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

CHILDREN'S HealthWatch

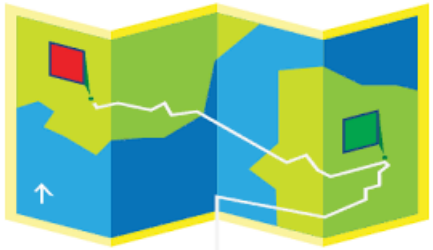
Richard Sheward, MPP

Deputy Director of Innovative Partnerships

Children's HealthWatch

@ChildrensHW

Roadmap



- Need: Why screen for food security?
- Creation of the Hunger Vital Sign™: Testing and results
- Connecting the dots: Examples from the field

Definitions

Food security

noun | *food se·cu·ri·ty*

- 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

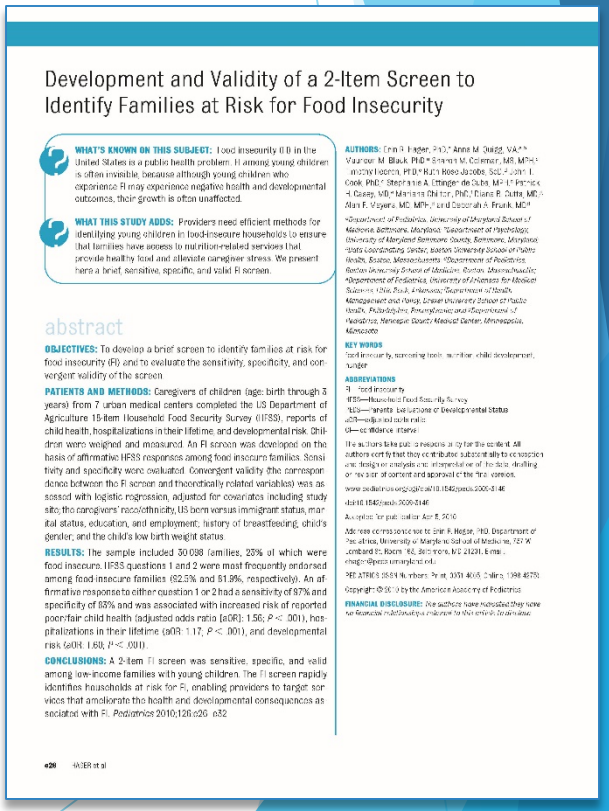
Testing 1,2,3

- 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

Hager ER, Quigg AM, Black MM, Coleman SM, Heeren T, Rose-Jacobs R, Cook JT, Ettinger de Cuba S, Casey PH, Chilton M, Cutts DB, Meyers AF, Frank DA. Development and Validity of a 2-Item Screen to Identify Families at Risk for Food Insecurity. *Pediatrics;* 2010;126:e26–e32.

Complementary article: Are Food Insecurity's Health Impacts Underestimated in the U.S. Population? Marginal Food Security Also Predicts Adverse Health Outcomes in Young U.S. Children and Mothers. Cook, JT, Black, M, Chilton, M et al. Advances in Nutrition. *Advances in Nutrition*. 2013;4: 51-61.



Development and Validity of a 2-Item Screen to Identify Families at Risk for Food Insecurity

abstract

Hunger VitalSign™

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

CHILDREN'S HEALTHWATCH POLICY ACTION BRIEF

Cultivating Healthy Communities:

Lessons from the Field on Addressing Food Insecurity in Health Care Settings

Health care providers are becoming increasingly aware that the key to improving patients' health relies on addressing their social needs. Understanding that a large percentage of patient health outcomes are due to factors outside of clinical care[1], many clinics and hospitals around the country have taken a preventive approach by actively screening for health-related social needs, such as food insecurity, and offering services to address them. Acknowledging the central role pediatricians have in identifying risk factors for poor health among children, the American Academy of Pediatrics recommends screening families for food insecurity using the Children's HealthWatch Hunger Vital Sign™ and connecting those who are at risk of food insecurity to necessary resources.[2] The Hunger Vital Sign™ can be administered verbally by a clinician or as a paper survey given with check-in materials. While this policy brief specifically focuses on addressing food insecurity in pediatric populations, screening for food insecurity and connecting patients with resources may be implemented across diverse patient populations.

A variety of health care-based approaches to addressing food insecurity – from easy-entry to more complex, resource-intensive – can be tailored for the needs of individual health care settings.[3,4] With time and support, any setting can move toward providing greater assistance. Moreover an Internal Revenue Service (IRS) ruling has spurred additional conversation and innovation among non-profit health care facilities seeking ways to reduce patients' food insecurity. The IRS now allows non-profit health care facilities to claim an exemption on federal tax returns for services related to improving nutrition access.[5]

The Children's HealthWatch Hunger Vital Sign™

Children's HealthWatch validated the Hunger Vital Sign™, a 2-question screening tool based on the US Household Food Security Survey Module and suitable for clinical or community outreach use. The Hunger Vital Sign™ identifies households as 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."

