# Subsidized Housing and Children's Nutritional Status

# Data From a Multisite Surveillance Study

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**Background:** A critical shortage of affordable housing for low-income families continues in the United States. Children in households that are food insecure are at high risk for adverse nutritional and health outcomes and thus may be more vulnerable to the economic pressures exerted by high housing costs. Only about one fourth of eligible families receive a federally financed housing subsidy. Few studies have examined the effects of such housing subsidies on the health and nutritional status of low-income children.

**Objective:** To examine the relationship between receiving housing subsidies and nutritional and health status among young children in low-income families, especially those that are food insecure.

**Design:** Cross-sectional observational study.

**Setting and Participants:** From August 1998 to June 2003, the Children's Sentinel Nutrition Assessment Program interviewed caregivers of children younger than 3 years in pediatric clinics and emergency departments in 6 sites (Arkansas, California, Maryland, Massachusetts, Minnesota, and Washington, DC). Interviews included demographics, perceived child health, the US Household Food Security Scale, and public assistance program participation. Children's weight at the time of the visit was documented. The study sample consisted of all renter households identified as low income by their participation in at least 1 means-tested program.

**Main Outcome Measures:** Weight for age, selfreported child health status, and history of hospitalization.

**Results:** Data were available for 11 723 low-income renter families; 27% were receiving a public housing subsidy, and 24% were food insecure. In multivariable analyses, stratified by household food security status and adjusted for potential confounding variables, children of food-insecure families not receiving housing subsidies had lower weight for age (adjusted mean *z* score, -0.025 vs 0.205; *P*<.001) compared with children of food-insecure families receiving housing subsidies. Compared with children in food-insecure, subsidized families, the adjusted odds ratio (95% confidence interval) for weight-for-age *z* score more than 2 SDs below the mean was 2.11 (1.34-3.32) for children in food-insecure, non-subsidized families.

**Conclusions:** In a large convenience sentinel sample, the children of low-income renter families who receive public housing subsidies are less likely to have anthropometric indications of undernutrition than those of comparable families not receiving housing subsidies, especially if the family is not only low income but also food insecure.

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OOR FAMILIES IN THE UNITED States are increasingly unable to afford basic necessities, including food and shelter. Rates of household food insecurity have increased between 1999 and 2002.<sup>1</sup> Household food security is defined as all household members having access at all times to enough food for an active healthy life. Household food insecurity means that a household has limited or uncertain availability of food or limited or uncertain ability to acquire acceptable foods in socially acceptable ways (ie, without resorting to charitable emergency food pro-

grams, borrowing, scavenging, stealing, or other unusual coping strategies).<sup>1</sup> Household food security is defined by a questionnaire developed by the US Department of Agriculture, the National Center for Health Statistics, and the Centers for Disease Control and Prevention (CDC) under a mandate from the National Nutrition Monitoring and Related Research Act of 1990.<sup>2</sup>

Food insecurity affects children's health and well-being. Among food-insecure households with children, 81% reported that at times during the year they had relied on only a few kinds of low-cost food

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to feed their children; 52% reported that at times they could not afford to feed their children balanced meals; and 25% reported that at times their children were not eating enough because the family could not afford enough food.<sup>3</sup> We have shown previously that household food insecurity is associated with adverse health outcomes in children<sup>4</sup>; others have shown an association between a related measure of child hunger and children's health and mental health.<sup>5</sup> Thus, household food insecurity identifies a population of children at high risk.

