2022 Review of Food Insecurity Screening in Vermont Health Care Practices (Surveys Collected in October, 2022)

Additional background materials found at: VTFoodInHealth.net

Introduction:

The statewide food insecurity screening survey (performed in 2021 and 2022) was undertaken by the Vermont Food Access in Health Care consortium (FAHC) as a landscape level review of food insecurity screening practices across Vermont. This information was used to inform future projects as part of strategic planning. Members of FAHC included:

Bi-State Primary Care Association (Project Director)
Blueprint for Health
Hunger Free Vermont
Northeast Organic Farmers Association NOFA-VT
OneCare Vermont
Vermont Agency of Agriculture, Food, and Markets
Vermont Association of Hospitals & Health Systems
Vermont Department of Health
Vermont Farm to Plate
Vermont Foodbank
Vermont Program for Quality in Health Care (VPQHC)

The survey was designed to highlight questions and possibilities for future work; it should be considered exploratory and not a definitive description of Vermont food insecurity screening. For example, as discussed in Appendix B, the survey instrument changed across years as experience in program implementation suggested better ways to elicit accurate answers, so 2021 and 2022 results are not comparable. The survey participants also favored practice types named in FAHC's underlying planning grants, weighted towards federally-qualified health centers (FQHCs) and hospitals. As these practice types serve a large percent of Vermonters, represent statewide geographical coverage, and serve a higher proportion of Vermonters at risk for food insecurity, we believe this group offered a strong starting point to explore the details of social risk screening in Vermont. Lists of survey participants in 2021 and 2022, along with changes in the outreach approach between years, are found in Appendix A.

General information on community food insecurity and how health care practices serve patients at risk for food insecurity is available from multiple sources. The FAHC website collects common sources of community level food insecurity information and population health information. However, we found that this information often lacks details necessary for planning food access and health care initiatives. Evidence-based models for effective "food as medicine" integration often begin with an assumption of robust food insecurity screening systems. A 2022 report by the Social Interventions Research & Evaluation Network (SIREN) presented general shortcomings of survey level reviews of social risk screening. A 2021 report by Marydale DeBor,

of Fresh Advantage consulting, highlighted the need for reliable food security screening in her analysis of Vermont capacity for implementing Medically Tailored Meals. In 2022, FAHC spoke to concerns about better understanding reliability of screening systems in a presentation to the Hunger Vital Sign Community of Practice. This presentation discussed Centers for Medicare & Medicaid Services (CMS) recent rulemaking on social risk screening and what it might imply for research priorities, including options to measure the maturity of existing screening systems and the quality of the data produced.

The information generated by the 2021-2022 FAHC analysis of current systems both offers a better picture of what is in place today in Vermont and suggests strategies for any future analysis. The strategic planning grants that supported this and other "landscape review" analyses of Vermont systems for integrating food access in health care end in February, 2023. Future surveys will depend on both funding and need. We believe that our first set of surveys produced a large amount of information to support next steps, as highlighted in the following narrative and conclusions section.

Food Insecurity Screening Tools:

The first Vermont Food Access in Health Care Consortium (FAHC) food insecurity screening survey focused on identifying the food insecurity screening tools in use in Vermont. In particular, we wanted to know whether the Hunger Vital Sign (HVS) questions, which are becoming the standard of practice nationally, were also in common use in Vermont.

> Many screening tools incorporate the Hunger Vital Sign questions, in both pediatric and adult settings. These questions are:
>
> - "Within the past 12 months we worried whether our food would run out before we got money to buy more. Often / Sometimes / Never true."
> - " Within the past 12 months the food we bought just didn't last and we didn't have money to get more. Often / Sometimes / Never true."
>
> Answering "Often" or "Sometimes" to either question is marked as a positive response. This means the patient is at risk of scoring within the "food insecure" range of the USDA's official household food security scale and also at risk for negative health outcomes associated with household food insecurity. For more details, see the 2022 Hunger Vital Sign Explainer.

Because many different screening tools now incorporate the HVS questions, and because practices do not always use the same screening tool at every clinic location, practices do not necessarily recognize Hunger Vital Sign by that name. We designed our survey to suggest examples of possible tools in use and then identified which incorporated HVS. The only

standard tool in use for food insecurity screening in Vermont that does not incorporate HVS appears to be PRAPARE.

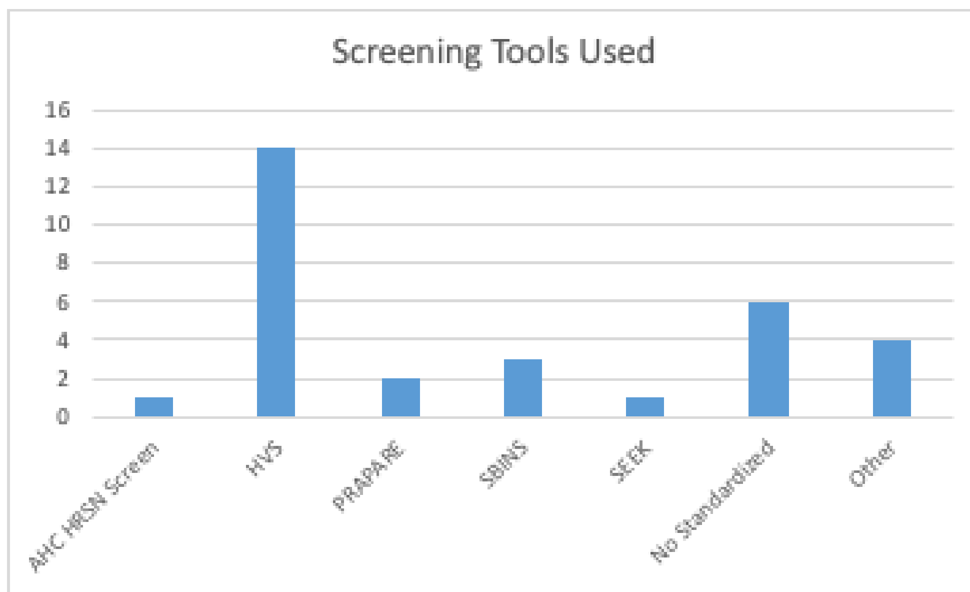
Practices have reported modifying the HVS questions, most frequently either changing the number of questions asked or changing the response to a simplified yes / no. Hunger Vital Sign research has tested both of these modifications and determined that they result in a significant margin of error. For example, in 2017 the American Journal of Public Health published an article by Drs. Diana Cutts and John Cook showing that a modification to “yes / no” as the response choices resulted in missing almost 25% of food insecure patients.

