Published in final edited form as:

J Health Care Poor Underserved. 2012 ; 23(4): 1630–1646. doi:10.1353/hpu.2012.0197.

Uninsurance and its Correlates among Poor Adults with Disabilities

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Abstract

States must offer Medicaid coverage to poor adults with disabilities; however, they have discretion in the design of eligibility criteria and enrollment processes. Using the American Community Survey, we examined the health insurance status of adults enrolled in the Supplemental Security Income (SSI) disability program including (1) the national rate of health insurance coverage; (2) state rates of uninsurance and Medicaid; and (3) the correlates of uninsurance. Uninsurance and Medicaid rates varied across states from 1% to 12% and from 63% to 91%, respectively. Nationally, 5% of the SSI population was uninsured; 77% was enrolled in Medicaid. Limited English proficiency, Black race, lack of U.S. citizenship, and residence in a state that used an enrollment process and/or eligibility criteria distinct from the SSI program were associated with uninsurance. As states streamline Medicaid enrollment processes to meet requirements of the Affordable Care Act, they should consider the needs of this vulnerable population.

Keywords

Medicaid; disability; uninsured

The Social Security Act requires that states offer Medicaid coverage to poor adults with disabilities,¹ a population of roughly 4.5 million individuals.² These are generally individuals who receive cash assistance from the Supplemental Security Income (SSI) program, a means-tested program for people with severe, work-limiting disabilities.² Yet, recent national estimates of uninsurance in the poor adult disabled population have ranged from 2%³ to 13%⁴ suggesting a possible disjunction between the aim and realization of the Act.

Health policy scholars have long viewed health insurance coverage as a necessary, if insufficient, resource to improve health care access for low-income individuals. Among poor populations, adult SSI beneficiaries are uniquely characterized by significant and persistent mental and/or physical illness and the substantial health care use that accompanies these

conditions.^{2, 5} For poor adults with serious mental and physical illnesses, inadequate or interrupted insurance coverage is associated with adverse and costly health care events including elevated use of inpatient and emergency department services.^{6–8}

The scope of uninsurance among SSI beneficiaries is particularly relevant to State Medicaid programs as they attempt to assess their financial liability for this population and allocate Medicaid marketing, outreach and enrollment resources. State Medicaid programs are likely to realize the financial effects of sustained or interrupted Medicaid coverage for SSI beneficiaries because the average duration of SSI enrollment for working-age adults ranges from 5–20 years.⁹ However, the variability of current national estimates of uninsurance among low-income adults with disabilities, from 2% to 13%, provides ambiguous evidence for states interested in the coverage status of this relatively high-need, high-cost population.

In this study, we took advantage of a new data resource to develop robust national and state estimates of uninsurance and its correlates for community-dwelling adult SSI beneficiaries.¹⁰ These findings will inform states' implementation of the Affordable Care Act (ACA).¹¹ Specifically, our results will contribute to a more complete characterization of the uninsured adult population such that states may anticipate the programmatic resources needed to meet their health care needs including, for example, the composition and supply of the social services and health care workforces. Importantly, among ACA provisions, states are required to streamline their public and subsidized health insurance enrollment processes. The goal of this provision is to minimize the administrative burden on the individual and facilitate enrollment in the appropriate health insurance program by sharing data across agencies and creating accessible entry-points for application.¹² An understanding of the potential barriers to Medicaid coverage among SSI beneficiaries is necessary to develop an effective enrollment and renewal process for this population.

Background

While all states must offer Medicaid coverage to poor adults with disabilities, they have some discretion in how they define the eligible population and in the design of the enrollment process. They may adopt SSI eligibility criteria as their Medicaid criteria, or apply more restrictive income, asset, and/or disability criteria *if* these standards were in place before the creation of the SSI program. Among the 11* states that have chosen the latter option, eight apply a more restrictive asset limit ranging from \$1,000 up to \$1,600 for an individual compared with the SSI standard of \$2,000, while three states impose an income cutoff that falls 7–10 percentage points below the SSI standard of 74% of the federal poverty level (FPL).^{1, 13, 14}

Of the remaining 39 states (including the District of Columbia) that adopt SSI eligibility criteria as their Medicaid criteria, seven^b states oversee the Medicaid application and enrollment process directly, thus requiring individuals to apply separately to the SSI and Medicaid programs.² Thirty-two states sub-contract with the Social Security Administration (SSA) to initiate Medicaid application and enrollment for SSI beneficiaries. Social Security Administration staff, however, has estimated that approximately 10%–20% of newly enrolled SSI beneficiaries do not complete the Medicaid application and enrollment process or do so only at the time of a medical crisis.¹⁵

Uninsurance among individuals who are eligible for public health insurance is not uncommon.^{16–20} The prevailing theoretical explanation is that the individual perceives that

*CT, HI, IL, IN, MN, MO, NH, ND, OH, OK, VA

^bAK, ID, KS, NE, NV, OR, UT

the marginal costs of enrollment (e.g., eligibility and application complexity, renewal frequency) exceed the marginal benefits of coverage (e.g., covered services, available providers). Empirical research has identified several modifiable factors associated with uninsurance among low-income children and families: the availability of free or low cost health care providers;²¹ consumer awareness;²² and state public health insurance eligibility, enrollment, and renewal requirements.^{23–25}

It is unclear, however, to what extent adult SSI beneficiaries may respond similarly to these incentives. The literature on health insurance take-up is dominated by studies of relatively healthy children and adults. By contrast, adult SSI beneficiaries are by definition in poor health. Their gains from coverage are likely to be substantial, providing a strong incentive to enroll.²⁶ Alternatively, poor health and functioning and a relatively lower level of education^{26, 27} may amplify non-financial enrollment costs, including time, transportation, and administrative complexity. No analogous research has examined the correlates of uninsurance for adult SSI beneficiaries or the potential role of state Medicaid eligibility and enrollment policy.

