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Increasing Food Security Efforts Across the Cancer Continuum: A Toolkit for Comprehensive Cancer Control Coalitions

2023





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Introduction

The American Cancer Society is a leading cancer-fighting organization with a vision to end cancer as we know it, for everyone. For over 20 years, the American Cancer Society has partnered with the Centers for Disease Control and Prevention's (CDC) National Comprehensive Cancer Control Program through a cooperative agreement to provide training and resources to enhance the capacity of Comprehensive Cancer Control (CCC) coalitions. CCC coalitions are tasked with designing and implementing impactful, strategic, and sustainable plans to prevent and control cancer. These efforts range from prevention to survivorship and include goals, measurable objectives, and evidence-informed strategies to advance cancer control efforts in their state, tribe/tribal organization, territory, or Pacific Island Jurisdiction.

Improving food security nationwide was a central theme of the September 2022 [White House Conference on Hunger, Nutrition, and Health](#). The resources and recommendations provided in this guide are in alignment with the approaches outlined by the White House National Strategy, which emphasizes the need for improved food access and affordability, the importance of integrating nutrition into disease management, and further research to enhance knowledge and best practices around these topics. Food security impacts cancer survivors and their families in a myriad of ways described in the following pages. The purpose of this toolkit is to support CCC coalitions in their efforts to address food security among cancer survivors.

The American Cancer Society has prioritized building upon the 2021 NUPA Policy, Systems, and Environmental Approaches Guide by providing CCC coalitions and their partners with the tools and resources necessary to improve food security through evidence-based approaches in their states.



Link between food security and cancer

Food security is a key determinant of health to consider when addressing disease management and health outcomes.

Food security:

Having consistent access to **enough food for a healthy life**



10.2% (13.5 million) of U.S. households reported experiencing low food security in 2021 [USDA]

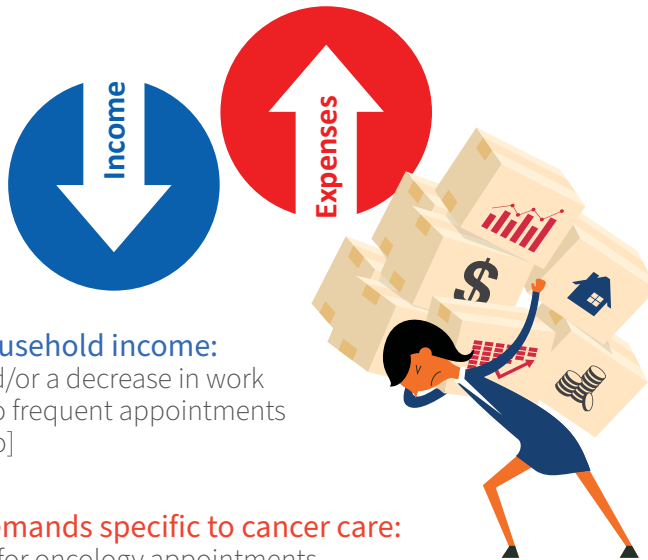
Nutrition security:



Emphasizes access, availability, and affordability of **nutritious foods and beverages that promote well-being and prevent disease** [Zhang, Mozzafarian]

Recent studies have shown that the **prevalence of low food security in people with cancer and their caregivers is much higher than that of the general population** [Charkhchi, Gany].

Financial toxicity associated with cancer diagnosis and treatment



Decreased household income:

- Job loss and/or a decrease in work hours due to frequent appointments [Gany, Chino]

Competing demands specific to cancer care:

- Travel costs for oncology appointments
- Appointment copayments
- Medication
- Potentially more expensive dietary requirements [Gany]

The above leads to low food security and trade-offs to meet basic needs:

- Many families experiencing low food security are forced to choose between food and other resources, such as health care or medicine, which can negatively impact their adherence to treatment and health outcomes.

Low food security can cause cancer-related challenges [Gany, Simmons]:

- Medication nonadherence
- Increased difficulty in medical decision-making
- Decreased quality of life
- Depression

- Cancer progression
- Poor symptom control
- Increased risk for disease complications

- Increased health care expenditures

As CCC coalitions and other partners are becoming increasingly aware of these connections that are rooted in the experience of low food security, strategies to address the root cause are needed. Addressing food security is a critical component of supporting cancer survivors and their families, particularly those at greater risk for low food security, including [Coughlin]:



People with children



People with limited income or experiencing financial hardship



People without health insurance coverage



People of color



Methods for informing this toolkit

A brief online survey was sent to CCC coalitions in August 2022 to better understand specific interests and needs around food security in order to inform the development of this toolkit. The survey was completed by 68 coalition partners from across the U.S. who provided information about the types of strategies the coalitions are already engaged with, strategies they are most interested in implementing, and the types of partnerships and resources they believe would be integral to this work. Follow-up one-on-one interviews and a focus group with CCC coalition members were also conducted to help provide further context for how coalitions may feasibly address food security in their communities.

Food security is an important consideration and opportunity for CCC coalitions to improve quality of life and nutritional status of cancer survivors. In this guide, you will find evidence-based, action-oriented strategies to improve food security for cancer survivors, partnerships and funding opportunities to sustain coalition efforts, and ways to incorporate data and evaluation into this work.

Taking action

Before selecting a food security strategy, a coalition will take several factors into account, such as available partners and resources, in order to determine the type of role the coalition intends to play in the initiative.

Key partnerships and collaborations

Traditional coalition partners may be new to food security work. Therefore, partner recruitment should prioritize individuals and organizations that have diverse experience in the food security landscape and/or are in a strategic position to put cancer control activities into practice. Additionally, working with partners to identify common goals, ideal timing, and overall capacity could help to keep them engaged throughout the partnership. The following table lists examples of partnerships that could contribute to success in this area.

Type of Partnership	Examples
Emergency food assistance partners whose mission it is to improve food security in the region, state, and local communities	Food banks, food pantries, and food rescue organizations
State and local policy makers and advocacy groups to facilitate policy development and implementation, both directly and indirectly related to food	Legislators, city council, and food policy councils
Community leaders who can help overcome cultural and social barriers and help generate buy-in for food security approaches	Local business leaders and community organizers
National nonprofit organizations with a state-level footprint that may have dedicated staff and resources to facilitate implementation	YMCAs, National Recreation and Park Association, and Cooking Matters
State and local agencies that can provide an opportunity to leverage existing resources, such as food access plans	Health departments, Cooperative Extension programs within land grant universities, local SNAP or WIC agencies
Public entities that can help create linkages in the community with existing resources and facilities for implementation	Schools, community/senior centers, and nonprofit organizations
Organizations at the state and local level that are part of other CDC-funded programs working on food and nutrition security	Grantees in the Division of Nutrition, Physical Activity, and Obesity (DNPAO) and recipients of awards under the following programs: Racial and Ethnic Approaches to Community Health (REACH), High Obesity Program, and State Physical Activity and Nutrition (SPAN)
Private entities that can serve as a host site for an intervention	Faith-based organizations, hospitals, food retail outlets, and large employers
Content area experts who can help programs gain traction with specific approaches, inform evidence-based best practices, and plan an evaluation of the efforts	Academic institutions, SNAP-Ed, and other research and evaluation partners
Relevant state and local business associations working on food security initiatives, such as nutrition incentives at farmers markets and retail settings	Farmers Market Associations and Grocers' Associations
Health systems and health care practitioners who are trusted sources of information, essential to screening and referrals, and may be partnering on existing food security initiatives, such as mobile food pantries and produce prescription programs	Health care providers, specifically patient navigators within these settings; federally qualified health centers (FQHCs); and community health workers
Health-focused partners and community initiatives that have built strong memberships and community presence	State/local cancer programs, healthy eating active living (HEAL) initiatives, and other chronic disease partners, such as stroke and heart associations
Collaboratives focused on food security and on other social determinants of health related to food security	Local food security and anti-hunger coalitions, and housing coalitions
Partners serving diverse populations that may be experiencing disparities in access to care and at greater risk for low food security	Community and cultural centers, senior centers, and services specifically for immigrant populations



Potential coalition roles

A coalition's role in implementation can take several forms and vary greatly from state to state and across strategies. Based on the coalition members' skills, expertise, resources, and connections, the coalition could take on one or more of the following responsibilities:

