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Exploring Characteristics and Health Care Utilization Trends among Individuals who fall in the Health Insurance Assistance Gap in a Medicaid Non-expansion State

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Abstract

States that did not expand Medicaid under the Affordable Care Act (ACA) in the U.S. have seen a growth in the number of individuals who fall in the assistance gap, defined as having incomes above the Medicaid eligibility limit (44% of the federal poverty level) but below the lower limit (< 100%) to be eligible for tax credits for premium subsidies or cost-sharing reductions in the marketplace. The purpose of this paper is to present findings from a secondary data analysis examining the characteristics of those who fell in the assistance gap (n= 166) in Missouri, a Medicaid non-expansion state, by comparing them to those who did not fall in the assistance gap (n=157). Participants completed online demographic questionnaires and self-reported measures of health and insurance status, health literacy, numeracy and health insurance literacy. A select group completed a one-year follow-up survey about health insurance enrollment and health care utilization. Compared to the non-assistance gap group, individuals in the assistance gap were more likely to: have lower levels of education; have at least one chronic condition; be uninsured at baseline; and be seeking health care coverage for additional dependents. Individuals in the

assistance gap had significantly lower annual incomes and higher annual premiums when compared to the non-assistance gap group and were less likely to be insured through the marketplace or other private insurance at one-year follow-up. Findings provide several practice and policy implications for expanding health insurance coverage, reducing costs and improving access to care for underserved populations.

Introduction

Current political debate and proposed legislations around health care reform threaten to dismantle the Affordable Care Act's (ACA's) progress of increasing access to affordable health insurance coverage, especially to underserved, low income populations in the United States. Since its enactment in 2010, the ACA has expanded access to health care for underserved and uninsured individuals while reducing overall federal health care expenditures (Kaiser Family Foundation, 2017). Medicaid expansion to adults with incomes at or below 138% of the federal poverty level (FPL) (e.g., \$33,534 for a family of four in 2016) was a major part of the law. However, participation in Medicaid expansion was deemed optional by the Supreme Court, and as of November 2017, 19 states had selected not to expand their Medicaid programs (Jost & Rosenbaum, 2012). Several non-Medicaid expansion states such as Texas, Georgia, Arizona, Oklahoma and Nebraska have the highest uninsured rates in the country, ranging from 8.2% (Nebraska) to 17.1% (Texas), compared to the 9% uninsured rate nationally (Garfield & Damico, 2016). An estimated 2.6 million people in non-Medicaid expansion states fall in what is referred to as the "assistance" gap. Falling in the assistance gap is defined as having incomes above the Medicaid eligibility limit (44% of FPL) but below the lower limit (< 100% FPL) for tax credits, subsidies or cost-sharing reductions to assist in purchasing federal marketplace coverage and using health care (Artiga, Damico, & Garfield, 2015; Berenson, Li, Lynch, & Pagan, 2017; Buettgens & Kenney, 2016; Norris, 2017).

Background

One of the major provisions of the ACA was the expansion of Medicaid to include coverage for adults with incomes at or below 138% of the FPL. In 2016, this included adults with an annual income of \$16,394 for a family of one, \$33,534 for a family of four, and \$56,428 for a family of eight. The Supreme Court ruling in 2012 rejected the ACA's mandate to make Medicaid expansion a requirement and instead, gave states the option to decide whether or not to participate (Jost & Rosenbaum, 2012). As of January 2017, 31 states and the District of Columbia have chosen to expand Medicaid providing Medicaid eligibility to all legal residents with household incomes at or below 138% of FPL (Garfield & Damico, 2016). In the 19 states that have not expanded Medicaid, eligibility for Medicaid coverage continues to be based on pre-ACA guidelines (i.e., disabled, low-income children and pregnant women, and some low-income parents). However, this places a significant financial burden on lower-income populations in non-expansion states who are ineligible to gain health insurance coverage through their employer, Medicaid, or Medicare.

