Potential Adult Medicaid Beneficiaries Under the Patient Protection and Affordable Care Act Compared With Current Adult Medicaid Beneficiaries

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ABSTRACT

PURPOSE Under health care reform, states will have the opportunity to expand Medicaid to millions of uninsured US adults. Information regarding this population is vital to physicians as they prepare for more patients with coverage. Our objective was to describe demographic and health characteristics of potentially eligible Medicaid beneficiaries.

METHODS We performed a cross-sectional study using data from the National Health and Nutrition Examination Survey (2007-2010) to identify and compare adult US citizens potentially eligible for Medicaid under provisions of the Patient Protection and Affordable Care Act (ACA) with current adult Medicaid beneficiaries. We compared demographic characteristics (age, sex, race/ethnicity, education) and health measures (self-reported health status; measured body mass index, hemoglobin A_{1c} level, systolic and diastolic blood pressure, depression screen [9-item Patient Health Questionnaire], tobacco smoking, and alcohol use).

RESULTS Analyses were based on an estimated 13.8 million current adult nonelderly Medicaid beneficiaries and 13.6 million nonelderly adults potentially eligible for Medicaid. Potentially eligible individuals are expected to be more likely male (49.2% potentially eligible vs 33.3% current beneficiaries; $P < .001$), to be more likely white and less likely black (58.8% white, 20.0% black vs 49.9% white, 25.2% black; $P = .02$), and to be statistically indistinguishable in terms of educational attainment. Overall, potentially eligible adults are expected to have better health status (34.8% "excellent" or "very good," 40.4% "good") than current beneficiaries (33.5% "excellent" or "very good," 31.6% "good"; $P < .001$). The proportions obese (34.5% vs 42.9%; $P = .008$) and with depression (15.5% vs 22.3%; $P = .003$) among potentially eligible individuals are significantly lower than those for current beneficiaries, while there are no significant differences in the expected prevalence of diabetes or hypertension. Current tobacco smoking (49.2% vs 38.0%; $P = .002$), and moderate and heavier alcohol use (21.6% vs 16.0% and 16.5% vs 9.8%; $P < .001$, respectively) are more common among the potentially eligible population than among current beneficiaries.

CONCLUSIONS Under the ACA, physicians can anticipate a potentially eligible Medicaid population with equal if not better current health status and lower prevalence of obesity and depression than current Medicaid beneficiaries. Federal Medicaid expenditures for newly covered beneficiaries therefore may not be as high as anticipated in the short term. Given the higher prevalence of tobacco smoking and alcohol use, however, broad enrollment and engagement of this potentially eligible population is needed to address their higher prevalence of modifiable risk factors for future chronic disease.

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INTRODUCTION

Medicaid currently provides coverage for more than 50 million Americans, including more than 20 million nonelderly adults.[1] Under the Patient Protection and Affordable Care Act (ACA) enacted in 2010, states will have federal support beginning in 2014 to

expand their Medicaid programs to include all adults living at up to 138% of the federal poverty level. If implemented by states as now expected by the Congressional Budget Office after the Supreme Court ruling regarding the ACA in June 2012, Medicaid expansion is projected to add more than 10 million individuals to the Medicaid population.[2]

Specific income-related provisions of the ACA related to Medicaid expansion make it possible to examine national data to help clinicians and health systems anticipate patterns of new patient care beginning in 2014. Policy briefs, gray literature published by several organizations, and lay media articles have used past cohorts of nationally representative databases to anticipate characteristics of the potentially eligible with mixed findings; none have included objective health measures. Some analysts report that the uninsured low-income population is less healthy than the current Medicaid-enrolled and privately insured populations, whereas others find that the newly eligible for Medicaid and current Medicaid populations are not likely to be markedly different.[3-8] Most nationally representative data sets use self-reported health measures. To our knowledge, there are no peer-reviewed reports in the medical literature using objective measures of health data (ie, measured anthropometrics, measured blood pressure readings, serum levels of various indicators) to compare the health status of the potentially eligible Medicaid population with that of current adult Medicaid beneficiaries.

The objective of this study was to use the latest nationally representative data to examine the characteristics of individuals potentially eligible for Medicaid under ACA-related coverage expansion, and compare them with those of current Medicaid beneficiaries.

METHODS

The National Health and Nutrition Examination Survey (NHANES) is a nationally representative, cross-sectional survey designed to assess the health and nutritional status of the US civilian, noninstitutionalized population, used widely to assess key measures of US population health.[9-11] NHANES data are released in 2-year cycles. NHANES data collection includes a personal interview in the household and a detailed physical examination and broadly used clinical laboratory tests in a mobile examination center. Additional information regarding the survey design, questionnaires, and laboratory methods is available online.[12]

To describe the potentially eligible Medicaid population (hereafter "potentially eligible"), we analyzed data from the most recent 2-year cycles (2007-2008 and 2009-2010). Examination survey response rates for these cycles ranged from 69% to 87%. During 2007-2010, a total of 9,051 adults aged 19 to 64 years participated in the demographic questionnaire and mobile examination center examination.

