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## Variation in Medicaid Eligibility and Participation among Adults: Implications for the Affordable Care Act

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*Steep declines in the uninsured population under the Affordable Care Act (ACA) will depend on high enrollment among newly Medicaid-eligible adults. We use the 2009 American Community Survey to model pre-ACA eligibility for comprehensive Medicaid coverage among nonelderly adults. We identify 4.5 million eligible but uninsured adults. We find a Medicaid participation rate of 67% for adults; the rate is 17 percentage points lower than the national Medicaid participation rate for children, and it varies substantially across socioeconomic and demographic subgroups and across states. Achieving substantial increases in coverage under the ACA will require sharp increases in Medicaid participation among adults in some states.*

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The Affordable Care Act (ACA), enacted in 2010, includes an expansion of Medicaid<sup>1</sup> eligibility to the nonelderly with incomes below 138% of the federal poverty level (FPL).<sup>2</sup> Beginning in 2014, states that expand Medicaid under the ACA will receive federal financing that covers 100% of the cost of covering the newly eligible through 2016, with federal matching rates gradually phasing down to 90% by 2020. In contrast, federal matching rates for those currently eligible under Medicaid vary from 50% to 76%.<sup>3</sup>

While the ACA will make some children newly eligible for Medicaid, adults will comprise the vast majority of the newly eligible, particularly adults who do not live with dependent children (Holahan and Headen 2010). This reflects the fact that adults are currently much less likely than children to be eligible for public coverage under Medicaid and the Children's Health Insurance Program (CHIP), and that parents are more likely than

adults without dependent children to be eligible for such coverage (Cohen Ross et al. 2009). At present, while half of the states cover uninsured children with family incomes up to 250% of the FPL or higher (18 of these at 300% of the FPL or higher), just 18 states provide comprehensive Medicaid coverage to parents with incomes at or above 100% of the FPL. Thirty-three states have thresholds below this level, with 17 of these only covering parents at 50% of the FPL or lower (Heberlein, Brooks et al. 2012).

Very few states provide Medicaid coverage for nondisabled, nonpregnant adults without children (Heberlein et al. 2011; Kaiser Commission on Medicaid and the Uninsured 2011). As of 2012, adults without dependent children in only the District of Columbia and Vermont, and parents in only the District of Columbia and 10 states (Connecticut, Illinois, Maine, Massachusetts, Minnesota, New Jersey, New York, Rhode Island, Vermont, and

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Wisconsin) are eligible for comprehensive Medicaid or Medicaid-equivalent coverage at or above 133% of the FPL, the level to which Medicaid coverage can be expanded under the ACA.<sup>4</sup>

An estimated 15 million uninsured adults nationwide could become newly eligible for Medicaid in 2014 under the ACA (Kenney et al. 2012). However, in light of the recent Supreme Court decision, states have the option of whether to expand Medicaid under the ACA (Advisory Board 2012), and it is expected that even in states that implement the expansion, some people who are eligible for Medicaid/CHIP will not enroll (Sommers and Epstein 2010; Buettgens, Garrett, and Holahan 2010). Recent research showed that Medicaid/CHIP participation rates have increased among children, reaching nearly 85% in 2009 (Kenney et al. 2011), but participation rates vary across subgroups of children with respect to age, race/ethnicity, and citizenship and across states (Kenney et al. 2010).

Given current Medicaid/CHIP eligibility policies, it is not surprising that eligibility and participation also vary across subgroups of adults. Higher eligibility rates have been found among women, citizens, parents, and those with lower incomes (Davidoff et al. 2004). Among the eligible, prior research has found higher participation among adults with disabilities, parents of children enrolled in Medicaid/CHIP, and those with recent cash assistance participation (Davidoff et al. 2004; Davidoff, Yemane, and Adams 2005; Sommers and Epstein 2010), perhaps because of tighter linkages to other public assistance programs. In addition, participation rates have been found to vary across states (Davidoff et al. 2004; Davidoff, Yemane, and Adams 2005; Sommers and Epstein 2010).

This paper uses the 2009 American Community Survey (ACS) to explore variation in eligibility for comprehensive Medicaid benefits, as well as variation in Medicaid participation, among nonelderly adults prior to the ACA. The ACS includes a public use sample of approximately 1.8 million adults each year. Due to the survey's large sample size and representation of every county in the nation in its sample frame, the addition of a

health insurance question beginning in 2008 made it possible to develop much more precise estimates of insurance coverage at the state and local level than was previously possible. This study improves on other recent state-level estimates of Medicaid eligibility and participation (Sommers and Epstein 2010) by employing a more comprehensive approach<sup>5</sup> to modeling eligibility, by using a data source with much larger state-level samples<sup>6</sup> and more complete geographic coverage within each state, and by examining alternative approaches to defining eligibility and participation.

The following section describes the data source, how we derive coverage estimates on the ACS, and how eligibility is defined for adults. Subsequent sections present findings and discuss the policy and methodological implications of the results.

## **Data and Methods**

### *Data Source*

The estimates in this study are derived from the 2009 ACS, an annual survey fielded by the U.S. Census Bureau. We use an augmented version of the ACS prepared by the University of Minnesota Population Center. Known as the Integrated Public Use Microdata Sample (IPUMS), it employs the public use sample of the ACS and contains edits for family relationships and other variables (Ruggles et al. 2010). The 2009 ACS has a reported household response rate of 98.0%, ranging from 94.9% in the District of Columbia to 99.4% in Indiana and Wisconsin (U.S. Census Bureau 2009). The survey uses an area frame that includes households with and without telephones (land line or cellular). It is a mixed-mode survey that starts with a mail-back questionnaire—52.7% of the civilian noninstitutionalized sample was completed by mail in 2009 (Mach and O'Hara forthcoming)—and is followed by telephone interviews for initial nonresponders; it is further followed by in-person interviews for a subsample of remaining nonresponders (Griffin and Hughes 2010). The estimates presented here are based on a sample of 1.8 million adults ages 19 to 64 in the civilian noninstitutionalized population.<sup>7</sup>

In 2008, a question was added to the ACS to ask respondents about coverage of each individual in their households by any of the following types of health insurance or health plans at the time of the survey:

- a. Insurance through a current or former employer or union (of this person or another family member);
- b. Insurance purchased directly from an insurance company (by this person or another family member);
- c. Medicare, for people 65 and older, or people with certain disabilities;
- d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability;
- e. TRICARE or other military health care;
- f. VA [Department of Veterans Affairs] (including those who have ever used or enrolled for VA health care);
- g. Indian Health Service;
- h. Any other type of health insurance or health coverage plan (respondents are asked to specify).

Multiple types of coverage can be identified for each person, and people identified as not having coverage under categories a through f (or recoded to another category from the write-in option, category h) are considered uninsured (Turner and Boudreaux 2010).<sup>8</sup> Since the data are collected continuously over a 12-month period, the coverage estimates represent an average day in the calendar year.

With the exception of nongroup coverage and, to a lesser extent, Medicaid, research suggests that the ACS coverage estimates released by the Census Bureau are generally valid for policy purposes (Boudreaux et al. 2011), with estimates for the other coverage categories fairly similar to those from the Current Population Survey Annual Social and Economic Supplement (CPS-ASEC) and the National Health Interview Survey (NHIS) (Turner and Boudreaux 2010), which are commonly used to study insurance coverage.