Health insurance marketplaces (also known as exchanges) that are federally-facilitated or state-based were created to support the process of seeking and purchasing affordable health insurance coverage options under the ACA. Many states, like Missouri, opted-out of implementing state-based marketplaces, leaving federally-facilitated marketplaces as the only option for coverage for those who are ineligible for public programs (i.e., Medicaid, Tricare, Medicare) or private insurance. In order to increase access to affordable health insurance coverage for low to moderate income marketplace enrollees, the ACA offers financial assistance mainly through premium tax credits and cost-sharing subsidies (Kaiser Family Foundation, 2016). Premium tax credits help reduce monthly payments for insurance plans for marketplace enrollees in all metal levels of coverage (bronze, silver, gold and platinum). In Medicaid expansion states, tax credit eligibility ranges from 138% to 400% of FPL and in non-expansion states eligibility ranges from 100% to 400% of FPL. Roughly 3 million residents of the 19 non-expansion states fall in the tax credit assistance gap (Kaiser Family Foundation, 2016). Similarly, cost-sharing subsidies help reduce out-of-pocket expenses (deductibles, copayments and coinsurance) for individuals or families who are enrolled in a silver plan through the marketplace. Eligibility is restricted to those who have household incomes from 100% to 250% of poverty and who are eligible to receive a premium tax credit. Therefore, although individuals in states that did not expand Medicaid can purchase insurance through the federal marketplace, they do not receive tax breaks or subsidies, placing them in the financially vulnerable assistance gap.

Opting out of Medicaid expansion has had significant adverse financial and health consequences, especially for those in the assistance gap (Dickman, Himmelstein, McCormick, & Woolhandler, 2014). In 2016, 13.3% of those residing in non-expansion states were uninsured, compared to 8.1% in expansion states (Kaiser Family Foundation, 2016). In comparing access to care, utilization, and self-reported health among low-income adults in Kentucky (Medicaid expansion), Arkansas (use of Medicaid funds to purchase private insurance) and Texas (no expansion), Sommers and colleagues (2016) found that Medicaid expansions in Kentucky and Arkansas were associated with (a) significant reductions in uninsured rates, (b) increase in access to primary and preventative care, (c) fewer skipped medications due to high out of pocket costs to patients,, (d) reduced out-of-pocket spending, (e) reduced emergency department visits, (f) improved health care quality, and (g) improved self-reported health. However, further studies are such as Texas that did not expand Medicaid.

Individuals who fall in the assistance gap are an understudied faction of the uninsured population that is subjected to the health insurance coverage churn (falling in and out of coverage) and may be overlooked in terms of access to coverage and care (Sommers & Rosenbaum, 2011). Little is known about the characteristics and needs of the assistance gap population, especially in terms of their decision-making to purchase health insurance, their subsequent health care utilization, and its impact on their health outcomes. Further research is warranted to inform programs and policies targeted at improving access to health care for this underserved group.

The purpose of this paper is to present findings from a secondary data analysis examining the health and social characteristics of those who fall in the assistance gap (n= 166) in

Missouri, a Medicaid non-expansion state, by comparing them to those who fall in the non-assistance gap (n=157). In addition to describing the assistance gap population, we explored changes in insurance status and health care utilization at a one-year follow-up. Baseline data were collected between October, 2015 and January, 2016 among a subset of the assistance gap group (N=119). We hypothesized that when compared to their non-assistance gap counterparts, individuals in the assistance gap would be more likely to (a) be uninsured, (b) underutilize primary health care services (even with a chronic illness), and (c) seek emergent and/or urgent care.

Methods

This paper analyzed data from a larger study aimed at developing an effective tool to assist consumers in the decision-making process of purchasing health insurance through the federal marketplace in Missouri (Politi et al., 2016). The parent study evaluated the impact of a decision aid (*Show Me My Health Plan*) among 328 Missourians planning to enroll in the marketplace. Following institutional review board approval, participants were recruited between October 2015 and January 2016 through community events and networks using convenience sampling methods. Inclusion criteria included those between the ages of 18 to 64 years, English-speaking, not Medicaid-eligible at the time of study enrollment (therefore eligible for the federal marketplace), and living in counties within 90 miles of St. Louis. Eligible individuals completed an online survey, which collected (a) demographics (information on age, gender, education, income, insurance status and health insurance needs, self-reported health and smoking status); (b) data on health insurance knowledge; (c) responses to two items from the Health Insurance Literacy Measure (HILM) assessing confidence levels in estimating health care costs and understanding health insurance terms (Paez et al., 2014); (d) responses to the Single Item Literacy Screener (SILS; Morris, Maclean & Littenberg, 2006); and (e) answers to four questions from a validated objective numeracy measure (Lipkus, Samsa, & Rimer, 2001).

