Harris Health: Food Rx Expansion (Pct 3)

Date	Services Performed By:	Services Performed For:
	Harris Health System 4800 Fournace Place Bellaire, Texas 77401	Harris County Office of County Administration 1001 Preston St., Suite 500 Houston, TX 77002

Project Overview

In 2019, Harris Health System established a Food Rx program that serves adult patients expressing food insecurity who have Type 2 diabetes or other chronic disease. Patients screening positive for food insecurity are referred to a community health worker (CHW) for enrollment in the program. Once enrolled, patients select a variety of healthy foods with a CHW at an onsite or community pantry, receive chronic disease management education, are connected to a Houston Food Bank navigator for benefits enrollment, and are linked to community food resources.

Program Activities and Deliverables

Activities:

- Creation of a Food Rx Community Redemption Model in partnership with a community-based organization, serving patients at Cypress Health Center (12340 Jones Rd, Houston, TX 77070
- Creation of a Food Rx Community Redemption Model in partnership with a community-based organization, serving patients at Squatty Lyons Health Center (1712 1st St E, Humble, TX 77338)

Deliverables:

- Deliverable 1: Detailed Program Design
  a. Required Delivery: Within 1 month of contract execution
  b. Description: A detailed document with a description of the Project that includes:
    i. Overview and purpose
    iii. Project timeline and monthly milestones
    iv. KPI targets by month
    v. Initial budget forecast by month
- Deliverable 2: Communications Plan
  a. Required Delivery: Within 2 months of contract execution
  b. Description: A detailed document that thoroughly describes all planned communication, outreach strategies and tactics that includes:
    i. Overview of outreach strategies and tactics
    ii. A listing of all parties responsible for outreach, including community partners
- Deliverable 3: Evaluation Plan
  - Required Delivery: Within 3 months of contract execution

Expected Milestones (if not captured above**):**

a. Month 1-3: Work with the Houston Food Bank and Precinct 3 to identify key community pantry partners near Squatty Lyons Health Center and Cypress Health Center with capacity to provide produce and healthy foods, space for a CHW, and availability to serve patients
b. Month 6: Finalize agreement with community partners including days of operations and volume capacity
c. Month 8: Update and finalize internal food prescription referral processes and with external partner in order to track referrals
d. Month 9: Hiring and onboarding Community Health Workers, including shadowing at existing sites
e. Month 12: Begin Food Rx community redemption model at Squatty Lyons Health Center and Cypress Health Center
f. Month 13: Begin reporting process measures
g. Month 22: Begin reporting patient outcomes (fruit and vegetable consumption and HbA1c)
h. Month 24: Provide evaluation of ARPA-funded programming

Program Budget

Labor	**Salary**	**Salary + Fringe (30%)**	**Total**
Community Health Worker (1 FTE)	$ 45,302.00	$ 58,893.00	$ 58,893.00
Labor Total			**$ 58,893.00**
Program Infrastructure - Tangible items	**Quantity**	**Cost per unit**	**SubTotal**
Minor Equipment and Supplies (laptop, portable WiFi, shopping bags, educational materials, food scale)			$ 7,500.00
Program Infrastructure Total			**$ 7,500.00**
Start Up One Time Purchases	**Quantity**	**Cost per unit**	**SubTotal**
Major Equipment/Supplies (Refrigerator, Freezer, produce bins, shopping baskets/carts, shelving)			$ 16,500.00
Start Up Purchases Total		**$**	**$ 16,500.00**
Total per Site			**$ 82,893.00**
Grand Total for Pct 3 Food Rx Proposal (2 sites)			**$ 165,786.00**

Goals and Performance Targets

The goal of this Project is to bridge the gap between a critical health related social need, food insecurity and chronic disease management for health conditions with a close nexus to food and nutrition that are prevalent in vulnerable populations including the African American and Latino populations. Food insecurity and poor nutrition are tied to poor health outcomes.

Performance Measures

The following performance goals have been set for the Project:

a. 100-150 patient interactions per month per location once Project is fully operational
b. Increase in patients' fruit and vegetable consumption of 0.5 to 1 daily serving over baseline (data will be available beginning nine months after seeing the first patient)
c. Decrease in patients' HbA1c of 0.72 percentage points (data will be available beginning nine months after seeing the first patient)

Reporting Requirements

Detailed reporting requirements will be jointly developed and agreed upon within 60 days of the effective date of this contract.

