ALL IN ALAMEDA COUNTY
the new war on poverty

Rooting Food As Medicine in Healthcare

A Toolkit for Primary Care Clinics and other Healthcare Settings

May 2019

Contributors

This toolkit was created by representatives from three Alameda County agencies: All In Alameda County; UCSF Benioff Children's Hospital Oakland, Department of Community Health and Engagement; and the Alameda County Community Food Bank. It was co-authored by Marissa Caldwell, Kate Cheyne, Larissa Estes, Susan Greenwald, Martha Guerra-Orozco, Emma Steinberg, and June Tester, with additional contributions from Aminta Kouyate, Sawhel Maali, Aileen Suzara, and Deja Webster. Layout and design was provided by Claire Chen-Carter. This toolkit would not have been possible without the vision and leadership of Melanie Moore, the first Director of All In Alameda County.

ALAMEDA COUNTY COMMUNITY FOOD BANK

UCSF Benioff Children's Hospitals

ALL IN ALAMEDA COUNTY the new war on poverty

About All In Alameda County

All In is an initiative of the Alameda County Board of Supervisors that works to identify cross-sector strategies which direct resources towards effective, equitable and sustainable solutions that are grounded in the lived experience & well-being of people in Alameda County.

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Welcome

Wilma Chan, SUPERVISOR, THIRD DISTRICT
ALAMEDA COUNTY BOARD OF SUPERVISORS

Dear Friends:

Food is medicine. Good nutrition lays the foundation for strong, healthy lives, while inadequate nutrition can lead to chronic, diet-related disease. Yet, in the majority of primary care settings, food is not used as a preventative health or medical intervention.

Food as Medicine initiatives seek to change this. Through collaboration among community residents, schools, healthcare institutions, community-based organizations, and the private sector, patients and families gain access to the food and nutrition resources they need -- just like any other prescription medication or referral.

This toolkit, the product of key stakeholders in sustaining healthy families in Alameda County, is a guide for healthcare clinics to build their own Food as Medicine initiatives.

The basic steps are as follows:

- **IDENTIFY** the population that will be the primary beneficiaries of your initiative
- **ASSESS** your health center's current practice and key stakeholders
- **CHOOSE** a model of intervention
- **BUILD** capacity and **ENGAGE** your community
- **SECURE** funding
- **MEASURE** the impact and make adjustments as necessary.

It is our hope that this toolkit provides both the background and the resources you need for a successful Food as Medicine initiative in your clinic or healthcare setting.

We are proud to be a part of this effort and look forward to the day when Food as Medicine is an essential and routine part of our medical practice.

Sincerely,

Wilma Chan
Alameda County Supervisor
District 3

Bertram H. Lubin, MD
Emeritus Professor, Dept. of Pediatrics
UCSF Benioff Children's Hospitals
Past President and CEO
UCSF Benioff Children's Hospital, Oakland

Rooting Food As Medicine in Healthcare

A Toolkit for Primary Care Clinics and Healthcare Settings

Table of Contents

Introduction

What is Food as Medicine?

"Food as Medicine" has different meanings depending on context and audience. For some, it connotes the usage of herbs and spices for healing purposes as well as how food plays a part in traditional cultural rituals. For others, it is a means of sustaining life. Since food plays a critical role in our lives, discussions of food have become commonplace in primary care clinics and other healthcare settings. Our goal is to make it easier for healthcare providers to discuss and utilize food interventions as part of medical care. Traditionally, methods to address diet-related disease included prescription medications and patient education. A newer paradigm acknowledges the importance of community engagement and increasing access to and utilization of healthy foods in reducing the prevalence of diet-related disease.

Our definition of Food as Medicine is as follows:

Food as Medicine interventions advance health equity by transforming the healthcare system's role to increase access to, and utilization of, the best available, affordable food to improve the overall health of communities. This is achieved by bringing residents, health care institutions, county and community-based organizations, and the private sector together to build strong roots for food-secure communities.

How is a Food as Medicine initiative unique?

Hunger is a serious condition that warrants immediate attention. Efforts to ameliorate hunger are well-established, diverse, and extensive. They include long-term strategies such as Supplemental Nutrition Assistance Program (SNAP) as well as short-term relief such as emergency distributions of food bags in schools or clinics.

While Food as Medicine initiatives can also address hunger, they are more focused on the relationship between food insecurity and patient health. In addition to distributing food, these initiatives:

- Include nutrient-dense foods that are beneficial for health
- Exclude foods that do not meet a strict nutrition standard
- Integrate with medical practices that address the structural determinants of poor health
- Provide nutrition education, which may include recipes, cooking demonstrations, and information about local food resources
- Include strong community engagement in program design and implementation

Introduction

Existing resources and programs

Food as Medicine initiatives are designed to go hand-in-hand with existing nutrition resources and programs. Federal nutrition programs are among the nation's most important safety nets, and as such are critical for improving the food security, health, and well-being of children and families. Most programs are administered by the United States Department of Agriculture (USDA) and are operated by states, counties, cities and towns, schools, and/or nonprofit organizations. They have an immense impact: 19 out of 20 emergency meals do not come from the charitable food sector, but from federal aid like the Supplemental Nutrition Assistance Program (SNAP) (Bread for the World, 2015).

Health care providers should be familiar with the details of federal nutrition assistance since these play a major role in supporting low income communities. Appendix B describes each of the programs, with some additional information about local access. Addressing Food Insecurity: A Toolkit for Pediatricians, developed by the American Academy of Pediatrics (AAP) and Food Research and Action Center (FRAC), as well as Screening and Interventions for Food Insecurity in Health Care Settings by California Food Policy Advocates (CFPA), provide additional information about linking food insecure patients to federal food programs.

CalFresh resource:

If your health system or clinic is interested in CalFresh outreach for your patient population, please contact the Alameda County Community Food Bank at (510) 635-3663 for more information.

Motivation for food interventions in primary care

Like other structural determinants of health, food insecurity – or lack of consistent access to enough food for an active, healthy life – is a serious household condition that affects health, developmental, and educational outcomes (USDA, 2018). It impacts many communities in Alameda County, CA and beyond: nearly one in six children in the United States is food insecure, and affected children may suffer from its impact throughout their lives (FRAC, 2017).

The individual, household, and societal costs of food insecurity are high. Food-insecure households may not be able to to afford balanced, healthy meals, putting them at increased risk of diet-related conditions such as diabetes and obesity. Food insecure children are at higher risk of hospitalization, iron deficiency, obesity, having lower tests scores than their peers, having greater difficulty getting along with other children, and may have impaired social development (Cook et al., 2004; Eicher-Miller, et al., 2009; Rose & Bodor, 2006; Winicki & Jemison, 2003; Alaimo et al., 2001; Jyoti, Frongillo, & Jones, 2005). Food insecurity also burdens our health care and safety net systems: it is estimated that food insecurity costs the U.S. health system $160 billion dollars per year. (Cook & Poblacion, 2016).

Population health strategies must prioritize food insecurity and diet-related chronic disease. Recently, major strides have been made to integrate food insecurity screening into primary care. In 2015, the American Academy of Pediatrics (AAP) asserted that pediatricians have a responsibility to screen for food insecurity, connect children and families to community resources, and advocate for federal and local policies to support healthy, active, food-secure families (AAP, 2015).

For the most part, however, the current healthcare system is not equipped to both identify the

Introduction

food resources a patient may need and ensure they have access to them. Often, doctors make recommendations – such as eating healthier to prevent or manage diabetes – that patients have no practical ability to meet. Food as Medicine initiatives provide a solution to effectively address the relationship between food and optimal health.

As the name suggests, Food as Medicine initiatives acknowledge that access to and utilization of healthy foods can be as powerful a tool as medication or other clinical intervention. They can integrate food insecurity screening and referrals into the everyday workflow of clinics, connect patients to onsite or local food resources, and partner with community organizations – independent farmers, food pantries, and others – to form strong, sustainable bridges between the doctor's office and the resources required for long, healthy lives. This simple, preventative intervention can minimize downstream health care costs and complications.

Food as Medicine initiatives have the potential to become an integral part of primary care, hospital discharge coordination, and more. Similar to other preventative measures like Reach Out and Read for early literacy and Help Me Grow for developmental screening, we aim to bring tools and support to community health clinics and primary care practices in communities across the country. This toolkit synthesizes some of the lessons that have been learned to support health care providers in making food an integral part of health care.

Who is this toolkit for?

This toolkit was created for primary care clinics and other healthcare settings that want to incorporate Food as Medicine initiatives into their practice and workflow. Since most Federally Qualified Health Centers (FQHCs) address the needs of the whole family, this toolkit is geared towards a pediatric population but is applicable to any family practice physician working with children and their families. Every health center has a different culture and organization, so you will find suggested templates and timelines that can be adapted for your needs.

A note about the toolkit's organization

This guide is organized in steps to help your health center build a Food as Medicine initiative, from choosing the patient population you wish to serve to evaluating the success of your initiative. It is vital to understand that building a successful program is not a linear process. You may find that you have to reassess your clinic's readiness or work through two or three intervention models before you settle on one that best meets your patients' needs. The most successful program will form out of a flexible development process – especially one with ample time for you, your staff, and your community to reflect on what is successful and what should be changed.

Since the authors of this toolkit are based in Alameda County, California you will find examples and resources specific to Alameda County and California throughout.

Introduction

Considering Cultural Humility and Trauma-Informed Care in Food as Medicine Initiatives

Food insecurity and behavioral change around food intake are very sensitive issues that, if handled inappropriately, can create or retraumatize an already marginalized population. When attention is paid to Cultural Humility and Trauma-Informed Care (TIC), a Food as Medicine intervention has the capacity to be more effective and sustainable.

Applying Cultural Humility and Trauma-Informed Care frameworks to Food as Medicine initiatives is a critical consideration to ensure efforts reflect and acknowledge the ways in which institutionalized power has shaped our knowledge, attitudes, beliefs, and behaviors around food. These insights can inform the action of health centers to improve diet-related health outcomes by revealing considerations and opportunities that may not otherwise be readily apparent (Cleaver, Caravjal, and Sheppard, 2016).

The principle of Cultural Humility features a "lifelong commitment to self-evaluation and self-critique, to redressing the power imbalances in the patient-physician dynamic, and to developing mutually beneficial and non-paternalistic clinical and advocacy partnerships with communities on behalf of individuals and defined populations." (Tervalon & Murray-Garcia, 1998)

Applying the Cultural Humility framework to Food as Medicine initiatives can help providers and health care settings:

- Address the unequitable power dynamic health centers may hold with patients which can create a conflict between a patient's desire to adhere to cultural traditions surrounding food and follow a provider's instructions.
- Commit to establishing an intentional learning environment of inquiry where patients and staff feel listened to and heard and feel safe sharing the challenges they may face around food insecurity and diet.
- Develop mutually beneficial partnerships with surrounding communities to improve the food environment – including access to high quality, affordable, and healthy choices.
- Advocate for and maintain institutional accountability to improve diet-related health outcomes.

Cultural Humility helps health centers move to a patient, family, and community-centered approach and recognizes the authority that one's life experiences have in shaping who they are and how they interact with the healthcare system.

See these resources for additional information on Cultural Humility:

Tervalon, M. & Murray-Garcia, J. (1998). Cultural Humility Versus Cultural Competence: A Critical Distinction in Defining Physician Training Outcomes in Multicultural Education. Journal of Health Care for the Poor and Underserved 9(2): 117-125.

Waters, A. & Asbill, L. (2013). Reflections on cultural humility. American Psychological Association.

McGee-Avila, J. (2018). Practicing Cultural Humility to Transform Health Care [web log]. Culture of Health Blog. Robert Wood Johnson Foundation.

