



Children’s HealthWatch comments on USPSTF Draft Research Plan:
Preventive Services for Food Insecurity
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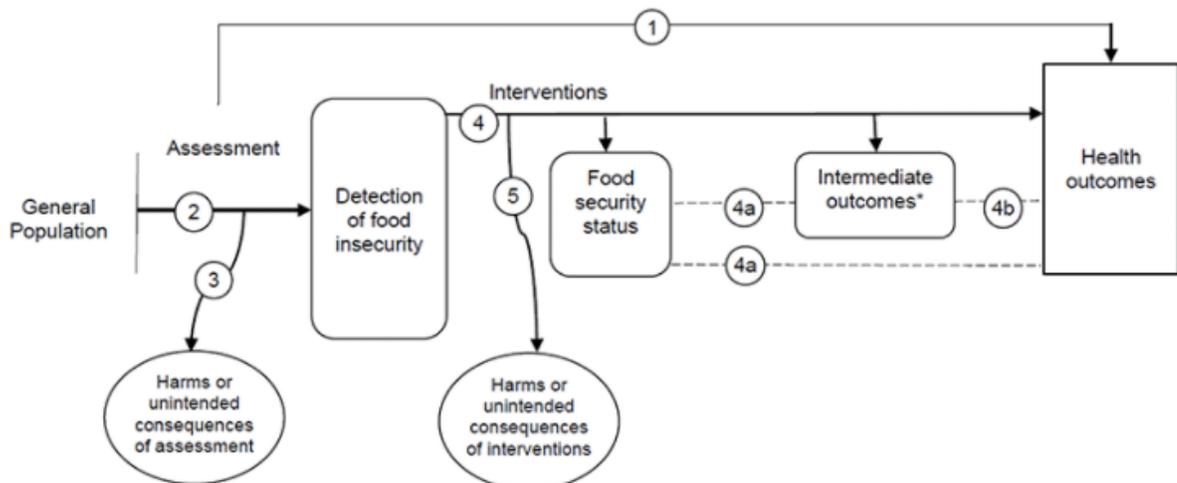
Submitted via online form at <https://www.uspreventiveservicestaskforce.org/>

Thank you for the opportunity to comment on the Draft Research Plan for “Preventive Services for Food Insecurity.” On behalf of Children’s HealthWatch, a network of pediatricians, public health researchers, and policy and child health experts, please accept these comments and our evidence-based suggestions.

The mission of Children’s HealthWatch is to improve the health and development of young children by informing policies that address and alleviate economic hardships. We accomplish this mission by interviewing caregivers of young children in emergency departments and primary care clinics in five cities: Boston, Minneapolis, Little Rock, Baltimore, and Philadelphia. Since 1998, we have interviewed more than 75,000 caregivers and analyzed data from those interviews to determine the impact of public policies on the health and development of young children.

- **Framework**

Proposed Analytic Framework



*Intermediate outcomes include behavioral, physiologic, and healthcare utilization outcomes.

Comment

No comments.

- **Proposed Key Question 1: What is the effect of identifying food insecurity in primary care on health outcomes?**

Comment

The current state of literature understanding the effect of identifying food insecurity in primary care on health outcomes is limited. Most studies have focused on the effect of specific food insecurity related interventions on health outcomes (which typically occur after identification of food insecurity), rather than the effect on health outcomes from identifying food insecurity alone.

- **Proposed Key Question 2: What is the performance of risk assessment or screening tools to identify food insecurity?**

Comment

A fair amount of research has been published on this topic. In 2019, a systematic scoping review was published, exploring the evidence on food insecurity screening measures, acceptability, and program implementation in health care settings (https://journals.lww.com/familyandcommunityhealth/Abstract/2019/01000/Identifying_Food_Insecurity_in_Health_Care.3.aspx). The paper affirmed the existence of instruments that adequately identify patients at risk for food insecurity. In 2010, Drs. Erin Hager and Anna Quigg and the Children's HealthWatch team developed the Hunger Vital Sign™, a validated 2-question food insecurity screening tool based on the U.S. Household Food Security Survey Module (US-HFSSM) to identify households at risk of food insecurity (http://www.childrenshealthwatch.org/wp-content/uploads/EH_Pediatrics_2010.pdf). The peer-reviewed journal article on the Hunger Vital Sign™ has been cited in hundreds of publications since its release and the screening tool has been used widely in medical and community-based settings around the country. In separate studies, the Hunger Vital Sign™ was validated for use among youth and adolescents (in 2015), and in 2017 the Hunger Vital Sign™ was validated for use among adults as well. In October 2015, the American Academy of Pediatrics released a policy statement, recommending that pediatricians screen all children for food insecurity. In May 2017, the Centers for Medicare & Medicaid Services incorporated the Hunger Vital Sign™ in the Accountable Health Communities Screening Tool. In December 2021, the National Quality Forum (NQF) Measure Incubator® developed three food insecurity quality measures and the American Board of Pediatrics developed a food insecurity quality improvement module – both utilizing the Hunger Vital Sign™. For these reasons, we believe the Hunger Vital Sign™ is the best-performing screening tool to identify household at risk for food insecurity.

