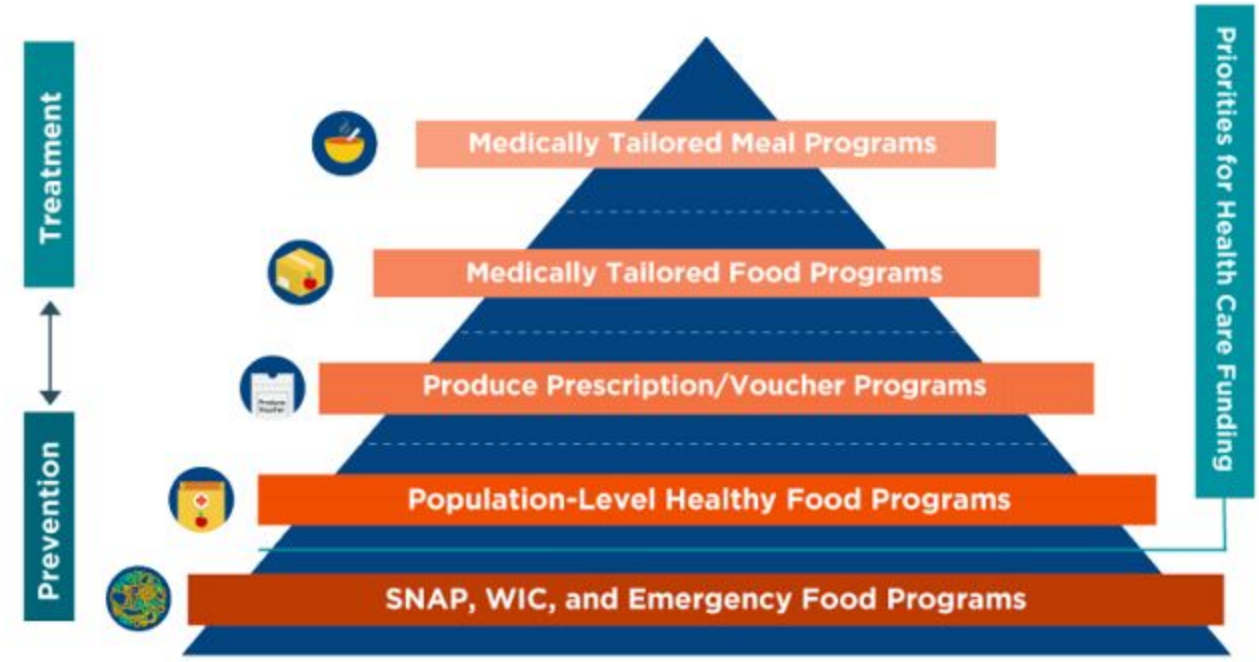
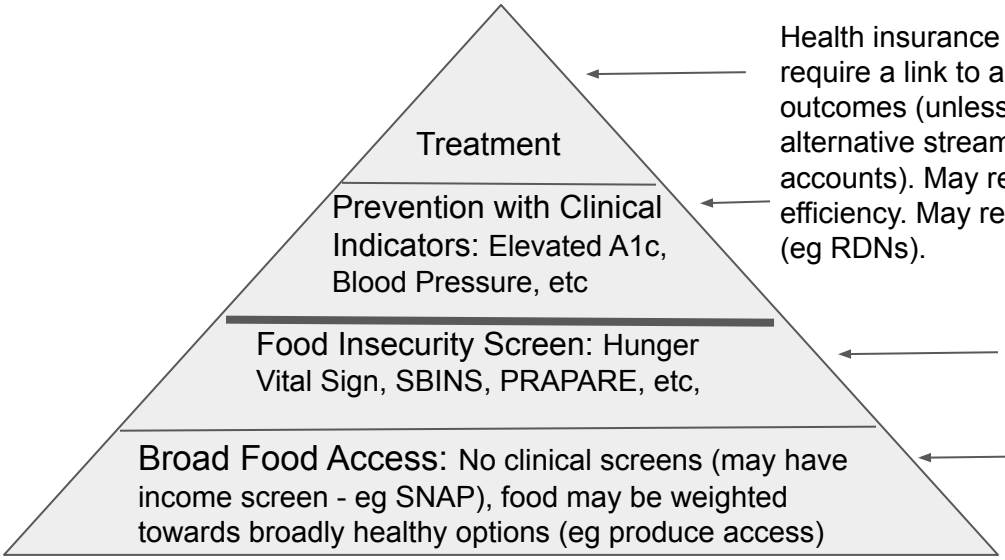
Linking Food-Based Health Care Interventions to Individual Patient Results:

Integrating food access into health care includes a variety of different program designs. These range from working with community partners to make healthy food abundantly available to everyone through to highly-individualized treatment plans with Medically Tailored Meals. Many people are familiar with the food and health pyramid that maps this range (this version is taken from the Massachusetts Food is Medicine State Plan).



We can also think about a related pyramid that maps how closely interventions are linked to an individual's health outcomes. The level of individual tailoring has implications both for the health care system support needed and for funding / reimbursement:

Level of Tailoring to Individual



Health insurance funded programs usually require a link to an individual's health outcomes (unless they're funded from alternative streams, such as population health accounts). May require demonstrated cost efficiency. May require certain licensure level (eg RDNs).