For this paper, we conducted a secondary data analysis in June of 2017 on 323 participants from the larger study to compare the assistance gap participants to the non-assistance gap participants. Participants were grouped according to standard 2016 percentages of federal poverty level (FPL) categories based on self-reported income and household size reported through online surveys. Participants who fell in the assistance gap were not Medicaid eligible due to Missouri being a non-expansion state, and not eligible for subsidies or cost-sharing reductions in the federal marketplace because they had incomes less than 100% of the FPL. Participants who fell in the non-assistance group had individual or family incomes above 100% of the FPL and therefore were eligible for federal subsidies. Those with incomes above 100% of the FPL and less than 250% of the FPL also qualified for cost-sharing reductions in the federal marketplace (Kaiser Family Foundation, 2016).

We calculated the lowest possible costs of health insurance plans available to an individual or family in each group based on a quantitative algorithm (Politi et al., 2016). This algorithm uses estimates from the Medical Expenditure Panel Survey (MEPS) data based on age, gender, and medical conditions, incorporates a risk-adjusted coefficient, and determines federal subsidies or cost-sharing based on the ACA regulations (U.S. Department of Health

and Human Services, 2009). It uses these data to estimate how much an individual or family may be expected to spend on out-of-pocket costs for their health care in a given calendar year. In this analysis, we used the lowest possible annual cost for participants to compare differences in costs required to obtain and use health care across participants.

Data Analysis

We used bivariate analyses with Chi-square or Fisher's exact test for categorical variables and Kruskal-Wallis tests for continuous variables. A Mann-Whitney *U* test was used to test for statistically significant differences in median annual income, median annual premium for lowest cost plan, and median lowest cost plan annual premium as a percent of annual income between assistance gap and non-assistance gap groups in Table 2. Bivariate analyses and multivariable logistic regression models were also used to explore the relation between insurance status (insured vs. uninsured) and health care utilization within the assistance gap group at one-year follow-up (between October 2016 and January 2017), while both controlling for and not controlling for existence of chronic conditions. Statistical package SAS version 12.1 was used for analyses.

Results

Our sample consisted of 166 individuals (73 males and 93 females) in the assistance gap and 157 (62 males and 95 females) in the non-assistance gap. The mean age of assistance gap individuals was 40.9 years ($SD \pm 13.0$) and the mean age of non-assistance gap individuals was 43.5 ($SD \pm 12.6$). One-hundred and eleven individuals reported having at least one chronic condition in the assistance gap group compared to ninety-two individuals in the non-assistance gap, with a mean of 2.21 ($SD \pm 1.43$) chronic conditions per person among individuals with chronic conditions (62.8% of total sample). In addition, 47 assistance gap individuals indicated that they were seeking coverage for family members with chronic conditions compared to 60 non-assistance gap individuals, with a mean of 2.69 ($SD \pm 2.35$) conditions per spouse or dependent among those with chronic conditions.

Table 1 depicts differences between the assistance gap group and the non-assistance gap group for education level, health insurance status, and coverage needs at baseline. When compared to those in the non-assistance gap, individuals in the assistance gap were less likely ($p < .001$) to have completed their education beyond high school graduation or obtained health insurance coverage at the start of this study. A significantly higher percentage of those in the assistance gap (66.9%, $n = 111$) also reported seeking coverage for one additional dependent under their health insurance plans ($p < .05$; see Table 1). Table 1 also depicts differences in health insurance coverage status and types of insurance between assistance gap and non-assistance gap groups at one-year follow-up.