#### *Data Edits*

In an effort to correct for the apparent misreporting of private nongroup coverage and Medicaid/CHIP in the ACS, and to

define coverage as including only comprehensive health insurance as opposed to single-service plans (e.g., dental coverage), we developed a set of logical coverage edits that are applied if other information collected in the ACS implies that coverage for a sample case likely has been misclassified (Lynch et al. 2011; Lynch and Kenney 2011). We draw from approaches that have been applied to other surveys (National Center for Health Statistics 2005) and build on ACS edit rules used by the Census Bureau (Lynch, Boudreaux, and Davern 2010). For instance, we edit sample adults reporting private nongroup coverage to Medicaid if they are simulated as eligible for Medicaid, a parent of a dependent child, and enrolled in the Supplemental Nutrition Assistance Program (SNAP)/food stamps or public assistance, assuming that the reported private nongroup coverage is an error because families with incomes low enough to qualify for other public benefits likely cannot afford to purchase nongroup health insurance coverage on the individual market. We also edit sample adults reporting both Medicaid and employer-sponsored insurance (ESI) to ESI only if they are not simulated as Medicaid-eligible (assuming that the reported Medicaid coverage is an error or that it is for wrap around coverage or for narrowly defined services, such as for family planning). As detailed in an appendix (available to readers upon request), the additional edits increase the estimated number of uninsured adults from the ACS by 1 million and decrease the number of adults with Medicaid coverage by 58,000 in 2009. After editing, our derived estimate of the number of uninsured adults is 39.4 million, relative to the NHIS uninsured estimate of 39.2 million for 2009, and our derived estimate of the number of adults with Medicaid is 16.8 million, compared with 17.1 million from the NHIS (authors' tabulations).<sup>9</sup>

#### *Eligibility Simulation*

This analysis relies on a model developed for the ACS that simulates eligibility for Medicaid using available information on eligibility guidelines, including income thresholds for the appropriate family<sup>10</sup> size, asset tests, parent/family status, and the amount and

extent of income disregards, for each program and state in place as of the middle of 2009 (Cohen Ross et al. 2008; Cohen Ross et al. 2009; Heberlein et al. 2011; Kaiser Commission on Medicaid and the Uninsured 2010a, 2011).<sup>11</sup> For noncitizens, as in some prior studies, the model also takes into account length of residency in the United States in states where this is a factor in eligibility (National Immigration Law Center 2011; Sullivan 2010). Because the ACS does not contain sufficient information to determine whether an individual is an authorized immigrant and therefore potentially eligible for Medicaid coverage, we impute documentation status for noncitizens based on a model used in the CPS-ASEC. Documentation status is imputed to immigrant adults in two stages using individual and family characteristics, based on an imputation methodology that was originally developed by Passel (Passel and Cohen 2009). The approach is designed to produce imputations that match, in the aggregate, published summary estimates of the U.S. undocumented population, nationally and in a subset of large states.<sup>12</sup>

Our model identifies eligibility for comprehensive Medicaid or Medicaid-equivalent benefits in 2009 using state rules for major pathways for adults. The following eligibility pathways are modeled (they correspond roughly to the order in which caseworkers or state eligibility-determination software typically check for eligibility):<sup>13</sup>

1. Aged-out Foster Children (young adults who were foster children who qualify for Medicaid);
2. Supplemental Security Income (SSI) (adults who receive SSI income are deemed Medicaid-eligible because they are enrolled automatically in most states);
3. Section 1931 (usually parents of minors whose incomes fall below the Temporary Assistance for Needy Families [TANF] income cut-offs);
4. Aged/Blind/Disabled (adults with functional limitations who meet the qualifications for aged/blind/disabled coverage);
5. Section 1115 Waivers (adults who meet the qualifications for eligibility in states with Section 1115 programs that provide

comprehensive Medicaid or Medicaid-equivalent benefits);

6. Medically Needy (adults categorically eligible for medically needy coverage who meet the income qualifications for eligibility);
7. Relative Caretakers (adults who are not parents of minors but appear to be relative caretakers of Medicaid-enrolled minors not living with their parents).

For reporting purposes, these eligibility pathways are grouped into four mutually exclusive categories, where cases are grouped according to the first pathway for which they are eligible: 1) Section 1931 (parents qualifying for Section 1931 coverage and relative caretakers), 2) disability-related (those receiving SSI and those who qualify for aged/blind/disabled coverage), 3) 1115 waiver (those meeting the qualifications for 1115 waiver coverage), and 4) other (aged-out foster children and medically needy).

In addition, the appendix includes exploratory analysis of eligibility and participation where we include adults who are ineligible for comprehensive Medicaid in the simulation but either: 1) are eligible for federally funded Section 1115 Medicaid coverage (such as Commonwealth Care in Massachusetts) or state-funded coverage (such as the Basic Health Plan in Washington) that is more limited in scope than comprehensive Medicaid (Heberlein et al. 2011) (we refer to these adults as “*limited benefit eligibles*”<sup>14</sup>), or 2) fall into particular Medicaid categorically eligible groups but do not meet all the requirements for eligibility according to the information available on the ACS and the rules we have (known as “*imputed eligibles*”). Of the 7.4 million adults with Medicaid coverage who do not appear eligible for comprehensive Medicaid services through the main pathways that are simulated, 1.4 million are eligible for limited coverage (.7 million for limited Medicaid coverage and .7 million for state-funded coverage), and 3.6 million meet the categorical requirements for eligibility for comprehensive Medicaid coverage but have reported income levels slightly above the eligibility thresholds that are modeled (i.e., these are so-called imputed

eligibles, many of whom are likely eligible for pregnancy-related services but are not modeled in the core eligibility model because we do not have information on pregnancy status).<sup>15</sup> Our core estimates do not include these groups, but where applicable we examine how our findings change when they are included.

### *Summary of Limitations to the Model*

Modeling eligibility for adults is much more difficult than for children for a number of reasons: first, the eligibility rules are more complex for adults and thus harder to derive from summary reports and state manuals; second, the ACS, like other surveys, does not contain the detail needed to correctly capture important elements of all the major eligibility pathways for adults (e.g., pregnancy status, legal disability status, income disregards related to child support, medical spending used to calculate spend-down for medically needy eligibility, or duration of enrollment or income history to determine transitional medical assistance [TMA] and related eligibility); and third, some states offer coverage for adults that is less comprehensive in scope than full Medicaid benefits.

While extensive efforts were made to collect information on the different rules for each state and to marshal all the relevant information in the ACS, eligibility in states that have additional pathways that are not captured in our model may be understated. In addition, states' determinations of disability-related eligibility use criteria other than the indicators of functional limitations available on the ACS. Thus, some of the adults who appear in our model to be eligible through the disability pathway might not qualify when the more detailed information on their characteristics is taken into account. Additional measurement error in estimates of Medicaid eligibility and participation may result from: the use of the ACS's income data, which collects annual rather than monthly income, and thus does not align with eligibility determination procedures (and which could miscalculate eligibility for those whose income fluctuates from month to month); the misreporting of income or other information, such as immigration status, used in determining eligibility; error associated with

the application of state-level eligibility requirements (for instance, if states apply additional criteria such as work requirements for certain categories of eligibles); the lack of data to determine whether custodial parents meet child support cooperation requirements which could preclude them from Medicaid eligibility (Roberts 2003); the possible inclusion of enrollees in restricted-benefit Medicaid coverage or local public plans (which are not modeled in this simulation) among those classified as having Medicaid coverage; and the systematic underreporting of income in survey data (Moore, Stinson, and Welnick 2000), which could lead to overstating the number of eligible adults and understating their participation. While, taken together, we believe the limitations in our study may bias upward our participation rates and downward our estimates of the number of uninsured adults who are eligible but not enrolled, the direction and extent of bias are not known.

### *Analysis*

We examine rates of Medicaid eligibility and participation, where we define participation rates as the ratio of Medicaid-eligible enrolled adults to Medicaid-eligible enrolled adults plus Medicaid-eligible uninsured adults.<sup>16</sup> Participation rates are presented for the total nonelderly adult population, and by the following socioeconomic, health, and demographic variables: parental status (where a parent is defined as an adult living in a household with a biological, adoptive, or stepchild under age 19), age, sex, citizenship status (U.S. citizen or noncitizen), race/ethnicity, English proficiency, income level of the family, education level, work status, marital status, report of any functional limitation (experiencing cognitive difficulties, trouble performing tasks outside the home, physical limitations, difficulty caring for oneself, or vision or hearing difficulties), household receipt of SNAP/food stamps at some point in the prior 12 months,<sup>17</sup> veteran status, and the availability of a vehicle and of telephone service in the household. We also examine variation across metropolitan status, region, and state. National and state-level participation rates are presented for children as a point of comparison to the estimates for

adults, using a sample of more than 700,000 children from birth to age 18 in the civilian noninstitutionalized population (see Kenney et al. 2010 and Kenney et al. 2011 for information on how eligibility and coverage were defined for children).<sup>18</sup>

In addition, we estimate multivariate models to assess the correlates of Medicaid participation among adults. Both logit and linear/ordinary least squares (OLS) probability models produced similar results in terms of direction of the effects and significance level; we present results from the linear probability models for ease of interpretation.

