

Health Trust Evaluation Brief

Overweight and obesity negatively affect a growing percentage of Santa Clara County's residents. A lack of access to physical activity opportunities and fresh fruits and vegetables is contributing to this problem.

The Silicon Valley HealthCorps: Increasing Access to Fruits and Vegetables

The rising rate of overweight and obesity in the U.S. is a growing health problem. The Health Trust aims to reduce overweight and obesity among all residents in Santa Clara County and north San Benito County by creating changes in the environment to increase access to physical activity and healthy food. As part of its Healthy Food Resources strategy, The Health Trust is encouraging greater access to fresh fruits and vegetables by awarding grants to school and community gardens and farms and, more recently, through its efforts in coordinating the Silicon Valley HealthCorps, an AmeriCorps program. This brief examines the work and impact of the Silicon Valley HealthCorps.

THE PROBLEM

Over the past three decades, the U.S. has seen increases in rates of overweight and obesity for adults and children alike. Research has shown that being overweight or obese puts individuals at risk for serious diseases and conditions, including hypertension, diabetes, breast and colon cancer, and liver and heart disease.

In Santa Clara County, obese adults are five times more likely to have pre-diabetes, and nine times more likely to have diabetes, compared to adults who are in the healthy weight range.¹ Adults who are obese are twice as likely to have high blood pressure, high cholesterol, or coronary heart disease as adults who are in the healthy weight range. Children who are obese have high rates



Thousands of children and families have directly benefitted from the work of the Silicon Valley HealthCorps.

of cardiovascular risk factors such as high blood pressure, high cholesterol, and type 2 diabetes.²

In 2009, 43 percent of adults in Santa Clara County had healthy weights, 38 percent were overweight, and 17 percent were obese.³ Prevalence of overweight and obesity was highest for adult males, adults who are Hispanic, and adults with lower levels of income and education. In 2007, one-quarter of middle and high school students in Santa Clara County were either overweight or obese.⁴ African American and Hispanic students had the highest rates of overweight and obesity.

Physical activity and healthy eating are two critical factors impacting overweight and obesity rates. In particular, research suggests individuals who consume less than the recommended number of servings of fruits and vegetables daily are at an increased risk for overweight or obesity.^{5,6} In a 2009 Santa Clara County survey, only one in seven adults reported eating at least five servings of fruits and vegetables the previous day.⁷ In contrast,

To encourage greater access to fresh fruits and vegetables, The Health Trust partnered with ten organizations and formed the Silicon Valley HealthCorps.



Along with learning about gardening, children learn about the benefits of eating fruits and vegetables.

two out of five adults reported that they eat fast food at least once a week. In Santa Clara County, 30 percent of middle and high school students reported that they ate at least three servings of vegetables and fruits on the previous day.⁸

While much emphasis has been placed on campaigns to increase knowledge about the importance of fruit and vegetable consumption, research and experience has demonstrated that information alone is not enough to create and sustain behavior change; food environments influence obesity rates.⁹ Differences in access to affordable and fresh produce exist within and across communities. Research has shown that low-income communities have less access to affordable fruits and vegetables and greater access to fast food.¹⁰

Food system assessments have led to recommendations for increased access to locally grown produce through community gardens and urban farming.¹¹ Community, school, and home gardens and farms can provide neighborhoods with access to locally grown produce and create greater awareness of the benefits of healthful food, greater understanding of the benefits of a local food system, increased consumption of fruits and vegetables, and enhanced community cohesion.^{12,13,14}

ADDRESSING THE PROBLEM

The Silicon Valley HealthCorps

In 2008, a small group of garden and urban agriculture organizations approached The Health Trust with the request that it lead a regional effort to leverage the support available through AmeriCorps to increase access to healthy food and provide nutrition education through school and community gardens. Programmatic goals, member activities, trainings, and financial obligations were jointly developed through a series of strategic planning sessions, and the Silicon Valley HealthCorps (SVHC) was established. AmeriCorps formally awarded the SVHC a 3-year grant in the fall of 2009.

As the lead agency, The Health Trust assumes primary responsibility for financial, programmatic, and evaluation oversight of the AmeriCorps grant. The ability to successfully meet the specified grant objectives, however, is dependent on leveraging the expertise and contributions of each partner organization and their AmeriCorps members. SVHC partners are responsible for member selection and supervision, ensuring successful implementation of site specific program activities, and reporting site specific evaluation data. Partner organizations work collaboratively with The Health Trust to develop and revise performance measure instruments and surveys, and inform the strategic vision for the HealthCorps.

