

Vacant Land Stewardship Research Series

Greening and Community Health

Maintaining and repurposing vacant lots can provide opportunities for physical activity, increase access to healthy food, reduce stress, and lead to other quality of life improvements.

When vacant lots are left unmaintained, they negatively affect those who live near them. From lowering property values to increasing fear and violence, the harmful effects of neglected vacant lots on communities are well-documented.

More recent research has explored the potential benefits of maintaining, greening, and repurposing vacant lots for uses such as greenspaces, small parks, and community gardens. While these projects are often implemented to improve curb appeal or remove nuisances, studies now show they can improve community health and well-being. Researchers have studied a variety of vacant lot greening interventions and their effects on community health and well-being. This fact sheet summarizes key takeaways from recent studies exploring the community health benefits associated with different projects.

Property Maintenance

Strategy: Deteriorated vacant lots negatively affect how residents feel about their neighborhoods. Consistently mowing and removing trash on vacant lots can improve the mental health of nearby residents by eliminating eyesores that increase fear and distress. Keeping vacant properties in good physical condition can also protect the safety and welfare of children.

Results: In Flint, Michigan, Burt et al. (2021) evaluated the effect of property conditions on community mental health. They found that *community residents living in neighborhoods with better maintained properties reported feeling less fearful than residents in neighborhoods with more poorly maintained properties, which helped to protect them from mental distress.* The study suggests that improving property conditions through regular maintenance may be a promising approach to promoting better mental health.

A county land bank, in a midwestern city, operates a maintenance program in which community residents consistently mow and remove trash on vacant lots in designated neighborhood areas throughout the growing season. Sokol, et al. (2022) evaluated the effects of the seasonal vacant lot maintenance



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The research was conducted as part of a five-year research project, on which the Michigan Youth Violence Prevention Center (MIYVPC) and the Center for Community Progress are partners. Vacant Land Stewardship - Recent Research is supported by a cooperative agreement (U01CE002698) from the Centers for Disease Control and Prevention.



Photo Credit: Pennsylvania Horticultural Society

program on child maltreatment (i.e., all types of abuse and neglect). They found that *neighborhood areas that were consistently mowed by community residents had a child maltreatment rate that was less than half the rate in unmaintained areas*, after controlling for other factors related to child maltreatment including crime and neighborhood disadvantage. The study suggests that keeping properties in good condition may have wide-reaching benefits for community safety and well-being.

Landscaping

Strategy: Once vacant lots are cleaned and stabilized, further enhancing them with simple landscaping such as planting trees and installing fencing can create more orderly and inviting community green spaces. These spaces can help reduce stress, boost mental health, and promote positive community activity.

Results: In Philadelphia, Pennsylvania, vacant lots were randomly assigned to receive a greening treatment that included trash removal, landscaping, and regular mowing or no intervention. South, et al. (2018) examined the effects of vacant lot greening on the health of nearby residents. They found that *depression decreased by 42% and poor mental health was reduced by 63% for residents who lived near the greened lots*. Residents living near greened lots in neighborhoods below the poverty line saw even greater improvements in their mental health, compared to residents living near the untreated lots.

In a related study, Branas et al. (2018) found that, relative to residents living near the untreated lots, *residents living near greened lots reported feeling less worried about leaving their houses due to safety concerns. They also reported greater use of outdoor spaces for socializing and relaxing.*

In a prior study of the same interventions, South et al. (2015) compared the heart rates of community residents when they walked past the greened lots versus the untreated lots. They found that *residents' heart rates were significantly lower when they viewed the greened lots than when they viewed the untreated lots*. This suggests vacant lot greening may help prevent biological stress responses that are linked to poor health outcomes.

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Community Gardening

Strategy: Repurposing vacant lots into community gardens can offer a range of holistic health benefits. Participating in community gardening offers opportunities to reduce stress in natural settings, build supportive connections with neighbors, and access healthy food.

