Organization applying: Durham County Department of Public Health (DCDPH), Nutrition Division, Nutrition Communications and Health Promotion Program

Amount requested: \$17,000

1. DETAILED DESCRIPTION

A. Overview and Goals: Fresh Food Rx gives healthcare providers and their patients a powerful new tool to make healthy food an explicit part of preventive healthcare – as explicit as prescription medications. In our vision, prescriptions for good nutrition should be as ubiquitous and specific as prescriptions for medication to help more patients avoid or delay chronic illness and its complications. This vision also includes affordable places to buy healthy staple foods like fruits and vegetables in every neighborhood in Durham. Fresh Food Rx connects the dots, giving MDs, NPs, RDs, and other clinicians a powerful tool to convey the importance of fruits and vegetables to patients, while also creating systems to make them more affordable in the short term and more readily available over the medium and long term.

Only about 12% of Durham adults are eating the recommended five or more servings of fruits and vegetables per day, according to the Behavioral Risk Factor Surveillance System report for 2013ⁱ – down from 19% in 2011.ⁱⁱ While specific numbers on children's fruit and vegetable consumption in Durham aren't available, there is compelling evidence that consumption of fruits and vegetables by parents has a great impact on how much their children consume.ⁱⁱⁱ

Fresh Food Rx aims most directly to **increase consumption of fruits and vegetables** by the vast majority in Durham County who don't currently get enough, and in so doing, to **reduce rates of chronic illnesses like diabetes and heart disease**. For people who already have those conditions, it aims to improve management and prevent complications.

To make fresh fruit and vegetable consumption easier for more people, Fresh Food Rx also works to **improve access to fresh food in Durham**. It does this in the short term by directly subsidizing purchases of fruit and vegetables by prescription holders. And, over the medium and longer term, it builds bridges for customers to two types of businesses that sell fresh, locally-produced fruits and vegetables in Durham, both of which we'd like to see flourish: 1) farmers markets and mobile markets that feature locally-produced foods, and 2) corner stores with healthy offerings and grocery stores located in low-income neighborhoods.

Fresh Food Rx is also working to **bolster the "culture of health" in Durham**, shifting emphasis from sick-care to wellness and preventive care, and expanding our community's culture of access to healthy foods and other resources for a healthy lifestyle. Durham recently won the Culture of Health prize from the Robert Wood Johnson Foundation, which "honors communities which place a high priority on health and bring partners together to drive local change." Fresh Food Rx will help locally-grown foods become a bigger part of our community's culture of health for all.

B. Design and Rationale:

The program creates a new type of prescription that also functions as a voucher for fruits and vegetables. Medical providers can give the prescription-voucher to interested patients, who can then redeem it for \$10 off the cost of fresh fruits and vegetables at one of several designated sale points around the county. These include both major farmers markets, two mobile grocers with multiple local

sale locations, including at the DCDPH itself, and in Phase II, a number of grocery stores and corner stores that feature locally-grown produce. Every site we've chosen to partner with accepts SNAP/EBT (food stamps) as a form of payment, and at the Farmers Markets, there is currently a Double Bucks program that will double the value of whatever shoppers spend on their EBT cards over and above the \$10 prescription value.

The program will have two main arms running more or less concurrently:

- 1. The Intermittent Rx program is designed to closely replicate the experience of receiving a standard prescription. As often as once per month, clinicians may give a Fresh Food Rx prescription-voucher to any patients who have diet-related health risks or illnesses, for whom greater consumption of fruits and vegetables is a medical and nutritional priority, and who are interested in using a Fresh Food Rx prescription. Patients can refill this prescription as often as once per month by coming back to the clinician's office, or by calling the clinician's office to request a refill. Our staff of dietitians will support clinical sites by providing recipes and other educational tools or programs, and accepting referrals to the DCDPH's Nutrition Clinic for nutrition counseling, depending on interest and resources at each clinical site.
- 2. The Intensive Rx program teams up with existing clinic-based support groups focused on diabetes self management (DSME), weight management, and healthy pregnancy. It is designed to make the biggest difference for patients who are already receiving group-based support and committed to making healthy changes. The same Fresh Food Rx prescription-voucher described above is offered to participants in these support groups, but instead of monthly it is given biweekly or weekly for up to six months, and is paired with nutrition and cooking classes that offer extra support for people making healthy changes in their diets. Based on conversations we've had with people managing similar programs in other areas of the country, vi as well as evaluation reports of those programs, is similar programs paired with an organized support groups typically saw the highest rates of prescription-voucher redemption and behavior change by participants.

In the **pre-launch phase**, which began in August of 2014 and has already concluded, formative research was conducted to inform the design and test the feasibility of Fresh Food Rx. In-depth interviews were conducted with people in other parts of the country working on similar prescription programs to get more information about what has worked in other places, and what challenges to anticipate. Short surveys were also conducted with 75 DCDPH patients using convenience sampling of patients in waiting rooms, asking about perceived barriers to consuming fruits and vegetables, interest in a prescription-voucher program, and likelihood of using Fresh Food Rx at various points of sale.

Phase I of Fresh Food Rx will be conducted in 2015 at the Durham County Department of Public Health, which saw approximately 15,000 individual patients in its seven clinics in the 2012-13 fiscal year. Health I will be a small scale pilot: the Department's Nutrition Clinic will have about 45 patients in the intermittent Rx program, and Centering Pregnancy groups through the Department's Women's Health Clinic will have about 36 patients in the intensive program. Centering Pregnancy is a model for prenatal care that has been in use for several years at the DCDPH with great success. The Centering Health Initiative describes how it works:

"Centering Pregnancy is a multifaceted model of group care that integrates the three major components of care: health assessment, education, and support, into a unified program within a group setting. Eight to twelve women with similar gestational ages meet together, learning care skills, participating in a facilitated discussion, and developing a support network with other group members." is

At DCDPH, as many as six Centering Pregnancy groups are meeting at any given time.

Phase II of Fresh Food Rx will take place in 2016, and use what we've learned from Phase I to expand the program to other relevant clinics at Durham County Department of Public Health: Adult Health, all of Women's Health, Breast and Cervical Cancer Control Program, the Dental clinic, and the Early Intervention clinic for adults living with HIV. We expect to have about 300 patients in the intermittent program in Phase II, and about 75 patients in the intensive program.