The 2022 Food Insecurity Screening Survey addressed this consistency issue by:

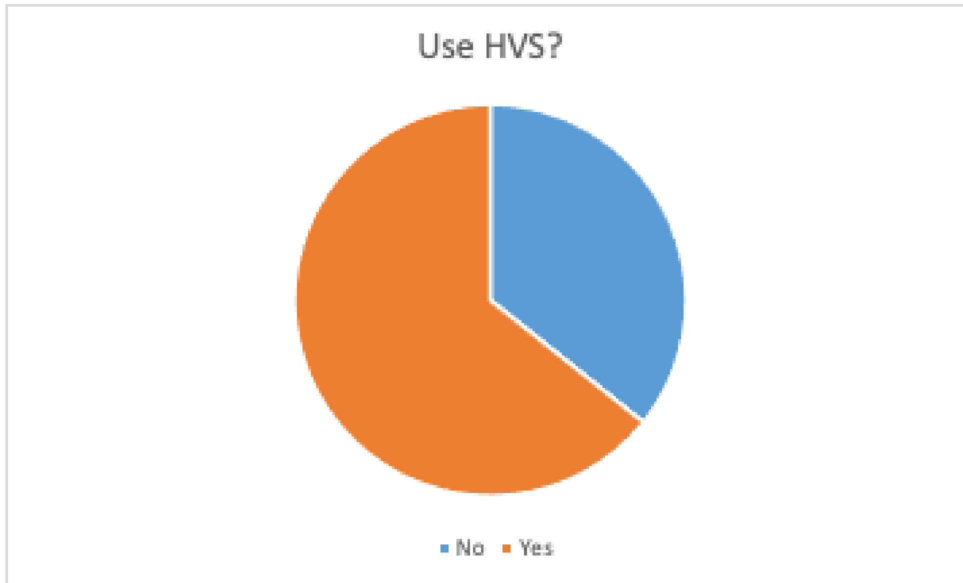
- Listing Multiple Screening Tool Options and asking respondents to select all that were relevant to the practice.
- Printing the HVS questions in full and asking respondents to verify whether these were the exact questions asked on the tool.
- Requesting that surveys either be taken by people directly involved in the screening *or* that respondents select “I don’t know” in places where they were not directly engaged in implementation. We followed up separately with practices who were unsure whether the valid HVS phrasing was used.

The 2021 and 2022 survey results both suggest that Hunger Vital Sign is the most common food insecurity screening tool in Vermont, with close to universal coverage in practices conducting systematic screening.

2022 Survey Results on Screening Tools:



(Note: Respondents could select more than one screening tool; “Other” responses included both modified versions of the listed tools and respondents unsure of the name of their tool)



In 2022, 18 respondents, or 65%, used Hunger Vital Signs unaltered (this response includes some “other” respondents from before changing to “yes”). The ‘no’ responses include 6 practices without a standardized screening system, plus 4 using a different screen - one of which used PRAPARE and the others used a modified version of HVS.

The number of practices reporting HVS use went down in 2022 due primarily to the survey adjustments to elicit a more accurate answer to whether HVS questions had been modified in any way. It is notable that in at least two instances of HVS question modification, the change happened due to an error in a national social risk screening template, it was not initiated by the practice.

Attributes of Hunger Vital Sign:

Based on comments in response to the 2021 survey and related projects, FAHC formulated a list of questions about the principles behind the Hunger Vital Sign screen and its intended use. These are found in Appendix CFrom this list, we produced an explainer series that reviews the creation of the HVS, its introduction in Vermont, and national applications. The creation of the HVS risk screening tool set a precedent for much of the current work in social risk screening. This longevity (HVS research began in 1998), along with robust continuing research around HVS use, make understanding this tool a good introduction to the broader topic of social risk screening in health care.

Hunger Vital Sign Explainer Series: vtfoodinhealth.net/hunger-vital-sign-toolkit

For the purposes of the FAHC program, HVS screening has several key attributes:

- Most common food insecurity screening tool across practice types, supporting our network approach throughout the health care system.
- Validated against a common set of food insecurity measurement tools from the U.S. Department of Agriculture (USDA).
- Use by health care and community organizations, along with correlated USDA data, creates other data sets for comparisons when assessing data quality of screening results at a particular practice.
- Commonly used to identify cohorts in "food as medicine" research, allowing for a comparison between published national results and Vermont programs.
- Has companion diagnostic tools that can move from a binary positive / negative risk measure to evaluating levels of food insecurity and impact of food interventions; can also be used alongside other clinical tools such as dietary quality assessments.
- Includes a robust research community, with a Community of Practice, and integration into other large scale research projects such as the CMS Accountable Health Communities demonstration project -- meaning that tools to support implementation are constantly updated / expanded, and FAHC has individuals we can easily contact with any questions about implementation in Vermont.

The Hunger Vital Sign Explainer Series covers extensive details about the creation of social risk screening tools. The intent is for trainers to adapt the components they wish to highlight to match the needs of their practice (or the practice they are supporting). The series is also structured in modules that make it easy to keep national information and exchange Vermont-specific components for information from other states.

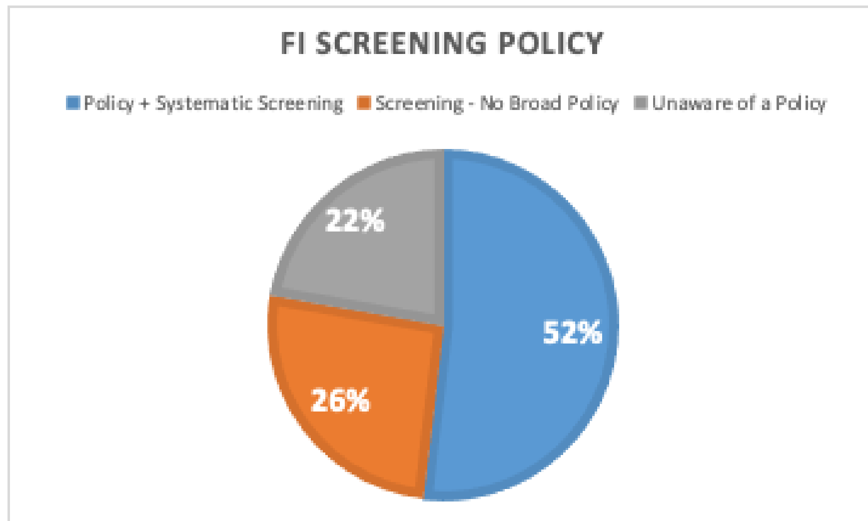
Health Care Practice Food Insecurity Screening Policies:

One shortcoming of some food insecurity screening surveys is that they identify only whether any food insecurity screening takes place. This could mean that every patient is screened at every medical visit, or that a small subgroup of patients is screened as part of referral to a particular program, or that screening is left to a provider's discretion, or something else. We determined three basic elements of food insecurity screening to track as a starting point:

- A policy is in place regarding food insecurity screening that guides when to screen patients, using what standard tool.
- Food insecurity screening is recurring.
- Data is entered into the electronic health record (EHR) in a structured way.