The cash resources of poor urban families may be insufficient to provide an adequate diet in part because of the pressure exerted on the family budget by housing costs. Housing is considered affordable by federal standards if a family spends 30% or less of its income on rent, yet no family earning the equivalent of full-time employment at the minimum wage in any city or region of the United States can pay the Fair Market Rent for housing without spending more.6 In fact, 56% of poor working families with children spent half or more of their income on rent in 1999.<sup>6</sup> For families leaving welfare for work, federal data from 10 states and 3 counties show that modest housing costs would consume 52% to 129% of estimated monthly earnings.7 Tenants who receive public rent subsidies spend only 30% of their income on rent, consistent with federal guidelines for affordable housing. These tenants either live in public housing developments or receive public rent subsidies for private housing through the federally funded "Section 8" rental assistance program. However, only about one fourth of poor renter households in the United States receive a housing subsidy from federal, state, or local government.8 While the level of federal governmental support for housing assistance has been a matter of ongoing public debate,9-12 few studies have examined the possible effects of housing assistance on the health and nutritional status of young, low-income children whose families are most directly affected by these policies.

Poor families who receive housing subsidies may be protected from excessive pressure on their food budget relative to comparable poor families not receiving housing subsidies. This effect might be of sufficient magnitude to buffer the adverse effects of household food insecurity on measures of child nutritional and/or health status; if so, this effect might be predicted to be most pronounced among the high-risk children in food-insecure families. Therefore, we hypothesized that the nutritional status of low-income children, as measured by growth parameters, and their health status would be better among children whose families receive housing subsidies compared with similar families who live in nonsubsidized housing, especially among the food insecure. We tested this hypothesis using data from the Children's Sentinel Nutrition Assessment Program (C-SNAP) gathered between September 1998 and June 2003.

## METHODS

The Children's Sentinel Nutrition Assessment Program is an ongoing policy-focused pediatric research network whose goal is to monitor the impact of changes in economic conditions and

public policy on the food security, growth, and health of a sentinel sample of vulnerable low-income children. The C-SNAP methods have been described elsewhere<sup>7</sup>; briefly, C-SNAP uses a repeated cross-sectional convenience sampling of English- and Spanish-speaking caregivers of children younger than 3 years accessing care at participating sites. Inclusion criteria for C-SNAP include age younger than 36 months, child not critically ill or injured, language spoken by child's caregiver same as interviewer, caregiver knowledgeable about child and child's household, and family not interviewed within the previous 6 months. For this study, only renter households were included. The sites include 3 emergency departments, 2 hospitalbased clinics, and 1 freestanding clinic, all in central city areas of Baltimore, Md, Boston, Mass, Little Rock, Ark, Los Angeles, Calif, Minneapolis, Minn, and Washington, DC. A household survey instrument was administered during waiting periods in the emergency department or clinic, including demographics, child health history, history of participation in state and federal assistance and public health programs, and the US Household Food Security Scale.1 Children's general health and their hospitalization history were ascertained by report of the parents or guardians. The study was approved yearly by the institutional review boards at each study site.

Analyses were stratified by household food security status. The CDC's 2000 reference data were used to calculate weightfor-age z scores and the proportion of children falling more than 2 SDs lower than the median. This cutoff point has been recommended to define undernutrition by the World Health Organization.<sup>8</sup> These values were compared using t tests and  $\chi^2$ tests for the entire sample and stratified by household food security status. We used multivariate modeling to calculate adjusted mean z scores (multiple linear regression) and odds ratios (multiple logistic regression) for health and nutrition outcomes with housing subsidy status as an independent variable. In these analyses, we controlled for potentially confounding variables, which were associated with both the dependent variable of interest and the housing variable. To examine the potential effects of families' participation in other meanstested benefit programs, we also included variables for participation in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Temporary Assistance for Needy Families (TANF, or "welfare"), Supplemental Security Income, and the Food Stamp Program.

# RESULTS

For this analysis, 11 723 eligible children were identified. Ninety-two percent of the respondents were the mothers of the subject children, and 6% were the fathers. As presented in **Table 1**, most respondent caregivers were African American or Latino; had public insurance or were uninsured; were single; were high school graduates; and were US-born. Eighty-one percent received WIC benefits, but at the time of the survey only 37% were receiving Food Stamps and 29%, TANF. Twenty-three percent reported household crowding, with more than 3 persons per bedroom, and 27% reported receiving a public housing subsidy. Twenty-four percent of households without a housing subsidy were food insecure; 22% of those with a housing subsidy were food insecure (P=.05).

