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Reasons For The Wide Variation In Medicaid Participation Rates Among States Hold Lessons For Coverage Expansion In 2014

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ABSTRACT The Affordable Care Act will expand Medicaid eligibility in 2014 to adults with incomes of up to 133 percent of the federal poverty level. To maximize this opportunity, policy makers need to ensure that participation, or “take-up,” among eligible adults exceeds current rates. Using the Current Population Survey 2005–10, we estimated that the nationwide Medicaid participation rate was 62.6 percent among eligible adults ages 19–64 without private insurance. Take-up varied widely by state, from 43.0 percent in Arkansas and Louisiana to 82.8 percent in Massachusetts, after adjusting for population demographics. Participation was highest among disabled adults, 75.8 percent, and lowest among childless adults, 38.3 percent. Factors linked to higher take-up rates included low cost sharing for beneficiaries; more generous benefits; and greater use of managed care programs for Medicaid populations. Factors associated with lower take-up rates included the existence of asset tests in some states. Massachusetts’s health reform was associated with a major increase in Medicaid participation. Our results suggest that when Medicaid is expanded in 2014, take-up may be less than anticipated because new enrollees will be offered a more restrictive set of benefits—known as “benchmark coverage”—compared to those in traditional Medicaid, and the majority of newly eligible adults will be in groups with traditionally low take-up (primarily nondisabled adults). To encourage high participation in the expanded Medicaid program, states will need to offer comprehensive coverage of needed benefits; provide community-based outreach; and consider more dramatic changes to their enrollment processes, such as automatically enrolling people in Medicaid based on their participation in other public programs.

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Lack of health insurance has adverse health outcomes. Adults with Medicaid and other insurance experience greater access to care and improved health compared to uninsured adults.¹⁻³ A primary goal of the Affordable Care Act of 2010 is to expand insurance coverage to an estimated thirty-two million Americans, who constitute a large corps of the nearly fifty million

people in the United States who are currently without health insurance.⁴

Critically important to this effort is expanded Medicaid eligibility. As of January 2014, non-elderly adults with incomes of up to 133 percent of the federal poverty level will be eligible for Medicaid, dramatically increasing the number of eligible Americans. For decades Medicaid has played a key role in providing access to care

for millions of low-income people.⁵ Yet Medicaid enrollment among adults is currently far below the total number of eligible adults.⁶ Moreover, prior research shows that participation rates—or “take-up,” the percentage of eligible people who enroll—vary substantially across states and are generally lower in states with more adults who will become eligible for Medicaid in 2014.⁶

For health reform to succeed in expanding coverage to low-income Americans, it is necessary to understand why uninsured individuals who are currently eligible for Medicaid do not enroll, and what policies promote higher take-up. Yet despite the importance of these issues, little information exists about what state policies are most effective at improving Medicaid take-up among adults. Previous research generally examined only a subset of policies^{7,8} or a single state⁹ and has focused almost exclusively on children.⁷⁻¹⁰ In addition, little is known about personal characteristics associated with lower participation among adults that could help states target their outreach.

To address these questions, our study examined why many adults who are eligible for Medicaid remain uninsured. We used national survey data and our own comprehensive data set of policies from all fifty states to identify what steps states can take to increase participation in Medicaid.

Our study focused on nonelderly adults who were eligible for Medicaid but remained uninsured. We conceptualized Medicaid take-up as a trade-off between the opportunity cost of enrolling or renewing coverage versus the benefit of having coverage. Simply put, a person will enroll in Medicaid if he or she perceives the benefit of coverage to be greater than the expected burden of the enrollment process.¹¹ This does not imply that all eligible individuals who have not enrolled made a conscious decision to remain uninsured. Clearly, lack of knowledge about the program also decreases the likelihood that a person will enroll.

