

Children with Special Health Care Needs, Supplemental Security Income, and Food Insecurity

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ABSTRACT: *Objectives:* To assess food insecurity in low-income households with young children with/without special health care needs (SHCN) and evaluate relationships between child Supplemental Security Income (SSI) receipt and food insecurity. *Methods:* A cross-sectional survey (2013–2015) of caregivers was conducted at 5 medical centers. Eligibility included index child age <48 months without private health insurance and a caregiver fluent in English or Spanish. Interviews included sociodemographics, 5-item Children with Special Health Care Needs Screener, 18-item US Food Security Survey Module, household public assistance program participation, and child SSI receipt. Household and child food insecurity, each, were evaluated using multivariable logistic regression models. *Results:* Of 6724 index children, 81.5% screened negative for SHCN, 14.8% positive for SHCN (no SSI), and 3.7% had SHCN and received SSI. After covariate control, households, with versus without a child with SHCN, were more likely to experience household (Adjusted odds ratios [AOR] 1.24, 95% confidence intervals [CI], 1.03–1.48) and child (AOR 1.35, 95% CI, 1.11–1.63) food insecurity. Among households with children with SHCN, those with children receiving, versus not receiving SSI, were more likely to report household (AOR 1.42, 95% CI, 0.97–2.09) but not child food insecurity. *Conclusion:* Low-income households with young children having SHCN are at risk for food insecurity, regardless of child SSI receipt and household participation in other public assistance programs. Policy recommendations include reevaluation of assistance programs' income and medical deduction criteria for households with children with SHCN to decrease the food insecurity risk faced by these children and their families.

(*J Dev Behav Pediatr* 37:140–147, 2016) **Index terms:** food insecurity, special health care needs, Supplemental Security Income, Special Supplemental Nutrition Program for Women, Infants, and Children, Supplemental Nutrition Assistance Program.

In 2011 to 2012, 11.4% (2.7 million) US children younger than 5 years of age were classified as having chronic health, physical, developmental, and behavioral

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conditions, known as “special health care needs” (SHCN).¹ This classification of children with SHCN is intentionally broad and inclusive of a wide range of physical and mental health conditions, based on functional limitations and/or additional needed services, independent of their specific diagnoses.²

In 2014, 3.4 million (19.9%) households with children below 6 years reported household-level food insecurity, and 1.6 million (9.1%) reported child food insecurity.³ Household food insecurity is the inability to afford enough food for an active and healthy life for all household members.^{4–6} Child food insecurity, a severe form of food insecurity, reflects skipping or cutting the size or nutritional balance of meals of a child or children in the household.^{4–6}

Caring for children with SHCN may entail long-term direct and indirect financial consequences, which disproportionately burden low-income families, exacerbate socioeconomic and racial/ethnic health disparities, and impede family ability to meet their household's basic needs,⁷ particularly for food.⁸ The costs of accessing complex medical care and/or educational services may challenge low-income households' financial ability to meet basic needs. Additionally, caregivers may need to truncate work hours, obtain more flexible but lower wage jobs, or forego employment due to the child's heightened medical and educational needs.⁷

Although all young children are vulnerable to the biological effects of food insecurity,⁹⁻¹¹ children with SHCN may require expensive increased/specialized nutrient intake (such as nutritionally dense formula supplementation for children with cystic fibrosis), which may leave them at even higher health risk from food insecurity than their peers.¹²

The Federal Supplemental Security Income (SSI) program for children is intended to offset in very low-income households, some of the financial burden of raising children with severe SHCN. Eligibility criteria for child SSI require a medically determinable physical and/or mental impairment with marked or severe functional limitations that might cause death or be expected to last for at least 12 months.¹³ Although an estimated 15.1% of all US children below age 18 have SHCN, only 1.7% of all US children receive SSI for their medical conditions.¹⁴⁻¹⁶ In the public debate around child SSI, some argue that SSI financial benefit levels are excessive,^{17,18} whereas others argue that the 1972 SSI asset eligibility limits do not reflect current economic realities.¹⁹ Ghosh and Parish¹⁵ showed that in a national sample, including children of all ages and defining disability by a single survey question, SSI receipt increased family incomes. However, even these increased income levels were inadequate to cover the necessary medical and educational expenses of families caring for children with disabilities and were inadequate to prevent household material hardships. In addition, SSI receipt may be accompanied by reductions in the dollar amount of other assistance benefits, particularly the Supplemental Nutrition Assistance Program (SNAP, formerly Food Stamps). Given stringent child health status eligibility criteria, SSI also may be a marker for increased child medical expenses.