Introduction

Trauma is also linked to a variety of chronic health conditions and health-risk behaviors, and low income and communities of color are disproportionately affected by trauma as a result of poverty, institutionalized bias and discrimination (Felitti, et al., 1998, Anda, et al., 2002., Dong et al., 2004, Remigio-Baker, et al., 2014, Prevention Institute, 2014, Pinderhughes, et al., 2015., Charmchi, 2018). The Substance Abuse and Mental Health Services Administration (SAMHSA) defines trauma as, "Events or circumstances experienced by an individual as physically or emotionally harmful or life threatening, which results in adverse effects on the individual's functioning and wellbeing." (SAMHSA, 2019) This definition includes the experiences of the determinants of health including the lived experience of food insecurity, both acute and chronic (Hecht, Biehl, Buzogany, & Neff, 2018).

A Trauma-Informed Care approach to working with patients around issues related to food insecurity and behavioral changes around diet is also crucial for change to be successful. Many patients have a history of being mistreated by systems, and they can re-experience trauma when asked sensitive or personal questions. Additionally, our relationship with food can be influenced by emotions, knowledge, physical state, and history. Providers should personally acknowledge this and reflect on the ways that eating behaviors may be used as a coping mechanism for difficult life circumstances.

TIC is an organizational structure and treatment framework that involves understanding, recognizing, and responding to the effects of trauma. It emphasizes the physical, psychological, and emotional safety for patients and providers, and helps survivors recover by shifting the question from "What's wrong with you?" to "What happened to you?" (Trauma Informed Care Project, 2019; Alameda County, 2013).

Applying the TIC framework helps health centers:

- Acknowledge trauma and its prevalence, signs, and symptoms.
- Recognize that traumatic experiences like food insecurity do not occur in a vacuum.
- Create practices that frame difficult screening questions to measure food insecurity with compassion and transparent explanations on the rationale for asking sensitive questions.
- Acknowledge that it is not easy for people who have been exposed to trauma personally or in their communities to change eating behaviors.
- Respond with collaborative, patient/family/community-informed, and resilience-focused policies and interventions that increase access to healthy and affordable foods, consider cultural traditions and preferences associated with food, and address the root causes of and risk factors associated with food insecurity.

Applying TIC is important to advance trust, collaboration, and mutual respect between health center staff, providers, patients, and communities. Health providers can further the promotion of trauma-informed care by advocating for community education and ensuring that patients have the needed resources to address the impact of trauma on their overall well-being.

See these resources for additional information on Trauma Informed Care:

The Pediatric Integrated Care Collaborative. https://picc.jhu.edu/.

Dubay, L., Burton, R., & Epstein, M. (2018). Early Adopters of Trauma-Informed Care. Urban Institute.

Steps to Guide Your Initiative
Step 1: Identify Your Priority Population

The first step in building a Food as Medicine initiative is to consider your patient population and what subset you want to focus on. Here are some areas to consider in making those decisions.

On what level of health are you intervening?

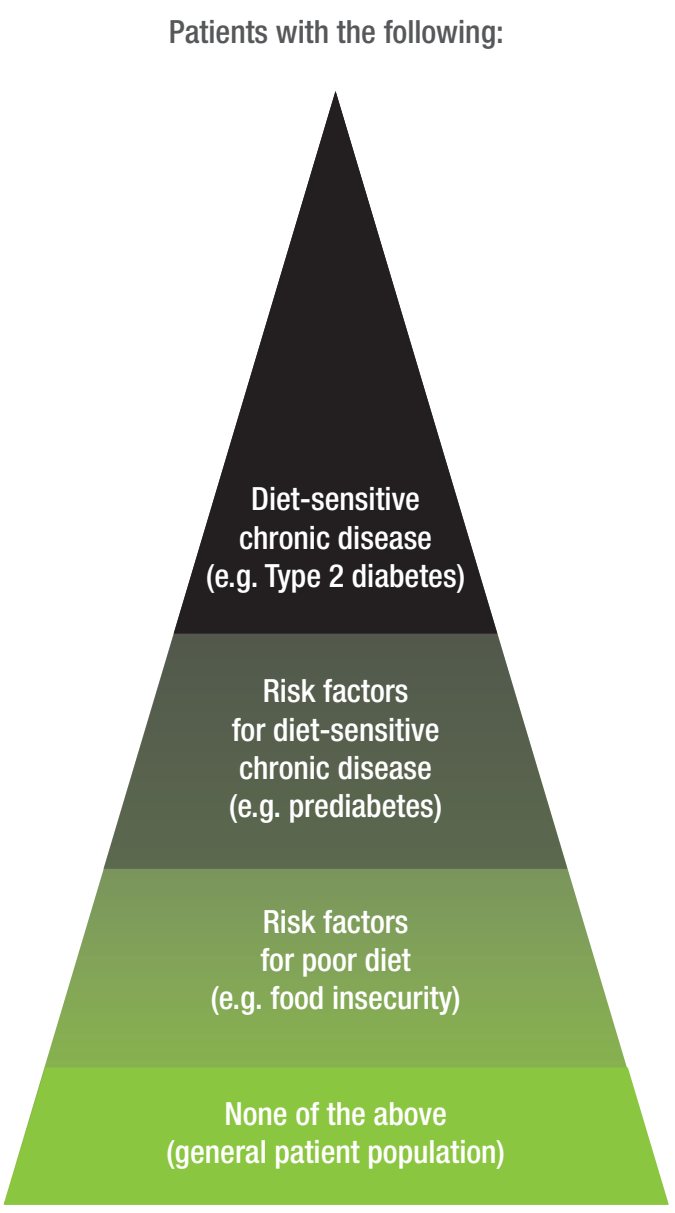
The very nature of the clinical setting offers, at first glance, an opportunity to identify individuals and/or families who may benefit from Food as Medicine because they already have a chronic illness, like type 2 diabetes, that would improve with a better diet. However, there is an important opportunity to recognize that a Food as Medicine intervention can be tailored to reach individuals along a broad spectrum of risk for diet-sensitive chronic disease (Figure 1).

Patients with Diet-Sensitive Chronic Disease
You may decide to approach patients in your population who have uncontrolled type 2 diabetes on the basis that they are a particularly high-risk population.

Patients with Risk Factors for Diet-Sensitive Chronic Disease
Another approach is to identify individuals who are more upstream, but are still at increased risk: those with prediabetes or prehypertension (as defined by the American Diabetes Association and the American Heart Association). As many as 25% of adolescents in the U.S. are estimated to have prediabetes (May, Kuklina, & Yoon, 2012).

Figure 1

Spectrum of risk for diet-sensitive chronic disease



Step 1:
Identify Your Priority Population

Patients with Risk Factors for Poor Diet
Food insecurity is a structural determinant of health that is associated with poor diet and worsening of diet-sensitive chronic disease (Leung, et al., 2014; Seligman, et al., 2007; Seligman, Laraia, & Kushel, 2010; Seligman, et al., 2012). Therefore, you could also consider offering Food as Medicine initiatives to all patients who screen positively for food insecurity.

General Patient Population
Lastly, some clinics may opt to offer a Food as Medicine initiative to their entire patient population, regardless of evident risk factors, as an affirmation of the importance of supporting wellness and maintenance of healthy habits.

Which household members are you prioritizing?

At a fundamental level, patients are registered and have visits with health care providers as individuals. It follows, naturally, that Food as Medicine interventions can focus on individuals based on their personal health factors.

However, while one person's medication prescription should be only for them to take, food is typically shared together within a household. Food interventions, even when only designed to be "impacting" one individual's health status, are likely to be most successful when they are scaled to account for the number of people eating together and sharing food in the household. This allows for spillover effects; other household members who may also be food insecure or at risk for developing diet-related disease may benefit, thus bringing up the health status of the whole household through only one intervention.

There are special considerations to take into account when children and/or adolescents are the priority population. Children are often not the primary individuals preparing or purchasing the bulk of the food, making most Food as Medicine interventions for children a household intervention by definition. Some children may split their time between different households, which also should be taken into consideration. If a food delivery intervention is chosen, for example, it can be helpful to decide ahead of time what you define as a "household"; in other words, the number of days, nights, or meals per week a child must eat in a household for it to be eligible for your initiative. It is important to remember that though the prevalence of chronic diseases like type 2 diabetes among the pediatric population is rising, with an estimated 30.5% increase in diagnosis between 2001 and 2009, the overall estimated prevalence of type 2 diabetes is still relatively low, at 0.046% (Dabelea, et al., 2014). This means that most children and adolescents do not yet have evidence of chronic disease, so it may be prudent to instead focus on upstream markers of disease when defining inclusion criteria and/or evaluating impact.

Step 1:
Identify Your Priority Population

How will you recruit them?

Option 1: Screen for disease/markers of disease

One way to identify patients is based on a "recruitment model," where members of the health care team identify individuals to enroll or refer to a Food as Medicine intervention during a point of care. For example, a physician may decide during the course of their visit that they would like to give the patient a food prescription based on their weight status, or a blood test result, or some other marker. This model is dependent on continued motivation from clinicians to be "on the lookout" for patients who may be appropriate for your program. One strategy based in quality improvement methodology is to incorporate "academic detailing," which is a peer-to-peer outreach modeling technique modeled after pharmaceutical industry detailing techniques (Healthcare Research and Quality, accessed 2018). With this model, specific team members or volunteers can be tasked to help maintain engagement levels. Reminders from someone whose role is integrated into clinic operations can be useful when there are multiple competing priorities in a busy clinic day.

Increasingly, as health care systems have adopted the use of electronic health records (EHR), identifying individuals based on health status can be accomplished with efforts ranging from abstracted data (e.g. a report listing all non-diabetic individuals with a Hemoglobin A1c between 5.7 and 6.4%) to informal review of recent medical visits (e.g. scanning the past week for patients who attended an HIV clinic). "Data pulls" for the purpose of improving health care quality or program delivery are generally approved activities. However, it is important to note that if there is an intent for conducting research, meaning that you intend to make generalizable findings from data collected during your project and publish or present them as such, you must obtain approval from an appropriate committee or group that protects the rights of human subjects (e.g. an Institutional Review Board) in order to obtain a Waiver of HIPAA to search patient data in this manner.

Option 2: Screen specifically for food insecurity

Since food insecurity predisposes individuals and families to chronic diseases whose risks can be improved by diet, it is a structural determinant of health. Though the gold standard measurement of food security is the USDA Core Food Security Module, it is a staged questionnaire with up to 18 items that is not feasibly used in clinical settings because of the time constraints (Bickel, et al., 2000). There is a validated short questionnaire comprised of 6 items from the full module to measure household food security status, though these can also be challenging to add into a busy clinic workflow. The Hunger Vital Sign, which has two questions from the full food security module, has been validated for use in a pediatric clinical environment to screen for household food insecurity (Hager, et al., 2010). Respondents are shown or read two "statements that people have sometimes made about their food situation," and are asked to state whether in the past 12 months, each statement was often, sometimes, or never true for their household. An answer of "often true" or "sometimes true" to either of the two items identifies an individual as likely to be living in a household with food insecurity.

Step 1:
Identify Your Priority Population

Though there is no standardized language to preface the asking of these screening questions, in practice, many clinics find it helpful to have lead-in language to better cue respondents about why they are being asked. This can include something like:

We are asking families about access to food because food affects health.

We want to make sure that our families know about available food resources in the community. People who benefit from these food resources sometimes make the following statements about their food situation.

How often was each statement true for your household in the past 12 months?

Question 1

"We worried whether our food would run out before we got money to buy more."

For your household, was this often, sometimes, or never true in the past 12 months?