Study Data And Methods

DATA We created a sample of Medicaid-eligible adults from the nationally representative Current Population Survey, conducted by the Census Bureau. We used the 2005–10 Annual Social and Economic Supplements. Although the survey asked about insurance over the prior year, we followed previous research suggesting that results are more consistent with coverage at a single point in time.¹² Our sample contained US citizens ages 19–64 who were eligible for Medicaid and did not have private insurance ($N = 36,427$).¹³

To estimate eligibility, we calculated family income as a percentage of the federal poverty level¹⁴ within the health insurance unit, comprised of an adult, his or her spouse, and their dependent children age eighteen or younger, plus full-time students under age twenty-three. Then we compared family income to state- and year-specific Medicaid cutoffs for each eligibility category: adults with disabilities, parents of dependent children, and nondisabled adults with no children—often called “childless adults.”¹⁵⁻²¹ States can specifically disregard some of working families’ income based on a formula that makes these families more likely to be eligible for Medicaid, and we took these state-specific rules into account in determining eligibility.

Our sample excluded individuals eligible for Medicaid under a section 1115 waiver, in states that had implemented enrollment freezes.²⁰ Section 1115 waivers, which are granted by the Centers for Medicare and Medicaid Services, allow states to set up demonstration projects that have often expanded Medicaid coverage to nontraditional Medicaid populations.

To identify predictors of take-up, we considered individual-level and state-level variables. Individual characteristics were eligibility category, income, employment, basic demographics, and factors affecting the benefits of coverage—that is, health status and having another Medicaid-eligible individual in the family. Because our data did not include information on pregnancy, we adjusted for whether a woman was of childbearing age, ages 19–40. We also included an indicator for having noncitizen family members, which might reduce Medicaid participation because of concerns related to immigration status.²²

We examined three types of variables in state policies. One set of variables related to the benefit of Medicaid coverage: cost-sharing requirements, which were expressed in terms of the average out-of-pocket spending per adult enrollee, based on state-specific copayments and average Medicaid utilization rates;^{15-19,23} a composite measure of the scope of covered services;²⁴ provider reimbursement rates;²⁵ and Medicaid managed care penetration—that is, the share of Medicaid enrollees who are in managed care.²⁶

The second set of variables related to the burden of Medicaid enrollment. From previous publications, we recorded the availability of a combined family application; availability of joint applications for programs such as Medicaid and food stamps; requirement of a face-to-face interview at enrollment, renewal, or both; and frequency of eligibility redetermination (every three, six, or twelve months).¹⁵⁻¹⁹ From state web-

We found that the strongest predictor of Medicaid take-up was category of eligibility.

sites or contact with state officials, we recorded whether applications could be submitted via telephone or online, including provider-submitted applications; the length and reading level of the application;²⁷ and the availability of applications in languages other than English.

The third set of variables we considered consisted of contextual factors. Given the key role that the economy plays in Medicaid enrollment, we adjusted for state- and year-specific per capita income. We also adjusted for each year of the study using year fixed effects, to control for national economic trends. Other variables in this category included whether a state's Medicaid enrollment was administered at the county level (Alan Weil, executive director, National Academy for State Health Policy, personal communication, January 29, 2011, citing unpublished data from the National Association of Counties); the use of asset tests for eligibility, which is an indication of administrative hassle but also an indirect measure of eligibility in our sample;^{15–21} the federal medical assistance percentage, or the share of each state's Medicaid costs that the federal government reimburses;²⁸ whether a state offered any programs beside Medicaid to help adults obtain health insurance;^{20,29} and a variable indicating the implementation of health reform in Massachusetts beginning in 2007.

Finally, we obtained a validated measure of state political ideology.³⁰ This measure equals the difference between the percentages of self-described liberals and conservatives in a state's population.³¹ We divided states into tertiles called "liberal," "moderate," and "conservative." The measure has been used in prior analyses to capture stigma against Medicaid participation and other unobservable program features that may affect take-up rates.³²

DATA ANALYSIS We estimated a national take-up rate using the survey-weighted mean of Medicaid enrollment for our sample. To identify individual predictors of take-up, we used multi-variable logistic regression, adjusted directly for the state of residence (using state fixed effects), with standard errors clustered at the household level. The outcome variable was Medicaid cover-

age. We then estimated participation rates for each state, adjusted for demographic factors, using marginal predicted probabilities.