Phases III and IV are anticipated in 2017 and beyond, and are beyond the scope of this proposal. Based on what we've learned from the first two phases of the program, we plan to expand Fresh Food Rx to clinical sites outside the Department of Public Health, working with partners such as Duke Medicine, Lincoln Community Health Center, Healing with CAARE, and primary care providers in private practice across our county.

Please see also the detailed list of planned activities under question 4, Key Milestones and Timing, and a Logic Model for the program in Appendix I.

C. Evidence for Strategies:

The primary strategy underlying Fresh Food Rx is **increasing fruit and vegetable consumption** to help meet several public health goals in our community, including reduction in overweight and obesity and a reduction in chronic disease and its complications. According to the US Centers for Disease Control and Prevention, there is strong evidence for this strategy:

"Eating a diet high in fruits and vegetables is associated with a decreased risk of many chronic diseases, including heart disease, stroke, high blood pressure, diabetes, and some cancers. Research also has found that replacing foods of high energy density (high calories per weight of food) with foods of lower energy density, such as fruits and vegetables, can be an important part of a weight-management strategy."

Emphasis on eating more fruits and vegetables has been shown to improve weight management outcomes in both adults and children. According to a 2004 review, higher intake of fruits and vegetables is associated with greater feelings of fullness (satiety) and consuming fewer calories (earlier satiation), and when weight loss interventions advise adults to eat more fruits and vegetables in addition other messages, they lose more weight. For obese children, a 2008 study showed that encouraging increased fruit and vegetable consumption was more effective for weight loss than discouraging consumption of calorie-dense foods. It is a consumption of calorie-dense foods.

To facilitate an increase in fruit and vegetable consumption by Durham residents, Fresh Food Rx will employ a strategy of **prescriptions from clinicians**. Research evidence on this strategy is not yet widely available. We know that publications are pending for at least two research studies on similar programs – one in Chicago, xiii and another in Austin, TX xiv - though we know little of their findings. However, we have been able to draw on practice-based evidence gleaned from two sources: formative interviews with public health practitioners in other parts of the country, and self-published program evaluations from Wholesome Wave, which has been using a fruit and vegetable prescription-voucher model in several areas over the past three years. According to their 2013 program evaluation xiv, over half of participating patients (all overweight and obese children) reported greater fruit and vegetable consumption at the end of the 4-6 month prescription program than at the beginning, with fruit and vegetable consumption going up by an average of .6 cups per day. About 24% of child patients lost weight or maintained their

weight during the program, and another 8% gained less than one pound. Though these findings do not come from controlled, peer-reviewed research, they are promising.

While research evidence on the specific strategy of prescription for increasing fruit and vegetable consumption does not yet exist, programs that take the general approach of **increasing access and availability of healthy foods** are recommended by the Centers for Disease Control and Prevention (CDC) and the Institute of Medicine (IOM) as an evidence-based strategy for preventing obesity in adults and children.^{xvi}

One way that Fresh Food Rx increases access to fruits and vegetables is by providing prescriptions that also serve as **vouchers** to lower the cost of these foods to participants. According to the CDC, "interventions that provide coupons redeemable for healthier foods and bonuses tied to the purchase of healthier foods increase purchase and consumption of healthier foods in diverse populations, including university students, recipients of services from the Supplemental Nutrition Program for Women, Infants, and Children (WIC), and low-income seniors." A 2013 review of intervention studies that provided monetary subsidies for healthy foods to participants found that among 20 studies in seven different countries, all but one showed a significant increase in purchase and consumption of healthier foods. Viii One particularly relevant study included in that review found that post-partum WIC participants in Los Angeles given \$10 per week in vouchers to spend on fruits and vegetables significantly increased their consumption of those foods, and sustained that increase six months after the program concluded. Fresh Food Rx will be modeled very similarly. Still more interesting, the WIC participants in the LA study given vouchers to the farmers market had bigger increases in fruit and vegetable consumption than the group given vouchers to a grocery store, a promising sign for Fresh Food Rx's focus on farmers markets and mobile markets.

Fresh Food Rx is also working to increase access to and consumption of locally-grown fruits and vegetables for more people in Durham. As a strategy to improve diet, increasing purchase and use of locally-produced foods has modest support in the literature. A 2010 review of studies on interventions with farmers markets and community gardens found much promise, but ultimately concluded that recommendations must be made cautiously since "few well-designed research studies (...) utilizing valid and reliable dietary assessment methods to evaluate the influence of farmers' markets and community gardens on nutrition-related outcomes have been completed."xxi However, other research has been released since that time which further supports this strategy. For instance, a 2013 study of low-income women in Eastern North Carolina found that those who shopped at farmers markets were almost twice as likely to consume the recommended five or more servings of fruits and vegetables per day. XXIII CDC recommends promoting and expanding farmers markets, farm stands, and similar venues for purchase of locally-grown foods as a strategy for preventing obesity, noting that even with modest research evidence so far, "these mechanisms have the potential to increase opportunities to consume healthier foods (...) by possibly reducing costs of fresh foods through direct sales; making fresh foods available in areas without supermarkets; and harvesting fruits and vegetables at ripeness rather than at a time conducive to shipping, which might improve their nutritional value and taste."xxiii

Another way that Fresh Food Rx works to increase access to fruits and vegetables over the medium-to-long term is by **increasing revenues for farmers markets, mobile markets, and grocery stores in low-income neighborhoods**. Twenty-six of Durham County's 53 census tracts are currently considered food deserts by the USDA Economic Research Service, meaning that a high portion of low-income residents in those tracts live more than one mile from the nearest full-service grocery store. That is particularly concerning since the presence of full-service grocery stores is one likely determinant of fruit and

vegetable consumption. A 2004 study of SNAP participants found that the further the nearest full-service grocery store from home, the less fruit adults consumed, and a similar though not significant effect was also seen for vegetables. The effect of full-service grocery stores on fruit and vegetable consumption may be even more important for the 38% of Durham County's population that is African American. For instance, one study based on data from the large Atherosclerosis Risks in Communities (ARIC) study found a dose response relationship such that for each additional grocery store located in their census tract, African Americans' consumption of fruits and vegetables rose by 32%, but Caucasians' fruit and vegetable consumption was influenced more mildly. Yavii By driving additional business to grocery stores in low-income neighborhoods, and to farmers markets and mobile markets throughout our community, we hope to encourage them to remain in business and expand offerings of fruits and vegetables. This would contribute to improvement of the nutrition environment in Durham, prevent formation or expansion of food deserts, and extend the benefit of Fresh Food Rx beyond the patients who receive the prescription-vouchers directly to the communities around them.