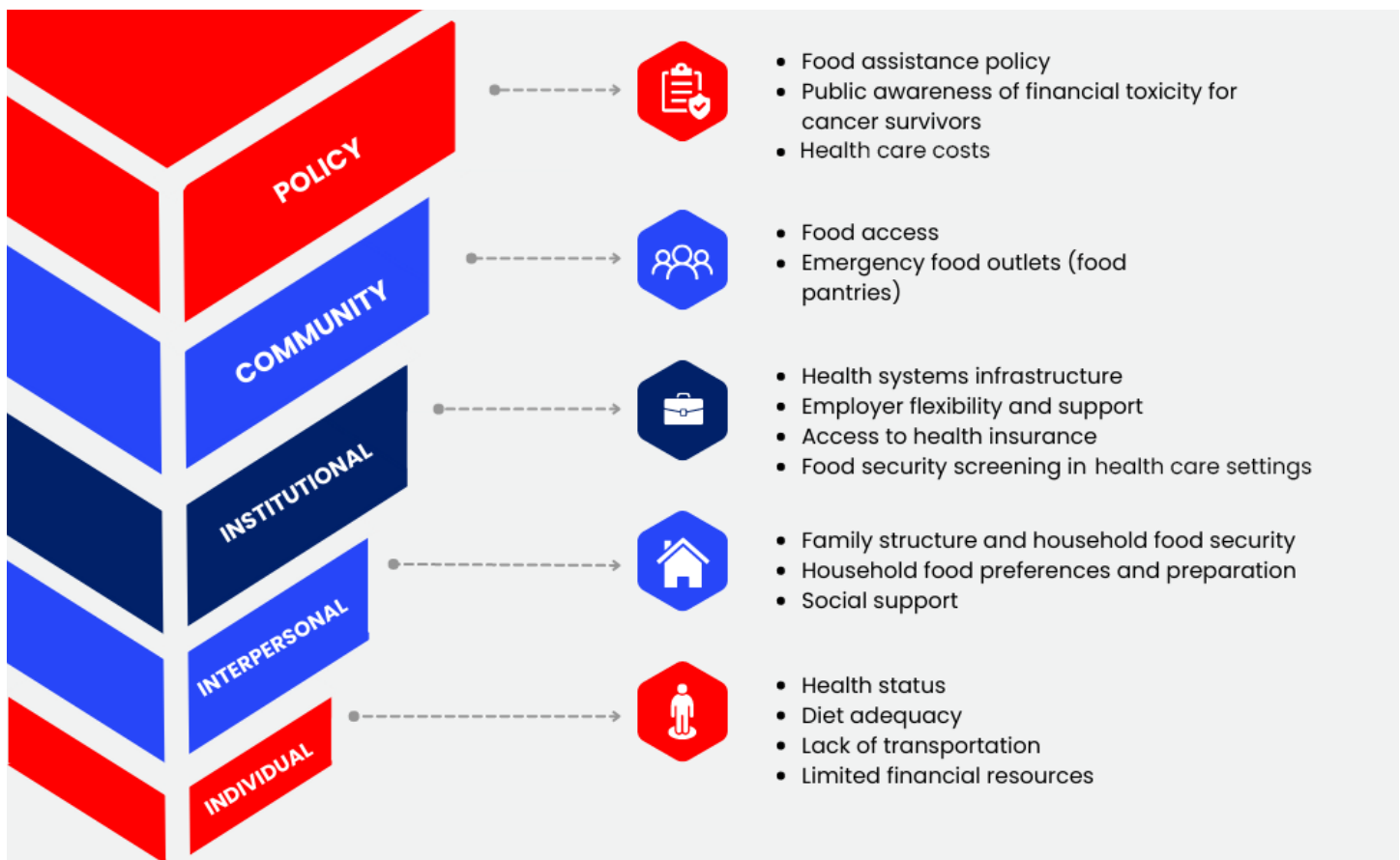
- **Convene collaborators:** Bring essential food security partners together to design and carry out an intervention. This could include recruiting necessary key partners, organizing planning sessions, and ensuring action items are assigned and accomplished. Additionally, coalitions could host local conferences or workshops, organize committees or workgroups, and facilitate consensus among cancer and other chronic disease partners.
- **Support existing efforts:** Lift up and push forward the work that is already happening in the state. This requires a strong awareness of the key players and existing/emerging food security work. Conducting a landscape analysis is often a helpful first step in gaining this awareness.
- **Educate and build awareness:** Promote the importance of food security in both primary prevention of cancer and long-term healthy survivorship. This may include providing a cancer coalition spokesperson for food security-focused media and/or public speaking engagements, and developing and disseminating information to emphasize the need and potential impacts through a variety of potential modes (e.g., print, presentations, social media), as well as mobilizing coalition supporters for other chronic disease initiatives.
- **Provide content-area expertise:** Ensure that the food security strategy is applicable and feasible for the population specific to a particular state or region. Provide cancer data and/or interpretation of data in relation to food security.
- **Educate decision-makers:** Provide information to decision-makers about policies or changes that will make an impact. Tools and resources can be developed that help to influence public policy. These tools could include draft model policy language or educational materials with supporting evidence around a specific aspect of food security.
- **Conduct outreach:** Implement activities to achieve the goals of a selected food security strategy, which may also include development of supporting materials (e.g., fact sheets or data briefs on the link between food security and cancer).
- **Provide communication support:** Develop promotional materials to educate the community, support branding efforts for an initiative, and disseminate resources. For example, prepare talking points for coalition partners to discuss the basics of food security and its relevance to cancer outcomes with potential collaborators (i.e., an elevator speech).
- **Provide funding support:** Provide funding to implement or promote a strategy. Provision of funding may also take the form of offering mini-grants to advance specific strategies or providing/recruiting others to donate in-kind time in a supportive role.

Food security strategies

Before describing specific strategies, it is important to understand that food security can be addressed at multiple levels and the social ecological model provides some framing [Gregson, Peng, Schroeder, Tucher].

Strategies to address food security span the social ecological model, with those influencing the policy, community, and institutional levels having the greatest potential impact (e.g., enacting a policy that allows cancer survivors to access resources could have far-reaching influence). While CCC coalitions may implement strategies at the individual and interpersonal levels, sustainable population health-focused strategies most often require policy-, systems-, and environmental-level change. According to the Institute of Medicine, assuring the health of the public requires a concerted effort across multiple sectors, including academia, the health care delivery system, communities, and governmental public health infrastructure [Institute of Medicine]. CCC coalitions could contribute to all these sectors and select strategies across the social ecological model that involve multiple sectors and partners. It is also important to note that food security strategies can span multiple levels of the social ecological model. For example, we can address participation of cancer survivors in food assistance programs (e.g., the Supplemental Nutrition Assistance Program or SNAP) at the individual level while also addressing federal policy that might expand eligibility for cancer survivors in these programs.

For the purpose of this toolkit, specific evidence-based strategies that CCC coalitions may wish to incorporate into their work span across three key areas and are described in more detail below: information and education, health care, and food access.





Informational and educational strategies



These strategies seek to increase knowledge and utilization of food security programs by cancer survivors with limited income and provide overall education to reduce stigma and increase awareness among various populations.

- **Food security awareness:** Social media or other types of campaigns to build awareness of low food security among cancer survivors and reduce stigma
- **SNAP enrollment:** Efforts to increase SNAP participation among cancer survivors with limited income, promoting nutrition education classes, social media marketing campaigns, and efforts to improve policy, systems, and environment in communities
- **Financial education and initiatives:** Efforts to support financial well-being among cancer survivors (e.g., connecting to resources and programs, skill building)
- **Cooking-based nutrition education:** Lectures and hands-on training to teach basic nutrition and culinary concepts and skills
- **Food outlet food navigation:** Tours of farmers markets or grocery stores to introduce new shoppers to the settings and how to utilize food assistance benefits

Food security awareness

Definition: Providing social media or other types of campaigns to build awareness of low food security among cancer survivors and reducing stigma

Program and Resource Examples

- [New England Cancer Specialists](#) developed a resource to provide an overview of food security in New England and to describe the strategies that their clinics use to screen for low food security and refer their patients to community resources.
- Pennsylvania’s Department of Human Services developed a [social media awareness toolkit](#) to help increase awareness of food security across the commonwealth.
- Feeding America’s [Hunger Action Month](#) contains suggested social media posts and other ideas for raising awareness.
- [We Feed LA Social Media Toolkit](#) provides social media posts to engage online communities.
- Trend Hunter’s [Hunger Awareness Campaigns](#) highlights 28 existing social media campaigns, including food drives, farmer appreciation, food waste reduction, and hunger fighting campaigns.
- [Using Social Media to Raise Awareness About Food Insecurity in Nunavut](#) is a case study with tips on how to use various social media platforms to spread awareness about food security.
- [Project Bread Resource Directory](#) provides free resources to amplify organizations with a mission to fight hunger.