The prevalence of diet-related health conditions, the potential stigma associated with food insecurity, the potential for bias (including unconscious bias) in who is asked about food access, and the use of social risk screening results in population level health analysis, all support the conclusion that universal screening should be a practice goal. Nonetheless, there are many practical reasons for a health care practice to start with a particular subset of patients (pediatric

patients, patients in one clinic location, patients over a certain time period, etc.) and build from there towards broader screening. Additionally, there is a natural lag time between establishing a policy and fully implementing that policy. The survey specified that respondents should indicate their *current* status as regards food insecurity screening policy implementation.



Fourteen practices indicated a policy in place for systematically screening patients for food insecurity, seven other practices screened patients but without a broad screening policy. Six respondents were unaware of any screening policy. Anecdotally, when finding the correct person to answer the survey, several practices expressed confusion about who would set such a policy, how it would be conveyed to staff needed for implementation, and who would be tracking implementation. **Follow up to this survey could determine both what staff positions most commonly lead the establishment of social risk screening policy and also how frequently leadership on food insecurity implementation is determined by an individual's enthusiasm for the project versus an assigned task within the formal organizational structure.** Based on input surrounding this survey, the recommendation is to address the topic through practice conversations and monitoring the results of relevant Quality Improvement projects, rather than add this as a survey question. Asking an open-ended question (see example in Appendix D) could help narrow down who to speak with at practices about this question.

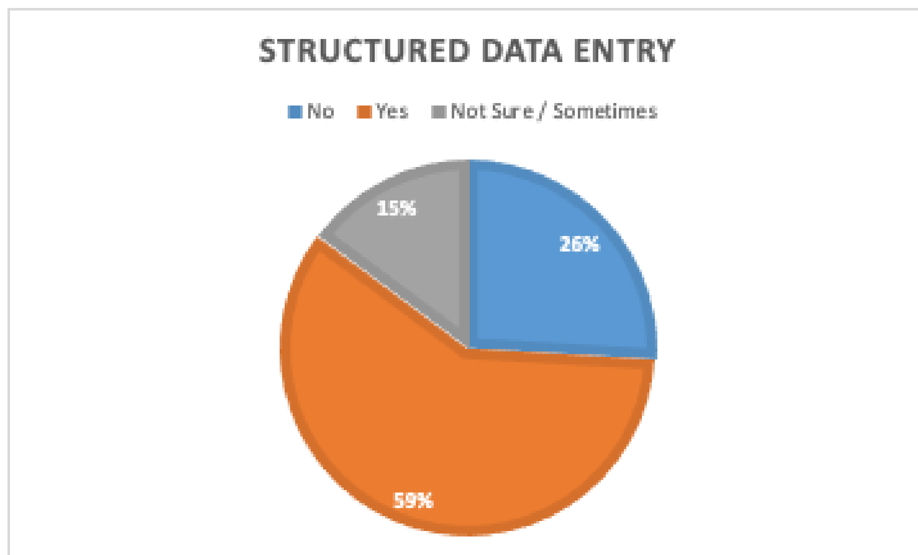
Our survey showed that every practice with a screening policy performed the screening on a recurring basis. In primary care practices, regular screening is important both to build comfort with the process (in staff and patients) and because food security status can change quickly due to any number of risk factors. Most practices that indicated a specific frequency showed annual screening. It was unclear whether "annual" meant as part of annual wellness visits / physical (which not every patient completes annually), as part of annual chart updates tied to any visit type, as part of annual updates conducted independently from a medical visit, or some other interpretation of "annual." Some practices reported more frequent screening for patients in certain risk categories, such as pregnancy, in pediatric appointments, post-ED discharge, and

for patients receiving treatment for diet-related health conditions. **Future surveys could offer a structured set of questions about frequency, future review of best practices literature could identify suggested intervals, and practices could also use internal data analysis to identify patient groups that may benefit from more frequent conversations about food insecurity and diet quality.**

Our survey also did not ask details about moving from risk screening to diagnostic screening. For example, a positive screen might trigger a follow-up with a more detailed diagnostic tool, then additional follow-ups to learn if food security levels are improving with resources offered by the practice. This scenario would offer a high level of engagement in tracking food insecurity status, but would still only appear as a single risk screen.

Some practice types offer social risk screening with more intermittent engagement, such as an emergency department or screening at inpatient admissions (discussed in the next section). One way to link this type of engagement with understanding frequency of risk screening would be in how risk screening results are communicated back to the primary care provider.

Finally, we asked about structured data entry for screening results. Changes to common electronic health record systems since 2017 make it easier to enter food insecurity screening results in designated fields, and so we anticipate increasing rates of structured data entry.



Only one health care practice answered “yes” to having a systematic food insecurity screening policy across the practice and “no” to structured EHR entry.

The 2022 survey did not address the use of standardized code sets for tracking health-related social needs, for example the ICD-10 “Z-Codes”, Gravity Project recommended code sets, or CPT (service) codes such as 96160 / 96161 for administering standardized health risk assessments. Our 2021 survey suggested sporadic use of these codes. Follow up to the 2021

survey indicated that the situation had not changed by 2022. These codes could add more detail to the binary yes / no check-off for a positive food insecurity screening result. **One particular application that could merit exploration in Vermont projects is the use of the new Z91.110 code to indicate where food access barriers interfere with patients' ability to comply with clinically indicated diet regimens**. These types of codes do not necessarily replace the simplified yes / no structure, as they may have limitations on when they can be used (for example, some codes are entered only by licensed medical providers and not by community health workers or other staff who perform SDOH screening). The FAHC advisory group discussed the question of coding and determined it was beyond the scope of our current work.