We use a linear probability model of the form:

$$Participation_i = \alpha + \sum_k \beta_k X_{k_i} + \delta_i + \varepsilon_i$$

where *Participation<sub>i</sub>* is a dummy dependent variable for participation in Medicaid; *X<sub>k<sub>i</sub></sub>*

To examine the extent to which differences in participation across states hold up when we control for observed differences in the composition of the eligible population across states, we compare the difference between each state's participation rate and the rest of the nation's, using a modified version of the model shown earlier. We remove the full vector of state dummy variables and include only one state dummy at a time representing residence in a given state. The coefficient on that term is taken to be the difference in participation likelihood for an individual residing in that state relative to the rest of the nation, controlling for individual differences in the socioeconomic, health, and demographic characteristics included in the model. We run this model 51 times, each with

a single dummy variable representing each of the 50 states and the District of Columbia.

All estimates use weights provided by the U.S. Census Bureau. Standard errors are calculated using replicate weights that take into account the complex nature of the sample design.

## Results

We find over 39 million uninsured nonelderly adults in 2009 (Table 1). Of those, 11.5%—or 4.5 million—are eligible for comprehensive Medicaid benefits but not enrolled.<sup>20</sup> When including additional eligibility for more limited Medicaid coverage or state-funded coverage, we find an additional .9 million eligible uninsured—.5 million and .4 million, respectively.<sup>21</sup> Parents constitute more than half (2.5 million) of the 4.5 million uninsured adults who are eligible for comprehensive Medicaid coverage but not enrolled, and the remaining 2 million are adults who do not have dependent children. An estimated 22.0% of uninsured parents are eligible for Medicaid, compared with just 7.3% of uninsured adults without dependent children. The table also indicates that the eligibility pathways differ dramatically for uninsured parents and other adults: 84.8% of eligible uninsured parents qualify through Section 1931 coverage, while the majority of uninsured adults without dependent children are eligible because they report having a functional limitation and meet the income qualifications for disability-related coverage (59.7%)<sup>22</sup> or because they qualify for 1115 waiver coverage in states with Medicaid programs for adults without dependent children (31.6%).

Among Medicaid-eligible adults, we find a participation rate of 67.4%,<sup>23</sup> with higher participation among adults without dependent children (70.2%) than for parents (64.5%), which is likely because of the higher rates of participation in disability-related coverage (Table 2). However, as subsequently noted, we find that participation is higher among parents in multivariate models that control for other differences, such as age and functional limitation, between eligible parents and adults without dependent children (Table 3). We find lower rates of participation in limited programs

**Table 1. Number and percentage of uninsured nonelderly (ages 19–64) adults, by Medicaid eligibility and parental status, 2009**

	All uninsured adults		Uninsured parents		Uninsured adults without dependent children	
	Number	Percent	Number	Percent	Number	Percent
<b>Total</b>	39,402,000	100.0	11,216,000	100.0	28,187,000	100.0
<b>Eligible for comprehensive Medicaid coverage</b>	4,530,000	11.5	2,465,000	22.0	2,066,000	7.3
Eligible through Section 1931 pathway group	2,210,000	48.8	2,091,000	84.8	120,000	5.8
Eligible through disability pathway group	1,325,000	29.2	92,000	3.7	1,233,000	59.7
Eligible through 1115 waiver pathway group	896,000	19.8	244,000	9.9	652,000	31.6
Eligible through other pathway group	99,000	2.2	37,000	1.5	62,000	3.0
<b>Not eligible for comprehensive Medicaid coverage</b>	34,872,000	88.5	8,751,000	78.0	26,121,000	92.7
Eligible for neither comprehensive Medicaid nor limited program	33,952,000	97.4	8,521,000	97.4	25,431,000	97.4
Eligible for limited program (1115 waiver)	501,000	1.4	213,000	2.4	288,000	1.1
Eligible for limited program (state-funded)	419,000	1.2	17,000	0.2	402,000	1.5

Source: Analysis of 2009 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS).

Notes: Estimates reflect an adjustment for the misreporting of Medicaid and private nongroup coverage on the ACS. Parents are defined as adults living in the same household with their child under 19. Eligibility for Medicaid is defined as eligibility for comprehensive Medicaid benefits based on a model developed by Victoria Lynch under a grant from the Robert Wood Johnson Foundation. The model simulates Medicaid eligibility using available information for each state on its Medicaid eligibility guidelines, including income thresholds for a particular family size, the extent of income disregards, asset limits, immigration status, and other factors. Modeling Medicaid eligibility for adults based on a household survey is subject to measurement error due to the complexity of the rules in place that govern Medicaid eligibility for adults, gaps in the information that is available on income, assets, household structure, immigration status, etc., and difficulties measuring eligibility for certain pathways, such as pregnancy and disability. Eligibility pathways are hierarchical; it is possible that individuals in a specified pathway could also be eligible for subsequent pathways. See paper for details on order of eligibility pathways in the simulation. Numbers have been rounded to the nearest thousands. Total estimates may not add up due to rounding.

than in comprehensive Medicaid, perhaps due to the higher cost-sharing in limited programs (data not shown; see appendix from authors for more details).

Participation rates also vary across other subgroups of the population. For example, participation is higher among older adults, women, citizens, non-Hispanics, those with less education, those not in the labor force, those with physical, mental, or cognitive limitations, SNAP/food stamp recipients, and those in households without vehicles. Some patterns differ for parents and adults without dependent children. For instance, among adults without dependent children, participation is lower for proficient English

speakers, recent veterans, and those with telephone service in the household, but these patterns are not found among parents. In addition, while participation rates are fairly similar for parents living in different types of metropolitan areas, adults without dependent children in the most rural areas (nonmetropolitan and not adjacent to metropolitan areas) were 5.1 percentage points more likely to participate in Medicaid than their counterparts living in the most urban areas (metropolitan). For both parents and adults without dependent children, participation rates vary across regions. Particularly striking regional differences occur in participation rates for parents, with a low rate of 54.1%

**Table 2. Medicaid participation among eligible nonelderly (ages 19–64) adults, by parental status and selected characteristics, 2009**

	All adults (%)	Parents (%)	Adults without dependent children (%)
Total	67.4	64.5	70.2
Age			
19 to 24 <sup>a</sup>	59.9	65.1	55.6
25 to 34	64.4**	65.2	62.6**
35 to 44	65.4**	62.8**	70.9**
45 to 54	70.5**	64.4	74.1**
55 to 64	79.6**	70.9**	80.6**
Sex			
Male <sup>a</sup>	62.9	57.0	66.2
Female	70.3**	67.5**	74.3**
Citizenship			
Citizen <sup>a</sup>	68.0	65.4	70.4
Noncitizen	60.6**	58.4**	67.1**
Race/ ethnicity			
Hispanic <sup>a</sup>	61.9	58.4	67.6
White only	67.7**	64.5**	70.4**
Black only	71.6**	71.1**	72.1**
Asian/Pacific Islander only	69.0**	66.7**	72.0**
American Indian/ Alaskan Native only	59.9	57.8	61.7**
Other/ multiple	70.5**	70.7**	70.3*
English proficiency			
Speaks English well <sup>a</sup>	67.6	65.2	70.0
Doesn't speak English well	64.4**	59.3**	74.8**
Family income			
0%–132% FPL <sup>a</sup>	65.7	64.8	66.7
133%–199% FPL	72.5**	62.9*	91.7**
200+ % FPL	80.8**	59.8**	91.7**
Education			
Less than high school <sup>a</sup>	71.1	65.9	75.6
High school graduate or equivalent	67.2**	63.5**	70.8**
Some college	65.4**	66.0	64.6**
Associate degree	67.2**	67.2	67.1**
Bachelor's degree or greater	55.9**	54.7**	57.0**
Individual work status			
Full-time worker <sup>a</sup>	53.0	56.2	38.0
Part-time worker	58.9**	62.2**	52.6**
Unemployed	54.4**	63.0**	41.1**
Not in labor force	76.4**	70.4**	79.7**
Marital status			
Married <sup>a</sup>	66.3	63.1	76.9
Not married	67.7**	65.4**	69.4**
Functional limitation status			
Has a functional limitation <sup>a</sup>	77.1	81.3	76.1
No functional limitation	58.5**	60.4**	52.2**
Household SNAP/food stamp reciprocity			
Does not receive SNAP/food stamps <sup>a</sup>	56.7	45.6	64.9
Receives SNAP/food stamps	77.7**	78.2**	77.1**