CCC Coalition Considerations

- Consider the target audience that awareness campaigns are intended to reach (i.e., age groups for different social media sites/messaging, technological gaps, etc.).
- Be creative with hashtags and slogans to get the word out.
- Provide a call to action which can include links to fundraising.
- Utilize [Social Media Ambassadors](#) to get the message out.

SNAP enrollment

Definition: Coordinating efforts to increase SNAP participation among cancer survivors with limited income, which may include promoting nutrition education classes; social media marketing campaigns; and efforts to improve policy, systems, and environment in communities

Program and Resource Examples

- The [USDA SNAP-Ed Hub](#) houses state contact information, recipes, and education materials available for order.
- The [SNAP-Ed Toolkit](#) contains examples of interventions implemented by various community agencies, trainings, and webinars, and other resources for SNAP-Ed implementers nationwide.
- The [Senior SNAP Enrollment Initiative](#), funded by the Walmart Foundation, supports increased outreach and enrollment of older adults into SNAP benefits.

CCC Coalition Considerations

- Coalitions can partner with local nonprofits offering nutrition education classes to cancer survivors with limited income to promote enrollment in SNAP.
- The [National Coalition of Aging](#) offers steps to ensure older adults have access to food and SNAP benefits, including working with state agencies to increase awareness of where and how they can apply.
- Increased access can also be achieved by promoting the SNAP online pilot and free or reduced-price delivery options, requesting your state approve the use of electronic and telephone signatures, advocating for a simplified SNAP application and renewal process to be made permanent and universally available, and advocating for the temporary 15% increase in SNAP benefits to be made permanent.

Financial education and initiatives



Definition: Coordinating efforts to support financial well-being among cancer survivors by connecting them to resources, programs, and skill building

Program and Resource Examples

- The [Cancer Financial Assistance Coalition \(CFAC\)](#) helps cancer survivors manage their financial challenges.
- Memorial Sloan Kettering offers [Work, Education & Financial Resources](#).
- Triage Cancer has an interactive online tool called [Cancer Finances](#), which helps survivors understand how cancer treatment impacts their finances.
- The Leukemia & Lymphoma Society offers [Patient Financial Aid Programs](#).
- The [Samfund](#) is a nonprofit organization that provides grants, financial education, and resources to young adult cancer survivors.
- [Family Reach](#) is a national organization dedicated to eradicating cancer-related financial toxicity.
- [CancerCare](#) offers limited financial assistance for copays, childcare, transportation, and home care.
- The [Healthwell Foundation](#) is a nonprofit organization that helps reduce financial barriers for underinsured patients.

CCC Coalition Considerations

- Many patients do not feel comfortable discussing the cost of treatment with health care providers at the time of diagnosis. Keeping patient comfort level in mind regarding their capacity to receive this information is important.

Cooking-based nutrition education



Definition: Providing lectures and hands-on training to teach basic nutrition and culinary concepts and skills

Program and Resource Examples

- Cooking Matters provides [lesson plans](#) and a [directory](#) to find local programming.
- The American Institute for Cancer Research offers [Coping with Cancer in the Kitchen](#) programs that include nutritional lessons and onsite recipe preparation.
- SNAP-Ed's [Cooking Basics](#) provides information and resources related to building cooking skills.
- [Cooking is a SNAP](#) is an evidence-based culinary nutrition education curriculum developed by the University of Minnesota Extension.
- [Eat for You](#), a consumer education campaign by the Portion Balance Coalition, provides resources for consumer education, social media, and marketing.
- The [James Instructional Kitchen](#) out of the Wexner Medical Center provides individualized culinary education and recipes to those affected by cancer.
- [Nutrition Education and Culinary Demonstrations at Farmers Markets](#) is a guide for community organizations to implement three different nutrition education programs (Just Say Yes to Fruits and Vegetables Stellar Farmers Markets, Farmers Markets for Kids, and Cook Fresh at Farmers Markets).

CCC Coalition Considerations

- If cooking-based nutrition education is of interest, CCC coalitions should first consider who the target population is (e.g., cancer survivors, children, families, older adults) and then partner with appropriate local nonprofits or Cooperative Extension programs.
- There are a number of existing curricula and resources to establish cooking-based nutrition education locally, and there may already be a local partner offering Cooking Matters or programming under SNAP-Ed.

Food outlet food navigation



Definition: Providing tours of farmers markets or grocery stores to introduce new shoppers to these settings and how to utilize food assistance benefits

Program and Resource Examples

- Massachusetts General Hospital created a [Guide for Safe & Healthy Grocery Shopping for Cancer Patients](#), including tips and recipes.
- Seton Medical Center's [Cancer Care Collaborative](#) incorporates grocery store tours into its educational classes for cancer survivors and their families.
- [Grocery Store Tours: A Guide for Nutrition Educators](#) provides information on incorporating tours into nutrition education classes.

CCC Coalition Considerations

- CCC coalitions can partner with local food retailers and outlets to support this work.
- CCC coalitions should consider the location of the food retailer and how this may influence food access. If transportation is a barrier for patients, partnerships with ride shares or other local nonprofits may be needed (see Transportation Initiatives below).



Health care-focused strategies



These strategies address how medical providers, a first step in the line of care, can screen for and address food and nutrition security.

- **Health care food security screening:** Introducing screening questions to health care visits (typically 2-item screener) with referrals to supporting agencies (e.g., food pantry)
- **Produce prescription:** Medical providers giving patients experiencing low food security fruit and vegetable prescriptions with vouchers for purchasing fruits and vegetables
- **Medically tailored meals:** Providing meals and/or food boxes that are specifically designed to meet the nutritional needs of cancer survivors

Health care food security screening



Definition: Introducing screening questions to health care visits with referrals to supporting agencies (e.g., food pantry)

Program and Resource Examples

- Memorial Sloan Kettering Cancer Center’s [FOOD \(Food to Overcome Outcome Disparities\)](#) created a [provider training course](#) designed to educate providers about the importance of addressing food security. They also host 13 food pantries within cancer clinics in New York.
- The Food Research & Action Center published [Screen and Intervene: A Toolkit for Pediatricians to Address Food Insecurity](#), which could be useful for oncology health care professionals looking to adopt food security screening practices.
- [Feeding America](#) outlines three potential actions as a result of screening at health care sites: Refer, Host, and Connect.
- The [2-item Hunger Vital Sign](#) is a widely used brief assessment of food security.
- The [Distress Thermometer](#), developed by the National Comprehensive Cancer Network, is a useful tool that addresses whether respondents have enough food.

CCC Coalition Considerations

- Partner with existing food pantries or install smaller food pantries in health care settings to reach people with cancer during and after treatment.
- Team-based approaches are most effective to streamline referrals and often require sensitivity/empathy training. Language barriers may also need to be addressed.
- Due to stigma, low food security often goes underreported, so data collected at screening visits may not always be an accurate reflection of the burden of low food security.

Produce prescription



Definition: Medical providers giving patients experiencing low food security fruit and vegetable prescriptions with vouchers for purchasing fruits and vegetables

Program and Resource Examples

- The [Gus Schumacher Nutrition Incentive Program \(GusNIP\) Nutrition Incentive Hub](#) has several valuable resources, including readiness checklists, logic models, implementation guides, and tools for engaging partners.
- UCSF and No Kid Hungry created the [Rural Produce Prescription Toolkit](#), which acts as a practical guide for those planning produce prescription programs in rural areas.
- There are many great examples of existing programs, including the [Fresh Rx Farm to Patient program](#), [Food Bucks Rx](#), [Wholesome Wave](#), [The Food Trust + Camden Coalition](#), and [RP Rx](#).

CCC Coalition Considerations

- Make sure to check your [state policies](#); there may be opportunities to leverage produce prescriptions through Medicaid, Medicare, and pilot programs.
- As produce prescription programs grow in size and scope, researchers, clinicians, other health care stakeholders, and community members should partner to design the incentive structure, acknowledging the critical roles of physicians, local farmers, and government assistance programs. Explore a few of the [ethical and policy implications](#) of produce prescription programs.

Medically tailored meals



Definition: Providing meals and/or food boxes that are specifically designed to meet the nutritional needs of cancer survivors

Program and Resource Examples

- The [Food is Medicine Coalition](#) is an association of nonprofit medically tailored food and nutrition service providers that advocates for and promotes medically tailored meals (MTMs). They offer resources and best practices and administer a Food is Medicine Accelerator program for nonprofits.
- The Aspen Institute [Food is Medicine Research Action Plan](#) provides researchers, funders, and implementers recommendations for creating an evidence base that will advance Food is Medicine interventions.
- God's Love We Deliver's [Research Summary](#) and Community Servings' [Food & Health Policy page](#) provide evidence of the need for and impact of MTMs.
- There are many great examples of health care-based programs, including the [NYU Perlmutter Cancer Center clinical trial](#) and the [NutriCare study](#).
- Nonprofit programs that focus on providing medically tailored meals include the [Caring Kitchen Project](#), [Culinary Care](#), [WAVE](#), Magnolia Meals at Home, Mama Sezz (vegan), [MANNA](#), [God's Love We Deliver](#), [Community Servings](#), [Project Angel Heart](#), [Ceres Community Project](#), and [Lifelong](#).
- [N4L](#) is a for-profit program which delivers nutritious, medically tailored meals to people with cancer.

