

Grant proposal
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Executive summary

The 3 million dollars will be used to fund an after-school program, *Whoville After School Program*, in the community of Whoville, CA that will run for 5 years. The program will target children residing in Whoville, CA that attend the nearby elementary school in 3rd - 6th grade. These children are experiencing food insecurity and malnutrition, which is a major issue because this may hinder their growth. These children are also experiencing increased rates of obesity and obesity-related chronic diseases due to limited access to nutritious foods.

Through this intervention we are hoping to increase nutrition education to promote healthful eating behaviors, reduce the rate of weight gain, and help raise food security. Our objectives are by 2018, 50% of the children living in Whoville ages 3rd - 6th grade who attend the nearby elementary school will be within the 20-85 percentile according to the BMI CDC growth charts, and by 2018, 50% of the children living in Whoville ages 3rd - 6th grade who attend the nearby elementary school will be able to list three nutrient dense fruits and/or vegetables. The intervention will include a community garden that the children will help tend to as well as enjoy produce from. We will also build a community lounge where the children will take fun nutrition education classes. This lounge will also contain a kitchen where our staff will prepare delicious nutritious snacks for the children to enjoy. The point of these activities are to get the children excited about nutrition so they can incorporate it into their lives for as long as they live.

Background and Target Population

The target population that will benefit from this intervention will be children living in Whoville, CA, who attend 3rd - 6th grade at the the nearby elementary school. This group of children should receive the benefits offered from this intervention because they are experiencing food insecurity and malnutrition due to a decrease in their parents' unemployment or low wages. The obesity rate amongst children has increased dramatically in the last ten years. Currently, 69% of the children are overweight or obese, increasing the prevalence of cardiovascular disease, type-2 diabetes, and fetal macrosomia. The children living in Whoville are a priority over other groups of individuals in the community because they are in a high growth period of their lives; therefore, they need adequate nutrient intake to meet their heightened nutritional needs.

Aims of the Intervention

The specific goals of this intervention are to treat and prevent food insecurity and malnutrition amongst children living in Whoville, Ca, decrease weight gain, increase nutrition education, and promote an increase in fruit and vegetable consumption in these children.

The main health objective of our program is By 2018, 50% of the children living in Whoville, ages 3rd - 6th grade who attend the nearby elementary school, will be within the 20-85 percentile according to the CDC BMI growth charts.

The behavior objective is By 2018, 50% of the children living in Whoville, ages 3rd - 6th grade who attend the nearby elementary school, will be able to list three nutrient dense fruits and/or vegetables.

The nutrition education classes provided through the program will result in the children's ability to list three nutrient dense fruits and/or vegetables. In addition, providing a healthy afternoon snack from the community garden during the program will increase the children's consumption in fruit and vegetables; therefore, contributing to decreasing the malnutrition and food insecurity experienced by these children. Furthermore, the nutrition education classes and the fresh produce grown in the community garden will contribute to the children meeting the appropriate percentile according to the CDC BMI growth charts. This program will help promote an awareness of achieving and maintaining a healthy lifestyle within the children.

Outline of Intervention

The program entitled *Whoville After School Program* will be an after school/summer program that consists of nutrition education and gardening classes for the target population of children. We will buy a tract of land on which we will build a community lounge where the children will take the nutrition classes. There will also be a community garden in the form of a greenhouse where the children will learn how to maintain a fruit and vegetable garden. The children will be able to bring produce home from the greenhouse as well as non-perishable foods from our pantry.

There will be three paid managers, who are part of the CMM organization, who are trained to oversee and direct all facets of the program: nutrition education classes, farming classes, food preparation, etc. Two additional paid employees will be hired, one to teach the gardening classes and one to maintain the garden. Fundraisers will be held throughout the course of the program to help raise awareness, promote good nutrition, and a way for individuals to donate non-perishable goods and supplies. The specifics of each component of the intervention are outlined as follows.

Garden:

The garden will reside in a greenhouse built by a hired contractor. A greenhouse will lead to a more efficient use of water in a drought. The environment in a greenhouse can be controlled to be more humid than the outside so the plants need to be watered less often. It can also be heated or cooled as needed. A watering system with low flow nozzles will be installed to prevent overwatering. A heating and cooling system will also be placed in order to keep the plants healthy. A rainwater harvesting system will also be built to help conserve water. There will be raised beds and an area devoted to making compost. Nutritious soil will be brought in to grow the plants in. The greenhouse will be looked after in part by the children, but mostly by a full time gardener when the children are not around.