**Table 2. (continued)**

	All adults (%)	Parents (%)	Adults without dependent children (%)
Veteran status			
Veteran, served 2001 or later <sup>a</sup>	56.5	61.8	49.1
Veteran, served before 2001	73.5**	66.7	76.4**
Not a veteran	67.2**	64.5	70.0**
Vehicle availability to household			
Available vehicle(s) <sup>a</sup>	64.1	61.9	66.7
No available vehicles	77.8**	76.8**	78.3**
Telephone availability to household			
No phone <sup>a</sup>	71.5	63.5	74.5
Has phone	67.1**	64.5	69.7**
Metropolitan status			
Metropolitan <sup>a</sup>	67.4	64.6	70.1
Mixed area	65.7**	62.4**	69.1
Nonmetropolitan, adjacent to metropolitan	68.0	66.3**	69.6
Nonmetropolitan, non-adjacent to metropolitan	69.3**	63.5	75.2**
Region			
Northeast <sup>a</sup>	71.3	74.3	69.0
Midwest	72.7**	70.6**	75.6**
South	62.2**	54.1**	69.3
West	65.0**	61.6**	68.8

Source: Analysis of 2009 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS). Notes: Estimates reflect an adjustment for the misreporting of Medicaid and private nongroup coverage on the ACS. Parents are defined as adults living in the same household with their child under 19. Eligibility for Medicaid is defined as eligibility for comprehensive Medicaid benefits based on a model developed by Victoria Lynch under a grant from the Robert Wood Johnson Foundation. The model simulates Medicaid eligibility using available information for each state on its Medicaid eligibility guidelines, including income thresholds for a particular family size, the extent of income disregards, asset limits, immigration status, and other factors. Modeling Medicaid eligibility for adults based on a household survey is subject to measurement error due to the complexity of the rules in place that govern Medicaid eligibility for adults, gaps in the information that is available on income, assets, household structure, immigration status, etc., and difficulties measuring eligibility for certain pathways, such as pregnancy and disability. Participation rates exclude those with employer/union-based, private nongroup, or military coverage.

<sup>a</sup> Denotes reference category.

\*\*(\*) Denotes statistical difference from reference category at the .05 (.1) level.

in the South and a high rate of 74.3% in the Northeast.<sup>24</sup>

To understand whether these subgroup differences can be explained by other differences between the groups, Table 3 shows the results of multivariate models of participation among eligible adults. The results suggest that, other things equal, receipt of SNAP/food stamps has a strong, positive association with Medicaid participation (as shown by the positive, large, statistically significant regression coefficient on that variable, which indicates the percentage-point difference in participation relative to the reference group of eligibles who do not participate in SNAP/food stamps). Other things equal, SNAP/food stamp enrollees may participate in Medicaid at higher rates because they are more aware of

public programs or more willing to take up government benefits. We also find that, other things equal, eligible parents participate at higher rates than adults without dependent children; that may reflect the significant outreach efforts states have made to make parents aware of their children's eligibility for Medicaid/CHIP, which likely brings parents in closer contact with the Medicaid/CHIP system.

Older adults are also more likely to take up Medicaid, perhaps reflecting their greater anticipated health needs, which may not be fully captured in the functional limitation variables included in the model. Women also participate at higher rates, perhaps reflecting the greater need for health services during pregnancy or a greater propensity to seek coverage. Hispanic parents participate at

**Table 3. OLS regression coefficients for Medicaid participation among eligible nonelderly (ages 19–64) adults, by parental status, 2009**

	All adults	Parents	Adults without dependent children
Age (reference: 19 to 24)			
Age 25 to 34	.007	-.026**	.025**
Age 35 to 44	-.016**	-.047**	.030**
Age 45 to 54	-.013**	-.041**	.024**
Age 55 to 64	.047**	.027**	.053**
Female	.050**	.082**	.042**
Noncitizen	-.013	-.018*	.018
Race (reference: white only)			
Hispanic	-.024**	-.041**	.018**
Black only	.041**	.048**	.032**
Asian/Pacific Islander only	.066**	.065**	.057**
American Indian/Alaskan Native only	-.046**	-.068**	-.021
Other/multiple	.007	.013	.005
Doesn't speak English well	-.024**	-.028**	.001
Income (reference: ≥ 138% FPL)			
< 50% FPL	-.260**	-.047**	-.450**
≥ 50% and < 138% FPL	-.085**	-.008	-.180**
Education (reference: less than high school)			
High school graduate or equivalent	-.015**	-.019**	-.008*
Some college	-.024**	.000	-.046**
Associate degree	-.016**	.015	-.038**
Bachelor's degree or greater	-.076**	-.040**	-.093**
Individual work status (reference: full-time worker)			
Part-time worker	.058**	.022**	.120**
Unemployed	.064**	.036**	.140**
Not in labor force	.200**	.081**	.360**
Parent	.069**		
Married	-.001	.045**	-.078**
Parent*Married	-.023**		
Type of functional limitation (reference: no functional limitation)			
Cognitive difficulty	.081**	.100**	.060**
Limited in basic physical activities	.044**	.130**	.011**
Difficulty performing tasks outside the home alone	.120**	.086**	.100**
Difficulty caring for oneself at home	.023**	.024**	.016**
Vision or hearing difficulty	-.009**	.042**	-.025**
Household receives SNAP/food stamps	.220**	.320**	.110**
Veteran status (reference: not a veteran)			
Veteran, served 2001 or later	.004	.033	-.047
Veteran, served before 2001	.060**	.043**	.049**
Household has access to vehicle(s)	-.051**	-.044**	-.049**
Household has a phone	.036**	.022*	.047**
Metropolitan status (reference: metropolitan)			
Mixed	.001	.006	-.008
Nonmetropolitan, adjacent to metropolitan	.010*	.022**	-.006
Nonmetropolitan, nonadjacent to metropolitan	.018**	.011	.019**
Constant	.190**	-.067*	.370**
R <sup>2</sup>	.218	.224	.313

Source: Analysis of 2009 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS).

Notes: Estimates reflect an adjustment for the misreporting of Medicaid and private nongroup coverage on the ACS. Parents are defined as adults living in the same household with their child under 19. Eligibility for Medicaid is defined as eligibility for comprehensive Medicaid benefits based on a model developed by Victoria Lynch under a grant from the Robert Wood

**Table 3. (continued)**

Johnson Foundation. The model simulates Medicaid eligibility using available information for each state on its Medicaid eligibility guidelines, including income thresholds for a particular family size, the extent of income disregards, asset limits, immigration status, and other factors. Modeling Medicaid eligibility for adults based on a household survey is subject to measurement error due to the complexity of the rules in place that govern Medicaid eligibility for adults, gaps in the information that is available on income, assets, household structure, immigration status, etc., and difficulties measuring eligibility for certain pathways, such as pregnancy and disability. Participation rates exclude those with employer/union-based, private nongroup, or military coverage. Models also include state dummy indicators. \*\* (\*) indicates statistical difference from zero at the .05 (.1) level.

lower rates than non-Hispanic white parents, even after controlling for citizenship status and English language skills, while African-American adults participate at higher rates, regardless of parental status.<sup>25</sup> Among parents, not being a citizen and the inability to speak English well are both associated with lower Medicaid participation, possibly indicating problems such adults have navigating enrollment systems or lack of knowledge of the program. Being married is associated with greater likelihood of participating among parents, but lower likelihood among adults without dependent children, though it is not clear why the direction of the effect differs across the two groups.