CCC Coalition Considerations

- Policy change is crucial for broader-scale implementation via insurance reimbursement. [Seven recommendations](#) were made to the White House Conference on Hunger, Nutrition, and Health by the Food is Medicine Coalition.
- Check your state's policies; for example, MTMs are becoming a covered service option in California through Medi-Cal and federal support may expand.



Food access strategies



These strategies address food access challenges through partnerships and resources at the community level.

- **Community gardens:** Providing individuals and families with separate, communal, or mixed gardening areas to grow fresh fruits and vegetables, herbs, and plants
- **Facilities partnerships:** Utilizing existing facilities to support education and food distribution for cancer survivors (e.g., commercial kitchens)
- **Healthy options at food pantries:** Working with food pantries to improve the healthfulness of the foods offered through donor education or policies
- **Nutrition incentive programs:** Providing financial incentives at the point of purchase to support purchasing healthy foods (e.g., fruits and vegetables)
- **Mobile food delivery:** Distributing healthy food to communities with transportation barriers (e.g., mobile food pantry, veggie van)
- **Transportation initiatives:** Making efforts to coordinate and support transportation of cancer survivors to access healthy food (e.g., partnerships with ride shares)

Community gardens



Definition: Providing individuals and families with separate, communal, or mixed gardening areas to grow fresh fruits and vegetables, herbs, and plants

Program and Resource Examples

- Ohio State University created the [Garden of Hope](#) as a community garden for survivors and their caregivers.
- [Master Gardener Programs](#) are offered through extension offices of land-grant universities.
- [Harvest for Health](#) is an at-home gardening intervention for cancer survivors who have completed their primary cancer treatment.
- The Healthy Food in Health Care program created a [Healthy Food Playbook](#) for implementing community gardens and farms.
- The National Recreation and Park Association's Grow Your Park initiative created a guide to [Building a Community Garden in Your Park](#).

CCC Coalition Considerations

- Hospitals can support community and garden initiatives by providing space for a garden on their property, allowing hospital staff (i.e., dietitians, chefs/cooks) to utilize their expertise via cooking demos and nutrition education, and providing funding, technical support, or staff time for a garden/farm that's built in a neighborhood with limited income.
- Community gardens can donate a portion of produce grown to food pantries or local community-supported agriculture (CSA) programs.

Facilities partnerships



Definition: Utilizing existing facilities to support education and food distribution for cancer survivors (e.g., commercial kitchens)

Program and Resource Examples

- Some restaurants and grocery stores are already set up to provide in-person and virtual nutrition education or meal distribution (e.g., [Natural Grocers](#), [Stop and Shop](#), [Giant](#)).
- Connect with statewide networks of hunger relief agencies (e.g., [Northwest Harvest](#) in Washington state and [Feeding Texas](#)).
- [YMCA](#)s and community centers can be great partners when it comes to increasing local food access for cancer survivors.

CCC Coalition Considerations

- Commercial kitchens and other existing food distribution centers are potential partners to help relieve logistical burdens.

Healthy options at food pantries



Definition: Working with food pantries to improve the healthfulness of the foods offered through donor education or policies

Program and Resource Examples

- The Robert Wood Johnson Foundation issued [Nutrition Guidelines for the Charitable Food System](#), which is used by CDC-funded grantees to train them to work with food banks and other food distribution centers.
- Feeding America's [Healthy Food Pantry Assessment Toolkit](#) provides guidance on how to perform an environmental scan and measure how the environment is aligned with current best practices.
- [Caitlyn's Cupboard](#) is a food pantry for cancer survivors established by Day Kimball Healthcare that provides foods tailored to their specific treatment plan.

CCC Coalition Considerations

- Coalitions can partner with food pantries to provide education about specific dietary needs of cancer survivors.

Nutrition incentive programs



Definition: Coordinating financial incentives at the point of purchase to support purchasing healthy foods (e.g., fruits and vegetables)

Program and Resource Examples

- SNAP offers incentive programs such as [Double Up Food Bucks](#), which matches SNAP dollars to give recipients twice the fruits and veggies.
- [GusNIP](#) offers [funding](#) to support and evaluate nutrition incentive projects. GusNIP's [Theory of Change](#) for nutrition incentives also provides an implementation framework.
- Wholesome Wave created the [How to Run a Nutrition Incentive Program Toolkit](#) to help stakeholders understand the processes and components behind nutrition incentive programming.

CCC Coalition Considerations

- [Food safety](#) is important to consider for this population.
- A cancer diagnosis does not make somebody automatically eligible for SNAP benefits; make sure to check SNAP [eligibility criteria](#) by state.



Mobile food delivery

Definition: Distributing of healthy food to communities with transportation barriers (e.g., mobile food pantry, veggie van)

Program and Resource Examples

- [Fed 40](#) is a food service from [U.S. Hunger](#) that brings simple meal kits to families with limited income via [Full Cart](#). The program gives families across the U.S. the ability to apply for 40 meal bases that are delivered to their door at no charge.
- No Kid Hungry's Center for Best Practices has a [Mobile Meals Toolkit](#) that provides an overview and needs assessment for mobile meals, as well as key aspects of program planning and implementation.
- [Feeding America](#) has a national directory of food banks, many of which have a mobile component. Feeding America also created a guide for partner agencies: [How to Run a Mobile Food Pantry](#).
- [Uber](#) has partnered with Feeding America to deliver meals to families experiencing low food security.
- [Virtua Health's](#) Eat Well Mobile Grocery Store in New Jersey is staffed by registered dietitians to provide specific nutrition advice to patrons.
- [Food FARMacia](#) is a mobile food market for at-risk members of the Washington Heights community in New York.

CCC Coalition Considerations

- Community outreach is critical for mobile food delivery efforts to be successful.
- Mobile food delivery can be done in tandem with food donation pickup to increase efficiency.

Transportation initiatives



Definition: Making efforts to coordinate and support transportation of cancer survivors to access healthy food (e.g., partnerships with ride shares)

Program and Resource Examples

- [Lyft Up](#) partners with nonprofits and grocery providers for the [Lyft Grocery Access Programs](#), which are discounted rides to stores and farmers markets (began with Martha's table in Washington, DC in 2019 and has expanded to 13 US cities since). Organizations can apply to become a Lyft Grocery Access Program Implementor by using this [form](#).
- Several organizations offer cancer survivors and their families rides to treatment (the American Cancer Society [Road to Recovery](#)® program, [CancerCare](#), [Uber Health](#), [Lyft healthcare](#)). These programs could be augmented to provide rides to grocery stores.
- [Ride United](#) by United Way provides transportation to grocery stores.
- [Assisted Rides](#) assists organizations that are interested in providing transportation programs.
- The [National Volunteer Transportation Center](#) promotes and supports the concept and practice of volunteer transportation.

