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## Co-enrollment for Child Health: How Receipt and Loss of Food and Housing Subsidies Relate to Housing Security and Statutes for Streamlined, Multi-Subsidy Application

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# Co-enrollment for Child Health: How Receipt and Loss of Food and Housing Subsidies Relate to Housing Security and Statutes for Streamlined, Multi-Subsidy Application

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## Introduction

Understanding the factors that promote secure, stable housing remains an ongoing debate.<sup>1</sup> While there is no universally accepted definition of housing insecurity,<sup>2</sup> the Department of Health and Human Services (DHHS) broadly defines housing insecurity as high housing costs, poor housing quality, unstable neighborhoods, and homelessness. Additionally, housing insecurity may manifest as frequent moves, and/or crowding and doubling up with others for economic reasons (henceforth called “overcrowding”).<sup>3</sup> Our research group recently developed a scale to include overcrowding and frequent moves as intermediate indicators of housing insecurity that are more prevalent but less extreme than homelessness.<sup>4</sup>

Though there are many studies documenting the relationship between homelessness and poor child health,<sup>5,6</sup> how housing insecurity may influence child health is less extensively studied. Families’ frequent moves has been associated with delayed child development, lower school grade performance, and increased levels of behavioral and emotional problems in children.<sup>4,7</sup> Household overcrowding has been associated with high rates of infections, poor mental health, and increased food insecurity among low-income families with children.<sup>8,9</sup>

Housing subsidies have been shown to reduce housing insecurity, improve food security, and reduce the likelihood of stunted growth associated with food insecurity among young children.<sup>4,10</sup> However, how the receipt of Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and the Supplemental Nutrition Assistance Program (SNAP, formerly food stamps) influences housing security, or the combination of nutrition and housing subsidies on housing security, has not been evaluated.

Over the past several years, numerous state governments have begun to streamline and integrate policies and practices that enroll eligible families in multiple public subsidies at once, including SNAP, Medicaid, WIC, free or reduced-price lunch or breakfast, public or subsidized rental housing, and energy assistance.<sup>11</sup> This recent effort is recognition by State governments that there are many pitfalls low-income families can face navigating often complex, duplicative, and bureaucratic public benefit systems. State efforts have also aimed to address the problem of churning - when families lose benefits when recertifying eligibility, only to reapply a month or two later. This leads to additional costs and burden for families and the benefit system.<sup>12</sup>

In addition, federal agencies have encouraged states to streamline and integrate benefit systems, to the extent allowed by assistance

programs' underlying statutes. For example, guidance issued by the Food and Nutrition Service (FNS), the Administration for Children and Families (which oversees Temporary Assistance for Needy Families, child care subsidies, and many other human services programs), and the Center for Medicaid and Medicare Services directed states to explore the links between health and human services clientele as they implement the Affordable Care Act – dubbed “horizontal integration.”<sup>13,14</sup> Currently, 40 states integrated the eligibility and intake process for SNAP with Medicaid, allowing families to file a single application and attend a single interview for multiple programs.<sup>15</sup> Given these ongoing efforts to connect other assistance programs, we were interested in whether we could identify evidence of improved outcomes when linking housing and food assistance. We hypothesized that children living in households eligible for federal food and/or housing assistance and receiving these benefits have higher odds of being housing secure than children in households that are eligible for but not receiving food and/or housing benefits, after controlling for potential confounding factors. Additionally, children living in households that have lost housing or food assistance benefits will have lower odds of being housing secure than children in households that have not lost food or housing benefits, after controlling for potential confounding factors.

## **Methods**

### **Participants**

From June 1998 through June 2009, the ongoing Children's HealthWatch study interviewed 36,172 caregivers of children younger than three years of age. The sample was drawn from urban medical centers serving diverse, low-income populations in seven cities: Baltimore, Boston, Little Rock, Los Angeles, Minneapolis, Philadelphia, and Washington, DC. Institutional review board approval was obtained at each site prior to data collection and renewed annually.