Most of the functional limitation measures we can examine—experiencing cognitive difficulties, trouble performing tasks outside the home, physical limitations, or difficulty caring for oneself, all of which suggest a heightened need for health care—are associated with higher participation. However, experiencing vision or hearing difficulties is associated with a slightly lower Medicaid participation rate among adults without dependent children. Eligible adults in very low-income families, particularly those without dependent children and with incomes below 50% of the FPL, are less likely to participate, all else being equal, but being disconnected from the labor force is associated with higher participation. Being a veteran who served before 2001 is associated with higher participation, but recent veterans are not more likely to participate than nonveterans. Having telephone service in the household is also associated with higher rates of participation, but having access to a vehicle has the opposite relationship.<sup>26</sup>

The share of uninsured adults who are eligible for comprehensive Medicaid coverage varies across states, from below 7.0% in five

states (New Hampshire, Oregon, Texas, Virginia, and Wyoming) to above 29.0% in four states (Arizona, Delaware, New York, and Vermont) (Table 4). Low rates of eligibility among uninsured adults can reflect a variety of different circumstances, such as restrictive eligibility policies under which few low-income adults qualify for coverage; broad Medicaid eligibility policies, combined with high participation; or a relatively high-income uninsured population in the state due to high per capita income levels. Eligibility among the uninsured is much higher when including limited programs: in Connecticut, the District of Columbia, Hawaii, Iowa, Maine, Massachusetts, Minnesota, and Vermont, the combined eligibility rates for both comprehensive and limited coverage are higher than 44.3%, the highest state rate of eligibility for only comprehensive coverage (data not shown; see appendix). Eligibility is higher among uninsured parents than for adults without dependent children in every state, with the share of uninsured parents eligible for Medicaid ranging from 9.6% in Texas to 61.7% in Maine; the share for uninsured adults without dependent children is below 10% in every state but four (Arizona, Delaware, New York, and Vermont, all of which have expansive Section 1115 waiver programs providing comprehensive coverage for adults without dependent children).

Medicaid participation rates also vary across states (Table 5). Participation rates for adults range from above 90% in Massachusetts and the District of Columbia to below 55% in Montana and Nevada.<sup>27,28</sup> While participation rates in many states are clustered around the national average—26 states have a participation rate that is within five percentage points of the national average—four states (Hawaii, Maine, Massachusetts, and Rhode Island) and the District of

**Table 4. Percent eligible to enroll in Medicaid, uninsured nonelderly (ages 19–64) adults, by parental status and state, 2009**

	All adults (%)	Parents (%)	Adults without dependent children (%)
<b>U.S. total</b>	<b>11.5**</b>	<b>22.0**</b>	<b>7.3**</b>
Vermont	44.3**	52.7**	42.3**
Arizona	35.0**	41.4**	32.5**
New York	31.9**	38.8**	30.0**
Delaware	29.9**	31.6*	29.5**
Minnesota	16.4**	54.3**	4.3**
Maryland	16.3**	48.9**	5.6**
Maine	15.7**	61.7**	4.3**
Kentucky	15.5**	28.3**	9.6**
Illinois	14.3**	41.3**	5.7**
Wisconsin	14.0**	50.8**	5.7**
Tennessee	13.8**	29.3**	8.4**
South Carolina	13.4**	32.5**	6.4**
North Dakota	13.1	41.6**	4.4**
Iowa	12.8	29.1**	5.5**
Mississippi	12.6*	20.8	9.0**
New Jersey	12.5*	42.9**	3.5**
Oklahoma	12.3	21.8	7.3
Connecticut	12.2	41.1**	3.8**
Ohio	12.1	32.6**	6.4**
Alabama	11.9	18.0**	9.2**
Montana	11.7	27.9*	5.4
West Virginia	11.1	19.4	7.9
Rhode Island	10.5	37.7**	4.3**
Michigan	10.5**	23.7	6.3**
Georgia	10.1**	19.6**	5.9**
California	9.7**	24.4**	3.9**
Alaska	9.7	17.5	6.7
Arkansas	9.6**	13.1**	7.7
Washington	9.5**	19.6*	5.8**
Hawaii	9.4*	34.8**	4.2**
North Carolina	9.0**	14.0**	7.0
Pennsylvania	8.9**	20.8	5.0**
New Mexico	8.8**	18.3**	4.5**
Louisiana	8.6**	15.0**	5.9**
District of Columbia	8.6	50.6**	3.9**
Missouri	8.4**	13.6**	6.2**
Indiana	8.3**	14.6**	5.6**
Nebraska	8.1**	15.0**	4.9**
South Dakota	7.8**	17.3	3.8**
Idaho	7.7**	11.8**	5.0**
Nevada	7.6**	17.8**	3.2**
Kansas	7.5**	11.4**	5.6*
Massachusetts	7.5**	25.8	3.8**
Florida	7.3**	15.4**	4.2**
Utah	7.2**	11.4**	5.0**
Colorado	7.0**	16.9**	3.1**
New Hampshire	6.8**	17.3*	2.6**
Virginia	6.7**	12.1**	4.6**
Wyoming	6.6**	15.9*	2.4**
Oregon	6.5**	10.8**	4.9**
Texas	6.3**	9.6**	4.2**

Source: Analysis of 2009 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS).

Notes: Estimates reflect an adjustment for the misreporting of Medicaid and private nongroup coverage on the ACS. Parents

**Table 4. (continued)**

are defined as adults living in the same household with their child under 19. Eligibility for Medicaid is defined as eligibility for comprehensive Medicaid benefits based on a model developed by Victoria Lynch under a grant from the Robert Wood Johnson Foundation. The model simulates Medicaid eligibility using available information for each state on its Medicaid eligibility guidelines, including income thresholds for a particular family size, the extent of income disregards, asset limits, immigration status, and other factors. Modeling Medicaid eligibility for adults based on a household survey is subject to measurement error due to the complexity of the rules in place that govern Medicaid eligibility for adults, gaps in the information that is available on income, assets, household structure, immigration status, etc., and difficulties measuring eligibility for certain pathways, such as pregnancy and disability. **\*\*(\*)** indicates estimate is statistically different from national estimate at the .05 (.1) level.

Columbia have rates that are higher than 80% and eight states have rates that are 60% or below (Alaska, Arizona, Georgia, Idaho, Montana, Nevada, Oklahoma, and Texas). States that have relatively low participation among eligible parents at all income levels also tend to have low participation rates among eligible adults at the lowest poverty levels (data not shown).

While some of the state variation can be explained by differences in population characteristics across states, we still see substantial differences in participation across states when controlling for the characteristics of the eligible population using the regression model presented in Table 3. The range between the highest and the lowest state participation rates remains large, but narrows from approximately 42 percentage points to approximately 34 percentage points when controlling for these characteristics. Moreover, nine of the 10 states with the highest unadjusted participation rates remain in the top 10, even after accounting for demographic, health, and socioeconomic differences in the composition of the eligible population in different states; likewise, seven of the 10 states in the lowest quintile and four of the five states with the very lowest unadjusted participation rates remain in the bottom 10 and five, respectively. In addition, the correlation coefficient between the adjusted and the unadjusted state-level differences is .90. This suggests that differences in the observed characteristics of eligible adults across states account for only a relatively small part of the state-level variation in participation. However, in some states, there is inconsistency between the unadjusted and the adjusted differences; Vermont, for instance, has the 27th highest unadjusted participation rate at 66.8%, but

when accounting for population differences across states, it moves into the top 10.

When imputed eligibles (i.e., Medicaid enrollees who fall into particular Medicaid categorically eligible groups and whose incomes are near, but not below, the thresholds) are included in our participation estimates, the range narrows across states, both for our unadjusted and regression-adjusted estimates (data available from the authors). Greater increases in participation occur among states near the bottom of the distribution, but most of the states in the top and bottom 10 remain the same in terms of the unadjusted and adjusted participation rate rankings when we include imputed eligibles. For unadjusted estimates, Minnesota moves out of the top 10 when we include imputed eligibles, and is replaced by Wisconsin, and Florida, Idaho, and North Dakota move out of the bottom 10, and are replaced by Maryland, New York, and South Carolina (data not shown).

We also compared our participation estimates for adults to those for children to examine how states' success in enrolling these two groups differs. The results show that participation is consistently lower for non-elderly adults than for children. Our estimate of Medicaid participation among nonelderly adults is 17 percentage points lower than the rate for children. While we see a pattern of lower participation for adults than for children in each state with the differential exceeding 20 percentage points in 19 states, the gap differs widely across states, ranging from 28.1 percentage points in Arkansas (92.6% participation rate for children and 64.6% for adults) to just 2.9 percentage points in Massachusetts (95.7% participation rate for children and 92.9% for adults).