Although there were no significant differences between groups in terms of insurance status at one-year follow-up, there were significant differences in types of health insurance plans selected. A higher number ($n = 16$, 30.8%) of non-assistance gap individuals gained coverage under the federal marketplace compared to assistance gap individuals ($n = 12$, 26.1%, $p < .05$). There were more individuals in the assistance gap ($n = 8$, 17.4%) who gained coverage

through bridge programs such as *Gateway to better health* than those in the non-assistance gap ($n=1$, 1.9%, $p < .05$; Automated Health Systems, 2018).

Table 2 provides data on the differences in income and costs of purchasing health insurance for both groups. Cost-related findings indicate that compared to the non-assistance gap group, individuals in the assistance gap have significantly lower median annual incomes (\$5,100 compared to \$27,500; $p < 0.001$), but significantly higher annual premiums even for the lowest annual cost plans in the federal marketplace (median of \$3,696 compared to \$714; $p < 0.001$). On average, assistance gap individuals commit a significantly higher portion of their annual incomes (median of 69.9% compared to 2.6%; $p < .001$) towards purchasing health insurance coverage even for the lowest annual cost plans.

Table 3 depicts results from the bivariate analysis of health care utilization data (physician, ER, urgent care and hospital visits) within the assistance gap group obtained at the one-year follow-up mark. Results indicate a significant relationship between insurance status (insured vs. uninsured) and number of physician's visits ($\chi^2(1) = 4.112$, $p < .05$) and any type of health care visits ($\chi^2(1) = 4.801$, $p < .05$). However, when controlling for the presence of any vs. no chronic conditions in multivariate analyses, the relationships between insurance status and the number of ER visits ($OR=0.877$; $p=.655$; CI , 0.495–1.557) and urgent care visits ($OR=0.727$; $p=.372$; CI , 0.360–1.465) were not significant. Similarly, the relationship between insurance status and the number of physician's visits ($OR=0.726$; $p=.098$; 95% CI , 0.497–1.061) and any type of health care visits ($OR=0.802$; $p=.084$; CI , 0.624–1.030) were not significant. The relation between insurance status and number of hospital visits at the multivariate level could not be obtained as cell counts were too small to add additional variables into the model.

Discussion

Findings from this study suggests that individuals who fall in the assistance gap may experience greater health and financial needs when accessing affordable health insurance coverage when compared to their non-assistance gap counterparts. When compared to the non-assistance gap group, individuals in the assistance gap were more likely to: have lower levels of education, be uninsured at baseline, and to be seeking health care coverage for at least one additional dependent. Individuals in the assistance gap were less likely to be insured through the federal marketplace or other private insurance at one-year follow-up. A larger number of those in the assistance gap were more likely to have at least one chronic condition when compared to those in the non-assistance gap. Furthermore, cost-related variables indicate that individuals in the assistance gap have significantly lower annual incomes and significantly higher annual premiums when compared to the non-assistance gap group. Therefore, assistance gap individuals commit a larger portion of their annual incomes to purchasing health insurance coverage plans.

Individuals who fall in the assistance gap may face difficulties making decisions regarding purchasing health insurance coverage with the additional financial burdens related to having lower incomes and higher out-of-pocket costs. Many may choose to remain uninsured due to the unaffordable costs of plans without federal subsidies or cost-sharing to offset high out-

of-pocket expenditures. Using the Urban Institute's Health Insurance Policy Simulation Model, Blumberg, Holahan, and Buettgens (2015) found that even with tax credits, many are unable to afford marketplace coverage and may chose to remain uninsured. Financial burdens were found to be higher for individuals with greater health care needs where health care expenditures can exceed 20% of annual income for those with incomes up to 500% of FPL. Similarly, for those in the assistance gap in this study, the cost of the annual premiums alone (for lowest cost plans) amounted to almost 70% of annual incomes because they were ineligible for tax credits for subsidies or cost-sharing reductions (see Table 2). These findings support existing evidence (Artiga, Damico, & Garfield, 2015; Buettgens & Kenney, 2016; Dickman, Himmelstein, McCormick, & Woolhandler, 2014) indicating that those who fall in the assistance gap face significant financial barriers to obtaining health insurance coverage, which in turn can impact their ability to access timely and appropriate health care services.