Our analyses of state policies used two regression models. The first included state fixed effects plus the policy variables—such as benefits of coverage, burden of enrollment, and contextual factors—that changed during the study period. The second replaced the fixed effects with the ideology measure, which allowed us to include policies that did not change during the study period. Standard errors for these regressions were clustered at the state level. All analyses used the statistical software Stata, version 11.0.

LIMITATIONS AND SENSITIVITY ANALYSES Our study's primary limitation was that, compared to administrative data, the Current Population Survey underreports Medicaid coverage. Research indicates that the majority of Medicaid enrollees who misreport their coverage say that they have private insurance. Only 4.6 percent of Medicaid enrollees think that they are uninsured, and we used this figure to adjust our take-up estimates.³³ At a population level, this approach is unbiased. However, in identifying predictors of take-up, underreporting could be correlated with certain independent variables, which could lead to spurious findings regarding predictors of take-up.

Our survey data told us only if a person reported having Medicaid coverage. The data did not directly describe whether people have experienced coverage gaps over time as their income and thus their eligibility for Medicaid changed—a process also called "churning." Our cross-sectional approach captured some information about coverage stability because churning reduces participation rates at any single point in time. However, research using longitudinal data would be better suited to examining temporary gaps in Medicaid coverage.

Another concern is that income and disabilities were self-reported and did not correspond precisely to state eligibility criteria. For instance, some people who reported being disabled probably did not meet Medicaid standards for disabilities, which means that we may have underestimated take-up among truly disabled adults.

Our data also did not enable us to identify adults whose eligibility was based on "medical need"—that is, whose medical spending exceeded a certain proportion of income. Fortunately, this was unlikely to produce much bias because medically needy people constituted only 8 percent of Medicaid's enrollment.³⁴

Although we assembled a comprehensive list of policies, we could not find reliable measures for enrollment outreach and the availability of charity care. To the extent that these features were stable within states, the model using fixed

effects should have limited the bias from these omissions.

We conducted several sensitivity analyses (described in the online Appendix).³⁵ These addressed citizenship status, enrollment freezes, potential imprecision in the survey’s measurement of family income, and the presence of private health insurance.

We also assessed the possibility of collinearity, given the numerous policy variables being assessed. We created a composite index of benefit generosity that included items such as dental coverage and a composite index of administrative hassle that included items such as the frequency of enrollment from the variables described above. We assigned each policy variable

a positive or negative effect and summed the standardized values, normalized to a mean of zero and a standard deviation of one. We repeated our analyses with the composite indexes replacing individual policies. We also estimated correlation coefficients between ideology, administrative hassle, and benefit generosity.

Study Results

The national Medicaid take-up rate among eligible adults was 62.6 percent (95% confidence interval: 61.8–63.3) (Exhibit 1). Childless adults represented 13.8 percent of the sample.

Exhibit 2 summarizes the policy variables. For example, 27 percent of the sample lived in states that required a face-to-face interview when applying for Medicaid. The average application was thirteen pages long and written at a ninth-grade reading level. Asset tests were required for 73 percent of the sample, with asset limits averaging approximately \$4,000.

We found that the strongest predictor of Medicaid take-up was category of eligibility (Exhibit 3). Disabled adults were significantly more likely to be enrolled in Medicaid than parents or childless adults. Several other factors had significant but smaller effects. Take-up was significantly higher among younger people, females, blacks, unemployed adults, people with less education, and those with worse self-reported health. People were less likely to enroll if their families included noncitizens and more likely to enroll if another family member was eligible for Medicaid.

Exhibit 4 shows take-up rates for adults by states, adjusted for demographics. Take-up varied widely, with rates as low as 43.0 percent in Arkansas and Louisiana and as high as 82.8 percent in Massachusetts, and rates correlated closely with state political ideology. Controlling for demographics, take-up rates were 69.1 percent for liberal states, 61.1 percent for moderate states, and 54.0 percent for conservative states ($p < 0.001$).

Exhibit 5 presents the policy predictors of Medicaid take-up. Model 1, using state fixed effects, identifies the effects of policy variation within a given state over time. Model 2, without state fixed effects, identifies the effects of policy variation both within and between states. Of all the factors related to the hassle of enrolling in Medicaid, only two were significantly associated with take-up. In model 2, the availability of a shared application for family members increased the odds of take-up by 19 percent, and the availability of Spanish-language applications reduced the odds by 35 percent.