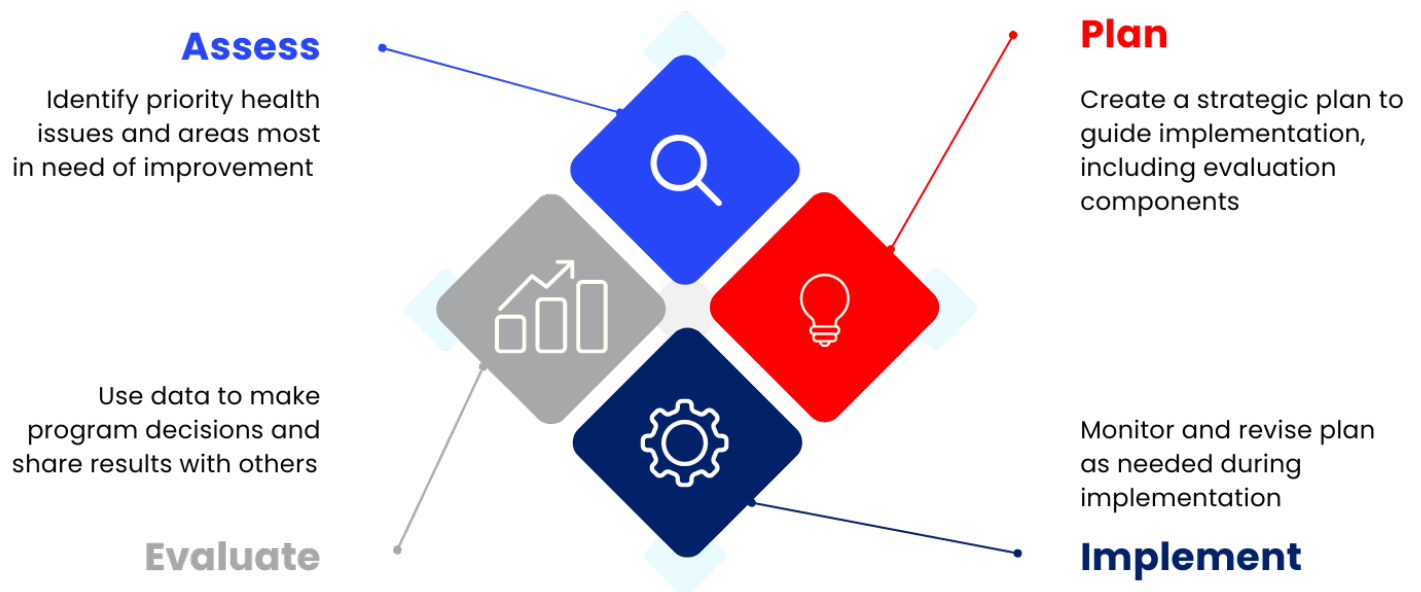
CCC Coalition Considerations

- Existing programs are primarily operated in urban areas; more innovative solutions are needed for families living in rural areas.

The role of data and evaluation

Organizations often take a linear approach to evaluation, where planning and evaluation are conducted independently. Others see evaluation as a measure of compliance that benefits the funders rather than the program implementers. In reality, there is a **cyclical and ongoing relationship between program planning and evaluation**, which allows time to reflect after different stages in order to inform future program planning. By using evaluation throughout the program planning and implementation cycle, programs can:

- 1) Be more effective in selecting appropriate priority areas
- 2) Ensure they are implementing strategies as intended
- 3) Get real-time feedback on implementation and adjust strategies if needed
- 4) Understand the impact strategies are having on intended outcomes
- 5) Have information needed to inform future iterations of the program



Adapted from: Lobo R, Petrich M, Burns SK. Supporting health promotion practitioners to undertake evaluation for program development. BMC Public Health. 2014 Dec;14(1):1-8.

When evaluating food security efforts, CCC coalitions may wish to consider bringing in an evaluation partner or leveraging expertise among their coalitions. Different types of evaluation are described below, as well as the types of data that may be useful and specific measurement tools that are relevant for food security assessments among cancer survivors. **Different types of evaluation (formative, process, impact, and outcome) are required at different stages of planning and implementing a program.** The following table describes different types of evaluation, when they are used, their purpose, and why they are useful. Utilizing multiple evaluation strategies can ensure that organizations are being efficient with their programming and finances, all while maintaining effectiveness and making a positive impact on the target population.

When CCC coalitions are selecting strategies to improve food security in their communities/states, it is important to consider which evaluation type or types are most relevant and align best with the goals of the specific strategy. For example, you may use needs assessments or other community-level information to

inform which strategies and efforts may be the most impactful for your community. Strong organizational leadership that places a high value on evaluation and prioritizing these strategies can help to mitigate some of the barriers to effective evaluation implementation.

For further details on the process of developing and evaluating programs that are specific to the cancer survivor population, reference George Washington University's [Executive Training on Navigation and Survivorship](#). The CDC's guide for [Developing an Effective Evaluation Plan](#) also has helpful information on creating an evaluation plan.

Evaluation types	What it is	When to use	What it shows	Why it is useful
Formative Evaluation Needs Assessment	<p>Usually undertaken early in the development of the program to inform providers and stakeholders about the trends, whether the goals of the program are likely to be fulfilled, and to identify the barriers and facilitators of implementation</p> <p>Focuses on the ends (i.e., outcomes) to be attained, rather than the means (i.e., process). For example, identifying areas of low food security in a state to inform where an intervention is best suited</p>	<ul style="list-style-type: none"> - During the development of a new program - When an existing program is being modified or is being used in a new setting with a new population 	<ul style="list-style-type: none"> - Whether the proposed program elements are likely to be needed, understood, and accepted by the population you want to reach - The extent to which an evaluation is possible, based on goals and objectives 	<ul style="list-style-type: none"> - Allows for modifications to be made to the plan before full implementation begins - Maximizes the likelihood that the program will succeed
Process Evaluation and Program Monitoring	<p>Assesses the type, quantity, and quality of program activities or services (i.e., measuring what specifically was implemented)</p>	<ul style="list-style-type: none"> - As soon as program implementation begins - During operation of an existing program 	<ul style="list-style-type: none"> - How well the program is working - The extent to which the program is being implemented as designed - Whether the program is accessible and acceptable to its target population 	<ul style="list-style-type: none"> - Provides an early warning for any problems that may occur - Allows programs to monitor how well their program plans and activities are working
Outcome Evaluation	<p>Whether changes occur for participants in a program and if these changes are associated with a program or an activity</p>	<ul style="list-style-type: none"> - After the program has made contact with at least one person or group in the target population 	<ul style="list-style-type: none"> - The degree to which the program is having an effect on the target population's behaviors 	<ul style="list-style-type: none"> - Tells whether the program is being effective in meeting its objectives

Evaluation types	What it is	When to use	What it shows	Why it is useful
Economic Evaluation: Cost Analysis, Cost-Effectiveness Evaluation, Cost-Benefit Analysis, Cost-Utility Analysis	Studying the costs and benefits of an intervention	<ul style="list-style-type: none"> - At the beginning of a program - During the operation of an existing program 	- What resources are being used in a program and their costs (direct and indirect) compared to outcomes	- Provides program managers and funders a way to assess cost relative to effects; “how much bang for your buck”
Impact Evaluation	An assessment of how the intervention being evaluated affects outcomes, whether these effects are intended or unintended	<ul style="list-style-type: none"> - During the operation of an existing program at appropriate intervals - At the end of a program 	- The degree to which the program meets its ultimate goal (improving food security, increasing fruit and vegetable intake, reducing financial burden, etc.)	- Provides evidence for use in policy and funding decisions

Adapted from [a resource](#) from the CDC National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, Division of STD Prevention

Data collection

Once you have determined your evaluation strategies and what outcomes your program expects, your next step will be to identify how you will collect information on your outcomes. There are different types of data that can be obtained, and each data type has pros and cons to consider when choosing which to collect. Different data types are described below:

Secondary data is information that has already been collected and can be accessed by evaluators. Raw surveillance data (e.g., BRFSS) are an example of a secondary data source.

Secondary data tools are useful resources that allow you to find and analyze secondary data. Examples include information located on county health department websites, federal census data, or sites such as the [U.S. Cancer Statistics Data Visualizations Tool](#).

The data already exist and have been cleaned and organized in a specific way that may be more accessible (e.g., maps, county health rankings).

Pros:

- Cost-effective
- Not very labor-intensive
- Not very time-intensive

Cons:

- Might not contain specific information that the evaluator would like to have
- Might not answer specific research questions

Primary data is information collected directly by evaluators via surveys, experiments, interviews, etc.

