Fall 2018

Grant Application to the Bush Foundation On Behalf of Plant Grow Share

Rachelle Pass
Iowa State University

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In partial fulfillment of requirements for a

Masters Degree of Family and Consumer Sciences in Dietetics

Iowa State University

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Project Overview:

For the creative component of my master's degree in dietetics, I am writing a grant application to the Bush Foundation (Appendix A). This application is on behalf of the community project, Plant Grow Share (PGS). I serve as a Master Gardener volunteer on PGS. The Central Alliance Neighborhood Development Organization (CANDO) started PGS in 2015 to improve health equity, sustainability and food access in the Central neighborhood in Minneapolis, MN (Plant Grow Share [PGS], 2018). In preparation for the grant application, the following document contains an in-depth literature review.

Project summary:

Promoting racial equity and improving health outcomes are intertwined tasks; food access is a key strategy to decreasing health disparities across all of Minnesota. In the Central neighborhood of Minneapolis, MN where PGS is housed, 28% of the population lives below the poverty line and 80% of the residents are persons of color (Central Neighborhood, 2018). PGS empowers residents with limited income and culturally diverse backgrounds to grow their own food, build a greater sense of community and distribute free, locally grown vegetables within their own neighborhood (PGS, 2018).

In order to be fully supported for the duration of the growing season, participants are equipped with a 4x8-raised bed garden, soil, plants, seeds and six sessions of a "Veggie Growing Basics" workshop. Gardening workshops are held at a teaching plot within the neighborhood and led by Master Gardener volunteers. All produce harvested from the teaching plot is distributed weekly to neighborhood residents via a bicycle powered mobile food cart run by volunteers. The teaching space is also home to a monthly bonfire gathering and garden based celebrations, which helps promote a sense of community.

Justification of Need:

Since the initiation of PGS, demand has outpaced funding and supplies. Furthermore, developers are proposing new housing at the current teaching garden site, potentially creating additional expenses for the 2018 and 2019 growing season. If the development goes as planned, the teaching plot will need to be transferred to another community garden site, as a means to minimize interruptions to the monthly workshops and produce production for weekly distribution. Securing external funding will help ensure that PGS can continue and expand to meet the needs of the Central neighborhood in Minneapolis, MN.

Review of Literature

Socioeconomic status and race are key underlying factors when examining obesity trends. Obesity rates among Americans remain high, with about 36% of adults and 17% of youth being classified as obese based on a body mass index (BMI) (BMI of 30 or greater in adults, BMI >/=95% percentile on pediatric growth chart for children; Ogden, Carroll, Fryar, & Flegal, 2015). Persons of color have disproportionately higher obesity rates than those who are white: non-Hispanic blacks (46.8%), Hispanics (47%) and non-Hispanic whites (37.9%) (Ogden, et al., 2015; Hales, Carroll, Fryar, & Ogden, 2017). In Minnesota, the obesity rate disparities between the richest and poorest residents continue to grow as well (Scorecard on State Health System Performance: Minnesota, 2018).

The disparity between those who are white and persons of color transcends beyond obesity and into mortality rates and overall health outcomes (*A Practitioner's Guide for Advancing Health Equity,* 2013). Black Americans have an increased chance of dying between the ages of 35 to 75 when compared to White Americans (Popescu, Duffy, Mendelsohn, & Escarce, 2018; Xu, Murphy, Kochanek, & Arias, 2016). The higher mortality rate widens in areas of socioeconomic disparities and residential segregation (Popescu et al., 2018).

Various factors contribute to the increased obesity prevalence in persons of color, but food access is a key underlying social determinant. Food insecurity is the "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways" (Core Indicators for Nutritional state for difficult-to-sample populations, 1990; Food Security in the U.S. United States: Measurement, 2017). There are varying levels of food security, which is determined using the 18-item U.S. Household Food Security Survey Module by the U.S. Economic Research Service (Food Security in the U.S.

United States: Measurement, 2017). The 18-item survey asks respondents to rate the frequency of food access issues for their household for the previous 12 months. Based on their responses respondents are classified into one of four groups (Table 1). Another method of quickly determining food security classification is by asking two questions: (1) I/we worried whether my/our food would run out before I/we got money to buy more and (2) The food that I/we bought just didn't last and I/we didn't money to get more (Food Security in the U.S. United States: Measurement, 2017).

Table 1: Food Security Classifications (Definitions of Food Security, 2018).

Household Food Security Classification	**Description**
High Food Security	Nutritionally adequate and safe foods are readily available in sufficient amounts and food is procured in socially acceptable ways; the absence of, or minimal evidence of, food insecurity
Marginal Food Security	Adjustments to food management and food quality, and/or changes to coping patterns related to concerns about food adequacy. No reduction in total food intake
Low Food Security	Food intake is reduced for adults, and a physical sensation of hunger has been experienced. Typically, children do not face a reduction in total intake
Very Low Food Security	All family members experience decreased intake, and the physical sensation of hunger has been experienced, including children in the household.

Food insecurity disproportionately impacts persons of color at twice the rate of those who are white. Historically, 30-40% of persons of color report food insecurity, while only 20% of those who are white report concerns over food access at a national level (Njaj, Siegel, Yin, & Liao, 2013; Food Access Research Atlas, 2016; Coleman-Jensen, Rabbit, Gregory, & Singh, 2017). Using the U.S. Household Food Security Survey Module, 12.3 percent of Americans reported experiencing food insecurity at some point during 2016 and 4.9 percent reported experiencing "very low" food security (Food Access Research Atlas, 2016). Minnesota food security rates are

slightly lower than national average, with 9.9 percent of the population reporting food insecurity. However, in Hennepin County, which encompasses Minneapolis, the food insecurity rate are close the national average at 11.3 percent (Gunderson, Dewey, Crumbaugh, Kato, & Engelhard, 2017).

Accessibility to food purchasing is a critical component when considering consumption trends. Predominantly White neighborhoods have access to four times the number of supermarkets as predominately Black neighborhoods (Morland, Wing, Diez Roux, & Poole, 2002). The term *food desert* loosely describes the limited or complete lack of, access to a major grocery store – some may incorporate population thresholds of at least 500 people and/or 33 percent of a community without a grocery store within a one-mile walking distance (Coleman-Jensen et al., 2017). Food deserts can be found in both rural and urban areas (Ghosh-Dastidar et al., 2014). Furthermore, increased obesity rates are positively correlated to total distance to the nearest grocery store (Ghosh-Dastidar et al., 2014).

The term *food swamp* is likely more applicable when describing the food environment in limited income, urban areas where there is often a saturation of low nutrient, high energy, highly processed food items (Rose et al., 2009). Low income areas often have higher concentrations of convenient and cheap food access points, such as corner stores, fast food chains and gas stations (Larson, Story, & Nelson, 2009; Hilmers & Hilmers, 2012). In addition, unhealthy food choices are more widely marketed in low income, urban areas, further influencing the purchasing trends of this population (Ghosh-Dastidar et al., 2014; Hilmers & Hilmers, 2012). This practice may discourage shoppers from buying nutritious options and limit the options for healthier alternatives. Consequently, the presence of a food swamp in a geographical region is positively correlated with obesity rates (Cooksey-Stowers, Schwartz & Brownell, 2017).

The saturation of low cost, low nutrient density foods also highlight the stark price differences in between highly processed food and fresh produce. In addition, people with limited incomes have indicated that quality, variety, and transportation impact fruit and vegetable intake (Haynes-Maslow, Parsons, Wheeler, & Leone, 2013; Evans et al., 2015). In these areas deemed as food swamps, fewer grocery stores increase the distance a resident/family will need to travel to reach the grocery store. A longer journey is valuable time spent on a city bus or additional gas money to travel the extra distance for an individual or family. These residents may shop less frequently, which will limit their ability to choose larger quantities of fresh produce purchased at once as a means to minimize spoilage. For households that rely on public transportation, there is a built in maximum volume of groceries that can be purchased and transported from the store-to bus-to-household. On top of this, whole fruits and vegetables require resources to prepare before consumption, such as a sanitary environment to cut and/or cook these items, time and knowledge; all or some of which may be lacking in this population.

Diet composition, specifically, fresh fruit and vegetable access, is one of the targeted approaches to alter the national trend of suboptimal produce consumption and elevated obesity rates. Less than 10 percent of Americans consume the recommended amount of fruits and vegetables daily (Lee-Kwan, Moore, Blanck, Harris, & Galuska, 2017; McGill, Birkett, & Fulgonii, 2016,). Americans in the highest income bracket are linked to the highest daily consumption of fruits and vegetables, when excluding fried potatoes (Lee-Kwan et al., 2017). This holds true in Minnesota as well, where 13% of the highest income bracket residents consume at least two to three servings of vegetables per day, while only 10% of residents with limited incomes consume the recommended number of vegetables per day (Lee-Kwan et al., 2017).

To support a positive narrative that promotes opportunity, the label *healthy food*

priority areas (HFPA) is replacing the previously used terms of food deserts and food swamps (Misiaszek, Buzogany, & Freishtatm 2018). Reframing the dialogue acknowledges the systemic social and economic injustices that have historically marginalized areas of limited-income and communities of color (Misiaszek et al., 2018). The systemic racism these communities face coincides with health outcomes, including the numerous barriers that impede residents' ability to consume fresh produce (Williams, 1999). These disparities include, but are not limited to: 1. a decreased density of full service grocery stores within a limited income neighborhood, 2. limited transportation options to reach a full service grocery store, 3. reduced fresh produce availability at a grocery story, and 4. increased prices for fresh produce items (Brown, Helmstetter, & Egbert, 2010; Wilder Research, 2012).

The Social Ecological Model, as outlined in Figure 1, is applied to the PGS intervention and consequential change to patterned behavior among participants (Golden et al., 2015). Intrapersonal factors describe the characteristics of an individual, including the attitudes, behavior, self-concept, skill, knowledge, and development history. Interpersonal factors describe the social support systems and networks (both formal and informal) among individuals. Institutional factors include the social characteristics of social organization and institutions, and the associated rules and regulations for operations of these entities. The community level describes coalitions between organizations, institutions, and existing networks within a neighborhood. At the public policy level, resources are created and relationships built to connect individuals to a greater social environment through policy development at a national, state and local level (Golden et al., 2015)

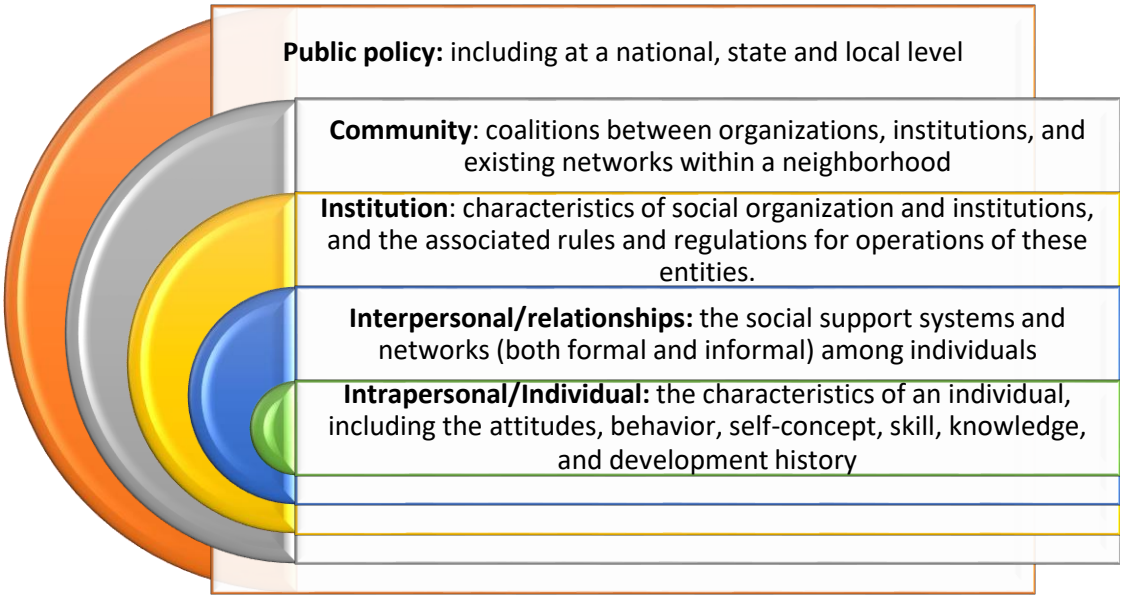

Figure 1: The Social Ecological Model; Adapted from Golden et al., 2015

Interventions to address the opportunities to promote and initiate change in these HFPA range in size, cost and impact. Policy, shaped at the national and state level have had long lasting ramifications and can take extensive amounts of time to see the desired change take shape (*A Practitioner's Guide for Advancing Health Equity,* 2013). Localized interventions created and implemented at the community level, by community members, can create positive change that empowers the community for food access change on a larger scale (*A Practitioner's Guide for Advancing Health Equity,* 2013). One such method is to implement and increase the number of community and home gardens in an urban area, as is done through PGS, by providing gardening materials and education, and promoting community growth. Individuals are targeted by building knowledge and skill to change behavior and attitudes. PGS also works to influence community factors within the Central neighborhood, as volunteer networks and collaborations with various organizations are utilized to strengthen ability to address food security for all residents.