Once households are identified to be at risk for food insecurity, it is desirable to classify them in one of the three levels of severity (marginal, low or very low food security). Advantages in doing so are: 1) screening tools are not tailored to yield a definitive diagnosis or determination of presence of any adverse health condition or disease without further diagnostic process, therefore not designed to inform food insecurity prevalence; 2) different interventions should be applied for different levels of severity; 3) success of intervention should be measured by decrease in level of severity, beyond the binary result of food security/food insecurity.

To mark the 25th anniversary of the US-HFSSM, the US Department of Agriculture's Economic Research Service (USDA ERS) launched a call for proposals to support research on food security measurement methods, data, and future research needs in late 2020 (<https://www.ers.usda.gov/topics/food-nutrition-assistance/food-assistance-data-collaborative-research-programs/twenty-five-years-of-food-security-measurement-extramural-research-grants/>). Currently, an Abbreviated Child and Adult Food Security Scale is being validated to serve as a second step after a positive screen for food insecurity in households with children. For households without children the widely recognized Six-Item Short Form of the HFSSM is available (<https://www.ers.usda.gov/media/8282/short2012.pdf>, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1508674/>).

- **Proposed Key Question 3: What are the harms or unintended consequences of assessment for food insecurity?**

Comment

As mentioned previously, a 2019 systematic scoping review was published exploring the evidence on food insecurity screening measures, acceptability, and program implementation in health care settings. Authors of that paper noted one study in which caregivers who screened positive for food insecurity had significantly greater odds of reporting potential discomfort talking to their provider or nurse about food needs, suggesting that the highest need patients may be reluctant to disclose needs if approached in a manner not informed by stigma and trauma (https://journals.lww.com/familyandcommunityhealth/Abstract/2019/01000/Identifying_Food_Insecurity_in_Health_Care.3.aspx).

While a short, 2-item food insecurity screening tool may be relatively straightforward from an implementation standpoint, the subject matter (food insecurity) can surface deeply-held feelings of stigma, shame, anger and helplessness associated with food insecurity. In addition to screening reluctance due to societal stigma associated with food insecurity, risk of alienating or degrading trust in the medical team may arise when food insecurity is assessed, but no meaningful or helpful service or intervention is offered and available to address patients' food insecurity.

Researchers have offered insight into the unintended consequences of assessment for food insecurity (https://www.bmc.org/sites/default/files/About_Us/MAG/jama-consequences-sdh-screening.pdf) and recommended that "Social determinants screening should (1) be patient- and family-centered and involve shared decision making; (2) be conducted within a comprehensive process and system that supports early detection, referral, and linkage to a wide array of community based services; (3) engage the entire practice population rather than targeted subgroups; and (4) acknowledge and build on the strengths of patients, families, and communities."

- **Proposed Key Question 4: What is the effect of healthcare-related interventions to address food insecurity on food security, intermediate outcomes (i.e., behavioral, physiologic, and healthcare utilization outcomes), or health outcomes?**
 - **What are the effects of improvements in food security outcomes on intermediate and health outcomes?**
 - **What are the effects of improvements in intermediate outcomes on health outcomes?**

Comment

Similar to the literature on food insecurity screening, there is a growing body of evidence exploring the relationship between healthcare-related interventions to address food insecurity and intermediate outcomes and health outcomes. In 2019, a systematic review was published on interventions addressing food insecurity in healthcare (<https://www.annfammed.org/content/annalsfm/17/5/436.full.pdf>). Regarding intermediate outcomes, studies included in the review describing interventions providing food or vouchers reported mixed results for the actual change in fruit/vegetable intake, and studies that evaluated health or utilization outcomes generally reported small but positive effects. In a more recent systematic review and meta-analysis, health and health care utilization outcomes were reported in less than half of studies with mixed results that were not statistically significant in pooled analyses (<https://jamanetwork.com/journals/jama-health-forum/fullarticle/2782895>). We believe more research (and funding for this research) is needed to better understand the intermediate outcomes and health outcomes of food insecurity interventions within the context of health care settings in rigorous ways. Further, because food insecurity is defined as “a household-level economic and social condition of limited or uncertain access to adequate food” we urge the task force to consider interventions that address household economic constraints and hardships, in addition but not limited to interventions related specifically to food procurement (i.e., food-based interventions). For example, recent evidence from the Baby’s First Years study shows that giving monthly unconditional cash transfers to mothers experiencing poverty in the first year of their children’s lives may change infant brain activity in ways that promote healthy cognitive development (<https://www.pnas.org/doi/10.1073/pnas.2115649119>).