Pros:

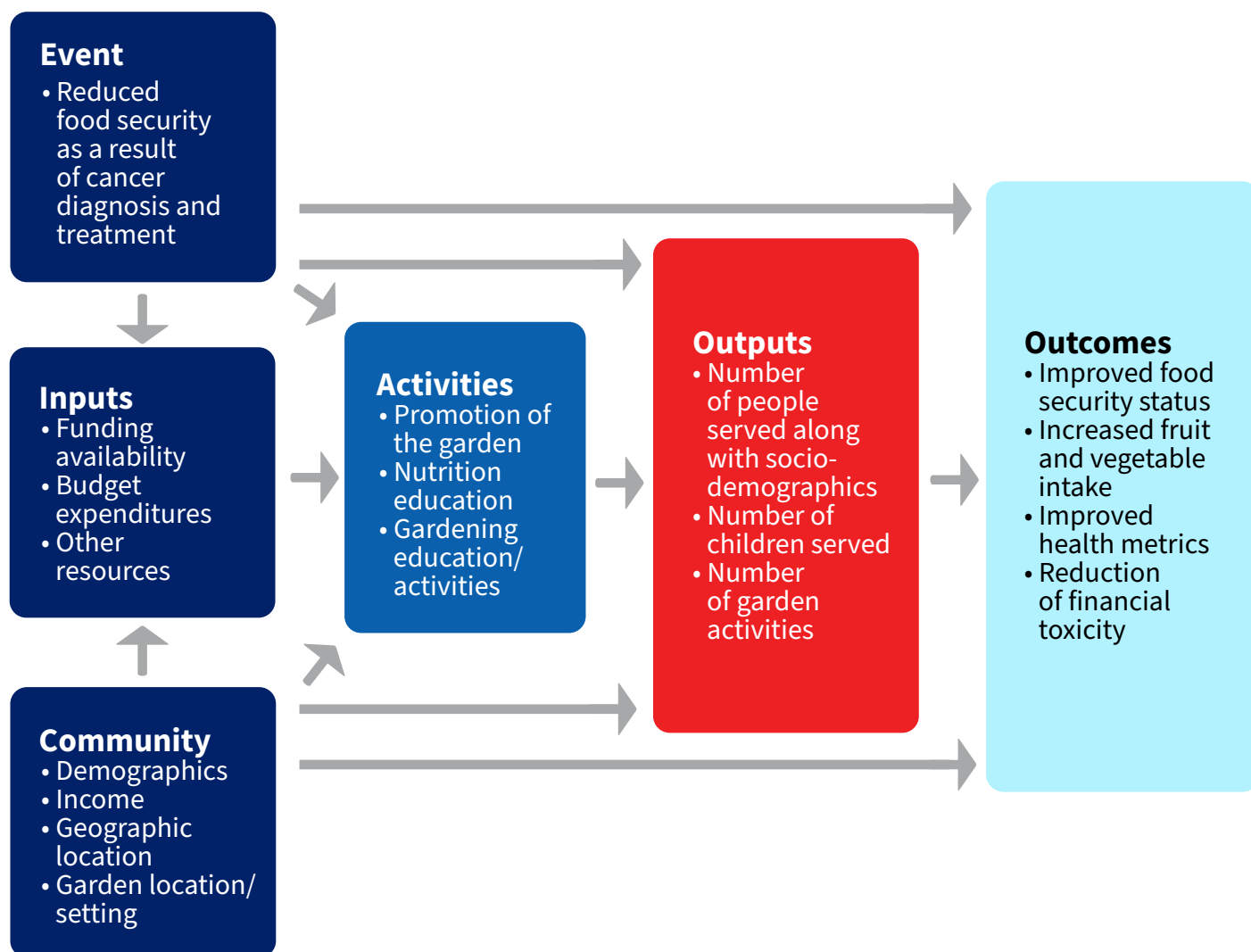
- Results might be more accurate and reliable
- The information is up-to-date
- The evaluators have more control over the data

Cons:

- More expensive
- More time-consuming and labor-intensive

Using data to inform strategy

The logic model below demonstrates how different aspects of the data collection and evaluation process work interchangeably to inform strategy. This logic model example presents information relevant for community garden implementation as a response to the lack of food security among a cancer survivor population. For more information on how to develop a logic model, please see this [toolkit and evaluation resource](#).



Adapted from: https://www.cdc.gov/dhdsp/docs/logic_model.pdf and <https://www.samhsa.gov/sites/default/files/dtac/ccptoolkit/section1-ccpevalguide.pdf>

An indicator (input, process, and outcome) is a specific, observable, and measurable accomplishment or change that shows the progress made toward achieving a specific output or outcome in your logic model. Once you have developed your program plan and have identified your intended outcomes, you will select indicators, which are tools used to measure the progress you are making toward your intended goals. Choosing indicators often informs the rest of an evaluation plan, including methods, data analysis, and reporting. Some examples of potential indicators to monitor regarding food security in this population are listed below:

Cancer-specific financial toxicity

- [Breast Cancer Finances Survey \(BCFS\)](#)
 - A 42-item questionnaire containing questions about multiple aspects of cancer-related economic burden, including work, financial hardship, and out-of-pocket expenses
- [Subjective Financial Distress Questionnaire \(SFDQ\)](#)
 - A 14-item instrument that was developed and designed to measure financial toxicity across six domains: financial resources, financial spending, psychosocial effect, coping care, coping lifestyle, and support seeking
- [COmprehensive Score for financial Toxicity \(COST\)](#)
 - An 11-item validated instrument designed to measure financial toxicity among people with cancer

Food security

- [Household Food Security Survey Module \(HFSSM\)](#)
 - An 18-item screening questionnaire that captures the experience of low food security among U.S. households
 - Add [additional measures of food security not captured by the HFSSM](#): nutrition security, household resilience, and the availability, utilization, and stability pillars
- [U.S. Adult Food Security Survey Module](#)
 - A 10-item screening questionnaire that captures the experience of low food security among U.S. adults
- [Six-Item Short form of the Food Security Survey Module](#)
 - A reasonably reliable six-item version of the surveys listed above

Fruit and vegetable intake

- [Dietary Screener Questionnaires \(DSQ\)](#)
 - A 30-item questionnaire that can be interviewer-administered or self-administered either on the web or on paper
- [Automated Self-Administered 24-Hour Recall \(ASA24®\)](#)
 - A validated instrument used to collect dietary intake information from individuals over a 24-hour period

Additional measurement tools can be found on the National Cancer Institute [website](#).

Finding an evaluation partner

In some cases, it may be more efficient to seek out an external partnership to assist with program evaluation. The CDC's National Asthma Control Program developed a [resource to guide partners through the process of identifying an outside evaluator](#).

Another approach to identifying an external evaluator is to release a request for proposals (RFP) to make the process more efficient. Harvard University has created a [guidebook](#) that walks users through each step of the process.

Funding

Identifying and securing funding is one of the most challenging aspects of public health and food security initiatives. Review the funding options below with your coalition, discussing the coalition's capacity to pursue each option.

Federal grants

- The National Institutes of Health (NIH) awards highly competitive research grants with various funding amounts across topic areas. Partnering with researchers at universities may support CCC coalition activities when there is an overarching research emphasis.
- The United States Department of Agriculture (USDA) provides research and implementation grants to address a wide variety of nutrition-related issues including food security.



Search for specific RFAs, PAs, etc. at <https://www.grants.gov/>.



Read the requirements and eligibility thoroughly to determine if the opportunity is aligned with CCC coalition priorities.



Consider hiring a grant writer with experience with federal grants or partnering with a researcher from a local university.



Be aware of the required registration (e.g., [DUNS number](#)).

















Speak with the program officer or funding contact to review proposal plans and get early feedback to determine whether the opportunity is indeed aligned.




Plan to submit in advance of the deadline since some of the forms or settings may take some time to navigate.

Foundations

While federal funding opportunities may be the most familiar to a cancer coalition, foundation funding can be substantial. In a tough funding climate, it is important to be proactive in seeking opportunities to help support your CCC coalition's efforts to improve food security among cancer survivors. Use <https://candid.org/> to look up foundations and funding sources and access data about grants awarded. Candid is an online tool that can be used to research foundations and nonprofits to find funding.

- 
Not all foundations are created equally.
 -  **Look for the right fit.**
 State, local, regional
 Topic (local foods, hunger, health care, etc.)
 -  **Don't chase the usual suspects.**
 Everyone else is, too!
- 
Do your homework before meetings!
 -  Know the foundation's mission and any important players.
 -  Align with the foundation's mission.
 -  Follow up with emails once or twice a year (i.e., a simple hello or something you think they may be interested in).
- 
Be concrete and start small and attainable.
 -  Come with 3-5 ideas, be flexible, always have 1 more idea in your back pocket.
 -  Build rapport, don't "pitch" idea right away, it's about authenticity and patience.
 -  Avoid "pie in the sky" ideas.
 -  Storytelling appeals to people.
 -  Prepare 1-pager about your project/research areas/team.
- 
Leverage resources and funds from within the CCC coalition.

Consider recruiting and engaging with a wide variety of partners. This may potentially bring in funding from partnering agencies and expand the expertise and diversity of the CCC coalition, which can ultimately help generate more innovative and sustainable solutions.
- 
Submit dual applications.

Plan to submit project ideas to more than one funder, with adaptations to align with the funding opportunity. Foundation funding can be used to gather more pilot data or information to inform larger federal grants or other combinations of resources.



Conclusion

This guide was designed to provide CCC coalitions with tools and resources to improve food security among cancer survivors and their families. Low food security is an important social determinant of health that disproportionately affects cancer survivors and often goes unrecognized by health care providers. Cancer survivors are particularly vulnerable due to the financial toxicity associated with managing care, and inadequate nutrition can delay healing and increase risk of complications, making it imperative to also address nutrition security. Despite the pervasiveness of this issue, there are many opportunities across different sectors to support families experiencing low or very low food security.