Among the factors related to the benefit of

EXHIBIT 1

Demographic Characteristics Of The Sample Of Nonelderly US Adults Eligible For Medicaid, 2005–10

Variable	Mean/ percentage	Standard error
Medicaid take-up rate	62.6%	0.4
Eligibility category		
Disabled adult	44.0%	0.4
Parent	42.2	0.4
Childless adult	13.8	0.3
Education		
Did not complete high school	29.9%	0.3
High school graduate	63.7	0.4
College graduate	6.5	0.2
Working	25.5	0.3
Age (years)	37.6	1.0
19–24	19.0%	0.3
25–30	17.5	0.3
31–40	22.7	0.3
41–50	21.7	0.3
51–64	19.1	0.3
Male	38.7%	0.3
Female, childbearing age (19–40)	38.4%	0.3
Race		
White	66.4%	0.4
Black	26.3	0.4
Asian	2.9	0.1
Native American	1.9	0.1
Other	2.5	0.1
Latino ethnicity	16.9%	0.3
Health status		
Excellent	14.4%	0.3
Very good	20.4	0.3
Good	27.5	0.3
Fair/poor	37.8	0.4
Rural (versus urban)	20.1%	0.3
Married	22.8%	0.3
Family income as % of federal poverty level	47.6%	0.3

SOURCE Authors’ analysis of data from the Current Population Survey (2005–10). **NOTES** Sample of 36,427 US citizens, ages 19–64, eligible for Medicaid and having no alternative form of insurance. Medicaid take-up rate adjusted for underreporting of Medicaid coverage in the Current Population Survey. Percentages might not sum to 100 because of rounding.

coverage, lower cost sharing and higher provider reimbursement were both associated with greater take-up in model 1 (Exhibit 5). In model 2, greater scope of covered services, the availability of dental coverage and having a higher percentage of Medicaid recipients in the state enrolled in managed care were predictors of improved take-up.

The ideology effect was no longer significant after adjusting for state Medicaid policies (Exhibit 5). Asset tests were associated with a 78 percent reduction in the odds of take-up in model 2. Across both models, living in Massachusetts after the state's passage of health reform was the strongest consistent predictor of enrollment.

Results Of Sensitivity Analyses

When we increased or decreased family income by 10 percent, the national take-up rate varied from 61.0 percent to 63.1 percent, compared to 62.6 percent in our baseline estimate. When we included eligibility groups facing enrollment freezes—that is, people in eligibility groups whose enrollment had been capped by the state—take-up was 61.7 percent. And when we included noncitizens, take-up was 56.4 percent.

In analyses with income altered, the key demographic and policy predictors remained unchanged, with several additional policies having small effects on take-up (Appendix).³⁵ Including groups facing enrollment freezes or noncitizens did not change the key results. Enrollment freezes (odds ratio: 0.69; $p < 0.001$) and non-citizenship status (odds ratio: 0.54; $p < 0.001$) were both strong predictors of lower take-up.

In analyses using the composite indexes (Appendix Exhibit A1),³⁵ our primary findings persisted. The overall burden of enrolling in Medicaid was not a significant predictor of take-up. The composite index measuring the generosity of Medicaid coverage was significantly associated with higher take-up in both model 1 (odds ratio: 1.19; $p < 0.001$) and model 2 (odds ratio: 1.09; $p = 0.034$). This finding indicates that an increase of one standard deviation in benefit generosity within a given state was associated with 19 percent higher odds of take-up.