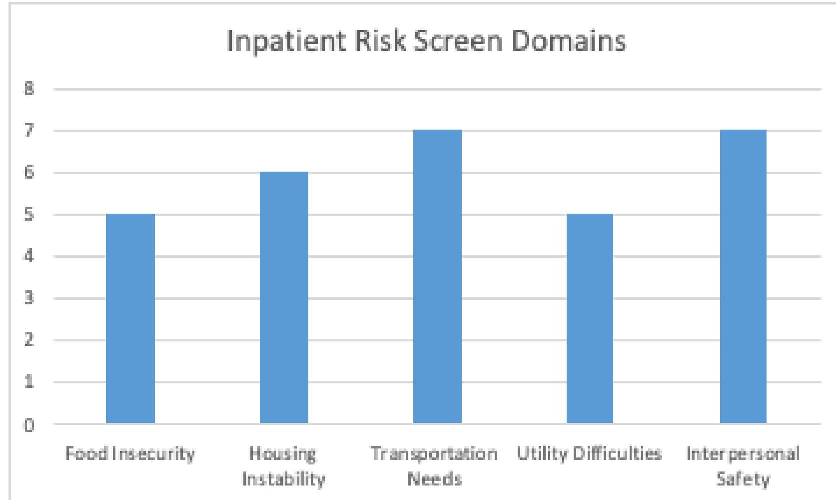
Inpatient Prospective Payment System & Food Insecurity Screening Policies:

In the FY 2023 Hospital Inpatient Prospective Payment (IPPS) Rule, CMS adds two quality measures related to SDOH screening at admission to inpatient hospital stays. These rules set a more specific definition of the type of policy that should be implemented:

> Screening for Social Drivers of Health - tracking patients admitted to an inpatient hospital stay who are 18 years or older on the date of admission and are screened for five HRSNs (Health-Related Social Needs): Food insecurity, housing instability, transportation needs, utility difficulties, and interpersonal safety.
>
> Screen Positive Rate for Social Drivers of Health - reported as 5 separate rates for each domain.

Additional elements of the rulemaking specify that screening should happen at admission when possible and the separate, but related, Global Malnutrition Composite Score (GMCS) quality measure traces a pathway of food-related risk screening and referral through from admission to the point of patient discharge.

It should be noted that this rule applies *only* to hospitals enrolled in the Inpatient Prospective Payment system (IPPS), which excludes Critical Access Hospitals. However, as CMS is pursuing a range of similar rulemaking measures around SDOH screening, we asked all responding hospitals about their current procedures.



Four hospital respondents with inpatient services meet the basic threshold of using a standardized social risk screen, entering data in a structured way in the EHR, screening as part of inpatient care, and addressing the five social risk domains identified by CMS. One of these hospitals participates in IPPS. Of the remaining hospitals, 3 IPPS-enrolled hospitals did not have the starting elements of the new quality reporting rule, and 2 did not know the answer. We did not ask whether screening happens at the time of inpatient admission or the positivity rates. We also did not correlate use of the data collected in these screens with the uses contemplated by CMS in their rule, nor did we analyze the reliability of the collected data.

Based on conversations with FAHC partners, we believe that systems are in place for implementing new CMS rules for IPPS quality reporting at the individual hospitals affected, and assisting with CMS quality compliance is outside the scope of FAHC network activity. However, the new rule offers an opportunity to better understand the process of building effective food insecurity screening systems, resource needs and timeframes for generating (and using) high quality data, and a glimpse into what might transpire in national regulatory and / or quality improvement activity for other practice types. The U.S. Department of Health and Human Services has identified the quality of SDOH data as a top goal in its action plan for addressing root causes of health disparities and advancing the current administration's health equity goals. Therefore, we expect more activity in this area in the next two years. **In November, 2022, Bi-State Primary Care Association submitted a grant proposal to continue the FAHC network activities, including a role for the Vermont Program for Quality in Health Care (VPQHC) as a coordinator in sharing lessons learned around improving the quality of food insecurity screening at health care practices**.

We anticipate that CMS rulemaking will represent a turning point for food insecurity screening, from a focus on whether the screening exists at all to a focus on the maturity of screening systems. Although the rule itself only asks for a system to be in place, the reasons CMS lists for improving SDOH data collection suggest incentives for practices to ensure the data they provide is as accurate as possible. For example, CMS' value-based payment initiatives have put increased emphasis on analyzing SDOH data as part of investment strategy and payment

design. This application requires high quality data that truly reflects the needs that health care practices can be expected to address across their attributed patient panels.

Use of Food Insecurity Information Within Practices:

One advantage of food insecurity risk screening is that it can lead to a range of next steps for patients - unlike a more targeted screen, such as eligibility for a particular program (e.g. WIC, SNAP benefits). Follow up from a positive screen could include referral to community resources, integration into treatment plans, additional diagnostic reviews, and integration into discharge plans following an inpatient stay. The available options for next steps will depend on an individual practice, making this question difficult to explore in a general survey. The 2021 food insecurity screening survey offered an open ended question for respondents to indicate how they use the results of a screen. The 2022 survey converted common answers from 2021 into structured options, as described in Appendix B.

Analysis of the structured response options is limited because they do not account for variable interpretations of the options.They do not distinguish whether a next step is for all patients screening positive or for a subset of patients who are eligible for particular programs. The question left “next step” open to interpretation as an *immediate* next step, or a string of next steps - for example, the immediate next step may be referral to care coordination, followed by a long list of possible next steps the care coordinator could take. The next steps options also did not distinguish between all available next steps and those steps that are common practice and/or specified in an underlying policy. We saw the variability of interpretation play out when practices submitted multiple survey responses that did not match each other.

The answers *did* prove useful when applied to specific questions around activities being considered by FAHC, suggesting that future surveys might benefit from a few targeted next steps questions vs. trying to capture the range of possibilities. Below are two examples of this potential application.

> Navigating Community Resource: Results from the 2021 and 2022 surveys show that the most common next step after a positive food insecurity screen is referral to a staff person who can assist a patient with navigating resources to help address food access concerns. The CMS Accountable Health Communities Model, profiled in Part 3 of our HVS Explainer Series, provides details on different structures for this referral to navigation and early results of CMS project evaluations. The 2021 and 2022 survey results suggest that it is relatively uncommon to offer patients information on community resources without also offering navigation assistance. Additional data collection work with Vermont practices in 2021-2022 suggests that we do not have reliable data on how many of the patients who are offered a referral for assistance accept the referral, how many patients receiving navigation services then complete a referral to a community resource, or structured tracking of gaps in available community or social services.

These findings have implications for the design of community resource directories intended to be used in a health care setting. More work may be done in designing referral directory structures intended for care coordinator use (vs self-referral), including embedding options for "warm hand off" direct referrals and easy tracking of the results of navigation assistance. Tracking results helps describe an individual patient's experience and, when aggregated, can point to what resources are currently missing / not meeting patient demand.

Separately, VT FAHC has also observed a need for understanding best practices in offering information in a non-guided context (for example, to patients in a waiting room or as a general outreach campaign) that can help patients self-refer to under-enrolled resources, such as in our current pilot around SNAP benefits. This work is complementary to food insecurity screening systems, it does not assume such a system is in place.

Clinician Use of Food Insecurity Information: A finding from the 2021 survey, and from later review of the existing literature, suggests a gap in tools to understand how clinicians use food insecurity screening results during their consultations with patients.

A 2021 change in CPT coding procedures for office visits creates an incentive for clinicians to use ICD-10 codes to indicate when food insecurity (and other social risks) were a relevant consideration discussed as part of medical decision making. This coding practice is not in common use in Vermont.