[Choose one]

☐ Often ☐ Sometimes ☐ Never

Question 2

"The food we bought just didn't last and we didn't have money to get more."

For your household, was this often, sometimes, or never true in the past 12 months?

[Choose one]

☐ Often ☐ Sometimes ☐ Never

A clinic interested in implementing clinic-wide screening for food insecurity can have the medical assistants screen all patients for food insecurity as part of the process of gathering vitals. Workflow issues can make it such that allied health like Certified Nursing Assistants (CNAs) or Medical Assistants (MAs) are more effective team members to conduct screening than the healthcare providers. In addition to the added benefit of a consistent workflow, having the staff accustomed to screening all patients helps normalize the process of asking questions about food access in clinic for both staff and patients, alike.

Special considerations related to screening for food insecurity

Highlighting food insecurity during the course of a medical appointment is potentially stigmatizing. Therefore, it is critical to train the staff who will be screening families and create a culture in your clinic that makes families feel more comfortable. Some tips include:

- Normalize the fact that the patient is being asked ('I ask all of my patients about food because we know that the food we eat affects our health').
- Establish a common understanding among the team regarding the value (e.g. Foster the sense that clinic staff are not only identifying a social determinant of health, but are in a position to empower the families and provide assistance).
- Normalize the fact that families with food insecurity are not alone ('Eating healthy on a budget is hard, and a lot of our patients find it hard to do').
- Design a messaging campaign, such as placing posters around the clinic, to introduce patients to the concept of food insecurity before they are asked about it.

Step 1:
Identify Your Priority Population

It is also necessary to have a clear plan for what clinic staff (including social workers, case managers and health educators) should do when responses suggest that a family is food-insecure regardless of whether there is an active initiative in place. Therefore, it is valuable to have continued support for a systematized process for staff to take action whenever a family is identified as food-insecure, whether the intervention is a linkage to a high-value intervention, to a trained staff person who will help them navigate their needs in person, or to brochures that describe how to access emergency food and enroll in federal nutrition assistance programs.

Screening for food insecurity in a larger algorithm of addressing determinants of health

There are a variety of structural determinants of health screening tools which also ask questions about food insecurity but many do not do so in a way that is clinically useful. Many health centers have adapted an overarching screening as part of their electronic medical record intake system. One consideration, however, is that some tools are algorithmic in nature, and an individual will only be asked questions pertaining to food access if they have self-identified that food is a priority need for them.

Other clinics have adapted a system like Health Leads or a have locally grown system, such as FINDConnect at UCSF Benioff Children's Hospital Oakland in Alameda County. These systems not only screen with algorithms for structural determinants of health, but have a navigation component which helps patients actually connect with available resources in the community.

Local Spotlight

FINDConnect is an innovative, cloud-based solution that empowers patients, care team and community organizations to collaboratively address the social determinants of health among UCSF Benioff Children's Hospital Oakland Primary Care Patients (Oakland, CA).

The FINDConnect platform asks several questions to determine the immediate and long term food security needs for patients and families. Once the questions are answered, FINDConnect provides an action plan of tailored local community resources for the patient and family. Primary care staff follow up regularly with patients post-visit to determine if their social determinant of health needs have been met.

Step 2: Assess Current Practice & Prepare Necessary Resources

There are many approaches to building a Food as Medicine initiative, depending on the breadth and scope of whom you want to reach, what kind of funding is available, and what kind of support and buy-in you have within your institution or clinic site to advance this kind of intervention. The first step is to assess readiness and identify the resources and gaps that exist within your institution so you can more easily focus your efforts. What kind of food or health-related programs exist at your clinic, if any? Do you regularly screen for food insecurity, or will this be a new addition to your workflow? If you already have similar processes in place, who among the staff completes this work? How is it funded? These and more questions are included in Appendix A, Worksheet 1: Readiness Assessment, which you should consider before moving on.

More Resources

Addressing Food Insecurity: A Toolkit for Pediatricians (FRAC & AAP, 2017) and Kaiser Permanente Colorado's Hunger Screening Efforts Case Study (2015) also include useful tips on how to integrate new initiatives and programming into practice.

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Step 2: Assess Current Practice & Prepare Necessary Resources

Figure 2 shows four basic requirements for developing and maintaining an initiative:

- Effective Food as Medicine champion(s)
- Internal support and infrastructure
- Strong relationships with patients and community partners
- External funding

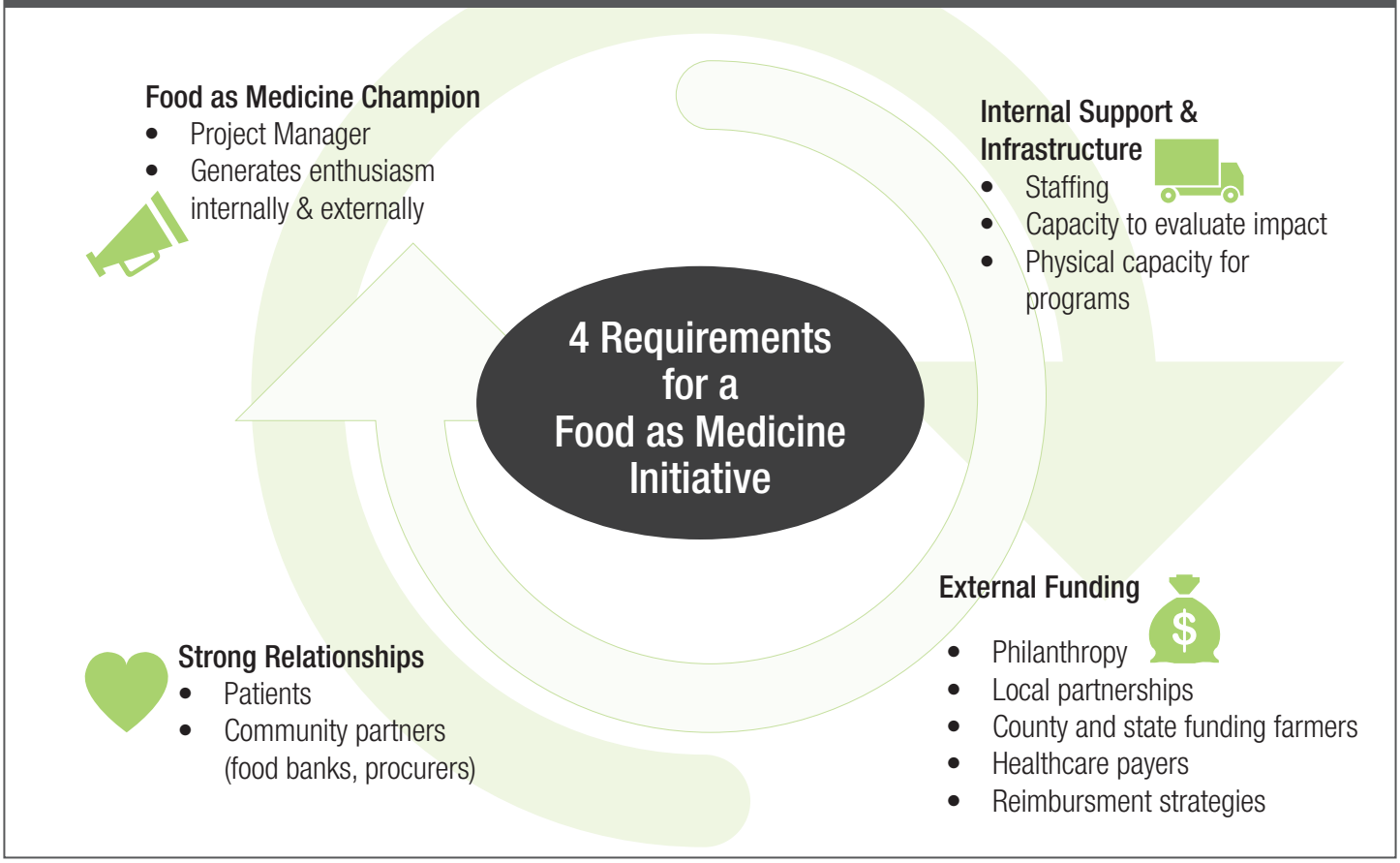
In this section (Step 2), we will focus on local champions and cultivating support and infrastructure. Relationships and funding will be covered in more detail in Steps 4 and 5, respectively.

Identifying a champion

Many new initiatives start with a great idea from a passionate individual within an institution or organization, often referred to as a champion. When considering starting a Food as Medicine initiative, it is helpful to identify one or two champions to help lead and coordinate.
As the project gains momentum, you may require both a project champion and organizational change champion (Shaw et al., 2012).
The project champion manages the primary responsibilities of the project and the organizational change champion helps coordinate efforts and strategies on a higher systems level. These champions must have

Figure 2

The four basic requirements for developing and maintaining a Food as Medicine initiative.



Step 2: Assess Current Practice & Prepare Necessary Resources

strong communication skills and their vision should be aligned with both the vision of the clinic and the mission of the initiative.

Assessing internal support and infrastructure

Once you identify a champion, you will need to evaluate the infrastructure, support, and resources available within your institution. This evaluation not only helps clarify what kinds of interventions are feasible, it also ensures that the intervention is sustainable. Below, we highlight several important elements that should be included in your evaluation.

Buy-in

Support from leadership within your institution – your Clinic Director, Medical Director, or Board of Directors – is critical to the success and sustainability of interventions. Once you have buy-in from your institution's leaders, they can help the champion(s) get buy-in from other key stakeholders, including staff, patients, and community partners.

Personnel

Champions cannot implement these types of interventions on their own. Once they have buy-in, they also need support and participation from a variety of staff members. Securing a meeting with a variety of staff that will be needed to make this initiative successful early on will help with later success. This should include staff that will interface with patients, screen, refer, track referrals, evaluate the intervention, and more (see Appendix 1, Step 2 for more details).

Workflow and tools

Once you have your team, it is important to establish workflows and identify necessary resources for the intervention. This includes specifying how you identify participants (see above Step 1: Identify Your Priority Population), how you screen, document, refer, track, and evaluate aspects of the intervention. Understanding who manages and participates in each step will be critical since their input is invaluable. The FRAC and AAP Toolkit (2017) and Kaiser Permanente Colorado's Case Study (2015) provide some ideas for how to document, update resources within your EHR, and take advantage of existing tools in your EHR.

After mapping out the workflow, it is helpful to estimate how significantly the intervention workflow differs from your current workflow, including when new steps are incorporated and how long each step (and the whole process) takes. This stage also requires input from multiple stakeholders within the clinic.

Facilities & other infrastructure

Depending on the kind of intervention you choose to implement (see below Step 3: Choose a Model of Intervention), you will need a variety of resources. These resources include but are not limited to:

- Location (inside or outside space)
- Space and equipment for cooking classes
- Advertising strategies
- Alignment with existing group care visits and/or implementation of group care visits

These needs will become clearer as you read through the toolkit and plan your intervention; note that assembling the appropriate physical infrastructure may be time-consuming and should be considered during the initial planning stages.