2. ALIGNMENT WITH BURTS BEES GOALS

This program is a great fit for the Foundation's *Good Neighbor Giving* area, since it works in a targeted and deliberate way to increase access to fruits and vegetables for Durham residents with the greatest health-related need, regardless of income. It will pay dividends on each of the three bottom lines:

PEOPLE – Fresh Food Rx is meeting a critical human health need by connecting people with diet-related health challenges to relatively affordable and convenient sources for fresh, locally-grown fruits and vegetables. Learning to incorporate more fruits and vegetables into your diet is a hard process, and one that takes extra effort and a willingness to try new things and experiment. We know that the types of risk-taking this process requires are challenging for anyone, and especially so for people with income levels that necessitate a very tight food budget. For those who are already motivated to make these changes, we directly affect one barrier to doing so – cost – and will also work to address several other barriers: limited availability of fruits and vegetables, limited knowledge of how to prepare and eat fruits and vegetables, and lack of transportation to farmers markets.

PLANET – Fresh Food Rx has secured commitments from the Downtown Durham and South Durham Farmers Markets, Grocers on Wheels, the Community Nutrition Partnership's Veggie Van, and Farmer Foodshare's POP Market to cooperate on developing Fresh Food Rx and to fill patient prescriptions for fruits and vegetables. Each of these organizations features locally-produced foods, many of which are also organic or "low spray." In this way, the project will promote environmental health and sustainability by reducing carbon emissions from transporting foods, and reducing pollution from pesticides and fertilizers that damage waterways and threaten honeybees and other native species.

PROFIT – The funding for this program will contribute to our local economy in several ways. Reducing food costs for low- and moderate-income people will leave them a bit more money to spend on other goods and services critical to their family's health and happiness. Partnering with the local farmers markets, mobile grocers, and grocery stores in low-income neighborhoods as discussed above helps to keep them in business selling fresh, locally-produced foods in our community.

A significant portion of Fresh Food Rx funds will wind up with local farmers, increasing their markets and profits each year of the program, and helping to keep them in business in our region as well. The local multiplier effect means that, "on average, 48 percent of each purchase at local businesses was

recirculated locally, compared to less than 14 percent of purchases at chain stores." By supporting local food retailers and the farms that supply them, Fresh Food Rx will be indirectly contributing to increased opportunities for these people to grow and develop their businesses and employ more people, and also to the local economy at large.

To ensure that the investments this program makes in local food businesses will not end when the program funds do, we are partnering with markets that 1) accept SNAP/EBT for payment, and are 2) eager to grow their base of low-income shoppers. As Fresh Food Rx patients get increasingly acclimated to shopping for fruits and vegetables from these businesses, so the businesses will be actively working to better serve this population by expanding their selections, promotions, and marketing accordingly. Patients and their families can continue to shop from these businesses using SNAP/EBT, and at the farmers markets, they will get double value thanks to the existing Double Bucks program. Because some of the necessary infrastructure to support low-income shoppers' increased patronage of farmers markets and other local food outlets in Durham is already here, Fresh Food Rx funds will help to prime the pump and catalyze longer-term changes in both the way people shop and the way markets cater to them.

3. POPULATION PROGRAM WILL BENEFIT

This program targets patients in Durham County who don't get the recommended five or more servings of fruits and vegetables each day, and who are pregnant and/or have diet-related diseases or risk factors like obesity, type 2 diabetes, or heart disease. As mentioned earlier, only about 12% of Durham adults were eating the recommended five or more servings of fruits and vegetables per day in 2013, xxix down from 19% in 2011 xxx. Meanwhile, according to our county's most recent Community Health Assessment, approximately 62% of Durham County adults, 32% of high school students, and 34% of at-risk children ages 2-5 are overweight or obese. xxxii That amounts to over 68,000 people. 12% of adults, or about 11,000 people in Durham County are living with chronic diabetes. xxxii

Food insecurity makes eating a healthy amount of fruits and vegetables particularly challenging for many in Durham. An estimated 51,510 people were considered food insecure in Durham County in 2013, or approximately 19% of the population. Twenty-six of Durham County's 53 census tracts are considered food deserts by the USDA Economic Research Service, meaning that a high portion of low-income residents in those tracts live more than one mile from the nearest full-service grocery store. As low-income residents are less likely to have their own car, this distance presents a major barrier to purchasing groceries.

In the 2013 Community Health Assessment Questionnaire conducted with 182 residents of Durham County, xxxx people identified overweight and obesity as the number two health problem in our community, and also ranked the most important reasons they don't eat a healthier diet. The top reasons given were that it takes too much time to prepare and shop for healthy choices (28% of respondents), and that healthy food costs too much (24%). Additionally, 10% said they don't eat more healthfully because there aren't places in their neighborhood to buy healthy foods. Meanwhile, the 2014 Farm Bill reduced SNAP (food stamp) benefits for many people, and has likely made affording healthy foods even more difficult at present than it was in 2013 when these data were collected.

It is our hope that the Fresh Food Rx program will reach people with health conditions that make them especially motivated to change their diets, but who've experienced significant barriers to eating more

fruits and vegetables, whether financial, transportation, or knowledge-based barriers, or simply the difficulty of establishing new healthy habits. By starting at the DCDPH's on-site clinics, we will reach a primarily low-income population, however we think this strategy has the potential to help anyone struggling to get more fruits and vegetables in their diet. Whether perceived or actual, the added expense of purchasing fresh fruits and vegetables is a challenge for people in all but the highest income brackets. By expanding in Phases III and IV of Fresh Food Rx beyond the DCDPH to healthcare providers serving the general population, we hope to avoid having fruit and vegetable prescriptions come to be seen as another food benefit for low-income people alongside SNAP/EBT and WIC. This is not meant as an ongoing benefit to families, but rather as a temporary tool for nutrition education and building healthy habits, one that connects people with existing sources for affordable locally-produced fruits and vegetables and primes the pump to build local food businesses and improve the food environment for everyone. It could benefit any person struggling with obesity and/or chronic disease who needs a little extra push to incorporate more fruits and vegetables in their diets. We hope that by removing or reducing some important barriers, and by partnering with health care providers to reinforce the message, we will see an increase in the rate of fruit and vegetable consumption among Durham residents in future public health surveillance.