**Table 5. Medicaid participation among eligible nonelderly (ages 19–64) adults and children (birth-age 18), by state, 2009**

	Adults				Children			
	Rate (%)	Rank	Difference from rest of nation (percentage point)	Adjusted difference (percentage point) <sup>a</sup>	Adjusted rank <sup>a</sup>	Rate (%)	Difference from adults (percentage point)	
<b>U.S. total</b>	<b>67.4</b>					<b>84.3</b>	<b>17.0**</b>	
Massachusetts	92.9	1	26.0**	19.3**##	1	95.7	2.9**	
District of Columbia	92.1	2	24.8**	17.5**##	3	97.3	5.2**	
Hawaii	86.5	3	19.2**	19.1**	2	91.4	4.9**	
Maine	83.6	4	16.3**	12.3**##	5	91.1	7.5**	
Rhode Island	81.6	5	14.3**	10.5**##	6	90.7	9.0**	
Wisconsin	79.4	6	12.3**	12.9**	4	88.2	8.8**	
Pennsylvania	79.3	7	12.3**	5.4**##	10	88.1	8.8**	
Connecticut	76.6	8	9.3**	10.2**	7	89.8	13.2**	
Minnesota	74.8	9	7.6**	7.9**	8	79.9	5.0**	
Michigan	74.7	10	7.6**	3.2**##	15	91.5	16.8**	
Ohio	74.1	11	7.0**	2.6**##	16	86.0	12.0**	
West Virginia	72.5	12	5.2**	-0.4##	22	90.2	17.7**	
New Hampshire	72.4	13	5.1	1.9#	19	86.5	14.1**	
Missouri	71.7	14	4.4**	-3.5**##	34	84.0	12.3**	
Iowa	70.9	15	3.5	0.8##	21	86.7	15.8**	
Virginia	69.8	16	2.5*	-1.5##	27	83.3	13.5**	
Washington	69.7	17	2.4	-2.1##	30	85.3	15.6**	
Illinois	69.7	18	2.4**	1.9**	18	90.9	21.2**	
Nebraska	68.7	19	1.4	-1.9#	29	89.9	21.1**	
Indiana	68.6	20	1.3	-1.1##	24	79.8	11.1**	
California	68.5	21	1.2**	5.2**##	11	83.9	15.4**	
South Dakota	67.5	22	0.2	4.0	13	84.3	16.8**	
North Carolina	67.3	23	-0.1	-1.9*##	28	87.0	19.7**	
New Mexico	67.3	24	-0.1	2.2	17	85.2	17.9**	
Tennessee	67.1	25	-0.3	-3.1**##	33	89.9	22.8**	
New Jersey	67.0	26	-0.3	1.0##	20	83.9	16.9**	
Vermont	66.8	27	-0.5	5.5**##	9	92.4	25.5**	
Kansas	66.0	28	-1.4	-5.4**##	35	82.0	16.1**	
New York	65.5	29	-2.1**	3.6**##	14	90.6	25.0**	
Oregon	65.0	30	-2.4	-6.5**##	39	81.2	16.2**	
Louisiana	64.7	31	-2.7	-8.9**##	46	89.3	24.6**	
Delaware	64.6	32	-2.8	5.0**##	12	90.9	26.3**	
Arkansas	64.6	33	-2.8	-6.9**##	40	92.6	28.1**	

Table 5. (continued)

	Adults				Children		
	Rate (%)	Rank	Difference from rest of nation (percentage point)	Adjusted difference (percentage point) <sup>a</sup>	Adjusted rank <sup>a</sup>	Rate (%)	Difference from adults (percentage point)
Wyoming	64.2	34	-3.2	-0.6	23	82.7	18.5**
Kentucky	64.2	35	-3.2**	-7.3*##	41	89.7	25.5**
Mississippi	63.9	36	-3.5**	-5.8*##	36	84.4	20.5**
Colorado	63.8	37	-3.6*	-1.3#	25	80.3	16.4**
Utah	63.6	38	-3.8	-1.3#	26	75.5	11.9**
Alabama	63.4	39	-4.0**	-8.9*##	45	89.1	25.7**
South Carolina	62.1	40	-5.4**	-6.0**	37	83.3	21.2**
Maryland	61.2	41	-6.3**	-7.3*##	42	88.8	27.6**
North Dakota	61.1	42	-6.3	-2.2	32	74.6	13.6**
Florida	60.6	43	-7.1**	-6.4**	38	76.3	15.7**
Alaska	60.0	44	-7.4*	-7.7**	44	78.3	18.3**
Idaho	59.0	45	-8.4**	-7.6**	43	83.5	24.5**
Oklahoma	55.9	46	-11.6**	-14.6*##	51	83.2	27.3**
Arizona	55.8	47	-12.2**	-2.1*##	31	81.8	26.0**
Texas	55.8	48	-12.1**	-14.1*##	50	75.9	20.1**
Georgia	55.1	49	-12.5**	-12.3**	48	82.0	26.8**
Montana	53.7	50	-13.7**	-11.3**	47	75.8	22.1**
Nevada	51.1	51	-16.3**	-13.8*##	49	61.9	10.8**

Source: Analysis of 2009 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS).

Notes: Estimates reflect an adjustment for the misreporting of Medicaid and private nongroup coverage on the ACS. Parents are defined as adults living in the same household with their child under 19. Eligibility for Medicaid is defined as eligibility for comprehensive Medicaid benefits based on a model developed by Victoria Lynch under a grant from the Robert Wood Johnson Foundation. The model simulates Medicaid eligibility using available information for each state on its Medicaid eligibility guidelines, including income thresholds for a particular family size, the extent of income disregards, asset limits, immigration status, and other factors. Modeling Medicaid eligibility for adults based on a household survey is subject to measurement error due to the complexity of the rules in place that govern Medicaid eligibility for adults, gaps in the information that is available on income, assets, household structure, immigration status, etc., and difficulties measuring eligibility for certain pathways, such as pregnancy and disability. Participation rates exclude those with employer/union-based, private nongroup, or military coverage.

<sup>a</sup> Indicates that the difference between the state and the rest of the nation controls for differences in the socioeconomic and demographic characteristics of the eligible population. See Table 3 for a list of variables included in the regression model.

\*\* (\*) indicates statistical difference from zero at the .05 (.1) level.

##(##) indicates adjusted difference is statistically different from unadjusted difference at the 0.05 (0.1) level.

A number of states have either high or low participation rates for both adults and children. At one extreme, Massachusetts, the District of Columbia, Hawaii, Maine and Rhode Island rank among the top five states in terms of enrolling eligible adults and all have participation rates for children above 90%, putting them in the top quintile in terms of enrolling eligible children. At the other extreme, Alaska, Florida, Montana, Nevada, North Dakota, and Texas all fall into the bottom quintile in both categories. Overall, we find a positive, fairly strong correlation between the state-level participation rates for adults and children (with an estimated correlation coefficient of .68).<sup>29</sup>

There are several states that do relatively well enrolling eligible children but do relatively poorly enrolling eligible adults. Arkansas, which has the third highest participation rate among children, at 92.6%, has only the 33rd highest participation rate for adults (64.6%). Other states, such as Alabama, Delaware, Kentucky, Louisiana, Maryland, New York, and Tennessee, have participation rates for children near or above 90%, but have participation rates for adults that are at or below the national average of 67.4%.

## **Discussion**

While most states currently are quite successful at enrolling eligible children in Medicaid/CHIP, these results suggest that enrolling eligible adults remains a challenge in many states. Current patterns of participation in comprehensive Medicaid programs, prior to implementation of the ACA, indicate that about two-thirds of eligible adults are participating. Nationally, Medicaid participation rates are 17 percentage points lower among eligible adults than among eligible children, with a pattern of lower participation among adults in each state, and a gap that exceeds 20 percentage points in 19 states. These results indicate that in order to achieve substantial coverage gains among poor adults under the ACA, most states will need to reach higher participation in Medicaid among those who are newly eligible relative to current levels.

Differences between adult and child eligibility, outreach, and enrollment policies may

contribute to the pattern of lower Medicaid participation rates among adults. In addition to having more complicated eligibility rules for adults, states have made fewer policy changes to simplify enrollment and renewal procedures for parents than for children: for instance, half of the states have asset limits for parents compared with only five programs for children, and more states request income documentation or interviews for application or renewal for parents than for children (Heberlein et al. 2011, Heberlein, Brooks, et al. 2012). The ACA includes a number of provisions that are expected to increase participation in Medicaid among adults, such as the simplification of Medicaid eligibility rules for adults and the elimination of asset tests, the creation of health insurance exchanges, funding for new outreach efforts, and an individual mandate. However, to achieve dramatic increases in participation among adults may require additional changes to Medicaid enrollment procedures and new incentives to states. For instance, while states can provide 12-month continuous eligibility to children (requiring that coverage be renewed only once a year regardless of changes in income), they will not be able to provide this option for adults without a waiver under the ACA (Kaiser Commission on Medicaid and the Uninsured 2010b). Furthermore, since CHIP's reauthorization, states that adopt certain enrollment and retention procedures for children and meet Medicaid enrollment targets have been awarded bonus payments (U.S. Department of Health and Human Services 2011); it is possible that similar efforts focused on adults' enrollment in Medicaid could prove fruitful.