Step 3: Choose a Model of Intervention

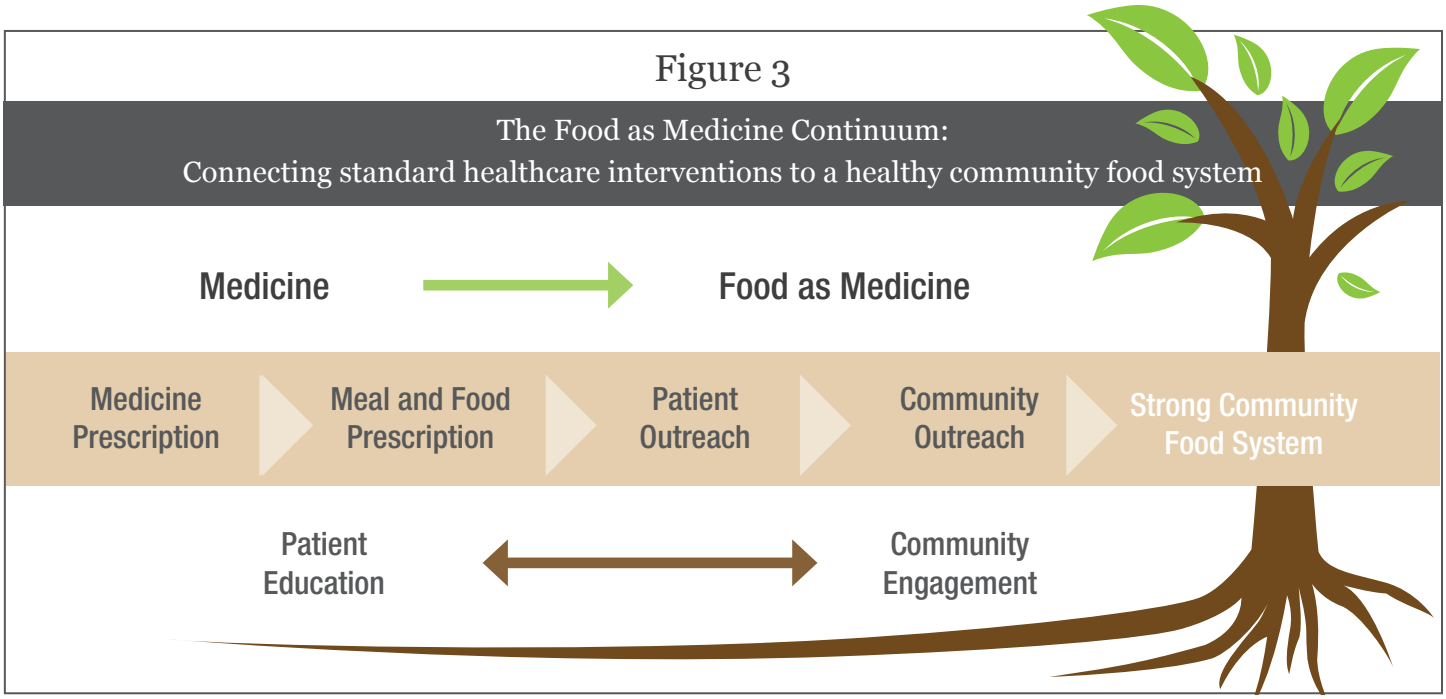
Fundamentally, Food as Medicine interventions represent a mechanism to bridge standard health care interventions, like medicine and patient education, with the surrounding community food system via various levels of community engagement (Figure 3). With the current status quo, most providers aim to prevent or manage chronic diseases by offering their expertise with lifestyle counseling, including meaningful nutrition education, and when appropriate, prescribing a medication.

The next part of the Food as Medicine continuum involves interventions that increase access to healthy foods. Examples of several interventions are outlined below. However, similar to the status quo, meaningful education still plays a critical role. Including the voice and skills of other patients and community members enhances existing models of patient education and improves existing treatment paradigms.

Meal Prescriptions (medically tailored meals)

These are a step up from prescribing medication alone, and are a way to prescribe a more comprehensive therapy for patients who would benefit from improved nutrition. With this model, a medical provider writes a "prescription" for their patient to receive tailored meals that align with their particular health condition. Often, the food is provided free of charge, pre-prepared, and delivered to the home. Project Open Hand in California, for example, cooks meals tailored to specific conditions, such as diabetes. Many studies illustrating improved health outcomes from Food as Medicine programs utilize these interventions.

Figure 3



Step 3: Choose a Model of Intervention

Food Prescriptions

These can be offered to a particular patient population in many forms. The term "prescription" is functional: it operates like a traditional prescription, except the patient redeems the prescription for food. The term also emphasizes to patients that nutritious food can be considered a form of treatment, like a medication, and highlights to insurance payers that this is a therapeutic intervention.

Like a medication prescription, a food prescription needs to be "filled," and there are a variety of ways that this can be accomplished. We use the term "Food Farmacy" to highlight this element. Though food prescriptions do not need to be limited to fruits and vegetables, fresh produce is the most commonly prescribed food. Food delivery can come through (1) vouchers with monetary value (usually $5-$10 per voucher) that can be redeemed, (2) standard prescriptions which a patient presents in exchange for food, or (3) delivery of Community Supported Agriculture (CSA) boxes to a patient's home.

- Vouchers with monetary value can be redeemed at local stores for specific food items that meet your program's criteria. For example, participants in EatSF are given vouchers redeemable for fresh or frozen fruits and vegetables in a network of participating corner stores and specific chain supermarkets. Similarly, vouchers can be used at an existing farmers' market or farm stand participating in the program. Since these tend to have fewer operating hours, it is important that patients have a clear understanding of the markets' hours of operation.
- Both prescriptions, which do not have a monetary value, and vouchers can be used on-site at your clinic. Clinics may have either a designated area where food is regularly available (e.g. "fixed pantry") or a temporary space and time where food is available, often in coordination with a local farm or market (e.g. "pop-up" farmacy). This model lends itself well to group visits that include guidance about preparing the foods which are being offered that day. Hayward Wellness Center uses this model for their program.

Local Spotlight

Hayward Wellness Center in Hayward, CA offers "Produce Prescriptions" to their patients that can be exchanged for fresh, organically grown, local produce provided by Dig Deep Farms. Prescriptions are issued on a weekly basis after Group Visits geared towards addressing specific health concerns, food insecurity, or to promote a healthy lifestyle.

Each vouchers is worth $10 and provides up to 8 servings of produce depending on the items selected by the patient. In addition to the prescriptions, the Farmacy also accepts EBT, cash, debit, and credit cards if patients would like to obtain additional produce for themselves and their families.

Step 3: Choose a Model of Intervention

- Patients can also be prescribed weekly or biweekly delivery of CSA boxes that have an array of fruits and vegetables. Some clinics have been able to set up a system with a local CSA distributor to also include whole grains in these deliveries. In this program, patients have less choice in the foods they receive, as they do not individually select the items that are included in the boxes.

Patient and Community Outreach

For the purpose of designing a Food as Medicine intervention, patient outreach is the mechanism through which you try to reach all of your patients to improve both access to and utilization of healthy, nutritious foods. This may include community health fairs with cooking demonstrations, cooking classes open to all patients, referrals to local, state, or federal nutrition assistance, etc. It can also include general food farmacies or farmers' markets on the clinic site that are open to any patient within your practice or institution – in a sense, offering "over the counter" medicine that needs no prescription.

Strong Community Food System

A strong community food system is the foundation of any Food as Medicine program. It requires partnering with community residents, local growers, community-based and food justice organizations that address access to and availability of healthy foods within neighborhoods. Although the overarching goal is to get more fruits and vegetables into the hands of those that either might not have access to them or time to prepare them, it is also critical to address the quality of the foods that patients are eating. Partnerships to change the food system within a community is an important method for addressing these concerns, especially longer term.

Local Spotlight

UCSF Benioff Children's Hospital, Oakland offers two pop-up food farmacies per month. One is operated by Social Services and the social workers all participate on a rotating basis to staff this as part of a quality improvement project for their Department. The other food farmacy is operated outside of the Primary Care Clinic and utilizes staff and volunteers. In both food farmacies, patients receive a flyer inviting them to attend, but it is not by "prescription" and no one is turned away unless food has run out.

UCSF Benioff Children's Hospital utilizes donated funds to purchase food both from the food bank and a local grower. Families receive the equivalent of about $8-10 of food per distribution including eggs, whole grains, beans, and fresh protein. They also receive as many fruits and vegetables as they would like. Other components that are offered are help with enrolling in Cal Fresh, cooking demos, recipes, and information on how to access food when the food farmacy is not open.

Step 4: Engage Community Members & Build Capacity

Engage your community

In planning your Food as Medicine initiative, it is vital that you are doing so in collaboration with the community you are looking to serve. Engaging community members throughout the planning process will allow you to better understand the needs of the community and therefore the kinds of strategies to use. Patients and community members as partners in this endeavor can increase the clinic's success in reaching other patients and help create the desired behavioral and systems changes.

Some options:

- Hold a focus group with some of your patients and see if any would be willing to be part of an advisory committee for your Food as Medicine initiative. You could identify patients either through directly contacting potentially interested patients, or by broadly advertising throughout your patient population.
- Hold meetings over a group meal or provide stipends to a small group of patients who want to assist in the planning and implementation of your Food as Medicine initiative.
- Identify governmental or community based organizations in your neighborhood who may already have existing consumer advisory committees and bring your project ideas to them for help with development. Collaborating with them will make your initiative stronger and more efficient.

Local Spotlight

In Alameda County, a Healthy Food Champion (HFC) program was developed through a collaboration between All In's Healthy Food, Healthy Families initiative and a community-based health center. HFCs are residents in the same community the clinic serves; in this program, the 6 HFCs reside in the San Antonio and Fruitvale neighborhoods in Oakland, CA.

They have been trained on topics such as popular education, community action model research, survey design, food justice, food as medicine, evaluation, analysis and storytelling. HFCs help families refocus on their "roots" and cooking practices that may have been passed down from generation to generation, but may be lost due to busy lives or lack of accessibility to healthy foods. They are also working to expand the quality and availability of healthy food at corner stores and address the impact of the larger food industry on communities' eating practices.

Step 4: Engage Community Members & Build Capacity

Cultivating partnerships with local farms

In creating a Food as Medicine initiative, it is important to keep in mind the quality of the food you are using. Not only is this an opportunity for your initiative to provide patients with fresh, nutritious foods, it is also a chance to take an important role in healing the food system and promoting a vibrant local economy (Health Care Without Harm, 2017).

While cultivating partnerships with local farms takes effort, there are a variety of added benefits. Local and sustainably grown produce can help to protect worker safety, support organic and pesticide-free practices, and steward natural resources through water conservation – meaning the intervention has positive "upstream" public health impacts as well.

Choosing to source directly from local farmers can also offer improved nutrition to patients. Sourcing locally reduces the time and distance from harvest to consumption. Research suggests that produce consumed more closely to harvest can retain more minerals and nutrients than produce that has been harvested while still immature, or held in storage for longer periods of time. Small farms can produce a greater variety of seasonal produce, resulting in increased diversity, flavor, and nutritional benefits. Additionally, many farm-to-institution programs have found that going the extra mile to connect local produce with community members can lead to a deeper sense of appreciation for the food (Barrett, 2007).

With Food as Medicine initiatives on the rise across the Bay Area and the country, there are opportunities to learn from existing best practices in the farm-to-hospital and farm-to-institution movement.

Local Spotlight

Farm Fresh Healthcare Project

Healthcare Without Harm and Community Alliance for Family Farmers (CAFF) teamed up in this resource guide with best practices to connect the healthcare sector with sustainable food systems.

CAFF | FARMERS GUILD
COMMUNITY ALLIANCE WITH FAMILY FARMERS

Health Care Without Harm

Kaiser Permanente

Kaiser's focus on preventative care has led to a seed change in sustainable foods options, including over 50 onsite vibrant farmers markets, healthy prepared food options for staff and patients, and sustainable sourcing.

KAISER PERMANENTE®

Step 5: Fund Your Initiative

Referrals to benefit programs or local food pantries alone often do not meet the immediate needs that arise in addressing the relationship between food insecurity and health outcomes in clinic settings. Strategies to fill these gaps require sustainable funding sources. These efforts do not replace federal nutrition programs, such as WIC and SNAP, but are meant to complement them.