4. KEY PROGRAM MILESTONES and TIMING

Program milestones and timing through Spring of 2016 are laid out in the following detailed list of planned activities. We intend to submit an updated plan to the Greater Good Foundation in February of 2016 which will cover the remainder of the grant period.

PRE-LAUNCH

August through October 2014 (already complete): Conduct formative research to inform the development of Fresh Food Rx.

- Objective completed: Conduct in-depth interviews with people who have run food prescription programs around the country.
 - We have conducted in-depth interviews with a convenience sample of 10 people working in organizations around the country that have been using a fruit and vegetable prescriptions. This has given us a sense for different variations on the model which have worked, ambitious but realistic targets to aim for, and pitfalls to avoid, and has informed the writing of the present grant proposal.
 - 2) Results have been compiled and presented to partners within DCDPH and at the Downtown Durham and South Durham Farmers Markets, Community Nutrition Partnership, Grocers on Wheels, and Farmer Foodshare.
- Objective completed: Conduct a survey with patients of the DCDPH's clinics, contributing to formative learning about what will make a prescription-voucher model work best in the local context. Goal to collect 75 surveys.
 - 1) Drafted a brief Qualtrix survey to be given in interview format within 3-5 minutes and filled out using a web form on a smart phone or laptop computer. Survey asked key questions about perceived barriers to fruit and vegetable consumption, interest in shopping at farmers markets in Durham, awareness of SNAP/EBT acceptance and Double Bucks at the markets, and likelihood of using a prescription-voucher for fruits and vegetables.

- 2) Obtained permission from Health Director and directors at relevant DCDPH clinics to collect surveys from patients in their waiting rooms.
- 3) With assistance from nutrition interns, administered the survey among 75 DCDPH patients and family members waiting in clinic waiting rooms over five days, offering tote bags with nutrition messages as incentives to participants.
- 4) Used Qualtrix to generate a basic report on survey results, and also collected qualitative information from survey administrators about level of interest and enthusiasm from participants, and memorable commentary that accompanied survey responses.
- 5) Compiled results into a brief memo/report and shared with partners within DCDPH and at the Downtown Durham and South Durham Farmers Markets, Community Nutrition Partnership, Grocers on Wheels, and Farmer Foodshare.

PHASE I

November 2014 through February 2015: Complete planning and preparations for launch of both Intermittent and Intensive Fresh Food Rx programs at Durham County Department of Public Health by 3/1/15.

- Objective: Develop and sign MOUs for collaboration on the Fresh Food Rx program with the directors of the Nutrition Clinic (Intermittent) and the Women's Health Clinic (Intensive) no later than 1/1/15.
 - Collaborate with clinical directors for the Nutrition Clinic and Women's Health clinic to develop MOUs that outline basic components of Fresh Food Rx in each location, basic roles and responsibilities of both the clinic and the Nutrition Division's Communications and Health Promotion Program, and data use for evaluation purposes.
 - 2) Sign MOUs with directors in each clinic no later than 1/1/15.
- Objective: Develop and sign contracts for collaboration and payment with produce marketing partners no later than 1/1/15.
 - Collaborate with partners Grocers on Wheels and Community Nutrition Partnership (Veggie Van) to develop and sign contracts for twice-weekly mobile produce markets in the lobby of the Durham County Department of Public Health. Contract will outline Fresh Food Rx value and redemption, responsibilities of market partners to verify prescriptions, track redemption and assist with evaluation, and responsibilities of DCDPH to reimburse promptly for prescriptions honored.
 - 2) Collaborate with partners Downtown Durham Farmers Market and South Durham Farmers Market to develop and sign contracts for redemption, tracking, and reimbursement for Fresh Food Rx prescriptions at both markets. Contract will outline same points listed above.
- Objective: Develop and test a FFRx Prescription Redemption Tracking System no later than launch date on 3/1/15.
 - 1) Collaborate with both clinic and market partners on development of a networked spreadsheet (Google Sheet or similar) that is accessible to staff program-wide using unique passwords, and that enables tracking by clinical partners of participant names and prescription serial numbers given out to each participant, and the dates given; by market partners of prescription serial numbers redeemed at their sites and the dates redeemed; and by DCDPH of reimbursements made to markets for each redeemed FFRx prescription.

- 2) In Feb of 2015, do a one-week training and pilot run of the entire prescription and redemption process at each clinic and market site with staff and interns from the DCDPH as test patients to test the tracking system, as well as protocols for prescription, redemption, and reimbursement. Tweak/update as needed before launch.
- Objective: Design and print Fresh Food Rx prescription pads (at least 300 prescription slips) by Phase I launch date on 3/1/15.
 - 1) Identify a local printing company that can print watermarked pads, and/or unique serial numbers on pads, and get information about design specifications no later than 1/1/15. Draft prescription slip according to those specifications no later than 2/1/15.
 - 2) Collect feedback from RDs and NPs in each clinic, and from managers at each market site on draft, and update accordingly.
 - 3) Print 300 slips to be used for Phase I and distribute to Nutrition Clinic and Women's Health Clinic no later than 3/1/15.

March through October, 2015: Launch Phase I of Fresh Food Rx on 3/1/15, and manage active program through 11/1/15.

- Objective: Launch and manage intermittent program, distributing Fresh Food Rx to a target of
 45 patients in the DCDPH's Nutrition Clinic during Phase I.
 - 1) Dietitians begin distributing Fresh Food Rx prescriptions to their patients as appropriate and desired by patients on 3/1/15, and no more than once per month.
 - 2) Dietitians conduct the pre-program surveys in interview format as part of normal nutrition counseling sessions.
 - 3) Dietitians also provide individualized recommendations about fruit and vegetable consumption, preparation and recipe instructions, and so on, depending on the particular needs of each patient.
 - 4) Dietitians refill prescriptions for patients who desire it at follow-up sessions. Patients who follow up less than once per month, or who must miss a session with the dietitian, may call the dietitian to request a new prescription be mailed to their address on file.
 - 5) Post-program evaluation survey is conducted in September or October of 2015, and can be given in person during a follow-up nutrition counseling session, or over the phone if no sessions are scheduled.
- Objective: Launch and manage intensive program with 3 Centering Pregnancy groups (approximately 36 mothers) in the DCDPH's Women's Health Clinic.
 - 1) Staff from the Nutrition Division and from Grocers on Wheels and/or Veggie Van jointly introduce Fresh Food Rx in the first meeting of each of three participating Centering Pregnancy groups in March and April of 2015. They explain what it is, how it works, and assist NP in giving out the first prescriptions. They also conduct pre-survey with participants, on paper or in interview format.
 - 2) Mobile market sets up in the lobby after each Centering Pregnancy group's first meeting, and all participants are invited to "tour" the mobile market directly after the meeting and use their first prescriptions.
 - 3) Nurse practitioners will distribute Fresh Food Rx prescriptions at every meeting of the participating Centering Pregnancy groups over the six months until the babies are born, and then once more at the 6-week reunion. Nutrition Division and/or mobile market staff will return to several meetings to give samples, do cooking demos, and answer questions from mothers about how to use and store the produce.