Community Lounge:

The community lounge will provide the area where the children will learn about nutrition and be able to enjoy a healthy snack. It will be built by the same hired contractor who builds the

greenhouse. The lounge will be one large room which includes a kitchen and learning area with an attached bathroom. The kitchen will include the following: 3-compartment sink, fridge, oven, stove, appropriate utensils, serving plates, and cookware. There will be a few tables and chairs near the kitchen for eating the snack. There will be a pantry stocked with non-perishable foods that will be combined with produce harvested from the greenhouse to make the snack that the children get to eat. The snack will be prepared in the kitchen by one of the managers. The area for the nutrition education classes will be a space with couches and a whiteboard. The point of this design is to make the children feel comfortable while they learn seeing as how they will not be in a setting that feels like a boring classroom.

Nutrition and gardening classes:

Children will be taught basic nutrition and farming tools that they can apply to their daily eating and behavioral patterns, as well as be able to teach family members and friends. The classes will include the following: basic cooking skills and protocol (hand washing, utensil knowledge, washing and peeling vegetables, benefits of healthy eating, teaching of the food groups (carbohydrates, protein, fat, dairy, meat) using MyPlate as a teaching tool, how to plant and maintain a garden, and fun garden activities such as magnifying glasses and insect collection boxes. Games and activities will be used as a main teaching tool. Classes will be taught by one of the managers of our organization and occasionally by trained volunteers such as registered dietitians, registered nurses, and public health employees

How the after-school-program will be organized:

The program will run Monday through Friday after school, and during the summer months. The children will be picked up from school in a bus by a hired driver. He/she will bring the children to our center and drive them home after the program after the program has concluded for the day. During the summer months, the driver will pick the children up from their homes, if needed, and bring them home after the program. They will spend each day learning about gardening and nutrition as well as enjoying healthy snacks prepared by us. The children will be sent home with a "goodie bag" each Monday and Wednesday that includes fruits and vegetables grown in the garden as well as foods from the pantry. When there is not enough produce harvested from the garden, fruits and vegetables will be bought from elsewhere and incorporated. A weekly newsletter, created by our managers, will be given to the children to bring home to their families that covers what the children did that week. The agenda for each day is as follows:

- 3:30- Children arrive to after school program.
- 3:30-4:15- Children engage in outside activities such as monitoring the garden, watering if needed, picking the produce, led by the organization members.
- 4:15-4:30- Snack time. Children can gather around the lounge's couches and tables in an informal gathering.
- 4:30-5:00- Nutrition education activities in the lounge
- 5:00- Children will be driven home

Monitoring And Evaluating

The techniques used for monitoring and evaluating the impact of the intervention will include measuring the children's BMI. Each child's BMI will be measured when they begin the intervention and performed annually, this will show the progress of the appropriate BMI percentile for each child. This will be conducted by the trained managers of the organization. This information will be kept in the children's personal record. The data will be compared to the CDC growth charts, and will be aimed to fall within the percentiles previously stated. In addition, fun quizzes through games and activities, will be used to assess the progress of the children's education and be used to determine if the children meet the behavior objective of listing three sources of fruits and/or vegetables. The quizzes will be performed by the organization's staff.

Timeline of Intervention

| Activity | Time Span | Date |
|---|-----------|--------------------------------|
| Find appropriate location (2 acres) | 1 week | July 1 – July 7 |
| Get permit for building of greenhouse and community lounge | 1 month | July 8 – August 8 2015 |
| Blueprint of building greenhouse and community lounge | 2 weeks | August 9 – September 23 2015 |
| Get all equipment needed for building | 1 month | September 24 – November 1 2015 |
| Build greenhouse and community lounge, get all tools and equipment needed to care for garden | 6 months | November 1 2015 – May 1 2016 |
| Hire and train staff on nutrition education and gardening practices (2 employees, one for nutrition classes and one for garden) | 1 months | May 1 – June 1 2016 |
| Get all essentials to stock and furnish community lounge, buy bus for transportation | 2 weeks | June 2 – June 7 2016 |
| Get all supplies needed for | 1 week | June 7 – June 14 2016 |

