

THE EFFICACY OF COMMUNITY GARDENS IN PROVIDING ACCESS TO VEGETABLES WITHIN URBAN FOOD DESERTS

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Abstract

Food deserts are areas where citizens have limited access to healthy and affordable foods. Limited access to healthy foods is correlated with increased rates of obesity (Fig. 1) and diabetes. Barriers which restrict access can be broken down into geographic, economic, and informational groups. This paper considers the effectiveness of community gardens in improving access to healthy and affordable foods within food deserts. Through case studies, I underscore the efficacy of community gardens and their effects on geographic, economic, and informational barriers to access. **Community gardens provide access to vegetables within food deserts, but do not completely eliminate barriers to healthy and affordable foods.**

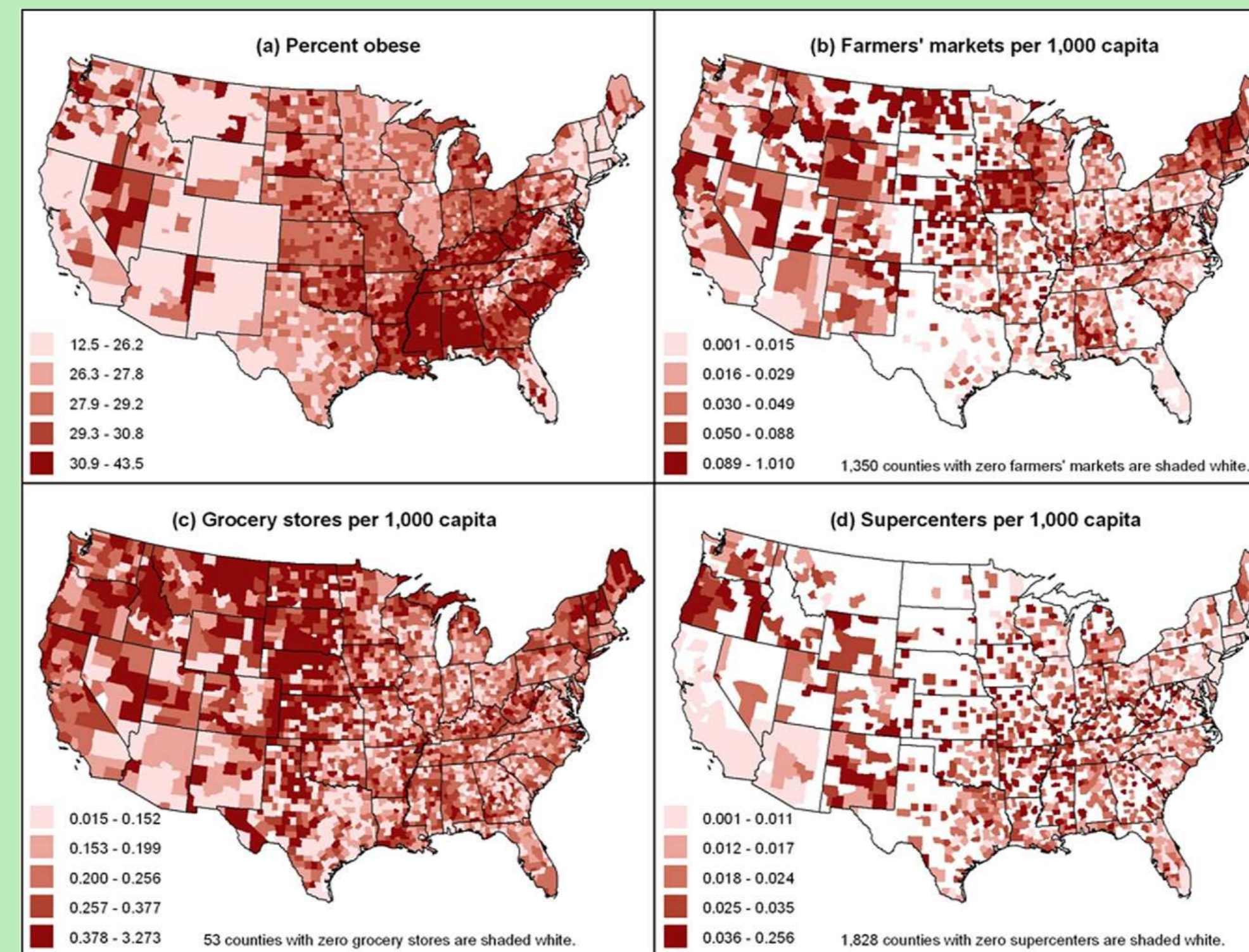
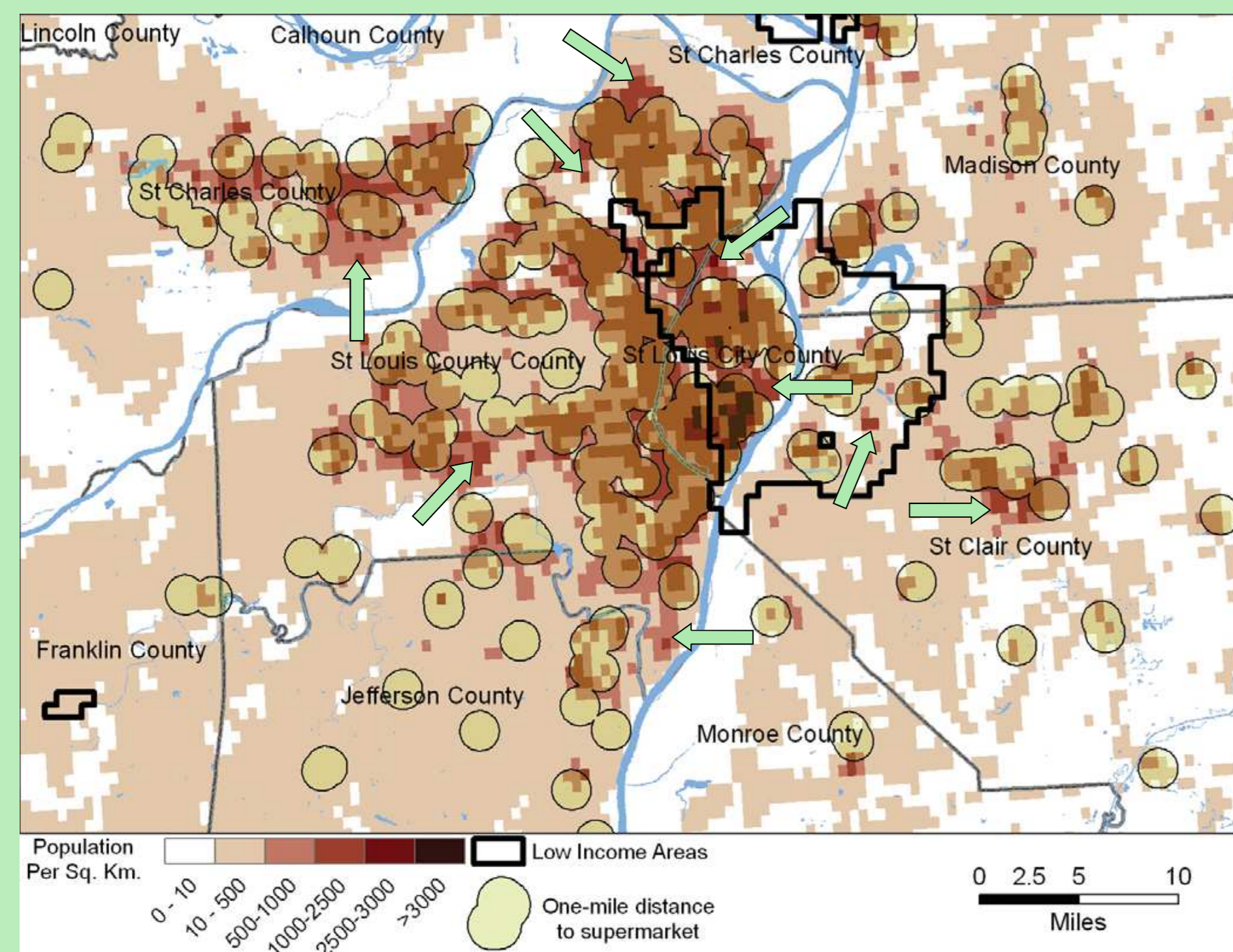