Subrecipient's Monthly Reporting Requirements will include:

- Key Performance Indicators (performance measures as described above)
- Milestone statuses and project plan updates
- Monthly narrative describing progress, challenges & risks, opportunities, and next steps

Subrecipient's Quarterly Reporting Requirements will include:

- Masked program data including aggregated program participant demographic information (zip code, race, ethnicity, gender, success stories and any other pertinent information) as requested by Harris County
- Projected/forecasted budget by month

Subrecipient's Annual Reporting Requirements will include:

- *Annual Report* or *Final Report* summarizing overall activities and progress, performance vs. goals, challenges, risks, lessons learned, and plans for the subsequent year, if applicable
- *Mid-term Equity Reflections* and/or *Final Equity Reflections* as applicable

Subrecipient Responsibilities

Subrecipient agrees to abide by the ARPA Equity Framework and strive to incorporate equity considerations throughout the project. Subrecipient agrees to participate in and support third-party evaluation efforts, if applicable. Any changes to this Statement of Work shall be agreed upon by Harris County.

Compliance and Monitoring

Subrecipient will gather and report data and documentation as required for federal compliance monitoring. Additional compliance-oriented activities include:

- Furnish documents and materials requested by Harris County for compliance purposes, within timeframe requested
- Ensure funds disbursed under this award will only be used in compliance with section 603(c) of the Social Security Act, Treasury's regulations implementing that section, and guidance issued by Treasury regarding the foregoing
- Comply with the SLFRF statute, SLFRF Award Terms and Conditions, Treasury's Final Rule, compliance, monitoring, and reporting requirements, as applicable
- Comply with all other applicable federal statutes, regulations, and executive orders
- Submit monthly or quarterly invoices with required details to comply with federal award requirements

All deliverables (as defined above) will be the sole and exclusive property of Harris County. Subrecipient hereby irrevocably assigns to Harris County all right, title and interest worldwide in and to any deliverables

specified herein and created for Harris County during the term of this contract.

Close Out

Subrecipient shall have fulfilled its obligations when the following occurs:

- Contractor accomplishes the activities described within this SOW, including delivery to Harris County of all requested close-out materials and reports, and Harris County accepts such activities and materials without unreasonable objections.
- All invoices submitted within 60 days of program closure.
- All outstanding compliance requests fulfilled, including reporting, data entry, client sampling, etc.

PROGRAM OVERVIEW

Project or Program Name:	Harris Health Food Rx Expansion
Proposed ARP Expenditure Category:	*(Reference page 35 to 37 of the Treasury Reporting Guidance and Assistance Listing)* Public Health (EC_1)

1. **Please provide a program introduction and description.**

Harris Health's Food Rx program addresses health-related social needs, like food insecurity, poor nutritional knowledge, and lack of access to culinary education, that are prevalent in vulnerable populations including the African American and Latino populations and tied to poor health outcomes. Harris Health's program proactively embeds a population health approach as part of the standard of care for chronic disease management, strategically intervening with patients with expressed social needs and known health risks in order to improve their health outcomes. Harris Health's Food Farmacies, currently at two family practice clinics as well as LBJ Hospital, serve all adult patients expressing food insecurity while providing a more intensive intervention for those with Type 2 diabetes. Patients screening positive for food insecurity enroll with a community health worker (CHW), select a variety of healthy foods, are provided chronic disease management education from a dietician and nurse patient educator, are connected to a Houston Food Bank navigator for benefits enrollment, and are linked to community food resources. Patients with uncontrolled diabetes are invited to participate in a 9-month program in which they "walk and learn" with a Community Health Worker during their biweekly redemption of 30 pounds of fresh foods, and are provided the opportunity to enroll in University of Texas School of Public Health's culinary medicine curriculum, which teaches patients the skills to make delicious, healthy, low-cost, and culturally relevant meals. Graduation from Food Rx now includes curated linkages to community supports, such as H-E-B's network of grocery stores, to support patients' positive behavioral change at accessible locations within their home communities.

This project supports the expansion of Food Rx to two additional sites: Harris Health's Cypress Health Center and Squatty Lyons Health Center through a community redemption model. This model has already been piloted and is in active implementation at Baytown Health Center. The community redemption model involves Cypress and Squatty Lyons Health Center patients redeeming their food prescription at a nearby community pantry that has the space and capacity to house a Harris Health CHW, support the provision of nutrition education, and provide patients with produce and healthy food options at flexible times for patients. The proposed community partners for this initiative are:

- For Squatty Lyons Health Center: Humble Area Assistance Ministries (HAAM) - 1302 First Street, Humble, TX 77338
- For Cypress Health Center: Cypress Assistance Ministries (CAM) – 12930 Cypress North Houston Rd., Cypress, TX 77429

As a model for this expansion, the Houston Food Bank works with community pantries to serve as

Food for Change markets, specialized pantries that supports healthy food prescription programming with healthcare partners. The Houston Food Bank has offered support in assisting the identified community pantries build capacity to become Food for Change markets by providing technical assistance.