Trained interviewers surveyed caregivers accompanying children younger than three years of age in private settings at acute/primary care clinics and hospital emergency departments. Caregivers of critically ill or injured children were not approached. Potential respondents were excluded if they did not speak English, Spanish, or (in Minneapolis only) Somali, were not knowledgeable about the child's household, were interviewed previously, lived out of state, or did not consent to participate. Most caregivers (92%) were birth mothers, so that for ease of presentation, all adult respondents will be referred to as “mothers.” Questions on receipt or loss of benefits (eg, SNAP, WIC, and housing subsidy) were self-reported by caregivers, not through administrative

databases. Receipt SNAP and WIC benefits were determined by response selections that indicated current benefit receipt or prior loss of benefits to questions asking “Have you or the child ever received SNAP benefits?” and “Have you ever received WIC for yourself or for this child?” Receipt of housing benefits was determined by an affirmative response to the following question: “Do you currently live in subsidized housing or public housing?” with the prompt: “Do you receive government assistance to pay your rent?” Housing subsidy loss was determined by an affirmative response to “During the past 2 years have you had a housing voucher that was terminated?”

These analyses first focused on associations between receipt of housing subsidies, WIC and/or SNAP, and housing security, and compared six groups: (1) families receiving no benefits, (2) families receiving housing subsidies only, (3) families receiving WIC only, (4) families receiving housing subsidies and WIC, (5) families receiving WIC and SNAP, and (6) families receiving housing subsidies, WIC, and SNAP. Too few participants received other combinations of benefits (eg, housing subsidies and SNAP, but not WIC) to allow for statistically meaningful comparisons.

Exclusion of homeowners and those with private health insurance was used as a proxy for low-income. Because we were interested in nutrition benefits in combination with housing subsidies and whether subsidies impacted housing security factors, such as frequent moves and overcrowding, we excluded families who were homeless, living in shelters, motels, residential treatment facilities, or military housing in order to better assess the intermediate outcome of housing insecurity. Lastly, we excluded families receiving other benefits (eg, TANF, LIHEAP) not common in our sample, leaving a final sample of 16,155.

### **Outcome**

Families with no more than one move in the previous year and no indication of overcrowding were the referent securely housed group. Using the U.S. Census definition as a guideline, overcrowding was defined as having more than two people per bedroom at the time of interview or as temporarily living with other people because of economic difficulties (doubling up).<sup>16</sup> Families that moved two or more times in the past year, with or without overcrowding, were classified as experiencing frequent moves. A family experiencing overcrowding or frequent moves in the last year was defined as housing insecure.<sup>4</sup>

## **Data Analysis**

To determine whether study site or background demographic characteristics, including mother's race/ethnicity, marital status, education, employment, and place of birth (United States, including Puerto Rico), were associated with housing security we performed unadjusted bivariate analyses. Multivariate analyses were conducted using SAS v. 9.1 (SAS Institute, Cary, NC). Separate logistic regression models adjusted for potential confounders were carried out for each of the research questions (no housing or nutritional subsidies vs. housing subsidies; WIC alone vs. WIC plus housing subsidies; WIC and SNAP alone vs. WIC, SNAP and housing subsidies; and housing subsidies alone vs. housing subsidies plus WIC and SNAP). Covariates were chosen on the basis of previously published Children's HealthWatch research and/or bivariate associations with both receipt of benefits and housing security. Covariates included in the analysis of cumulative benefit models as potential confounders were the following: site, US born mother vs. immigrant, race/ethnicity, marital status, caregiver's education, and caregiver employment. In the analysis of benefit loss, covariates included those above as well as WIC receipt. The housing subsidy loss model also controls for SNAP receipt while the SNAP loss model controls for housing subsidy.

We also studied loss of housing subsidies compared to continued receipt of benefits after adjusting for covariates listed above and receipt of SNAP. Further, we examined loss of SNAP compared to continued receipt of both benefits after adjusting for continued receipt of housing subsidies.

## **Results**

Almost all children in the sample were born in the United States (98%). However, many household characteristics differed between housing-secure and housing-insecure families (Table 1) including study site, whether the mother was U.S. born, mother's race/ethnicity, marital status, level of educational attainment, and employment status. Final models were adjusted for study site, mother's race/ethnicity, marital status, education, employment, and place of birth (U.S. or elsewhere).