Several public assistance programs based on household income and composition are designed to help low-income families meet their basic needs, regardless of the presence of children with SHCN in the household. SNAP provides eligible low-income individuals and families with financial assistance for the purchase of uncooked food at retail outlets for home consumption.²⁰ The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides nutritional supplementation, health care referrals, and nutrition education to low-income children below age 5 (including children with SHCN) and pregnant, breastfeeding, and postpartum mothers meeting financial and nutritional eligibility criteria.²¹ Both nutritional programs, designed to decrease food insecurity, are crucial to the youngest children who often do not receive meals as part of child care and are too young for school.¹² Although the benefits of SNAP and WIC for children in general are well documented,^{22,23} little is known about the impact of these programs on food insecurity in households with young children with SHCN.

Food insecurity is rarely an isolated hardship among low-income families.^{24,25} Low-income families often trade off between paying for basic needs, such as food,

housing, and energy. Therefore, housing and energy assistance may alleviate food insecurity if families do not have to allocate the financial resources needed for food to pay for rent or utilities. Receipt of Low Income Home Energy Assistance Program (LIHEAP)²⁶ and subsidized housing (e.g., Section 8 housing or other housing vouchers) correlates with lower levels of food insecurity in recipient compared with nonrecipient households with young children.²⁵ Additional research on whether there is a similar impact on households with young children with SHCN is needed.

Little is known about food insecurity (at the household and child levels) and other material hardships in households with young children with SHCN and about the role of SSI in combination with other public assistance programs in decreasing those hardships.^{7,15} Therefore, the purposes of this study are to evaluate (1) whether raising a young child with SHCN is associated with increased risk of food insecurity among low-income families, and (2) whether the receipt of SSI for the index child alters that relationship. The index child is the child for whom the caregiver sought care at the time of the interview. Controlling for households' demographic characteristics and participation in food, housing, and energy assistance programs, we hypothesize: (1) compared to households where the index child does not have SHCN, households with an index child with SHCN (regardless of SSI receipt) will have greater adjusted odds of food insecurity, and (2) among households with an index child with SHCN, those who receive SSI will have significantly lower odds of food insecurity than those without SSI.

METHODS

Children's HealthWatch is an ongoing collaborative sentinel research initiative monitoring the well being of young children and families by interviewing children's caregivers at 5 urban medical centers serving low-income populations. Recruitment occurs at primary care clinics (Baltimore, MD and Minneapolis, MN) and emergency departments (Baltimore, MD; Boston, MA; Little Rock, AR; and Philadelphia, PA) where Children's HealthWatch conducts household-level surveys and medical chart audits (June 26, 2013, to January 1, 2015). As staffing permits, all caregivers (except those of critically ill children) meeting study criteria are approached. Eligibility criteria include: child age <48 months, state resident, caregiver able to speak English or Spanish, and caregiver knowledgeable about the child's household. To ensure a low-income sample for these analyses, families with private health insurance were excluded. Each site obtained institutional review board approval before study initiation and yearly thereafter. After providing informed consent, a research assistant orally interviews caregivers face-to-face in private settings. Interview topics include: sociodemographics, child health/development, Children with Special Health Care Needs (CSHCN) screener,² food insecurity, and receipt of public assistance programs (WIC, SNAP, LIHEAP, and housing assistance).

The Children with Special Health Care Needs (CSHCN) screener is a 5-question, validated, caregiver-reported screening instrument using non-condition-specific criteria to identify children below the age of 18 with chronic health and developmental conditions.² Screener identification is based on children experiencing 1 or more current functional limitations or service use needs resulting from chronic physical, emotional, behavioral, developmental, or other health conditions. Specifically, for a child to screen positive for SHCN, regardless of medical condition or diagnosis, the child must experience at least one of the following 5 health consequences secondary to a medical or health condition lasting or expected to last at least 12 months: (1) use or need of prescription medication (other than vitamins); (2) greater than average use or need for medical, mental health, or educational services; (3) functional age-related limitations; (4) use or need of specialized therapies; and/or (5) treatment or counseling for emotional or developmental problems.²

Household and child food security status were derived from the 18-item US Food Security Scale, a valid, reliable, household-level measure of food security.⁴ Past year food insecurity was categorized as a 3-level variable: household and child food secure, household insecure (but child food secure), and child food insecure (household and child food insecure). For household food insecurity, the caregiver affirmed at least 3 of 10 responses on the scale without child food insecurity. For child food insecurity, the caregiver additionally affirmed at least 2 of the 8 child-specific questions.