4) Post-program evaluation surveys are given at the 6-week reunion in each Centering Pregnancy group, gauging changes in diet and behavior, as well as feedback about the program.

November 2015 through February 2016: Complete evaluation of Phase I, analyze data, and make updates to program no later than launch of Phase II on 3/1/16.

- Objective: Complete evaluation of Phase I on or around 1/1/16.
 - 1) Compile and analyze results of pre- and post-program evaluation surveys.
 - 2) Share results with clinicians and market partners from Phase I, as well as prospective partners for Phase II, and use to springboard discussion about setting targets for Phase II and needed changes to evaluation strategy for Phase II.
 - 3) In a series of one-on-one or —two interviews, gather qualitative feedback and ideas from Phase I clinicians and market partners about experiences with the program, observed effects with patient/shoppers, and ideas for improving upon it.
- Objective: Use information gathered in Phase I evaluation to plan 2016 Fresh Food Rx programming (see details below under Phase II).

PHASE II - Note: some plans are tentative and subject to change pending results from Phase I.

November 2015 through February 2016: Complete preparations and planning for Phase II no later than launch on 3/1/16.

- Objective: Engage all relevant clinics at DCDPH in planning for Phase II to launch in their clinics.
 - 1) In November and December of 2015, Meet with directors and interested clinical staff at each of the relevant clinics at DCDPH Adult Health, Dental, Early Intervention (HIV/AIDS), and Refugee Health to share results from Phase I evaluation.
 - 2) In initial meetings, and in follow up discussions, weigh options for intermittent and/or intensive programs in each clinic, with the target of reaching a decision about how to structure program in each clinic no later than 1/1/16.
 - 3) Work with directors and staff at each clinic to set ambitious but realistic targets, including number of patients to serve (anticipating about 300 patients in the intermittent/monthly program, and 75 patients in the intensive program).
 - 4) Discuss whether use of Fresh Food Rx requires development or adaptation of any new materials to target each clinic's key audiences (i.e. brochures in different languages, benefits of fruit and vegetable consumption for different age groups or disease states, or similar).
- Objective: Develop and sign MOU for collaboration on FFRx with director of each clinic participating in Phase II by 2/1/16.
 - Collaborate with clinical directors for the Refugee Health, Adult Health, Early Intervention, and Dental clinics on development of new MOUs that outline basic components of Fresh Food Rx in each location, basic roles and responsibilities of both the clinic and our Nutrition Division staff, and data sharing arrangements for evaluation purposes.
 - 2) Collaborate with clinical directors for each of the clinics that participated in Phase I Nutrition and Women's Health on update and expansion of their existing MOUs.
 - 3) Sign MOUs with directors in each of the 6 participating clinics no later than 2/1/16.

- Objective: Establish partnerships with 3-5 brick-and-mortar stores where patients can redeem FFRx for Phase II, in addition to mobile markets and farmers markets already participating, and develop and sign contracts by 2/1/16.
 - 1) In fall and winter of 2015, begin talking with DCDPH's existing partners in our Healthy Corner Stores and Healthy Aisle initiatives about accepting Fresh Food Rx from shoppers. We are currently working with these stores to improve their selection of fruits and vegetables and other healthy staple foods through these initiatives. Each store already accepts SNAP/EBT benefits.
 - 2) Work with interested grocers on updating payment and redemption systems programwide to work across platforms.
 - 3) Collaborate with new brick-and-mortar partners to develop new contracts that describe the key components of Fresh Food Rx, and roles and responsibilities of each partner. Draft contract no later than 1/1/16, collect feedback and make adjustments, and sign no later than 2/1/16.
 - 4) Collaborate with existing mobile market and farmers market partners to update contracts, incorporating any changes made following Phase I, and sign no later than 2/1/16.
- Objective: Prepare and distribute all materials for Phase II no later than 3/1/16 launch date.
 - 1) Develop and/or update educational materials, per specifications of each clinic. Goal to have drafts by 2/1/16, and completed and printed by 3/1/16.
 - 2) Update Fresh Food Rx prescription slips, and reprint according to targets for Phase II anticipate needing to print at least 1000 copies.
 - 3) Distribute all materials to each participating clinic no later than 3/1/16 launch date.

March through October, 2016: Launch Phase II of Fresh Food Rx on 3/1/16, and manage active program through 11/1/16.

Objectives and goals for active Phase II will be quite similar to those for Phase I, though timing of each step may change slightly from anticipated. We will submit an updated list of targets and timeline for Phase II in February, 2016.

5. GOALS and SUCCESS METRICS

Intermittent Fresh Food Rx:

- At least 75% (34/45 patients who receive FFRx) will redeem it once, and at least 50% (22/45) will refill it one or more times.
 - o Data source: FFRx unified prescription and redemption tracking system.
 - Target based on rates of program completion and prescription redemption reported to us in formative research, and in Wholesome Wave program evaluation, xxxvi ranging from 45% in some areas to 90% in others.
- Patients receiving Fresh Food Rx prescriptions will have a lower rate of missed appointments and higher rate of follow up than for the clinic overall.
 - Data source: Clinic appointment records.