Liberal state ideology and benefit generosity were highly correlated ($\rho = 0.41$; $p = 0.004$) (Appendix Exhibit A2).³⁵ Administrative hassle was not significantly correlated with either benefits ($\rho = -0.16$; $p = 0.31$) or ideology ($\rho = 0.002$; $p = 0.99$) (Appendix Exhibit A2).³⁵ In analyses that included Medicaid-eligible adults with private coverage, 25.1 percent had private coverage, 45.0 percent had Medicaid, and 27.9 percent were uninsured (Appendix Exhibit A3).³⁵

EXHIBIT 2

Policy Variables In The Study Of Medicaid Eligibility And Enrollment Among Nonelderly US Adults

Variable	Mean/ percentage	Standard deviation
FACTORS RELATED TO HASSLE OF ENROLLMENT		
Face-to-face interview when applying	26.7%	41.8%
Face-to-face interview when renewing	11.2%	29.5%
Shared application for family members	61.3%	47.6%
Frequency of eligibility renewal (months)	10.2	2.7
Self-declaration of residency	21.0%	42.5%
Application length (pages)	13.1	8.4
Application literacy level (grade)	9.4	1.5
Application available in Spanish	95.3%	38.8%
Application available in other foreign languages	21.5%	39.2%
Application can be submitted by telephone	26.2%	40.2%
Application can be submitted online (by consumer)	40.5%	48.4%
Application can be submitted online (by provider)	32.4%	47.7%
Separate application for disabled adults	32.2%	46.2%
Application combined with other programs	47.8%	50.0%
FACTORS RELATED TO BENEFIT OF COVERAGE		
Scope of covered services (z-score)	0.0	1.0
Dental coverage	66.3%	47.9%
Annual cost sharing	\$25.30	\$25.60
Percentage of state enrollees in managed care	67.6%	19.9%
Provider reimbursement (percentage of national mean)	96.6%	27.0%
STATE CONTEXTUAL FACTORS		
Federal medical assistance percentage	57.0%	7.6%
Per capita income	\$25,250	\$3,540
Asset test used for eligibility determination	73.2%	44.4%
Asset limit (if any)	\$4,023	\$4,820
County-based Medicaid administration	60.3%	50.0%
Massachusetts after state health reform	2.6%	13.1%
Other state-run insurance program for poor	18.0%	43.5%
Liberal ideology	39.2%	49.4%
Moderate ideology	36.5%	47.6%
Conservative ideology	24.2%	42.3%

SOURCE Authors' analysis of data from the Current Population Survey (2005–10) and primary and secondary data sources on state policies. **NOTES** Sample of 36,427 US citizens, ages 19–64, eligible for Medicaid and having no alternative form of insurance. Z-score is the normalized value of the variable, with a mean of 0 and standard deviation of 1.

Discussion

In a nationally representative sample of adults ages 19–64 who had no other health insurance, only 63 percent of adults eligible for Medicaid were enrolled in the program. The remaining 37 percent were uninsured. Participation was highest among disabled adults, who had a much greater take-up rate than parents and childless adults. Notably, childless adults will comprise the majority of adults newly eligible for Medicaid under health reform.

THE ROLE OF THE STATES Beyond the category of eligibility, no demographic factor played as large a role in predicting Medicaid enrollment as the state in which a person lived. Politically liberal states had significantly higher participation than conservative states, with take-up rates,

EXHIBIT 3

Individual Characteristics Associated With Medicaid Take-Up Among Eligible US Adults

Variable	Odds ratio	95% CI	Predicted probability (%)
Eligibility category			
Disabled adult	1.00	— ^a	75.8
Parent	0.39***	0.35-0.43	56.9
Childless adult	0.16***	0.14-0.19	38.3
Education			
Did not complete high school	1.76***	1.52-2.03	66.8
High school graduate	1.32***	1.16-1.52	61.3
College graduate	1.00	— ^a	55.7
Working	0.45***	0.42-0.48	50.9
Race			
White	1.00	— ^a	60.8
Black	1.33***	1.23-1.45	66.4
Asian	1.19	0.95-1.50	64.3
Native American	1.27	0.98-1.65	65.4
Other	1.24**	1.02-1.51	65.0
Latino ethnicity	1.12**	1.01-1.24	64.4
Health status			
Fair/poor	1.00	— ^a	66.6
Good	0.83***	0.76-0.90	62.9
Very good	0.67***	0.61-0.75	58.8
Excellent	0.65***	0.58-0.73	58.1
Age (years)			
51-64	1.00	— ^a	60.5
41-50	1.02	0.93-1.13	61.0
31-40	0.99	0.87-1.13	60.4
25-30	1.17**	1.02-1.34	63.5
19-24	1.46***	1.27-1.68	67.7
Gender			
Male	0.82***	0.74-0.89	60.1
Female	1.00	— ^a	64.1
Female, childbearing age (19-40)	1.44***	1.28-1.63	66.8
Residence			
Urban	1.00	— ^a	62.0
Rural	1.15***	1.05-1.25	64.7
Marital status			
Not Married	1.00	— ^a	63.1
Married	0.89**	0.81-0.98	60.9
Family member status			
Other eligible family member	1.28***	1.17-1.40	64.4
Noncitizen family member	0.69***	0.59-0.81	55.7

