Socioeconomic and Health Characteristics of Families at Risk for Losing Supplemental Nutrition Assistance Program Benefits

The Supplemental Nutrition Assistance Program (SNAP) is a US federal aid program annually serving 40 million persons with well-established health, nutrition, and financial benefits. Families are eligible for SNAP benefits under federal rules if they have minimal assets and net incomes below the federal poverty level. Families are also required to have gross incomes below 130% of the federal poverty level; however, this requirement is waived for seniors and persons with disabilities. In 42 jurisdictions, categorical eligibility programs extend SNAP supports to otherwise ineligible families who receive benefits under certain social assistance programs, such as Temporary Assistance for Needy Families. Recently, policy makers have attempted to limit SNAP eligibility and benefits. In July 2019, the US Department of Agriculture proposed new rules limiting qualifications for categorical eligibility. Under the proposed rules, 1 in 10 US families currently participating in SNAP may experience discontinuation of benefits, raising concerns for adverse effects on health and the ability to pay for health care. We therefore sought to compare the health, nutritional, and financial vulnerabilities of families at risk for losing SNAP benefits with those of families meeting federal eligibility standards.

Methods | We used pooled data from the 2016-2017 Medical Expenditure Panel Survey-Household Component, a nationally representative panel survey of US households assessing sociodemographic composition, health status, and use of health care services. The survey is administered using computer-assisted personal interviewing with full-year response rates of 44% to 46% during the study period. Analyses used publicly available, deidentified data and were deemed exempt from review by the institutional review board of Boston Medical Center, Boston, Massachusetts.

Analyses were conducted at the family-unit level to approximate SNAP rules regarding food sharing within families. We identified SNAP participation using self-report of at least 1 month of benefits. We limited the sample to families with gross incomes of less than 200% of the federal poverty level, reflecting the upper limit for most categorical eligibility applications, and estimated net income by modeling program deductions. We dichotomized SNAP participant families into eligibility groups (categorical vs federal) based on net and gross income: categorically eligible families had net incomes above the federal poverty level and gross incomes above 130% of the federal poverty level (in families creating final survey variables for race/ethnicity. The inclusion of race/ethnicity in the study was to examine possible racial/ethnic disparities in SNAP eligibility.

Defined by self-report of 1 or more of the following: inability or delay in getting necessary medical, pharmacy, or dental care because the family did not have funds to pay medical bills.

Defined by self-report of 1 or more of the following: attention-deficit/hyperactivity disorder, anemia, asthma, cancer, coronary artery disease, chronic bronchitis, diabetes, emphysema, hypercholesterolemia, hypertension, osteoarthritis, other heart disease, or stroke. In addition, for children, the presence of a special health care need was included. This information was obtained in the survey using an adaptation of the Children with Special Health Care Needs screening instrument.

Rates of food insecurity were collected during the survey using an adaptation of the US 30-day Adult Food Security Survey Module. This instrument has been established to detect the presence of household-level food insecurity occurring during the previous 30 days using adult-oriented questions to assess the food security of the household as a group. Food insecurity was defined by the presence of 3 or more positive replies.

Table. Comparison of Health, Nutritional, and Financial Needs for SNAP Participant Families With Incomes Corresponding to Categorical and Federal Program Eligibility

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Program Eligibility, No. (%)</th>
<th>P Value&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Difference (95% CI), %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Families with children&lt;sup&gt;c&lt;/sup&gt;&lt;sup&gt;d&lt;/sup&gt;</td>
<td>192 (43.8)</td>
<td>1642 (41.8)</td>
<td>2.0 (−4.8 to 8.7)</td>
</tr>
<tr>
<td>Families with seniors&lt;sup&gt;c&lt;/sup&gt;&lt;sup&gt;e&lt;/sup&gt;&lt;sup&gt;f&lt;/sup&gt;</td>
<td>135 (36.5)</td>
<td>948 (28.5)</td>
<td>8.0 (1.7 to 14.3)</td>
</tr>
<tr>
<td>Racial/ethnic minority family member&lt;sup&gt;c&lt;/sup&gt;&lt;sup&gt;e&lt;/sup&gt;</td>
<td>300 (62.4)</td>
<td>2443 (56.3)</td>
<td>6.1 (0.2 to 12.4)</td>
</tr>
<tr>
<td>Family member with Medicaid&lt;sup&gt;c&lt;/sup&gt;</td>
<td>318 (71.4)</td>
<td>2935 (84.2)</td>
<td>−12.8 (−19.0 to 6.7)</td>
</tr>
<tr>
<td>Health care-associated financial hardship&lt;sup&gt;d&lt;/sup&gt;</td>
<td>127 (32.3)</td>
<td>784 (26.7)</td>
<td>5.5 (−0.6 to 11.7)</td>
</tr>
<tr>
<td>Family member with fair to poor health status&lt;sup&gt;c&lt;/sup&gt;</td>
<td>248 (63.7)</td>
<td>2029 (60.0)</td>
<td>3.8 (−2.7 to 10.3)</td>
</tr>
<tr>
<td>Family member with a chronic condition&lt;sup&gt;c&lt;/sup&gt;&lt;sup&gt;e&lt;/sup&gt;&lt;sup&gt;f&lt;/sup&gt;</td>
<td>340 (84.8)</td>
<td>2811 (84.9)</td>
<td>0.1 (−5.0 to 4.9)</td>
</tr>
</tbody>
</table>