- Goal based on anecdotal evidence from formative research, showing that rate of missed appointments decreased among prescription holders, and rate of well-patient visits increased.
- For those who redeem Fresh Food Rx at least once, 80% (27/34 patients) will report increased knowledge, improved skills, and more positive attitudes about fruits and vegetables in the post-program survey than in the pre-program survey.
 - Data source: pre and post surveys.
 - Target based on Wholesome Wave program evaluation report, showing that 81% of participants reported "knowing a lot" about fruits and vegetables at the end of the program, compared to only 42% at the beginning.
- 40% or more (14/34 patients) will report eating one or more additional servings of fruits and vegetables per day at the end of the evaluation period than the beginning.
 - Data source: pre and post surveys.
 - Target based on similar data from Wholesome Wave's 2013 report, showing that 56% of participants had higher fruit and vegetable intake at the end of the program than at the beginning, and the average increase across all participants was 0.6 cups. xxxix
- 50% or more of patients who redeem Fresh Food Rx at least once (17/34 patients) will report purchasing locally-produced foods more often at the end of the evaluation period than at the beginning.
 - Data source: pre and post surveys.
 - Target based on best estimate, given that similar programs have seen an increase in participant knowledge about local foods and an increase in patronage of farmers markets.^{xl}
- 33% or more patients who redeem Fresh Food Rx at least once (11/34 patients) will report eating a wider variety of fruits and vegetables, trying new fruits or vegetables or new recipes that use them, and/or greater ease of access for fresh fruits and vegetables at the end of the evaluation period than at the beginning.
 - Data source: pre and post surveys.
 - Target based on best estimate, given that similar programs have seen an increase in participant knowledge about the importance of fruits and vegetables, and where and how to purchase and prepare them.

Intensive Fresh Food Rx:

- 80% of patients who begin the program are expected to complete it (29/36 patients).
 - o Data source: Fresh Food Rx unified prescription and redemption tracking system.
 - \circ Target rate based on anecdotal evidence from formative research, indicating that in similar intensive support group-based prescription programs, retention rates are higher and range from 70 95%. xiii
- Among those who complete the program, our goal is for all to redeem their FFRx slips at least 5 of the 10 times they are given.
 - o Data source: Fresh Food Rx unified prescription and redemption tracking system.
 - Target rate based on best estimate given redemption rates varying from 45 95% in other programs around the country.

- The Centering Pregnancy groups receiving Fresh Food Rx prescriptions will have a lower rate of missed meetings and dropouts than other concurrent Centering Pregnancy groups.
 - Data source: Centering Pregnancy attendance logs.
 - Goal based on anecdotal evidence from formative research, showing that rate of missed appointments decreased among prescription holders, and rate of well-patient visits increased.
- For those who complete the intensive program and redeem FFRx at least 5 times, 90% or more (26/29 patients) will report increased knowledge, improved skills, and more positive attitudes about fruits and vegetables at the end of the program than at the beginning.
 - Data source: pre and post surveys.
 - Target based on Wholesome Wave finding that among patients completing the prescription program, 81% reported knowing "a lot" about fruits and vegetables, and nearly all increased their knowledge from beginning to end of the program.
- Of the same group, 50% (14/29 patients) will report eating at least one more serving of fruits and vegetables per day at the end of the program than at the beginning.
 - Data source: pre and post surveys.
 - Target based on similar data from Wholesome Wave's 2013 report, showing that 56% of child participants had higher fruit and vegetable intake at the end of the program than at the beginning, and the average increase across all participants was 0.6 cups.xivi
- Of the same group, incidence of unhealthy weight gain, gestational diabetes, and elevated blood
 pressure will be lower than for Centering Pregnany groups who don't have the FFRx program.
 For those who do get GDM or high blood pressure, management will be more successful than
 for similar patients who aren't participating in FFRx, with lower average blood glucose readings
 and/or blood pressure measurements.
 - o Data source: de-identified EMRs for Centering Pregnancy patients.
 - Specific target rate not set, as similar data are not yet available from other programs focused on pregnant women.
- Of the same group of patients, the rate of healthy, full-term pregnancies will be higher than for patients in other Centering Pregnancy groups who did not participate.
 - o Data source: de-identified EMRs for Centering Pregnancy patients.
 - As above, specific target rate not be set as similar data are not yet available from other programs.
- Of the same group of patients, 75% or more (22/29 patients) will report purchasing locally-produced foods more often at the end of the evaluation period than at the beginning.
 - Data source: pre and post surveys.
 - Target based on best estimate, given that similar programs have seen an increase in participant knowledge about local foods and an increase in patronage of farmers markets.xivii
- 75% or more patients in the same group (22/29 patients) will report eating a wider variety of
 fruits and vegetables, trying new fruits or vegetables or new recipes that use them, and/or
 greater ease of access for fresh fruits and vegetables at the end of the evaluation period than at
 the beginning.
 - Data source: pre and post surveys.

 Target based on best estimate, given that similar programs have seen an increase in participant knowledge about the importance of fruits and vegetables, and where and how to purchase and prepare them.

Phase II success metrics will tentatively include the same markers at the same proportions as those for Phase I. However, they will likely need to be updated based on actual performance measured in Phase I, and to reflect goals particular to each of the participating clinics. For instance, we anticipate that the Dental Clinic involved in Phase II may be interested in tracking a marker related to dental health, such as frequency of dental caries. The Early Intervention clinic for patients with HIV/AIDS may be interested in tracking some specific biomarkers for adequate nutrition and/or immune function. We plan to submit an up to date list of success metrics for Phase II in February 2016.

Please also see our Evaluation Plan Matrix in Appendix II.

- 6. TOTAL AMOUNT REQUESTED: \$17,000 for two years (2015-2016)
- 7. BUDGET WITH EXPENSE LINE ITEMS for PHASES I and II

PHASE I – 2015 – Line items	Total	Requested
	expense	in this
		proposal
Personnel – staff program manager at .20 FTE	\$9,400	\$1,510
Personnel – fringe benefits	\$1,880	0
Personnel – health insurance	\$984	0
Supplies – produce reimbursements to markets	\$3,240	\$3,240
Supplies – printing prescriptions and promotional materials, postage, etc.	\$150	\$150
Supplies – additional produce and other ingredients for tastings and demos	\$100	\$100
Total Direct costs:	\$15,754	
Indirect costs – 10%	\$1,575	0
TOTALS	\$17,329	\$5,000

PHASE II – 2016 – Line items	Total	Requested
	expense	in this
		proposal
Personnel – staff program manager at .50 FTE	\$24,205	\$1,550
Personnel – fringe benefits	\$4,841	0
Personnel – health insurance	\$2,460	0
Supplies – produce reimbursements to markets	\$9,750	\$9,750
Supplies – printing prescriptions and promotional materials, postage, etc.	\$400	\$400
Supplies – additional produce and other ingredients for tastings and demos	\$300	\$300
Total Direct costs:	\$41,956	
Indirect costs	\$4,196	0
TOTALS	\$46,152	\$12,000