National estimates provide a partial view of health insurance status among adult SSI beneficiaries. Pizer and colleagues observed a 13% uninsurance rate among Medicaid-eligible adults with disabilities.⁴ This estimate may have overstated uninsurance among SSI beneficiaries because the study's definition of Medicaid-eligible included individuals with self-reported functional limitations and low-income, a more generous standard than SSI eligibility criteria. Among confirmed adult SSI beneficiaries, DeCesaro and Hemmeter estimated a 2% uninsurance rate.³ Medicaid coverage, however, was automatically assigned to SSI beneficiaries who lived in states that contract with the Social Security Administration to initiate Medicaid enrollment.³ This data edit may mask slippage in the enrollment process or limited beneficiary awareness of health insurance coverage.

In this study, our specific aims were 1) to estimate the rate of health insurance coverage for community-dwelling adult SSI beneficiaries ages 21–64 nationwide; 2) to provide rates of uninsurance and Medicaid coverage by state for community-dwelling adult SSI beneficiaries; and 3) to identify the correlates of uninsurance relative to Medicaid coverage for community-dwelling adult SSI beneficiaries (i.e., Medicaid policy, personal, household, health care market).

Methods

We pooled two years of data from the American Community Survey (ACS), 2008–2009.¹⁰ This nationally representative household survey collects population and housing characteristics to produce annual small area, state and national estimates. In 2008 the Census Bureau added health insurance measures to the ACS. The survey response rate in both years was approximately 98%. We used the Census Bureau's internal version of the ACS that includes 4.5 million individuals each year to maximize our sample size because the population of interest represents less than 2% of the U.S. population. The Census Bureau's internal version also includes county codes enabling us to merge county health care market characteristics from the Area Resource File²⁸ to our ACS dataset.

Our initial sample included civilian, non-institutionalized individuals ages 21–64 who reported income from the SSI program during the past 12 months ($n = 115,227$). We did not include the small percentage ($< 2\%$) of working age SSI beneficiaries who resided in institutional settings. Group homes, nursing homes, and long-term hospitals have very strong incentives to enroll their uninsured SSI beneficiaries into Medicaid and do so successfully.² Thus, these SSI beneficiaries do not face the same potential risk of

uninsurance or take-up barriers as do community-dwelling SSI beneficiaries. Additionally, while residents of institutional settings are included within the ACS sampling frame, health insurance status is not collected for these individuals.

We excluded subjects from our community-dwelling sample who had missing data for all health insurance variables ($n=2,205$). We anticipated some measurement error in the SSI variable and were concerned about the potential effects on our insurance coverage estimates of including individuals who wrongly reported receipt of SSI program income. We reasoned that the inclusion of these false positives might overstate uninsurance among true SSI beneficiaries because poor adults who were *not* enrolled in SSI were far less likely to qualify for Medicaid. Thus, to address this potential type of measurement error, we reviewed the distribution of self-reported income among administratively validated SSI beneficiaries to identify the income level that would capture approximately 90% of SSI beneficiaries.^{3, 29} Using this information, we excluded individuals with either of the following characteristics: 1) individual SSI income that exceeded 150% of the sum of the maximum federal and state SSI payments for an individual living independently in his/her state of residence ($n=11,857$); or 2) total earned income that exceeded the amount at which the SSI cash benefit reduces to zero for an individual living independently in his/her state of residence ($n=8,308$). Our final analytic sample included 92,857 individuals residing in 50 states and the District of Columbia (hereafter, referred to as “states”).

The ACS measures health insurance coverage at the time of the interview. We constructed four mutually exclusive health insurance outcome measures. *Medicaid* coverage was defined as any Medicaid, Medical Assistance, or any kind of government assistance plan for those with low incomes or a disability. *Other Public* included individuals who did not report Medicaid coverage and who did report Medicare coverage, military or VA health care. For SSI beneficiaries, this category includes individuals with a sufficient employment history to acquire Medicare coverage before age 65. Roughly 4% of the sample reported private insurance in addition to Medicaid or “other public.” These subjects were assigned to Medicaid or “other public” coverage respectively. *Private-only* coverage was defined as the absence of public coverage and coverage through a current or former employer or union of this person or another family member, or insurance purchased directly from an insurance company (of this person or another family member). Consistent with the ACS, we identified an individual as *uninsured* if she reported no source of coverage or reported only Indian Health Services (IHS); the IHS is a service delivery system rather than an insurance program.

Because the ACS health insurance measures are relatively new, the degree or direction of measurement error in the Medicaid variable is uncertain. Measurement of health insurance at the time of the survey theoretically strengthens the validity of the estimates relative to measures that require a look-back period by avoiding recall bias.³⁰ Further, because the ACS is implemented year-round, with one-twelfth of the sample surveyed each month, the estimates are insensitive to seasonal events and reflect a calendar year average of health insurance status at any given time within the population. The ACS measures, however, do not assess potential changes in health insurance status within the year. Further, the phenomenon of undercounting Medicaid enrollees in survey research is common. To our knowledge there are no published estimates of the magnitude of a Medicaid undercount among SSI beneficiaries.^{31–33} In the aggregate, however, ACS estimates do not differ markedly from other national surveys. Specifically, the ACS insurance coverage rates for all 19–64 year olds nationwide are comparable to those observed in both the National Health Interview Survey and the Current Population Survey.^{34, 35} Ongoing validation research led by one of this study’s authors will examine the potential Medicaid undercount in the ACS among SSI beneficiaries.