One very broad option to start understanding clinician engagement in the absence of coding is to review workflow data to determine if up-to-date food insecurity screening results were available to a clinician in the EHR at the time of a relevant office visit. Bi-State Primary Care is undertaking this review as part of piloting data collection related to food-based interventions for CVD risk (see description of the model here). Another broad tool is to look at how claims for Medical Nutrition Therapy intersect with patients who screen positive for food insecurity, a project that is currently in its early stages (see this report for background information). The diagnosis code for food security interference with clinical dietary recommendations (Z91.110) is another option for tracking that might be easier to implement than general SDOH coding, as it is only one code and is directly relevant to medical treatment. As food access interventions that include medical tailoring become more common in Vermont, such as Medically Tailored Meals, their use can offer another data set to help answer the clinical integration question.

The information on next steps can also indicate potential practices to participate in more detailed follow up and possible pilot projects. Ten practices indicated that "Clinicians use food security information to work with patients designing treatment plans for diet-related health conditions (e.g. diabetes, hypertension, CHF)." Within the survey, we did not ask additional questions on what data or experience survey takers used to inform this answer. We also did not ask about the *level* of clinical integration - for example, some measures indicate only sharing

printed information sheets or offering a referral, while others use a more intensive lifestyle medicine or culinary medicine approach to care. Plus, as described above, there are gaps in external data sources we could use to evaluate these answers. Interviewing the 10 practices could suggest ways to structure questions about clinical integration. Similarly, eight practices indicated that food insecurity risk screening results are used in quality improvement initiatives. These practices could offer insight into their lessons learned, such as through the VPQHC information-sharing role described in the previous section and / or be a target audience for QI support as they continue to develop this aspect of their work.

Conclusion:

The Food Insecurity Screening Systems survey project reached three key objectives

1. Providing a general sense of food insecurity screening at Vermont health care practices.

2. Providing insight into how groups might structure future surveys on food insecurity screening (see Appendices B & D).

3. Offering insight into the starting point for specific projects under consideration by FAHC. See, for example, the conclusion that Hunger Vital Sign is the standard screening tool in use, the questions in Appendix C, and the subsequent explainer series.

One underlying theme of this survey project was to develop tools for progressing beyond data that shows whether *any* screening occurs to data that provides a sense of the maturity of those systems and how they are utilized by the practice. This type of assessment includes understanding how Vermont systems match national policy trends in SDOH risk screening.

Because FAHC partners are involved in more detailed data and process review for individual health care practices' food insecurity screening, we can compare survey results with what is observed on the ground and identify inherent limitations in the survey-based approach. Some of these limitations are highlighted in the report narrative above. General surveys may not be appropriate on their own for gaining insight into the quality of data produced through screening or tracing the exact application of food insecurity screening in individual practice goals for improving quality of patient care.

A literature review and interviews with researchers in social risk screening did not identify any existing tools for measuring the relative maturity of food insecurity screening systems in a health care practice.

The results of the 2021 - 2022 food insecurity screening systems survey work suggest:

1. There is value in supplementing other data sources with a targeted survey on key elements of food insecurity screening.

2. Broad surveys should be seen as complements to other methods of gathering more detailed information.

3. Surveys that ask targeted questions related to potential FAHC (and other) initiatives can identify practices who are potential participants and practices where follow-up conversations could provide useful insight into details of screening implementation.

4. More work is needed to identify *who* at a given practice is the best respondent to food insecurity screening surveys.

Appendix D provides an example of how future food insecurity screening systems surveys might be administered to provide core metrics.

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APPENDIX A: Groups Participating in the Food Insecurity Screening Systems Survey

In 2022, VT FAHC continued the 2021 decision to circulate the survey only among health care practices and to focus follow-up for responses on hospitals and federally-qualified health centers. This focus reflects the use of the results in the context of strategic planning grants that have a similar focus. However, we recognize many other organizations use these screening tools. We had previously identified a potential next step of a more focused follow-up with independent primary care providers, and this survey incorporates some preliminary answers from that group. We had also contemplated expanding circulation to include health professionals working with older Vermonters and Designated Agencies.

Anecdotally, we also have identified some confusion around food insecurity screening, diagnostic tools, and project evaluation tools for food access organizations that partner with health care practices. The initial response to this identified area of work was to collect common project evaluation structures used in these types of food access projects nationally, posted here. We may decide that a survey designed for community partners should be added in future years.

Appendix D suggests potential future modifications by practice / organization type.

Respondents to 2022 Food Insecurity Screening Survey:

Avery Wood MD llc
Battenkill Valley Health Center
Brattleboro Internal Medicine (BMH)
Central Vermont Medical Center
Community Health Centers of Burlington
Community Health of Rutland Region
Copley Hospital
Dartmouth Health
Dr. Seyferth's Office
Gifford Health Care
Green Mountain Pediatrics
Lamoille Health Partners
Little Rivers Health Care
MAH Pediatric Clinic
Mountain Health Center

Mt Ascutney Pediatrics/OHC
Northern Counties Health Care
Northern Tier Center for Health
Northwestern Medical Center
NVRH - Kingdom Internal Medicine, Corner Medical, St. Johnsbury Pediatrics
Porter Hospital
Primary Care Health Partners - Brattleboro Primary Care, Mt Anthony Primary Care, St Albans Primary Care, Timber Lane Pediatrics, Monarch Maples Pediatrics, Plattsburgh Primary Care Pediatrics
Rutland Regional Medical Center
Southwestern Vermont Health Care
The Health Center
UVM Medical Center
VA Medical Center

Respondents to 2021 Food Insecurity Screening Survey:

Caledonia Home Health
Community Health Centers of Burlington
Community Health Centers of the Rutland Region
Copley Hospital
Dartmouth-Hitchcock Medical Center
Gifford Health Care
Grace Cottage Hospital
Lamoille Health Partners
Little Rivers Health Care
Mountain Health Center
Northern Counties Health Care
Northwestern Medical Center
NOTCH
NVRH - Primary Care Practices and Community Connections
Porter Medical Center
Rutland Regional Medical Center - Transitional Care Program
Southwestern Vermont Medical Center
Springfield Hospital
Springfield Medical Care Systems (now: North Star Health)
Stowe Natural Family Wellness
Thomas Chittenden
UVM Children's Hospital
UVM Health Network

APPENDIX B: 2022 Food Insecurity Survey Questions

Introduction: The purpose of this survey is to understand the general landscape of food insecurity screening and referral at health care practices, and to guide development of future tools to assist in screening work. For an example of a project built from previous surveys, visit our Hunger Vital Sign Explainer Series: https://www.vtfoodinhealth.net/hunger-vital-sign-toolkit

Please answer the following questions with practices CURRENTLY in place at your health care practice. We know that many practices are in the process of changing or expanding policies, and are trying to get a snapshot in time of what is happening on the ground today.