Budget justification

Phase I:

- 1) Personnel staff program manager in the Nutrition Division at DCDPH. Full-time salary \$47,000 annually at estimated 20% effort = \$9,400
- 2) Personnel fringe benefits at 20% of salary x 20% effort = \$1,880. This includes payroll taxes and retirement benefits at the current rate for Durham County employees.
- 3) Personnel health insurance, which costs \$410/month for a full-time employee x 20% effort over 12 months = \$984.
- 4) Supplies produce. This line item covers the cost of the \$10 coupons associated with each prescription that is redeemed. We are budgeting for 45 patients in the intermittent program to redeem their prescriptions an average of twice each (45 x 2 x \$10 = \$900) and 36 patients in the intensive program to redeem an average of 5 times each over the course of the program (36 x 5 x \$10 = \$1800). \$900 + \$1,800 = \$2,700, plus a 20% cushion in case of higher than anticipated redemption = \$3,240 total budgeted for produce, which will be paid as reimbursements to the mobile market and farmers market partners in the program. Any remainders at the end of the program will be rolled over to the following year.
- 5) Supplies Our best estimate of what it will cost to print 100 prescription slips with watermarks, serial numbers, and other anti-duplication features is \$50. Budgeting an additional \$100 for printing of flyers and handouts, mailing of refilled prescriptions, and other materials needed for the program. Total budgeted: \$150. Any remaining funds will be rolled over the following year.
- 6) Supplies We are budgeting an additional \$100 to be used for purchasing produce and additional ingredients for vegetable tastings and cooking demos for participants throughout Phase II.
- 7) Indirect costs figured at a standard rate of 10% of direct costs.

Phase II:

- 1) Personnel staff program manager in the Nutrition Division at DCDPH. Full-time salary \$48,410 annually (anticipating 3% raise in 2016 for inflation) at estimated 50% effort during the expanded Phase II = \$24,205
- 2) Personnel fringe benefits figured at 20% of salary x 50% effort = \$4,841. This includes payroll taxes and retirement benefits at the current rate for Durham County employees.
- 3) Personnel health insurance, which costs \$410/month for a full-time employee x 50% effort over 12 months = \$2,460.
- 4) Supplies produce. This line item covers the cost of the \$10 coupons associated with each prescription that is redeemed. We are budgeting for 300 patients in the intermittent program to redeem their prescriptions twice each, on average (300 x 2 x \$10 = \$6,000) and 75 patients in the intensive program to redeem an average of 5 times each over the course of the program (75 x 5 x \$10 = \$3,750). \$6,000 + \$3,750 = \$9,750 total budgeted for produce, which will be paid as reimbursements to the mobile market and farmers market partners in the program. (Note that based on actual redemption rates in Phase I, our target number of prescriptions for Phase II may change somewhat to fit best within this budgeted amount.)
- 5) Supplies Our best estimate of what it will cost to print 400 prescription slips with watermarks, serial numbers, and other anti-duplication features is \$200. Budgeting an additional \$200 for printing of flyers and handouts, postage for mailing of refilled prescriptions, and other materials needed for the program. Total budgeted: \$400.

- 6) Supplies We are budgeting an additional \$300 to be used for purchasing produce and additional ingredients to use in vegetable tastings and cooking demos for participants throughout Phase II.
- 7) Indirect costs figured at a standard rate of 10% of direct costs.
 - 8. BUSINESSES, FOUNDATIONS, COMMUNITY LEADERS, OR NON-PROFITS WHO WILL BE FUNDING OR SUPPORTING THE PROGRAM IN OTHER WAYS.

Durham County will provide all funds above and beyond what is requested in this proposal - \$12,329 for Phase I in 2015 and \$34,152 for Phase II in 2016.

Grocers on Wheels is committed to contracting with us to offer a mobile market at the DCDPH once per week, and honor Fresh Food Rx at all their mobile markets in Durham.

The **Community Nutrition Partnership** is committed to contracting with us to continue offering the Veggie Van produce bundle pick up location at the DCDPH once per week, as they have done for the past year, and to honor Fresh Food Rx at all their pick up locations in Durham.

Downtown Durham Farmers Market and the **South Durham Farmers Market** are both committed to contracting with us to honor Fresh Food Rx at both markets during all open hours (Weds afternoons and Saturday mornings through most of the year).

Farmer Foodshare's POP Market is already working with DCDPH to provide low-cost local produce for independent grocers and convenience stores through our Healthy Corner Stores and Health Aisle initiatives in Durham. Farmer Foodshare is also interested in assisting with mobile markets on-site at DCDPH and cooking demonstrations and tastings on site in our various clinics.

Appendix I: Logic Model for Fresh Food Rx (FFRx)

Note that a logic model updated for Phase II will be submitted no later than February, 2016.

RESOURCES	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACT
(Phase I)				
Existing assets:	- Develop contracts	- # markets	Short-term (1-2 years):	Long-term (7-10
- Farmers	for fruit and	signing contracts	- Increased consumption	years):
markets and	vegetable purchase	to honor Fresh	of fruits and vegetables by	- Increased rate of
mobile markets'	from market	Food Rx	participants	fruit and vegetable
existing staffs and	partners, negotiate	- # clinical sites	- Increased use of farmers	consumption
infrastructure for	and sign jointly.	signing	markets and mobile	among Durham
accepting	- Develop MOUs for	MOU/agreements	grocers by participants	children and adults
SNAP/EBT.	clinic directors at	and offering FFRx	and their families	- Decreased rates
- Existing	DCDPH, negotiate	to patients	- Increased participant	and severity of
Centering	and sign jointly.	- # clinicians	knowledge, skills, and	overweight and
Pregnancy groups	- Work with market	prescribing FFRx	positive attitudes (KSA)	obesity in Durham
and clinical	and clinic partners to	- # people	regarding purchase and	- Improvement in
practitioners.	develop and test	receiving FFRx	preparation of fruits and	management and
	unified tracking	- # people	vegetables	rate of
Needed:	system for Rx	redeeming FFRx	- Decreased rate of	complications for
- Funded staffing	redemption (Google	- # people refilling	unhealthy weight gain	diet-related
in the DCDPH	Sheet or similar).	FFRx	among participants	diseases in
Nutrition Division	- Design and print	- # nutrition	- For pregnant	Durham: T2DM,
for coordination	pads for	demos and	participants: increased	CVD, etc.
and evaluation of	prescriptions, and	tastings given for	rate of healthy, full-term	- Relative success
program.	distribute them to	# of participants	pregnancies and lower	and expansion of
- Watermarked	participating clinic	- Dollars directed	rate of complications	venues for
Rx pads with	partners along with	towards purchase		purchasing locally-
serial numbers to	companion materials	of locally	Medium-term (3-5 years):	produced fruit and
deter duplication.	for participants.	produced fruits	- Increased intake of fruits	vegetables, both
- Tracking system	- Reimburse market	and vegetables	and vegetables by	farmers markets
for Rx	partners promptly		participants and their	and grocery stores
redemption.	for Rx coupons they		families over time	- Increased access
- Funds to offset	honor.		- For pregnant	to fresh fruits and
produce coupons.	- Plan and deliver		participants: increased	vegetables by more
- Funding for	cooking demos and		intake of fruits and	people in more
ingredients to be	tastings for FFRx		vegetables by their	neighborhoods in
used in nutrition	patients in each		children in the first 5 years	Durham
demos and	participating clinic.		- Decreased rate of	
cooking classes.	- Coordinate with		unhealthy weight gain by	
	markets on demos,		participants and their	
	market tours, and		families over time	
	other activities to		- Decreased rate of diet-	
	engage Rx shoppers		related illnesses among	
	along with others.		participants over time	