Many existing programs have successfully used hybrid funding sources; the table below presents various funding strategies for you to consider.

Strategy	
Philanthropy	Provides steady funds through grants in support of food hubs, organic farms, and business accelerators focused on food and agriculture (Taylor & Sze, 2017).
Natural Partners: Local food banks & farmers	Leverages existing expertise and infrastructure (Oregon Primary Care Association, 2017) and reduces cost of food purchase and distribution, while also establishing relationships that can lead to long term sustainability.
Healthcare Payers	Coordination with insurance companies leverages the shift away from the traditional fee-for-service model and towards the value-based model, which may help cover costs of food, such as group medical visits and managed care reimbursement.
Existing Reimbursement Strategies	Group medical visits for patients with diet-related conditions may cover some of the costs of Food as Medicine initiatives. Billing is based on standard medical and behavioral practices (E&M codes 99213 or 99214) since each visit includes an individualized medical review by a licensed practitioner, patient education, and group discussion (Women's Health Associates).

Step 5: Fund Your Initiative

Maximize use of Electronic Health Records (EHRs)

Despite interest and growing attention to food insecurity and Food as Medicine in health care settings, specific terminology, coding and billing opportunities are underdeveloped and underutilized within the EHR. Documenting and coding assessments and interventions for food insecurity and Food as Medicine in the EHR is critical to:

- Provide comprehensive health care to patients experiencing food insecurity;
- Obtain population data for clinical, non-profit, and government resource planning;
- Expand reimbursement for food insecurity and Food as Medicine assessments and interventions;
- Advance research and quality improvements related to food insecurity screening and Food as Medicine initiatives; and
- Share food insecurity assessments and interventions with outside entities, including payers, community organizations and other health care providers and health systems.

Local Spotlight

Funding for Food

In Alameda County, a combination of sources provide food to the various food farmacy initiatives. All In has forged a relationship with the local food bank to tailor offerings for food farmacy sites. This includes fruits, vegetables, and whole grains which are sometimes supplemented by healthy canned goods and fresh proteins (such as eggs and ground turkey). Some sites also supplement the produce they receive from the food bank by contracting with a local grower.

Others implement voucher programs that are completely dependent on a relationship with a local grower and focus only on fruits and vegetables. For the sites that use a hybrid of food from local growers and the food bank, the cost has averaged around $8-$10 per family per distribution. County funding has helped to support the costs of these foods in the short run; long-term funding strategies, currently in development, will include county, state, and health insurers.

Step 5: Fund Your Initiative

The appendix includes examples of useful codes that help highlight prevalence and complexity to payers. In addition, food insecurity screening may already be available or may be built into your clinic's EHR system such as EPIC. Consult with your clinic's IT department for more specific information about the tools available in your system.

Innovative Funding

Working with Healthcare Payers
Coordinated Care Organizations (CCOs) in Oregon have designed sustainable funding for Food as Medicine interventions in many clinics (Oregon Primary Care Association, 2017). The Veggie Rx program – a partnership between the Eastern Oregon CCO, Greater Oregon Behavioral Health, Inc., and Gorge Grown Food Network, is funded, in part, by Medicaid and allows clinicians and social service providers to prescribe food vouchers that are redeemable for fresh fruit and vegetables at local farmers' markets and retailers.

Using Existing Reimbursement Strategies
At the Hayward Wellness Center (CA), group medical visits were designed to increase consumption of healthy food. Group medical visits include increasing access to fresh produce, cooking classes and nutrition education – establishing a greater understanding of the relationship between diet and health. Group medical visits also increase access to fresh produce through education about local organization and resources such as food banks, federal nutrition programs, and farmers markets that accept EBT and double CalFresh benefits (Center for Care Innovations, 2017; Alameda Health Systems, 2017).

Step 6: Measure Impact

Planning how you will measure the success of the initiative is critical before you begin your Food as Medicine initiative – even as early as when you are identifying the target population. The following discussion gives some ideas on how to evaluate your initiative. It is important to note, however, that no single method has, as of yet, proven to be the most effective; in reality, the data resulting from these programs is not well-established, and it may take several modifications for you to find the right evaluation tool and outcome measures. In addition, as your program evolves, your evaluation method and strategy will also need to evolve.

Though there are common themes of interest in the outcomes of a Food as Medicine initiative, (e.g. What's the participation rate of your intervention? Do participants eat better? Do their attitudes towards food change? Are they healthier?) project evaluation plans will differ fundamentally with respect to whether data is gathered on the same individuals over time (longitudinal approach) versus whether there are "snapshots" of the population taken over time (cross-sectional).

Longitudinal measurement at the individual level

In programs such as a food prescription, individual patients are identified because of a diet related health risk factor. It is ideal to be able to assess change over time in these identified individuals with respect to the specific health risk markers that were used to identify them (e.g. Hemoglobin A1c),

Step 6: Measure Impact

and most straightforward for analysis to have a predetermined interval of time for two comparison points (e.g. comparison at beginning and after 3 months) that are the same for all individuals being compared.

Assessment of dietary intake is of key importance, and data collection can range from very simple to very complex. The USDA SNAP-Ed program provides a useful framework to organize evaluation around behavior changes related to healthy eating. Examples of simple, low-burden questions ask whether someone eats more than one kind of fruit a day, or ask about the number of cups of vegetables consumed per day. More examples designed specifically for populations with low literacy levels are included in the Visually-Enhanced Food Behavior Checklist. Conducting assessments with 24-hour diet recall provide the highest granularity of data, and there are free tools such as the Automated Self-Administered (ASA) 24-hour diet recall tool. Data management issues with data collection and analysis can make diet recall data challenging for projects without adequate research infrastructure for analysis.

In pediatric settings, the index participant identified as the entry point for the Food as Medicine initiative will often be a child. This creates some additional measurement factors to consider, particularly if it is desired to evaluate whether the intervention is making an impact on the identified child's diet. Children younger than 8 years are rarely able to self-report about their diet independently, and must have a proxy respondent like a parent answer on their behalf. There are validated tools regarding diet-related behaviors that can be used with school-age children independently, but it is important to be mindful of target age groups (e.g. 4th and 5th grade) that the questions are meant for. Adolescents have more autonomy, and parents are generally considered unreliable when it comes to accurate reporting of an adolescent's diet. If an intervention is designed to span a wide age range of index children, having a cohesive measurement strategy regarding diet can be challenging. In some cases, even if the intervention is targeted to a family based on the health status of a child, it may be useful to identify an adult in the household to gather key diet behavioral data in addition to (or even instead of) the child.

Longitudinal measurement at the household level

Since household members share food, many Food as Medicine interventions will impact more people than the index participant initially identified in clinic. Index participants can answer both about their own health behaviors but also respond on behalf of the household. This is particularly relevant with assessment of food insecurity, which is primarily conceptualized and measured in terms of household food insecurity (though survey questions for individuals about their own experience of food insecurity do also exist).

When possible, it is ideal for the index participant who is reporting on survey items to be an individual that has a role with food shopping and/or food preparation in the household.

Measurement Tip

Consider the time frame of your intended intervention and get baseline measure accordingly. For example, food security is often assessed over the past 12 months, but if you are interested in how your 4 month intervention impacts food security, your baseline questions should be modified to assess the 4 months prior to the intervention.

Step 6: Measure Impact

"Snap shots" in cross-sectional evaluation of impact

Gathering pre and post data from individuals can be powerful evidence of impact, but the longitudinal tracking involved with matching individuals to survey-reported health behaviors may not be feasible for some initiatives. For some projects, it will simply not be appropriate to gather the same data at specified intervals from participants. For example, a Food as Medicine initiative that is adopting a pop-up farmacy approach by offering distribution of healthy food in the waiting room once a month will not capture the same individuals over the same comparable intervals of time.

Naturally, anonymous satisfaction ratings from participants are a simple way to assess how well-received an initiative is for those who use it. However, even if responses cannot be tracked to a specific individual over time, snapshots of diet-related behaviors across participants and quantifying number of participants can still be helpful. In general, questions that assess whether someone has ever "seen/ eaten/ prepared/ purchased" a specific food can help identify the impact on exposure to new experiences for participants.

Practically speaking, measuring the impact of your evaluation as described above is difficult when you are first implementing your program. However, collecting information on the quantity of food distributed, the number of recipients that benefited from the food as well as the number of recipients that received useful health education information in this new format is easier and will be important information to support the sustainability of your initiative over time.

Conclusion and Future Directions

Population health strategies must prioritize interventions that mitigate food insecurity given its prevalence and significant impact on children's development and long-term health outcomes. Healthcare is focusing more and more on prevention strategies, addressing structural determinants of health, and improving quality of care. Therefore, we must seize this opportunity to also advance health equity by increasing access to, and utilization of, the best affordable food.

We hope this toolkit has outlined and justified necessary steps, especially collaborating with your local community, and provided concrete examples to help you build a sustainable Food as Medicine initiative.

We acknowledge that there are many Food as Medicine models across the country that may not be reflected in this toolkit and that determining how to best serve your patient population and measure your initiative's success is challenging. However, the benefits are worth the effort – and starting small programs at your health clinic can lead to change on a much bigger scale, allowing for the healthcare transformation we need. Several states, including California, Oregon, and Massachusetts, have already begun investing in these initiatives. In 2018, the state of California launched a three-year, $6 million Food is Medicine pilot to fund delivery of free meals to Medicaid-insured patients who need a specific diet to manage a medical condition (Huffington Post, 2018). Massachusetts has a statewide Food is Medicine evaluation plan which is actively assessing whether an investment in medically-tailored meals, grocery bags, or food packages, and prescriptions for CSA boxes or produce can reduce health care costs. (Center for Health Law and Policy Innovation, 2018). This kind of statewide advocacy is promising for replication in other states and could lead to expansion throughout the country and sustainable, long-term investment in these programs.

We hope that with a collective strategy that includes Food as Medicine initiatives, we will improve the health status of our own county's children and families, ensuring each and every one has strong roots to thrive.

References

ACEs Connection. (n. d.). Retrieved from https://www.acesconnection.com/.

Alaimo, K., Olson C., & Frongillo, E. (2001). Food Insufficiency and American School-Aged.

Children's Cognitive, Academic, and Psychosocial Development. Pediatrics 108(1):44-53.

Alameda Health Systems. (2017). Food is Medicine. Retrieved from http://www.alamedahealthsystem.org/food-is-medicine/.

American Academy of Pediatrics. (2015). Promoting Food Security for All Children. Pediatrics 136(5): e1432-e1438. DOI: 10.1542/peds.2015-3301.

Anda, R., Whitfield, C., Felitti, V., Chapman, D., Edwards, V., Dube, S., Williamson, D. (2002).

Adverse childhood experiences, alcoholic parents, and later risk of alcoholism and depression. Psychiatric Services 53(8): 1001-9.

Almendrala, A. (2018, May 9). California Becomes The First State to Prescribe Food As Medicine. Huffington Post. Retrieved from https://www.huffingtonpost.com/entry/california-food-program-medicaid_us_5af1ffb7e4b0ab5c3d6adae4.

American Academy of Pediatrics & The Food Research & Action Center. (2017). Addressing Food Insecurity: A Toolkit for Pediatricians. http://www.frac.org/wp-content/uploads/frac-aap-toolkit.pdf.

Barrett, D. (2007). Maximizing the Nutritional Value of Fruits and Vegetables. Food Technology 61(4): 40-44.