Statistical Methods

We described 3 mutually exclusive exposure groups of households in which the index child had (1) no SHCN, as indicated by negative CSHCN screen, (2) positive CSHCN screen without SSI, and (3) positive CSHCN screen with SSI. Exposure groups were compared using χ^2 and Student's *t* tests or analysis of variance testing, as appropriate. We first evaluated food insecurity using 2 groups, households with a negative SHCN screen for the index child compared with households with a positive SHCN screen for the index child, regardless of SSI receipt. We then evaluated differences in food insecurity within the SHCN sample for children who received versus did not receive SSI. Covariate-adjusted logistic regression analyses were performed to evaluate the association between SHCN group and food insecurity. Potential covariates were identified a priori based on theoretical grounds and clinical knowledge. In addition, we also evaluated associations of potential covariates with exposure (SHCN status) and/or outcome (food insecurity) (using $p < .05$) to identify potential confounders. Covariates included in preliminary analyses were site; caregiver: race/ethnicity, place of birth, marital status, educational attainment; number of children in household; and index child's sex and age. Subsequently, we tested 4 additional models controlling for public as-

sistance benefit receipt at the time of the interview: (1) adding SNAP to covariates, (2) adding WIC to covariates (3) adding SNAP and WIC to covariates, and (4) adding SNAP, WIC, LIHEAP, and housing assistance to covariates. Adjusted odds ratios and 95% confidence intervals were reported for each model. All analyses were conducted using 2-sided tests and a significance level of 0.05 and SAS software (version 9.3; SAS Institute, Cary, NC). For the first hypothesis, the referent group was households without a child with SHCN. For the second hypothesis, evaluated within the SHCN group, the referent group was households with a child with SHCN who did not receive SSI.

RESULTS

Participants: of 8714 caregivers approached (Fig. 1), 957 (11.0%) were ineligible; 439 of those eligible (5.7%) refused or did not complete the interview. Of 7318 caregivers completing the interview, 588 (8.0%) reported private health insurance (proxy for higher income) and were excluded. Of the final sample of 6724 households, there were 5478 (81.5%) index children who screened negative for SHCN, 1000 (14.8%) who screened positive for SHCN but did not receive SSI, and 246 (3.7%) who screened positive for SHCN and received SSI. Those receiving SSI represented 19.7% of the 1246 index children screening positive for SHCN in our sample or 3.7% of our total sample of children from low-income households.

Table 1 presents unadjusted sample characteristics by SHCN screener status and SSI receipt. The SHCN no SSI group is over represented in the Philadelphia site, whereas the SHCN SSI group is over represented in the Little Rock site. Significant group differences among variables were interview site, caregiver characteristics (country of birth, race/ethnicity, age, education, and employment status); child characteristics (gender, age, breastfeeding history, whether hospitalized since birth, fair/poor health, and gestational age); and benefit program participation. In addition, there were specific health-related differences between the groups. Children screening positive versus negative for SHCN were significantly ($p < .001$) more likely to be reported by caregivers to be in fair or poor health (27.5% vs 6.6%), have birth weights less than 2500 g (24.2% vs 12.1%), have been born preterm (before 37 weeks) (23.9% vs 11.9%), and have been hospitalized since birth (59.2% vs 19.9%). Those with SHCN receiving versus not receiving SSI were more frequently ($p < .001$) reported to be in fair or poor health (41.6% vs 24.1%) and have been hospitalized since birth (74.5% vs 55.5%).