"Screening for food insecurity and responding to families at-risk are critical components of good health care. Physicians want to know that when they screen for a health risk, they are able to provide prompt referral and treatment."

Deborah A. Frank, Children's HealthWatch Principal Investigator and Pediatrician at Boston Medical Center

"More information on the Hunger Vital Sign™ and the variety of ways it has been implemented and paired with health care facilities across the country is available at http://www.childrenshealthwatch.org/public-policy/hunger-vital-sign/

CHILDREN'S HealthWatch

CHILDREN'S HEALTHWATCH POLICY ACTION BRIEF

May 2014

The Hunger Vital Sign™:

A NEW STANDARD OF CARE FOR PREVENTIVE HEALTH

Research Summary

Children's HealthWatch has developed the Hunger Vital Sign, a 2-question screening tool to identify young children in households at risk of food insecurity.

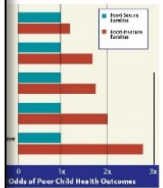
Compared to young children in food-secure households, young children in families at risk of food insecurity are more likely to:

- Be in fair or poor health
- Have been hospitalized
- Be at risk for developmental delays

Compared to food-secure mothers, mothers of young children who are at risk of food insecurity are more likely to:

- Be in fair or poor health
- Report depressive symptoms

The Hunger Vital Sign™ identified young children and mothers at high risk of food insecurity in order to help them obtain assistance if needed.



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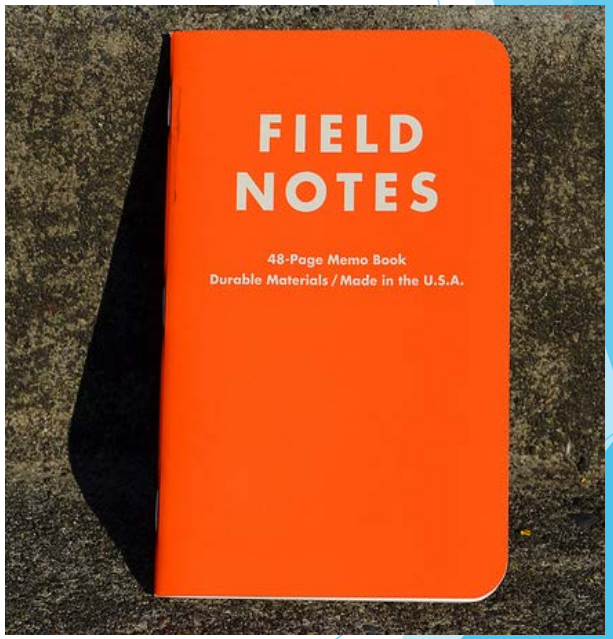
www.childrenshealthwatch.org

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:

http://www.childrenshealthwatch.org/public-policy/hunger-vital-sign/

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 storeroom (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.

Hennepin County Medical Center

second harvest HEARTLAND

E-referral & partnership

Hennepin County **Medical Center**

second harvest HEARTLAND

REFERRAL TO FOOD RESOURCES

Accept | Cancel | Remo

Priority: Routine

Questions:

Prompt	Answer	Comments
1. Patient's preferred phone #/contact info:		
2. Patient would like food assistance and asks that a SNAP Outreach staff member call.	Yes / No	
3. Contact's preferred language:	English / Spanish / Other (please use comments)	
Single response		

Comments (F6): Insert SmartText

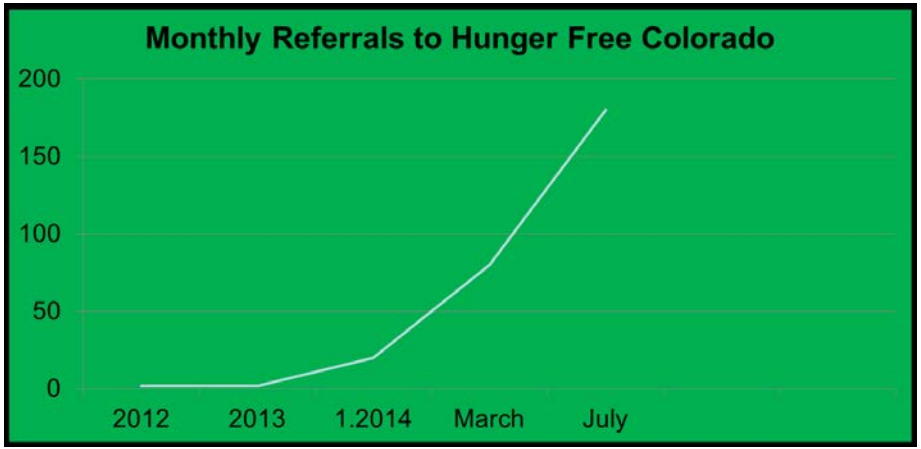
This order will automatically fax to Second Harvest Heartland @ 651-484-1064, upon signing. A member of their SNAP Outreach Staff will contact the patient using the contact information provided above.

