

Salud America!

The Robert Wood Johnson Foundation Research Network to Prevent Obesity Among Latino Children

RESEARCH BRIEF

December 2011

Community Garden Project Helps Increase Latino Children's Access to Healthy Foods, Saves Families Money

Introduction

Obesity rates have tripled among children and adolescents over the past 30 years, and Latino children are at higher risk than those of other racial or ethnic groups. More than 38 percent of Latino youth ages 2 to 19 are overweight or obese compared with 31.7 percent of all children those ages.¹ Lack of access to affordable healthy foods is one factor that may contribute to high obesity rates among Latinos. For example, Latino neighborhoods have one-third as many chain supermarkets as predominately white areas.² Emerging research indicates that having access to local healthy food outlets seems to be associated with healthier food intake and lower rates of childhood obesity.³

These research findings have led many community agencies and local governments to look for ways to work together to promote programs that provide lower-income residents increased access to affordable nutritious foods and opportunities for physical activity. One such strategy is the use of community gardens—pieces of land gardened collectively—as a resource for providing lower-income residents greater access to affordable fruits and vegetables.⁴ Research about the impact of community gardens is limited, but the few studies that are available indicate that gardens may help improve participants' nutrition and levels of physical activity.^{5,6}

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PEER REVIEW

Peer review for this research brief was conducted by *Salud America!* National Advisory Committee Member Amy Yaroch, Ph.D., executive director of the Center for Human Nutrition and professor in the Department of Health Promotion, Social & Behavioral Health at the University of Nebraska Medical Center.

For more information about *Salud America!*, visit

www.salud-america.org

¹ Ogden CL, Carroll MD, Curtin LR, Lamb MM and Flegal KM. "Prevalence of High Body Mass Index in US Children and Adolescents, 2007–2008." *Journal of the American Medical Association*, 303(3): 242–249, 2010.

² Powell LM, Slater S, Mirtcheva D, et al. "Food Store Availability and Neighborhood Characteristics in the United States." *Preventive Medicine*, 44(3): 189-195, 2007.

³ Jennings, A., Welch, A., Jones, A. P., Harrison, F., Bentham, G., van Sluijs, E. M., Griffin, S. J., & Cassidy, A. *Local food outlets, weight status, and dietary intake associations in children aged 9-10 years*. *American Journal of Preventive Medicine*, April 2011, 40(4), 405-410.

⁴ Hallberg, B. *Using Community Gardens to Augment Food Security Efforts in Low-Income Communities*. Virginia Technical University: Blacksburg, VA, 2009.

⁵ Twiss, J., Dickinson, J., Duma, S., Kleinman, T., Paulsen, H., and Rilveria, L. *Community gardens: Lessons learned from California Healthy Cities and Communities*. *American Journal of Public Health*, September 2003, 93 (9), 1435-1438.