There were significant overall group differences in food insecurity ($p = .002$). The prevalence of household food insecurity was 18.1%, 17.1%, and 22.8%, respectively, for households with an index child: screening negative for SHCN, screening positive for SHCN but without SSI receipt, and with SSI receipt. The prevalence of child food insecurity was 12.4%, 16.0%, and 15.9%, respectively, for households with an index child:

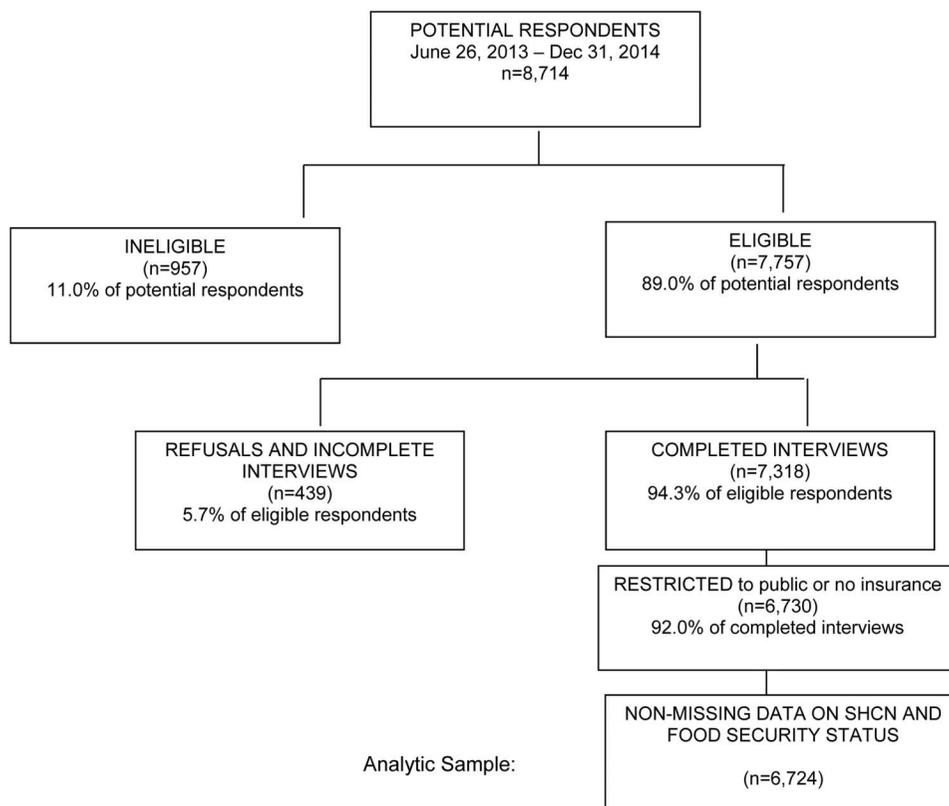


Figure 1. Description of analytic sample selection.

screening negative for SHCN, screening positive for SHCN but without SSI receipt, and with SSI receipt.

Table 2 presents data comparing households with a child screening negative for SHCN and households with a child screening positive for SHCN (regardless of SSI receipt). Model 1 presents results adjusted for demographic characteristics alone. Model 2 adjusts for demographics and SNAP receipt. Model 3 adjusts for demographics and WIC receipt. Model 4 adjusts for demographics and SNAP and WIC receipt. Model 5 adjusts for demographics, SNAP, WIC, LIHEAP, and housing assistance receipt. Across all models, households with an index child screening positive for SHCN have 22% to 24% greater odds of household food insecurity and 35% to 36% greater odds of child food insecurity than households with children screening negative for SHCN. Across the 5 models, confidence intervals for household food insecurity are similar to each other as are those for child food insecurity.

Table 3 presents data examining whether households with an index child screening positive for SHCN who receive SSI will have significantly lower odds of food insecurity than those without SSI receipt. The table also shows the same progression of covariate controlled models as in Table 2. Across all models, households with an index child screening positive for SHCN had 42% to 51% greater odds of household food insecurity if the index child received SSI in comparison with the group of children with SHCN who did not receive SSI. Across all

models, confidence intervals for these comparisons were similar. There were no significant differences in child food insecurity between households with an index child screening positive for SHCN who received SSI compared with those screening positive for SHCN who did not receive SSI.