The direct benefits of urban agriculture, including both community gardens and home gardens in urban areas, while excluding for profit-urban growing projects are viewed as a positive addition to neighborhoods and measured using subjective and objective data (Alaimo, Beavers, Crawford, Snyder, & Litt, 2016; Audate, Fernandex, Cloutier, & Lebel, 2018). The impact of urban agriculture on long-term and overall social determinants is relatively unstudied in urban populations (Audate et al., 2018). However, urban agriculture is positively correlated with improved food access based on community garden participant feedback (Garcia, Riberio, Germani, & Bogus, 2018; Baker, Motton, Seiler, Duggan, & Brownson, 2013). In addition, gardeners also note an increased value of eating fresh fruits and vegetables and sharing their harvested produce from the garden with family and friends (Garcia et al., 2018; Wakefield, Yeudall, Taron, Reynolds, & Skinner, 2007). In Oregon, a home gardening project that targeted households with limited income demonstrated that nearly three quarters of participants ate produce grown in their bed, and nearly half reduced their grocery bill following the intervention (Edmunds, Hadekel, & Monnette, 2016).

The produce harvested from urban agriculture places freshly grown vegetables directly into the hands of the producer for consumption. In urban agriculture pilots across the U.S., participants receiving garden access doubled their fresh fruit and vegetable consumption during the growing season and consumed the recommended daily servings for fruits and vegetables (Litt et al., 2011; Alaimo, Packnett, Miles, & Kruger, 2008). Baker and others (2013) found that produce consumption increased while fast food consumption decreased among rural black Americans participating in a community garden

Harvested produce can also be measured by monetary value. For example, a community garden located in San Jose, CA, demonstrated a $435 value for harvested produce from each garden plot (Algert, Baameur, & Renvall, 2014). Another estimate suggests that a home garden

yields a $677 value, even after the cost of supplies is accounted for (Langellotto, 2014). It must be noted that this dollar level will be expected to vary due to climate differences, garden sizes, soil health and participant educations/skill level. Regardless of total seasonal outputs, harvested produce is essentially free food. Per federal calculations, an individual could meet the recommended daily produce consumption level for an estimated $2 per day (Stewart, Hyman, Buzby, Frazao, & Carlson, 2011). This valuation would likely increase if accounting for fresh, organic and/or locally sourced items. Any produce grown by a household could minimize some of the reliance on items purchased from a grocery store.

Urban agriculture also provides benefits that impact physical, mental and environmental health. Depression and rates of Alzheimer's disease occurrence is lessened in areas with vegetative presence (Brown et al, 2018). Participants of a community garden intervention achieved a reduction in their BMI after a growing season (Zick, Smith, Kowaleski-Jones, Uno, & Merrill, 2013). Surveyed gardeners reported increased social health and longer term "community cohesion" in a notable community garden project in the Toronto area (Wakefield et al., 2007), a sentiment of "collective efficacy" that has been reiterated elsewhere, such as garden projects in Denver, CO (Teig et al., 2009). In a review of numerous community garden projects, community development concerns serve as a key motivator for participants (Drake & Lawson, 2015). In gardens with racially diverse membership, gardeners were organically led to have interracial interactions and ultimately increased cross-racial dialogue by collectively working together to maintain the space (Shinew, Glover, & Parry, 2004). These outcomes are cited as additional benefits achieved by adding community gardens and collectively contribute to a community's overall well being.

In any population, but especially those with limited financial resources, many barriers exist to implement successful urban agriculture. Planting directly into soil is likely an unrealistic

option due to concern for soil health. Urban areas face high levels of lead contamination in soil and potential gardeners must be educated on the risks of directly planting into contaminated areas (Johnson et al., 2016; Kaiser, Williams, Basta, Hand, & Huber, 2015). To combat this, raised beds offer a practical and cost effective method to avoid contamination (Johnson et al., 2016). Furthermore, free space is relatively limited in urban areas but can be strategically utilized in a front or backyard utilized to contain a 16 or 32 square foot garden. In Minneapolis, the average cost of a 4x8-raised bed garden is about $48 for the lumbar alone. When accounting for soil, plants and seeds, the cost increases to $110 (PGS Budget). For the Central neighborhood in Minneapolis, 28% of the population lives below the poverty line with a median income of about $43,000, much lower than the median income of $57,000 for the entire city of Minneapolis (Zezza & Tasciotti, 2010; Central Neighborhood, 2018). The price point for independently building and maintaining a raised bed is likely unachievable for many households in this region.

Limited knowledge and/or skillsets in building a raised bed garden, selecting and caring for plants, harvesting produce and maintaining soil health are also barriers to successful urban agriculture. Having access to community gardens and attending at nutrition classes correlated to the highest increase in fruit and vegetable consumption, when compared to those who only took classes or only gardened (Barnidge et al., 2015). To optimize the potential success level of PGS participants, both education and physical materials should be made available to new participants (Barnidge et al., 2015). In other community gardens, hands on learning is accomplished by incorporating teaching into garden maintenance tasks, holding classes and involving people into the development stage of the garden (Charlotte, Glen, Moore, Jayaratne, & Bradley, 2014). The Master Gardener program is typically housed in a state University extension program. The Master Gardener program can provide key volunteer educators for a

developing garden program and has been successfully utilized as a resource by other community garden projects (Edmunds, et al., 2016, Barnidge et al., 2015)

A successful and community based intervention must involve the garden participants, including during the planning phase; a budget should be determined after the specific needs are identified by the community. Allowing stakeholders to provide input on the design and implementation of a garden space will help ensure the garden meets the unique needs of the community (Schram-Bijkerk, Otte, Dirven, & Breure, 2018). When developing a budget, costs associated with lead testing and necessary soil amendments should not be overlooked to ensure the safety and quality of the growing medium (Bradley, Lelekacs, Asher & Sherk, 2014; Johnson et al., 2016). The architectural design should accommodate wide paths for wheelchair and wheelbarrow accessibility, shaded space and some degree of protection from element exposure and maximum sun exposure in growing areas (Bradley et al., 2014). Additionally, considerations for seating, car and bicycle parking, tool storage, water and compost should be identified when planning a growing space (Bradley et al., 2014; Twin Cities Community Garden Start-Up Guide, 2009).

Staffing needs also need to be tailored to the demands of the garden. For some community gardens, a volunteer team can suffice to ensure garden functionality, enforce rules set by the gardeners at the beginning of the season, and coordinate maintenance days and week-to-week tasks (Drake & Lawson, 2015). However, for larger projects that involve harvesting crops for distribution, either through sales or charitable giving, paid staff position(s) may be beneficial given the significant time demands. In surveys of existing community gardens, adequate time for management of the gardens was a high impact challenge area identified, in addition to finding consistent funding and sufficient volunteers (Charlotte, et al., 2014).

PGS seeks to strengthen food security through multiple levels of intervention that address food access, produce consumption and gardening skill level. Created and implemented by the residents of Central neighborhood, PGS continues to focus on community-based work, influencing neighborhood cohesion and resilience related to racial disparities and food insecurity. To do so, access to gardening materials and education is provided to influence the individual skill, knowledge and behavior of participants.

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Grant Application

Introduction

Plant Grow Share (PGS), housed within the Central Alliance Neighborhood Development Organization (CANDO) is an evolving project that was started in 2015 to address the **economic, social and racial disparities** that exist within the Central neighborhood of Minneapolis, Minnesota. *The long-term goal is to improve food access by empowering residents to grow their own food, build connections among the community, and distribute free, locally grown vegetables to residents* (PGS, 2018).

PGS provides an ***innovative*** and ***resourceful*** approach to food security by combining education, resource distribution and community building tactics into a holistic food access program. PGS integrates ***collaboration and inclusion*** among Central neighborhood residents, volunteers and community organizations to **effectively** work towards minimizing **disparities** in the Central neighborhood by utilizing the ideas and commitment from the community members it serves.

Central neighborhood is a vibrant community, home to immigrants from across the globe, including North America, Central America, South America, Eastern Africa and Eastern Asia. **Diverse** properly defines Central, where 80% of the population identifies as persons of color and 50% of the population does not speak English at home (Central Neighborhood, 2018). The median income is about $43,000 for the 2,500 households in Central, a stark difference to the $57,000 median household income for all of Minneapolis. Furthermore, 28% of residents and 40% of the children ages five and under lives below the poverty line (Central Neighborhood, 2018).

Many factors influence the health and well being of those residing in the diverse Central neighborhood. First, based on their racial diversity, there is a higher likelihood of residents being overweight or obese. Obesity rates among Americans remain high, with about one third of adults meeting obesity criteria, a calculated body mass index (BMI) of 30 or greater (Ogden et al., 2015). However, people of color face obesity at higher rates compared to those who are White, 47% to 38% of adults, respectively (Ogden et al., 2015; Hales et al., 2017). The racial disparities in obesity rates seen at the national level are consistent with trends at the state level in Minnesota (Gunderson et al., 2017). Significantly, the disparities noted between those who are White and persons of colors transpire to other health outcomes as well, including mortality rates (A Practitioner's Guide for Advancing Health Equity, 2013; Popescu et al., 2018; Xu et al., 2016).

While multiple factors contribute to these disparities, **food security is a fundamental social determinant of health** (Audate et al., 2018). The presence of food security, or lack thereof, can exist in varying degrees. There are four food security categories as outlined in Table 1 (Food Security in the U.S. United States: Measurement, 2017). Nationally, people and households of color face food insecurity at nearly twice the rate of White households (Njaj, Siegel, Yin, & Liao, 2013; Food Access Research Atlas, 2016; Coleman-Jensen, Rabbit, Gregory, & Singh, 2017). The rate of food insecurity in Hennepin County (where Minneapolis is located) is 11.3 percent, which is similar to the national average (Gunderson, Dewey, Crumbaugh, Kato, & Engelhard, 2017). Food insecurity is correlated to impaired health outcomes in preventing and managing chronic diseases, such as diabetes, obesity, and heart disease (Gunderson & Ziliak, 2012).

