Disclosures

We have no relevant financial relationships to disclose or conflicts of interest to resolve
Food is Medicine:
Promoting Food Security in Health Care and Community Settings

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@ChildrensHW
Roadmap

- Need: Why screen for food security?
- Creation of the Hunger Vital Sign™: Testing and results
- Connecting the dots: Examples from the field
USDA calls hunger "...a potential consequence of food insecurity that, because of prolonged, involuntary lack of food, results in discomfort, illness, weakness, or pain that goes beyond the usual uneasy sensation."

**Food Security**
- **High food security**: No reported indications of food-access problems or limitations.
- **Marginal food security**: One or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake.

**Food Insecurity**: “limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire food in socially acceptable ways”
- **Low food security**: Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
- **Very low food security**: Reports of multiple indications of disrupted eating patterns and reduced food intake.
How we measure food security

Questions Used To Assess the Food Security of Households in the CPS Food Security Survey

1. “We worried whether our food would run out before we got money to buy more.” Was that often, sometimes, or never true for you in the last 12 months?

2. “The food that we bought just didn’t last and we didn’t have money to get more.” Was that often, sometimes, or never true for you in the last 12 months?

3. “We couldn’t afford to eat balanced meals.” Was that often, sometimes, or never true for you in the last 12 months?

4. In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn’t enough money for food? (Yes/No)

5. (If yes to question 4) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

6. In the last 12 months, did you ever eat less than you felt you should because there wasn’t enough money for food? (Yes/No)

7. In the last 12 months, were you ever hungry, but didn’t eat, because there wasn’t enough money for food? (Yes/No)

8. In the last 12 months, did you lose weight because there wasn’t enough money for food? (Yes/No)

9. In the last 12 months did you or other adults in your household ever not eat for a whole day because there wasn’t enough money for food? (Yes/No)

10. (If yes to question 9) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

(Questions 11-18 were asked only if the household included children age 0-17)

11. “We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food.” Was that often, sometimes, or never true for you in the last 12 months?

12. “We couldn’t feed our children a balanced meal, because we couldn’t afford that.” Was that often, sometimes, or never true for you in the last 12 months?

13. “The children were not eating enough because we just couldn’t afford enough food.” Was that often, sometimes, or never true for you in the last 12 months?

14. In the last 12 months, did you ever cut the size of any of the children’s meals because there wasn’t enough money for food? (Yes/No)

15. In the last 12 months, were the children ever hungry but you just couldn’t afford more food? (Yes/No)

16. In the last 12 months, did any of the children ever skip a meal because there wasn’t enough money for food? (Yes/No)

17. (If yes to question 16) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

18. In the last 12 months did any of the children ever not eat for a whole day because there wasn’t enough money for food? (Yes/No)
Founded: 1998

Non-partisan, pediatric research and policy network

Collect data in urban hospitals across the country on infants and toddlers from families facing economic hardship

Improve health & development of young children → alleviate economic hardships → inform public policies
  - Difficulty affording enough food (food insecurity)
  - Unstable housing (housing insecurity)
  - Trouble keeping heat/lights on (energy insecurity)

Provide policy makers with evidence from the frontlines to develop policies that protect young children’s health and development
Where our data come from:

- Collecting real-time data in frontline healthcare settings:
  - Boston, Baltimore, Philadelphia, Little Rock and Minneapolis
  - Interviews - caregivers with children 0 to 4yrs
  - More than 60,000 surveys in our data set
Seed of the idea

Large body of research on associations with poor health and development outcomes

- 2 interrelated streams of interest:
  - Group of marginally food secure households being ‘officially’ counted as food secure
    - Question - undercounting the problem?
  - Also cumbersome (though accurate) nature of USDA Food Security Module
    - 18 questions - time-consuming, not practical for clinical/outreach settings
Other shortened screeners

- 6-item module
  - Developed by National Center for Health Statistics
  - Intended to address need for shorter, more practical screen... still too long for many settings

- 1-item hunger screen
  - Published by Kleinman, et al, 2007
  - Exclusive focus on hunger misses FI families experiencing stress -> uncertain access to enough food but **not** the physiologic sensation of hunger
Need: brief, sensitive, specific, valid