**Table 1.**Demographic characteristics of housing secure and insecure mothers with children ages 0-3 years (n=16,155)<sup>a</sup>

<i>Group</i>	<i>Housing Secure</i>		<i>Housing Insecure</i>		<i>Significance Level</i>
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>P value</i>
<b>TOTAL PARTICIPANTS n=16,155</b>	7,872	49	8,283	51	
<b>SITE</b>					<0.001
Baltimore	1,417	18	817	10	
Boston	2,426	31	1,767	21	
Little Rock	1,785	23	1,157	14	
Los Angeles	350	4	803	10	
Minneapolis	1,255	16	2,866	35	
Philadelphia	521	7	402	5	
Washington DC	118	1	471	6	
<b>MOTHER COUNTRY OF BIRTH</b>					<0.001
US born	5,388	69	3,612	44	
Immigrant	2,466	31	4,662	56	
<b>RACE/ETHNICITY</b>					<0.001
Asian	106	1	148	2	
Black	4,669	59	3,050	37	
Hispanic	1,827	23	4,132	50	
White	1,207	15	884	11	
Native American	41	1	56	1	
<b>MARITAL STATUS</b>					<0.001
No	4,585	58	3,893	47	
Yes - married or partnered	3,273	42	4,362	53	

<b>EDUCATION</b>					<b>&lt;0.001</b>
Some high school or less	2,057	26	3,561	43	
High school graduate	3,250	41	3,027	37	
Technical School/College Grad/Master's	2,532	32	1,618	20	
<b>MOTHER'S EMPLOYMENT</b>					<b>&lt;0.001</b>
No	3,519	45	5,003	61	
Yes	4,327	55	3,210	39	

All analyses presented here employ the Chi-square statistical method.

Overall, 49% of the sample was housing secure. Across the whole sample, 21% received SNAP, 84% received WIC and 19% received subsidized housing. However, prevalence of benefit receipt varied across housing and food benefit combination subgroups, with a low of 42% for those receiving WIC only and a high of 72.6% for those receiving WIC, SNAP, and housing subsidy (Table 2).

**Table 2.**

Prevalence and adjusted odds ratios for housing security, by housing and food benefits status. Multiple logistic regression analysis (N=16,155)

<b>Cumulative Benefits<sup>b</sup></b>	<b>Housing Secure Prevalence %</b>	<b>Housing Secure AOR (95% CI)</b>	<b>p-value for AOR</b>
<b>None of these benefits (n=2,190)</b>	50.3	1.00	
<b>Housing Subsidy Only (n=329)</b>	63.5	1.39 (1.06, 1.83)	0.02
<b>WIC only (n=8,606)</b>	42.0	1.00	
<b>Housing Subsidy and WIC (n=1,649)</b>	61.5	1.46 (1.29, 1.65)	<0.001
<b>Housing Subsidy Only (n=329)</b>	63.5	1.00	
<b>Housing Subsidy, WIC, SNAP (n=1,069)</b>	72.6	1.72 (1.30, 2.28)	<0.001



<b>WIC and SNAP only (n=2,312)</b>	50.0	1.00	
<b>Housing Subsidy, WIC, SNAP (n=1,069)</b>	72.6	2.83 (2.37, 3.39)	<0.001
<b>Loss of Benefits within the last two years<sup>c</sup></b>			
<b>Receives Housing Subsidy (n=3,041)</b>	65.7	1.00	
<b>Loss of Housing Subsidy (n=30)</b>	46.7	0.38 (0.18, 0.82)	0.01
<b>Receives SNAP (n=3,381)</b>	57.2	1.00	
<b>Loss of SNAP (n=597)</b>	49.6	0.73 (0.59, 0.91)	0.01

<sup>b</sup> Adjusted for: site, US born mother vs. immigrant, race/ethnicity, marital status, caregiver's education, and caregiver employment

<sup>c</sup> Adjusted for all covariates listed above and receipt of WIC. Additionally, the housing subsidy model is adjusted for receipt of SNAP and the SNAP model is adjusted for receipt of housing subsidy.

Multivariate analyses (Table 2) suggest housing subsidies, especially if paired with both federal nutrition benefits (WIC and SNAP), are associated with higher odds of housing security. Families receiving all three benefits were 72% more likely to be housing-secure compared to a housing subsidy alone. (AOR 1.72, 95% CI=1.30, 2.28)

Loss of housing subsidies was dramatic and significant (AOR 0.38, 95% CI= 0.18, 0.82), even after adjusting for receipt of SNAP, but rare (30 of 16,155). However, the loss of SNAP was more common and resulted in families being 27% less likely to be housing-secure when compared to continued receipt of SNAP, even after adjusting for receipt of housing subsidies (AOR 0.73, 95% CI= 0.59, .91).