DISCUSSION

As hypothesized, in multivariable analyses, low-income households with a young index child who screened positive for SHCN were significantly more likely to report both household and child food insecurity, even after adjusting for sociodemographic characteristics and SNAP, WIC, LIHEAP, and housing assistance receipt. These findings are consistent with others' clinical and epidemiologic observations that children with SHCN often require restrictive and expensive dietary requirements resulting in additional household expenses to care for the children.¹² According to Marjerrison et al,²⁷ households with children of all ages with Type 1 or 2 diabetes mellitus were more likely to report food insecurity (combined household/child food insecurity) versus food security. Also, families in that study reported strategies such as buying cheaper foods so that the money could be used to buy medical supplies and other family members eating less so that the child with diabetes could have enough food. The additional nutritional requirements not only of children with diabetes but also of other conditions such as chronic neurologic

Table 1. Characteristics and Outcomes of Households by Children with Special Health Care Needs Screening Status and with and Without SSI Receipt

Characteristic	No SHCN (n = 5478)	SHCN, No SSI (n = 1000)	SHCN, SSI (n = 246)	<i>p</i>
Household				
Site, n (%) ^a				<.001
Baltimore	1131 (20.6)	196 (19.6)	48 (19.5)	
Boston	1298 (23.7)	222 (22.2)	35 (14.2)	
Little Rock	942 (17.2)	178 (17.8)	102 (41.5)	
Minneapolis	1029 (18.8)	75 (7.5)	17 (6.9)	
Philadelphia	1078 (19.7)	329 (32.9)	44 (17.9)	
Caregiver				
Mother US born, n (%)	3779 (69.2)	825 (82.8)	201 (82.4)	<.001
Mother ethnicity, n (%)				<.001
Hispanic	2054 (37.9)	333 (33.5)	64 (26.2)	
Black/non-Hispanic	2532 (46.7)	468 (47.1)	121 (49.6)	
White/non-Hispanic	649 (12.0)	144 (14.5)	53 (21.7)	
Other	190 (3.5)	48 (4.8)	6 (2.5)	
Married/partnered, n (%)	1425 (26.1)	243 (24.3)	72 (29.3)	.25
Education, n (%)				.02
Less than high school	1392 (25.5)	222 (22.2)	57 (23.2)	
High school	2253 (41.2)	398 (39.8)	93 (37.8)	
More than high school	1820 (33.3)	380 (38.0)	96 (39.0)	
Maternal age, mean (SD), years	27.3 (6.0)	27.4 (5.9)	28.5 (6.3)	.01
Caregiver employed, n (%)	2266 (41.4)	449 (44.9)	77 (31.3)	<.001
No. children <17 yr of age in household	5450	998	245	.083
Mean (SD)	2.3 (1.3)	2.4 (1.5)	2.4 (1.4)	
Child				
Gender: female, n (%)	2620 (47.8)	379 (37.9)	91 (37.0)	<.001
Age, mean (SD), mo	17.5 (13.6)	26.9 (12.8)	26.1 (13.2)	<.001
Child ever breastfed, n (%)	3706 (67.9)	580 (58.2)	155 (63.0)	<.001
Hospitalized since birth, n (%)	1085 (19.9)	549 (55.5)	178 (74.5)	<.001
Born <37 wk, n (%)	646 (11.9)	183 (18.5)	112 (45.5)	<.001
Birth weight <2500 g, n (%)	648 (12.1)	179 (18.4)	114 (47.5)	<.001
Fair/poor child health, n (%)	364 (6.6)	241 (24.1)	101 (41.6)	<.001
Assistance program participation				
Nutrition assistance receipt, n (%)				
SNAP	3589 (65.9)	737 (74.1)	163 (66.8)	<.001
WIC	4229 (77.5)	703 (70.4)	179 (73.7)	<.001
Non-nutrition assistance receipt, n (%)				
Subsidized housing	1120 (20.7)	222 (22.4)	41 (16.9)	.15
LIHEAP	996 (18.7)	247 (25.3)	67 (27.4)	<.001
Outcomes				
Food insecurity, n (%)				
Household insecure (household insecure, child secure)	994 (18.1)	171 (17.1)	56 (22.8)	.002
Child insecure (household and child insecure)	677 (12.4)	160 (16.0)	39 (15.9)	

^aSHCN no SSI group is over represented in the Philadelphia site while the SHCN, SSI group is over represented in the Little Rock site. LIHEAP, Low Income Home Energy Assistance Program; SHCN, Special Health Care Needs; SNAP, Supplemental Nutrition Assistance Program; SSI, Supplemental Security Income; WIC, Special Supplemental Nutrition Program for Women, Infants, and Children.