SOURCE Authors' analysis of data from the Current Population Survey (2005-10). **NOTES** Sample of 36,427 US citizens, ages 19-64, eligible for Medicaid and having no alternative form of insurance. Predicted probabilities are adjusted for underreporting of Medicaid coverage. All results used state and year fixed effects. Robust standard errors were clustered at the household level. CI is confidence interval. ^aNo confidence interval provided for the reference group within each variable. ** $p \leq 0.05$ *** $p \leq 0.01$

adjusted for demographics, ranging from 43.0 percent to 82.8 percent.

Why did enrollment vary so widely across states? More generous benefits were associated with higher Medicaid participation, even controlling for ideology, demographics, and state of residence. States that covered preventive dental care and other optional services had higher take-up rates. Increases in provider reimbursement were associated with higher rates. Increases in cost sharing were associated with lower rates, consistent with previous research findings.³⁶

These results indicate that when the benefits of

coverage are greater, enrollment in Medicaid increases. The demographic predictors of higher take-up—disability status, poor health, and having other family members eligible for Medicaid—support this interpretation. Presumably the generosity of benefits shifts the trade-off that people face in deciding whether or not to enroll. However, there also may be an indirect path by which greater benefits lead to greater enrollment: Increasing provider reimbursement, adding covered benefits, and reducing cost sharing all increase the likelihood that a person will come into contact with health care providers, who may facilitate Medicaid enrollment and retention.³⁷

Our findings suggest that the current plans of many states to cut optional benefits because of budget constraints³⁸ will reduce Medicaid participation. They will also therefore undermine the “maintenance of effort” requirement in the Affordable Care Act, which prevents states from cutting Medicaid eligibility prior to 2014—a requirement designed to protect current enrollees from becoming uninsured. Furthermore, our results suggest that take-up may be lower among newly eligible adults in 2014 than among those who are currently eligible, because newly eligible enrollees in 2014 will receive a more restrictive set of benefits—known as “benchmark coverage”—compared to those in traditional Medicaid.

We found that another key predictor of take-up was the use of asset tests. Eliminating asset tests, as the Affordable Care Act does for newly eligible adults, substantially increased take-up in our study, which is similar to previous findings for children.¹⁰ This finding suggests that asset tests place a major burden on applicants. However, our data set lacked asset data, and this result thus may also partially reflect the fact that some adults who appeared eligible for Medicaid based on income were actually ineligible once assets were taken into account.

Beyond the asset test, none of the fourteen factors related to enrollment hassle were associated with large changes in take-up, and neither was the composite index measuring the burden of the application process. Although some factors may have been effective within a given state depending on how they were implemented, we found no effect for most policies across all states.

In one model, we found a significant but small increase in take-up associated with using a common family application. There was also an anomalous result that people in states offering an application in Spanish were less likely to enroll in Medicaid. This finding probably reflects the fact that states with more Spanish-speaking applicants had lower take-up rates than states with fewer Spanish-speaking applicants, rather