Results: In Milwaukee, Wisconsin, Olsen et al. (2019) surveyed community gardeners with the Milwaukee Urban Garden program and nongardeners on health and well-being metrics. They found that *community gardeners consumed more fruits and vegetables and reported a greater sense of community than non-gardeners.*

In Detroit, Michigan thousands of residents engage in food gardening on vacant lots in their neighborhoods through the Garden Resource Program. Beavers et al. (2019) interviewed gardeners to understand how participating in the program had affected their health. *Community gardeners reported that gardening helped them to eat more vegetables and reduce their consumption of meat and processed foods.* They reported changing their diets because they felt more connected to the food they grew and preferred it for its freshness and taste. *Gardeners also reported improved food security* because they were able to spend less on groceries and preserve their produce at the end of the season.

In a related study, Beavers et al. (2022) found that *community gardening provided gardeners with an accessible and enjoyable form of physical activity that helped them manage chronic conditions and improve their physical fitness.* Gardening in a natural setting boosted gardener's mood, reduced their stress, and became an important part of their spirituality. Gardening also provided opportunities for gardeners to help their neighbors, for example by teaching gardening skills or sharing produce.

Conclusion

Stabilizing vacant lots through cleanups and regular maintenance can help to reduce the harms of unmaintained vacant land on mental and physical health. Further enhancing vacant lots, for example by converting them into landscaped greenspace or community gardens, can offer wide-ranging health and quality of life benefits from stress reduction to healthy food access. Repurposing vacant land into community assets like gardens also creates opportunities for residents to connect, support each other, and enjoy their neighborhood environments. Compared to more traditional behavioral health interventions, maintaining, greening, and repurposing vacant lots can reach more people and are relatively low-cost.



References

- Beavers, Alyssa W., Ashley Atkinson, and Katherine Alaimo. "How Gardening and A Gardener Support Program in Detroit Influence Participants' Diet, Food Security, and Food Values." *Journal of Hunger & Environmental Nutrition* 15, no. 2 (2019): 149–69. <https://doi.org/10.1080/19320248.2019.1587332>.
- Beavers, Alyssa W., Ashley Atkinson, Lauren M. Varvatos, Mary Connolly, and Katherine Alaimo. "How Gardening in Detroit Influences Physical and Mental Health." *International Journal of Environmental Research and Public Health* 19, no. 13 (2022): 7899. <https://doi.org/10.3390/ijerph19137899>.
- Branas, Charles C., Eugenia South, Michelle C. Kondo, Bernadette C. Hohl, Philippe Bourgois, Douglas J. Wiebe, and John M. MacDonald. "Citywide Cluster Randomized Trial to Restore Blighted Vacant Land and Its Effects on Violence, Crime, and Fear." *Proceedings of the National Academy of Sciences* 115, no. 12 (2018): 2946–51. <https://doi.org/10.1073/pnas.1718503115>.
- Burt, Cassidy J., Michelle C. Kondo, Bernadette C. Hohl, Catherine H. Gong, Gregory Bushman, Caroline Wixom, Eugenia C. South, et al. "Community Greening, Fear of Crime, and Mental Health Outcomes." *American Journal of Community Psychology* 69, no. 1-2 (2021): 46–58. <https://doi.org/10.1002/ajcp.12544>.
- Olson, Jared T. "From Vacant Lots to Community Gardens: Health and Well-Being in the Neighborhood." 2019. <https://www.proquest.com/docview/2272846088/abstract/70B-137531634CA5PQ/1>.
- Sokol, Rebecca L., Gregory Bushman, Catherine H. Gong, Laney Rupp, Joseph P. Ryan, and Marc A. Zimmerman. "Associations between Micro-Neighborhood Greening and Child Maltreatment." *International Journal on Child Maltreatment: Research, Policy and Practice* 5, no. 2 (2022): 281–93. <https://doi.org/10.1007/s42448-021-00109-2>.
- South, Eugenia C., Bernadette C. Hohl, Michelle C. Kondo, John M. MacDonald, and Charles C. Branas. "Effect of Greening Vacant Land on Mental Health of Community-Dwelling Adults." *JAMA Network Open* 1, no. 3 (2018). <https://doi.org/10.1001/jamanetworkopen.2018.0298>.
- South, Eugenia C., Michelle C. Kondo, Rose A. Cheney, and Charles C. Branas. "Neighborhood Blight, Stress, and Health: A Walking Trial of Urban Greening and Ambulatory Heart Rate." *American Journal of Public Health* 105, no. 5 (2015): 909–13. <https://doi.org/10.2105/ajph.2014.302526>.



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