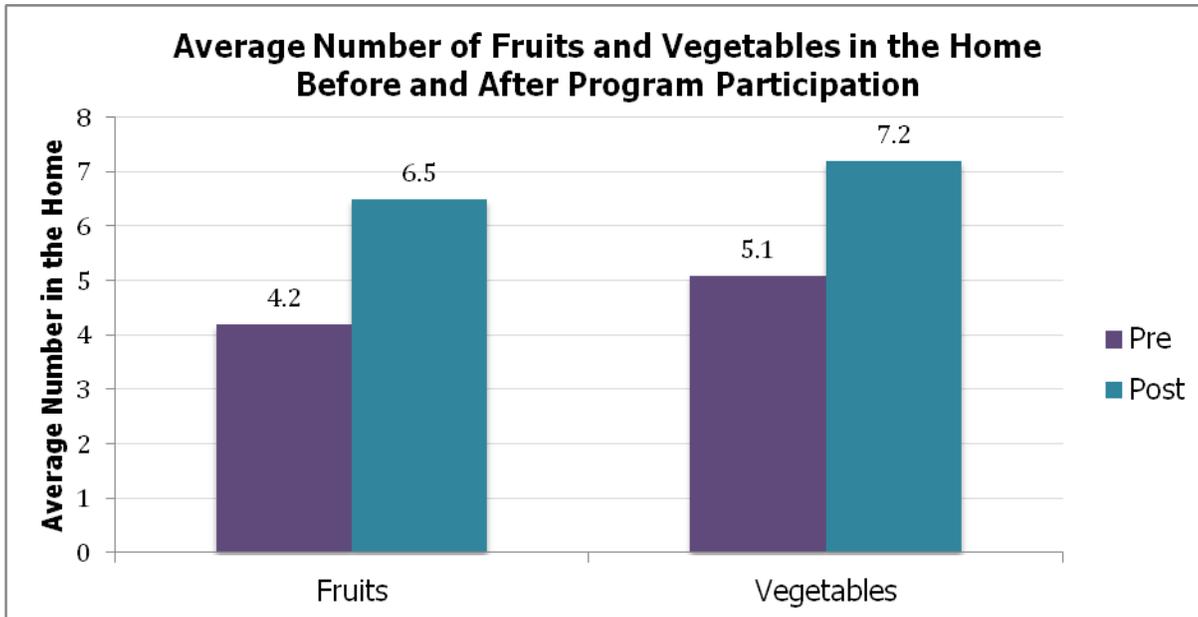


PRELIMINARY RESEARCH RESULTS

Our *Salud America!* pilot research project, *Growing Healthy Kids* (GHK), uses community gardens and parental nutrition education and activities to promote healthy eating and physical activity among lower-income Latino families who have young children. The project established three community gardens in Orange County, N.C., between 2008 and 2010. During 2010 these gardens served 42 families (25 Latino), including 88 children ages 1 to 12 (54 are Latino; 92 percent are from lower-income families).

- **Children had access to more fruits and vegetables after their families participated in the community garden program.** Parents were surveyed at the beginning and end of the 2010 gardening year and asked to identify the different types of fruits and vegetables that were currently available in their homes. The average number of different types of fruits identified by families as available in their home increased 55 percent from the start of the program and the average number of different types of vegetables identified as available in the home increased 41 percent over the same timeframe (see figure).

⁶ Teig, E., Amulya, J., Bardwell, L., Buchenau, M., Marshall, J. A., & Litt, J. S. Collective efficacy in Denver, Colorado: Strengthening neighborhoods and health through community gardens. *Health Place*, 2009 Dec; 15(4), 1115-1122.



- Having access to a community garden helped lower-income families save money.** At the end of the gardening season, 90 percent of families (28 of 31) reported saving money on groceries because of their access to community gardens. In particular, focus group participants said that they saved money because they did not have to buy vegetables at the grocery store and that cooking classes taught them how to be better shoppers. One parent said he saved \$10 a week on buying vegetables from the store when the garden was in season.

Conclusion and Policy Implications

Our preliminary results suggest an increase in availability of fruits and vegetables in the households of children who participated in the *Growing Healthy Kids* community gardening project. Over the long term, continued access to the gardens and technical support provided through the project may help these children to achieve or maintain a healthy weight. These preliminary findings are encouraging. Regarding future research, a longitudinal study will be necessary with a larger sample size to help assess the effectiveness of this approach in preventing or reversing childhood obesity among Latinos. In addition, replicating this project in other communities will help test its feasibility in communities with different characteristics.

Given the research-proven link between obesity in children from lower-income families and their families' ability to access affordable nutritious foods,^{7,8} community gardens should continue to be available to Latino and other families. In North Carolina, we involved key stakeholders (e.g., the City of Carrboro, Cooperative Extension) in our project to help make community gardens a permanent part of local life. Our project has begun to create awareness and has the potential to influence policy at the state level, as we were invited to present our preliminary results at the North Carolina Joint Legislative Task Force on Childhood Obesity.

⁷Teig, E., Amulya, J., Bardwell, L., Buchenau, M., Marshall, J. A., & Litt, J. S. Collective efficacy in Denver, Colorado: Strengthening neighborhoods and health through community gardens. *Health Place*, 2009 Dec; 15(4), 1115-1122.

⁸Drewnowski, A. & Specter, S. E. Poverty and obesity: the role of energy density and energy cost. *Am J Clin Nutr* January 2004 vol. 79 no. 1 6-16