By leveraging existing resources and partnerships and exploring the strategies outlined in this guide, CCC coalitions can have a significant impact on improving the quality of life and health outcomes of cancer survivors.

Appendix 1: Food security strategies

Information and education

Strategy	Programs/resources	Key partners	Evidence/relevant measures
Food security awareness	<ul style="list-style-type: none"> • Improving Cancer Care by Addressing Food Insecurity (New England Cancer Specialists) • Ending Hunger Social Media Toolkit (Pennsylvania Department of Human Services) • Social Media Toolkit (We Feed LA) • Hunger Action Month (Social Media Posts - Feeding America) • Hunger Awareness Campaign Examples (Trend Hunter) • Project Bread Resource Directory 	<ul style="list-style-type: none"> • Food banks • Government agencies • Local nonprofits 	<ul style="list-style-type: none"> • Bertrand A et al. Interest in Receiving Nutrition Information Through Social Media Among Food-Security Program Participants in Washington, DC. <i>Prev Chronic Dis.</i> 2021; 18:200596. DOI: http://dx.doi.org/10.5888/pcd18.200596 • Finney Rutten LJ et al. Social Marketing to Promote Nutrition Assistance Programs. <i>J Hunger Environ Nutr.</i> 2013; 8:2,164-170. DOI: https://doi.org/10.1080/19320248.2013.786666
SNAP enrollment	<ul style="list-style-type: none"> • USDA SNAP-Ed Hub • SNAP-Ed Toolkit • Senior SNAP Enrollment Initiative 	<ul style="list-style-type: none"> • State agencies • Local nonprofits (meal delivery services) • National Council on Aging 	<ul style="list-style-type: none"> • SNAP-Ed Evidence of Impact • SNAP-Ed Success Stories • Gany FM et al. Food Insecurity among Cancer Patients Enrolled in the Supplemental Nutrition Assistance Program (SNAP). <i>Nutr Cancer.</i> 2021;73(2), 206-214. DOI: https://doi.org/10.1080/01635581.2020.1743867 • Keith-Jennings B, Llobrera J, Dean S. Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential. <i>Am J Public Health.</i> 2019; Dec;109(12):1636-1640. DOI: https://doi.org/10.2105/AJPH.2019.305325
Financial education and initiatives	<ul style="list-style-type: none"> • Cancer Financial Assistance Coalition (CFAC) • Memorial Sloan Kettering's Work, Education & Financial Resources • Triage Cancer's Cancer Finances (interactive online tool) • Leukemia & Lymphoma Society's Patient Financial Aid Programs • Samfund (for young adult cancer survivors) • Family Reach • CancerCare • Healthwell Foundation 	<ul style="list-style-type: none"> • Nonprofits • State Department Health and Human Services 	<ul style="list-style-type: none"> • Coughlin SS, Dean LT, Cortes JE. Financial assistance programs for cancer patients. <i>Curr Cancer Rep.</i> 2021; 3(1):119-123. DOI: https://doi.org/10.25082/CCR.2021.01.007 • Yabroff KR, Bradley C, Shih YT. Understanding Financial Hardship Among Cancer Survivors in the United States: Strategies for Prevention and Mitigation. <i>J Clin Oncol.</i> 2020; Feb 1;38(4):292-301. DOI: https://doi.org/10.1200/JCO.19.01564 • Altice CK et al. Financial Hardships Experienced by Cancer Survivors: A Systematic Review. <i>J Natl Cancer Inst.</i> 2017; 109(2): djw205. DOI: https://doi.org/10.1093/jnci/djw205 • Shankaran V et al. Development of a Financial Literacy Course for Patients With Newly Diagnosed Cancer. <i>Am J Manag Care.</i> 2017; 23(3 Suppl), S58-S64. https://www.ajmc.com/view/development-of-a-financial-literacy-course-for-patients-with-newly-diagnosed-cancer

Strategy	Programs/resources	Key partners	Evidence/relevant measures
Cooking-based nutrition and education	<ul style="list-style-type: none"> • Cooking Matters lesson plans and directory • The American Institute for Cancer Research Coping with Cancer in the Kitchen programs • SNAP-Ed’s Cooking Basics programs • Cooking is a SNAP curriculum • Eat for You, a consumer education campaign by the Portion Balance Coalition • The James Instructional Kitchen • Nutrition Education and Culinary Demonstrations at Farmers Markets guide 	<ul style="list-style-type: none"> • Local nonprofits • Cooperative Extension 	<ul style="list-style-type: none"> • Benn J. Food, nutrition or cooking literacy-a review of concepts and competencies regarding food education. <i>International Journal of Home Economics</i>. 2014; Jan 1;7(1):13-35. https://www.ifhe.org/fileadmin/user_upload/e_Journal/IJHE_Volume_7.pdf#page=19 • Hersch D et al. Peer reviewed: The Impact of Cooking Classes on Food-Related Preferences, Attitudes, and Behaviors of School-Aged Children: A Systematic Review of the Evidence, 2003–2014. <i>Prev Chronic Dis</i>. 2014; 11:140267. DOI: http://dx.doi.org/10.5888/pcd11.140267 • Seeley A, Wu M, Caraher M. Should we teach cooking in schools? A systematic review of the literature of school-based cooking interventions. <i>J Home Econ Inst Aust</i>. 2010; Jan;17(1):10-8. https://openaccess.city.ac.uk/id/eprint/7878/1/JHEIA17-1-2.pdf
Food outlet food navigation	<ul style="list-style-type: none"> • Massachusetts General Hospital’s Guide for Safe & Healthy Grocery Shopping for Cancer Patients • Seton Medical Center’s Cancer Care Collaborative • Grocery Store Tours: A Guide for Nutrition Educators 	<ul style="list-style-type: none"> • Local food retailers • Health care staff/experts (dietitians, chefs) • Local nonprofits 	<ul style="list-style-type: none"> • Graduate Thesis: Jastrzab, K. Nutrition Education Study for Cancer Survivors. Health and Social Work. 22nd Annual Student Research and Creativity Conference. SUNY Buffalo State. 2020. https://digitalcommons.buffalostate.edu/srcc-sp20-hlthsw/8