Harris Health's goal is to expand Food Rx to its remaining health centers over time and as funding allows.

2. How is the proposed program related to the COVID-19 public health emergency?

Harris Health System began assessing patients for food insecurity in 2017, building the Hunger Vital Signs into its electronic medical record and assessing food insecurity results on an annual basis. Not only was food insecurity prevalent among Harris Health's patient population (pre-COVID, 1 in 7 in Texas were food insecure, 1 in 6 in Harris County, and 1 in 5 or more among Harris Health patients), Harris Health's top ambulatory diagnoses (hypertension, diabetes, and hyperlipidemia) also have a close nexus to poor diet and nutrition. The COVID-19 pandemic has highlighted how essential this work is. Due to the economic and health consequences of the pandemic, food insecurity is projected to rise by 33% in Harris County alone. The COVID-19 pandemic has further underscored fundamental weaknesses in the food and health care systems, including the country's fragile food supply chain including food deserts, economic disruptions and blatant disparities in hospitalizations and death by race and ethnicity. Increased risk of COVID-19 hospitalizations through 2020 were attributable to four diet- related conditions: obesity, diabetes, hypertension, and heart failure. Furthermore, COVID-19 hospitalizations were two times higher in Blacks and Hispanics than their white counterparts. Diet-related conditions and health equity are intertwined through the geographic, economic, and social factors that affect food quality and food access. As a result, food insecurity and diet-related conditions disproportionately affect lower-income and racial and ethnic minorities affected by systemic inequalities. In the county with America's highest number of uninsured residents, and given Harris Health's patient mix with 80% minorities as well as the known nexus between food insecurity and poor health outcomes, it is critical to proactively identify food insecurity and provide meaningful assistance to patients to prevent and treat diet-related conditions, particularly for those already struggling with a nutrition-related chronic disease.

3. Which target populations will be served by the proposed program or project?

The target population for this program are food insecure patients and their families. As part of the program, an intensive intervention will occur for food insecure patients living with chronic disease such as type 2 diabetes due to their diet-related condition. Adults with diabetes historically live with other metabolic conditions. 69% of adults living with type 2 diabetes also have high blood pressure, 44% suffer from high cholesterol, and 39% suffer from chronic kidney disease caused by uncontrolled hypertension. This highlights the need for an intensive program for this high-risk patient population. Harris Health is not aware of any other groups not identifiable in the data that may also be affected.

4. How are target populations defined for this project or program? What criteria

must be met to participate or receive assistance?

This initiative will connect eligible Harris Health patients to community pantries for food, resources, education, and navigation. While the community pantry is open to the community at large, this initiative (and generated outcomes) will focus on Harris Health patients that receive a food prescription to be redeemed at the community pantry. The target population will be determined from the validated Hunger Vital Sign questionnaire. The questionnaire asks two questions to assess for food insecurity. If the patient answers yes or sometimes to either question then the patient is considered positive for food insecurity, which meets the criteria to participate in the program.

Engaging the community and patients has been essential in the success of Food Rx. Any intervention should be designed with the end -user in mind and Harris Health connected with its patients and the community at large in a variety of ways. Harris Health has a Patient and Family Advisory Council (PFAC) comprised of patients and community members. This council provides a platform and voice for patients, as well as a sounding board for leadership as the system grows and adapts to meet our communities' needs. Early into Harris Health's population health journey, the PFAC was engaged to discuss the vision and strategy for this work, and have been engaged since the inception of the Food Rx program. Various members have subsequently participated in Food Rx programming and have been vocal advocates for the program. Feedback from these members and other constituents has resulted in an improved patient experience: shorter wait times, more operating days, dedicated resources for community graduation, and identification of related needs among participants, such as transportation assistance and meal delivery. The engagement of the PFAC and other program participants and graduates will also be helpful in helping to identify any new target populations as the Food Rx program expands.