> *The survey goal is to understand systems in place throughout the health care practice, not the practices of a single survey-taker. A related challenge was to identify the person at a practice who would both be aware of the policy on paper and connected to policy implementation on the ground. We took a step in that direction in 2022 by encouraging practice networks to both answer for the network and also solicit answers for each member. We also emphasized current practice to minimize responses that reflect new or aspirational policies. Our internal outreach notes include considerations for who to contact in future years.*

Organization for which you are answering (if you are answering for a network where not all locations conduct FI screening, please enter the specific locations / departments that do the screening).

> *When collating answers, we combined responses from the same practice - unless the responses were clearly contradictory, in which case we followed up to clarify. We note in the review of response where practice-based interviews and other projects suggest different perspectives across different staff roles.*

States Served (check all that apply) -- Vermont | New Hampshire | New York | Massachusetts

> *As states begin to use 1115 waiver flexibilities to implement projects around food insecurity screening and referral, we wanted to begin collecting this information.*

Best Contact information if we have follow up questions / need clarification

In future years, question should add clarification that results will be published in aggregate only, not attributed to specific practices, and add one space for name and another for e-mail.

What tool do you use for Food Insecurity Screening? (Check all that apply)

Options: Hunger Vital Sign | Accountable Health Communities HRSN Screen (CMS) | SBINS (Vermont Tool) | PRAPARE | Health Leads Screening | WE-CARE | SEEK (Pediatric) | No Standardized Screener | Other (with option to specify)

Prior research produced the list of most common screeners and also identified which tools state that they incorporate HVS questions.

Many screening tools incorporate the Hunger Vital Sign questions. These questions are:
- "Within the past 12 months we worried whether our food would run out before we got money to buy more. Often / Sometimes / Never true."
- " Within the past 12 months the food we bought just didn't last and we didn't have money to get more. Often / Sometimes / Never true."

Are these questions part of the tool you use? (If you have modified these questions in any way, please select "No" below - even if you chose "Hunger Vital Sign" in the previous question).

Options: Yes | No | Don't Know

We added this question <u>after</u> the initial tool selection and specifically requested respondents to indicate if this phrasing did not match a tool's phrasing even if it was labeled "Hunger Vital Sign." This question also helps establish for respondents who choose a "modified" version of one of the standard screens whether the HVS questions were part of the modification.

Which statement most closely describes your health practice's policy on screening patients for food insecurity? (The next question provides a space to add details / clarifications)

- A policy exists and we systematically screen patients for food insecurity
- A temporary policy exists for food insecurity screening (for example, a pilot project or research project)
- A policy exists but the screening is not recurring (for example, only for new patient intake)
- A policy exists but is not fully implemented at all clinic sites
- We screen patients but have no policy outlining when to screen at this time
- I am unaware of a food insecurity screening policy

- Other

  The response options on this question correspond to feedback from the 2021 survey and subsequent projects. The tabulated results can reflect multiple answers due to combining multiple responses from the same practice. A recommended change in future years would be to adjust the not-recurring bullet to provide the example of "for example, as part of eligibility to enroll in a specific program" - responses indicating this in the comments were adjusted.

If applicable, please briefly describe your screening policy below. For example: all new patients at intake; all patients at their annual wellness visit; screening only at pediatric clinics; screening only patients at risk for diabetes, etc.

Repeated question from 2021.

Are the screening results entered in the Electronic Health Record in a structured way? For the purposes of this question, "structured" does **not** include free text notes.

Options: Yes | No | Sometimes | Not Sure / Not Applicable / Other

VT FAHC had access to EHR data that would allow us to review the reliability of data entered for practices indicating "yes". Other applications of this survey might wish to offer more of a Likert scale to gain a sense of the respondent's confidence in the data entry. Also of note to EHR review - we found changes in some systems auto-populate with HVS questions for patient visits, assigning a date to a screening even if the questions were not asked. We adjust by filtering out dates with no corresponding HVS data.

What are the next steps for the results of food insecurity screening at your health care practice? (Check all that apply)

- Patient offered in-person navigation assistance with finding food assistance (e.g. meeting with care coordinator, community health worker, social worker)
- Patient offered in-person assistance if additional conditions are met (e.g.positive food insecurity screen plus enrolled in care management)
- Patient provided informational resources on where to find food assistance (e.g. pamphlet, 2-1-1 etc.) but no in-person navigation assistance
- Patient offered food in an onsite program managed by our health care practice
- Patient offered assistance in enrolling in federal nutrition programs (e.g. SNAP, WIC, school lunches, Meals on Wheels)
- Clinicians use food security information to work with patient designing treatment plans for diet-related health conditions (e.g. diabetes, hypertension, CHF)
- Additional screening related to nutrition security (e.g. dietary quality survey)

- Screening for additional social risks (e.g. transportation barriers, housing instability)
- Data on screening results used in planning community health projects / partnerships
- Data on screening is reviewed as part of quality improvement and we adjust our approach as needed to improve engagement, referrals, and accuracy of the screen
- Other

The questions listed here reflect the open answers from previous surveys. One point of confusion in survey takers was how far "next steps" went - some answered for the immediate next step (ie care coordinator referral) and others offered the range of possible responses (including what a care coordinator might then offer). As discussed in the analysis of results, it will likely be more useful in future surveys to structure this question around particular projects or policy questions (examples provided in analysis).

Question for Hospitals (all others skip): During an inpatient hospital stay, are patients over the age of 18 screened for the following social risk factors. Please check all that apply.

- Food Insecurity
- Housing Instability
- Transportation Needs
- Utility Difficulties
- Interpersonal Safety
- Not Applicable to My Health Care Practice
- Don't Know

This question responds directly to recent CMS Hospital Inpatient Quality Reporting guidance. To simplify for the survey taker, we did not ask whether the hospital participated in the IPPS system, if screening took place at admission, and if the hospital tracked the rate of patients with a positive screen on any of the social risks. The analysis of responses discusses this question further.

Thank you for answering this survey! We've left an empty box for any additional thoughts on food insecurity screening.

APPENDIX C: Questions for Hunger Vital Sign Explainer Interviews

Primary Audience: Health care organizations working to implement and/or improve the use of the Hunger Vital Sign tool & technical assistance providers who are helping them.

Secondary Audience: Policy makers and advocates who need detailed knowledge of screening tools to help them design an effective response to health-related social needs.

Format:

- Mixed audio-explainers, written summaries, and links to supporting resources, arranged into discrete learning modules.
- Combination of national level structure and local implementation.
- Intended to be re-purposed by organizations to address questions they need answered.