Not surprisingly, individuals originally in the assistance gap who gained coverage after one-year were more likely to have had a physician's visit or any health care visit in the past 12 months, while individuals in the assistance gap who did not gain coverage were less likely to seek these services (see Table 3). It is possible that those who needed insurance because of health needs obtained coverage regardless of the significant financial burden it would cause; roughly 52% had marketplace or private insurance at follow-up. It is also possible that some participants gained employment and were eligible for employer-sponsored care that they could not obtain at baseline. Many of those with very low incomes also become eligible for Medicaid at various points in time; 30% were able to obtain Medicaid by the 1 year follow-up despite being ineligible at baseline. Some (17% of those in the assistance gap) relied on *Gateway to Better Health*, a bridge program providing affordable health care services to uninsured adults in St. Louis City and County until they are able to enroll in other health insurance coverage options (Automated Health Systems, 2018). Sponsored by the Missouri Department of Social Services, in collaboration with the St. Louis Regional Health Commission, the *Gateway to Better Health* program provides coverage for in-network primary care services, specialty care services if referred by a primary care provider, up to five urgent care services, limited outpatient hospital services, and generic prescription drugs. More than 58,100 otherwise uninsured residents in St. Louis City and County use this program. Such subsidized, affordable programs can support individuals who fall in the assistance gap in states that did not expand Medicaid. Individuals in the assistance gap may roll on and off health insurance coverage based on changes in eligibility and needs (Sommers & Rosenbaum, 2011), and may rely on these programs for continuity of care.

The majority of assistance gap individuals across the nation are more likely to be middle-aged (age 35 to 54), work in jobs that do not offer insurance coverage, work in agriculture or service industries, and be in poor working families with dependents (Garfield & Damico, 2016). Therefore, assistance gap individuals face challenges in maintaining a stable job with an income to support their families and to meet the income eligibility criteria to gain affordable health insurance coverage (Chang, 2015). Many choose to forgo purchasing health insurance until they reach a critical stage in their illness where health care is necessary. Delayed health-seeking behaviors, especially for conditions that can be avoided or managed through the use of preventive health care, may lead to poorer health outcomes.

Efforts to connect assistance gap individuals to other sources of free or subsidized health care could aid in prevention of diseases and further complications of current conditions. Furthermore, state and federal policymakers need to have a better understanding of the impact of eligibility parameters on assistance gap individuals when revising current health care laws in order to provide some efforts to remedy this disparity. Further research is needed to examine the influence of insurance on outcomes in a larger sample of the assistance gap population over a longer period of time, while re-assessing eligibility over time.

Changes in health insurance coverage in the assistance gap group may also be related to restrictions in enrollment periods, as individuals can enroll in Medicaid throughout the year, but marketplace enrollment is only available during a limited open enrollment period once a year (with the exception of a Special Enrollment Period following a qualifying life event). Medicaid with rolling open enrollment may provide a stronger safety net of coverage for low-income individuals, such as those in the assistance gap, whose financial circumstances may change throughout the year (Garfield & Damico, 2016).

Limitations

Findings from this study should be interpreted cautiously as data were collected as part of a larger study aimed at testing the effectiveness of a decision support tool (Politi et al., 2016). Some participants used a health insurance decision support intervention, and may have felt more confident seeking health insurance coverage by the one-year follow-up. The sample size at follow-up was also too small to perform some multivariate analyses, serving as a limitation to further examining relationships between insurance coverage and health care utilization. Finally, as the assistance gap group is susceptible to churning in and out of having health insurance coverage, it is difficult to define and assess trends in this group over time. Individuals who fell in the assistance gap at baseline could have faced various changes in their circumstances beyond costs and income that may have led them to seek and gain health care coverage. As these circumstances were not measured or explored further, interpretations of study results regarding gaining coverage should be interpreted cautiously.