We included the following covariates: person- and household- level socio-economic characteristics,^{21, 22, 36} functional limitations,²¹ the supply of free or low-cost health care,²¹ and state Medicaid eligibility and enrollment policies.^{23, 25, 36}

At the person-level, the socio-economic characteristics included age, gender, race, Hispanic ethnicity, marital status, educational attainment, English language proficiency, U.S. citizenship and employment. Race was categorized into White, Black, and Other race. Educational attainment was categorized into three measures: no degree, high school diploma or GED, and more than a high school diploma or a GED. We measured English language proficiency using three categories: non-English speaker, speaks English well or very well, speaks English poorly. The ACS measure of citizenship distinguishes U.S. citizens from non-citizens; however, it does not identify the legal status of non-citizens. We included a binary measure of any employment in the past week. We assessed five functional limitation measures: cognitive, vision or hearing, independent living, ambulatory, and self-care.

At the household-level, our demographic measures included family size and residence in a metropolitan area. We included three measures of economic resources: 1) family income as a percentage of the FPL; 2) receipt of food stamps; and 3) the availability of a telephone in the household.

At the county-level we included the ratio of the number of public health clinics (including rural health clinics, federally qualified community health centers, and community mental health clinics) to the population to control for the potential influence of low-cost health care providers on the decision to enroll in a health insurance plan. Specifically, the availability of free or low-cost health care may reduce the perceived benefits of health insurance.³⁸ Alternatively, for individuals eligible for public health insurance, the co-location of enrollment services at public health clinics and hospitals may offset this potential substitution effect.^{21, 37}

As described above, states use one of three general strategies to determine eligibility and to enroll adult SSI beneficiaries into Medicaid. We constructed a categorical variable to represent each strategy: 1) states that use SSI eligibility criteria as their Medicaid criteria and contract with the SSA to determine Medicaid eligibility and initiate enrollment; 2) states that use SSI criteria for Medicaid criteria but conduct the Medicaid eligibility and enrollment process themselves; and 3) states that apply their own Medicaid eligibility criteria and conduct the Medicaid eligibility and enrollment process themselves.

Analysis

We estimated national average rates of health insurance and state-specific rates of uninsurance and Medicaid coverage for community-dwelling adult SSI beneficiaries. To identify the correlates of uninsurance compared to Medicaid coverage, we assessed the bivariate relationships between individual, household, county health care supply, and health insurance status. We tested the equivalence of uninsurance rates across our three state-level categories of Medicaid eligibility and enrollment strategies as defined above, and estimated the percentage of uninsured adult SSI beneficiaries who resided in each of the three types of states. We then estimated a logistic regression model to describe the adjusted relationships of these factors to lack of health insurance.

All analyses were weighted to reflect the SSI beneficiary population ages 21–64 in the U.S. and were performed using Stata 11 (StataCorp LP 2009). Standard errors were estimated to account for the complex survey design of the ACS using a replicate variance estimator with Fay's correction.³⁹ We presented our regression results in terms of the average marginal

difference in the probability of being uninsured relative to having Medicaid coverage. All bivariate and regression results reported were statistically significant at $p < .01$ unless noted.

Results

On average nationwide, 5% of the working age SSI population was uninsured in 2008–2009, and 77% of the population was enrolled in Medicaid. The remaining balance of adult SSI beneficiaries was covered through private-only health insurance (5%) or other public coverage (12%). We observed wide variation across states in the rates of uninsurance and Medicaid coverage (Tables 1 and 2). The percentage of adult SSI beneficiaries who were uninsured ranged from less than 1% up to 12% across states. State estimates of Medicaid coverage were similarly variable from a low of 63% up to 91%. The precision of these estimates varied with the size of the state population as expected.

Relative to SSI beneficiaries enrolled in the Medicaid program, uninsured SSI beneficiaries were on average more likely to be non-White, Hispanic, not U.S. citizens, to have been employed in the past week, and to have limited English proficiency (Table 3). Uninsured beneficiaries were less likely than Medicaid beneficiaries to report functional limitations, to have access to a telephone in the home, and to receive food stamps.

In Table 4, we compared the prevalence of uninsurance across our three state-level categories of Medicaid eligibility and enrollment strategies. On average, about 4.9% (CI: 4.7, 5.2) of SSI beneficiaries who lived in states that used SSI eligibility criteria as their Medicaid criteria and contracted with the SSA to determine Medicaid eligibility and initiate enrollment were uninsured. Approximately 73% of all uninsured adult SSI beneficiaries resided in these 32 states. The prevalence of uninsurance was relatively higher at 6.6% (CI: 6.1, 7.0) among SSI beneficiaries who resided in states that applied their own Medicaid eligibility criteria and conducted the Medicaid eligibility and enrollment process themselves. Twenty-three percent of all uninsured adult SSI beneficiaries lived in these 11 states. Lastly, 5.7% (CI: 4.9, 6.6) of the adult SSI beneficiaries who lived in states that used SSI criteria and conducted the Medicaid eligibility and enrollment process themselves were uninsured. About 4% of all uninsured adult SSI beneficiaries lived in these seven states.

Our regression results (Table 5) were consistent with the bivariate analyses. Beneficiaries who reported some employment in the past week (4.15%, CI: 3.04, 5.27) were more likely to be uninsured than the unemployed. Non-citizens were 5.45% more likely to be uninsured than citizens (CI: 3.83, 7.08), and Black beneficiaries were more likely than Whites to be uninsured (2.18%, CI: 1.35, 3.00). Functional limitations were associated with a lower likelihood of uninsurance ranging from a 1.52% decrease for a vision or hearing limitation (CI: -2.14, -0.90) to a 3.59% decrease associated with a cognitive limitation (CI: -4.02, -3.16). Finally, residence in states that use their own Medicaid eligibility criteria and Medicaid enrollment process was associated with a 3.72% increase in the probability of uninsurance (CI: 2.83, 4.62) relative to states that deploy SSI criteria and contract with the SSA to initiate Medicaid enrollment. Similarly, residence in states that apply SSI criteria for Medicaid eligibility but conduct their own enrollment process was associated with a 3.65% increase in the likelihood of uninsurance (CI: 2.03, 5.27).