In analyses unadjusted for potential confounding variables and other program participation, children whose families were receiving a housing subsidy and who were food insecure had a greater mean weight-for-age z score (-0.003 vs 0.162; P=.004) than those whose families were

	Housing Status			
	Not Subsidized (n = 8506)	Subsidized (n = 3217)	P Value	Total (N = 11 723)
Caregiver characteristics				
Site				
Baltimore, Md	6	8		7
Boston, Mass	22	52		30
Little Rock, Ark	16	13	<.001	15
Los Angeles, Calif	18	3		14
Minneapolis, Minn	30	24		28
Washington, DC	8	1		6
Race/ethnicity				
Asian/Native American	3	2		3
African American	42	75		51
Hispanic	41	17	<.001	35
White	13	6		11
Insurance				
Public	76	90		80
Private	9	5	<.001	12
None	15	5		8
Married				
Single	45	67		51
Married/partner	50	26	<.001	44
Separated/divorced	5	6		5
Employed	43	42	.32	43
Education Level				
Not high school graduate	41	37		40
High school graduate	36	40	<.001	37
Any college	24	23		23
US born:	52	76	<.001	59
Currently receives				
WIC	80	85	<.001	81
SSI	6	11	<.001	7
TANF	24	45	<.001	29
Food Stamps	30	56	<.001	37
Child characteristics				
Low birth weight (<2500 g)	12	13	.25	13
Mean age, mo	11.9	12.9	<.001	12.1
Household characteristics				
Food insecure	24	22	.05	24

Abbreviations: SSI, Supplemental Security Income; TANF, Temporary Assistance to Needy Families; WIC, Special Supplemental Nutrition Program for Women, Infants, and Children.

\*Values are expressed as percentage of households unless otherwise indicated. Group comparisons used  $\chi^2$  tests for categorical variables and *t* tests for continuous variables.

also food insecure but were not receiving a housing subsidy. A similar difference was seen among food-secure families but did not reach statistical significance. The downward shift in distribution of weight-for-age *z* scores for children in food-insecure households lacking a rent subsidy is shown in the **Figure**. Similarly, the proportion of children with weight-for-age *z* scores more than 2 SDs lower than the median was smaller for children in rent-subsidized households compared with those in nonsubsidized households, but only among those in foodinsecure households (4% vs 6%; P = .04), as was the proportion of children reported to be in fair to poor health (13% vs 21%; P < .001). There was no difference in history of hospitalization among children from families with and without housing subsidies.

Multivariate models controlled for potentially confounding variables including site, race/ethnicity, child age,

and caregiver being US-born, as well as the association of other program participation variables (WIC, TANF, and/or Food Stamps) and weight for age. Factors significantly associated with higher weight-for-age z score include mother foreign-born vs US-born (P < .001); child white vs Asian or Native American (P=.04); family receiving WIC (P=.01); and family receiving housing subsidy (P=.02). Program participation in TANF and/or Food Stamps were not independently associated with adjusted mean weight for age (P=.23). **Table 2** presents the adjusted mean weight-for-age *z* scores, controlling for these independent variables, as well as participation in WIC and TANF and/or Food Stamps. Table 2 also presents the adjusted mean weight-for-age *z* scores stratified by food security. Among food-insecure households, children whose families were not receiving a housing subsidy had a lower weight-for-age z score



**Figure.** Unadjusted weight-for-age *z* score by housing subsidy status for 3217 food-insecure families.

	Weight-for-A	je <i>z</i> Score	
	Housing Status		
	Not Subsidized (n = 8493)	Subsidized (n = 3216)	P Value
Total sample (n = 11 709)*	-0.003	0.068	.02
Food-secure households (n = 8945)	0.003	0.026	.51
Food-insecure households $(n = 2764)$	-0.025	0.205	<.001

\*Fourteen had missing data for the food security measure.