Abbreviation: SNAP, Supplemental Nutrition Assistance Program.

<sup>a</sup> Eligibility groupings were based on household composition (presence or absence of seniors and/or persons with disabilities), gross income, and net income. Categorically eligible families had net incomes above the federal poverty level and gross incomes above 130% of the federal poverty level in families with no seniors or persons with disabilities, with the remaining SNAP participants classified as federally eligible. Net income was modeled as gross income less SNAP program income deductions, using calculated values for earned income, standard, and medical (for seniors and persons with disabilities) deductions, and extrapolation of national estimates for shelter and utility deductions. Persons with disabilities were defined as nonseniors who reported Supplemental Security Income during the calendar year. Percentages are weighted.

<sup>b</sup> We accounted for survey weighting, stratification, and clustering using STATA, version 14 (StataCorp LLC), comparing estimates using 2-sided Wald tests to determine statistically significant differences (P < .05).

<sup>c</sup> Defined by self-report of the measured characteristic in 1 or more family members.

<sup>d</sup> Child was defined as 17 years or younger; senior, 60 years or older.

<sup>e</sup> Race/ethnicity information was self-reported using options defined by the survey. Statistical imputation was used for missing/incomplete data when creating final survey variables for race/ethnicity. The inclusion of race/ethnicity in the study was to examine possible racial/ethnic disparities in SNAP eligibility.

<sup>f</sup> Defined by self-report of 1 or more of the following: inability or delay in getting necessary medical, pharmacy, or dental care because the family did not have funds to pay medical bills.

<sup>g</sup> Defined by self-report of 1 or more of the following: attention-deficit/hyperactivity disorder, anemia, asthma, cancer, coronary artery disease, chronic bronchitis, diabetes, emphysema, hypercholesterolemia, hypertension, osteoarthritis, other heart disease, or stroke. In addition, for children, the presence of a special health care need was included. This information was obtained in the survey using an adaptation of the Children with Special Health Care Needs screening instrument.
absent seniors and persons with disabilities), and the remaining families were classified as federally eligible. We compared self-reported sociodemographic factors, health status, chronic conditions, Medicaid insurance, health care-associated financial hardship (delayed or forgone care or inability to pay medical bills), and rates of food insecurity (collected as part of the survey using the US 30-day Adult Food Security Survey Module). We accounted for survey weighting, stratification, and clustering using STATA, version 14 (StataCorp LLC) to compare estimates using 2-sided Wald tests to determine statistically significant differences (P < .05).

Results | The final cohort included 11,058 families, of which 3731 (28.3% weighted) received SNAP benefits; 3320 (88.3% weighted) were federally eligible and 411 (11.7% weighted) were categorically eligible (Table). Categorically eligible SNAP participants had lower rates of Medicaid insurance coverage (71.4% vs 84.2%; P < .001) and more often included seniors (36.5% vs 28.5%; P = .01), compared with federally eligible families. Rates of chronic conditions (84.8% vs 84.9%; P = .98), fair to poor health status (63.7% vs 60.0%; P = .26), and health care–associated financial hardship (32.3% vs 26.7%; P = .08) were similar for categorically eligible vs federally eligible families. Food insecurity was present at high levels (30.5% vs 34.6%; P = .19) in both groups.