5. **How has the COVID-19 public health emergency created the impact that the proposed program is intended to address?**

When the COVID-19 pandemic started in early 2020 communities experienced economic recession projected to remain for several years. In 2020, approximately 38 million people in the United States lived in food insecure households. Notably from 2019 to 2020, the number of Americans living in food insecure households increased by three million (particularly among households with children) and racial/ethnic disparities in household food insecurity widened. Considering that COVID-19 affected communities of color at a higher rate and that significant racial disparities in food insecurity existed before COVID- 19, the economic recovery will be challenging for this group of individuals. As the food system continues with challenges and now the addition of inflation, communities of color experiencing socioeconomic disparities will further be compromised.

This program addresses the food insecurity and health disparities exacerbated by the COVID-19 pandemic by providing patients with access to 30 pounds of fresh, healthy foods every two weeks (including many fruits and vegetables that are often too expensive for families to purchase at the grocery store) as well as nutritional information about how consumption of healthy foods positively impacts health.

6. **How does the proposed program respond to the described impact of the COVID-19 public health emergency?**

It is clear that the challenges of food insecurity, diet-related conditions, and health inequities intersect with and exacerbate one another, and that essential systemic changes across multiple sectors are needed to adequately address them. Harris Health System has partnered with Houston Food Bank (HFB), UT School of Public Health (UTSPH), and H-E-B to catalyze improvements in knowledge, healthy behaviors, and clinical and cost outcomes through a multifaceted intervention that spans healthy foods, financial navigation, culinary medicine, disease management, and community graduation. Harris Health System's Food, Nutrition, and Chronic Disease Management "hubs" not only provide direct clinical services, healthy foods, and education through onsite Food Farmacies, but also house partner resources and expanded linkages to community supports to sustain positive changes. As the healthcare safety-net system for Harris County with the most uninsured residents in the nation, Harris Health overwhelmingly serves vulnerable and minority populations: more than 75% of patients are African American or Hispanic (with Vietnamese and AAPI pushing this number past 80%), many of whom rely on Harris Health's financial assistance program because of where they fall on the Federal Poverty Level. National data shows that these are the patients and communities that bear a disproportionate burden of preventable chronic illnesses. The Food Rx program specifically serves an overwhelmingly minority population. In fact, in 2022 75% of program participants were Hispanic/Latino and 13% were Black/African American.

Tackling the root causes of health disparities lies in key part in addressing the socioeconomic determinants of poor health, as well as in addressing more proximate factors like ensuring a diverse, culturally competent care team. Harris Health's program does both. By providing equitable access to health-related social needs like fresh foods, nutritional knowledge, and culinary education, as well as culturally sensitive care from a workforce that is over 85% minorities and drawn from the communities served, Harris Health is proactively closing the gap between potential and real opportunities for patients' health. Further, Harris Health's Food Rx data from the current locations shows improved HbA1c control for diabetic enrollees, measurably reducing their risk of complications and the burden of their chronic disease. From integrating health-related social needs as part of the standard of care at its health hubs, to ensuring interventions are culturally sensitive - like the culinary medicine curriculum that is adapted to cultural needs - Harris Health is addressing health disparities for patients head on.

7. **What are the objectives sought by use of proposed program funds? What is the expected impact?**

The early stages of design of the Food Rx intervention began with a vision of a balanced scorecard. Harris Health System's Population Health team spent several months researching food insecurity interventions, learning from local and national experts, and synthesizing its own patient data to develop an intervention that was evidence-based, practical, and outcomes- oriented.

The scorecard is balanced across Outcome, Process, and Satisfaction Measures to capture the different dimensions of program effectiveness:

- Outcome Measures – captured at baseline, midpoint, and endpoint for food-insecure patients with a baseline A1c ≥ 7 who enroll in Food Rx
    - Nutrition knowledge
    - Healthy meal preparation knowledge*
    - Self-efficacy across a range of culinary skills*
    - Fruit & vegetable consumption
    - Biometrics: Hgb A1C, blood pressure, LDL Cholesterol
- Process Measures – captured for all patients
    - Food insecurity screening fidelity
    - Food insecurity prevalence
    - Food Rx referrals completed
- Satisfaction Measures
    - Patient satisfaction – survey scores captured at baseline, midpoint, and endpoint; qualitative comment cards available to supplement
    - Provider satisfaction – survey scores captured biannually

* These measures, especially pertinent to the culinary medicine component of Food Rx, evaluate key knowledge and behavioral changes needed to amplify and sustain the health effects of access to nutritious food.

Harris Health employs an "assess – design – implement – measure/monitor" framework, not unlike PDSA cycles used for process and quality improvement. This framework allows Harris health to iteratively improve and adapt programming to include patient and provider feedback, address emerging needs and barriers (such as COVID-related adaptations), improve data collection methods, and consider new outcomes of interest.