Table 1: Food Security Classifications (Definitions of Food Security, 2018).

Household Food Security Classification	Description
High Food Security	Nutritionally adequate and safe foods are readily available in sufficient amounts and food is procured in socially acceptable ways; the absence of, or minimal evidence of, food insecurity
Marginal Food Security	Adjustments to food management and food quality, and/or changes to coping patterns related to concerns about food adequacy. No reduction in total food intake
Low Food Security	Food intake is reduced for adults, and a physical sensation of hunger has been experienced. Typically, children do not face a reduction in total intake
Very Low Food Security	All family members experience decreased intake, and the physical sensation of hunger has been experienced, including children in the household.

Subpar diet composition is an extension of food insecurity. While fruit and vegetable consumption is inadequate for approximately 90% of Americans, food access barriers complicate diet composition even further (Lee-Kwan, Moore, Blanck, Harris, & Galuska, 2017; McGill, Birkett, & Fulgonii, 2016). In Minnesota, only 10% of limited income residents consume the recommended daily intake of two to three servings of vegetables per day, compared to the 13% for the highest income residents (Lee-Kwan et al., 2017). In impoverished urban areas, a *food swamp* is likely a more appropriate term than the typical reference of a *food desert* to acknowledge the common saturation of the low nutrient, high energy and highly processed foods found at fast food restaurants, convenience stores and gas stations (USDA, ERS; Larson, Story, & Nelson, 2009; Hilmers & Hilmers, 2012; Rose et al., 2009).

However, describing areas as food deserts or food swamps, can further contribute negative connotations, and largely ignores the systemic social, racial and economic injustices that have historically marginalized areas of limited-income and communities of color (Misiaszek, Buzogany & Freishtat, 2018). The systemic racism these communities face, including the numerous barriers that impede resident's ability to consume fresh produce, coincides with sub optimal health outcomes (Williams, 1999). *Providing communities of color with access to*

community gardens, like PGS does, is an effective strategy to overcoming food access barriers exasperated by systemic racism.

Many underlying differences affect the purchasing and consumption patterns of neighborhoods. For neighborhoods with a majority of residents who are classified as "limited income," numerous barriers exist that contribute to decreased intake of fresh produce (Haynes-Maslow, Parsons, Wheeler, & Leone, 2013; Evans et al., 2015; Brown, Helmstetter, & Egbert, 2010, Wilder Research, 2012). Neighborhoods that are predominantly comprised of people of color often have a longer distance to travel to a grocery store and the stores closer to them often offer a limited variety of produce that is typically of poorer quality, yet more expensive compared to neighborhoods that are affluent and predominately White (Morland, Wing, Diez Roux, & Poole, 2002). For example, a greater total distance to the grocery store requires access to reliable transportation or additional time on public transportation, on top of limited and more expensive produce options.

Benefits to Urban Agriculture

The theoretic framework for PGS draws from the **social ecological model,** focusing on patterned behavior changes, and consequential changes to health status (Golden et al., 2015). Figure 1 depicts the components of the social ecological model, which applies to the behaviors and food security rates that PGS targets. PGS focuses on the individual and community level of the model. At the individual level, PGS aims to increase the number of community and home gardens in the Central neighborhood. In doing so, individuals are targeted by building knowledge and skill to change individual behavior and attitudes, such as educating on how to grow fresh vegetables during the in the garden classes. PGS also works at the community level. Promoting monthly bonfires and community growth meetings, encouraging teamwork at

workdays and **building neighborhood cohesion**, targets behavior change at the community level. **Localized interventions created and implemented at the community level, by community members**, create positive change that empowers the community to increase food access (*A Practitioner's Guide for Advancing Health Equity,* 2013).

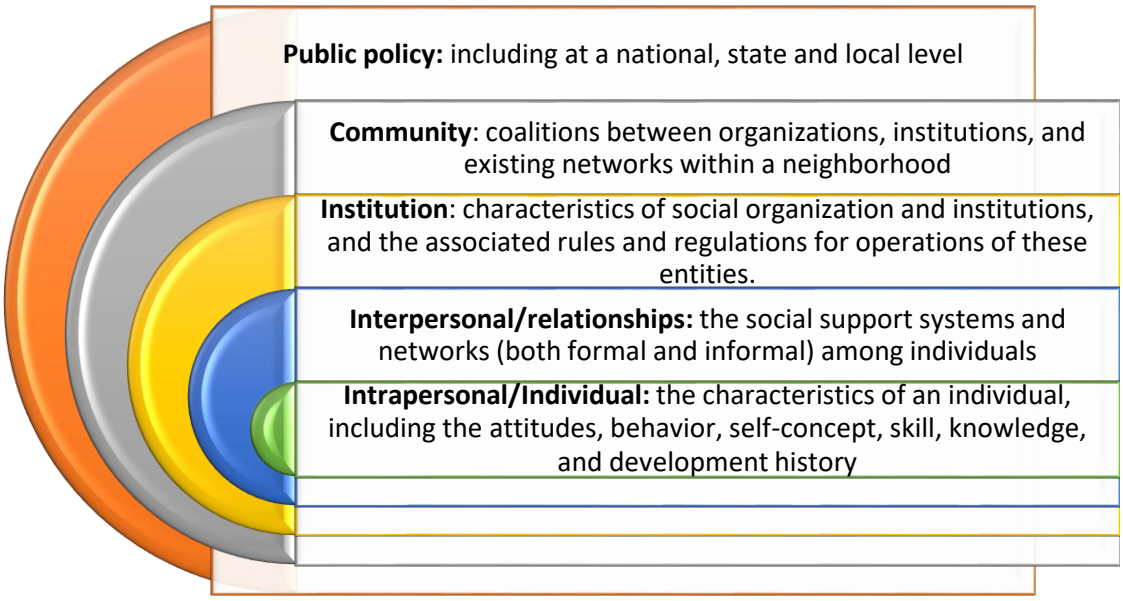

Figure 1: The Social Ecological Model; Adapted from Golden et al., 2015

Urban agriculture, like PGS, is one strategy that shows promise in strengthening food security at both an individual level and a community level (Figure 2). Urban agriculture, through community gardens and home gardens, is a beneficial addition to neighborhoods (Alaimo, Beavers, Crawford, Snyder, & Litt, 2016; Audate, et. al., 2018). Urban garden projects have resulted in improved food access (Garcia, Riberio, Germani, & Bogus, 2018; Baker, Motton, Seiler, Duggan, & Brownson, 2013), increased knowledge regarding the benefits of eating fresh produce as well as increased daily consumption of fresh vegetables (Garcia et al., 2018;

Wakefield, Yeudall, Taron, Reynolds, & Skinner, 2007; Litt et al., 2011; Alaimo, Packnett, Miles, & Kruger, 2008).

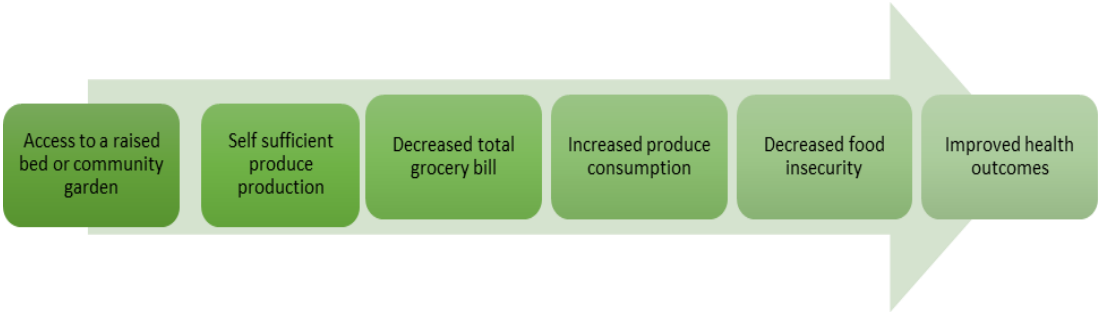

Figure 2: Potential outcomes of providing a family with growing space

Urban gardens can also help lower food costs. Edmunds, Hadekel, and Monnette (2016) reported a home garden program resulted in a reduction of a household's grocery bill by half. It is estimated that a garden plot per season offers a $435 to $670 value even after accounting for the cost of supplies (Algert, Baameur, & Renvall, 2014; Langellotto, 2014). Despite Minnesota's shorter growing season, ample produce can be grown during warmer weather, with strategies to extend the growing season for well-trained or advanced gardeners. Based on federal calculations, an individual could meet the recommended daily produce consumption level of two to three cups for $2 per day, although this estimate doesn't necessarily account for fresh, organic, and/or locally sourced items (Stewart, Hyman, Buzby, Frazao, & Carlson, 2011).

While the main impact of urban agriculture is to increase food access, subjective benefits have also been documented. **Community growing spaces strengthen the resiliency of its residents** by increasing levels of "community cohesion" and "collective efficacy," (Wakefield et al., 2007; Teig et al., 2009). In addition, community-growing spaces can **promote cross-racial dialogue among members** (Shinew, Glover, & Parry, 2004).

Urban gardens are desirable for the aforementioned reasons, but cost and gardening skill remain significant barriers for potential gardeners. Due to high rates of soil contamination

in urban areas, directly sowing into ground is costly and an unrealistic option for most urban growers (Johnson et al., 2016; Kaiser, Williams, Basta, Hand, & Huber, 2015). Raised beds offer a practical and cost effective alternative (Johnson et al., 2016). In Minneapolis, the lumber for a 4x8-raised bed garden is about $48. After adding in the cost of the soil, seeds and plants, the cost increases to $110, a price point that is likely unachievable for many households in a limited income area.

The gardening skillset and knowledge of participants also needs to be considered when creating an urban agriculture intervention. The highest increase in produce consumption was observed when gardeners where provided with both supplies for a community garden and education on gardening and nutrition topics (Barnidge et al., 2015). Integrating participants into each of the gardening stages provides hands on learning opportunities, such as raised bed building, soil composition and procurement, site planning, seed planting, weeding, maintenance and harvesting (Charlotte, Glen, Moore, Jayaratne, & Bradley, 2014). Community involvement also ensures the garden matches the distinct needs of the community; participants can help identify the needs, design the space and implement the project plans (Schram-Bijkerk, Otte, Dirven, & Breure, 2018). Master Gardener volunteers can ensure that participants are provided with the training needed to have a successful garden (Edmunds, et al., 2016, Barnidge et al., 2015). In addition, considerations should be made for accessibility of the space, such as reaching the space with ease via public transportation, foot or bicycle. **Accessibility** within the space includes ample spacing for wheelchairs, strollers and wheelbarrows, shaded areas, bathrooms and water access (Bradley et al., 2014; Twin Cities Community Garden Start-Up Guide, 2009).

Community gardens and similar urban agriculture projects present unique staffing needs and should be tailored specifically based on **stakeholder input**. For some community gardens, a volunteer team can suffice to ensure garden functionality, enforce rules and coordinate

maintenance days, (Drake & Lawson, 2015). However, adequate time for garden management is a high impact challenge identified by other community gardens (Charlotte, et al., 2014). Paid staff position(s) may help alleviate this concern and create consistency among garden management.

PGS Overview

History. PGS was founded in 2015 to strengthen food security through multiple levels of intervention that address food access, produce consumption and gardening skill level. ***PGS was created and implemented by the residents of Central neighborhood and has emphasized neighborhood cohesion and resilience to tackle racial disparities and food insecurity***. The community garden at the Sabathani Community Center housed a double sized teaching plot for the first three seasons of PGS. The Little Free Farmers Market (LFFM) was developed during the first season, and entailed the building of a mobile "market trailer." To manage the growing garden space, stipend positions were added during the 2016 season to manage the teaching garden site between monthly classes (Appendix B). Also in 2016, monthly bonfires were added to the program to facilitate community involvement and interaction at the growing space. In 2017, weekly "community growth meetings" were added as a dual-purpose community building opportunity and garden maintenance day at the Hosmer site.