Discussion | High rates of chronic illness, fair to poor health status, and challenges affording health care services were present among SNAP participant families at risk for losing benefits under proposed federal rules. The 2 groups of SNAP participants, despite being subject to different financial standards, demonstrated many similarities in health, nutritional, and financial needs. Categorically eligible families less often included Medicaid insurance protections against high out-of-pocket health care expenses and more often included seniors whose savings may make them ineligible under federal rules.4,6 Food insecurity, despite the moderating effects of SNAP, remained high in both groups. Erosions in SNAP supports under the proposed rules may further strain household finances, risking detrimental effects on health and affordability of care. Study limitations include imprecision replicating SNAP eligibility, with potential misclassification due to absent information on assets and family-unit designations, state-specific policies, underreporting or misreporting of benefits, and estimations for income deductions. Proposed and future SNAP eligibility policies should consider potential effects on categorically eligible families who, despite slightly higher incomes, have substantial health, nutrition, and financial needs.

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Accepted for Publication: December 7, 2019.

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Published Online: March 9, 2020. doi:10.1001/jamainternmed.2019.7152

Author Contributions: Dr Peltz had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Conflict of Interest Disclosures: None reported.


Editor’s Note

Supplemental Nutrition Assistance Program—Do Not Take the Food Out of Patients’ Mouths

The editors appreciate this report1 for demonstrating that many people who receive Supplemental Nutrition Assistance Program (SNAP) benefits (food stamps) under extended eligibility are as much in need of help paying for food as those receiving SNAP benefits under standard eligibility. (Note that extended eligibility is available in some states for families who qualify for other state programs for people with low income.) However, the government is threatening to cut off people receiving the extended benefit, meaning that many of our patients currently receiving food assistance will go hungry. As physicians, with the authority to spend almost unlimited dollars on health care—much of which is not helpful—our inability to get patients the food they need is absurd. Nutrition is a key determinant of health. In the richest country in the world, at the richest time of its history, it is just wrong to let people go without food. SNAP benefits should be maintained for this
broader group because clearly they deserve to be fed as much as those with standard eligibility.

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**Published Online:** March 9, 2020. doi:10.1001/jamainternmed.2019.7151

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**Conflict of Interest Disclosures:** None reported.


**Charity Care Provision by US Nonprofit Hospitals**

Hospitals are eligible for nonprofit status, which exempts them from income, property, and sales taxes, in exchange for providing charity care and other community services. Importantly, charity care differs fundamentally from uncompensated care or bad debt because there is no expectation that patients will pay for the services. Based on each hospital’s financial assistance policy, charity care is offered to eligible uninsured patients as full or partial discount of medical bills and to eligible insured patients as deductible and coinsurance written off. The existing literature, however, has not made the important distinction between charity care for uninsured patients and insured patients or examined charity care provision across hospitals’ financial status. This study aims to fill these knowledge gaps.

**Methods** | We used the 2017 Medicare cost reports published by the Centers for Medicare & Medicaid Services, the only publicly available data source containing charity care information for uninsured and insured patients (ie, deductibles and coinsurance written off) separately. All Medicare-certified hospitals must file cost reports annually. We excluded 47 hospitals that reported missing net patient revenue. The final sample included 2563 nonprofit short-term general hospitals. The amount of charity care was measured as the cost of the services—the charges for the services, multiplied by the hospital’s cost-to-charge ratio, minus any partial payments.

We analyzed the share of overall net income (ie, total net income generated from patient and nonpatient services) and charity care across hospital quartiles and for hospitals in the top 1% and 5% based on their overall net income in 2017. For each group, we also compared its aggregated charity care and overall net income. We repeated analyses stratified by state implementation of Medicaid expansion by the end of 2017. The Johns Hopkins institutional review board determined that this study was exempt and the study design obviated the need for consent procedures. Data were analyzed between August and December 2019.

**Results** | In 2017, US nonprofit hospitals generated $47.9 billion overall net income and provided $9.7 billion of charity care to uninsured patients and $4.5 billion of charity care to insured patients. The top quartile of hospitals generated all (100.2%) of total overall net income (the remaining hospitals had net losses in aggregation) and provided more than half—57.3% (uninsured) and 54.6% (insured)—of total charity care. In contrast, the bottom quartile of hospitals incurred losses equivalent to 15.8% of total overall net income, while providing 17.1% (uninsured) and 17.7% (insured) of total charity care (Figure 1).

The amounts of charity care relative to overall net income were smaller for hospitals with larger overall net income. The top quartile of hospitals provided $11.5 (uninsured) and $5.1 (insured) charity care for every $100 of their overall net income; the third quartile of hospitals provided $72.3 (uninsured) and $40.9 (insured) for every $100 of their overall net income (Figure 2).