- Efficient method - identifying young children in FI households to ensure access to nutrition services
  - Healthy food
  - Alleviate caregiver stress
Most common affirmatively answered questions with best sensitivity/specificity

1st 2 questions

Compared to “gold standard” (HFSM)

Sensitivity - 97%

97% of families identified as FI (HVS) were also FI (HFSM)

Specificity - 83%

83% of families identified as FS (HVS) were also FS (HFSM)
Development and Validity of a 2-Item Screen to Identify Families at Risk for Food Insecurity


The Hunger Vital Sign™ identifies individuals and families as being at risk for food insecurity if they answer that either or both of the following two statements is 'often true' or 'sometimes true' (vs. 'never true'):

“Within the past 12 months we worried whether our food would run out before we got money to buy more.”

“Within the past 12 months the food we bought just didn’t last and we didn’t have money to get more.”
Outcomes (external validity)

- Young children
  - 56% more likely to be in fair/poor health
  - 17% more likely to have been hospitalized
  - 60% more likely to be at risk for developmental delays

- Mothers
  - Almost 2x as likely to be in fair/poor health
  - Almost 3x as likely to report depressive symptoms

Compared to peers in food-secure households
Negative Predictive Value of the Hunger Vital Sign™ for Other Social Determinants of Health

Objective

Assess whether the Hunger Vital Sign™ has adequate negative predictive value to serve as a pre-screen for other household material hardships: housing instability, energy insecurity, and foregone health care.

Results

A negative Hunger Vital Sign™ identified 18259 households (64%) as food secure.

The negative predictive value in these households was
- 77% for housing instability
- 82% for energy insecurity
- 87% for foregone health care at the household level
- 98% for foregone health care at the child level

Conclusions

1. Results demonstrate families who do not endorse the Hunger Vital Sign™ are not the highest priority for screening for other hardships
2. Clinicians should be aware that roughly 20% of families experience other hardships and will not be identified by this method
3. Further research is needed to replicate and expand these findings in diverse samples of children of varying ages in other geographies
How and where the Hunger Vital Sign™ is used
Examples from the field

- Hunger Vital Sign™ implemented in:
  - Hospitals
  - Community Health Centers
  - Public Health Agencies
  - Head Start, WIC
  - Health Insurance Providers
  - Food Banks
  - Anti-Hunger Agencies
  - Research Institutions

For more detail, visit:
Examples from the field

- Oregon Food Bank
  - Lynn Knox, Clinical Outreach & Training Coordinator

- Hennepin County Medical Center and Second Harvest Heartland
  - Dr. Diana Cutts, Kurt Hager

- Kaiser Permanente and Hunger Free Colorado
  - Dr. Sandra Stenmark, Hunger Free CO

- Family Health Center of Worcester
  - Dr. Melanie Gnazzo, UMass Medical School
Leading education and institutionalization

The Childhood Hunger Coalition:

- Free course on implementing Screen and Intervene targeting to medical settings
- More than 200 clinics & hospitals screening, plus Head Start & WIC
- Urban & Rural Success
- Screening as Medicaid Performance Indicator

“Screening & intervention was easy to add to our clinic protocols, it gives the physician valuable information for diagnosis & treatment and the Food Bank Staff (Lynn Knox), had valuable implementation suggestions”
- Clinic Administrator
E-referral & partnership

Hennepin County Medical Center

Second Harvest Heartland

3 STEPS TO PROMOTE FOOD SECURITY

If a patient is uninsured or on public insurance, they are likely eligible for SNAP or other food programs and a referral should be sent. You are a key link to helping people access food.

ASK
1. Was there any time in the last year when you worried that your household’s food would run out before there was money to buy more?
2. Was there any time in the last year when the food you bought just didn’t last and there wasn’t money to get more?

ASK
1. Would you like to be contacted by our partner, Second Harvest Heartland, to learn how you can access additional food?
2. Would you like some food from our Food Shelf today?

ACT
1. Complete the EPIC Referral for Food (order ID AMB100879) found under Orders, or via Discharge Navigator under Additional Orders when discharging an in-patient.
2. Provide a Food Shelf bag from your clinical care area, or work with clinic social worker, dietitian, or community health worker to access the Food Shelf store room (patient signs eligibility form).