Implications for Practice, Research and Policy

Findings from this study provide several implications for nursing and public health practice, research and policy. Nurses and other health care clinicians are at the forefront of providing care for underserved communities, including many low-income individuals and families that fall in the assistance gap. Using an interprofessional approach is necessary to provide well-rounded care that supports health care decision making, including purchasing and using health insurance. Advocating for consumers' rights to access affordable health insurance coverage is an essential role of nurses and other health care providers, especially in the current climate of changing health care reform policies.

Further research is warranted to understand the impact of state and federal policy changes on health outcomes of the assistance gap population, in order to better inform future programs and policies aimed at increasing access to coverage and care for this underserved population. Studies have shown that gains in coverage under the ACA and Medicaid expansion have

increased coverage, improved access to and utilization of care, and positively affected affordability of care and health outcomes, including reduced mortality, for low-income populations (Antonisse, Garfield, Rudowitz, & Artiga, 2017; Sommers, Baicker, & Epstein, 2012). Studies have also shown the positive economic impact of Medicaid expansion, especially as it relates to savings in state health care budgets (Sommers & Gruber, 2017) and reductions in uncompensated care for hospitals and clinics (Camilleri, 2017). Despite these advancements, ACA repeal and replacement remains a top priority for the current administration. If federal changes lead to the dismantling of the ACA, future research is needed to find alternative health insurance models that continue to expand access to care for all while reducing overall health care expenditures. This includes conducting long-term cost-benefit analyses of expanding health insurance coverage for all.

Passing of current legislation at the federal level that aims to dismantle the ACA and at the state level that proposes changes to Medicaid expansion programs (such as Kentucky's Section 1115 waiver proposal) will result in the loss of coverage for many. However, expanding Medicaid or similar assistance programs could result in increased coverage and savings. In a simulated study, Hill (2015) found that that expanding Medicaid in current non-expansion states would result in increased savings and decreased financial burden for consumers when compared to marketplace exchange coverage. Findings from this simulated study indicated that consumers gaining coverage through an expanded Medicaid program would have lower average out-of-pocket costs, even when compared to being uninsured or being enrolled in a marketplace silver-level plan. Therefore, expanding Medicaid in non-expansion could significantly reduce financial burdens for individuals who fall in and out of the assistance gap. Translating these and future research findings to the policy-level is an essential step to securing Medicaid and access to other assistance programs for underserved populations.

Conclusions

Findings from this study show that those in the assistance gap face several barriers to accessing affordable health insurance coverage, placing them in a vulnerable position to manage their health. Expansion of Medicaid coverage or the provision of financial assistance in the form of tax credits and subsidies is necessary to improve health outcomes, especially for those falling in the assistance gap. As health care reform continues to change in the upcoming months, increased efforts around expanding health insurance coverage for underserved, low-income communities are imperative. Future health care reform policies should be aimed at ensuring access to affordable health insurance coverage for our vulnerable populations to support timely and appropriate access to health care services.

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Table 1

Characteristics of assistance gap (AG) group and non-assistance gap (NAG) group

		Assistance Group N (%)		p-value ¹
		AG N=166 (51.4)	NAG N=157 (48.6)	
Gender	Male	73 (44.0)	62 (39.5)	0.4140
Ethnicity	Non-Hispanic	159 (95.8)	153 (97.5)	0.4084
Race	African American	109 (65.7)	90 (57.3)	0.2832
	White	39 (23.5)	48 (30.6)	
	Other	18 (10.8)	19 (12.1)	
Education	Less than high school	19 (11.5)	6 (3.8)	0.0006
	High school diploma/GED	114 (68.7)	94 (59.9)	
	College degree or more	33 (19.9)	57 (36.3)	
Insurance status at baseline	Currently Uninsured	105 (63.3)	72 (45.9)	0.0017
Insurance status at one-year follow-up (n=119)	Insured	46 (82.1)	52 (82.5)	0.955
Plan type of those insured at one-year follow-up (n=98)	Federal marketplace	12 (26.1)	16 (30.8)	0.043
	Other private insurance	12 (26.1)	21 (40.4)	
	Medicare/Medicaid/VA	14 (30.4)	14 (26.9)	
	Gateway to Better Health	8 (17.4)	1 (1.9)	
Metal level of federal marketplace plans preferred ²	Catastrophic and Bronze	80 (48.2)	71 (45.2)	0.596
	Silver or higher	81 (48.8)	78 (49.7)	
Number of family members or dependents covered	1	111 (66.9)	89 (56.7)	0.0392
	2	19 (11.5)	34 (21.7)	
	3+	36 (21.7)	34 (21.7)	
Number of family members or dependents covered		Mean=1.8 (+/- 1.4) Range 1-7	Mean=1.9 (+/- 1.3) Range: 1-8	0.181
Smoking Status	Non-Smoker	112 (67.5)	111 (70.7)	0.5302
Smoking status of people you hope to cover ²	Non-Smoker	45 (81.8)	59 (86.8)	0.4504
SILS ²	Adequate	133 (80.1)	131 (84.0)	0.3685
Objective Numeracy		Mean=2.3 (+/- 1.17)	Mean=2.5 (+/- 1.02)	0.1421
HILM Item 1 ²	Not confident	37 (22.3)	39 (25)	0.1415
	A little confident	94 (56.6)	72 (46.2)	
	Very confident	35 (21.1)	45 (28.9)	
HILM Item 2 ²	Not confident	44 (26.51)	29 (18.59)	0.1938
	A little confident	74 (44.58)	82 (52.56)	
	Very confident	48 (28.92)	45 (28.85)	