While many more uninsured adults could become eligible for Medicaid under ACA implementation, states are in a position now to reduce the number of uninsured individuals by enrolling those who are already eligible for coverage. Despite relatively low rates of eligibility for public coverage among adults, in 2009 up to 4.5 million uninsured adults were eligible for comprehensive Medicaid coverage but not enrolled. In that same year, an estimated 4.3 million children were also eligible for Medicaid or CHIP coverage but not enrolled (Kenney et al. 2011). Thus, by



increasing participation among already eligible adults and children, states could decrease the number of uninsured nationwide by up to 8.8 million (or even more given the additional .9 million uninsured adults who are eligible for more limited federally funded Medicaid or state-funded coverage). Targeted outreach and enrollment strategies may be needed to be effective. For both adults and children, participation varies across subgroups of the population; for instance, eligible Hispanics and noncitizens have lower rates of participation in both populations, suggesting a payoff to enrollment efforts that target these communities. In addition, we find lower participation among adults who are younger, do not have a functional limitation, or are in households that are not receiving SNAP/food stamps, which could indicate difficulty reaching these populations under the ACA. Other research shows that adults who could become newly Medicaid-eligible under the ACA starting in 2014 will be a diverse group, spanning different age and racial/ethnic groups and including both parents and adults without dependent children (Kenney et al. 2012); this too may call for the adoption of a variety of enrollment strategies.

The current variation across states in Medicaid participation rates among adults is striking—over 40 percentage points from the lowest to the highest rate—and much greater than that among children. Participation rates for comprehensive Medicaid coverage among adults vary from 51.1% in Nevada and between 53.7% and 55.9% in Arizona, Georgia, Montana, Oklahoma, and Texas to 86.5%, 92.1%, and 92.9% in Hawaii, the District of Columbia, and Massachusetts, respectively. Large state-level differences in Medicaid participation are found among adults even when controlling for differences in the characteristics of the adults who are eligible in each state. Thus, other differences between states, such as outreach and enrollment procedures, eligibility thresholds, public perceptions of government programs, rates of employer-sponsored coverage, and other factors may contribute to the observed variation across states in participation levels.

State variation in Medicaid participation rates suggests that Medicaid take-up and

enrollment among states implementing the Medicaid expansion under the ACA could differ widely. Nationwide, the implementation of the Medicaid expansion under the ACA has the potential to greatly reduce cross-state variation in uninsurance rates (Buettgens, Holahan, and Carroll 2011). However, the extent to which the ACA narrows coverage gaps across states will be dependent on states' execution of the expansion (Sommers, Swartz, and Epstein 2011). The ACA has the potential to raise eligibility levels for parents in most states, bringing them closer to those for children. As eligibility for parents expands, it should be possible to achieve participation rates for parents similar to those for children since many uninsured parents have children who are already covered by Medicaid/CHIP (Heberlein, Huntress, et al. 2012).

The ACA has the potential, in particular, to reduce uninsurance rates among nondisabled, nonpregnant adults without dependent children, most of whom are not eligible for any sort of public health insurance coverage under current law, no matter how low their income level. While newly eligible adults without dependent children are unlikely to have other family members who are already enrolled in public health insurance programs, it may be possible to reach some of these newly eligible through the SNAP/food stamps program (Eslami, Filion, and Strayer 2011).

As this analysis shows, there is dramatic variation in participation among eligible adults across states under current law, which is not fully explained by differences in the characteristics of eligible adults. It is likely that much could be learned by examining the states that are doing well at enrolling eligible adults to identify strategies that are most effective at promoting enrollment and retention in Medicaid.

Dramatic declines in uninsurance under the ACA will hinge on successful enrollment of Medicaid eligibles (Holahan and Headen 2011). If Medicaid participation rates remain at current levels, the projected gains in coverage for poor adults under the ACA may be overstated and substantial cross-state variation in uninsurance rates is likely to persist. Features in the ACA, such as increased use of

presumptive eligibility determinations; requirements for consumer-friendly, coordinated enrollment systems; less need for paper documentation; and other methods of simplifying enrollment should increase participation rates and make enrollment processes more consistent across states (Morrow and Paradise 2010). While these factors, combined with the coverage mandate under the ACA, should have a positive effect on participation, the dual challenges of reaching previously eligible and newly eligible adults may require that states and the federal government implement additional policy changes as well.

As described earlier, limitations are inherent in simulation studies, and ours is no exception; correctly determining eligibility among non-elderly adults is particularly difficult due to the

many pathways to eligibility, the dependency of eligibility on a range of characteristics that are not measured well (or at all) in survey data, and the vast differences in rules across states under current law. It should be noted that these issues will also introduce measurement error in estimates of the number of individuals who are being made newly eligible for Medicaid under the ACA. However, despite these measurement issues, our basic findings—that Medicaid eligibility and participation for adults are both low and vary considerably across states and across subgroups—hold up under the alternative methodological approaches we pursued. While Medicaid eligibility will likely broaden and change under the ACA, it will remain important to monitor state and subgroup differences in participation over time.

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## Notes

*This research and the Urban Institute Health Policy Center's American Community Survey (ACS) Medicaid/CHIP Eligibility Simulation Model were developed under a grant from the Robert Wood Johnson Foundation. The opinions and conclusions expressed in this article are those of the authors and do not necessarily represent the views of the funder, The Urban Institute, or its sponsors or trustees. The authors appreciate the helpful suggestions and comments of Lisa Dubay, John Holahan, and Alan Monheit as well as two anonymous reviewers. We also thank Samantha Artiga, Martha Heberlein, and Sharon Long for their helpful advice on Medicaid eligibility rules; Julie Hudson and Tom Selden for sharing their insights on Medicaid/CHIP simulation issues; Cheryl Camillo and Esther Regan for sharing their knowledge of how family members are grouped for Medicaid/CHIP eligibility determination; Jeff Passel for providing advice on modeling documentation status; and Dean Resnick for modeling documentation status and providing other technical assistance.*

- 1 For adults, we refer to public coverage as "Medicaid" although the American Community Survey (ACS) estimate likely includes some adults who have non-Medicaid coverage through state and local programs or restricted-benefit programs, as well as a small number of enrollees in the Children's Health Insurance Program (CHIP). (See Parisi, L. 2009. What's Next for CHIP-Funded Adult Coverage? Wash-

ington, D.C.: Families USA. <http://familiesusa2.org/assets/pdfs/chipra/adult-coverage.pdf>.)

- 2 The ACA will expand Medicaid eligibility to legal residents with incomes below 133% of the FPL in 2014 but a standard 5% income disregard will be applied, so the de facto threshold will be 138% of the FPL.
- 3 States that have already expanded to 100% of the FPL for parents and other adults will receive an enhanced federal match that increases over time to the rate for the newly eligible (Kenney et al. 2012; Holahan and Headen 2010).
- 4 In this paper, we define Medicaid coverage as insurance through joint federal-state Medicaid programs that provide comprehensive coverage (Heberlein et al. 2011). Some states offer additional coverage options such as premium assistance programs for certain groups; these are not modeled as Medicaid coverage. We also examine states with limited Medicaid coverage—such programs offer coverage that includes hospital stays and physician visits, but are more limited in scope than comprehensive Medicaid due to benefit limits, higher cost-sharing, or other limitations (such as the Medicaid coverage in Massachusetts that is provided to adults without dependent children with incomes under 300% of the FPL) (Heberlein et al. 2011). Appendix Table 2 (available from the authors) provides details on which programs were modeled as comprehensive Medicaid coverage and which programs were modeled as limited coverage.