(-0.025 vs 0.205; P < .001) and were more likely to have a weight-for-age *z* score more than 2 SDs lower than the median (**Table 3**) (odds ratio, 2.11 [95% confidence interval, 1.34-3.32]). After controlling for potential confounders, including age of child, rent subsidy status was not associated with children's risk of fair or poor health or history of hospitalization. We also found no association between measures of childhood overweight (weight for length >95th percentile) and housing subsidy status (odds ratio, 0.87 [95% confidence interval, 0.73-1.04]).

#### COMMENT

Receiving public housing subsidies is associated with anthropometric evidence of improved nutritional status in young children among low-income renter families in the urban populations studied in this sentinel surveillance program. This effect was previously reported by one of the participating centers, using data from a much smaller sample gathered during 6 weeks in 1992.<sup>13</sup> The current study confirms these findings with a large, newly recruited sample from 6 cities gathered during nearly 4 years.

After adjusting for potentially confounding variables, children in families receiving a rent subsidy at the time of the survey had a greater weight for age than those whose families did not receive a subsidy; this effect was seen primarily among food-insecure families, where it accounted for almost one fourth of 1 SD of the weight-for-age *z* score. The potential clinical significance of these findings is suggested by the increased odds ratio (2.11) of a child's weightfor-age *z* score being more than 2 SDs below the median among children in food-insecure households lacking a rent subsidy, compared with those in food-insecure families receiving a housing subsidy. This positive association of nutritional status and subsidized housing was independent of participation in other public benefit programs. After controlling for housing subsidy and other program participation, participation in the WIC program was also protective against children's weight-for-age z scores being more than 2 SDs lower than the median, as we have reported previously using C-SNAP data restricted only to children younger than 1 year.<sup>14</sup> We found no association between other measures of health and housing subsidy status in multivariable analyses.

In this sample, white race/ethnicity was found to be positively associated with weight for age; this is consistent with current data monitoring of the nutritional status of the US low-income child population (eg, the CDC's Pediatric Nutrition Surveillance System).<sup>13</sup> The child's caregiver not being born in the United States was also positively associated with weight for age; a similar positive association between mothers' birth outside the United States and improved prenatal nutritional status, prenatal health behaviors, and intrauterine fetal growth has been reported by Cabral et al.<sup>15</sup>

Two important limitations of this study must be considered. First, this cross-sectional study design can only demonstrate associations and not causation. Second, this was a study of a sentinel sample, a convenience sample of families with children younger than 3 years brought for care to an emergency department or clinic serving lowincome populations in 6 US cities. It cannot be considered nationally representative and thus cannot be generalized to the national population of children at risk.

However, other data do suggest that this sample is comparable in many important measures with the larger lowincome population of the United States from which it is drawn. The rate of low birth weight (13%) reported by the parents and guardians interviewed is the same as that reported for low-income African American infants (12.6%) by the CDC's Pediatric Nutrition Surveillance System.<sup>16</sup> Nationally, about 1 in every 4 low-income, eligible families receives any type of federal housing assistance<sup>8</sup>; in our sample, 27% reported receiving a housing subsidy. Based on data from the Census Bureau's Current Population Survey, the US Department of Agriculture reported that in 2000 the rate of food insecurity for African American, non-Hispanic families was 27% and for Hispanic families, 28%<sup>17</sup>; in our total sample, which was predominantly African American and Hispanic, 24% reported food insecurity. Census Bureau data show that in 2000 39% of women aged 25 to 34 years living below the poverty level did not complete high school<sup>18</sup>; in our sample, the rate was 40%.

