

Q1 Please provide your contact information below.

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Q2 Please describe your company or organizations overall goals and mission.

The mission of the Department of Family Medicine is to improve quality of life in the Bronx, one patient at a time. Family Medicine is committed to improving outstanding comprehensive, continuous care to people of all ages and backgrounds. This is accomplished by adhering to a set of core values including innovation, social responsibility, excellence, and individualized care.

Q3 Please indicate which category your organization falls under. **Health Care Provider**

Q4 Innovation Executive Summary. Please describe the innovation, and how it addresses the social determinants of health. Please identify how the innovation addresses the 6 innovation criteria (i.e. ROI, scalability, feasibility, evidence based support for innovation, relevance to the Medicaid population and speed to market).

The Department of Family Medicine at BronxCare Health System (Family Medicine) is located in the Claremont Village neighborhood of the South Bronx. The community is situated in the poorest Congressional district in the US, which has resulted in low educational attainment, high unemployment, and poor health outcomes. Family Medicine is an active community partner. Staff are always seeking out opportunities to address the most pressing concerns of community residents. Department staff often participate in and promote community events, such as park clean ups, health fairs, and outreach efforts to let local residents know about the care and services available to them at Family Medicine. This dedication to the community is what inspired Family Medicine to submit an idea to the Call for Social Determinants of Health Innovations. The Department's innovation is Claremont Composting, an on-demand, door to door residential composting service. This innovation focuses on neighborhood and environment. However, it also includes components of social and community context, and economic stability.

The goal of Claremont Composting is to promote sustainability and health by changing how Claremont Village residents dispose of waste. Claremont Composting staff will work with NYCHA and the tenant association presidents of each building complex to advertise the program to residents. Collectors will visit each interested household to provide a more in-depth explanation of the program. All participating households will receive a resealable bucket and a "How To" guide, complete with a pictorial chart that specifies which food waste can and cannot be composted. Collectors will also work with residents to set the pickup schedule. Pickups can be made on a weekly or bi-weekly basis, depending on each household's need. There will be no time commitment for the program; households can participate in the pickup program for as long as they would like. However, the hope is that households will remain in the program for at least 6 weeks in order for them to fully understand how the system works.

Composting is one of the easiest ways to reduce waste and improve local and global environmental conditions. An estimated one third of food produced for human consumption gets thrown away. Food waste primarily ends up in landfills where it rots and releases methane, a toxic greenhouse gas, into the air. A United Nations report estimated that food waste generates more than 5% of the greenhouse gases that are emitted globally. In contrast, when food waste is composted it decomposes in a way that prevents methane from being generated.

ROI

Personnel are the most significant cost for this project. Claremont Composting will have an Operations Coordinator and a team of Compost Collectors. The number of Collectors will depend on the number of participating households and their locations within the community. Each Collector will have a designated list of clients and a pickup route she or he will follow. The other costs for this program are moderate and largely related to startup activities. They include purchasing supplies, bikes and carts for transportation, and print materials to advertise and explain the program.

The financial returns of Claremont Composting will be seen in the reduction of healthcare costs. According to the American Journal of Managed Care, a CDC study found that the combined costs of asthma treatment, care, and productivity lost, at work and school, due to asthma was more than \$80 million a year. The study also found that in comparison to individuals with private insurance, a greater proportion of people covered by Medicaid had asthma. This means that if steps are not taken to reduce the incidence of asthma and need for asthma-related care, it will lead to higher healthcare costs being passed on to taxpayers.

There are a number of direct and indirect benefits of this program. The direct benefits include: job creation, reduced amounts of food waste in landfills and dumpsters, fewer pests that spread or aggravate disease, increased resident education on environmental health, and opportunities for composted material to be return to the community as fertilizer for community gardens. The indirect benefits include fewer asthma attacks (from the reduction in pests and need for extermination chemicals), fewer missed days of school or work, and increased environmental behavior among residents.

Further, compost helps reduce the release of greenhouse gases into the environment. Curbing greenhouse gas emission will help slow the rate of global temperature increase. Rising temperatures have led to a spike in heat stroke, increased famines due to drought, and other health problems caused by hot weather. Slowing the temperature change may also reduce the number of medical emergencies created by heat and hot weather conditions.

On demand compost pickup services often cost money. However, Family Medicine's goal is to provide this service to Claremont Village residents for as little cost as possible. Each participating household will be asked to contribute between \$1 and \$10 a month, based on individual financial means. This contribution is intended to increase ownership of the program, and to partially offset the cost of supplies.