In 2018, due to a tentative senior housing project adjacent to the community gardens at Sabathani, classes were moved to a privately owned growing space at the corner of 4th Ave and 36th street in Minneapolis, now called the "Hosmer" site. PGS has been able to transfer to this empty plot, install raised beds and use water from the adjacent house, in return for maintaining the property. While this site provides ample space and is easily accessible by bike, bus, foot and

car, this site lacks long-term land security and guaranteed multi-season access, as we are using it under the good graces of the current landlord.

PGS Goals and Objectives. PGS aims to improve food security, increase produce consumption and increase gardening skill level among those in the underserved Central neighborhood. To do so, we will provide resources and education to build, maintain and harvest from a raised bed in unused growing space in the Central neighborhood. *It is anticipated the PGS program will result in better food access and self-efficacy, contribute toward a sense of community, and emphasize sustainable food growing practices.*

> ***"Gardening is my passion. PGS has given me a space to take on a leadership role in my community and even teach others how to garden"***
> *-- Raquel, PGS lead stipend position for 2018 & 2015 raised bed recipient*

Program Design and Implementation. A local farmer (pro bono, thus far) uses organic seeds purchased from Seed Savers Exchange to start over 1000 organic seedlings in a greenhouse about one hour west of Minneapolis. In mid-May, these seedlings are allocated at a PGS plant distribution event. When selecting their plants, participants are encouraged to try at least one new plant and select a variety of vegetables. Any remaining seedlings are sold at a price of one to three dollars per seedling to the general public, which helps provide **program sustainability** as it serves as a small revenue stream for PGS early in the season.

Currently, the Hosmer site holds four, four feet by eight feet raised beds for teaching classes (Figure 3), plus four additional beds used by participants. Native perennials line the perimeter of the space to attract pollinators. A tool shed was installed at Hosmer during the 2018 season and water is generously donated from the landlord, with a spigot next to the plots.

Volunteers resurrected a bonfire pit in the spring of 2018 and a three-compartment compost bin next to the tool shed in August of 2018. The Hosmer site offers full sun exposure, minus a tree on the western perimeter that offers shade. Hosmer lacks an onsite bathroom; however, bathroom access is available within two blocks at both a food cooperative and a public library. The Hosmer site is readily accessible by wheelchair and adaptive equipment around the outside of the raised bed area, although insufficient space is available between the raised bed areas.

Figure 3. Hosmer teaching garden: 4x8 raised beds, bonfire pit in background

Participant selection. Participant recruitment begins in early March for the growing season. Program volunteers distribute informational flyers to **key community organizations and stakeholders in the Central neighborhood**, including schools, religious institutions, and non-profits (Appendix C). PGS promotional materials **emphasize that the program targets people of color and residents with limited incomes**. PGS materials are also distributed in Spanish, based on an identified need from past participants and the demographics of the neighborhood. Interested candidates are required to complete and submit a PGS application, which solicits information on the applicant's living situation, potential growing space/location of residence, race and annual household income (Appendix D).

After applying, the healthy equity coordinator reviews all applications and ranks applicants based on identified need, with further prioritization for applicants of color. The health equity coordinator performs on site visits to assess the growing space and recognize any barriers not identified on the application, such as landlord agreement issues if the household is renting, limited water access or inadequate sunlight. A pre assessment is given to households during the onsite visit, which assesses baseline knowledge and food security level to ensure PGS is truly targeting those in need of the resources and programming (Appendix E). At this time, applicants must also review the expectations and commitment levels for the duration of the program: attend at least four of the six classes, attend the raised bed building workshop and installation day, and volunteer for at least one four hour Little Free Farmer's Market shift. If an interested candidate needs assistance in completing the application, the program coordinator can offer accommodations.

Raised bed distribution. Applicants are then selected based on identified need, access to a satisfactory growing environment and food security rating by the health equity coordinator. Preference is given to applicants of color, as highlighted in the promotional material. If an applicant household does not indicate a financial need, they may still be invited to participate at a fee of $130 to cover the cost of supplies for a raised bed. The raised bed becomes the property of the recipient on installation day, creating **sustainability** in a household's access to growing space at their own residence for future years.

Raised bed recipients attend two workshop days and a plant distribution at the start of the season to learn and assist with raised bed building and raised bed installation, as show in Figure 4. The PGS coordinator procures all necessary materials, including lumber, screws, tool rentals or donations, soil, and trucks for fully completing the raised bed building and installation. As a team of participants and volunteers, all raised beds are built on the first workshop day, and

subsequently delivered to each raised bed recipient's place of residence on the second workshop day. In addition, businesses have donated food and families have brought food to share (if circumstances allow), joining together for a family style meal at the conclusion of the workshop day.

Figure 4: PGS workday events

***In the garden* classes.** In addition to receiving supplies, gardeners also receive gardening education at monthly *In the Garden* classes. These classes are designed to ensure gardeners have the base knowledge needed to be successful in growing food. While at least one representative from each household is asked to attend, children and multiple family members are encouraged to attend and interact during class as well. Participants are expected to be hands on during class to learn by doing: working in the soil, weeding, planting and maintaining the plots.

Class is offered once a month for six months, April through September. Each class is two hours long, with the first 30 minutes of class dedicated to introductions and **community building**. A team of Hennepin County Master Gardeners facilitate the remaining 90 minutes, which includes hands on instruction and topics tailored to gardening in a raised bed, specific to the progression of the growing season (Table 2).

Table 2. Monthly *In the Garden* Class Topics

Month	Garden Fundamentals Covered	Hands on learning activity	Community building activity
April	Square foot gardening, spacing and garden design; cold and warm weather crops; how to plant seeds; assessing shade and sun	Practice designing square foot gardening, review seed packets and compare seed sizes; discuss north vs. south and plot orientation	Introductions, share motivation for learning how to garden
May	Cold and warm weather crops; how to plant seeds and seedlings; soil composition	Spacing of beds; plant and label seeds and seedlings; compare compost and soil	Introductions; share a family story related to a vegetable
June	Pest and disease prevention, watering; staking and pruning; thinning	Prune tomatoes and other plants as necessary; add structures for tomatoes and vining plants; thin root vegetables, water plants	Harvest produce ad make fresh garden salad
July	Mitigating pests and diseases; weed control; watering; organic fertilizer methods; succession planting	Examine plants for disease and pests; identify and remove weeds; add compost to gardens; replant carrots, beets, onions	Harvest produce and cook over fire
August	Mitigating pests and diseases; weed control; watering; harvesting produce; cold weather crops	Examine plants for disease and pests; harvest ready plants and herbs; reseed cool weather crops (cilantro, lettuce)	Harvest produce and demonstrate preservation techniques
September	Harvesting produce; weed control; preparing bed for winter; cold weather crops; seed preservation; planning for next season	Harvest ready produce, add leaves as a fall soil amendment; harvest warm weather crops; sanitize tools and garden structures; procure seeds from plants in the garden	Harvest produce and cook over fire

Little Free Farmers Market: On Saturday mornings, July through September, a volunteer team harvests ripe produce grown at the teaching gardens to fill the shelves of a bicycle-powered mobile food trailer (Figure 5). The LFFM is transported and stationed at a high traffic corner in the Central neighborhood for three hours or until the produce is gone. Any by passer is encouraged to try a new vegetable and take fresh, free, produce home. Each season, a stipend is provided to a community member to coordinate the LFFM volunteers for that morning's harvest and distribution. Raised bed recipients are expected to work one shift per season and community members also volunteer to staff the market. All produce is weighed at the garden site and the number of "shoppers" is tracked. Residents are encouraged to try new vegetables and take home produce to their household.

Figure 5. The Little Free Farmers Market

Bonfires: The teaching garden space also hosts monthly community gatherings around a bonfire. Community bonfires are held on the third Sunday evening of each month at the Hosmer site. A paid stipend position facilitates these monthly gatherings, organizing and setting up all necessary supplies, such as the fire, firewood, table(s) and seating. The event is open to all neighborhood residents and is advertised on the PGS Facebook page. Artists are invited to perform, and previous bonfires have showcased poets, musicians, singers and dancers.

Since 2017, a celebratory community bonfire is held In October at the community garden site as a way to wrap up the end of the growing season. Through **collaboration** with Pillsbury House, a non-profit in the Central neighborhood, PGS was awarded a two-year grant, with the goal of strengthening

community. PGS delegated this money to the final bonfire of the year, providing a food budget to six households, who incorporated produce harvested from the garden into a family recipe that was sampled among attendees. In addition, the recipes were printed and provided, showcasing that family's heritage and cultural background.

For all of the events described, (with the exception of the community growth meetings) a Spanish translator is provided given the strong Latino presence in the community. In 2018, a stipend position was created to ensure consistent Spanish translation services at every in the garden class and every workshop hosted by PGS. Previously, a generous community volunteer provided this service. PGS has a **collaborative relationship** with the University of Minnesota language department should additional communication and translation requests arise, whether needed for class events, community gatherings or completing applications. Interpretive services for other languages, such as Somali and Arabic, have not been required thus far, as past participants were bilingual.

Community growth meetings: Informal gatherings on Monday night serve as an opportunity to gather participants, volunteers and the stipend positions to maintain and improve the Hosmer space. This provides extra hands for larger projects, such as building a tool shed, constructing a compost pile and laying mulch on the walking paths. Community members, current participants and past participants volunteer, integrating a **sustainable labor source** into necessary infrastructure development.

PGS has demonstrated **growth** with each successive season (Table 3). In 2018, 20 households were selected, four of which were supplied elevated raised beds to match unique physical needs (wheelchair bound, limited mobility) and four families were able to cover the costs of the raised bed materials. All raised bed installations are in the Central neighborhood and become the property of the recipient once delivered. Data supporting a targeted approach to racially diverse applicants was not collected until the 2018 season; therefore, the reported outcomes below do not reflect the demographics of participants. All recipients of a free raised bed were from a household that included at

least one person of color and reported financial limitations for the 2018 season. PGS measures total impact, by tracking the number of households receiving a raised bed garden, persons reached by the LFFM, and the amount of produce distributed each week.

Table 3. Reported PGS Outcomes From 2015 to 2018

Growing Season	# of Households receiving a raised bed garden	Persons reached through LFFM	Pounds of produce distributed
2015	8	115	175
2016	12	215	385
2017	14 (2 of which were paid)	375	565
2018	20 (4 of which were elevated, 4 of which were paid)	In progress	In progress

Purpose of Grant Funding:

PGS has grown in part to local funding through a **partnership** with the Hennepin County Master Gardener program and Homegrown Minneapolis. This funding has allowed PGS to grow from eight raised bed recipients gardens in 2015 to 20 raised bed recipients in 2018, providing 54 households with raised beds in four seasons. With each successive season, community demand has outpaced resource availability. Four families were turned away in 2018 due to limited funding to cover the lumbar required for building a 4x8-raised bed. In addition, land access has become a pressing need of the program, threatening the sustainability of the project. To build on this momentum, allow further growth and reach, and establish a more permanent teaching and growing space, external funding is needed.

The funding sought in the current proposal will allow PGS to facilitate a transition to a more **sustainable** model by centralizing the teaching and growing area to a single urban plot that is nearly double the size of both teaching plots combined. This new plot will be leased (one-time payment, three year lease or greater based on availability) through the City of Minneapolis as part of an **urban gardening and beautification initiative** for unused city lots. The remaining plot at the Hosmer Community Garden, being used this year, would be left to the delegation of the property owner for

future use (currently donated as a free growing space for PGS). Limited funding, and subsequently, **a lack of guaranteed land access, has limited the project's ability to expand and implement aspects to create a self-sufficient funding model,** such as selling harvested herbs to local chefs (Projected Timeline).