EXHIBIT 5

Policy Variables Associated With Medicaid Take-Up Among Eligible US Adults

Variable	Adjusted odds ratio (95% CI)	
	Model 1	Model 2
FACTORS RELATED TO HASSLE OF ENROLLMENT		
Face-to-face interview when applying	0.85 (0.65–1.13)	0.99 (0.80–1.23)
Face-to-face interview when renewing	0.92 (0.77–1.10)	0.93 (0.76–1.13)
Shared application for family members	1.10 (0.94–1.29)	1.19 (1.01–1.39)**
Frequency of eligibility renewal (months)	0.98 (0.96–1.00)	0.99 (0.96–1.02)
Self-declaration of residency	1.02 (0.83–1.25)	0.92 (0.72–1.17)
Application length (pages)	— ^a	1.01 (1.00–1.02)
Application literacy level (grade)	— ^a	0.96 (0.90–1.02)
Application available in Spanish	— ^a	0.65 (0.47–.91)***
Application available in other foreign languages	— ^a	0.95 (0.79–1.13)
Application can be submitted by telephone	— ^a	1.21 (0.95–1.54)
Application can be submitted online (by consumer)	— ^a	1.01 (0.82–1.24)
Application can be submitted online (by provider)	— ^a	1.04 (0.87–1.25)
Separate application for disabled adults	— ^a	1.03 (0.85–1.24)
Application combined with other programs	— ^a	1.02 (0.81–1.29)
FACTORS RELATED TO BENEFIT OF COVERAGE		
Scope of covered services (z-score)	— ^a	1.16 (1.04–.29)***
Dental coverage	1.20 (0.96–1.51)	1.28 (1.10–.49)***
Annual cost sharing (\$100s)	0.58 (0.46–0.74)***	1.13 (0.72–1.78)
Percentage of state enrollees in managed care	1.28 (0.98–1.68)	1.36 (1.05–1.76)**
Provider reimbursement (percentage of national mean)	1.02 (1.00–1.03)**	1.00 (1.00–1.01)
STATE CONTEXTUAL FACTORS		
Federal medical assistance percentage	1.00 (0.97–1.02)	1.00 (0.99–1.02)
Per capita income (\$1,000s)	1.00 (0.95–1.06)	0.99 (0.95–1.04)
Asset test used for eligibility determination	0.22 (0.07–0.69)***	0.66 (0.18–2.45)
Asset limit (\$1,000s)	0.99 (0.97–1.00)**	1.00 (0.98–1.01)
County-based Medicaid administration	— ^a	1.12 (0.95–1.31)
Massachusetts after state health reform	1.57 (1.23–2.02)***	2.48 (1.55–.97)***
Other state-run insurance program for poor	0.91 (0.72–1.15)	1.14 (0.94–1.38)
Liberal ideology	— ^a	1.36 (0.99–1.86)
Moderate ideology	— ^a	1.09 (0.86–1.37)
Conservative ideology	— ^a	1.00 ^b

SOURCE Authors' analysis of data from the Current Population Survey (2005–10) and primary data on state policies gathered from published literature and direct contact with states. **NOTES** Sample of 36,427 US citizens, ages 19–64, eligible for Medicaid and having no alternative form of insurance. All results use standard errors clustered at the state level and are adjusted for the demographic variables listed in Exhibit 3 and year fixed effects. Z-score is the normalized value of the variable, with a mean of 0 and standard deviation of 1. CI is confidence interval. ^aVariables without any within-state variation were excluded from model 1, which included state fixed effects. ^bReference group for ideology. ** $p \leq 0.05$ *** $p \leq 0.01$

linguistically appropriate to the needs of the population.

Another factor associated with higher take-up was having a higher percentage of Medicaid beneficiaries in managed care. This may be because beneficiaries see managed care as preferable to traditional Medicaid, or because managed care plans make greater efforts than the classic fee-for-service Medicaid programs do to increase enrollment. These outreach efforts by managed care plans are also fueled by the fact that the plans receive capitated payments for each of their enrollees and thus have a clear financial incentive to sign people up.

Our list of policies explained most of the state differences in take-up rates based on political ideology. However, we still found a trend toward

higher enrollment among liberal states after adjustment. This suggests that unmeasured variables correlated with ideology—such as the presence of outreach efforts or stigma associated with enrolling in Medicaid—may play a role as well.