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| nutrition education classes | | |
| Get food to stock the pantry | 1 week | June 15- July 1 2016 |
| Begin after school program | 4 years | July 1 2016 |

Multi-year Budget for \$3 Million:

| Expense | Amount (\$) | Year |
|--|--------------------------|-----------------------------------|
| Land for the greenhouse and community lounge | 25,000 (12,500 per acre) | July 1 2015 – May 1 2016 |
| Permits for greenhouse and community lounge | 1,000 | |
| Materials and equipment for lounge and greenhouse/Blueprint fee/Contractor wages | 1,500,000 | |
| All supplies needed to stock and furnish community lounge | 10,000 | May 1 2016 – December 31, 2016 |
| Gardening supplies | 10,000 | |
| Shed for gardening supplies | 20,000 | |
| Supplies for nutrition classes | 1,000 | |
| Food for food pantry | 15,000 | |
| Utilities (water, electricity, garbage, ect) | 4,000 (500/month) | |
| Bus for transportation | 20,000 | |
| Travel/Driver wages | 4,000 (500/ month) | |
| Salary/Benefits of garden education teacher | 30,000 | |
| Salary/Benefits of garden maintenance | 45,000 | |
| Salaries/Benefits of Program Leaders (3) | 150,000 | |

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| Travel/Driver wages | 6,000 | |
| Utilities | 6,000 | |
| Depleted supplies (including food) | 50,000 | |
| Salary/Benefits of garden education teacher | 30,000 | January, 1 2018 – December, 31 2018 |
| Salary/Benefits of garden maintenance | 45,000 | |
| Salaries/Benefits of Program Leaders (3) | 150,000 | |
| Travel/Driver wages | 6,000 | |
| Utilities | 6,000 | |
| Depleted supplies | 50,000 | |
| Salary/Benefits of garden education teacher | 30,000 | January, 1 2019 – December 31, 2019 |
| Salary/Benefits of garden maintenance | 45,000 | |
| Salaries/Benefits of Program Leaders (3) | 150,000 | |
| Travel/Driver wages | 6,000 | |
| Utilities | 6,000 | |
| Depleted supplies | 50,000 | |
| Salary/Benefits of garden education teacher | 15,000 | January, 1 2019 – July 1, 2020 |
| Salary/Benefits of garden maintenance | 22,000 | |
| Salaries/Benefits of Program Leaders (3) | 75,000 | |
| Travel/Driver wages | 3,000 | |
| Utilities | 3,000 | |
| Depleted supplies | 25,000 | |

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| <p>Budget total = \$2,614,000 Remaining amount of \$386,000 will be held in an emergency fund for unexpected expenses</p> | <p>Total: \$3,000,000</p> |
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Sustainability

After the five-year completion of our program, the community lounge and garden will be managed by the California state government. Through the oversight of the state, *Whoville After School Program* will be run by government employees, in the same manner as previous years. The children benefiting from this program will be able to use the core knowledge and skills provided through this program in the remainder of their lives, creating positive long term effects. For example, the children will be able to use their nutritional education in their daily lives to make good decisions regarding their eating behaviors and patterns. In addition, during the length of the program, children were measured to reach the appropriate BMI percentile. Being within the appropriate BMI percentile will result in a decrease in the risk for diseases and conditions later in life. Furthermore, with the knowledge gained from the farming education, these children will know how to grow their own sustainable gardens, increasing the consumption of fruits and vegetables in their lives as well as decreasing food insecurity and malnutrition. Fundraising and donations will continue to be used as a means of providing the children and their families with goods.

Long-term follow up plan

The long-term follow up of *Whoville After School Program* will be done by the state government. The state employees will measure the children’s BMI annually of each child attending 3rd - 6th grade, living in Whoville, CA. The measurements will be targeted to fall between the percentiles previously stated and be recorded as previously stated. Food insecurity questionnaires will be given to the families living in Whoville, CA. Specific long-term outcomes will include decreased malnutrition and food insecurity seen in children, as well as increased nutrition knowledge and awareness.