Program Evaluation

It is anticipated that participation in the PGS Program will result in increased gardening knowledge and skill levels, and fresh vegetable intake frequency. These outcomes will be assessed using a paper/pencil Pre (March/April) Post (September/October) design (Appendix E). The data will be collected initially during the application process by the Health Equity Coordinator, and translated for households as needed. The health equity coordinator will compile and enter the data for the pre and post assessment surveys into a shared drive for program related information. This information will be analyzed and reported to CANDO and any funders requesting data and related outcomes for the program year.

Food Security. Derived from the USDA Economic Research Service, *two questions can be asked to assess food insecurity for a participant/a participant's household to ensure the correct demographic is being reached through PGS* (Bickel, et al., 2000; Food Security in the U.S. United States: Measurement, 2017). This validated screening method includes the following two questions: (1) I/we worried whether my/our food would run out before I/we got money to buy more and (2) The food that I/we bought just didn't last and I/we didn't money to get more. Respondents select the degree of validity for the particular question, answering often true, sometimes true, never true or don't know/declined to answer for the previous 12 months (Food Security in the U.S. United States: Measurement, 2017). An answer of "often true" or "sometimes true" is categorized as a "yes", and a response of "never true" is categorized as a "no." An answer of "don't know or declined to answer" is neutral and omitted. A "yes" to either question reflects the presence of at least some degree of food insecurity.

Gardening knowledge and skill. Gardening knowledge and skill will be assessed with a three-question, Likert scale survey (Appendix E) and mirrors a simplified set of questions utilized by Barnidge et al. (2013). Participants are asked to grade their household's knowledge and skill level on a five-point Likert scale: 1= no experience and knowledge; 2= a little experience and knowledge; 3 = some experience and knowledge; 4 = a lot of experience and knowledge; 5 = significant experience and knowledge. An answer of 4 or 5 is categorized as sufficient gardening knowledge and skill, while a score of 3 or less is categorized as insufficient gardening knowledge and skill.

Other outcome markers. Pre and post evaluations will include one question pertaining to fresh vegetable intake frequency. This question is adapted from the Dietary Guidelines and MyPlate model, simplified to assess fresh vegetable intake based on cups consumed daily using the Block Food Frequency Screener (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2015; Block, Gillespie, Rosenbaum, & Jenson, 2000) (Appendix E). This validated tool measures fruit and vegetable intake over a one-month period and correlates to a person's number of servings consumed (Block et al, 2000). Participants also will identify a list of vegetables they harvested from their raised beds at least one time during the growing season when completing the post assessment. Three or more vegetables listed will be considered a successful growing season, although we are limited in defining this without asking participants to weigh all of their output.

Project Management: Team members and communication

Currently, the health team equity coordinator is salaried by CANDO to manage PGS for 540 hours annually (9 months, 15 hours per week). As mentioned previously, two stipend positions manage the growing sites, one stipend position coordinates the LFFM harvesting and distribution on Saturdays, one stipend positions manages the monthly bonfires, and one stipend position provides translation services for scheduled events.

By the end of the 2018-growing season, PGS will have a core team of at least 35 knowledgeable gardeners and volunteers that are self-sufficient for home gardening, harvesting and distribution. PGS alumni continue to donate their time to the various PGS events, even though the program no longer directly supports them. The team of stipend positions and other volunteers compile the "PGS Core team" that meets on a monthly basis, creating cohesion between each subset of the PGS program. These meetings last two hours and are typically held at the growing space or a member's house. Email is used between these meetings to discuss project related decisions, issues and ideas. A Google shared drive is utilized to share pictures, data, and programming for PGS.

The Hennepin County Master Gardener program continues to provide key gardening education, and has since the inception of PGS. Master Gardener volunteers are trained through the University Extension and are required to volunteer for 25 hours of garden related activities annually to maintain their credentials through the Extension program. PGS has secured a commitment from the Master Gardener program to provide ongoing education support as needed for gardening classes offered by PGS in the growing seasons to come (Appendix F).

Projected Timeline for 2019 season:

	Tasks			Who's Responsible
	YEAR 1	**YEAR 2**	**YEAR 3**	
January	1. Soil tested 2. Plot lease signed 3. Insurance obtained 4. Health equity coordinator hires program assistant	1. Insurance verified 2. Continue business plan development	1. Insurance verified	• Health equity coordinator and program assistant
February	1. Stipend positions selected for year 2. Plot design start 3. Core team starts monthly meetings 4. Outreach for raised bed recipients begin	1. Steps 1-4 of year 1 repeated 2. Collaborate with community restaurants to determine desired herbs	1. Steps 1-4 of year 1 repeated 2. Collaborate with community restaurants to determine desired herbs	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team and translator) • Volunteers
March	1. Plot design finalized 2. Review of applications for raised bed recipients and site visits started 3. Stipend positions start plot preparation at growing site(s)	1. Steps 1-3 of year 1 repeated 2. Garden beds prepared to house produce/herb production for sale	1. Steps 1-3 of year 1 repeated 2. Garden beds prepared to house produce/herb production for sale	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team and translator)
April	1. Site visits completed 2. Applicants selected 3. Community growth meetings start (Mondays, weekly) 4. Raised bed building workshop 5. First "in the garden class" 6. Bike and trailer maintenance 7. Bonfire pit built at new site	1. Steps 1-6 of year 1 repeated 2. Perennial crop maintenance 3. Herb production starts	1. Steps 1-6 of year 1 repeated 2. Perennial crop maintenance 3. Herb production starts	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers • Master Gardener team
May	1. Raised bed installation day 2. Plant distribution day 3. Classes continue 4. Monthly bonfire starts	1. Steps 1-4 of year 1 repeated 2. Biweekly herb sales start to local chefs	1. Steps 1-6 of year 1 repeated 2. Weekly herb sales start to local chefs	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers • Master Gardener team

June	1. Monthly in the garden class and bonfire continue 2. Compost and tool shed completed at new site	1. Monthly in the garden class and bonfire continue 2. Biweekly herb sales continue to local chefs	1. Monthly in the garden class and bonfire continue 2. Weekly herb sales continue to local chefs	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers • Master Gardener team
July	1. Monthly in the garden classes, bonfire, produce production and sales continue 2. LFFM starts	3. Steps 1-2 of year 1 repeated 4. Biweekly herb sales continue to local chefs	1. Steps 1-6 of year 1 repeated 2. Weekly herb sales continue to local chefs	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers • Master Gardener team
August	1. Monthly in the garden classes, bonfire, produce production and sales continue	1. Monthly in the garden classes, bonfire, produce production and sales continue 2. Biweekly herb sales continue to local chefs	1. Monthly in the garden classes, bonfire, produce production and sales continue 2. Weekly herb sales continue to local chefs	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers • Master Gardener team
September	1. Last in the garden class held 2. LFFM final distribution day 3. Plant perennials	1. Last in the garden class held 2. LFFM final distribution day 3. Biweekly herb sales continue to local chefs	1. Last in the garden class held 2. LFFM final distribution day 3. Weekly herb sales continue to local chefs	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers • Master Gardener team
October	1. Final bonfire held 2. Plot clean up 3. Garlic planting for following season 4. Preparation for winter 5. Plant garlic for next growing season	1. Steps 1-5 of year 1 repeated	1. Steps 1-5 of year 1 repeated	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers

November	1. Final core team meeting 2. Final community growth meeting 3. Outcomes reported 4. Start business plan development for year 2 and 3	1. Steps 1-3 of year 1 repeated 2. Evaluate business plan and modify for year 3	1. Steps 1-3 of year 1 repeated 2. Review funding sources for Year 4 3. Evaluate business plan and modify for year 4	• Health equity coordinator and program assistant • Stipend positions (Garden Maintenance team, LFFM, bonfire lead and translator) • Volunteers
December	1. Preparation of reports for community and professional meetings 2. Review of processes and identify areas of improvement 3. Brainstorming of needed modifications 4. Continue business plan development	1. Steps 1-3 of year 1 repeated	1. Steps 1-3 of year 1 repeated	• Health equity coordinator and program assistant and/or interested stipend and volunteer positions

Budget

Budget Item	Current	Year 1	Year 2	Year 3
Labor/Stipend positions		**Total = 81,894**		
Salary for PGS Coordinator	0	10400	10400	10400
Salary for PGS Assistant	n/a	10140	10140	10140
Stipend for LFFM lead	1000	1500	1500	1500
Stipend for Garden Plot Maintenance Lead	1000	1500	1500	1500
Stipend for Garden Plot Maintenance Support x 3	500	1500	1500	1500
Stipend for Translation services	1000	1508	1508	1508
Stipend for bonfire	500	750	750	750
Yearly total		27298	27298	27298
Office/Printing Supplies		**Total = 3,850**		
Printing costs	100	100	100	100
Block survey printing and processing	0	100	100	100
Nametags, pens, labeling markers (office supplies)	50	50	50	50
Table (x 2)	(borrowed)	100	0	0
Graphic designer for program material development	0	1000	1000	1000
Yearly total		1350	1250	1250
Raised bed Distribution x 20 families		**Total = 9,300**		
Raised beds Lumbar (6 4 x 8 cedar boards + 1 4x4x4 lumbar post): 81 - Garden Fabric (buy in bulk): 5 - Screws (16): 1 Lumbar total = $87 - Soil (1 cubic yard per 4x8 bed): 30 - Seeds and seedlings accounted for above - Tomato stakes (3 per raised bed): 3 Raised bed cost total = $110, x 20 households	1980 (18 households)	2200	2200	2200
Tool rental from Habitat for Humanity (per 24 hours)	100	100	100	100
Truck and trailer rental (x2 of each, 4 hours, $50/hour)	200 (donated)	800	800	800
Yearly total		3100	3100	3100
Seed and Seedlings		**Total = 785**		
Soil and organic growing materials	50	50	50	50
Seeds (organic) for seedlings	(donated)	25	25	25
Growing containers (x 10 packs, $5 per pack + biodegradable cups x 720, $60 total)	110	110	110	110
Stipend to farmer (labor, electricity and water input)	400	400	400	400
Seeds for participants	(donated)	50	50	50
Transplants for onions, garlic bulbs	100	100	100	100
Envelopes for seeds (100)	(donated)	10	10	10
Boxes for plant distribution (2 packs, 15 per pack, 20 per pack)	40	40	40	40
Yearly total		785	785	785