Table 2. Adjusted Odds of Food Insecurity Comparing Households with and Without Children with Special Health Care Needs

Food Insecurity	Households with Children with SHCN (n = 1246), Adjusted Odds Ratio (95% CI)				
	Model 1 ^a	Model 2 ^b	Model 3 ^c	Model 4 ^d	Model 5 ^e
Household insecure (household insecure/child secure)	1.23 (1.03–1.46)	1.23 (1.03–1.46)	1.22 (1.02–1.46)	1.23 (1.03–1.64)	1.24 (1.03–1.48)
Child insecure (household and child insecure)	1.36 (1.13–1.65)	1.35 (1.12–1.63)	1.36 (1.13–1.65)	1.36 (1.12–1.64)	1.35 (1.11–1.63)

^aAdjusted for household: site, no. children <17 years; caregiver: country of birth, ethnicity, partnered status, educational attainment, and employment; child: gender, age.
^bAdjusted for variables from Model 1, SNAP receipt. ^cAdjusted for variables from Model 1, WIC receipt. ^dAdjusted for variables from Model 1, SNAP receipt, and WIC receipt. ^eAdjusted for variables from Model 4, LIHEAP receipt, and subsidized housing receipt. CI, confidence intervals; SHCN, Special Health Care Needs.

impairment²⁸ pose important household nutritional and economic challenges (including lost parental work hours),¹² further stressing the family's ability to care for the child. All of these health factors directly or indirectly may be associated with needs for higher levels of medical and household related care expenses.

Our second hypothesis evaluated food insecurity within the SHCN group and compared those who received and did not receive SSI. We assumed that within this SHCN sample, the medical expenses of those receiving SSI (who we identified as generally having greater health-related needs) would be greater than those without SSI receipt, but that SSI receipt, as intended, would offset medical expenses and provide some protection from food insecurity. However, contrary to our hypothesis, in all multivariable analyses regardless of models statistically controlling for demographics, receipt of WIC, SNAP, LIHEAP, and/or housing assistance, households with children who received versus did not receive SSI were 42% to 51% more likely to report food insecurity at the household level than those not receiving SSI. Estimates of effect size were similar across all models.

Interestingly, different results were identified at the child food insecurity level. The odds ratios of reported child food insecurity, regardless of the covariate controls across models, were not significantly or meaningfully different between the SHCN groups who received and did not receive SSI. Although it is not possible to identify the levels of food insecurity the SSI group might have

reported had they NOT received SSI, one might speculate that without SSI, that group would have reported even greater prevalence of household and/or child food insecurity levels than after receiving SSI. Nonetheless, the finding of an absence of difference in reported child food insecurity between those households whose child received versus did not receive SSI receipt offers several possible explanations. First, it may suggest that the SSI benefits are indeed insufficient to ensure household food security given the increased and specialized needs of children with SHCN but may help in addressing the most severe level of food insecurity where the household and the children are food insecure. Ghosh Parish¹⁵ reported that households receiving SSI had higher rates of SNAP participation than households with children without disabilities or households with children with disabilities and without SSI receipt. Although that study evaluated food insecurity at the household but not child level, they noted that households receiving child SSI reported significantly more household hardships (including food insecurity) than households either without a child with a disability or without SSI receipt. Second, in our study, families receiving SSI may have experienced decreases or losses in other assistance programs secondary to SSI receipt. We did not have access to the dollar amounts of money received by the families participating in all of the public assistance programs. Moreover, the specific implementation regulations of many federal programs vary across states. Because SSI is counted as income, SSI

Table 3. Adjusted Odds of Food Insecurity Within the Group of Households with Children with Special Health Care Needs—Comparing Food Insecurity in Households with and Without Receipt of Index Child SSI

Food Insecurity	Households with Children with SHCN and SSI (n = 246), Adjusted Odds Ratio (95% CI)				
	Model 1 ^a	Model 2 ^b	Model 3 ^c	Model 4 ^d	Model 5 ^e
Household insecure (household insecure/child secure)	1.51 (1.04–2.20)	1.48 (1.02–2.16)	1.47 (1.01–2.15)	1.44 (0.99–2.11)	1.42 (0.97–2.09)
Child insecure (household and child insecure)	1.06 (0.70–1.61)	1.06 (0.70–1.62)	1.06 (0.69–1.61)	1.09 (0.71–1.66)	1.07 (0.70–1.64)