Table 3. Adjusted Odds Ratios of Infant Health Outcomes by Housing Status							
	Adjusted Odds Ratio for Wei Than 2 SDs Below the Me						
	Not Subsidized (n = 8493)	Subsidized (n = 3216)	95% Confidence Interval				
Total sample (n = 11 709)* Food-secure bousebolds (n = 8945)	1.21 1.04	1.00 1.00	(0.99-1.48)				
Food-insecure households ( $n = 2764$ )	2.11	1.00	(1.34-3.32)				

\*Fourteen had missing data for the food security measure.

Some recent economic analyses of low-income housing are consistent with our findings of an association of young children's nutritional status and housing assistance. In a study of low-income housed and homeless women with children in Worcester, Mass, Gundersen et al<sup>19</sup> found that families with a higher propensity for homelessness had higher levels of food insecurity. A study conducted for the US Department of Housing and Urban Development found that receiving housing assistance was associated with less financial strain among families in Indiana and Delaware who were receiving welfare at baseline.<sup>20</sup> Furthermore, our findings are biologically plausible; differences in the growth of children between groups differing in some aspects of their socioeconomic situation within a society, termed social gradients, have long been described.<sup>21</sup> The World Health Organization considers child anthropometric analysis as the internationally recommended method for assessing malnutrition at a population level.<sup>22</sup> The importance of this measure derives both from its value as a public health indicator of nutritional and health status in populations of young children and from evidence that undernutrition in early childhood causes increased susceptibility to infectious disease as well as concurrent delayed mental development and later poor school performance and reduced intellectual capacity.22-24

The federal budget for low-income housing assistance has been targeted for reduction.<sup>25,26</sup> From a public health perspective, the findings of the current study raise concerns about the impact on child well-being of these proposed reductions. Our results suggest that in a time of increasing economic hardship and food insecurity for American families,<sup>1,27</sup> decreases in housing subsidies may further compromise the nutritional status of lowincome children.

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## REFERENCES

- Nord M, Andrews M, Carlson S. *Household Food Security in the United States*, 2002. Washington, DC: Food and Rural Economics Division, Economic Research Service, US Dept of Agriculture; 2003. Food Assistance and Nutrition Research Report 35.
- Hamilton WL, Cook JT, Thompson WW, et al. Household Food Security in the United States in 1995. Summary Report of the Food Security Measurement Project. Washington, DC: US Dept of Agriculture, Food and Consumer Service, Office of Analysis and Evaluation; 1997. Available at http://www.fns.usda.gov/oane/MENU /Published/FoodSecurity/SUMRPT.PDF. Accessed October 28, 2004.
- Nord M. Food Insecurity in Households With Children. Food Assistance Research Brief. Washington, DC: US Dept of Agriculture, Economic Research Service; 2003. Food Assistance and Nutrition Research Report Number 34-13. Available at: http://www.ers.usda.gov/publications/fanrr34/fanrr34-13/fanrr34-13 .pdf. Accessed October 28, 2004.