Bickel, G., Nord, M., Price, C., Hamilton W., & Cook, J. (2000). Guide to Measuring Household Food Security. U. S. Department of Agriculture, Food, & Nutrition Service.

Bread for the World. (2015). [Graphic illustration of meals provided by charity versus federal food programs]. "One in 20" Grocery Bags. Retrieved from https://www.bread.org/library/infographic-1-20-grocery-bags.

Cannon, M. (2016). Screening and Interventions for Food Insecurity in Health Care Settings State Strategies to Increase an Underutilized Practice in California. California Food Policy Advocates. Retrieved from https://cfpa.net/CalFresh/CFPAPublications/CFPA-FIScreeningsWhitePaper_FINAL.pdf.

Center for Care Innovations. (2017). Innovation Spotlight: Food Is Medicine. Retrieved from https://www.careinnovations.org/resources/in-the-incubator-food-is-medicine/.

Center for Health Law and Policy Innovation, Harvard Law School. (2018). Massachusetts Food is Medicine State Plan. Retrieved from https://www.chlpi.org/massachusetts-food-medicine-state-plan/.

Charmchi, P. (2018). A Case for Trauma-Informed Care. Community Catalyst. Retrieved from https://www.communitycatalyst.org/resources/publications/document/2018/TraumaIssueBrief.pdf.

Cleaver, S., Carvajal, J., & Sheppard, P. (2016). Cultural Humility: A Way of Thinking to Inform Practice Globally. Physiotherapy Canada 68(1): 1-2.

Cook, T., Frank, D., Berkowitz, C., Black, M., Casey, P., Cutts, D., … Nord, M. (2004). Food insecurity is associated with adverse health outcomes among human infants and toddlers. The Journal of Nutrition 134(6): 1432-1438.

Cook, T., Poblacion, A. (2016). Estimating the Health-Related Costs of Food Insecurity and Hunger. Bread for the World Institute 2016 Hunger Report. 247-264.

Dabelea D., Mayer-Davis, E., Saydah, S., Imperatore, G., Linder, B., Divers, J. … Hamman, R. (2014). Prevalence of Type 1 and Type 2 Diabetes Among Children and Adolescents From 2001 to 2009. JAMA 311(17):1778–1786. doi:10.1001/jama.2014.3201.

Definitions of Food Security (n.d.). Retrieved February 21, 2019, from https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx.

DeSilvey, S., Ashbrook, A., Sheward, R., Hartline-Grafton, H., Ettinger de Cuba, S., & Gottlieb, L. (2018). An Overview of Food Insecurity Coding in Health Care Settings: Existing and Emerging Opportunities. Boston, MA: Hunger Vital SignTM National Community of Practice. Retrieved from: http://childrenshealthwatch.org/foodinsecuritycoding/.

Dong, M., Anda., R., Felittle, V., Dube, S., Williamson, D., Thompson, T., … Giles, W. The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. Child Abuse and Neglect 28(7): 771-84.

References

Dubay, L., Burton, R., & Epstein, M. (2018). Early Adopters of Trauma-Informed Care. Urban Institute. Retrieved from https://www.urban.org/sites/default/files/publication/98979/early_adopters_of_trauma-informed_care.pdf.

Eicher-Miller, H., Mason, A., Weaver, C., McCabe, G., & Boushey, C. (2009). Food Insecurity is associated with iron deficiency anemia. The American Journal of Clinical Nutrition 90(5): 1358-1371.

Eneli, I. Motivational Interviewing for weight-loss counseling in pediatrics patients. Nationwide Children's. Retrieved from http://www.nationwidechildrens.org/document/get/125228.

Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., … Marks, J. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine (14)4: 245-58.

Food Research & Action Center (FRAC). (2017). The Impact of Poverty, Food Insecurity, and Poor Nutrition on Health and Well-Being.

Guarino, K. (2014). Trauma-Informed Care for Families Experiencing Homelessness. In: M. Haskett, S. Perlman, & B. Cowan (Eds.), Supporting Families Experiencing Homelessness. New York, NY: Springer.

Hager, E., Quigg, A., Black, M., Coleman, S., Heeren, T., Rose-Jacobs, R., ... & Cutts, D. (2010). Development and validity of a 2-item screen to identify families at risk for food insecurity. Pediatrics 126(1), e26-e32.

Health Insurance Portability & Accountability Act, 45 CFR 164.501, 164.508, 164.512(i) (2013).

Hecht, A., Biehl, E., Buzogany, S., & Neff, R. (2018). Using a trauma-informed policy approach to create a resilient urban food system. Public Health Nutrition 21(10): 1961-1970.

Housden, L., Wong, S., Dawes, M. (2013). Effectiveness of group medical visits for improving diabetes care: a systematic review and meta-analysis. Canadian Medical Association Journal 185(13): E635-E644.

International Expert Committee. (2009). International Expert Committee report on the role of the A1C assay in the diagnosis of diabetes. Diabetes care 32(7): 1327-1334.

Jyoti, D., Frongillo, E., & Jones, S. (2005). Food Insecurity Affects School Children's Academic Performance, Weight Gain, and Social Skills. The Journal of Nutrition 135(12): 2831-2839.

Kaiser Permanente Colorado's Hunger Screening Efforts: A Case Study on Clinic-Community Integration to Address the Non-Medical Social Needs of Members. (2015). Retrieved from http://www.rootcausecoalition.org/wp-content/uploads/2017/12/CO-Hunger-Screening-CCI-Case-Study-Updated-2.13.15.pdf.

Leung, C., Epel E., Ritchie, L., Crawford, P., & Laraia, B. (2014). Food insecurity is inversely associated with diet quality of lower-income adults. Journal of the Academy of Nutrition and Dietetics 114(12): 1943-1953.

May, A., Kuklina, E., & Yoon, P. (2012). Prevalence of Cardiovascular Disease Risk Factors Among US Adolescents, 1999 2008. Pediatrics 129(6): 1035-1041.

McGee-Avila, J. (2018, June 21). Practicing Cultural Humility to Transform Health Care [web log]. Culture of Health Blog. Robert Wood Johnson Foundation. Retrieved from https://www.rwjf.org/en/blog/2018/06/practicing-cultural-humility-to-transform-healthcare.html.

Meich, E., Rattray, N., Flanagan, M., Damschroder, L., Schmid, A., & Damush, T. (2018). Inside help: An integrative review of champions in healthcare-related implementation. SAGE Open Med 6:1-11.

Health Care Without Harm. (2017). Menu of Change. Retrieved from https://noharm-uscanada.org/sites/default/files/documents-files/5197/Menu%20of%20Change%20report%202017_FINAL_2-13-18_0.pdf.

Module 10. Academic Detailing as a Quality Improvement Tool. (n. d.) Agency for Healthcare Research and Quality, Rockville, MD. Retrieved December 10, 2018, from http://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/mod10.html.

Oregon Primary Care Association. (2017). Food Insecurity Learning Collaborative Summary Report. Retrieved from https://www.orpca.org/Special%20Pops/OPCA.

PacificSource Columbia Gorge CCO. (2016). Community Health Improvement Plan Progress Report June 2016. Retrieved from http://cghealthcouncil.org/documents/wp-content/uploads/CHA_CHIP/PSCS-2016-CHP-Progress-Report.pdf.

PacificSource Health Plans. We Heart Veggies. Seriously. [web page]. Retrieved from https://pacificsource.com/VeggieU/.

Pinderhughes, H., Davis, R. Williams, M. (2015). Adverse Community Experiences and Resilience: A Framework for Addressing and Preventing Community Trauma. Prevention Institute, Oakland, CA. Retrieved from https://www.preventioninstitute.org/sites/default/files/publications/Adverse%20Community%20Experiences%20and%20Resilience.pdf.

References

Prevention Institute. (2014). Making Connections for Mental Health and Wellbeing Among Men and Boys in U.S. Prevention Institute, Oakland, CA. Retrieved from https://www.preventioninstitute.org/projects/making-connections-mental-health-and-wellbeing-among-men-and-boys.

Remigio-Baker, R., Hayes, D., & Reyes-Salvail, F. (2014). Adverse childhood events and current depressive symptoms among women in Hawaii: 2010 BRFSS, Hawaii. Maternal and Child Health Journal 18(10): 2300-8.

Rose, D. & Bodor, N. (2006). Household Food Insecurity and Overweight Status in Young School Children: Results From the Early Childhood Longitudinal Study. Pediatrics 117(2).

Rosenbaum, D. (2013). SNAP Is Effective and Efficient. Center on Budget and Policy Priorities. Retrieved from https://www.cbpp.org/sites/default/files/atoms/files/7-23-10fa.pdf.

Schneider-Munoz, A., Curry, D., & Carpenter-Williams, J. (2015). Journal of Child and Youth Care Work (25) - Trauma-Informed Practice. National Resource Center for Youth Services.

Seligman, H., Bindman, A., Vittinghoff, E., Kanaya, A., & Kushel, M. (2007). Food Insecurity is Associated with Diabetes Mellitus: Results from the National Health Examination and Nutrition Examination Survey (NHANES) 1999-2002. J Gen Intern Med 22:1018-23.

Seligman H., Laraia, B., & Kushel, M. (2010). Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants. The Journal of Nutrition 140:304-10.

Seligman H., Jacobs, E., López, A., Tschann, J., & Fernandez, A. (2012). Food Insecurity and Glycemic Control Among Low-Income Patients With Type 2 Diabetes. Diabetes Care 35:233-8.

Shaw. E. Howard, J., West, D., Crabtree, B., Nease, D., Tutt, B., & Nutting, P. (2012). The role of the champion in primary care change efforts: from the State Networks of Colorado Ambulatory Practices and Partners (SNOCAP). Journal of the American Board of Family Medicine 25(5): 676-685.

SAMHSA. (2019). Trauma and Violence. Retrieved March 29, 2019, from https://www.samhsa.gov/trauma-violence.

Tervalon, M. & Murray-Garcia, J. (1998). Cultural Humility Versus Cultural Competence: A Critical Distinction in Defining Physician Training Outcomes in Multicultural Education. Journal of Health Care for the Poor and Underserved 9(2): 117-125.

The Pediatric Integrated Care Collaborative. (n. d.) [Web page]. Retrieved April 5, 2019, from https://picc.jhu.edu/.

The Trauma Informed Care Project. (2019). Orchard Place. Retrieved April 5, 2019, from http://www.traumainformedcareproject.org/.

Trauma Informed Care. (2013). Alameda County. Retrieved on April 5, 2019 from https://alamedacountytraumainformedcare.org/trauma-informed-care.

Trauma Informed Oregon. (n. d.) Retrieved from https://traumainformedoregon.org/.

Wang Y. & Wang, Q. (2004). The Prevalence of Prehypertension and Hypertension Among US Adults According to the New Joint National Committee Guidelines: New Challenges of the Old Problem. Arch Intern Med 164(19): 2126–2134.

Waters, A. & Asbill, L. (2013). Reflections on cultural humility. American Psychological Association. Retrieved April 5, 2019, from https://www.apa.org/pi/families/resources/newsletter/2013/08/cultural-humility.

Winicki, J. & Jemison, K. (2006). Food Insecurity and Hunger in the Kindergarten Classroom: Its Effect on Learning and Growth. Contemporary Economic Policy 21(2): 145-157.

Women's Health Associates, The John D. Stoeckle Center for Primary Care Innovation, Massachusetts General Hospital. (2012). Putting Group Visits Into Practice: A Practical Overview to Preparation, Implementation, and Maintenance of Group Visits at Massachusetts General Hospital. Retrieved from https://www.massgeneral.org/stoecklecenter/assets/pdf/group_visit_guide.pdf.