Discussion

Nationwide, 5% of working age SSI beneficiaries was uninsured in 2008 and 2009, or approximately 170,000 individuals. The national average masked variation across states with a range of less than 1% and up to 12% of the population reporting no insurance. Residence in a state that used their own Medicaid enrollment process and/or eligibility

criteria was associated with a 4% relative increase in the risk of being uninsured. Socio-demographic characteristics and health status including lack of U.S. citizenship, limited English proficiency, employment, and fewer functional limitations were also associated with a higher risk of uninsurance.

Policymakers and their academic partners are currently assessing the characteristics, potential health care needs, and budget implications of today's low-income uninsured adults in anticipation of expanded Medicaid populations following the implementation of the ACA in 2014.⁴⁰ The results of our study indicate that most states should consider the adult SSI population throughout this planning process including the adequacy of Medicaid program resources (e.g., provider capacity, care coordination) to meet the needs of currently uninsured SSI beneficiaries. The correlates of uninsurance among adult SSI beneficiaries relative to Medicaid enrollment suggest that outreach and enrollment strategies tailored to non-English speakers and non-citizens may be particularly helpful. Medicaid eligibility, today and after 2014, for poor legal immigrants varies as a function of duration of residence in the U.S. However, given the stability of the adult SSI population it is likely that non-citizen SSI beneficiaries will become eligible for Medicaid while enrolled in SSI. Thus, state Medicaid enrollment strategies that repeatedly reach out to non-citizen SSI beneficiaries may be helpful. The handful of states (i.e., IA, MA, ME, HI, VT) that have achieved nearly universal health insurance coverage for community-dwelling adult SSI populations may provide lessons about particularly effective cross-program collaborations and outreach or enrollment practices that facilitate Medicaid enrollment among SSI beneficiaries.

Lack of health insurance was associated with employment in the past week and with fewer self-reported functional limitations (Tables 3 and 5). It is possible that SSI beneficiaries who consider themselves to be relatively healthy may value insurance coverage less than their peers and delay or forego insurance coverage.⁴¹ Further research is warranted to understand the particular barriers to enrollment that higher-functioning SSI beneficiaries may experience to facilitate coverage prior to an acute health care event.

The prevalence of uninsurance among adult SSI beneficiaries varied according to the extent of coordination between SSI and Medicaid eligibility and enrollment in the beneficiary's state of residence (Table 4). This finding is consistent with the established relationship between enrollment and renewal process complexity and coverage observed in relatively healthy populations.^{23–25} In our adjusted analyses, beneficiaries who resided in states that required separate SSI and Medicaid enrollment were more likely to be uninsured (Table 5). However, the magnitude of this association did not vary between states that used their own Medicaid eligibility criteria and those that used SSI criteria for Medicaid eligibility.

We cannot formally distinguish the relative influence on uninsurance rates of state-specific Medicaid eligibility criteria and state-specific Medicaid enrollment for SSI beneficiaries. However, several considerations suggest that a focus on improving the enrollment process may be more relevant to states as they move forward with the implementation of the ACA. Specifically, the ACA harmonizes Medicaid eligibility across states for low-income adults and will supersede the current state-specific restrictions on Medicaid eligibility for SSI beneficiaries. Moreover, although our unadjusted analyses found the highest rate of uninsurance among beneficiaries who resided in states that used their own Medicaid eligibility criteria and enrollment process (Table 4), 73% of uninsured SSI beneficiaries resided in the 32 states that used SSI eligibility criteria for Medicaid and sub-contracted with the SSA to initiate Medicaid eligibility and enrollment. The linkages between SSI enrollment and Medicaid enrollment in these states may be less seamless than supposed. Additionally, the variation in state uninsurance rates even among these 32 states (Table 1) highlights the importance of engaging state and local SSA offices in the design of

streamlined Medicaid enrollment processes. To our knowledge, no study has examined the relative effectiveness of state Medicaid – SSA enrollment relationships suggesting a timely research area as states revise their insurance enrollment processes.

In the 39 states where SSI criteria serve as Medicaid eligibility criteria, adult SSI beneficiaries are provisionally insured because they will be enrolled in Medicaid at the point of an emergency department visit or inpatient admission. Provisional insurance is arguably sufficient if beneficiaries with provisional and actual Medicaid coverage behave similarly with respect to health maintenance. However, Aizer has observed that among Medicaid eligible children, an increase in enrollment was associated with lower rates of Medicaid avoidable hospitalizations. Her findings suggested that children with provisional and actual Medicaid coverage may use ambulatory health care differently.^{22, 42} It is unclear if the experience of relatively healthy children would generalize to adult SSI beneficiaries. We are not aware of parallel research within adult populations.

Is a 5% uninsurance rate good enough from the perspective of evaluating Medicaid policy performance? It may not be feasible to achieve a 0% uninsurance rate among adult SSI beneficiaries at any point in time. We did, however, observe uninsurance rates of 1% or below in several states. Additionally, evaluation of health care reform in Massachusetts has demonstrated declines in uninsurance from 4.6% to 1.8% in some populations suggesting that getting close to 0% may be possible—even from a relatively low baseline.⁴³

Our national uninsurance estimate was higher than the 2% found by DeCesaro and Hemmeter.³ In contrast to their study, we did not automatically assign uninsured respondents to Medicaid if they lived in states that contracted with SSA for Medicaid eligibility determination and initial enrollment. We selected this approach because health insurance survey data alone, including the ACS, does not distinguish between at least two explanations for uninsurance in these SSA contract states. First, while the SSA initiates enrollment for the beneficiary into Medicaid, the state and the beneficiary must complete the process. Second, individuals may be unaware of their insurance status and may or may not behave with respect to health care use as if they are insured.

