

## Annotated Bibliography: Urban Form

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Research Question: How does the urban form (e.g. land use and density) help or hinder health and health equity?

### **General community design, land use, urban form and health equity:**

Canadian Population Health Initiative. (2011). Summary Report: Urban Physical Environments and Health Inequalities. *Canadian Institute for Health Information*.

This report explores the effects of air pollution and urban heat islands which have resulted from increased urbanization. The study discussed in this report found that health issues related to outdoor air pollution and heat extremes are associated with socio-economic status and other health inequalities.

\*Canadian

Dannenberg, A., Jackson, R., Frumkin, H., Schieber, R., Pratt, M., Kochtitzky, C. and Tilson, H. (2003). The Impact of Community Design and Land-Use Choices on Public Health: A Scientific Research Agenda. *American Journal of Public Health*, 93(9), pp.1500-1508.

The Centers for Disease Control and Prevention hosted a workshop in May 2002 to develop a scientific research agenda on the topic of how land-use and transportation decisions can facilitate or obstruct the creation of healthy communities. This paper presents the resulting research agenda which was organized under the following broad topics: physical activity, obesity and transportation mode choice; injury prevention; health effects of air quality and climate change; built environment's effect on mental health; environmental justice and social equity; and crosscutting issues such as public policy.

Frumkin, H. (2005). Guest Editorial: Health, Equity, and the Built Environment. *Environmental Health Perspectives*, 113(5).

This article broadly discusses equity concerns related to transportation, food environments and parks/green spaces. The author claims that rapid urbanization and the obesity epidemic have caused environmental health to rediscover its roots in geography and urban planning and should now focus on the built environment and health. The author also stresses the importance of paying attention to the needs of disenfranchised populations.

Gelormino, E., Melis, G., Marietta, C. and Costa, G. (2015). From built environment to health inequalities: An explanatory framework based on evidence. *Preventive Medicine Reports*, 2, pp.737-745.

This paper presents the results of a scoping review which examined the built environment's impact on health equity. The authors of this paper state that socially disadvantaged groups are disproportionately effected by the potential negative impacts of policies which are not health-oriented. The review concludes that deprived neighbourhoods need tailored investments for health promoting policies directed at improving the urban form.

Grant, T., Edwards, N., Sveistrup, H., Andrew, C., Egan, M. (2010). Inequitable walking conditions among older people: examining the interrelationship of neighbourhood socio-economic status and urban form using a comparative case study. *BMC Public Health*, 677(10), pp.1471-2458.

The purpose of this study was to examine the relationship between the urban form, socio-economic status and the ability of older people to walk in their neighbourhoods in Ottawa. The authors found that older people in higher socio-economic status neighbourhoods had positive experiences with walking and older people in lower socio-economic status neighbourhoods had negative experiences.

\*Canadian

Gunning, C., Harris, P. and Mallett, J. (2011). Assessing the health equity impacts of regional land-use plan making: An equity focused health impact assessment of alternative patterns of development of the Whitsunday Hinterland and Mackay Regional Plan, Australia (Short report). *Environmental Impact Assessment Review*, 31(4), pp.415-419.

This paper presents a discussion on an equity focussed health impact assessment that was meant to bring consideration of health and equity into regional land-use planning. The equity focussed health impact assessment was achieved through intersectoral collaborations. The authors of this paper hoped that this project could contribute to ensuring that potential health impacts are considered as a part of land-use planning processes in Queensland and elsewhere.

Healthy Canada by Design CLASP Initiative (2012). *Health Equity and Community Design: What is the Canadian evidence saying?* Planning Healthy Communities Fact Sheet Series.

The purpose of this factsheet is to provide a summary of Canadian research from 2007 to 2011 on health equity and community design. The factsheet concludes with an outline of what planners can do next to support healthy community design.

\*Canadian

Johnson, S. and Marko, J. (2008). Designing Healthy Places: Land use planning and public health. *Environments Journal*, 35(3), pp.9-19.

This paper highlights the links between land use planning and public health and makes a case for public health input into land use decision making processes. Different types of urban design can promote health and the prevention of population level factor that contribute to chronic diseases and injuries. Broad topics discussed include physical activity, respiratory illness, injury prevention, and social effects.

### **Zoning and health equity:**

Maantay, J. (2001). Zoning, equity, and public health. *American Journal of Public Health*, 91(7), pp.1033-1041.

Zoning is the most prevalent land use planning tool in the United States and it has substantial implications for equity and public health. This article uses New York City as a case study to discuss how industrial zones, which permit noxious land uses, are often expanded in poorer neighbourhoods, while in more affluent neighbourhoods they are rezoned for healthier uses.

Ransom, M., Greiner, A., Kochtitzky, C. and Major, K. (2011). Pursuing Health Equity: Zoning Codes and Public Health. *The Journal of Law, Medicine & Ethics*, 39, pp.94-97.

This paper presents a discussion of how urban planning processes, specifically zoning codes, can either reduce or exacerbate health inequities. The authors examine the TransForm Baltimore as an example of a city which re-wrote its zoning code in order to take into account the built environment's influence on health.

Scalar, E. and Northridge, M. (2001). Property, Politics and Public Health. *American Journal of Public Health*, 91(7), pp.1013-1015.

This paper discusses the impact of zoning on public health. The authors present the case of New York City, where industrial zones were rezoned to residential zones between the years 1961 to 1998. This happened everywhere in the city, except for in South Bronx, where industrial zones were increased. At the time of this article, South Bronx had the highest rate of asthma hospitalization in NYC. The authors conclude that public health and planning professionals need to revive the social justice element of zoning.

### **Transportation and health equity:**

Lee, R., Sener, I. and Jones, S. (2016). Understanding the role of equity in active transportation planning in the United States. *Transport Reviews*, 37(2), pp.211-226.

This paper provides recommendations for planners and researchers to:

- Include considering other transportation-disadvantaged groups beyond low income and minority populations in equity analyses,
- Increase collaboration between agencies,
- And better represent transportation disadvantaged groups in public participation.

Madill, R., Badland, H., Mavoa, S. and Giles-Corti, B. (2018). Comparing private and public transport access to diabetic health services across inner, middle, and outer suburbs of Melbourne, Australia. *BMC Health Services Research*, 18(1).

This study compared the travel times for populations living in the inner, middle and outer suburbs of Melbourne to diabetic health care services. The planning department of Melbourne had called for a 20-minute city, where all essential services are accessible within a 20-minute journey. The results of this study show that access to essential

health care services, such as diabetic health care, does not meet the 20-minute policy initiative. The study found that regardless of the travel mode used, those living in the inner and middle suburbs of Melbourne had shorter travel times than those living in the outer areas. Additionally, those traveling by private vehicle had 5 times faster of a travel time than those using public transport.

McClure, R., Adriaola-Steil, C., Mulvihill, C., Fitzharris, M., Salmon, P., Bonnington, C. and Stevenson, M. (2015). Simulating the Dynamic Effect of Land Use and Transport Policies on the Health of Populations. *American Journal of Public Health*, 105(S2), pp.S223-S229.

This study identified certain aspects of land-use and transportation policies which improve the health and well-being populations. To do so, the authors conducted a 10-year simulation for three policy outcomes in the cities of London, Copenhagen, Beijing, Delhi, New York and Melbourne. The authors present recommendations for future approaches to transport, land use and health policy which have the potential to achieve the desired societal benefits of traffic safety, population health and social equity.