- 5 For instance, while Sommers and Epstein (2010) excluded noncitizens from the analysis, our approach includes noncitizens and employs techniques for imputing their documentation status, thereby making the results more generalizable to the full adult population. We also provide estimates of eligibility and participation for all 50 states and the District of Columbia, provide details about the types of eligibility pathways we are able to examine, identify comprehensive vs. limited eligibility, and give alternative estimates of eligibility and participation to assess the robustness of the findings.
- 6 On average, the ACS state public use samples are about 14 times larger than the state samples available from the Current Population Survey Annual Social and Economic Supplement (CPS-ASEC), a survey frequently used for coverage estimates. Tennessee has the largest difference, with the ACS sample 23 times larger than the CPS-ASEC sample (Blewett 2010).
- 7 This includes adults living in private residences as well as college students in dorms and a small number of other adults living in group quarters, such as outpatient treatment facilities.
- 8 The Indian Health Service (IHS) is not typically counted as health insurance coverage because of limitations in the scope of available services and geographic reach of IHS facilities.
- 9 We benchmarked our estimates to the NHIS because both surveys measure point-in-time coverage status and because of other desirable measurement properties of the health insurance coverage estimates of the NHIS (Kenney, Holahan, and Nichols 2006).
- 10 Family-level characteristics used in determining eligibility, such as income, are based on the grouping of family members to align with Medicaid rules. Statistics on “family” characteristics in this paper are based on the more straightforward grouping of family members who would be eligible for the same private insurance plan, known as the health insurance unit (HIU).
- 11 The model takes into account disregards for child care expenses, work expenses, and earnings in determining eligibility, but does not take into account child support disregards because data on such amounts were not available.
- 12 These states are California, New York, New Jersey, Florida, Illinois, and Texas.
- 13 The model assigns eligibility type hierarchically, and cases are classified by the first pathway for which they are eligible. For instance, if an SSI recipient gets classified as eligible through the SSI pathway, that person would be classified as eligible through disability-related coverage even if the individual also met the qualifications for Section 1931 coverage.
- 14 We do not model eligibility for restricted Medicaid benefits, such as family planning services or emergency services. As defined in this paper, limited coverage is more comprehensive than such restricted-benefit coverage. The limited programs modeled here all cover, at the least, hospitalizations and doctor visits.
- 15 Estimates from the March 2010 CPS-ASEC that use the same eligibility rules and cover roughly the same time period are similar; a total of 9 million adults with Medicaid coverage do not appear eligible for comprehensive Medicaid services through the main pathways that are simulated, 1.5 million of whom are eligible for limited coverage, and 3.2 million of whom are imputed eligible (authors’ communication with Christine Coyner, January 27, 2012).
- 16 We exclude from these counts adults with both Medicaid and employer/union-based, private nongroup, or military coverage because Medicaid is supplementary coverage for those with dual coverage. We also exclude those with Medicaid coverage who do not have a simulated eligibility pathway.
- 17 See Parker 2011. SNAP/food stamps receipt was reported on the household level (“In the past 12 months, did anyone in this household receive Food Stamps or a Food Stamp benefit card?”) and applied to every member of the household. In 2010, a note was added that referenced the Supplemental Nutrition Assistance Program (SNAP) to reflect the official name change of the program in 2008. Thus, there may have been lower reporting of food stamp benefits in the 2009 ACS because of the omission of the program’s new name.
- 18 The estimates of children’s participation in Medicaid/CHIP in 2009 presented here differ from those for 2009 included in Kenney et al. 2011 because of improvements to our insurance coverage editing processes (which also led to revisions in the participation rates for 2008 compared to what was included in Kenney et al. 2010) since the release of the prior report. However, the overall participation rate change was small (84.8% in the earlier analysis compared with 84.3% here), and most states’ relative positions among others changed only slightly.
- 19 We classify cases according to their PUMA (the lowest level geographic indicator present for all ACS cases), modifying the county-level coding scheme and applying the University of Missouri’s MABLE Geocorrelation application.
- 20 Prior estimates of eligibility vary according to the data source used, survey timing, and simulation methodology. Data from 1999 showed that 15% of uninsured adults were eligible for Medicaid or state-only programs, but this study did not determine whether

- noncitizens were legally residing and thus eligible for coverage, or include those receiving or eligible for SSI (Davidoff et al. 2004). While the 1999 data found that just 8% of all adults (12% of parents and 5% of nonparents) appeared to be eligible, by 2002 eligibility had increased due to declines in the income distribution and eligibility expansions (Davidoff et al. 2004; Davidoff, Yemane, and Adams 2005). Estimates using more recent data from the 2005 CPS-ASEC, which adjusted for both underreporting of Medicaid/CHIP and documentation status for noncitizens, found 28% of uninsured parents and 8% of uninsured childless adults eligible (Holahan et al. 2007). Analysis of the 2008 CPS-ASEC, which reflected eligibility for comprehensive and limited Medicaid and CHIP and adjustments for Medicaid/CHIP underreporting and imputed documentation status for noncitizens, found that 38% of uninsured parents and 12% of uninsured nonparents were eligible for Medicaid/CHIP (Cook, Dubay, and Garrett 2009; Dubay, Cook, and Garrett 2009). Differences in eligibility rates across studies may be explained by different populations of the uninsured captured in each study and other differences across data sources.
- 21 Among adults with all types of health insurance status, we find that 17.7 million adults qualify for comprehensive Medicaid benefits based on states' income and categorical requirements. Including those eligible for limited programs increases this estimate by an additional 5.2 million.
  - 22 As described previously, the ACS only has indicators for selected functional limitations, while states' determinations of disability-related eligibility use additional criteria. Thus, some of the adults who appear in our model to be eligible through the disability pathway might not qualify when the more detailed information on their characteristics is taken into account.
  - 23 Estimates of participation vary over time and across data sources and simulation techniques. For example, estimates from 1999 and 2002 (excluding SSI recipients, and without imputations of documentation status for noncitizens) yielded low participation rates, somewhat over 50% (Davidoff et al. 2004; Davidoff, Yemane, and Adams 2005). More recent data from the 2007–2009 CPS-ASEC (Sommers and Epstein 2010) were used to calculate a participation rate of 62% among those with no other coverage; while this estimate incorporates an adjustment for the underreporting of Medicaid/CHIP, the study excluded noncitizens, who have a lower rate of participation than citizens (Davidoff et al. 2004). In comparison, our estimate of participation is higher than both of these estimates; this is in line with evidence that Medicaid participation among children has increased in recent years (Kenney et al. 2011).
  - 24 The inclusion of imputed eligibles results in a smaller gap between regional estimates. For example, when imputed eligibles are included, participation rates in the South and Northeast are 69.4% and 80.3%, respectively (data not shown).
  - 25 American Indians and Alaskan Natives participate at the lowest rates relative to other ethnic groups. However, this estimate is sensitive to the decision not to count those with insurance through the IHS among the insured. When we consider IHS as comprehensive coverage, we no longer find that Native Americans and Alaskan Natives participate at lower rates than non-Hispanic whites (data not shown).
  - 26 We report results from models with state dummy variables, although, with very few exceptions, the inclusion or exclusion of state dummy variables did not affect the direction or magnitude of the other estimates. However, several of the coefficient estimates reflecting metropolitan statistical area (MSA) status were affected by the exclusion of the state dummy variables, suggesting that, other things equal, adults living in metropolitan areas participate at higher rates than adults living in other areas because they tend to live in states that enroll people at higher rates across all types of areas, both metropolitan and nonmetropolitan.
  - 27 When coverage through the IHS is treated as comprehensive coverage, participation remains almost unchanged nationally (67.4% to 67.7%). However, five states' participation rates exhibit a change greater than five percentage points when IHS is treated as coverage. South Dakota (9.1 percentage points), Alaska (7.5), Montana (6.6), North Dakota (5.8), and New Mexico (5.3) show improved participation estimates when IHS is considered coverage, moving them up 14, 20, 4, 14, and 11 rank positions, respectively, in terms of participation rates among states (data not shown).
  - 28 Within states, there is a pattern of lower participation in limited Medicaid programs compared to comprehensive Medicaid programs. For instance, Massachusetts has a participation rate of 92.9% for comprehensive Medicaid, but this falls to 77.8% when including those eligible for limited benefits as well.
  - 29 When we include imputed eligibles in our participation estimate for adults, the correlation coefficient between children's and adults' participation rates across states drops from .68 to .56.

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