THE EFFECT OF MASSACHUSETTS'S HEALTH REFORM Finally, the most powerful policy predictor of take-up was Massachusetts's statewide health reform. Although it was already at the higher range of take-up even before its health reform,⁴³ Massachusetts managed to increase its Medicaid enrollment by more than 10 percentage points after the implementation of several policies in 2007. The state's apparent "magic bullet" included an individual insurance mandate; media coverage and publicity by the state and nonprofit organizations; and the use of data

matching from other public programs to reduce the application burden on applicants.⁴⁴

One might assume that Massachusetts's mandate was the main factor. However, the majority of state residents eligible for Medicaid had incomes low enough that they were exempt from mandate penalties. The Affordable Care Act has a similar exemption, in that many uninsured Americans have incomes below the tax-filing threshold and therefore will not be subject to the health coverage mandate.

Rather than the mandate itself making a difference in enrollment, it seems that the perception of a mandate (even if its penalties did not apply to this population), combined with awareness of coverage options and active outreach, made the difference in Massachusetts. The impact of outreach is evident in the fact that more than half of all successful applications were submitted on behalf of consumers by providers or community organizations.⁴⁴

The state's subsidized exchange-based coverage, called Commonwealth Care, may also have had an effect, because the application process for premium subsidies redirected applicants to Medicaid if they qualified. Similarly, the exchanges to be created under the Affordable Care Act could have a positive impact on Medicaid take-up.

Conclusion

The expansion of Medicaid in 2014 offers the possibility of enhanced coverage and access to care for millions of low-income Americans. To maximize this opportunity, policy makers need to ensure that take-up among eligible adults exceeds current rates. In many states take-up rates now are under 50 percent—particularly among nondisabled childless adults, who constitute the bulk of the uninsured.

The Affordable Care Act takes several steps that may improve take-up rates. It creates a simpler, universal eligibility standard for most adults across all states, which may reduce informational barriers to enrollment. It also requires states to create an online application and a “no wrong door” enrollment process with a single application that directs all applicants to Medicaid, an insurance exchange, or the Children's Health Insurance Program to the correct program.

But our findings indicate that incremental administrative steps alone may be inadequate to ensure broad participation. States need to ensure comprehensive coverage of needed benefits, provide community-based outreach, and consider more dramatic changes to their enrollment processes in order to produce high rates of coverage among adults eligible for Medicaid. ■

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Benjamin D. Sommers is an assistant professor of health policy and economics at the Harvard School of Public Health.

In this month's *Health Affairs*, Benjamin Sommers and coauthors report on their study of Medicaid participation rates among eligible adults ages 19–64, which found that the national rate was 62.6 percent based on Current Population Survey data from the period 2005–10. The authors found that more extensive coverage, lower cost sharing, and the availability of managed care programs were associated with greater Medicaid participation, while low take-up rates were associated with the existence of asset tests in some states.

Sommers and colleagues suggest some strategies that policy makers may need to pursue to boost enrollment as of full implementation of the Affordable Care Act in 2014. These include offering more generous coverage of benefits and automatically enrolling people in Medicaid based on their participation in other programs, such as food stamps.

Sommers, an assistant professor of health policy and economics at the Harvard School of Public Health and an assistant professor of medicine at Harvard Medical School and Brigham and Women's Hospital, is currently on leave from Harvard while he serves as a senior adviser in health policy in the Office of the Assistant Secretary for Planning and Evaluation at the

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Sommers received a doctorate in health policy, with a concentration in health economics, from Harvard University and a medical degree from Harvard Medical School. The paper in this month's issue is based on research he did at Harvard and does not reflect official HHS policy.



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Errata

SMITH ET AL., JUNE 2012, P. 1277 In the third sentence of the Abstract, the number 4,518 decedents should be 4,158. The article has been corrected online.

SOMMERS ET AL., MAY 2012, P. 915 In Exhibit 4, the color coding for Vermont

and New Hampshire was inadvertently transposed. Vermont should be blue (> 70%), and New Hampshire should be red (< 50%). Also, Florida should be red instead of orange (50–59%). Finally, the District of Columbia (denoted by a star between Maryland and Virginia) should be blue. The exhibit has been corrected online.

RESCHOVSKY ET AL., MAY 2012, P. 961

In Exhibit 4, the legend colors were inadvertently transposed. The red bars represent the percentage of the interquintile difference in total utilization attributable to category, and the blue bars represent the percentage of total national utilization. The exhibit has been corrected online.