### Conclusion

Less than half (49%) of this sample of low-income, urban families with young children was housing-secure, defined as living without overcrowding or frequent moves within the last year. The results of this study reinforce that housing subsidies are a potent benefit for increasing housing security among low-income, urban families with young children. However, the combination of housing subsidies with nutrition benefits was most strongly associated with higher adjusted odds of housing security, when compared with housing subsidies alone. As might be expected, the loss of housing subsidies was associated with lower odds of housing

security, even after adjusting for receipt of SNAP. More unexpected, loss of SNAP was also associated with lower odds of housing security even after adjusting for receipt of housing subsidies.

This study has several limitations. Due to its cross-sectional design, it is not possible to determine cause and effect relationships between outcomes but can discuss associations after covariate control. Cell sizes for loss of housing and SNAP benefits were relatively small so results should be cautiously interpreted. Because of the nature of the question, we cannot attribute a reason for loss of the housing subsidy and it is possible the groups who lose benefits differ beyond our ability to control through logistic regression. Furthermore, because this is a sentinel study measuring select populations of families with young children from low-income backgrounds in emergency rooms and hospital-based clinics, it is probable these are families with lower prevalence of housing security than the general population and conclusions may not be generalizable to more privileged or rural populations or families without young children. However, because this study is from seven sites across the country, it does represent predominantly urban, low-income families with young children with implications for families within urban settings.<sup>5</sup>

Since housing security is a strong correlate of children's health,<sup>17</sup> and public assistance benefits described in this paper have similar income, immigration and other requirements, it should be possible to enroll eligible families through a single application process. Requiring low-income families to navigate different government agencies to obtain nutrition and housing benefits is inefficient and increases the administrative costs of each program while creating barriers to access for the most vulnerable families.

An assessment by Families USA found that fast-track strategies for Medicaid enrollment, such as using SNAP data to determine income eligibility, has the ability to save states money in administrative and overhead costs.<sup>18</sup> In 2011, nine states—Colorado, Idaho, Illinois, Kentucky, New Mexico, North Carolina, Oregon, South Carolina, and Rhode Island—received one-year planning grants under the Work Support Strategies (WSS) initiative to help them improve their systems for connecting low-income families to public benefits including health coverage, nutrition benefits, and child care subsidies.<sup>19</sup> Among the six states that continued into the three-year implementation phase (Colorado, Idaho, Illinois, North Carolina, Rhode Island, and South Carolina), policy, business process, and technological changes have been implemented to streamline and integrate benefit programs, resulting in reduced “churn” and administrative costs.<sup>20</sup> Further research is needed to assess the

impact streamlined online benefit applications and/or re-certifications, specifically housing and nutrition subsidies, have on helping families apply for and manage their benefits.

The current economic climate and recent federal policy changes put family housing security at increased risk, with recent across-the-board actual and threatened cuts to entitlement programs, such as low-income housing assistance and WIC, and continuing threats to the monetary value and reach of SNAP.<sup>21-23</sup>

Long-term, stable, adequate funding for housing assistance is crucial for increasing family housing security. Furthermore, stable, adequate funding for nutrition assistance may have implications beyond decreasing hunger, potentially increasing housing security as well. Legislative or regulatory changes at the federal or state level can resolve differences in application requirements across programs or in procedural requirements for redetermination. In doing so, this will provide linked applications for benefit programs, which will preserve the viability of those programs under financial constraint. Moreover, these program linkages may support greater family access to benefits to which they are entitled to, and also save money while improving delivery efficiency.