Health care

Strategy	Programs/resources	Key partners	Evidence/relevant measures
Health care food security screening	<ul style="list-style-type: none"> Memorial Sloan Kettering Cancer Center's FOOD (Food to Overcome Outcome Disparities) program and food pantries The Food Research & Action Center Screen and Intervene: A Toolkit for Pediatricians to Address Food Insecurity Feeding America outlines potential actions as a result of screening at health care sites The 2-item Hunger Vital Sign The Distress Thermometer 	<ul style="list-style-type: none"> Health care administrators and providers (oncology MDs, RDs, RNs, patient navigators) Social workers Food pantries and other community organizations, MTM providers 	<ul style="list-style-type: none"> Patel KG, Borno HT, Seligman HK. Food insecurity screening: A missing piece in cancer management. <i>Cancer</i>. 2019; 125;3494–3501. DOI: https://doi.org/10.1002/cncr.32291 Al-Shaabi A et al. The efficiency of distress thermometer in the determination of supporting needs for cancer inpatients. <i>Libyan J Med</i>. 2021; Dec;16(1):1957199. DOI: https://doi.org/10.1080/19932820.2021.1957199 Gundersen C et al. Brief assessment of food insecurity accurately identifies high-risk US adults. <i>Public Health Nutr</i>. 2017; 20(8), 1367-1371. DOI: https://doi.org/10.1017/S1368980017000180
Produce prescription programs	<ul style="list-style-type: none"> GusNIP Nutrition Incentive Hub UCSF and No Kid Hungry's Rural Produce Prescription Toolkit Examples of existing programs: Fresh Rx Farm to Patient program, Food Bucks Rx, Wholesome Wave, The Food Trust + Camden Coalition, RP Rx 	<ul style="list-style-type: none"> Health care providers Food providers (convenience/grocery stores, local farmers/farmers markets) National Produce Prescription Collaborative 	<ul style="list-style-type: none"> Aiyer JN et al. A pilot food prescription program promotes produce intake and decreases food insecurity. <i>Transl Behav Med</i>. 2019; Oct 1;9(5):922-930. DOI: https://doi.org/10.1093/tbm/ibz112 Budd Nugent N et al. Food sovereignty, health, and produce prescription programs: A case study in two rural tribal communities. <i>Journal of Agriculture, Food Systems, and Community Development</i>. 2022; 11(3), 177–196. DOI: https://doi.org/10.5304/jafscd.2022.113.014 Marcinkevage J, Auvinen A, Nambuthiri S. Washington State's Fruit and Vegetable Prescription Program: Improving Affordability of Healthy Foods for Low-Income Patients. <i>Prev Chronic Dis</i>. 2019; 16:180617. DOI: http://dx.doi.org/10.5888/pcd16.180617 Gany FM et al. Development of a Medically Tailored Hospital-based Food Pantry System. <i>J Health Care Poor Underserved</i>. 2020; 31(2):595-602. DOI: https://doi.org/10.1353/hpu.2020.0047 Stevenson LD et al. Implementing a Produce Prescription Program in Partnership With a Community Coalition. <i>Health Promot Pract</i>. 2022; 0(0). DOI: https://doi.org/10.1177/15248399221081406
Medically tailored meals	<ul style="list-style-type: none"> Food is Medicine Coalition The Aspen Institute Food is Medicine Research Action Plan God's Love We Deliver Research Summary Community Servings Food & Health Policy page Health care-based programs: NYU Perlmutter Cancer Center clinical trial, NutriCare study Nonprofit programs: Caring Kitchen Project, Culinary Care, WAVE, Magnolia Meals at Home, Mama Sezz (vegan), MANNA, God's Love We Deliver, Community Servings, Project Angel Heart, Ceres Community Project, Lifelong For-profit program: N4L 	<ul style="list-style-type: none"> Food is Medicine Coalition Food banks, food providers Local nonprofit organizations 	<ul style="list-style-type: none"> Hager K et al. Association of National Expansion of Insurance Coverage of Medically Tailored Meals With Estimated Hospitalizations and Health Care Expenditures in the US. <i>JAMA Netw Open</i>. 2022; 5(10):e2236898. DOI: http://dx.doi.org/10.1001/jamanetworkopen.2022.36898 Berkowitz SA, Terranova J, Randall L, et al. Association Between Receipt of a Medically Tailored Meal Program and Health Care Use. <i>JAMA Intern Med</i>. 2019; 179(6):786-793. DOI: http://dx.doi.org/10.1001/jamainternmed.2019.0198 Berkowitz SA, Terranova J, Hill C, et al. Meal Delivery Programs Reduce The Use Of Costly Health Care In Dually Eligible Medicare And Medicaid Beneficiaries. <i>Health Aff (Millwood)</i>. 2018 Apr; 37(4):535-542. DOI: https://doi.org/10.1377/hlthaff.2017.0999 Gurvey J et al. Examining Health Care Costs Among MANNA Clients and a Comparison Group. <i>J Prim Care Community Health</i>. 2013; 4(4):311-317. DOI: https://doi.org/10.1177/2150131913490737 Ishaq O et al. Food as medicine: A randomized controlled trial (RCT) of home delivered, medically tailored meals (HDMTM) on quality of life (QoL) in metastatic lung and non-colorectal GI cancer patients. <i>J Clin Oncol</i>. 2016; 34(26):155-155. DOI: http://dx.doi.org/10.1200/jco.2016.34.26_suppl.155

Food access

Strategy	Programs/resources	Key partners	Evidence/relevant measures
Community gardens	<ul style="list-style-type: none"> Ohio State University's Garden of Hope Master Gardener Programs Harvest for Health at-home gardening intervention Healthy Food in Health Care's Healthy Food Playbook Building a Community Garden in Your Park 	<ul style="list-style-type: none"> Health care providers (hospitals) Public service and outreach programs (Master Gardener) 	<ul style="list-style-type: none"> Ma HY et al. A hospital farm: Using urban agriculture to address nutrition, physical activity, and food insecurity in cancer survivors. <i>Cancer Epidemiol Biomarkers Prev.</i> 2020; 29(6_Suppl_2): C032. DOI: https://doi.org/10.1158/1538-7755.DISP19-C032 Dyg PM, Christensen S, Peterson CJ. Community gardens and wellbeing amongst vulnerable populations: a thematic review. <i>Health Promot Int.</i> 2020; 35(4): 790-803. DOI: https://doi.org/10.1093/heapro/daz067 Hume C et al. Community gardens and their effects on diet, health, psychosocial and community outcomes: a systematic review. <i>BMC Public Health.</i> 2022; 22, 1247. DOI: https://doi.org/10.1186/s12889-022-13591-1 Bail JR et al. A home-based mentored vegetable gardening intervention demonstrates feasibility and improvements in physical activity and performance among breast cancer survivors. <i>Cancer.</i> 2018; Aug;124(16):3427-3435. DOI: https://doi.org/10.1002/cncr.31559
Facilities partnerships	<ul style="list-style-type: none"> Restaurants and grocery stores providing virtual nutrition education or meal distribution (e.g., Natural Grocers, Stop and Shop, Giant). Statewide networks of hunger relief agencies (e.g., Northwest Harvest in WA state, Feeding Texas) Commercial kitchens and other existing food distribution centers YMCAs and community centers 	<ul style="list-style-type: none"> Local commercial kitchens Food retail outlets Community centers Hunger relief agencies 	<ul style="list-style-type: none"> Community Health Initiative for Underserved Population with Hunger and Food Insecurity in Champaign County, Illinois with Multi-level Integration of Resources and Collaboration as a National Model. APHA 2017 Annual Meeting & Expo (Nov. 4-Nov. 8). APHA, 2017. https://apha.confex.com/apha/2017/meetingapp.cgi/Paper/388578
Healthy options at food pantries	<ul style="list-style-type: none"> The Robert Wood Johnson Foundation's Nutrition Guidelines for the Charitable Food System Healthy Food Pantry Assessment Project Toolkit Caitlyn's Cupboard 	<ul style="list-style-type: none"> Food retail outlets and distribution centers 	<ul style="list-style-type: none"> Grabow K et al. Highlighting Healthy Options in a Food Pantry Setting: A Pilot Study. <i>Family & Consumer Sciences.</i> 2020;48(3)263-275. DOI: https://doi.org/10.1111/fcsr.12348
Nutrition incentive programs	<ul style="list-style-type: none"> SNAP Double Up Food Bucks GusNIP funding opportunities and Theory of Change framework Wholesome Wave's How to Run a Nutrition Incentive Program Toolkit 	<ul style="list-style-type: none"> State agencies Local retailers participating in NI programs 	<ul style="list-style-type: none"> Paolantonio L et al. Food Purchasing Behavior of Food Insecure Cancer Patients Receiving Supplemental Food Vouchers. <i>Support Care Cancer.</i> 2020; Aug;28(8):3739-3746. DOI: https://doi.org/10.1007/s00520-019-05183-4

Strategy	Programs/resources	Key partners	Evidence/relevant measures
Mobile food programs	<ul style="list-style-type: none"> • Fed 40, a food service from U.S. Hunger that brings simple meal kits to families with limited income via Full Cart • No Kid Hungry Center for Best Practices: Mobile Meals Toolkit • Feeding America's national directory of food banks and guide for partner agencies: How to Run a Mobile Food Pantry • Uber's partnership with Feeding America • Virtua Health's Eat Well Mobile Grocery Store • Food FARMacia's mobile food market 	<ul style="list-style-type: none"> • Local food pantries • Food distribution centers • Farmers 	<ul style="list-style-type: none"> • Stauffer JM et al. Achieving equitable food security: How can food bank mobile pantries fill this humanitarian need. <i>POMS</i>. 2022; Jan;21(4):1802-1821. DOI: https://doi.org/10.1111/poms.13663 • Marmash D et al. The Association between Diet Quality and Health Status in Mobile Food Pantry Users in Northeastern Connecticut. <i>Nutrients</i>. 2022; 14(6):1302. https://doi.org/10.3390/nu14061302 • Villa LK et al. Mobile Pantries Can Serve the Most Food Insecure Populations. <i>Health Equity</i>. 2022; Jan 24;6(1):49-54. DOI: https://doi.org/10.1089/heq.2021.0006
Transportation initiatives	<ul style="list-style-type: none"> • Lyft Up partners with nonprofits and grocery providers for the Lyft Grocery Access Programs. Organizations can apply to become a Lyft Grocery Access Program Implementor by using this form • American Cancer Society Road to Recovery® program, CancerCare, Uber Health, Lyft healthcare • Ride United by United Way • Assisted Rides • The National Volunteer Transportation Center 	<ul style="list-style-type: none"> • Ride share companies (Lyft, Uber) • Local community transportation service programs • Faith-based organizations 	<ul style="list-style-type: none"> • Grover R, Hayman L. 35058 A Mixed Method Study: Can Lyft Facilitate Better Access to Healthy Food? <i>Journal of Clinical and Translational Science</i>. 2021; 5(S1), 73-74. DOI: https://doi.org/10.1017/cts.2021.592