We considered the possibility that our SSI sample definition may have been either overly restrictive or overly inclusive. Specifically, we re-estimated our results using two alternative samples in which we first relaxed and then restricted the exclusion criteria. Our results were robust to these alternative sample definitions with a small increase in the uninsurance rate as anticipated when we relaxed the exclusion criteria. We were unable to adjust for potential underreporting of SSI. Underreporting of participation in means-tested programs is common within household surveys⁴⁴ although the magnitude of underreporting for SSI in the ACS is unknown. We are not aware of any conceptual argument or empirical data to suggest that SSI beneficiaries who fail to report SSI income are systematically different with respect to health insurance status than those who report their SSI income. However, we acknowledge that we cannot predict the extent or direction of bias that may result from the absence of these beneficiaries in the data.

Conclusion

Achieving 100% health insurance coverage is a challenging task within any population, and as we recently witnessed, a policy objective that is fraught with conflict. However, there is relatively little controversy about providing coverage for adult SSI beneficiaries with severe mental and physical disabilities. While uninsurance rates are enviably low among SSI beneficiaries, relative to some population subgroups, they remain positive and in some states surprisingly high at 8–12%. The poor health and socioeconomic profile of this population coupled with an established public will to insure them, suggests the need for a closer look at

the personal factors and policy processes that may explain the observed lack of health insurance.

Works Cited

1. Social Security Act Title XIX. 42 CFR, 435.120–435.121.
2. United States Social Security Administration. SSI Annual Statistical Report. Washington, D.C.: 2009.
3. DeCesaro, A.; Hemmeter, J. Characteristics of noninstitutionalized DI and SSI program participants. Washington, D.C.: United States Social Security Administration; 2008.
4. Pizer SD, Frakt AB, Iezzoni LI. Uninsured Adults With Chronic Conditions Or Disabilities: Gaps In Public Insurance Programs. *Health Affairs*. 2009; 28(6):W1141–W1150. [PubMed: 19843552]
5. Kronick, RG.; Bella, M.; Gilmer, TP., et al. The Faces of Medicaid II: Recognizing the care needs of people with multiple chronic conditions. Center for Health Care Strategies, Inc; Princeton, NJ: 2007.
6. Hall AG, Harman JS, Zhang JY. Lapses in Medicaid Coverage Impact on Cost and Utilization Among Individuals With Diabetes Enrolled in Medicaid. *Medical Care*. 2008; 46(12):1219–1225. [PubMed: 19300311]
7. Harman JS, Manning WG, Lurie N, et al. Association Between Interruptions in Medicaid Coverage and Use of Inpatient Psychiatric Services. *Psychiatric Services*. 2003; 54(7):999–1005. [PubMed: 12851437]
8. Soumerai SB, Ross-Degnan D, Avorn J, et al. Effects of Medicaid Drug-Payment Limits on Admission to Hospitals and Nursing-Homes. *New Engl J Med*. 1991; 325(15):1072–1077. [PubMed: 1891009]
9. Rupp K, Scott CG. Trends in the Characteristics of DI and SSI Disability Awardees and Duration of Program Participation. *Social Security Bulletin*. 1996; 59(1):3–21. [PubMed: 8799959]
10. U.S. Census Bureau. Design and Methodology: American Community Survey. U.S. Government Printing Office; Washington, D.C.: 2009.
11. Patient Protection and Affordable Care Act. P.L. 111–148.
12. Kaiser Family Foundation. Report No 8090. The Kaiser Family Foundation; Washington, D.C.: 2010. Explaining health reform: Eligibility and enrollment processes for Medicaid, CHIP, and Subsidies in the Exchanges.
13. Social Security Administration Office of Research, Evaluation and Statistics. State Assistance Programs for SSI Recipients. Social Security Administration; Washington, D.C.: SSA Publication. 2006. No. 13-11975
14. Bruen, BK.; Wiener, JM.; Thomas, S. Medicaid eligibility policy for aged, blind and disabled beneficiaries. AARP Public Policy Institute; Washington, D.C.: 2003.
15. Cusick, E.; Nibali, K. Current processes for enrolling Medicare/Medicaid Dual Eligibles in Medicare Savings Programs and Efforts to Increase Enrollment. National Academy of Social Insurance; 2005.
16. Kenney GM, Lynch V, Cook A, et al. Who and Where Are the Children Yet to Enroll in Medicaid and the Children's Health Insurance Program? *Health Affairs*. 2010; 29(10):1–10.
17. Leininger LJ. Medicaid Expansions and the Insurance Coverage of Poor Teenagers. *Health Care Financing Review*. 2009; 31(1):23–34. [PubMed: 20191755]
18. Allen H, Baicker K, Finkelstein A, et al. What The Oregon Health Study Can Tell Us About Expanding Medicaid. *Health Affairs*. 2010; 29(8):1498–1506. [PubMed: 20679654]
19. Davidoff, A.; Yemane, A.; Adams, E. Report No 7285. Kaiser Family Foundation; Washington, D.C.: 2002. Health coverage for low-income adults: Eligibility and enrollment in Medicaid and State Programs.
20. Sommers BD, Epstein AM. Why States Are So Miffed About Medicaid - Economics, Politics, and the "Woodwork Effect. *New England Journal of Medicine*. 2011; 365(2):100–102. [PubMed: 21675913]