Figure-1

These maps show the relationship between food access and obesity. Areas with higher food access exhibit lower obesity prevalence. Source - Jilcott, 2011 (American Dietetic Association)



Left - Figure-2
This is a map of urban St. Louis, Missouri highlighting population density & distance to supermarkets. Arrows point to high population areas with restricted geographic access.

Right - Figure - 3
Findings from case study gardens - I highlight five areas of importance to community gardens, and how each garden differs

Community Gardens & Access Improvement		
Geographic	Economic	Informational
<ul style="list-style-type: none"> Lessen travel distance Replacement of vacant lots 	<ul style="list-style-type: none"> Avg. \$30-50 yearly fee for a 20x20 plot. This includes plot, H2O, tools, & compost Some gardeners supplement entire Year with garden vegetables 	<ul style="list-style-type: none"> Each garden offers gardening education High diffusion of gardening knowledge amongst gardeners Enjoyment of fresh and local vegetables

Gardens	Land	Funding	Management	Maintenance	Yearly fees
Dowling Southeast Minneapolis	Rented from the Minneapolis School District	Funded by yearly membership fees	Volunteer planning committee	Individual maintenance plus four hours required general maintenance	\$25 These fees include plot, water, compost, tools, etc.
Urban Farming North Minneapolis	Variety of donated land from churches, community centers, schools, gov. owned, etc.	Corporate sponsors	Regional management - coordinated by Minneapolis/ St. Paul Coordinator	Groups of volunteers plant & maintain garden through growing season	No plots Work done by volunteers and donated
Growing Power Chicago (Jackson Park)	Donated garden from park district - Must manage to use	Sponsorships & Grants	Paid staff -manages and plans yearly plots -land stewardship classes	Individual Maintenance	Free plots Must maintain
(Chicago Lights)	Partnership w/ church - Secure long-term lease	Sponsorships & Grants	-Deals with any problems -Different model than collective action gardens	Individual Maintenance	\$75 Or 10 hours sweat equity
The Partnership Garden Apple Valley	Donated by school of Environmental Studies in Apple Valley	Indv. basis initially - received state health grant	Managed by Growing Community (Volunteers)	Individual maintenance by plot owners	\$40
Sabathani South Minneapolis	Sabathani Community Center	Sabathani Community Center, and sponsorships	Managed by board members of community center (Volunteers)	Individual maintenance by plot owners	\$40

Methods

To understand food deserts, I conducted a literature review, which focused upon qualitative and quantitative characteristics of food deserts. Next, I conducted interviews with four community garden leaders in the metropolitan area of Minneapolis to understand the function of community gardens and how they impact local food access. An important step to this project also included a brief overview of the history of community gardens. I synthesized my conclusions by integrating the information obtained through case studies, and examining community gardens through a historical lens.



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Conclusion

Community gardens improve geographic, economic, and informational access to vegetables within food desert areas. Although community gardens improve access, they are not comprehensive solutions to health problems associated with barriers of access to healthy foods. A question that remains unaddressed is how much of the diet is supplemented through gardening and how this affects health. Nonetheless, my case studies indicated improved geographic, economic, and informational access to vegetables. To further increase access, community gardens must reflect their past; Victory gardens of the WWI era expressed the sentiment "food will win the war," while producing almost half of the nation's vegetables. A revival of this sentiment, will allow community gardens to flourish, improving healthy food access to all.