- **Proposed Key Question 5: What are the harms or unintended consequences of healthcare-related interventions to address food insecurity?**

Comment

In a 2021 technical brief on screening and interventions for social risk factors, (<https://jamanetwork.com/journals/jama/fullarticle/2783975>), thirty-one published studies reported positive patient reports of satisfaction with and acceptability of screening and interventions, and eleven article reported on challenges or unintended consequences of screening or intervention for patients, including discomfort (i.e., shame about social risks) and confidentiality issues. Similar to the unintended consequences of food insecurity identification, the risk of alienating or degrading trust in the medical team can arise when an intervention to address food insecurity is offered, but is not implemented in a manner that effectively addresses food insecurity.

- **Proposed Contextual Question 1: What risk assessment or screening tools are commonly used in clinical practice to address food insecurity? What are the benefits and limitations of these commonly used tools?**

Comment

According to the 2021 technical brief on screening and interventions for social risk factors, (<https://jamanetwork.com/journals/jama/fullarticle/2783975>), the most frequently used screening tool among all social risk screening tools, was the 2-item Hunger Vital Sign™ tool. As previously stated, the peer-reviewed journal article on the Hunger Vital Sign™ has been cited in hundreds of publications since its release and the screening tool has been used widely in medical and community-based settings around the country. In separate studies, the Hunger Vital Sign™ was validated for use among youth and adolescents (in 2015), and in 2017 the Hunger Vital Sign™ was validated for use among adults as well. In



October 2015, the American Academy of Pediatrics released a policy statement, recommending that pediatricians screen all children for food insecurity. In May 2017, the Centers for Medicare & Medicaid Services incorporated the Hunger Vital Sign™ in the Accountable Health Communities Screening Tool. In December 2021, the National Quality Forum (NQF) Measure Incubator® developed three food insecurity quality measures and the American Board of Pediatrics developed a food insecurity quality improvement module – both utilizing the Hunger Vital Sign™. For these reasons, we believe the Hunger Vital Sign™ is the best-performing screening tool to identify household at risk for food insecurity.

The main benefit of the Hunger Vital Sign™ is its high-value as a screening tool – it is a validated 2-question tool that is free to use and can rapidly identify households at risk for food insecurity. The Hunger Vital Sign™ is limited in applications that go beyond screening, because it is not designed as a diagnostic tool to measure the depth or severity of food insecurity. To overcome this limitation, a complement to the HVS is desirable. The HFSSM has been historically used to monitor household food insecurity prevalence and its levels of severity. However, when respondent burden, time or financial constraints preclude use of all HFSSM items - such as clinical settings - shorter scales have been successfully validated (e.g. Six-Item Short Form of the HFSSM). Despite successfully identifying households with or without food insecurity in households without children, this short measure is not suitable to identify levels of severity in households with children. Thus, an abbreviated scale is being developed to fill in this gap and facilitate identification of levels of severity in both adults and children in the household.

- **Proposed Contextual Question 2: What factors inform the appropriate reassessment interval for food insecurity?**

Comment

From 2018-2021, the National Quality Forum (NQF) Measure Incubator® developed three food insecurity quality measures (https://www.qualityforum.org/Food_Insecurity_Measures.aspx) informed by a technical expert panel (TEP). Regarding screening timeframes, the TEP recommended at the very least annually and at the very most every 30 days can be appropriate to screen and re-screen patients depending on severity, but it is truly based on provider discretion and patient population. For example, food insecurity is fluid and can change frequently. TEP members also indicated that screening and re-screening can be done during a Telehealth visit rather than a face-to-face encounter. This would make re-screening at shorter intervals easier.