Land/Plot Development			Total = 8,580		
	Annual Plot lease (50 administrative fee; 150 lease fee)	0	200	200	200
	Soil testing	0	50	0	0
	Insurance (100 per month x 12 months)	1200	1200	1200	1200
	Soil amendments (based on soil testing results)	0	?100		
	Compost/mulch for soil amendment	100	300	150	150
	Wood chips, including delivery fee	175	175	175	175
	Water usage	(donated)	100	100	100
	Water access – hose x2, $25 each; sprinkler heads x2, $10 each; hose hanger x 1, $10 each; soaker hose x 200 feet, $60 each	(donated)	140	0	0
	Tools (shovels x2, $20 each; rakes x2, $25 each; spade fork x1, $25 each; hoe x 1, $25 each, hand trowel x 2, $8 each; scissors x 2, $7 each; pruning shears x 2, $15 each, twine x1, $5)	300	205	0	0
	Wheelbarrow x 1	85	110	0	0
	Shed and associated materials for building	1100	1400	0	0
	Wood stakes for tomatoes (x25, $4 per stake)	100	100	0	0
	Material for compost bin	(donated)	100	0	0
	Material for bonfire bit	(donated)	50	0	0
	Material to create seating	(donated)	50	0	0
	Canvas tarp to provide weather protection	150	150	0	0
	Supplies to create signage for garden space	50	50	0	0
	Trees (fruit bearing x 4, based on size of plot)	n/a	400	0	0
	Organic fertilizers (x2, $25 each)	50	50	50	50
	Yearly total		4830	1875	1875
Little Free Farmers Market			Total = 540		
	Bike and trailer tune up	(donated)	150	150	150
	Updated containers to carry harvest	n/a	50	0	0
	Scale	40	40	0	0
			240	150	150
In the Garden Classes			Total = 1,107		
	Per participant cost to cover ($2/person x 20 people per class x 6 classes/year):	50 + donated	240	240	240
	Compostable plates, napkins and forks				
	Food costs: pantry staples (oil, seasonings, vinegar)				
	Printing costs for applications, pre/post class assessments and educational materials	100	129	129	129
	Yearly total		369	369	369
Bonfire			Total = 990		
	Per participant cost to cover ($2/person x 20 people per class x 6 classes/year):	75 + donated	240	240	240
	Compostable plates, napkins and forks				
	Food costs: pantry staples				

	Wood (x2 packs per bonfire, $7.50 per bundle)	50 + donated	90	90	90
	Yearly total		330	330	330
Project and Outcome Presentation at the Urban Food System Symposium, Academy of Nutrition and Dietetics National Conference for two people			Total = 5,600		
	Travel costs (flights, hotel, meals and incidentals, registration)	n/a	0	2600	2600
	Poster printing	n/a	0	200	200
	Yearly total		0	2800	2800
	Total Requested		**$112,646**		

Budget Narrative

Labor/Stipend Positions: A health equity coordinator's hours will be expanded to 25 hours weekly. We are requesting $31,200 for the health equity coordinator position ([$20/hour x 10 hours/week x 52 weeks] x 3 years; $31,200). CANDO will provide the remaining $46,800 ([$20/hour x 15 hours/week x 52 weeks] x 3 years; $46,800). The health equity coordinator will be tasked with overseeing all aspects of Plant Grow Share including overseeing participant recruitment and selection at the beginning of the season. The coordinator will manage the assistant coordinator position and stipend positions, ensuring the gardens are maintained and programming is supported for the duration of the season. Budgeting, land access, outcome reporting and volunteer recruitment will also be managed by the health equity coordinator. This position is benefits eligible, with all benefits and accountability provided by CANDO.

A part-time (15 hours/week) program assistant will be hired to assist with the administrative components of the project. This position will help with In the Garden class reminders, scheduling volunteer and stipend efforts for garden maintenance and the LFFM, collaborating with the translator and responding to inquiries about PGS. In addition, the assistant will spearhead social media efforts, and community outreach efforts. We are requesting $30,420 to cover the addition of this non-benefits eligible position ([$13/hour x 15 hours/week x 52 weeks] x 3 years; $30,420).

The stipend positions remain an essential component of PGS, and we are requesting $20,274 to cover the cost of these positions: LFFM lead ($1,500 x 3 years; $4,500), Garden Maintenance lead ($1,500/year x 3 years; $4,500), Garden Maintenance team composed of three members ([$500/person, per year, x 3 people] x 3 years; $4,500), Translation services ($1,508/year x 3 years; $4,524) and bonfire lead ($750/year x 3 years; $2,250). Each position is non-benefits eligible and selected annually, with an emphasis on hiring previous project participants.

The garden maintenance team will expand to account for a larger growing space, to total four members. Typically, three to six hours per week are needed from each team member, mid-April through mid-October, averaging 120 hours per 26-week growing season. The lead position reports to the PGS coordinator and oversees the work of the garden maintenance team and volunteers at the teaching garden site and has extensive gardening knowledge and skill. In addition, the lead position manages and delegates garden tasks to the three-member garden maintenance team. These key responsibilities include tasks not finished during the *In the Garden* classes and upkeep needed between classes, such as soil/plot preparation, planting, weeding, pruning, watering, and pest management. Historically, the garden maintenance team members have been **recruited from within the project** as previous raised bed recipients and residents of Central neighborhood. The stipend offered to these positions allows for some compensation while also offering **key learning and leadership opportunities.**

The LFFM stipend position averages 120 hours per season, but the hours are mostly concentrated to the second half of the season, when the LFFM runs. The LFFM leader ensures the bike and trailer are fully functional, fixes mechanical issues as needed, and manages harvests at the garden. In addition, this position coordinates volunteers at the LFFM each Saturday, overseeing setup, distribution and data collection for each weekly market.

The bonfire stipend position oversees the monthly bonfires, although the bulk of this position's time is spent facilitating conversation and community at the actual bonfire. To do so, this position

procures the firewood and kindling material, and ensures there is sufficient eating material and supplies are set up prior to the start of the event. Six bonfires occur per season. The requested $2,250 covers the preparation and facilitation time for six bonfires per season ([$125 per bonfire x 6 bonfires/season] x 3 years; $2,250).

The stipend for Spanish translation services remains with an increased cost request of $4,524 over three years ([$14.50/hour x 4 hours/week x 26 weeks/season] x 3 years; $4,524). This position translates all PGS materials to Spanish, including applications, promotional materials and educational handouts. During PGS related events, such as the In the Garden Classes, the bonfire and Core team meetings, Spanish translation services are always provided. Only translation services are provided by the translator stipend; planning and/or coordinating tasks are not delegated to this position.

Office/Printing Supplies. The $3,850 budget allotment towards office and printing costs covers informational material needed to promote PGS, offered in English and Spanish. Double sided flyers and brochures are used to promote PGS to potential applicants. An annual $1,000 budget allows for collaboration with a graphic designer to develop and improve current materials offered through PGS. Also included in this total are printing costs for recipe cards for food items prepared during bonfires and in the garden classes, and are distributed throughout the season.

The following expenses are broken down further, per growing season with a request for $100 per year:

- Promotional flyers: 100 copies (50 Spanish and 50 English) x $0.50 per double sided color page = $50
- Recipe cards distribution at LFFM, bonfires and In the Garden Classes: 400 per season, four recipe cards per one color page, double sided; 100 sheets x $0.50 per page = $50.

Nametags and writing materials are offered at each event. Two six-foot foldable tables will be purchased during year one to be utilized during workdays, bonfires, in the garden classes and LFFM

Saturdays, and stored in the shed at the garden space ($50 x 2; 100). An annual amount of $100 is allotted to the cost of printing and processing Block Surveys twice per year ($50 x 2; 100).

Raised bed distribution. To provide raised beds to 18 households, $9,300 is requested to cover this cost for the next three seasons. To build one 4x8 raised bed, the following materials are provided for each raised bed: cedar wood is preferred as it is naturally rot resistant; garden fabric from a bulk roll to serve as a weed barrier; weather appropriate screws; 1.5 cubic yards of soil compost blend, and three tomato stakes (six 4x8 cedar boards and one 4x4x4 lumbar post = $81 per bed; garden fabric $5 per bed; 16 screws $1 per bed; soil/compost blend $20/ cubic yard x 1.5 cubic yards/bed; $30) (tomato stakes $1 each x 3 per bed; $3; for a total of $110 per bed, x 20 recipients x 3 years; $6600). Habitat for Humanity offers one-day tool rental to non-profits, providing the drills, saws and hammers needed for installation ($100/24 hours). Lastly, two trucks and trailers are rented for four hours to deliver the raised beds and soils to each participant's home ([2 trailers, 2 trucks x 4 hours each] x $50/hour; $800). Interested gardeners that aren't selected as a participant to receive a free bed, a $130 fee is charged to cover the material costs for building the raised bed and filling with soil and seeds/seedlings.

Seeds and Seedlings. PGS will continue to seek assistance from a local farm in providing organically grown seedlings for the project. The $785 budget cost listed cover all supplies required for starting plants from seeds, minus the fixed costs of greenhouse space, which is considered in the stipend allowance paid to the farmer. All seeds are procured through Seed Savers Exchange, certified organic, and appropriate varieties for the limited growing space in a raised bed. Based on feedback from past years, culturally appropriate seeds are integrated into the plant distribution, including papalo (a herb, similar to oregano, found in some Mexico states), habanero peppers/chilis, eggplants and heirloom squash. Garlic and onion starts are also provided, as these items are in high demand and grown in relatively small amounts of space. Previously, volunteers assisted in preparing for, and during, the plant distribution day, labeling and dividing all plants and seeds for participants to fill a box for their raised

bed at home. 12 seedlings are distributed per 4x8-raised bed and between four to eight smaller seed packets.

Land development. When the growing and teaching gardens are transitioned to a new space, extensive input will be required during the first year and we are requesting $8,580 to cover these costs. Leased through Homegrown Minneapolis, a three-year contract will be signed with an annual $50 administrative fee and $150 lease fee. The same insurance already carried by PGS will be applicable to the new space, an expense of $100 per month. Homegrown Minneapolis has previously tested the soil at all of their sites for contaminants such as lead; however, we will request soil analysis from the U of MN Extension office to determine if micronutrient amendments are required. The degree of amendments needed may vary; therefore, $300 is requested for the first year. Sites through Homegrown Minneapolis are equipped with a water spigot, although the user group must cover associated water usage costs. The first year will also require $140 to cover irrigation materials and system setup ([$25/hose x 2 hoses; $50] + [$10/sprinkler head x 2 sprinkler heads; $20] + [$10/hose hanger x 1 hose hanger] + $60/200 foot soaker hose x 1]; $140).

Assuming that the growing space at Sabathani/Hosmer may be maintained, we are budgeting for new tools to be housed at the new growing/teaching site. Landscaping and gardening tools are needed for workshop days, teaching and garden maintenance and will be housed in a locked tool shed built on site ([$20/shovel x 2 shovels; $25/rake x 2 rakes; $25/spade fork x 1 spade fork; $25/hoe x 1 hoe; $8/hand trowel x 2 hand trowels; $7/scissors x 2 scissors; $15/pruning shear x 2 pruning shears; $5/spool of twine x 1 spool] + $110/wheelbarrow x 1 wheelbarrow= $315). A new tool shed will need to constructed during the first year ($900 for shed, $150 for bricks/sand for the foundation, $50 for a lock), plus a three component compost bin ($100), bonfire pit ($50), seating ($50), canvas weather shelter ($150) and signage ($50). Volunteers will provide the labor for building these items during community growth meetings at the inaugural season of the newly leased space. Pending adequate space availability,

up to four fruit bearing trees will be planted, including apple and/or stone fruit ($100/tree x 4 trees; $400). Lastly, organic fertilizers and compost will be needed annually to promote optimal soil and plant health ([$25/container x 2 containers per season] x 3 years; $150). In considering the design of the space, volunteer and participant input will be welcomed, as we will strive to accommodate unique physical challenges to ensure the space is welcoming to people of all abilities, including wide spaces between beds and at least one elevated raised bed.

Little Free Farmers Market. PGS has a bicycle in good condition, and volunteers built a trailer during the first year of PGS that also remains fully functional. Therefore, a total amount of $640 is requested to cover costs associated with the LFFM. The bike and trailer require an annual tune up and minor repairs ($150/season). The plastic containers to house the harvested produce at the LFFM need to be updated and replaced ($10/container x 5 new containers; $50). Lastly, a scale is included for year one, in case the current scale is damaged before the 2019 season ($40/scale).