Appendix A
Worksheets to Guide Your Planning

Worksheet 1: Readiness Assessment

Use the questions in the Readiness Assessment to help guide the planning for your Food as Medicine Initiative. If you find that many of your answers are "no", this will show you what pieces you may need to think about and put in place before launching your initiative.

Worksheet 2: Models of Intervention

Three of the most popular interventions are pop-up farmacies, CSA box prescription programs, and voucher programs – each of which provide participants with healthy food in different ways. Carrying out these interventions successfully requires organization and attention to detail. To help, we have included tips and best practices for each of these three interventions. These are developed from interventions in Alameda County and are not necessarily comprehensive for every clinic or region, so feel free to tailor these to your needs. You may also print them out for your staff.

- Example #1: Pop-Up Food Farmacies
- Example #2: Prescribing Community Supported Agriculture (CSA) Boxes
- Example #3: Clinic-Based Food Prescription/Voucher Programs

Worksheet 1: Readiness Assessment

Below are Readiness Assessment questions to help guide the planning for your Food as Medicine Initiative. If you find that many of your answers are "no," this will help guide the pieces you need to think about and put in place in order to launch your initiative.

A. Existing Food and Health Related Projects	Circle one
Do you have already have an ongoing program promoting accessibility to healthy foods in your practice?	Yes No
Do you have a regular mechanism for offering cooking classes or cooking demonstrations?	Yes No
Do you provide nutrition education courses or materials?	Yes No
If so, are these nutrition courses or materials available to all patients or just those with existing diet-related conditions?	Yes No

B. Food Insecurity Screening	Circle one
Do you have a regular practice of asking patients about the quality of food they eat?	Yes No
Does your practice screen patients for food insecurity?	Yes No
Is screening part of your standard workflow?	Yes No
Do you use a standardized assessment tool, like Hunger Vital Sign?	Yes No
Are screening results recorded in the EHR?	Yes No
If no to the above, do you have capacity to add screening into your workflow?	Yes No

C. Administrative Support	Circle one
Do you have someone on your team passionate about the connection between food insecurity, nutritious food, and disease prevention to champion a Food as Medicine program in your healthcare setting?	Yes No
Are preventative health care measures such as addressing food insecurity and its relationship to disease a priority for your health care setting?	Yes No
Do you have anyone within your administration who would be supportive to these kinds of efforts moving forward?	Yes No

D. Volunteer & Patient Involvement	Circle one
Do you have an existing group of volunteers that may be able to help with a new Food as Medicine project?	Yes No
Do you have any existing committees with patient participation where they could help inform a new Food as Medicine Project?	Yes No

E. Local Resources	Circle one
Do you already have partnerships with local organizations, food pantries, neighborhood groups or corner stores that could be allies in building this initiative?	Yes No
Are there urban or local farms near your clinic who could supply fresh produce?	Yes No

F. Space	Circle one
Do you have an existing outside or inside area where food could be distributed to patients?	Yes No

G. Funding	Circle one
Do you presently have any funding that could be allotted to purchasing healthy foods for your patient population?	Yes No
Do you have a fundraising department that would be willing to take on a new project such as this?	Yes No

Pop-Up Food Farmacies

Tips and Best Practices in Alameda County

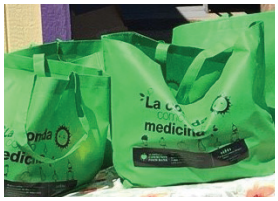
Step 1: Supplies Needed

- ☐ 4-5 tables
- ☐ Grocery bags
- ☐ Large coolers with ice (for perishable items to be stored)
- ☐ Table cloths
- ☐ 1-2 baskets to display available food items
- ☐ Recipes
- ☐ Other information/resources you want to distribute
- ☐ Area for cooking demo (if needed)

Display baskets
Plastic food bags

Step 2: Packing Food
2-4 volunteers

1. The dried goods are best packed in reusable bags
2. Reusable bags can also hold the proteins (perishable items should be packed closer to start of distribution)
3. Plastic or paper bags (double bagged) should be available to pack fruits and vegetables
4. Based on amount of food you have available, patients may be given choice to take what they want OR you can pack a set amount of food



Grocery bags

Step 3: Table Set Up

- ☐ 1 table for baskets showing the kind of produce people will be getting
- ☐ 2 tables for bags that will be distributed to patients
- ☐ 1 table for recipes, resources, food champions displays
- ☐ 1 table for Cal Fresh enroller

Resource table

Step 4: Distribution
4-5 volunteers

1. 1-2 volunteers to greet participants and collect any necessary data
2. 1-2 to volunteers to hand out packed bags
3. 1 volunteer to help with distribution of unpacked items, such as fruits and vegetables
4. 1 roaming volunteer to help with questions and problems as they arise

Fresh produce distribution option: Take as much as you need

Step 5: Clean Up
3-4 volunteers

- ☐ Put away the tables, coolers, pack up any materials
- ☐ Decide how to distribute remaining food

Additional Notes

If you are contracting with a local grower that have CSA boxes, you will need a table for that to be displayed with information on how people can obtain home delivery of these boxes.

If you are able, provide consistent volunteers, with gift certificates.

It is important that at least some of your volunteers be health center staff so that participants understand the farmacy's connection to your clinic.

Prescribing Community Supported Agriculture ("CSA Boxes")

Tips and Best Practices in Alameda County

Step 1
Who are your CSA partners?

- ☐ When choosing your partnering farm, make sure that their usual delivery range includes where your patient population lives.
- ☐ An ideal CSA partner is a farm that participates in Market Match, which translates to a discount of 50% on the cost of the produce. This makes it more affordable for families to sign up as an independent customer using their own benefits (WIC, SNAP) after your intervention is finished.
- ☐ Assess the capacity for your partnering CSA to participate in responsible data-sharing agreement (e.g. MOU).

Step 2
Who will participate?

- ☐ Use a clear diet-related diagnosis (e.g. diabetes) in your index patients or a social determinant predisposing to poor diet (e.g. household food insecurity) based on report from index patient or appropriate household member (e.g. parent of pediatric patient on behalf of household)
- ☐ Participants must live in delivery range of farm partner

Step 3
What will they get?

- ☐ Choose frequency (such as weekly or biweekly deliveries)
- ☐ Choose duration (e.g. a total of 12 weekly deliveries)
- ☐ Boxes can either have the usual offerings delivered to paying customers or can be tailored to your patient population (i.e. just whole grains and vegetables)
- ☐ Boxes can have the same amount of food delivered to paying customers or be customized based on the household size of a patient's family
- ☐ Deliveries are more meaningful if coupled with recipes, cooking videos, and other health education materials to help families use the food in their box

Step 4
How will you measure impact?

- ☐ Your index patient will be your key source of outcomes data, especially when they were identified based on a health criteria (e.g. HgbA1c in diabetics), but food delivered to the household will be consumed by others. We recommend that even if index patient for recruitment is a child, data collection also focus on at least some diet-related measures in a consistent adult in the household.
- ☐ Data collection should not only include the metrics used to identify participants (e.g. food security) but also some measures of diet. Also consider shopping patterns, preference for foods delivered, and uptake of CSA delivery as a client.

Clinic-Based Food Prescription/Voucher Program

Tips and Best Practices in Alameda County

Step 1: Identify Partners

- Identify a local farm or procurer of local foods that can set up a farm stand at your clinic or at another location on designated days.
- Make sure that the grower or procurer you work with has the capacity to regularly staff a farm stand at your clinic, based on the schedule you develop.

Step 2: Identify Participants

- Identify your priority population. For example: will you focus on specific populations with existing health challenges or focus on patients that are food insecure?
- Determine how your clinic will recruit eligible patients. Will it be through medical records, provider observation, or through a screening process such as Hunger Vital Signs?

Step 3: Prepare Resources

- Decide on the monetary value of your vouchers based on your funding. Generally, $5-$10 per voucher is sufficient depending on whether participants will be picking up food weekly or biweekly.
- Develop your vouchers with the ability to track which medical providers the vouchers came from.
- If possible, scan the voucher into the electronic medical record.
- Develop your clinic flow to make the voucher distribution smooth. For example, will the role of distributing vouchers be in the hands of the doctor, nurse practitioner, medical assistant, or nutritionist?

Step 4: Distribute and Track

- Make sure your farm partner is able to track which vouchers were redeemed at their stand. This will allow collection of patient outcomes data since this program is patient-specific. Farm stand staff can collect the vouchers from patients and return them to you for internal tracking.
- Note that clinics that have farm stands onsite (rather than at another location) will have higher amounts of redeemed vouchers.

Appendix B: Federal Nutrition Programs

Federal Nutrition Programs

Program	Program Offerings	Eligibility Criteria	Impact
Supplemental Nutrition Assistance Program (SNAP), or 'CalFresh' in California [formerly known as food stamps]	Monthly benefits to purchase food at select grocery stores, farmers' markets, and other food retail outlets nationwide Benefits loaded onto an Electronic Benefits Transfer (EBT) card that functions like a debit card	Gross income limit is typically at 130% of the federal poverty level (FPL), but this varies by state. In California, it is 200% of FPL. Participation is not restricted by age. Not all food retailers accept EBT cards	From 2009-2010, SNAP kept 806,000 California residents out of poverty each year SNAP benefits have a 1.7 multiplier effect in the economy – one of the most effective economic stimulus programs of the federal government (Rosenbaum, 2013)
National School Lunch Program and School Breakfast Program	Free, reduced-price, or paid school meals at participating schools Current meal guidelines feature more whole grains, no trans fat, more fruit, and less sodium than before	Children in grades K-12 from families at low or moderate income levels or All students at schools with "community eligibility" – schools with high numbers of low-income children can offer free breakfast and lunch without requiring school meal applications	School meals can boost children's academic achievement in addition to their nutrition and health because public and nonprofit schools are reimbursed for providing meals and snacks to children
Child and Adult Care Food Program (CACFP)	Up to 2 free meals and a snack to infants and children at child care centers and homes, Head Start, and Early Head Start	Children up to age 5 attending eligible child care centers and homes, Head Start, or Early Head Start Children age 18 and under at domestic violence and homeless shelters	Program improves the dietary intact, health, and quality of care of participating children
After School Nutrition Programs	Free meals and/or snacks that meet federal nutrition standards in programs running after school, on weekends, or during school holidays	Children 18 and under at participating programs at community sites such as schools, park and recreation centers, libraries, and faith-based organizations	Free meals serve as an incentive to draw children and adolescents to safe places for them to be engaged and learn

Appendix B: Federal Nutrition Programs

Federal Nutrition Programs

Program	Program Offerings	Eligibility Criteria	Impact
Summer Nutrition Program	Up to 2 free meals at approved sites during summer vacation	Children 18 and under at participating programs at community sites such as schools, park and recreation centers, libraries, and faith-based organizations. Sites must serve a majority of children who qualify for free or reduced-price school meals Meals must meet federal nutrition standards Identification is not required	Ensures children who rely on school meals continue with good nutrition over the summer, when students are more vulnerable to food insecurity
Special Supplemental Nutrition Program for Women, Infants and Children (WIC)	Nutritionally tailored monthly food packages (with about $50 value) that are redeemed in participating food retail stores Breastfeeding support, nutrition services, health screenings, immunization, and healthcare referrals	Low-income, pregnant, breastfeeding, and postpartum women and infants and children up age 5 who are "nutritionally at risk" (as determined by a health professional) Income eligibility typically at or below 185% of the federal poverty level Families on Medicaid	WIC is shown to reduce food insecurity, improve dietary intake, and improve other health outcomes such as obesity
Fresh Fruit and Vegetable Program (FFVP)	Funding to elementary schools to serve fruits and vegetables as snacks	Students in elementary schools with high numbers of low-income students	Designed to increase children's exposure to and of fresh fruits and vegetables
The Emergency Food Assistance Program (TEFAP)	Emergency food distributed to through food banks local partners such as pantries, schools, or faith-based programs	Depends on specific site requirements; typically open to all ages. Some sites require referrals	Provides short-term relief for low-income individuals in need of food