- **Proposed Contextual Question 3: What are important moderators that affect the effectiveness or harms of interventions to address food insecurity?**

Comment

Given stigma and privacy concerns among patients, the relationship and level of trust between the patient and their provider is an important moderator. For example, a long-time patient/provider relationship that has cultivated trust over time will likely result in a more effective intervention, compared to a low-trust, stigma inducing relationship. In addition, the specific features of any food insecurity intervention, particularly the level of assistance provided is an important moderator. For example, enrollment in federal food assistance programs, such as SNAP, WIC, and other forms of financial assistance will likely result in a more effective intervention, compared to a one-time \$25 grocery store gift card or referrals to the private food assistance programs, like food banks/food

pantries. Whether the intervention is administered at the individual or household level will also impact the impact of the intervention. The feasibility of interventions should also be considered (i.e. if referring to a food bank, is it close to the patient's home and are the hours accessible? Do they offer culturally appropriate foods? Do they need delivery options, if disabled or another reason? Are assistance applications and/or navigators helping them apply in the correct language?).

- **Proposed Contextual Question 4: What is the acceptability of food insecurity assessment and interventions to patients and providers?**

Comment

According to the 2021 technical brief on screening and interventions for social risk factors, (<https://jamanetwork.com/journals/jama/fullarticle/2783975>), numerous articles that included food insecurity screening and intervention included positive patient reports of satisfaction with and acceptability of screening and interventions, as well as positive reports on clinician satisfaction with screening and interventions.

- **Proposed Contextual Question 5: What is the uptake of interventions after food security is identified as a social need?**

Comment

In the 2019 systematic review published on interventions addressing food insecurity in healthcare (<https://www.annfammed.org/content/annalsfm/17/5/436.full.pdf>), authors identified 12 studies that included uptake-related outcomes such as food resource referrals, program enrollment, and use of resources. Among these studies, rates of patients receiving referrals as a result of the intervention ranged from 30% to 75%. In particular, a study published by our colleagues at Children's HealthWatch found that among 4,020 patients identified at risk for food insecurity, and referred by medical center staff to a food bank partner, the food bank successfully contacted 63% and assisted 2,533 households (<https://childrenshealthwatch.org/wp-content/uploads/EMR-Based-Comm-Nut-Assistance-2020.pdf>).

- **Proposed Contextual Question 6: What are the patient, provider, and health system barriers to implementing assessment for food insecurity?**

Comment

According to the 2021 technical brief on screening and interventions for social risk factors, (<https://jamanetwork.com/journals/jama/fullarticle/2783975>), only one article among 18 reported provider barriers – in this case it was related to difficulty in incorporating the intervention into clinician schedules. As stated previously, the 2021 technical brief notes eleven articles reported on challenges or unintended consequences of screening or intervention for patients, including discomfort (i.e., shame about social risks) and confidentiality issues. Anecdotally, we have heard from multiple providers that hesitance to implementing food insecurity assessments often lie in a provider or institution's lack of intervention options or resources to meaningfully address the patient's food security needs.

- **Proposed Contextual Question 7: What are the patient, provider, health system, and community barriers to implementing interventions to address food insecurity?**

Comment

Over the past 5+ years, a number of reports, case studies, and implementation toolkits have been released (i.e., https://childrenshealthwatch.org/wp-content/uploads/Food_Insecurity_Final_022620-

[NQF.pdf](#)) and offer information on various facilitators and barriers to screening and intervention. Perhaps the most significant barrier to implementing food insecurity interventions is the partnership and relationship between the provider and organizations and resources in the community providing services to individuals in food-insecure households. Health care organizations often face challenges managing and sharing data externally with nonprofit or community organizations (CBOs), while CBOs experience varying degrees of preparedness to meaningfully and effectively partner with health care organizations.

- **Research approach**

Proposed Research Approach

The proposed Research Approach identifies the study characteristics and criteria that the Evidence-based Practice Center will use to search for publications and to determine whether identified studies should be included or excluded from the Evidence Review. Criteria are overarching as well as specific to each of the key questions.

Category	Include	Exclude
Condition	KQs 1–5: Food insecurity with or without nutrition insecurity	KQs 1–5: <ul style="list-style-type: none"> • Nutrition insecurity in food secure populations • Water insecurity • Other social risk factors (e.g., unemployment, financial strain, housing instability) in the absence of food insecurity
Populations*	KQs 1–5: All ages <ul style="list-style-type: none"> • Children and their caregivers • Adolescents • Adults • Perinatal, pregnant, and postpartum persons • Older adults and their caregivers • Persons with stable common chronic conditions (e.g., diabetes, hypertension) 	KQs 1–5: <ul style="list-style-type: none"> • Persons with acute medical or psychiatric conditions • Persons with cancer • Persons with malnutrition or nutritional deficiencies

