

Revere Mobile Food Market
Cambridge Health Alliance

Access to Healthy Produce

More than half a million people, approximately 10 percent of the population, in Massachusetts struggle with **food insecurity**. Mounting evidence indicates that food insecurity is associated with higher health care costs, in addition to profound health consequences. Low intake of fruits and vegetables, items often too expensive for low income individuals to afford, is linked to risk of chronic disease, including cardiovascular disease, hypertension, and obesity. In Massachusetts, 89 percent of the population fails to meet recommended vegetable intake. **The goal of our project is to address food insecurity and health disparities by providing regular access to healthy food along with nutrition counseling and information.**

The Greater Boston Food Bank and Cambridge Health Alliance (CHA) Revere Health Center began holding free monthly Mobile Food Markets open to patients and the public commencing on Saturday, March 3rd, 2018. The markets occur in the parking lot of the CHA Revere Health Center and provides approximately 30 pounds of fruits and vegetables per household. This has the opportunity to impact the diet of Mobile Food Market clients as many CHA Revere patients are faced with food insecurity. A screening of patients visiting CHA Revere for medical appointments found that 51 percent experienced food insecurity, which is higher than the statewide prevalence of 10 percent.

For the 5 months between the months of March, 2018 and July 2018, over 18,000 pounds of produce were distributed to 420 CHA patients and 292 community members (unduplicated count). CHA’s mission is to improve the health of its patients and communities; through this partnership both patients and community members were provided healthy produce.

GBFB uses a methodology (see chart below) to determine which communities are food insecure. The goal is to provide sufficient meals or food (measured in pounds) to result in access to three meals a day in a community. Revere is at 68 percent of the “meals to meet goal.” Everett is at 72 percent of the “meals to meet goal”. The mobile food market at Revere is intended to increase the rate of “meals to meet goal” by providing an additional 14,118 pounds of food or 11,707 meals per year. Once we have fully implemented this Mobile Food Market in Revere, we will outreach to Everett patients and community members to invite them to participate in the market.

Three Meals a Day Goal^{1,2}

	Three Meals a Day Goal	Meals Distributed	Percent of Goal Met	Meals to Meet Goal
Everett	1,032,300	740,900	72%	291,400

Revere	905,600	614,600	68%	291,000
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Data to demonstrate that access to healthy produce improves health.

Limited research has been conducted on interventions to reduce food insecurity and improve health. Existing research includes work on healthy food boxes for food insecure adults and meal delivery for homebound patients. CHA in partnership with GBFB, Good Measures, Tufts Health Public Plan and ICH is evaluating the implementation and impact of a Mobile Food Market with an emphasis on fresh produce at CHA's Revere Health Center.

The Institute for Community Health (ICH) will provide assistance in creating a de-identified data set that will then be used for analysis by the GBFB research team. This alliance has the unique opportunity to **demonstrate that the provision of healthy food positively affects health and health care costs.** Because CHA and Tufts Health Public Plan are Accountable Care Partners for the Mass Health Accountable Care Organizations (ACO), we have the unique opportunity to have access to the health data and evaluate changes. It is important to demonstrate that "food is medicine" and directly related to health and healthcare costs and to estimate the impact on diet related chronic disease.

CHA is implementing food insecurity screening via MassHealth ACO patients across all of its primary care sites and intends to screen at all access points for patients over time. The CHA health centers are using the Hunger Vital Sign to screen patients for food insecurity and to connect them immediately with the Mobile Food Market. Each Mobile Food Market participant receives an ID card that is scanned when they attend each monthly market. This allows us to track how regularly clients attend the market.

Why Revere?

The target population for this partnership are those aged 18 and older and their families who are food insecure. The initial targeted location is for CHA patients at the Revere Health Center and residents of Revere (population 53,165 US Census/ACS 2016). The secondary targeted location is for CHA patients at Everett Health Center and residents of Everett (population 44,636 US Census/ACS 2016). MassHealth ACO patients are the first patient group to routinely be screened for food insecurity using the Vital Hunger Signs tool and will be the first to benefit from the food market and nutrition counseling. Food insecurity screenings of patients at CHA Revere showed that 51 percent experience food insecurity. And the rate of food insecurity in Everett is 13 percent*, significantly higher than that statewide (nine percent). The target population and communities selected are informed and selected by the GBFB data that has identified Revere and Everett with poverty rates of 15.6% and 14.9% with corresponding unemployment rates of 5% and 4.6%.

Revere was chosen for a Mobile Market because the city has a high unmet need for food assistance. There are not enough food pantries or meal programs in Revere to meet the need. Revere was also selected to connect the provision of healthy produce to a healthcare facility in

order to leverage the opportunity to connect identified food insecure patients to the food market located at their clinic. The location, which is in a busy commercial area of Revere, has also attracted community members to the Mobile Food Market. Everett is our secondary targeted community which also has a high unmet need.

The Mobile Food Market in Revere was launched in March 2018 and attracted 90 patients and 25 community members during the first distribution. Over the next couple months, Mobile Food Market attendance reached a high of 170 with growth seen in community members. Attendees regularly line up early, often arriving more than an hour before the market begins. These numbers assure us that our targeted population is correct and that we have much work to do to continue to provide food to this needy community. Once we have mastered the Mobile Food Market for the Revere population we will turn our attention to enrollment of neighboring Everett patients and community members in our Revere Mobile Food Market.

Partner Roles

CHA provides the space for the food market at its Revere Health Center site. CHA is responsible for ensuring there are sufficient volunteers at each market and coordinating the market. CHA is screening MassHealth patients for food insecurity and enrolling them in the Mobile Food Market. CHA will coordinate the health fair and develop a robust volunteer pool that will sustain the operations of the food market.

GBFB provides the produce and logistics for the Mobile Food Market. Food Market registration data as well as baseline and follow-up questionnaire data will be stored in an Oasis database, which is overseen by GBFB.

Tufts Public Health Plan regularly attends the food market and provides volunteer assistance as well as providing cloth bags for attendees to carry their food. TPHP has also arranged our regular monthly calls and meetings. TPHP will share their claims data on CHA patients.

Good Measures regularly attends the food market to provide information and a healthy snack for those who stop by their information table. Good Measures will work with their nutritionist to develop monthly recipes for distribution at the food markets. Good Measures will provide nutrition coaching for eligible CHA Revere patients who attends the mobile market and wish to use Good Measures.

ICH All data files will be shared with the Institute for Community Health (ICH), which will merge the datasets and remove identifiable patient information including name, medical record number, health insurance number, and mobile market ID. ICH may also share with the non-ICH study staff documents with participants' names and contact information for the logistics of contacting participants for follow-up surveys and distribution of gift cards

Overall Data:

Mobile Food Market at CHA Revere

- GBFB distributed 3,060 pounds of fresh, healthy produce to 118 community members (of whom 90 were CHA patients) during our first distribution on March 3, 2018
- In April 2018, GBFB distributed 5,182 pounds of produce to 167 community members (of whom 111 were CHA patients), including many participants from the March distribution
- In May 2018, GBFB distributed 5,876 pounds of produce to 165 community members (of whom 85 were CHA patients)
- In June 2018, GBFB distributed 4,124 pounds of produce to 138 community members (of whom 67 were CHA patients)
- In July 2018, GBFB distributed 2,060 pounds of produce to 127 community members (of whom 67 were CHA patients)
- Continue monthly food market