Appendix C: Coding for Food and Nutrition Services in Health Care Settings

At-a-glance summary of coding and billing for FNS
(DeSilvey, et al., 2018)

Process	Coding & Billing Overview
Food insecurity screening & documentation in EHR	There are no specific Current Procedural Terminology (CPT®) codes related to food insecurity screening and intervention activities. The Hunger Vital Sign™ National Community of Practice worked with the American Medical Association and the American Academy of Pediatrics to verify that food insecurity screening can be billable in certain instances under general health risk screening CPT® codes. The health risk screening CPT® codes verified by the Hunger Vital Sign™ National Community of Practice that can be used to screen for food insecurity include: • Administration of a patient-focused health risk assessment (CPT® 96160) • Administration of caregiver-focused health risk assessment instrument for the benefit of the patient (CPT® 96161) Some insurance programs allow a food insecurity diagnosis (Z59.4) to increase the complexity of the visit, which then prompts increased reimbursement. Providers should confirm with local insurers. In non-preventative visits, food insecurity is assessed, and the provider would counsel the patient and document sufficient time spent in counseling activities. Preventive medicine counseling codes can be reported in addition to evaluation and management (E/M) CPT® codes for the visit, thereby increasing reimbursement. In this example, providers would use the time-based preventive medicine counseling codes (CPT® 94401-94406). Note: codes may generate a patient charge if screening is conducted with under-insured patients or patients whose insurance do not cover screening activities. For more information on food insecurity coding in health care settings, see resource[i] below.
Nutrition counseling	• SNOMED Finances education, guidance and counseling (410292002) • SNOMED Food education, guidance and counseling (410293007) • SNOMED CT Food provision (710925007) • Other specified counsel (ICD-Z71.89) • Refer – SNOMED Patient referral for socioeconomic factors (41920009)
Federal Nutrition Program Referrals	Health care providers can customize EHR systems to track referrals for food-insecure patients.
Food Prescriptions	There is currently no unique code for food prescriptions. SNOMED CT has a code for food provision (710925007) that could meet the intent of an on-site food assistance opportunity.
Home-delivered meals	Medicaid - 1915(c) Home and Community Based Services Waivers - 1115 Waiver Demonstration Projects - Delivery System Reform Incentive Payment Models (DSRIP) Medicare - Medicare Part C (Medicare Advantage Plans) may cover as supplemental benefit, or through Special Needs Plans (SNPs) - PACE Programs (joint Medicare/Medicaid) - Dual Eligible Demonstration Projects (Medicare/Medicaid) Private - Beyond USPSTF-recommended nutritional counseling, there are no federal requirements for covering nutrition services such as home-delivered meals

Food as Medicine Implementation in Alameda County

Method of Intervention	Important Partners	Important Resources	Strengths	Challenges Financial and resource considerations
Fixed Pantry/ Farmacy	Alameda County Community Food Bank, Local Growers & Procurers	**SPACE** Alameda County Community Food Bank can provide technical assistance on the kind of space needed to set up a fixed pantry. **STAFFING** You will need someone who can staff this for the hours it is open OR a staff person who can accompany patients to the location and provide them with their "prescription." **STOCKING THE FOOD** Since the fixed farmacy will need to be stocked a few times a week, you need someone to pick up the food or arrange a drop off with your producer.	Food is available to your patients when they need it, as opposed to set times in the pop-up model (below)	• How much food you will need to purchase • How you will obtain the food on a regular basis
Pop- up Market or Farmacy	Alameda County Community Food Bank, Local Growers & Procurers	6-8 volunteers for each distribution or more, depending on the scope	• Can happen weekly or monthly • Can be tailored to a specific patient population or open to everyone • Do not require permanent space • Can easily add other activities such as CalFresh enrollment, cooking demos etc., making them an excellent venue for education and connecting families to needed resources.	• Food is only available to your patient population at designated times and frequencies • Heavy demand for volunteers for set up, distribution, and clean up
Voucher Program	Alameda County Community Food Bank, Local Growers/Procurers	• A system for developing and distributing vouchers • A place to redeem vouchers	• Less labor intensive because you can partner with a grower or procurer of local food (such as Dig Deep Farms or Mandela Marketplace for example) that will operate the pop up utilizing your vouchers as payment for food "prescribed." • Patients may have more "choice" of foods that they wish to take home.	

Food as Medicine Implementation in Alameda County

Method of Intervention	Important Partners	Important Resources	Strengths	Challenges Financial and resource considerations
Farm Stand	Mandela Marketplace, Phat Beets Produce and Dig Deep Farms operate farm stands or mini farmers markets at a number of health centers. These are not free but some have a market match program where people can get produce at half price. You can check to see whether they may be able to operate this kind of market at your health center.	• A partner who is willing to operate a farm stand at your health care location • A method of outreach to patients about the benefits of utilizing the farm stand	Farm stands on site at your health center can be an important complement to what you are able to provide your patients for free. It provides them with easy access to fresh fruits and vegetables.	There is a cost for the produce offered at these stands and sometimes patients either do not have the funds or have not received information about the cost benefit of purchasing from these farm stands
Food Bags	Alameda County Community Food Bank (This is often called the Backpack Program by the food bank or you may choose to call them Wellness Bags)	• A place to store large bins with bags of dried goods • If wanting to add fresh produce to these bags, volunteers or staff to pack the bags and have them at the clinic site on a particular day to hand out to patients	You can distribute to patients on any clinic day that you choose if using only shelf ready foods.	• Storage and distribution • More difficult to include fresh produce, proteins etc.

Alameda County Farmers' Markets with EBT Acceptance and Market Match*
(as of August 2019)

Name	Address & Cross Streets	Day	Months	Hours
Alameda				
Alameda CFM	710 Haight Ave at Webster St, 94501	Sat & Tues	Year round	9:00am-1:00pm
Berkeley				
Downtown Berkeley	Center St & MLK Jr. Way, 94704	Sat	Year round	10:00am-3:00pm
North Berkeley	Shattuck Ave & Rose St, 94709	Thurs	Year round	3:00pm-7:00pm
South Berkeley	Adeline St & 63rd St, 94703	Tues	Year round	2:00pm-6:30pm
Castro Valley				
Castro Valley Farmers' Market	Castro Valley BART station parking lot 21013 Redwood Rd & Norbridge Ave, 94546	Sat	Year round	9:00am-1:00pm
Dublin				
Dublin Certified Farmers' Market	The Wave at Emerald Glen Park 4201 Central Parkway & Tassajara Rd, 94568	Thurs	Apr-Sep	4:00pm-8:00pm
Fremont				
Irvington Farmers' Market	4039 Bay St & Trimboli Way, 94538	Sun	Year round	9:00am-2:00pm
Kaiser Fremont Farmers' Market	39400 Paseo Padre Parkway & Civic Center Dr, 94538	Thurs	Year round	10:00am-2:00pm
Niles Farmers' Market‡[1]	Niles Plaza Parking Lot, 37573 Niles Blvd, 94536	Sat	Year round	10:00am-2:00pm
Hayward				
Hayward Farmers' Market	City Hall Plaza 777 B St at Watkins St & C St, 94541	Sat	Year round	9:00am-1:00pm
Livermore				
Livermore Farmers' Market	Carnegie Park 2155 3rd St, 94550	Sun & Thurs	Sun: Year round Thurs: Apr-Oct	Sun: 10:30am-2:00pm Thurs: 4:00pm-8:00pm

Alameda County Farmers' Markets with EBT Acceptance and Market Match*
(as of August 2019)

Name	Address & Cross Streets	Day	Months	Hours
Newark				
Newark Farmers' Market	NewPark Mall, East Side (JC Penny) 2086 NewPark Mall, 94560	Sun	Year round	9:00am-1:00pm
Oakland				
Allen Baptist Temple[1]	Allen Baptist Temple 8501 International Blvd, 94621	Sun	Mar-Nov	10:00am-11:00am
Center of Hope[1]	Center of Hope Community Church 2601 E. C. Reems Ct, 94605	Sun	Mar-Nov	1:30pm-2:00pm
Freedom Farmers' Market	New Hope Church 3615 Market St at 36th & 37th St, 94608	Sat	Jul-Nov	10:00am-3:00pm
Grand Lake Farmers' Market	Splash Pad Park 746 Grand Ave & Lake Park Ave, 94610	Sat	Year round	9:00am-2:00pm
Jack London Square Farmers' Market	Jack London Square Webster St & Embarcadero West, 94607	Sun	Year round	10:00am-3:00pm
Kaiser Oakland Farmers' Market[1]	Kaiser Permanente Oakland 3600 Broadway & W MacArthur Blvd, 94607	Fri	Apr-Oct	10:00am-2:00pm
North Oakland Children's Hospital Market	Oakland Children's Hospital 747 52nd St & MLK Jr. Way, 94609	Tues	Year round	2:00pm-6:00pm
Old Oakland Farmers' Certified Market	9th St & Broadway, 94607	Fri	Year round	8:00am-2:00pm
Temescal Farmers' Market	DMV parking lot 5300 Claremont Ave & Cavour St, 94618	Sun	Year round	9:00am-1:00pm
Uptown Oakland Farmers' Market	1 Kaiser Plaza, 94612	Wed	Apr-Nov	10:00am- 2:00pm
Fruitvale Farmers' Market‡	Near BART E 12th St & 24th Ave, 94601	Tues, Thurs, Sun	Year round	Tues, Thurs: 12:00pm-7:00pm Sun: 10:00am-3:00pm
Pleasanton				
Pleasanton Farmers' Market	46 W Angela St at First St & Main St, 94566	Sat	Year round	9:00am-1:00pm

Alameda County Farmers' Markets with EBT Acceptance and Market Match*
(as of August 2019)

Name	Address & Cross Streets	Day	Months	Hours
San Leandro				
Kaiser San Leandro CFM	Kaiser Permanente San Leandro Medical Center 2500 Merced St, & Fairway Dr, 94577	Wed	Year round	10:00am-2:00pm
Downtown San Leandro Farmers' Market	135 Parrott St & E 14th St, 94577	Wed	Mar-Oct	4:00pm-8:00pm
San Leandro Bayfair Center CFM‡	Bayfair Center 15555 E 14th St & Fairmont St, 94578	Sat	Year round	9:00am-1:00pm
Union City				
Kaiser Union City Farmers' Market	Kaiser Permanente Union City 3553 Whipple Rd & Union City Blvd, 94587	Tues	Apr-Nov	10:30am-2:00pm
Union City Farmers' Market	Old Alvarado Park 30940 Watkins St & Smith St, 94587	Sat	Year round	9:00am-1:00pm

All markets listed accept Electronic Benefits Transfer (EBT) cards, which are part of the federal Supplemental Nutrition Assistance Program (SNAP), which helps low-income families access adequate food. In California, it is also known as CalFresh. Eligibility is based on household size and income level. Visit http://www.cdss.ca.gov/food-nutrition/calfresh to apply.

*MarketMatch is available at many Alameda County farmers' markets to customers with EBT cards. When an EBT card is used at a MarketMatch participating market, the funds are "matched" and participants are given extra money to spend on fresh fruits and vegetables at the market. Most markets match funds up to $10. Visit https://marketmatch.org/about/how-it-works/ for more info.

‡EBT accepted; MarketMatch unavailable.
[1]Market no longer operating.