Questions? Call Second Harvest Heartland staff at 651.209.7925 for more information. Call Epic Helpline at 612.873.7485. Select Option #1, then #2.
E-referral & partnership

Linking food insecure patients at Hennepin County Medical Center with food resources from Second Harvest Heartland
E-referral & partnership

Connection:
• Simple **outreach** referral
• Patient confidentiality
• Business agreements
• Information exchange
• Measurement and Feedback

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**Monthy Referrals to Hunger Free Colorado**

<table>
<thead>
<tr>
<th>Year</th>
<th>Referrals</th>
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<td>150</td>
</tr>
<tr>
<td>March</td>
<td>100</td>
</tr>
<tr>
<td>July</td>
<td>200</td>
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**WE CAN PROVIDE A SOLUTION TOGETHER!**

1. **Screen** patients for food insecurity by asking: "What was the last time you worried whether your food would run out before you had money to buy more?"
2. **Refer** patients who answer less than 12 months to Hunger Free Colorado by faxing letter in Health Connect (search Hunger).
3. Hunger Free Colorado will reach out to each referred member and connect them to nutritional assistance programs or other nutritional resources.

**HUNGER FREE HOTLINE:**
855-855-4626
(WE CAN PROVIDE A SOLUTION TOGETHER!)

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**E-Referral & Partnership**

**Kaiser Permanente**

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**Easily connect your patients to food and nutrition resources.**

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**Food and nutrition are key components of ensuring optimal health.**

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**When your patients call the statewide Hunger Free Hotline, food navigators can:**

- Screen and refer patients for federal nutrition programs, including SNAP, food stamps, WIC, Infants and Children (WIC), senior specific programs, emergency food programs, etc.
- Connect them to local food pantries, markets that accept SNAP benefits, prepared meals programs such as Meals on Wheels or soup kitchens, senior centers with meals, summer food programs, and more.
- Provide information on what patients will need for SNAP application process and where to apply.
- Follow up with patients regarding SNAP application and information to ensure needs were met.
- Connect patients to free nutrition classes.
- Provide an individualized experience that's comprehensive and respectful.
E-referral & partnership

Only Very Early Data on Clinical Screening Programs Available

• Kaiser Permanente of Colorado experience (Dr. Sandra Stenmark)
• Passive referrals are much less efficient than active referrals

Timely Outreach by Skilled Professionals Increased Connection to Resources

- 2.5% Connection Rate Before Implementing Skilled Outreach Process
- 33% Connection Rate After Implementing Skilled Outreach Process

http://healthaffairs.org/blog/2015/07/13/linking-the-clinical-experience-to-community-resources-to-address-hunger-in-colorado/

Credit: Hilary Seligman, MD
Senior Medical Advisor and Lead Scientist, Feeding America
Community-based partnerships

The Farm to Health Center Initiative

- Partnership between
  - UMass Medical School
  - Family Health Center of Worcester (FQHC)
  - Community Harvest Project farm in Grafton, MA

- Patients are screened and offered free, fresh produce each week during growing season

- Patients are connected to other community resources
Interventions

- Local resource handout
- Patient-initiated external referral
- Internal services or partner-initiated external referral

Passive referral —> Better —> Active referral

Good —> Best
“The American Academy of Pediatrics recommends that pediatricians engage in efforts to mitigate food insecurity at the practice level and beyond.”

“A 2-question validated screening tool is recommended for pediatricians screening for food insecurity at scheduled health maintenance visits or sooner, if indicated.”
About the Hunger Vital Sign
Boston Community of Practice

Purpose and Goals for the Community of Practice

• First and foremost, this is a learning collaborative!
• Build CHC members’ knowledge and capacity to engage meaningfully in food insecurity screening and resource referral implementation as well as systems development; and
• Connects CHC members to an interactive “one-stop” source of information and resources.
Key Questions to Answer:

- How best to ask the Hunger Vital Sign™?
  - Paper? Tablet? Other?
- Who will be part of the workflow?
  - Medical Assistants, Nutritionist, Social Workers?
- Where will you document this in the Electronic Health Record (OCHIN Epic)?
  - Tracking?
- How will you help patients?
  - Lists, referrals, outreach?
“Children thrive when we respond to their realities”
Thank You!

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.

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