This study sample was restricted to US citizens who reported (at the time of the survey) having Medicaid coverage, having a state-sponsored health plan, or having no coverage with a "ratio of family income to poverty" level of less than 1.38 (the threshold specified for expanded Medicaid coverage in the ACA). These criteria yielded an analytic sample of 1,943 adults.

For each participant, the survey team collected self-reported demographic data (citizenship status, insurance type [including none], age, sex, race/ethnicity [non-Hispanic white, non-Hispanic black, Mexican-American, and other including multiracial], education [less than high school graduate, high school graduate/general equivalency diploma, some college and above]), and measured body mass index (BMI), measured hemoglobin A_{1c} level, and measured systolic and diastolic blood pressure. In addition, respondents indicated their self-reported health status on a 5-point scale ("excellent," "very good," "good," "fair," "poor"), tobacco smoking status, and alcohol use, and completed a validated depression screen, the 9-item Patient Health Questionnaire (PHQ-9).

We computed descriptive statistics to compare percent distribution, mean of the variables (using the Student *t* test for continuous variables and the χ^2 test for categorical variables), or both. Weight was classified using BMI as normal (18.5-24.9 kg/m^2), overweight (25.0-29.9 kg/m^2), or obese (≥30 kg/m^2). The criterion for diabetes was a hemoglobin A_{1c} concentration of 6.5% or greater.[13] Blood pressure values were the average of 3 readings taken consecutively after 5 minutes of rest; criteria for hypertension were mean systolic blood pressure of at least 140 mm Hg or diastolic blood pressure of at least 90 mm Hg.[14] Tobacco smoking status was specified by the following categories: never smoker (never smoked a cigarette or smoked <100 cigarettes in their lifetime), former smoker (smoked ≥100 cigarettes in their lifetime but does not currently smoke), and current smoker (smoked ≥100 cigarettes in their lifetime and currently smokes every day or some days).[15] Alcohol use was defined by the following categories: nondrinker (<12 drinks in lifetime or ≥12 drinks in lifetime and none in the past year), light drinker (average of ≤3 drinks per week), moderate drinker (average of >3 drinks and ≤14 drinks per week if male, or >3 drinks and ≤7 drinks per week if female), and heavier drinker (average of >14 drinks per week if male or an average of >7 drinks per week if female).[16,17] Depression was defined as a PHQ-9 score of 10 or higher, a well validated and commonly used score to define this outcome.[18]

To account for the complex, multistage probability survey design, we conducted analyses applying sampling weights to permit national inferences, using STATA (version 12; Stata Corp). Results are presented as percentages or means as appropriate. Statistical significance was defined as a 2-tailed α less than .05. All findings are presented using weighted data, except where otherwise indicated.

RESULTS

The estimated number of adult nonelderly Medicaid beneficiaries at the time of the survey was 13.8 million, while the estimated number of nonelderly adults potentially eligible for Medicaid was 13.6 million (Table 1).

We found significant differences in demographic characteristics related to expanded Medicaid eligibility under the ACA. Potentially eligible individuals are expected to be significantly more likely male than current Medicaid beneficiaries, and more likely white and less likely black. There was no significant difference in educational attainment between the 2 groups.

Potentially eligible and current Medicaid beneficiaries also differ in expected health indicators (Table 2). Overall, potentially eligible adults report significantly better health status than current beneficiaries. In addition, potentially eligible adults are significantly less likely to be obese or have depression. There was no difference in prevalence of diabetes or hypertension between the potentially eligible individuals and current Medicaid beneficiaries. On the other hand, significantly higher proportions of potentially eligible individuals report current tobacco smoking and moderate or heavier alcohol use.

DISCUSSION

Our findings, based on the most recently available, nationally representative objective health measures, indicate that the potentially eligible Medicaid population under ACA-financed Medicaid expansion is at present similarly healthy as—if not healthier than—the current Medicaid population. The exception to this general theme is that tobacco smoking and alcohol use patterns are higher for potential Medicaid enrollees than for current Medicaid beneficiaries. These findings have 3 key implications for policy and practice.