<p>Assessment</p>	<p>KQs 1–3: Risk assessment or screening for food with or without nutrition insecurity using tool that addresses food insecurity with other social risk factors or food insecurity alone</p>	<p>KQs 1–3:</p> <ul style="list-style-type: none"> • Nutrition assessment • Risk assessment or screening tools for social risk factors that do not explicitly address food insecurity
<p>Interventions</p>	<p>KQs 4, 5: Healthcare-related interventions[†] targeting food with or without nutrition insecurity</p> <ul style="list-style-type: none"> • Individual level (e.g., referral to social services, provision of information about resources) • Healthcare system–level (e.g., policies, programs, staff training, primary care collaboration with community services) 	<p>KQs 4, 5: Public health/community-level policies</p>
<p>Comparators</p>	<p>KQs 1, 4: Control group (can include active control/comparator) KQ 2: Any reference standard KQs 3, 5: No comparator required if explicitly addresses harms</p>	<p>KQs 1, 4: No control/comparator KQ 2: No reference standard</p>
<p>Outcomes</p>	<p>KQs 1, 4:</p> <ul style="list-style-type: none"> • Food security outcomes • Behavioral outcomes (e.g., fruit and vegetable intake) • Physiologic outcomes (e.g., blood pressure, hemoglobin A1c, healthy weight gain in pregnancy) • Healthcare utilization (e.g., emergency department visits, hospitalization) • Health or surrogate health outcomes (e.g., low birth weight, developmental) 	<p>KQs 1, 4:</p> <ul style="list-style-type: none"> • Knowledge, skills, and self-efficacy outcomes • Provider-level outcomes (e.g., confidence in screening, awareness of resources) • Cost outcomes <p>KQ 2: Test positivity or test yield only</p>

	<p>outcomes in children, incident diabetes, mental health, cardiovascular events, quality of life)</p> <p>KQ 2: Test accuracy, predictive validity, and discrimination</p> <p>KQs 3, 5: Any harms or unintended consequences</p>	
Settings	<p>KQs 1–5:</p> <ul style="list-style-type: none"> Any setting linked with healthcare system (e.g., primary care, specialty care, emergency department) Conducted in the United States <p>KQs 1–3: Screening conducted in clinical setting or identified through healthcare delivery or payment system (e.g., health plan data)</p> <p>KQs 4, 5: Interventions or programs integrated into, associated with, or referred from healthcare</p>	<p>KQs 1–5:</p> <ul style="list-style-type: none"> No link with healthcare system Conducted outside the United States
Study designs	<p>KQs 1, 4:</p> <ul style="list-style-type: none"> Randomized or clinically controlled trials, nonrandomized studies with a contemporaneous control or comparison, quasi-experimental studies (e.g., pre-post studies) Minimum 12-week followup <p>KQ 2: Diagnostic test accuracy or risk assessment studies</p> <p>KQs 3, 5: Randomized or clinically controlled trials, nonrandomized studies, and quasi-experimental studies</p>	<p>KQs 1, 4: Randomized or clinically controlled trials, nonrandomized studies with less than 12- week followup</p> <p>KQ 2: Test performance studies without reference standard</p> <p>KQs 3, 5: Case series, case reports, or editorials</p>

Study quality	Fair to good	Poor
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* For all KQs, populations of interest include persons at higher risk for food insecurity (e.g., by age, race and ethnicity, health status, or other social risk factors).

† Healthcare-related interventions are those in which the patient's food insecurity was identified through healthcare and/or the intervention itself is provided directly via a healthcare system, based within a healthcare system, or delivered in partnership with a healthcare system.

Comment

Regarding category: populations, exclusions - persons with cancer should not be excluded. Should be included. Multiple studies/reports show need for inclusion.

- <https://acsjournals.onlinelibrary.wiley.com/doi/full/10.1002/cncr.32291>

- <https://ascopubs.org/doi/pdfdirect/10.1200/JOP.19.00736>

- https://www.accc-cancer.org/docs/documents/oncology-issues/articles/ja20/ja20-improving-cancer-care-by-addressing-food-insecurity.pdf?sfvrsn=26d31058_11

Regarding interventions, inclusions - in addition to individual level, we recommend including household level as food security is defined at the household level and multiple interventions offered currently occur at the household level.

Regarding interventions, exclusions - Public health/community-level policies should be included. population health and public health policies in response to food insecurity identified by health care institutions clearly impact individual patients' health outcomes.

Regarding comparators - exclusions - the no control/comparator item should be included and not excluded because some food insecurity screening and intervention studies do not include a control group for ethical reasons.