Appendix II: Evaluation Plan Matrix for Fresh Food Rx (FFRx)

Note that an evaluation plan updated for Phase II will be submitted no later than February, 2016.

Evaluation Question	Data to be Collected	Data Sources/Collection Methods
ADORTION		
What portion of DCDPH clinics signed on to the MOU and implemented FFRx?	- # signatories of clinic MOUs - # clinics reporting FFRx use	- Clinic MOUs - FFRx prescription and redemption tracking system
What portion of clinicians in each clinic location adopted and prescribed FFRx?	# clinicians using FFRx as a portion of eligible clinicians in each adopting clinic	- Staff lists from each adopting clinic - FFRx prescription and redemption tracking system
What portion of the intended market partners signed contracts and accepted FFRx?	 # signatories of market contracts as a portion of those intended and approached Reporting by markets on FFRx redemption 	- Market contracts - FFRx prescription and redemption tracking system
REACH		
How many patients at each clinical site are offered FFRx, and how many times?	# FFRx offers made and documented by clinicians at each adopting clinic # repeat offers made on follow-up, and documented	EMR system in clinics which document in that way; otherwise, separate FFRx offer and acceptance tracking system may be used
accept FFRx?	# FFRx prescriptions accepted by patients	FFRx prescription and redemption tracking
redeem FFRx?	# patients redeeming FFRx once at participating markets and/or stores	FFRx prescription and redemption tracking
refill FFRx, and how many times?	# patients refilling FFRx and redeeming more than once at participating markets/stores # refills per patient	FFRx prescription and redemption tracking
What portion of all eligible patients at those clinic sites does that represent?	# patients offered FFRx as a portion of eligible patients at each adopting clinic # patients accepting FFRx as a portion of those offered # patients redeeming FFRx as a portion of those accepting # patients refilling FFRx as a portion of those redeeming	EMRs FFRx prescription and redemption tracking
of all similar patients in Durham?	# patients offered FFRx as a portion estimated # of patients with similar conditions in Durham	EMRs, Community Health Assessment for Durham County
How representative are the FFRx patients of the clinic populations overall?	Basic demographic (age, race, gender, income level) and health information of FFRx-accepting patients, compared with same data across the entire clinic	EMRs Pre-surveys for patients accepting FFRx
How representative are the FFRx patients of Durham more broadly?	Basic demographic and health information for FFRx-accepting	EMRs Pre-surveys for patients accepting

	patients, compared with same or	FFRx
	similar data for Durham overall	Durham census and CHA data
IMPLEMENTATION		
What portion of eligible patients	See above under REACH	
were offered FFRx? What portion		
accepted and received FFRx?		
What portion of FFRx recipients	See above under REACH	
redeemed?		
What portion refilled?	See above under REACH	
What portion of redeemed FFRx	# redeemed prescriptions	FFRx prescription and redemption
prescriptions were reimbursed	reimbursed within one week as a	tracking
promptly to the market partner?	portion of total # redeemed	
How many healthy cooking demos	# demos and tastings in Centering	Tally of activities
and/or tastings were delivered to	Pregnancy groups (Phase I) and	
Intensive program groups?	other sites for Intensive program in	
	Phase II	
How many healthy cooking demos	# demos and tastings in Nutrition	Tally of activities
and/or tastings were delivered in	Clinic in Phase I and other sites for	
each Intermittent program site?	Intermittent program in Phase II	
EFFECTIVENESS/OUTCOME EVALUAT	ION	
Did intake of fruits and vegetables	Self-reported # servings of fruits	Pre and post-surveys
change among participants, and by	and vegetables per day, both	Data collected by clinicians in
how much?	before and after FFRx.	sessions
Did patronage of farmers markets,	Self-reported frequency of	Pre and post-surveys
mobile markets, and other markets	shopping at farmers markets,	
for locally-produced foods change	mobile markets, and other sources	
among participants, and by how	for local produce, both before and	
much?	after FFRx.	
Did knowledge, skills, and positive	Self-reported indicators of KSA on	Pre and post-surveys
attitudes (KSA) about shopping for	fruits and vegetables	,
and eating fruits and vegetables by	0	
participants change?		
Was the rate of unhealthy weight	Pre, post, and follow-up weight for	EMRs for participating clinics
gain among participants different	participants, weight trends for	,, 3
than for similar patients who did	other similar patients in the same	
not participate?	clinics.	
Was the rate of healthy, full-term	Incidence of pre-term birth and/or	EMRs for participating clinics
pregnancies among pregnant	pregnancy complications among	,, 3
participants different than for	participants, compared to non-	
similar pregnant women who did	participating pregnant women in	
not participate?	the same clinics	
What was the rate of no-show and	Rate of missed appointments by	Clinic appointment records
missed appointments, and did it	FFRx patients in each participating	
	clinic, compared with rate of	
· ·		1
differ from the overall rate in each	1	
differ from the overall rate in each clinic?	missed appointments by other	
differ from the overall rate in each clinic?	missed appointments by other patients	Pre- and nost-surveys
differ from the overall rate in each	missed appointments by other	Pre- and post-surveys

program, and by how much?	

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