Health care funded programs usually require a screen to demonstrate need (financial & medical) for food provided.

USDA Programs (SNAP, Produce Prescription, School Food), State, Philanthropic.

Note: Nutrition and food education components are found in each level, but are not listed in each level to save space.

Building Connections to Individual Patients' Health Plans:

The following resources address the mechanics of linking food interventions to individual patients' health records - moving from the observation that food interventions make a difference *overall* in good health to understanding how / if they are making a difference for an individual patient.

A closely related topic is complex care management and care coordination, which is broader than what is discussed below and beyond the scope of this handout. Similarly, this handout does not go into detail on how these connections then translate to coding to support reimbursement for food as a covered health benefit, although that is another application of this work.

The resources listed on the following page connect to four general steps:

Food Insecurity Screening:	Screening that uses a methodology validated against both food insecurity research and clinical outcomes, with results entered into the patient's medical record. Sometimes it is appropriate to use more than a basic food insecurity screen - as noted on the next page.
Closed Loop Referrals:	A closed loop referral system allows a health care provider to refer a patient to food assistance at a different organization, and to communicate information to know if a patient followed up and participates in the program.
Tracking Dietary Change:	Changes in diet reflect the impact of a food-based program and are leading indicators ahead of clinical measures. This measure also helps equalize across different types of food programs as they work towards a common goal of dietary change.
Tracking Clinical Indicators:	These indicators are linked to the health goals set by a patient and provider. They track progress and also suggest when the treatment plan might need to be modified or supplemented by other changes, such as medication adjustments.

Not every one of these steps needs to take place at the health care practice or from a health care provider. For example, community-based organizations providing food access may be monitoring food provided, food consumed, and their clients' reported impact on diet. In some cases a third party organization will manage and facilitate closed loop referrals between health care practices and social service organizations / community based organizations to collectively address health-related social needs. Sometimes the food insecurity screening happens externally, for example child care providers or Area Agencies on Aging, who then refer their clients back to their primary care provider for follow up.

What distinguishes this process from other data collection around food and health is that it links a specific patient's health status and health goals to a food-based intervention, and tracks results at least through completion of that food program.

Resources for More Information:

The following resources provide details, templates, case studies, and tools related to tracking the impact of food interventions prescribed by health care professionals. These links are intended for background purposes only. Individual health care practices will have their own approaches to this work that may differ from these examples.

Hunger Vital Sign:

For background on food insecurity screening tools, see this page. The 2-question Hunger Vital Sign screen has been validated for both accurately identifying patients with food insecurity (a term defined by the USDA) and correlation with the negative clinical outcomes other studies have linked to food insecurity.

Integrating FI Screening in Practice:

There are many resources for integrating food insecurity screening into a health care practice, here are three commonly referenced options: A Toolkit for Pediatricians (from FRAC and the AAP, 2017); Health IT & Food Insecurity (from HITEQ, 2018); SBINS planning guide (includes Hunger Vital Sign as part of the larger screening tool, 2018).

Nutrition & Diet Screening:

There is no one standard for rapid nutrition assessments. The NIH provides this collection of registered diet assessments and overview of the Healthy Eating Index (tied to U.S. Dietary Guidelines), the Academy of Nutrition & Dietetics produced this report on screening tools for malnutrition / undernutrition (2018), the American Heart Association reviewed rapid assessment tools for a clinical setting (2020). See also SNAP-ED & EFNEP tools and culinary medicine tools such as Mediterranean Diet assessment (plus global variations, linked to using whole ingredients and reducing highly processed foods).

Diagnosis Codes & Other Coding:

A set of ICD-10-CM codes exist that allow health care practices to code for SDOH-related diagnoses. For more coding information, the Gravity Project is a national collaborative developing consensus-based standards for documenting SDOH data.

From Screening to Referral:

Social risks (whether a patient is at risk for food insecurity) don't always equal social need (whether a patient desires assistance). It is important to track whether screening leads to a referral. See the Awareness discussion series hosted by SIREN for more on this topic (based on this 2019 National Academy of Sciences, Engineering & Medicine report on integrating social services into health care).

From Referral to Participation:

Knowing whether patients complete a food-access referral often requires communication with an external community partner. For the basics of a HIPAA-compliant referral system with a community food organization, see this 2020 report from CHLPI at Harvard Law. For a landscape of referral platforms see this 2019 SIREN report. Care management platforms, such as Care Navigator, can also include this capability.

Change in Diet:

Dietary change may look different depending on a patient's health goals. Options include food logs, patient perceptions of eating well, food waste statistics, Healthy Vermonters metrics, the previously-linked screening tools. Food-based health care interventions often assume patient connections to nutritionists / other health care staff so that there is ongoing dialogue around dietary changes.

Change in Clinical Indicators:

Self reported dietary change doesn't always lead to change in clinical indicators, something that can be tracked in the EHR. To explore where other health care practices have seen the greatest response to food-based interventions, check the resources on our Data & Measurement page.