The outcome metrics are shared internally among hospital staff and physicians, as well as with the PFAC so that patients and families are aware of the success of the program. Information regarding the program will also be available on the Harris Health website for patients and the community.

8. **Is this a new program, or an expansion of an existing program?**

It is an expansion of an existing program.

9. **Are there similar projects or programs within the county already? How does this proposal differ?**

The Harris Health Food Farmacy is the first of its kind in Texas; Harris Health is not aware of similar programs within the county.

10. **Are there similar State or Federal programs that deliver a similar service? Will potential recipients have already applied for those programs?**

No

11. How does this proposed program differ from any similar State or Federal programs?
N/A

12. How will the proposed program ensure that benefits are not being duplicated?
N/A

13. Will this be a funding opportunity open for application, or are there limited beneficiaries already identified?
This program will be offered only to Harris Health patients who screen positive for food insecurity. While some patients are already identified, others will be identified as they first utilize services at Harris Health.

14. What is the initial outreach plan to reach the target populations defined in the proposal?
Patients are screened for food insecurity, and if positive, the patient's physician writes a prescription (the Food Rx) for participation in the program. The Community Health Worker then reaches out to the patient to explain the program in greater detail and then enroll him/her. All of this outreach takes place during patient encounters. The discussions with the patients are done in a culturally sensitive way and in the patient's preferred language.

15. What evidence is there of program success, e.g. from other jurisdictions, best practices, research / studies, and white pages?
Results from Harris Health's first year of operations and the first cohorts to complete the culinary medicine component of Food Rx include:

1. An average increase in patients' nutrition knowledge score from 67% at baseline to 72% at endline;
2. An average increase in fruit & vegetable consumption from 3.2 to 4.2 daily servings;
3. A 38% increase in the number of patients reporting high confidence in use of basic cooking techniques;
4. A 15% increase in patients who "always" or "often" made homemade meals from scratch and a 13% increase in those who "always" or "often" adjusted meals to be healthier;
5. An average decrease in HbA1c of 0.63 percentage points for ongoing enrollees (those who had not yet reached 9 months in the program at time of measurement, n = 206);
6. An average decrease in HbA1c of 0.72 percentage points for program graduates (n = 45); and
7. 7.8% of ongoing enrollees and 13.3% of graduates achieved an HbA1c below 7.0% (an HbA1c above 7.0% is an eligibility criterion for Food Rx).

Improved HbA1c control is crucial to preventing long-term diabetes complications, such as cardiovascular disease, neuropathy, and organ damage. By connecting patients to a continuum of needed tools and support, Food Rx is helping to improve their health and quality of life. Demographic variables as well as race, ethnicity, gender, age, and language of the

enrolled program patients will be tracked for assessment and assistance in developing targeted interventions. Patients and providers have shared universally positive feedback, giving average satisfaction scores of 9.9 out of 10 and 9 out of 10 respectively. Their input has also been continuously gathered and utilized to improve program processes and operations. Research suggests that food prescription programs are beneficial because of the availability, accessibility, affordability, acceptability, and accommodation of healthy foods for participating households.

This program has been recognized nationally and in 2022 won the prestigious America's Essential Hospitals' Gage Award in the Population Health category.

16. List activities for which funds may be used, in order of priority, for ensuring success of objectives sought:

Funds will be used for staff, supplies, and equipment that will help build capacity for a community partner to be able to implement a Food Rx model.

17. Are there any known subrecipients or contractors (that will be awarded funding)?

Yes –conversations between Precinct 3 and potential CBO partners have indicated the need for new or updated pantry equipment/supplies to help support program implementation. These include refrigeration, freezers, food scales, and shelving/bins to be able to supply fresh produce, dairy, lean proteins, and/or frozen vegetables – healthy foods which are key components of the Food Rx program.

18. What data will be used to report program outcomes?

As documented earlier in this report, we will report process, outcomes, and satisfaction members. Data will be qualitative from patient surveys and quantitative from biometrics aggregated from the electronic medical record. Data will be disaggregated (as applicable) by race and gender.

19. What is the estimated start date and duration of the program? Once funding is secured, it will take between 6-9 months to operationalize the program. Harris Health will support the program in future years once the ARPA funding for the initial implementation is no longer available.

20. Will any other funding sources be leveraged for this program? No **How will the program administrators ensure that duplication of benefits will not occur?** *N/A*

21. What is your department's capacity to manage the program and all potential subrecipients or recipients?

Existing Harris Health leadership will manage this program. No additional administrative or technical resources are needed since this is an expansion of an already existing program.