21. Davidoff AJ, Garrett B. Determinants of Public and Private Insurance Enrollment Among Medicaid-Eligible Children. *Medical Care*. 2001; 39(6):523–535. [PubMed: 11404638]
22. Aizer A. Low Take-Up in Medicaid: Does Outreach Matter and for Whom? *American Economic Review*. 2003; 93(2):238–241.
23. Wolfe B, Scrivner S. The Devil May Be in the Details: How the Characteristics of SCHIP Programs Affect Take-Up. *Journal of Policy Analysis and Management*. 2005; 24(3):499–522. [PubMed: 15973794]
24. Sommers BD. The Impact of Program Structure on Children's Disenrollment From Medicaid and SCHIP. *Health Affairs*. 2005; 24(6):1611–1618. [PubMed: 16284035]
25. Bansak C, Raphael S. The Effects of State Policy Design Features on Take-Up and Crowd-Out Rates for the State Children's Health Insurance Program. *Journal of Policy Analysis and Management*. 2007; 26(1):149–175. [PubMed: 17312602]
26. Busch SH, Vigdor ER. Are Adults in Poor Health More Likely to Enroll in Public Insurance? Inquiry—the Journal of Health Care Organization Provision and Financing. 2008; 45(4):380–394.
27. Burns ME. Medicaid Managed Care and Health Care Access for Adult Beneficiaries With Disabilities. *Health Services Research*. 2009; 44(5):1521–1541. [PubMed: 19555397]
28. U.S. Department of Health and Human Services. Area Resource File 2009 – 2010. Health Resources and Services Administration, Bureau of Health Professions; Rockville, MD: 2010.
29. Martin T, Davies PS. Changes in the Demographic and Economic Characteristics of SSI and DI Beneficiaries Between 1984 and 1999. *Social Security Bulletin*. 2003; 65(2):1–13.
30. Davern M, Quinn BC, Kenney GM, Blewett LA. The American Community Survey and Health Insurance Coverage Estimates: Possibilities and Challenges for Health Policy Researchers. *Health Services Research*. 2009; 44(2):593–605. [PubMed: 19040425]
31. Davern M, Klerman JA, Baugh DK, et al. An Examination of the Medicaid Undercount in the Current Population Survey: Preliminary Results From Record Linking. *Health Services Research*. 2009; 44(3):965–987. [PubMed: 19187185]
32. Call KT, Davidson G, Davern M, et al. Medicaid Undercount and Bias to Estimates of Uninsurance: New Estimates and Existing Evidence. *Health Services Research*. 2009; 43(3):901–914. [PubMed: 18546545]
33. O'Hara, BJ. Is there an undercount of Medicaid participants in the ACS content test?. U.S. Census Bureau; Washington, D.C.: 2009.
34. Turner, J.; O'Hara, BJ. Slide. 2010. Health insurance coverage estimates from the American Community Survey.
35. Boudreaux M, Ziegenfuss JY, Graven P. Counting Uninsurance and Means-Tested Coverage in the American Community Survey: A Comparison to the Current Population Survey. *Health Services Research*. 2011; 46(1):210–231. [PubMed: 21029089]
36. Lo Sasso AT, Buchmueller TC. The Effect of the State Children's Health Insurance Program on Health Insurance Coverage. *Journal of Health Economics*. 2004; 23(5):1059–1082. [PubMed: 15353193]
37. Rask KJ, Rask KN. Delivering Public Health Care Services: Substitutes, Complements, or Both? *Contemporary Economic Policy*. 2005; 23(1):28–39.
38. Rask KN, Rask KJ. Public Insurance Substituting for Private Insurance: New Evidence Regarding Public Hospitals, Uncompensated Care Funds, and Medicaid. *Journal of Health Economics*. 2000; 19(1):1–31. [PubMed: 10947569]
39. Judkins D. Fay's Method for Variance Estimation. *Journal of Official Statistics*. 1990:6223–240.
40. Somers, SA.; Hamblin, A.; Verdier, JM.; Byrd, VLH. Covering low-income childless adults in Medicaid: Experiences from selected states. Center for Health Care Strategies, Inc; Hamilton, N.J.: 2010.
41. Cunningham, PJ. Who are the uninsured eligible for premium subsidies in the health insurance exchanges. Center for Studying Health System Change; Washington, D.C.: 2010.
42. Aizer A. Public Health Insurance, Program Take-Up, and Child Health. *Review of Economics and Statistics*. 2007; 89(3):400–415.

43. Kenney GM, Long SK, Luque A. Health Reform In Massachusetts Cut The Uninsurance Rate Among Children In Half. *Health Affairs*. 2010; 29(6):1242–1247. [PubMed: 20530363]
44. Wheaton, L. Underreporting of means-tested transfer programs in the CPS and SIPP. The Urban Institute; Washington, D.C.: 2007.