^aAdjusted for household: site, no. children <17 years; caregiver: country of birth, ethnicity, partnered status, educational attainment, and employment; child: gender, age.
^bAdjusted for variables from Model 1, SNAP receipt. ^cAdjusted for variables from Model 1, WIC receipt. ^dAdjusted for variables from Model 1, SNAP receipt, and WIC receipt. ^eAdjusted for variables from Model 4, LIHEAP receipt, and subsidized housing receipt. CI, confidence intervals; SHCN, Special Health Care Needs; SSI, Supplemental Security Income.

receipt may seemingly inflate household resources and simultaneously reduce the benefit that families receive from other programs such as SNAP (usually an inverse relationship—greater income, smaller benefit), though family expenses may be higher than average because of the aforementioned need for special care and/or diets. Eligibility criteria for nutritional assistance, energy, and housing assistance (some of which are state and local programs) for households with children with SHCN may not be appropriately coordinated with SSI receipt for the net benefit assistance levels to improve food security. For example, at the federal level, a discount percentage is applied to earned income in the SNAP benefit calculation but not to unearned income (such as SSI). Applying a discount measure to SSI would help those in need qualify for a potentially higher benefit, in turn, offsetting the increased expenses associated with having a SHCN. Additionally, it is possible that households with children who qualify for SSI are more financially stressed by the severity of the child's condition. However, as mentioned above, SSI may begin to close the financial gap for households experiencing food insecurity at the most severe child level.

Although nutrition assistance programs have been shown to benefit all children in low-income households,^{5,22} these programs, particularly SNAP, may not be able to provide enough money to buy specialized foods that meet the dietary restrictions or increased nutritional needs of children with SHCN. To that end, there is another way in which SNAP regulations could be adjusted to meet the enhanced needs of children with SHCN. For example, SNAP currently uses the narrow definition of receipt of state or federal disability benefits to determine eligibility for use of the medical deduction for individuals who have a disability²⁰; in general, greater deductions result in higher benefits. With a change in regulations, families who have a child with SHCN and concomitant costs but do not receive a disability benefit would be able to access the SNAP medical deduction, which accounts for out-of-pocket medical costs. In addition to evaluation of nutritional program policies for special diets for children with SHCN, families and providers should receive guidance regarding any alternative means of obtaining medically indicated special dietary resources for children with SHCN. Our data do not permit us to fully disentangle the complexity of issues related to households with children with SHCN and receipt of a range of benefits. Given the current dearth of evidence, these areas require further research to address the highlighted issues.

Our study results must be evaluated in light of several methodological limitations. This cross-sectional study demonstrates association, not causation. Households with a child critically ill at the time of the visit were not approached, and thus the sample may be biased against children with the most severe health conditions. Although the data are sentinel, not nationally representative, and cannot be generalized to rural families, our data do reflect low-income households from 5 urban centers; one of

which (Little Rock, AR) also serves children from rural communities. Our sentinel sample data with an overall rate of 18.2% household food insecurity (child food secure) and 13.0% child (with household) food insecurity are consistent with nationally representative data collected from the USDA in 2014, reporting 19.2% of all households with children below 6 years (regardless of a child with special health care needs) experienced household food insecurity and 9.1% experienced child food insecurity.³

Caregivers were interviewed 1 time, yet household conditions, such as WIC or SNAP receipt and also food insecurity, are dynamic and may evolve over time. Although analyses were controlled for many child, caregiver, and household characteristics, there may be unmeasured confounders, including the possibility of others in the household having a SHCN or receiving a disability benefit. Although the cell size of households with children with SHCN receiving SSI in this study was relatively small, nationally, those numbers also are relatively small, particularly for very young children.

CONCLUSION

Access to food of adequate quality and quantity is essential for the growth and development of all young children, but especially critical for those with SHCN. There are potential policy interventions that might better protect children with SHCN and their families from increased risk of food insecurity. One approach would be to partially discount SSI income (as is performed for earned income) in calculating eligibility for the SNAP benefit amount to acknowledge the increased needs and costs of families of children receiving SSI. For households with children with SHCN but without SSI, broadened eligibility for the SNAP medical deduction, beyond disability-based benefit criteria, could help to offset the often greater medical and dietary needs of such children. Future studies should evaluate the effects of having a child with SHCN on other material hardships.

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