NATIONAL - Richard Sheward, Children's HealthWatch

Origins of the Hunger Vital Sign:

- What was the goal of creating Hunger Vital Sign / what problem did it respond to?
- How is it intended to be used by health care practices?
- What are some of the results you've seen over the last 10+ years?
- What are benefits you hope to see in the future / opportunities we should be thinking about?

Developing the Tool:

- Background on how social risk screening tools in general get developed
  - I think we're going to have to define "sensitivity", "specificity" and "convergent validity" so that people who want to look at journal articles don't get tripped up by the vocabulary.
- Who developed this tool and what was the process?
- What everyone wants to know:
  - Why are there two questions? What happens if you ask just one?
  - Do you really have to say often / sometimes / never then convert that to a positive/negative result, can't you just ask true / false?
- There's a Community of Practice around the HVS tool that continues to explore its use and applications, comments on that group and examples of research that's ongoing?
  - How do you check if the results seen in the initial studies are being replicated as new practices adopt the tool?
  - Are there projects that expand the tool / apply it to different purposes, such as measuring diet quality.

What Does it Mean to be Validated to the USDA Food Security Survey Module?

- Explain the USDA measurement tool and why it's important
- To what degree does the USDA tool, and the HVS, reflect not just food quantity available in the household, but also diet quality?
- USDA does not use its own food insecurity tool to determine eligibility for programs like SNAP, it uses income levels. Can you explain how this works?
    - Implications for health care practices using HVS as part of referral to assistance with enrolling in federal nutrition programs?
- Do other health-related social needs - housing, transportation, etc. - have a "gold standard" measurement tool comparable to the USDA Food Insecurity measure?
    - Accountable Health Communities interview also addresses this.

What Does Clinical Validation Mean?

- Clinical impacts of a poor diet may not be apparent for years, and with the pediatric population which was the initial focus it could be decades, how did the process of tool design account for this?
- What about patients who already show clinical indicators of diet-related conditions - how does this tool help those patients / how is it utilized by clinicians?
- Can you give examples of how the HVS screening is used in concert with more detailed tools that a licensed provider like an RD might employ to assess diet quality and plan diet-based health interventions?

There are validated tools & there are standardized tools . . . and those are not synonyms

- When we talk about a standardized tool for measuring food insecurity - what does that mean? When does a tool reach a point where it's considered "standard"?
- Why do we want that?
- Let's explore some milestones on HVS' path:
    - Endorsements - for example by American Academy of Pediatrics
    - CMS' Accountable Health Communities pilot
        - This will probably need a definition of CMMI / CMMI's role in health policy
    - Integration into Epic / EHRs
    - What are some missing pieces that would make this standard?
- One side effect of the winding path towards standardization is that it can become a game of telephone - and with a wording as precise as HVS we know that it begins to morph. What are the effects of those small changes along the way? What do we know about margin of error? What are some responses?
- Hunger Vital Sign was developed as a tool for one risk factor. Other programs have started with tools designed to screen for a range of factors, for example PRAPARE. What went into the decision to begin with a food insecurity focus?
- HVS also appears as one part of tools that bundle other screening instruments for other considerations, like housing insecurity. How is that accomplished? Are the HVS researchers involved in another round of validation? Is there a process to gain permission or. . . ?

STATE - Katy Davis, Hunger Free Vermont

Introducing Hunger Free Vermont

- What is Hunger Free Vermont / what does your organization do?
- An important distinction to make here - in the world of food access in Vermont there are different types of programs. The overall goal is a state full of abundant food for everyone, and towards that goal a first choice is to not have any restrictions placed on access, an open door and no questions asked. Sometimes HVS is interpreted as a limiting factor for eligibility. The intent of HVS is the opposite of restricting access – the intent is to help everyone find out about options. Plus, in health care, there's a goal of highly *personalized* care, where attention is paid to the individual, their particular risks / needs / goals, and developing a trusted relationship over time with a provider. This is sometimes a disconnect in philosophy and also a pragmatic disconnect for tracking how patients are accessing food resources (and what gaps might exist). How does Hunger Free Vermont navigate this potential disconnect?
- Why did HFVT get involved in helping implement FI screening in Vermont?
    - Goal of not leaving any federal money on the table for supporting food access in Vermont, which meant you were looking for ways to reach everyone who might qualify
    - Standardization - ie having questions that are normal for everyone to be asked as part of checking in on health factors - reduces stigma
    - Having a set policy for screening and good data protocols removes bias - and also reflects the fact that circumstances can change quickly, so information needs to be regularly updated.
    - Collecting "real time" data from screening, not waiting for the USDA survey cycle, allows organizations and policymakers to be more responsive to changing community needs.

Why Health Professionals as a Focus?

- What types of health organizations do HFVT work with and when did HFVT start seeking out collaborations with this sector?
    - Examples of the types of projects (not just FI screening)
- From the perspective of a Vermont anti-hunger organization - what makes the health care setting an important place to implement FI screening?
- Where do you see key opportunities to expand these collaborations around FI screening?

Why Hunger Vital Sign as the Screening Tool?

- Walk through the steps of selecting a tool / building a partnership
- Is it common for organizations like Hunger Free Vermont, with an ending hunger mission, to be involved in HVS implementation? Is this happening in other parts of the

country? Do you all chat about it at national conferences / does it work its way into national advocacy platforms?

  - And if not - should it be?

- How do community groups like HFVT engage in the evolving research agenda around these screening tools?
  - For example, the role grassroots organizations play in helping bring the perspective of community members and the people implementing the tool into the dialogue, keeping it rooted in real world outcomes.

You are not a doctor. Neither am I.

- Hunger Free Vermont is a hunger focused organization, not a health care focused one. Can you talk a bit about the role you play / the perspectives and skills you bring to collaborations with health care practices?
- What is the feedback from practices on the value of those perspectives?
- There are a lot of technical elements as part of SDOH screening too - designing workflows for screening, data entry protocols, care team structures, quality improvement. . . and many of them are specific to each organization. How do you engage with that side of things? How do practices handle it? How great of a challenge are those parts?

Setting The Stage for Success *aka* Learning from Other Peoples' Mistakes:

- How do you measure success and/or observe signs of progress towards those goals when working with individual organizations?
- In the time you've worked with health professionals on FI screening, have you noticed some common strengths / actions that help the process be successful?
  - The intended audience is people who are already committed to implementing the screening system, so we don't need to focus as much on the questions of evaluating whether to undertake the project – more how to make it successful after that's been decided.
- What are some common challenges encountered along the way and how have you seen organizations address them?
- HFVT looks for systemic changes in Vermont. Stepping back from the examples of the health organizations you work with, what overall trends do you see in Vermont? What has changed statewide in the time you've been doing this work?
- Any final comments. Hopes and dreams for the future. Etc.