First, federal Medicaid expenditures for newly covered beneficiaries may not be as high as projected by the Congressional Budget Office in the short term, thereby potentially reducing spending anticipated with implementation of the ACA.[2] Second, physicians who have been reluctant to accept Medicaid as a payer because of a perceived imbalance between the typical complexity of illness for current Medicaid beneficiaries and Medicaid reimbursement may be encouraged by these findings to start accepting Medicaid patients, particularly in light of provisions within the ACA to increase Medicaid payment rates for certain primary care services to the level of Medicare.[19-23] Third, active outreach and engagement of the potentially eligible population will be vital, as there is potential to improve their modifiable risk factors for future chronic disease.

Table 1. Demographic Characteristics of Adults Aged 19 to 64 Years, United States, National Health and Nutrition Examination Survey, 2007-2010

Characteristic	Current Medicaid Beneficiaries	Potentially Eligible for Medicaid Under ACA[a]	*P* Value	
			t Test	χ^2 Test
Mean age, y (95% CI)	38.7 (37.4-40.1)	36.3 (35.2-37.4)	.002	–
Sex, % (95% CI)			–	< .001
Male	33.3 (30.1-36.6)	49.2 (46.0-52.4)		
Female	66.7 (63.4-69.9)	50.8 (47.6-54.0)		
Race/ethnicity, % (95% CI)			–	.02
Non-Hispanic white	49.9 (39.8-60.1)	58.8 (48.7-68.2)		
Non-Hispanic black	25.2 (19.0-32.7)	20.0 (15.3-25.6)		
Mexican American	9.8 (7.3-13.1)	11.7 (6.2-21.0)		
Other	15.0 (11.0-20.1)	9.6 (6.6-13.8)		
Education, % (95% CI)			–	.48
Less than high school graduate	35.9 (31.6-40.5)	35.3 (29.7-41.5)		
High school graduate or GED	28.1 (24.3-32.2)	31.4 (28.2-34.7)		
Some college and above	36.0 (31.2-41.1)	33.3 (28.5-38.4)		

ACA = Patient Protection and Affordable Care Act; GED = general equivalency diploma.

Notes: For current Medicaid beneficiaries, unweighted n = 991 and weighted N = 13.8 million; for newly eligible for Medicaid, unweighted n = 952 and weighted N = 13.6 million. Sum of percentages in each group may not equal 100 because of rounding.

[a] A US citizen with "no insurance" at the time of survey interview and a "poverty-to-income ratio" of 1.38 or less.

Table 2. Health Measures of Adults Aged 19 to 64 Years, United States, National Health and Nutrition Examination Survey, 2007-2010

Measure	Current Medicaid Beneficiaries % (95% CI)	Potentially Eligible for Medicaid Under ACA[a] % (95% CI)	*P* Value[b]
Health status			<.001
Excellent/very good	33.5 (28.8-38.6)	34.8 (30.6-39.3)	
Good	31.6 (28.6-34.7)	40.4 (36.5-44.3)	
Fair/poor	35.0 (30.6-39.5)	24.8 (22.3-27.5)	
Body mass index[c]			.008
Normal weight	24.6 (21.3-28.2)	31.5 (28.1-35.1)	
Overweight	29.9 (25.7-34.5)	29.9 (27.2-32.8)	
Obese	42.9 (37.8-48.3)	34.5 (30.8-38.4)	
Diabetes[d]	7.5 (5.7-9.9)	5.2 (3.6-7.4)	.094
Hypertension[e]	9.9 (7.9-12.4)	12.3 (10.2-14.7)	.15
Depression[f]	22.3 (19.5-25.3)	15.5 (12.8-18.8)	.003
Smoking[g]			.002
Never smoker	44.8 (38.9-50.8)	37.1 (32.6-42.0)	
Former smoker	17.3 (13.6-21.7)	13.7 (11.0-16.9)	
Current smoker	38.0 (33.0-43.3)	49.2 (43.8-54.6)	
Alcohol use[h]			<.001
Nondrinker	17.7 (14.0-22.0)	12.7 (9.9-16.0)	
Light drinker	56.5 (50.5-62.2)	49.2 (45.2-53.2)	
Moderate drinker	16.0 (12.7-20.1)	21.6 (17.5-26.5)	
Heavier drinker	9.8 (8.0-12.0)	16.5 (12.9-21.0)	

ACA = Patient Protection and Affordable Care Act.

[a] A US citizen with "no insurance" and a "poverty-to-income ratio" of 1.38 or less.

[b] With the χ^2 test.

[c] Underweight omitted (<5% of population). Body mass index was classified as normal (18.5-24.9 kg/m^2), overweight (25.0-29.9 kg/m^2), or obese (≥30 kg/m^2).

[d] A hemoglobin A_{1c} level of 6.5% or greater.

[e] Systolic blood pressure 140 mm Hg or greater or diastolic blood pressure 90 mm Hg or greater. Blood pressure averaged over 3 consecutive measurements after 5-minute rest.