Table 1

Percentage of community-dwelling adult SSI beneficiaries ages 21–64 who were uninsured, ACS 2008–2009

	%	95% CI
ALABAMA	5.23	[4.09, 6.38]
ALASKA	3.16	[1.16, 5.16]
ARIZONA	5.97	[4.46, 7.47]
ARKANSAS	7.79	[5.82, 9.76]
CALIFORNIA	4.46	[3.84, 5.08]
COLORADO	6.02	[4.30, 7.74]
CONNECTICUT	4.56	[2.96, 6.16]
DELAWARE	2.27	[0.14, 4.4]
DISTRICT OF COLUMBIA	<i>a</i>	
FLORIDA	6.01	[4.97, 7.05]
GEORGIA	7.63	[6.35, 8.91]
HAWAII	1.03	[0.04, 2.03]
IDAHO	3.34	[1.35, 5.32]
ILLINOIS	6.17	[5.10, 7.25]
INDIANA	11.9	[10.0, 13.8]
IOWA	1.38	[0.50, 2.25]
KANSAS	5.92	[4.00, 7.84]
KENTUCKY	5.92	[4.71, 7.14]
LOUISIANA	9.37	[7.19, 11.5]
MAINE	0.89	[0.30, 1.49]
MARYLAND	6.26	[4.60, 7.92]
MASSACHUSETTS	1.29	[0.75, 1.84]
MICHIGAN	2.93	[2.24, 3.62]
MINNESOTA	3.71	[2.58, 4.83]
MISSISSIPPI	5.83	[4.06, 7.61]
MISSOURI	5.24	[3.90, 6.59]
MONTANA	6.47	[2.55, 10.39]
NEBRASKA	2.23	[0.93, 3.53]
NEVADA	11.23	[7.70, 14.76]
NEW HAMPSHIRE	3.97	[1.93, 6.01]
NEW JERSEY	3.09	[2.07, 4.11]
NEW MEXICO	8.11	[5.56, 10.65]
NEW YORK	2.14	[1.62, 2.66]
NORTH CAROLINA	4.90	[3.86, 5.94]
NORTH DAKOTA	8.98	[1.68, 16.28]
OHIO	6.05	[5.24, 6.86]
OKLAHOMA	8.06	[6.05, 10.07]
OREGON	5.42	[3.80, 7.03]
PENNSYLVANIA	3.53	[2.80, 4.26]

	%	95% CI
RHODE ISLAND	2.66	[1.04, 4.28]
SOUTH CAROLINA	6.38	[4.73, 8.02]
SOUTH DAKOTA	4.50	[1.62, 7.37]
TENNESSEE	4.68	[3.41, 5.96]
TEXAS	8.89	[7.95, 9.82]
UTAH	6.00	[3.00, 9.01]
VERMONT	0.53	[0.27, 1.33]
VIRGINIA	7.39	[5.61, 9.18]
WASHINGTON	3.66	[2.73, 4.58]
WEST VIRGINIA	5.72	[4.00, 7.44]
WISCONSIN	3.05	[1.97, 4.13]
WYOMING	3.07	[1.03, 5.11]

Notes: All percentages and standard errors account for the complex survey design of the ACS.

^aState estimate not reported due to small cell size.

Table 2

Percentage of community-dwelling adult SSI beneficiaries ages 21–64 enrolled in Medicaid, ACS 2008–2009

	%	95% CI
ALABAMA	79.14	[77.18, 81.09]
ALASKA	82.46	[76.01, 88.92]
ARIZONA	73.98	[71.16, 76.79]
ARKANSAS	79.36	[76.44, 82.27]
CALIFORNIA	74.1	[73.04, 75.15]
COLORADO	70.97	[67.38, 74.56]
CONNECTICUT	73.67	[70.32, 77.02]
DELAWARE	74.02	[67.97, 80.07]
DISTRICT OF COLUMBIA	91.345	[86.74, 95.95]
FLORIDA	72.36	[70.91, 73.81]
GEORGIA	74.23	[72.25, 76.21]
HAWAII	80.78	[75.32, 86.24]
IDAHO	78.56	[74.27, 82.84]
ILLINOIS	75.5	[73.62, 77.37]
INDIANA	68.19	[65.49, 70.89]
IOWA	81.97	[79.06, 84.88]
KANSAS	77.13	[73.88, 80.39]
KENTUCKY	83.52	[81.73, 85.3]
LOUISIANA	75.69	[73.01, 78.37]
MAINE	85.73	[82.91, 88.54]
MARYLAND	72.52	[69.08, 75.95]
MASSACHUSETTS	83.72	[81.96, 85.48]
MICHIGAN	81.28	[79.89, 82.67]
MINNESOTA	76.63	[74.19, 79.07]
MISSISSIPPI	81.89	[79.4, 84.38]
MISSOURI	79.74	[77.87, 81.61]
MONTANA	78.02	[71.53, 84.52]
NEBRASKA	79.99	[75.85, 84.14]
NEVADA	63.48	[58.82, 68.15]
NEW HAMPSHIRE	70.88	[65.03, 76.73]
NEW JERSEY	76.2	[73.59, 78.82]
NEW MEXICO	73.6	[69.61, 77.59]
NEW YORK	83.54	[82.42, 84.67]
NORTH CAROLINA	80.58	[78.61, 82.55]
NORTH DAKOTA	68.731	[59.83, 77.63]
OHIO	76.22	[74.60, 77.84]
OKLAHOMA	74.9	[71.88, 77.91]
OREGON	73.86	[70.17, 77.55]
PENNSYLVANIA	76.54	[75.08, 77.99]

	%	95% CI
RHODE ISLAND	73.69	[68.42, 78.97]
SOUTH CAROLINA	75.69	[73.12, 78.25]
SOUTH DAKOTA	77.92	[71.45, 84.4]
TENNESSEE	78.94	[76.85, 81.03]
TEXAS	75.22	[73.83, 76.6]
UTAH	66.81	[61.74, 71.87]
VERMONT	86.76	[83.02, 90.51]
VIRGINIA	72.56	[69.91, 75.2]
WASHINGTON	78.55	[76.36, 80.73]
WEST VIRGINIA	81.91	[79.42, 84.41]
WISCONSIN	77.6	[75.34, 79.86]
WYOMING	74.76	[65.05, 84.46]

Notes: All percentages and standard errors account for the complex survey design of the ACS.