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- Cook JT, Frank DA, Berkowitz C, et al. Food insecurity is associated with adverse health outcomes among human infants and toddlers. *J Nutr.* 2004;134:1432-1438.
- Weinreb L, Wehler C, Perloff J, et al. Hunger: its impact on children's health and mental health. *Pediatrics*. 2002;110:e41 Available at: http://pediatrics .aappublications.org/cgi/content/full/110/4/e41. Accessed October 28, 2004.
- Sard B. Testimony before the Senate Committee on Banking, Housing and Urban Affairs hearing on housing and community development needs: the FY 2003 HUD budget. November 29, 2001. Available at: http://www.cbpp.org/11-29-01hous .pdf. Accessed October 28, 2004.
- Sard B, Waller M. Housing Strategies to Strengthen Welfare Policy and Support Working Families. Washington, DC: The Brookings Institution Center on Urban and Metropolitan Policy; 2002.
- Sard B, Fischer W. Nearly All Recent Section 8 Growth Results From Rising Housing Costs and Congressional Decisions to Serve More Needy Families. Washington, DC: Center on Budget and Policy Priorities; 2004.
- 9. Anonymous. Affordable housing in crisis [editorial]. *New York Times*. May 22, 2004;A24.
- Anonymous. Playing games with housing [editorial]. New York Times. June 30, 2004:A22.
- Anonymous. Congress plays the housing game [editorial]. New York Times. July 22, 2004;A20.
- Anonymous. The war on affordable housing [editorial]. New York Times. October 16, 2004;A30.
- Meyers A, Frank DA, Roos N, et al. Housing subsidies and pediatric undernutrition. Arch Pediatr Adolesc Med. 1995;149:1079-1084.
- Black MM, Cutts DB, Frank DA, et al; Children's Sentinel Nutritional Assessment Program Study Group. Special Supplemental Nutrition Program for Women, Infants, and Children participation and infants' growth and health: a multisite surveillance study. *Pediatrics*. 2004;114:169-176.
- Cabral H, Fried LE, Levenson S, Amaro H, Zuckerman B. Foreign-born and USborn black women: differences in health behaviors and birth outcomes. *Am J Public Health.* 1990;80:70-72.
- Polhamus B, Dalenius K, Thompson D, et al. *Pediatric Nutrition Surveillance 2001 Report*. Atlanta, Ga: US Dept of Health and Human Services, Centers for Disease Control and Prevention; 2003:3.
- 17. Nord M, Kabbani N, Tiehen L, Andrews M, Bickel G, Carlson S. Household Food

Security in the United States, 2000. Washington, DC: Food and Rural Economics Division, Economic Research Service, US Dept of Agriculture; 2002. Food Assistance and Nutrition Research Report 21.

- US Bureau of Labor Statistics; US Bureau of the Census. Years of school completed by people 25 years and over, by age, race, household relationship, and poverty status: 2000. Available at: http://ferret.bls.census.gov/macro/032001 /pov/new07\_002.htm, Accessed February 9, 2004.
- Gundersen C, Weinreb L, Wehler C, Hosmer D. Homelessness and food insecurity. J Housing Economics. 2003;12:250-272.
- Lee W, Beecroft E, Khadduri J, Patterson R. Impacts of Welfare Reform on Recipients of Housing Assistance: Evidence From Indiana and Delaware. Prepared for US Department of Housing and Urban Development, Office of Policy Development and Research. Bethesda, Md: Apt Associates; 2003.
- Bielicki T. Physical growth as a measure of the economic well-being of populations: the twentieth century. In: Falkner F, Tanner JM, eds. *Human Growth, A Comprehensive Treatise.* Vol 3. 2nd ed. New York, NY: Plenum Press; 1986: 283-305.
- de Onis M, Blössner M. The World Health Organization global database on child growth and malnutrition: methodology and applications. *Int J Epidemiol.* 2003; 32:518-526.
- Levitsky DA, Strupp B. Malnutrition and the brain: changing concepts, changing concerns. J Nutr. 1995;125(suppl 8):2212S-2220S.
- Mendez MA, Adair LS. Severity and timing of stunting in the first two years of life affect performance on cognitive tests in late childhood. *J Nutr.* 1999;129: 1555-1562.
- 25. Sard B, Fischer W. Administration Seeks Deep Cuts in Housing Vouchers and Conversion of Program to a Block Grant; Budget Could Cut Number of Families Assisted by 250,000 in 2005, and 600,000—or 30% of All Assisted Families—by 2009. Washington, DC: Center on Budget and Policy Priorities; 2004.
- Chen DW. US seeks cuts in housing aid to urban poor. New York Times. September 22, 2004;A1.
- DeNavas-Walt C, Proctor BD, Mills RJUS. Income, Poverty, and Health Insurance Coverage in the United States: 2003. Washington, DC: US Government Printing Office; 2004. Census Bureau, Current Population Reports, P60-226. Available at: http://www.census.gov/prod/2004pubs/p60-226.pdf. Accessed October 28, 2004.