***In the Garden* Classes.** To support the *In the Garden* classes, we are requesting a budget of $1,107. The Hennepin County Master Gardener program offers gardening related education at no cost to community gardens. Printing costs covers materials related to the administrative components

- Participant applications, pre and post assessments: [3 items x 30 copies/each x $0.10/black and white page] x 3 years = $9
- Vegetable growing educational materials: [20 copies of each booklet/class x 6 classes/season] x [$0.50/double sided color page x 2 double sided color pages per book] = $120 x 3 years; $360

In class, cooking demonstrations are provided over an open campfire; PGS already owns a cooking grate, large cast iron pot and large steel wok. Based on a total of 20 participants, teachers and volunteers per class, $720 is needed to cover the cost of providing compostable dishware and pantry food items ([20 people/class x 6 classes x $2/person] x 3 years; $720).

Bonfire. The requested total of $990 is specific to the monthly bonfires. Wood is needed for each bonfire ([$7.50/bundle x 2 bundles/fire x 6 bonfires/season] x 3 years; $90); kindling material, such as sticks and newspaper is readily available at no cost within the community. Food is also cooked at monthly bonfires and dinnerware and food pantry staples are supplied by PGS for attendees ([20 people/bonfire x 6 bonfires x $2/person] x 3 years; $720).

Project and Outcome Presentation. We plan to share our results with others organizations and food systems across the country. The allotted travel budget of $5,600 includes costs for the Health Equity Coordinator and one additional PGS representative to present at the Urban Food Systems Symposium and the Academy of Nutrition and Dietetics Food and Nutrition Conference and Expo national conference, over two years ([$400/round trip flight x 2 people, $800] + [$200 hotel/night x 3 nights, $600] + [$50 Meals and Incidentals/day x 2 people x 4 days, $400] + [$300 registration/person x 2 people, $600] + [$200 poster development and printing] = $2800 x 2 years = $5,600).

Anticipated Challenges and Sustainability

At PGS, we strive to match the paid positions to the demographics of the neighborhood. Proudly, we have stipend positions that identify as bilingual, immigrants, gender fluid/LBGT, person of color, and culturally diverse. Furthermore, our stipend positions are hired from a pool of past participants, promoting **sustainability** within PGS personnel. CANDO has supported the stipend positions to date with a four-year grant from Homegrown Minneapolis, of which is in the final year of support.

PGS also receives support from The Hennepin County Master Gardener program, in the way of volunteer hours for education and financial support. The funding has allowed PGS to increase the number of raised bed recipients and expand to include cooking demonstrations into the in the garden classes. This financial support, though, cannot be utilized to pay the two most urgent and expensive budget items of PGS: labor and secure land access.

As with any community nutrition program, PGS will face challenges. Table 4 outlines the anticipated challenges and strategies that will be applied to help overcome them.

Table 4. Strategies to overcome anticipated challenges

Anticipated challenge	Planned Strategy
Volunteer recruitment at the beginning of the season	• Encourage previous participants to stay engaged with the program by providing ongoing education and leadership opportunities • Allow volunteers to harvest from the gardens during LFFM days • Highlight skills learned by volunteering with PGS • Accommodate volunteer's interest and strengths to needs of the program • Provide seeds and seedlings to volunteers at a reduced rate
Volunteer commitment for the duration of the season	• Provide a welcoming environment for all volunteers by making events fun, inclusive and focused on community building – introductions, sharing personal stories related to growing, cooking, preparing and consuming food • Set volunteer expectations early on and ask volunteers to be realistic about scheduling commitments • Develop relationships with volunteers and emphasize the vital role of volunteers in community building efforts
Attrition of raised bed recipients for duration of growing season	• Review expectations established during application process • Provide educational materials at each class that are information and helpful • Create an engaging, informative, and fun class environment • Establish a culture of commitment and active participation
Attrition of raised bed recipients year to year	• Provide seeds and seedlings to previous participants who are actively volunteering with PGS at a reduced rate • Encourage leadership opportunities during informal gatherings such as work days, *In the Garden Classes* or LFFM Harvest days • Hire stipend positions from within the PGS community
Weather/unforeseen circumstances, crop failure	• Select heirloom and disease resistant crops that are suitable for weather typical patterns for the region • Integrate crop rotation practices • Educate participants and volunteers on eating blemished produce, including food safety, alternative processing methods; promote organic and herbicide/pesticide free practices that account for some "imperfect" produce development
Mechanical failure of LFFM	• At least two volunteers per LFFM shift, in addition to LFFM stipend position so the bike and trailer could be hand wheeled to safe storage location if breakdown occurs

In order to promote **sustainability** of PGS activities, we will incorporate revenue generation and local-business sponsorship into our business plan. In order to establish revenue generation we plan to expand our seedling production and sell high value seedlings to the general public on the plant distribution day. We will also work to establish relationships with neighborhood restaurants by developing relationships with local chefs that will purchase our locally grown herbs. These restaurants may also highlight their food sources, further advertising the work of PGS. We anticipate the volume of our total herb production will increase with each successive growing season as we work towards a self-sufficient funding model.

We will also work with donations from local businesses to support our program needs. Lowe's, as part of their community fund targeting limited income areas, has agreed to sponsor PGS by donating the lumbar needed for building 20 raised beds per season. Love Landscape, a locally owned landscape business has offered to provide a truck and trailer on the raised bed installation day at no cost to PGS. The Hub bike shop has offered to provide PGS with an annual bike tune up and any necessary bike related materials at cost. In return for these donations, we will recognize our community partners on all PGS promotional materials, website and social media site.

Conclusion

Providing gardening knowledge, materials, and community, we strive to improve food access by empowering residents to grow their own food, interact with their neighbors and distribute free produce within the Central neighborhood. By addressing health behavior at an individual and community level, PGS will continue to impact the economic, social and racial disparities that exist within the Central neighborhood of Minneapolis.

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APPENDIX A:

Bush Foundation grant application requirements

COMMUNITY INNOVATION GRANTS

Community Innovation grants fund problem-solving projects that make the region better for everyone.

The Bush Foundation provides Community Innovation grants of $10,000 to $200,000.

There are **no application deadlines** for our Community Innovation grants. Organizations are welcome to apply anytime using our online application system.

WHAT WE FUND

There are many steps between identifying a problem and implementing a solution, especially if you are engaging your community, making the most of existing resources and working collaboratively with other organizations along the way.

Your problem-solving process can be at any stage, including: identifying the need, building shared understanding of the issue, generating ideas or testing and implementing solutions. Proposals can focus on one area or span multiple stages.

You define your community

You identify and define your community. For example, it could be a geographic community, a community of common interest or a racial/cultural identity.

You define the issue

We fund projects that address all sorts of community problems.

ELIGIBILITY

- Community Innovation grants may be awarded to 501(c)(3) public charities or government entities (including schools). Coalitions or collaboratives are eligible to apply, but only one organization may receive the grant.
- Grants must be used for a charitable purpose.

SELECTION CRITERIA

Community Innovation Grant Program Fit

- Does the project use inclusive, collaborative and resourceful processes to pursue an innovative solution to a community challenge?
  - Inclusive: meaningfully engaging key stakeholders - thoughtfully identifying those needed to create the intended change and, whenever possible, including those directly affected by the problem.
  - Collaborative: a true joint effort, with partners willing to share ownership and decision-making as they pursue an innovation together.
  - Resourceful: using existing resources and assets creatively to make the most of what a community already has.

- Is the process likely to lead to a community innovation - a breakthrough in addressing a community need that is more effective, equitable or sustainable than existing approaches?

Implementation

- Is the project plan thoughtful, realistic and does it address the identified community need?
- Does the applicant have the capacity to execute the work effectively or have a plan to meet the needed capacity?

Impact

- Is the project likely to make a significant, sustainable difference, now or in the future?
- Will the project inspire or inform others?

Additional Considerations

We seek a final portfolio of Community Innovation grantees with balance across:

- Size of community
- Size of applicant organization
- Size of grant request
- Demographics of communities served
- Minnesota, North Dakota, South Dakota and the 23 Native nations that share the same geography
- Type of issue addressed

At least 50% of Community Innovation grants will be for projects that address racial and/or economic disparities. *For the purposes of this grant program, the Bush Foundation defines this as proposals that seek to actively reduce structural and/or systemic gaps in access, outcomes, opportunities or treatment based on race/ethnicity or economic standing.*

APPENDIX B:

PGS Stipend Position Example

CANDO Central Area Neighborhood Development Organization: 3715 Chicago Ave. S,
Minneapolis, MN 55407 612.315.1501 fernanda@thecentralneighborhood.com
www.thecentralneighborhood.com

PLANT-GROW-SHARE
Garden Plots Manager & Liaison

Project background:
As part of the Central Area Neighborhood Development Organization (CANDO), we are on our second year of the gardening project called Plant-Grow-Share & the Little Free Farmers Market. This project works to create an opportunity for Central Neighborhood to grow food, community, and personal empowerment. PLANT - Families that participate in the project are provided with the materials needed to grow their own organic raised-bed gardens. GROW - Through a series of workshops and gardening classes, participants gain confidence and gardening knowledge while getting to know fellow community members. Relationships, food, and skills are grown throughout the program. SHARE - As the summer progresses and the vegetables have ripened, families can contribute produce to the Little Free Farmers Market. Volunteers will trasnport this pop-up food cart via bicycle every Saturday morning to share the harvest of this project with the community.

Job Description
Stipend: $800 (Pay half at the beginning and half at the end of season)
Main Goal: Help Maintain Plant Grow Share's Vegetable Garden Plots, to grow produce for the Little Free Farmers Market.
When: Starting May 1st till September 25th, 2016.
Time: Flexible
Location: Central Neighborhood
Tasks

- Help maintain garden plots (See monthly outline below)
- Create a schedule of volunteers for maintaining the PGS Plots.
- Communicate logistics/workdays to participants, volunteers, other interested people.
- Attend Monthly Core Team Meetings
- Encouraged to attend an In The Garden class
- Keep records of volunteer hours/ data base info for grant purposes.
- Meet with Fernanda Sequeiros describing successes, issues, volunteer hours, etc
- Other logistics as needed.

Qualifications

- Good communication skills
- Gardening/ Farming knowledge
- Works well independently/ self motivated
- Interest in Community Building / Food Access
- Engaging with Diverse groups of people
- Preferred but not limited to: basic Spanish, resident of Central Neighborhood

Monthly Outline:

April: Prepare beds. Establish barriers to minimize weed growth, create walkways; weed; plant cold weather vegetables (if applicable).
May: very frequent watering of new seedlings, weeding and maintaining barriers
June: watering, weeding, pruning, fertilizing, trellises/cages, water, harvest
July: watering, weeding, maintaining barriers, pruning, pests, diseases, harvest
August: watering, weeding, harvesting, pruning, planning for late season crops, pests, diseases
September: watering, weeding, harvesting, care for cold weather crops and plant (if applicable), bringing plants to indoors (if applicable)
October: garlic, greens/carrots/squashes, garden clean up with compost, notes for next year, wrap up

Don't be afraid to apply. What we are looking for the most is someone that can help us maintain our community plots where we grow food for the Free Market, someone that truly cares about their community, and wants to help us build a safe space for true connections among a very diverse group of people, around the topic of Food Access. **To Apply contact program Coordinator Fernanda Sequeiros** at fernanda@thecentralneighborhood.com, text or call 612-990-6227 to schedule a meeting to further discuss what this position entitles, hopes and dreams for developing this part of the project.

APPENDIX C

Promotional Flyers in English and Spanish for PGS

APPENDIX D

Application for participation in PGS as a raised bed recipient

Plant-Grow-Share

Gardeners Application Form

CANDO welcomes you to be part of Plant-Grow-Share & The Little Free Farmers Market. We are honored to work with you to start a vegetable garden this season and provide you with all the support you need to succeed. If you have questions about the application process please email the project coordinator at fernanda@thecentralneighborhood.com or call 612-315-1501.