¹ Chi-square or Fisher's exact test for categorical variables; Kruskal-Wallis test for continuous variables.² The denominator for the percentages is the sum of patients across all categories in the <100%FPL or 100%FPL group, respectively, excluding missing values.

Table 2

Comparison of Annual Premium of Lowest Cost Plan Among Assistance Gap (AG) group and Non-Assistance Gap (NAG) group

	Coverage Group		p-value
	AG (N=111) ¹	NAG (N=118) ²	
2016 Annual Income in Dollars	Median: 5,100 Range: 1 – 24,000	Median: 27,500 Range: 11,856 – 540,000.	<0.001
Annual Premium for Lowest Cost Plan in Dollars	Median: 3,696 Range: 1,740 – 10,464	Median: 714 Range: 0 – 16,992	<0.001
Lowest Cost Plan Annual Premium as % of Annual Income	Median: 69.6% Range: 10.8% – 1,046,400.0%	Median: 2.6% Range: 0.0% – 17.9%	<0.001

¹Lowest cost plan information was not available for 55 participants who had a household size of greater than 1

²Information was not available for 39 participants who had a household size of greater than 1

Table 3

Comparing health care utilization by insurance status within assistance gap (AG) group at one-year follow-up (n=56)

		Insurance status at one-year follow-up N (%)		p-value ^I
		Insured at follow-up N=46	Uninsured at follow-up N=10	
Physician visits	Number of visits (includes 0 visits) in past 12 months	M=8.6 (+/-16.1) Range: 1-100	M=2.5 (+/-2.2) Range: 0-6	.043
	Any visits in past 12 months-n (%)	46 (100.0%)	7 (70.0%)	.004
ER visits	Number of visits (includes 0 visits) in past 12 months	M=.85 (+/-1.67) Range: 0-10	M=.60 (+/1.07) Range: 0-3	.625
	Any visits in past 12 months-n (%)	19 (41.3%)	3 (30.0%)	.387
Urgent care visits	Number of visits (includes 0 visits) in past 12 months	M=.94 (+/-1.50) Range: 0-6	M=.50 (+/.707) Range: 0-2	.609
	Any visits in past 12 months-n (%)	21 (45.7%)	4 (40.0%)	.513
Hospital visits	Number of visits (includes 0 visits) in past 12 months	M=.35 (+/-1.12) Range: 0-7	---	.159
	Any visits in past 12 months-n (%)	8 (17.4%)	0 (0.0%)	.184
Number of visits	Number of visits (includes 0 visits) in past 12 months	M=10.7 (+/16.50) Range: 1-101	M=3.6 (+/-3.03) Range: 0-9	.028
	Any visits in past 12 months-n (%)	46 (100%)	8 (80.0%)	.029

^IFisher's exact test for categorical variables; Kruskal-Wallis test for continuous variables.