b]	56.7	3.1	−4.6	7.7 (5.54 to 9.86)
Overall health fair or poor, %[b]	17.5	−0.3	0.3	−0.5 (−1.87 to 0.87)
With health care coverage	15.9	−0.6	0.3	−0.9 (−2.47 to 0.67)
Without health care coverage	19.4	0.6	−0.6	1.3 (−2.42 to 5.02)
Have a usual source of care, %[b]	46.3	−3.3	−6.1	2.8 (0.45 to 5.15)
With health care coverage	60.4	−4.0	−4.8	0.8 (−1.55 to 3.15)
Without health care coverage	30.1	−5.5	−3.3	−2.2 (−6.90 to 2.50)
Visit to physician for routine checkup in past year, %[b]	42.1	−1.5	−1.9	0.3 (−2.25 to 2.85)
With health care coverage	52.5	−2.2	−0.5	−1.7 (−4.44 to 1.04)
Without health care coverage	27.0	−2.3	−1.2	−1.2 (−6.10 to 3.70)
Unable to see physician in past year because of cost, %[b]	28.5	−0.9	0.7	−1.7 (−3.66 to 0.26)
With health care coverage	15.7	−0.7	−0.1	−0.5 (−2.46 to 1.46)
Without health care coverage	44.8	1.5	−2.6	4.1 (−0.80 to 9.00)
Unable to afford prescription medications in past year, %[c]	11.1	−3.1	−2.7	−0.4 (−2.93 to 1.93)
With health care coverage	5.5	−1.0	−1.6	0.6 (−1.58 to 2.78)
Without health care coverage	23.7	−4.1	−7.0	2.9 (−3.31 to −9.11)
Unable to afford dental care in the past year, %[c]	18.7	−4.6	−2.0	−2.6 (−5.61 to 0.61)
With health care coverage	12.2	−1.3	−0.9	−0.4 (−3.48 to 2.68)
Without health care coverage	39.4	−5.3	−7.3	2.0 (−4.96 to −8.96)
Flu shot in the past year, %[c]	16.5	4.6	2.7	1.9 (−1.93 to 4.93)
With health care coverage	11.7	5.4	4.1	1.3 (−3.00 to 5.60)
Without health care coverage	5.4	0.5	1.8	−1.3 (−5.99 to 3.39)

Abbreviations: DID, difference-in-differences; PPACA, Patient Protection and Affordable Care Act.

[a]For persons aged 19 to 25 years compared with those aged 26 to 34 years, using a difference-indifferences approach adjusted for covariates.

[b]Behavioral Risk Factor Surveillance System data.

[c]National Health Interview Survey data.