We can begin by doing small things at the local level, like planting community gardens or looking out for our neighbors. That is how change takes place in living systems, not from above but from within, from many local actions occurring simultaneously. (Grace Lee Boggs)

Applicant Information

Full Name: _____
Last *First* *Middle*

Address: _____
Street Address *Apartment/Unit #*

_____
City *State* *ZIP Code*

Home Phone: ( ) _____ Cell: ( ) _____

Email: _____

Preferred way of communication: _____

Optional Self-identifying, Demographic Survey

Your Racial or Ethnic Group: _____

Your Gender/ Pronoun: _____

Past/ Current Military Service ☐ Yes ☐ No

How did you hear about Plant-Grow-Share?

☐Newsletter ☐Facebook ☐Cando Web

Complete all of the following information

***Total number in household** _____

Number of children living at home (17 and under) _____

Number of seniors in the household (65 and older) _____

What is the primary language spoken at home? _____

Emergency contact name: _____ Phone: _____

Do you own the house where you want to garden?

☐Yes

☐ No. If your answer is No, choose one of the options below:

☐I will complete the "**Landlord Permission Form"** (find below), and return before April 27, 2018th.

☐I need PGS to contact my landlord on my behalf:

_____ _____

Landlord Name Phone Number

_____

Address City State Zip

Plant-Grow-Share program strives to help anyone that could use our support regardless of income, but we want to keep a priority in serving low-income individuals and families that need it the most, and we have to do so with scarce resources. If your household does not qualify as low income, please see list of suggestions for ways in which you could contribute back to the project, as we support you as a growing gardener.

Total Yearly Household Income (Please include combined income for all members of the household.)

☐ $0 - $ 12,140

☐ $ 12,141 - $ 16,460

☐ $ 16,461 - $ 20,780

☐ $ 20,781 - $ 25,100

☐ $ 25,101 - $ 29,420

☐ $ 29,421 - $33,740

☐ $ 29,421 - $ 38,060

☐ $ 38,061 - $ 42,380

☐ Other_____

If you qualify as low income please skip to page 4: Benefits and Responsibilities.

This part is for NO low income only

Although we can only support 20 families with free raised beds every year, there are many other ways in which Plant Grow Share could support you in you food growing efforts. Please explain how can we continue to support you as a gardener?

I would like to:

☐Attend "In the Garden Classes"

☐Attend raised bed building workshop

☐Get plants and seeds

☐Attend monthly Bonfire Gatherings

☐Receive gardening information/ resources available in the community

☐Get free organic produce from the Farmers Market

☐Get soil/compost for my raised bed

Select how you are able to contribute back to Plant Grow Share:

☐I will buy a raised bed from Plant Grow Share to support their fundraised on April 28th

☐$130 (4' x 8' x12") non treated cedar wood

☐$65 (4' x 4' x12") non treated cedar wood

☐Will pick up my self

☐ I will pay the extra $10 fee to be delivered to my house

☐ I'm planning to buy my plants at the Plant Grow Share fundraiser (all organic seedlings)

☐I will contribute a donation to attend Classes

☐Volunteer my skills/time to support the project:

☐Grant writing

☐Web development

☐Carpentry skills

☐ Skill shares such as canning, food preservation, cooking
Specify:_____

☐ Gardening time at the community plot

☐ Other

_____

_____

Benefits and Responsibilities

To be a PLANT-GROW-SHARE gardener you will need to attend the following events (if needed a family member or friend can come in your place). Please mark an X as your agreement with the following statements:

☐I will attend the 6 monthly "In The Garden Classes" at PGS Community Garden. (April to September)

☐I will attend the "Raised Bed Making Workshop" to build my own raised bed. (April 28th)

☐I will pick up my plants on the day of "Plant Distribution." (Saturday May 12th)

☐I will be at my home the day of the "Raised Bed Installation." (Saturday May 5th)

☐I will attend my own garden at home.

☐I will attend the first "Bonfire Gathering" on May 20th.

☐I will help with the Little Free Farmers Market **one** Saturday morning to harvest and distribute free fresh produce in my neighborhood. Mark your prefered day with first (1), second (2) and third (3) options:

Week # 1	7/14/18	×	Week # 5	8/11/18	×	Week # 9	9/08/18	×
Week # 2	7/21/18	×	Week # 6	8/18/18	×	Week #10	9/15/ 18	×

Week # 3	7/28/18	×	Week # 7	8/25/18	×
Week # 4	8/04/18	×	Week # 8	9/01/18	×

About the Raised Bed and Gardening

Do you have a space for a 4' x 8' raised bed in a sunny part of your yard? ☐Yes ☐No

Describe the space where you want to garden: ☐Sunny ☐Shade ☐Part shade

Have you ever done vegetable gardening before? ☐Yes ☐No

How often do you eat vegetables? ☐Always ☐Twice a week ☐Once a week ☐Never

What kind of garden you would like to grow?
☐ All Purple Garden

☐ Collard Green Garden

☐ Traditional Vegetable Garden

Which size raised bed are you applying for? ☐**4' x 8' Raised Bed** -or- ☐**4' x 4' Raised Bed**

☐**Community Garden Plot:** Plant-Grow-Share will attempt to refer you to the closest community garden and assist you with the application process. Community garden plots are subject to availability. We will provide you with plants, seeds, as well as the monthly classes.

☐**Disabled Accessible Raised Garden*:** We only build this type of garden for Gardeners with physical disability or other health issues that prevents them from using an in-ground garden.

***Please explain your accessibility needs below:**

_____

_____

_____

_____

_____

_____

Please tell us why you would like to be in Plant-Grow-Share program:

Plant-Grow-Share

Waiver of Liability Form

We hope your experience with Plant Grow Share & The Little Free Farmers Market (PGS from now on) is safe and rewarding, but accidents can happen. The following waiver must be signed by all participants to protect PGS, CANDO and Program Coordinator from liability.

Waiver: In consideration of being permitted to participate in any way in PGS program, I for myself, and my heirs, personal representatives or assigns, do hereby release, waive, discharge, and covenant not to sue PGS or program coordinator, volunteers and agents from liability from any and all claims resulting in personal injury, accidents or illnesses (including death), and property loss arising from, but not limited to, participation in PGS. (**Initials**_____).

Indemnification and Hold Harmless: I also agree to INDEMNIFY AND HOLD PGS, CANDO, and PGS Program Coordinator, employees, volunteers and agents HARMLESS from any and all claims, actions, suit, procedures, costs, expenses, damages and liabilities, including attorney's fees brought as a result of my involvement in the PGS program and to reimburse them for any such expenses incurred (**Initials**_____).

Severability: The undersigned further expressly agrees that the foregoing waiver and assumption of risks agreement is intended to be as broad and inclusive as is permitted by the law of the State of Minnesota that if any portion thereof is held invalid, it is agreed that the balance shall, notwithstanding, continue in full legal force and effect (**Inicial**_____).

Photo Release: I authorize PGS to use my or my child's photo in any manner PGS desires for advertising, display, audio-visual, exhibition or editorial use (**Inicial**_____).

Acknowledge of Understanding: I have read this waiver of liability, fully understand its terms, and understand that I am giving up substantial rights, including my right to sue. I acknowledge that I am signing the agreement freely and voluntarily, and intend by my signature to be a complete and unconditional release of liability to the greatest extend by law.

By signing this form I am affirming the all of the information I provided is accurate and up to date; and that I agree to uphold my participation in PGS by attending classes and completing my volunteer responsibilities as identified above or forfeit the benefits back to PGS for use by another candidate (participant).

_____

Print Name Signature Date

Parents or Guardian (if participant is under 18): I am the parent or legal guardian of the above named minor child and, as such, I am authorized to enter into this agreement. I agree that my minor child and I are bound by and subject to the terms of this agreement. I understand that my signature here reflects my agreement to hereby release, waive, discharge, and covenant not to sue PGS, CANDO, or PGS Program Coordinator or its employees, volunteers (including death), and property loss arising from, but not limited to, participation in the PGS program.

_____

Parent/ guarding Name Signature Date

Plant-Grow-Share
Landlord Permission Form

Dear landlord/property manager,

Plant-Grow-Share is a gardening project at CANDO (Central Area Neighborhood Organization). Plant-Grow-Share program works with individuals and families to build vegetable gardens, providing three years of free supplies, classes, and mentorship. I am writing today to ask for your support in helping us build healthy communities. One of your tenants, _____ living at _____ has applied to be part of our program. We require written landlord permission in order to install garden bed(s) (see types below).

Please initial all that apply:

_____ I agree to the installation of one 4'x8'x36" disabled accessible garden box.
_____ I agree to the installation of one 4'x 8' x 12" raised bed garden box.
_____I agree to the installation of one 4' x 4' x 12" raised bed garden box.
_____ I agree to keeping the installed bed on the property if the above tenant moves

As the landlord/property manager of _____, I represent that I have the authority to initial and sign this Letter of Permission authorizing the garden installation by Plant Grow Share..

_____	_____	_____
Printed Name	Signature	Date

APPENDIX E

Program Evaluation Tools

Pre and post assessment for PGS participants/raised bed recipients
If single adult in household, use "I," "my," and "you" in parentheticals, otherwise use "we," "our" and "your household" if two or more members in household.

I worried whether my food would run out before I got money to buy more." Was that often true, sometimes true, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or decline to answer

"The food that I bought just didn't last, and I didn't have money to get more." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or decline to answer

Please rate you or your household's gardening knowledge and skill level for each of the following based on the ratings: 1= no experience and knowledge; 2= a little experience and knowledge; 3 = some experience and knowledge; 4 = a lot of experience and knowledge; 5 = significant experience and knowledge

- I have experience gardening and growing food in my life
- I have experience gardening and growing food in MN or similar climate
- I have experience gardening and growing food in a raised bed

(*For post assessment only*) Please list the vegetables you harvested from your growing space this season:

Assessed using the an additional Block Survey:
Please rate how often the following statement is rue for you or your household: 1= never; 2= infrequently, less than twice per week; 3 = sometimes, about every other day; 4 = often, but now always every day; 5 = every day

- I eat at least half a cup of fresh vegetables daily

APPENDIX F

Letters of Support

1. Lowe's Community Fund Program (industry matching for lumbar, tool costs)
2. Love Landscape or other local company (truck and trailer rental for workshop installation day)
3. The Hub Bike Store (yearly bike tune up)
4. Chef commitment (to purchase locally grown herbs)
5. University of Minnesota Extension, Hennepin County Master Gardener (volunteer commitment)

To whom this may concern,

This letter is to verify a commitment from the Hennepin County Master Garden program to the Plant Grow Share program. Plant Grow Share has shown adequacy in promoting activities that target social, economic and racial injustices in our community, and we are proud to align ourselves with their programming. We feel our missions are complimentary, as we are committed to providing high quality, research based horticultural information and education activities that enhance the quality of life in the communities that we serve.

The Master Gardener Program has supported Plant Grow Share with volunteers since the first growing season in 2015. We will continue to support Plant Grow Share with Master Gardener volunteers for future seasons, as we anticipate this to be an ongoing need identified by the Plant Grow Share team. Through this relationship, the Hennepin County Master Gardener program has increased our community presence in the Central neighborhood and provided valuable teaching opportunities for our volunteer educators.

We look forward to collaborating with Plant Grow Share in the many growing seasons to come, and are proud to see the evolution of the project.

Sincerely,

Terry Straub
Volunteer Coordinator
Hennepin County Master Gardener Office