Table 3

Characteristics of adult SSI beneficiaries, ages 21–64 ACS 2008–2009

	Uninsured %	Medicaid %
Individual characteristics		
Male	37.0	40.0 [‡]
Age (mean)	44.10	45.0 [‡]
Race		
White	58.5	64.1 [‡]
Black	29.1	24.5 [‡]
Other	12.4	11.4 [‡]
Hispanic	17.9	13.6 [‡]
Married	28.2	17.3 [‡]
Education		
No Degree	41.9	41.2
H.S. Diploma/GED	35.1	35.6
More than H.S. Diploma/GED	23.1	25.8
Any employment in the past week	10.6	5.5 [‡]
Cognitive limitation	24.1	45.6 [‡]
Vision or hearing limitation	12.2	19.7 [‡]
Independent living limitation	21.2	43.0 [‡]
Ambulatory limitation	26.8	43.9 [‡]
Self-care limitation	9.5	20.3 [‡]
English language proficiency		
Non-English speaker	13.2	9.8 [‡]
Speaks English well or very well	79.3	83.9 [‡]
Speaks English poorly	7.4	6.3 [‡]
Noncitizen	7.1	3.1 [‡]
Household characteristics		
Access to telephone in home	92.4	95.5 [‡]
Receives food stamps	46.8	58.7 [‡]
Family size (mean)	3.0	2.6 [‡]
Family income as % of federal poverty level		
<75%	39.3	37.2
75% – 149%	33.8	35.1
150% +	26.9	27.8
Metropolitan area		
Not a metropolitan or micropolitan area	9.8	10.3
Metropolitan central city	40.1	40.1
Metropolitan non-central city	37.5	36.8

	Uninsured %	Medicaid %
Metropolitan area	12.6	12.9
Low cost county health care supply		
Public health clinics per thousand residents (mean)	0.04	0.04
Unweighted Observations	4,349	70,683

Notes: All proportions, means, and standard errors account for the complex survey design of Public health clinics includes rural health clinics, federally qualified community health centers, and mental health clinics.

[‡]Significantly different from uninsured population, $p < 0.01$

Table 4

Uninsurance among SSI beneficiaries by state Medicaid eligibility & enrollment process, ACS 2008–2009

	Uninsurance among SSI Beneficiaries			Percentage of <u>all</u> Uninsured SSI Beneficiaries		
	Weighted N	%	95% CI	%	95% CI	
State Medicaid Eligibility & Enrollment Process						
SSI Criteria/SSA determines eligibility & initial enrollment	2,646,021	4.9	[4.7, 5.2]	73.1	[71.3, 74.9]	
SSI Criteria/State conducts eligibility & enrollment	131,102	5.7	[4.9, 6.6]	4.2	[3.6, 4.9]	
State eligibility criteria and state conducts enrollment	617,150	6.6 [‡]	[6.1, 7.0]	22.6	[20.9, 24.3]	

Notes: All percentages and standard errors account for the complex survey design of the ACS.

[‡]Estimate is significantly different from states with 'SSI Criteria/SSA determines eligibility & initial enrollment' at $p < 0.01$

Weighted estimates reflect the SSI beneficiary population ages 21–64 in the United States.

Table 5

Correlates of uninsurance relative to Medicaid among adult SSI beneficiaries, ages 21–64

	Average Marginal Effects (%)	95% Confidence Interval
Individual characteristics		
Male	−0.66 [‡]	[−1.10, −0.22]
Age	−0.01	[−0.03, 0.01]
Race		
Black	2.18 [‡]	[1.35, 3.00]
Other	−0.39	[−1.19, 0.41]
Hispanic	1.86 [‡]	[0.93, 2.78]
Married	3.34 [‡]	[2.61, 4.07]
Education		
HS Diploma/GED	−0.20	[−0.82, 0.41]
>HS Diploma	−0.27	[−0.88, 0.35]
Employed in past week	4.15 [‡]	[3.04, 5.27]
Functional Limitations		
Cognitive	−3.59 [‡]	[−4.02, −3.16]
Vision or hearing	−1.52 [‡]	[−2.14, −0.90]
Independent living	−3.07 [‡]	[−3.56, −2.58]
Ambulatory	−2.38 [‡]	[−2.87, −1.88]
Self care	−0.83	[−1.70, 0.04]
English proficiency		
Speaks English well/very well	−0.58	[−1.57, 0.40]
Speaks English poorly	−2.37 [‡]	[−3.36, −1.38]
Noncitizen	5.45 [‡]	[3.83, 7.08]
Household Characteristics		
Family size	0.74 [‡]	[0.61, 0.87]
Family income as % of FPL		
75% – 149%	−1.26 [‡]	[−1.81, −0.72]
150% +	−2.07 [‡]	[−2.68, −1.46]
Access to phone in home	−4.58 [‡]	[−5.62, −3.54]
Receives food stamps	−4.39 [‡]	[−4.79, −3.99]
Metropolitan area		
Metro central city	−0.58	[−1.30, 0.14]
Metro non central city	0.11	[−0.86, 1.08]
Micropolitan area	0.10	[−0.93, 1.13]
State Medicaid eligibility & enrollment process		
State eligibility criteria and state conducts enrollment	3.72 [‡]	[2.83, 4.62]
SSI criteria/state conducts eligibility & enrollment	3.65 [‡]	[2.03, 5.27]

	Average Marginal Effects (%)	95% Confidence Interval
Low cost county health care supply		
Public health clinics per thousand residents	-0.69	[-4.55, 3.17]
Year 2009	0.40	[-0.10, 0.90]

Notes:

* $p < 0.01$; Analytic sample includes beneficiaries enrolled in Medicaid or uninsured. Public health clinics include rural health clinics, federally qualified community health centers, and community mental health clinics in the county as of 2008.