[f] A score of greater than 10 on 9-item Patient Health Questionnaire screen.

[g] Never smoker defined as smoking fewer than 100 cigarettes in lifetime. Former smoker defined as smoking more than 100 cigarettes in lifetime and not currently smoking. Current smoker defined as smoking more than 100 cigarettes in lifetime and currently smoking daily or some days.

[h] Nondrinkers had no drinks in the past year, including former drinkers and lifetime abstainers. Light drinkers had an average of 3 drinks or less per week. Moderate drinkers had an average of 4 to 14 drinks per week if male and 4 to 7 drinks per week if female. Heavier drinkers had an average of more than 14 drinks per week if male or an average of more than 7 drinks per week if female.

Our findings are consistent with a study by the Urban Institute using other national data that found that both currently uninsured and privately insured adults with incomes below 138% of the federal poverty level are healthier on average than both the nondisabled and the disabled adults who are currently enrolled in Medicaid.[5] Using NHANES data, our study builds on this prior work by using measured, objective anthropometric and serum laboratory data from its respondents, rather than only self-reported data regarding disease states. Taken together, these analyses indicate that the potentially eligible appear to have a somewhat lower chronic disease burden, though greater prevalence of poor health behaviors such as tobacco smoking and heavy alcohol use. Their currently lower chronic disease burden may be explained by the fact that the potentially eligible—despite being uninsured—are drawn from a population with higher income than current Medicaid beneficiaries and are therefore likely healthier.[24] The greater prevalence of moderate to heavier drinking with higher incomes is also consistent with known trends.[15] These findings support a need for emphasis on preventive health care in the potentially eligible population, even though they currently have a lower chronic disease burden.

Our study also offers insights about the demographic composition of the potentially eligible population. We find that they are expected to be younger, with no difference in educational attainment between the potentially eligible population and the current Medicaid population. This finding may be explained by new eligibility for young adults who exceed the ACA-based age limit (26 years) for coverage on their parents' health plans or are entering the low-wage workforce and may not have other access to health insurance. In addition, this potential population of Medicaid beneficiaries will include a higher proportion of male individuals than the current Medicaid population; pre-ACA Medicaid eligibility has focused predominantly on women and their children, excluding many childless low-income men. It will be instructive to monitor early patterns of health care use among newly Medicaid enrolled individuals as young adult men have typically been infrequent users of routine medical care.

Although our analysis has several strengths, our findings must be interpreted with certain caveats. First, the NHANES is a cross-sectional study and can be used descriptively, but not to show predictive or temporal relationships because sequential samples are drawn separately.[12] Second, the health status of the potentially eligible Medicaid beneficiaries will be greatly influenced by the level of participation by states and individuals under the ACA; participation by states in ACA-financed Medicaid expansion (completely, partly, or not at all[2]) is not certain at this time.

Our analysis presents outcomes as if all states and eligible individuals will participate fully in the Medicaid expansion.[25,26] To the extent that states and individuals do not participate, the potentially eligible and current beneficiaries may not differ in the ways we report. On the basis of latest projections at the time of writing, 18 states have governors who do not support Medicaid expansion.[27] Several of these states (Mississippi, Alabama, Louisiana) have some of the poorest population health measures in the country.[28] As a result, it is possible our analysis may underestimate the health of the states that plan to participate in the expansion because those states are healthier at baseline. Conversely, adverse selection is likely to result in the enrollment of the sickest individuals in each state (at least initially), which emphasizes the importance of outreach efforts to enroll healthier individuals to achieve lower average costs.[5] Finally, our potentially eligible sample also contains individuals who may have previously been eligible for Medicaid or had access to private health insurance, but were healthy enough to choose to not enroll, which could make our potentially eligible sample appear healthier. Because of the individual mandate for health insurance coverage under the ACA, however, the distinction between previously and newly eligible Medicaid patients will not be relevant to physicians who would consider both new patients. Importantly, because the enforcement of mandatory health insurance enrollment is expected to occur through the tax system, there may be a delay in widespread enrollment.

These limitations notwithstanding, our analysis indicates that millions of nonelderly adults eligible for Medicaid under provisions of the ACA will differ in key demographic and health characteristics from current Medicaid beneficiaries. Physicians and facilities that currently care for Medicaid patients will likely care for this potentially eligible population and will have the opportunity to reduce the prevalence of poor health behaviors, while physician practices that do not accept Medicaid patients may be encouraged to open their doors to an eligible population that is currently equally healthy if not healthier. Broader participation by physicians in Medicaid may be a critical element of ensuring adequate access to care with expanded Medicaid under the ACA.

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Key words: Medicaid; health care reform; uninsured; health status; diabetes; hypertension; obesity; BMI; depression; smoking; tobacco; alcohol; chronic disease

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