MULTI-DOMAIN SCREENS – Katherine Verlander, CMS Innovation Center

- Definitions of SDOH, Social Risks, and Health-Related Social Needs

Basic Background:

- What is CMS?

- What is the purpose of the CMS Innovation Center? What is a model / demonstration project?
- What is the final evaluation and how is that used? (Generic question, the evaluation for the AHC Model is the next section)
- Can you give examples of previous successful models?

Basics of the Accountable Health Communities Model:

- There are Accountable Health Communities and Accountable Communities for Health, this seems confusing?
- What were the goals of AHC?
- How was the project structured (ie what did participants do)? Key elements to explain:
    - Alignment Track, Navigation to Services, Service Referral, Bridge Organization
    - Something to be clear on: this is screening *and* connection to services, there was no option that was screening-only.
- What have been the primary lessons to date?
- What are you hoping to learn in the final evaluation?

Details of the Screening Tool:

- What attributes was AHC looking for in a screening tool?
- How were the domains for screening chosen?
    - Discussion of balancing common core metrics with the need to be certain that there are services available for referral.
- How were specific questions chosen?
- How was the screening tool implemented?
    - Range of approaches used in implementing, and different between different practice or clinic environments
    - More details on the Bridge Organization role
    - How was it integrated with existing staff resources, need for staff expansion

Next Steps:

- The Model project period is up (2016 – 2022) – what happens next?
- Materials currently available from CMS and how they might be used.
    - Including details on the screening guide.
- How will the projects started in this program continue / are they continuing?
- Even if the evaluation doesn't meet the CMS actuary standard of success for making regulatory / reimbursement changes, in what ways has it been successful in generating new insights? Lessons that are useful for policymakers? Health care practices?

Appendix D: Example of Possible Future Survey Design

Sample Audience for Survey

Results from previous surveys suggest it might be helpful to distinguish between respondents who are: primary care practices | emergency departments | inpatient services | specialty care providers directly involved in diet-related conditions (such as Registered Dietitian). The same basic survey can be used for each type, but the "frequency of screening / updating" section would need to be modified to reflect different models of patient engagement.

The sample survey below reflects a primary care audience. Examples of modifications for other audience might include an open ended question beginning to identify next steps used by ED screeners, specific process questions on how inpatient health services track patient nutrition security from admission through discharge procedures, and how RDs use food insecurity screening in complement to nutrition diagnostics & communicate with referring PCPs.

To reach more primary care practices, future survey outreach could target federally-qualified health centers, hospital-owned primary care practices, large independent practices that have previously responded (see Appendix A) and/or participate in the statewide ACO, and designated patient-centered medical homes. The survey timing could be designed to coincide with opportunities to collect PCMH information, such as with any planned conferences or trainings. This approach weights the sample towards practices more likely to conduct food insecurity screening. This bias is intentional. The survey tool is designed to gather details from practices interested in developing mature food insecurity screening systems, not to measure whether any level of screening has been initiated (as discussed in the report narrative, there are other options for collecting that basic information).

Sample Survey (Draft Form)

Introduction: The purpose of this survey is to understand the general landscape of food insecurity screening and referral at health care practices, and to guide development of future tools to assist in screening work. The focus of this version of the survey is on primary care practices.

Please answer the following questions with practices CURRENTLY in place at your health care organization. We are trying to get a snapshot in time of what is happening on the ground today.

Organization for which you are answering. If you are answering for a network with different practice types, please indicate all primary care practices represented:

Best Contact information if we have follow up questions / need clarification

Name:
Position at Practice:
E-mail:

What tool do you use for Food Insecurity Screening? (Check all that apply)

Options: Hunger Vital Sign | Accountable Health Communities HRSN Screen (CMS) | SBINS (Vermont Tool) | PRAPARE | Health Leads Screening | WE-CARE | SEEK (Pediatric) | No Standardized Screener | Other (with option to specify)

Many screening tools incorporate the Hunger Vital Sign questions. These questions are:

- "Within the past 12 months we worried whether our food would run out before we got money to buy more. Often / Sometimes / Never true."
- " Within the past 12 months the food we bought just didn't last and we didn't have money to get more. Often / Sometimes / Never true."

Are these questions part of the tool you use? (If you have modified these questions in any way, please select "No" below - even if you chose "Hunger Vital Sign" in the previous question).

Options: Yes | No | Don't Know

Which statement most closely describes your health practice's policy on screening patients for food insecurity?

- A policy exists and we systematically screen patients for food insecurity
- A temporary policy exists for food insecurity screening (for example, a pilot project or research project)
- A policy exists but the screening is not recurring (for example, only for new patient intake)
- A policy exists but is not fully implemented at all clinic sites
- We screen patients but have no policy outlining when to screen at this time
- I am unaware of a food insecurity screening policy
- None of the Above (Please Indicate Alternate Answer in Following Question)

If None of the Above was selected in the previous question, please enter alternate answer:

Who manages Social Risk Screening Policies at your practice? (If you don't know, enter "Don't Know"; if there is no one staff position or committee charged with this work, please indicate "Unassigned")

Please indicate when food insecurity risk information is updated for patients (check all that apply) - Answer based on policy for screening systems as currently implemented:

- No Policy On Frequency of Food Insecurity Screening
- New Patient Intake
- Annual Wellness Visit / Physical
- Annually - Updated at Office Visit (not necessarily AWV)
- Annually - Not Tied to Office Visit
- Updated at Pediatric Wellness Visits
- Following Care Coordination Referral for Social Risk Factors (other than food insecurity)
- Following New Diagnosis of Diet Related Condition / Pre-Condition / Clinical Risk Factor
- Screening Results Received After Inpatient Discharge
- Screening Results Received After ED Discharge
- Screening Results Received from Other External Source (see next question)
- Linked to Visit Type Not Listed Above (see next question)

Please enter additional screening procedures / sources of updated information used by your practice here:

How are the screening results entered in the Electronic Health Record? For the purposes of this question, free text notes are classified as “no common procedure”.

> Options: Consistently Entered in Structured Format | Often Entered, Some Gaps | In Process of Standardizing Across Locations / Providers | Inconsistently Entered | No Common Procedure | Not Sure / Not Applicable

Are food insecurity risk screening results a standard data field offered by your EHR vendor?

> Options: Yes | No | Don’t Know

What EHR do you use?

Example of ‘next steps’ question specific to project being contemplated by FAHC: Does your practice use ICD-10 code Z91.110 (Patient's noncompliance with dietary regimen due to financial hardship)?

> Options: Yes, consistently | Yes, on a trial basis or only for some providers | Aware of code, but not currently using | No | Don’t Know / Not Familiar with Coding Practices |