

Annotated Bibliography: Public Health and the Built Environment

Research Question: What are the ways in which the built environment impacts health (including both mental and physical health)?

Overview of the Built Environment and Health

Public Health Agency of Canada. (2017). Designing healthy living: The Chief Public Health Officer's report on the state of public health in Canada 2017. Ottawa, Ontario.

This report focuses on raising awareness about how the built environment can help or hinder healthy living and health. The report brings together evidence to discuss how Canadian communities can be designed to support health. It ends with a call to action in order to provide guidance on how to design for health and well-being.

*Canadian

Waterman, L., & Schnifferes, J. (2017). Health and the Built Environment. *Perspectives in Public Health*, 137(1), 3-4.

This editorial paper is a broad overview of the connection between health and the built environment. It presents a discussion on how public health professionals should become active in discussing issues with other relevant disciplines. The paper comments on the need for political will and leadership at every level in order to collaborate between different professions to achieve improved public health.

Green Space and Health

Helbich, M., Klein, N., Roberts, H., Hagedoorn, P., & Groenewegen, P. (2018). More green space is related to less antidepressant prescription rates in the Netherlands: A Bayesian geospatial quantile regression approach. *Environmental Research*, 166, 290-297. doi: 10.1016/j.envres.2018.06.010

The aim of this study was to assess the relationship between antidepressant prescription rates and green space in the Netherlands. The results of the study found that the presence of green space can contribute to a reduction in the amount of antidepressant prescriptions dispensed.

Kim, D., & Jin, J. (2018). Does happiness data say urban parks are worth it?. *Landscape and Urban Planning*, 178, 1-11. doi: 10.1016/j.landurbplan.2018.05.010

This study examined the relationship between well-being and urban parks in Seoul. The findings of the study show that urban parks are associated with resident's well-being. Seniors and higher income residents were found to have a higher willingness-to-pay for proximity to urban parks.

Sugiyama, T., Carver, A., Koohsari, M., & Veitch, J. (2018). Advantages of public green spaces in enhancing population health. *Landscape And Urban Planning*, 178, 12-17. doi: 10.1016/j.landurbplan.2018.05.019

This paper discusses public green spaces, their health benefits and their potential use as a resource to promote population health. The article stresses the importance of designing public green spaces that are accessible and appealing for all ages.

Toronto Public Health. (2015). Green City: Why nature matters to health – An Evidence Review. Toronto, Ontario.

This report focuses on the impact of green space on physical health, mental health and wellbeing. The report also looks at which green space features are the most beneficial to health. The report concludes that frequent access to green space is important especially for children. The report also found that low-income neighborhoods would benefit most from increased access to green space.

*Canadian

Zupanic, T., Westmacott, C., Bulthuis, M. (2015). The impact of green space on heat and air pollution in urban communities: A meta-narrative systematic review.

This report found that green space provides cooler, cleaner air at the site, neighborhood and city level. The authors discuss the need for green spaces across Canada to combat extreme heat waves and air pollution. The report concludes that improving the quality, quantity and connectivity of green spaces, while prioritizing green spaces for vulnerable areas is useful in health and planning policies.

*Canadian

Built Environment and Mental Health

Moore, T., Kesten, J., López-López, J., Ijaz, S., McAleenan, A., & Richards, A. et al. (2018). The effects of changes to the built environment on the mental health and well-being of adults: Systematic review. *Health & Place*, 53, 237-257. doi: 10.1016/j.healthplace.2018.07.012

This study was a systematic review of the evidence on the effects of changes to the built environment on mental health and well-being. The review found that overall the evidence is weak and further study designs needs to include interdisciplinary researchers from public health, planning and urban design.

Weich, S., Blanchard, M., Prince, M., Burton, E., Erens, B., & Sproston, K. (2002). Mental health and the built environment: Cross – sectional survey of individual and contextual risk factors for depression. *British Journal Of Psychiatry*, 180(05), 428-433. doi: 10.1192/bjp.180.5.428

The purpose of this study was to explore the association between the prevalence of depression and certain aspects of the built environment. The study found that there was an association between the prevalence of depression and living in housing areas characterized by properties with only deck access or of recent construction. Therefore, according to this study, depression is associated with certain features of the built environment.

Zock, J., Verheij, R., Helbich, M., Volker, B., Spreeuwenberg, P., & Strak, M. et al. (2018). The impact of social capital, land use, air pollution and noise on individual morbidity in Dutch neighbourhoods. *Environment International*, 121, 453-460. doi: 10.1016/j.envint.2018.09.008

The goal of this study was to assess a range of physical and social environmental characteristics in a sample of neighborhoods in the Netherlands to understand any associations with morbidity. The study found that social cohesion was higher in less urbanized neighborhoods, and a higher level of social cohesion also coincided with lower levels of depression, migraines, and other physical symptoms. Additionally, land use diversity was found to be beneficial for physical and mental health.

Built Environment and Physical Health

Booth, G., Creatore, M., Moineddin, R., Gozdyra, P., Weyman, J., Matheson, F., & Glazier, R. (2012). Unwalkable Neighborhoods, Poverty, and the Risk of Diabetes Among Recent Immigrants to Canada Compared With Long-Term Residents. *Diabetes Care*, 36(2), 302-308. doi: 10.2337/dc12-0777

This study found that lower neighborhood walkability was associated with the development of diabetes among recent immigrants living in low-income areas of Toronto.

*Canadian

Chandrabose, M., Rachele, J., Gunn, L., Kavanagh, A., Owen, N., & Turrell, G. et al. (2018). Built environment and cardio-metabolic health: systematic review and meta-analysis of longitudinal studies. *Obesity Reviews*, 20(1), 41-54. doi: 10.1111/obr.12759

This study synthesized evidence on the relationship between the built environment and cardio-metabolic health outcomes in adults. The authors found strong evidence for the relationship of walkability with prevalence of obesity, type 2 diabetes and hypertension. They also found strong evidence on the impact of urban sprawl on obesity.

Gordon-Larsen, P. (2006). Inequality in the Built Environment Underlies Key Health Disparities in Physical Activity and Obesity. *PEDIATRICS*, 117(2), 417-424. doi: 10.1542/peds.2005-0058

The aim of this study was to explore the geographic and social distribution of physical activity facilities and how a disparity in access could be associated with population level physical activity and overweight patterns. The authors of the study concluded that lower socioeconomic and minority populations had reduced access to the facilities and they also had lower physical activity levels and higher incidence of overweight. Inequality in the built environment therefore led to health disparities.