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



KAISER PERMANENTE®

EASILY CONNECT YOUR PATIENTS TO FOOD AND NUTRITION RESOURCES

Food and nutrition are key components of ensuring optimal health.

Yet more than 16.2% of Coloradans may not know when or where they will get their next meal. Food insecurity is associated with higher incidence of: chronic diseases; diabetes, cardiovascular disease and obesity; mental illness, anxiety and depression; cognitive delays; and binge eating.

WE CAN PROVIDE A SOLUTION TOGETHER!

1. **Screen** patients for food insecurity by asking: "When 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
TOLL-FREE, STATEWIDE, MULTILINGUAL
Hours: Monday through Friday, 8:00 a.m. - 4:30 p.m.

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

- Screen and refer patients for federal nutrition programs, including SNAP/food stamps, Women, 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 requesting SNAP application information to ensure needs were met
- Connect patients to free nutrition classes
- Provide an individualized experience that's comprehensive and respectful

HUNGER FREE COLORADO
HungerFreeColorado.org /HungerFreeColorado @HungerFreeCO
Hunger Free Colorado is the state's leading anti-hunger organization leveraging the power of collaboration, system change, policy change and social change to end hunger in Colorado.

E-referral & partnership

KAISER PERMANENTE®

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

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

UMASS

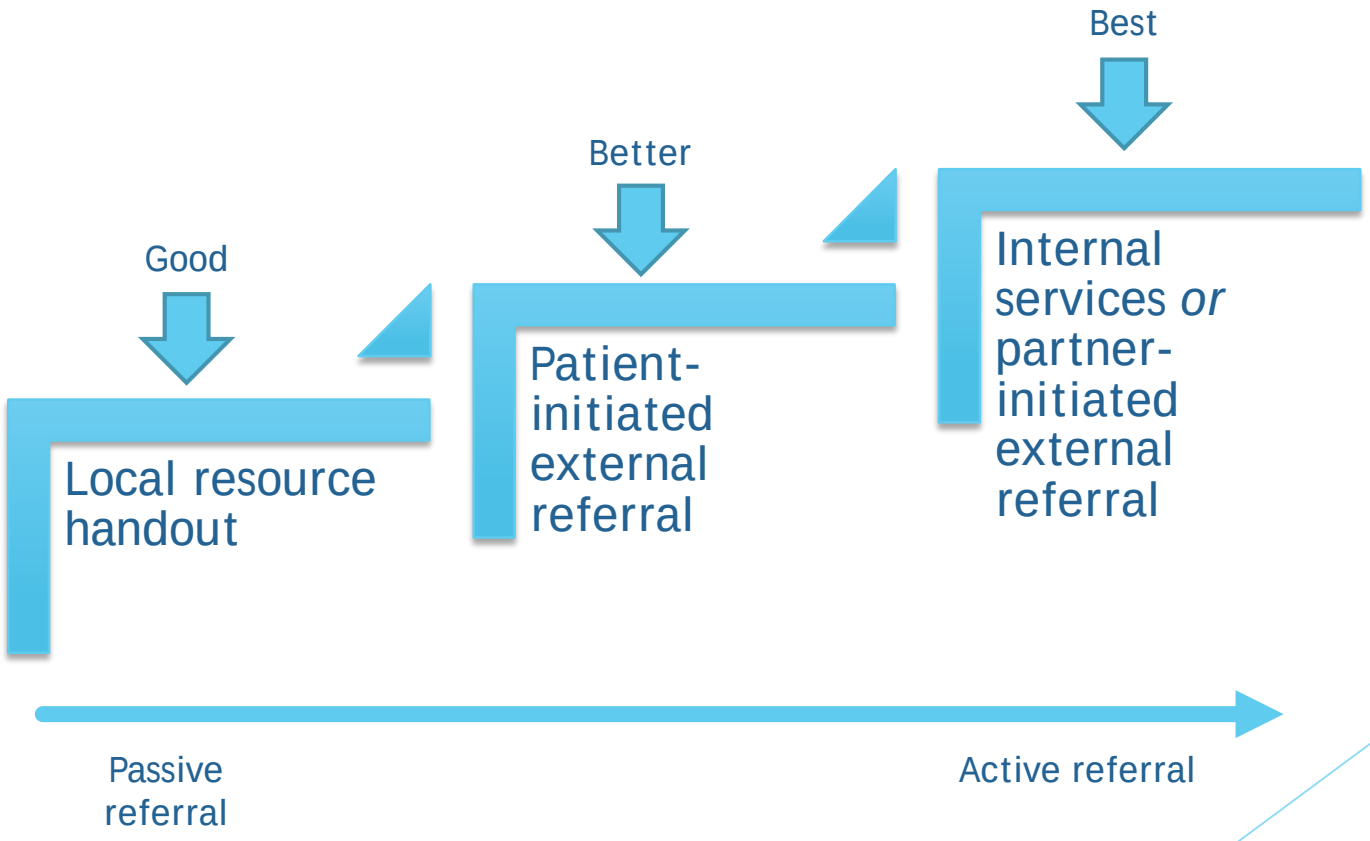
Family Health Center of Worcester

COMMUNITY HARVEST PROJECT
Volunteer Farming for Hunger Relief

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



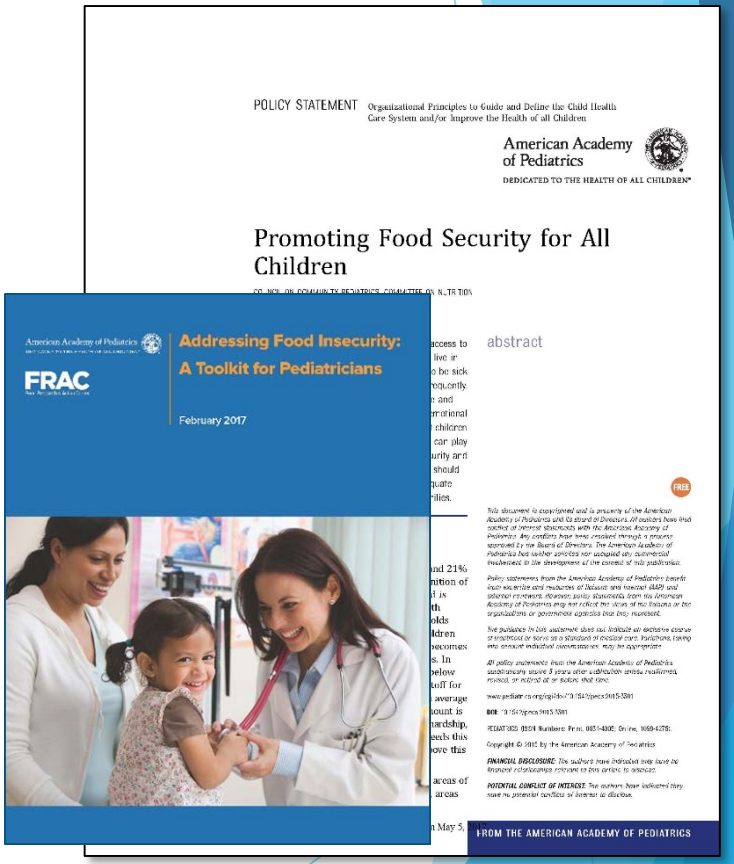
Policy Solutions

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

"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"



Whittier Street Health Center

South End Community Health Center

Hunger Vital Sign
Boston Community of Practice

Upham's Corner Health Center

Southern Jamaica Plain Health Center

CHILDREN'S HealthWatch

Hunger VitalSign™

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.

CHILDREN'S HealthWatch

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'S HealthWatch

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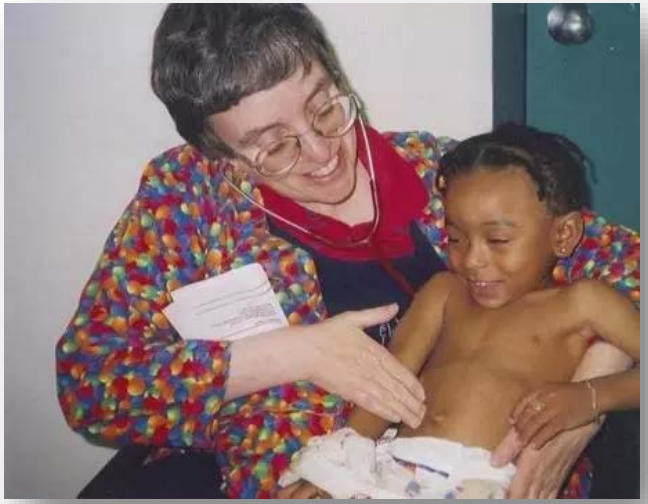
"Children thrive when we respond to their realities"



Dr. Deborah Frank with Duvon Haughton, then around three or four years old

Dr. Deborah Frank with Duvon Haughton, now an eighteen year old college freshman

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.***

CHILDREN'S HealthWatch

Contact us:
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