In addition to The Health Trust, the organizations currently involved in the SVHC include Acterra, Collective Roots, Community Alliance with Family Farmers, Guadalupe River Park Conservancy, Full Circle Farm, The HEAL Project, Sacred Heart Community Service La Mesa Verde Project, Santa Clara University Bronco Urban Gardens, Schmahl Science Workshops, and Veggelution.

Target Community

Silicon Valley HealthCorps partner activities are focused on reaching communities most in need of increased access to fresh fruits and vegetables. SVHC partners center their efforts in low-income neighborhoods and at schools that have a high percentage of students who receive free or reduced lunch, including San Jose Unified, Mountain View-Whisman, and Santa Clara Unified School Districts in Santa Clara County, as well as East Palo Alto Charter School and Cabrillo Unified School District in San Mateo County.

Program Design and Activities

HealthCorps members work in three primary activity areas: production, education, and volunteer recruitment and coordination. In addition, members dedicate 15 percent of their hours to training and community service projects.

Production

HealthCorps members build new gardens and maintain existing gardens and community farms in order to increase the community's capacity to grow and distribute its own food, and provide a place for garden-based education. AmeriCorps members prepare and fertilize soil, plant seeds and seedlings, weed, and harvest. Partner agencies sell their produce at local farm stands, farmers markets, and community supported agriculture (CSA) programs, or they donate their fruits and vegetables to food banks, schools, hospitals and volunteers.

Education

Members provide education through one-time field trips for children in kindergarten through the second grade, one-time workshops for youth and adults, and ongoing school-based workshops for children in the first through sixth grade. Participants gain greater awareness and knowledge about the benefits of eating fresh fruits and vegetables, and in turn

modify their behavior so that they eat healthier foods.

While the field trips and workshops vary in their frequency, duration, location, topic and by season, they all focus on the kinds of produce that grow locally, the value of gardening and farming, and the benefits of consuming fruits and vegetables.

Volunteer Recruitment

HealthCorps members also recruit and coordinate volunteers from neighborhoods in which the gardens and farms are located. Volunteers are critical to maintaining and harvesting gardens and are essential to the sustainability of school and community gardens and their accompanying educational programs. Not only do they provide capacity building support, but community volunteers also become advocates of the gardens. Volunteering with local farms and gardens gives residents an opportunity to get involved and connect with their community in ways they might not have in the past.

EVALUATION

Methodology

On a monthly basis, SVHC partner organizations submit reports on production activities including the



SVHC partner organizations donate food to volunteers and schools, and distribute food through farm stands.

The Silicon Valley HealthCorps increases production and availability of fresh fruits and vegetables, educates youth and adults about the benefits of community and school gardens, and fosters leadership in the community.

In the span of one year, the Silicon Valley HealthCorps provided education activities for more than 12,500 youth and adults.

number of beneficiaries they served, the number of gardens maintained, pounds of produce distributed, numbers of volunteers recruited and the service hours they contributed.

In addition to tracking outputs, SVHC partner organizations administer surveys to individuals who participate in field trips, one-time workshops, and ongoing educational workshops.

RESULTS

Production

Since the SVHC began operating in October, 2009, over 15 new school gardens have been designed, built, and maintained by HealthCorps members. The SVHC currently maintains more than 18 gardens covering nearly eight acres of land.

During 2010, SVHC partner organizations reported selling 44,471 pounds of fruit and vegetables to schools, hospitals and restaurants and through CSA programs, farm stands, and farmers markets. Partner organizations and their AmeriCorps members also donated 23,005 pounds of fresh fruit and vegetables to volunteers, students and their families, and schools.



An AmeriCorps member with Santa Clara University Bronco Urban Gardens educates youth about gardening.

Education

SVHC partner organizations reached more than 12,500 youth and adults through field trips, one-time workshops and ongoing school-based workshops in 2010. Outcomes and impacts are separated below by type of education intervention.

Partner organizations hosted 189 field trips that reached 5,135 youth. Among field trip participants who completed a survey, 73.8 percent (n=130) indicated that they knew more about where the food they eat comes from, and 77.9 percent (n=131) indicated they knew more about which foods are healthy or not healthy.