## References

1. Bassuk EL, Geller S. The role of housing and services in ending family homelessness. *Hous Policy Debate*. 2006;17(4):781-806.
2. Kushel MB, Gupta R, Gee L, Haas JS. Housing instability and food insecurity as barriers to health care among low-income Americans. *J Gen Intern Med*. 2006;21(1):71-77.
3. Johnson A, Meckstroth A; US Department of Health and Human Services. Ancillary services to support welfare to work. <http://aspe.hhs.gov/hsp/isp/ancillary/housing.htm>. Mathematica Policy Research document no. PR98-21. Published June 22, 1998. Accessed July 31, 2013.
4. Cutts DB, Meyers AF, Black MM, et al. US housing insecurity and the health of very young children. *Am J Public Health*. 2011;101(8):1508-1514.
5. Bassuk EL, Rubin L, Lauriat AS. Characteristics of sheltered homeless families. *Am J Public Health*. 1986;76(9):1097-1101.
6. Weinreb L, Goldberg R, Bassuk E, Perloff J. Determinants of health and service use patterns in homeless and low-income housed children. *Pediatrics*. 1998;102(3):554-562.
7. Jelleyman T, Spencer N. Residential mobility in childhood and health outcomes: a systematic review. *J Epidemiol Community Health*. 2008; 62(7):584-592.
8. Wright BRE, Caspi A, Moffitt TE, et al. Factors associated with doubled-up housing: a common precursor to homelessness. *Soc Serv Rev* 1998;72(1):92-111.
9. Wood DL, Valdez RB, Hayashi T, Shen A. Health of homeless children and housed, poor children. *Pediatrics*. 1990;86(6):858-866.
10. Meyers A, Cutts D, Frank DA, et al. Subsidized housing and children's nutritional status: data from a multisite study. *Arch Pediatr Adolesc Med* 2005;159(6):551-556
11. Mills G, Compton JF, Golden O. The Urban Institute. Assessing the evidence about work support benefits and low-income families. <http://www.urban.org/UploadedPDF/412303-Work-Support-Benefits.pdf>. Published February 2011. Accessed July 8, 2014.
12. Golden O, ed. The Urban Institute. New perspectives on transforming states' health and human services. <http://www.urban.org/UploadedPDF/412833-New-Perspectives-on-Transforming-States-Health-and-Human-Services.pdf>. Published June 2013. Accessed July 2014.
13. U.S. Department of Health and Human Services and U.S. Department of Agriculture. HHS and Department of Agriculture Joint Letter.

- [http://www.acf.hhs.gov/sites/default/files/files/hhs\\_joint\\_letter.pdf](http://www.acf.hhs.gov/sites/default/files/files/hhs_joint_letter.pdf).  
Published November 23, 2010. Accessed July 8, 2014.
14. Dorn S. The Urban Institute. State and federal policy choices: how human services programs and their clients can benefit from national health reform. <http://www.urban.org/UploadedPDF/500265-State-and-Federal-Policy-Choices.pdf>. Published January 9, 2012. Accessed July 2014.
  15. U.S. Department of Agriculture, Food and Nutrition Service. Supplemental Nutrition Assistance Program state options report, 10<sup>th</sup> edition. [http://www.fns.usda.gov/sites/default/files/10-State\\_Options.pdf](http://www.fns.usda.gov/sites/default/files/10-State_Options.pdf). Published August 2012. Accessed July 2014.
  16. United States Census Bureau. Historical census of housing tables – crowding. United States Census Bureau. <http://www.census.gov/hhes/www/housing/census/historic/crowding.html>. Updated October 31, 2011. Accessed July 31, 2013.
  17. Krieger J, Higgins DL. Housing and health: time again for public health action. *Am J Public Health*. 2002;92(5):758-768.
  18. Kishore S. Families USA. States have low-cost options to “fast-track” Medicaid enrollment and retention. [http://familiesusa.org/sites/default/files/product\\_documents/Medicaid\\_Options%20to%20Accelerate\\_factsheet\\_final-web.pdf](http://familiesusa.org/sites/default/files/product_documents/Medicaid_Options%20to%20Accelerate_factsheet_final-web.pdf). Published December 2013. Accessed July 8, 2014.
  19. Golden O, ed. The Urban Institute. New perspectives on transforming states’ health and human services. <http://www.urban.org/UploadedPDF/412833-New-Perspectives-on-Transforming-States-Health-and-Human-Services.pdf>. Published June 2013. Accessed July 8, 2014.
  20. Golden O. The Urban Institute. Early lessons from the work support strategies initiative: planning and piloting health and human services integration in nine states. <http://www.urban.org/UploadedPDF/412789-Early-Lessons-from-the-Work-Support-Strategies-Initiative.pdf>. Published March 2013. Accessed July 8, 2014.
  21. Rice D; Center on Budget and Policy Priorities. Sequestration could cut housing vouchers for as many as 185,000 low-income families by the end of 2014: families using vouchers may also face rising rents, fewer housing options. <http://www.cbpp.org/files/11-6-13hous.pdf>. Published November 6, 2013. Accessed March 28, 2014.
  22. Nord M; U.S. Department of Agriculture, Economic Research Service. Effects of the decline in the real value of SNAP benefits from 2009 to 2011, ERR-151. <http://www.ers.usda.gov/media/1155211/err151.pdf>. Published August 2013. Accessed November 22, 2013.

23. Neuberger Z, Greenstein B. Center on Budget and Policy Priorities. The impact of the sequester on WIC: will WIC be able to serve all eligible low-income women and young children who apply? <http://www.cbpp.org/files/2-26-13fa.pdf>. Published April 11, 2013. Accessed July 2014.