Scalability

Claremont Composting follows a simple model that can be easily scaled up or implemented in a new community. The necessary logistical components of expansion include available personnel and access to an organic waste dumpsite. Additional operations coordination may be necessary to facilitate pickup schedules for an increased number of households. Personnel responsibilities and needs will be periodically assessed to determine if more people should be hired to improve operations. Hiring additional personnel has the potential to prohibit expansion. However, Family Medicine believes the cost savings from the decrease in hospital visits and healthcare spending will be substantial enough to cover these hiring costs.

Although Claremont Composting was developed in an urban setting, the premise of door to door compost collection is not restricted to any particular neighborhood or community. Certain aspects of the collection process may need to be adapted to meet the needs of different communities, such as using cars for compost collection, rather than bikes and carts. However, this should not prevent the program from being scaled up or expanded to communities across New York State.

Feasibility

The personalized nature of Claremont Composting, including one-on-one education and the ability to schedule pickups, is what make this project so feasible. Over the past few years, private and public entities have attempted to establish residential composting programs in New York City. However, these attempts have not been sustainable. Upon examination of the practices and policies of these programs, some elements emerge that may explain why they have not succeeded. One possible reason for the low participation is that the previous programs have relied on a drop off method for compost collection. The New York City Department of Sanitation recently suspended its residential compost program, citing exceptionally low rates of appropriate utilization (roughly 3%). Through this program, landlords in certain communities could request compost bins for their buildings. However, bins were often provided with little to no education or explanation about their usage. Composting has become more widespread through the City's network of farmer's markets, but again this model relies on individuals bringing compost to a particular location. The drop off sites are not necessarily easy to get to, and even when they are (some were located near transportation hubs) they are only open for a few hours a week. The lack of accessibility and education with the City sponsored programs inspired the Claremont Composting model. Claremont Composting aims to fit into and accommodate the busy lives of New York residents. Its goal is to promote new habits, rather than impose a burden. This plan is more feasible than previous attempts at residential composting in New York City because it brings the service to the people.

Evidence-based Support

Similar on-demand compost pickup services have been successful in other US cities. Compost Cab is a compost pickup service based in Washington DC. Within the first two years, the company had over 300 residential participants and its service area has steadily continued to grow. A similar company, called Compost Wheels, was founded in Atlanta in 2012. In five years they went from composting fewer than 150,000 pounds of food and organic waste to more than 1 million. Compost Wheels eventually merged with a North Carolina-based compost pickup company in order to expand the service across more of the Southeast. These are just two examples of how successful residential composting can be when it is done in a way that is convenient and practical.

Relevance to Medicaid Population

Overflowing trash and the accompanying pests, like rats and cockroaches, are a significant problem in Claremont Village and many other low income communities. These environmental concerns impact not only aesthetics, but also create health concerns. They exacerbate the negative health impacts created by the living situations and environments of many low-income residents, who are often also on Medicaid, including poor housing quality and lack of sufficient green space. Family Medicine believes promoting composting will spur other environmental efforts within the community, and lead to increased efforts to find low cost ways of addressing health and environmental issues.

This innovation is also relevant to the Medicaid population because of the direct way it addresses climate change. Residents of low income communities around the world, including in New York, are often those who are first impacted by the effects of climate change. According to researchers from Harvard, poorer neighborhoods often experience higher levels of pollution and warmer temperatures, even in comparison to wealthier neighborhoods within the same city. Efforts to reduce greenhouse gas emissions and slow climate change will benefit the Medicaid population, as they are the ones who experience the greatest impact.

The current composting options that are available across New York City are not convenient, particularly for individuals who have full time jobs and responsibilities – this plan seeks to work with individuals to make sure addressing their health and improving the environment are convenient, and done in a way that best suits them.

Speed to Market

Claremont Composting can be rapidly implemented – once supplies have been purchased and personnel have been hired and trained the program can start. Family Medicine predicts the program can be fully operational within a month.

Call for Social Determinants of Health Innovations

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Q5 Was your innovation implemented? If so, please explain when, the number of people impacted, and the results.

No

Call for Social Determinants of Health Innovations

Q6 Please identify the SDH Domain that your innovation addresses. (Select all that apply.)

Neighborhood and Environment

Q7 I give the Department of Health the right to share the information submitted in this application publicly (for example: on the DOH website). I understand that there is no monetary reward/reimbursement for my submission or for attending the summit should my innovation be selected.

I consent to have my innovation shared