SVHC partner organizations also hosted more than 149 one-time community-based workshops during 2010, in which 2,623 youth and adults participated. Looking at all one-time workshops in aggregate, 50.3 percent of the participants who completed a post-survey said they learned “A lot” and 28.7 percent said they learned “Quite a bit” about the primary workshop topic (n=181). Workshops topics included gardening basics, soil maintenance, composting, water conservation and irrigation, winter vegetables, common bugs and pests, and sustainable farming techniques.

During 2010, a total of 4,966 children in the first through sixth grade received eight or more hours of ongoing school-based garden education. Younger youth, between the first and third grade, did not show significant changes in awareness and knowledge about fruit and vegetable consumption or gardening or farming practices. Older youth on the other hand, who were in the fourth to sixth grades and completed pre- and post-surveys, showed statistically significant gains in several measures. A list of statistically significant changes that occurred among older youth who participated in ongoing school-based garden education can be seen in Figure 1.

Figure 1

BY THE NUMBERS: Ongoing Garden Education Outcomes, Older Youth

- 40.0 percent increased their knowledge of where the food they eat comes from (n=372)
- 45.4 percent increased their knowledge of what crops are grown locally (n=346)
- 36.2 percent increased their knowledge of what foods grow in different seasons (n=370)
- 43.8 percent increased their knowledge about the distance foods travel (n=347)
- 37.6 percent reported an increase in the number of vegetables they consumed daily (n=370)
- 30.3 percent reported an increase in the number of fruits they consumed daily (n=366)
- 42.4 percent reported that their combined fruit and vegetable consumption increased by at least one serving per day (n=363)

Volunteer Recruitment

During the 2010 calendar year, HealthCorps members engaged 5,994 volunteers who contributed a total of 32,184 service hours to the SVHC.

WHAT WE HAVE LEARNED

Strengths

The SVHC has been successful in increasing the volume of fresh, organic produce grown locally by building and maintaining new school, community, and backyard gardens in addition to maintaining those that existed prior to the HealthCorps. This increase has enabled the SVHC to impact thousands of community residents and students, and engage thousands of volunteers.

Youth and adults who participate in field trips and workshops have shown important increases in knowledge about gardening and farming and awareness of where the food they eat comes from. Among ongoing school-based garden

education participants, knowledge change resulted in behavior change, with a significant percentage of youth increasing the number of servings of fruits and vegetables that they consume daily.

Weaknesses and Challenges

While the results discussed in the previous sections are promising, they must be interpreted with some caution due to the relatively small sample of participants who actually completed surveys. The process of administering surveys and reporting data proved to be very burdensome on partner organizations, which consequently led to limited survey completion.

Field trip and one-time workshop participants reported increases in awareness and knowledge about gardening and farming topics, but it is not likely these one-time interventions will result in sustained behavior change. Moreover, youth who participated in ongoing school-based interventions and who completed a survey may have over-reported the number of fruits and vegetables they consumed, both pre- and post-intervention, which could impact the results.

The SVHC achieved statistically significant outcomes among older youth who participated in ongoing education. More than 40 percent of participants reported increasing their fruit and vegetable consumption.



Children actively participate in school and community gardens. Above, a girl prepares soil for planting.

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Moving forward,
The Health Trust
will continue
to support the
Silicon Valley
HealthCorps
and will work
collaboratively
with regional
and state-wide
network to create
sustainable food
system change.



www.americorps.gov



www.svhealthcorps.org

CONCLUSION

The Silicon Valley HealthCorps provided The Health Trust an opportunity to lead a collaborative effort to increase low-income residents' access to healthy affordable food through community and school gardens, associated distribution mechanisms and education programs. The results documented show statistically significant positive health knowledge and behavior change, highlight the program's strengths and weaknesses, and inform program priorities for future grant applications.

To further support its Healthy Food Resources strategy, in June 2010 The Health Trust joined forces with SVHC partner organizations, Ag Innovations and other food system stakeholders to form the Santa Clara County Food System Alliance. The Food System Alliance is part of a larger state-wide network committed to food system change. While The Health Trust has served as both convener and funder for the Silicon Valley HealthCorps and Food System Alliance, the current and future success of both of these efforts requires the continued dedication and ingenuity of our partners.



Youth are educated about nutrition and ways to eat a variety of healthy fruits and vegetables.

ENDNOTES

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