## Public Health and Open Space

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## **History of Planning for Public Health**

The major health problems of the 19th Century city revolved around infectious diseases. Because of this, public health officials became the first urban planners; they provided zoning and regulations that discouraged crowding and increased overall sanitation in urban areas. Policies and attitudes from this time period still encourage the dominant view that cities and urban concentrations are unhealthy, even though for the most part modern public health crises no longer revolve around infectious diseases.

The major public health problems of today include chronic diseases, toxic exposure, injuries and violence. The leading cause of U.S. deaths (heart disease) is often caused by a sedentary lifestyle, characterized by low physical activity and a high caloric (but low nutrient) diet. Physical inactivity is a major contributor to many other mental and physical health problems and in fact, leads to nearly 200,000 deaths per year (Perdue, 2003).

While public health officials have been actively involved in the planning and design of cities in the past, their contributions to combat inactivity and poor nutrition through modern city planning and built environment design is only just beginning.



Open space can provide opportunities for active recreation and transport, as long as there is sufficient access:

- People living in areas with few outdoor recreation facilities were more likely to be overweight (Catlin, 2003).
- Children (especially boys) who walked to school were more physically active the rest of the day than those who were driven (Cooper, 2003).
- Older women living within walking distance of stores, trails or parks had significantly higher pedometer ratings than women who did not. The more destinations that were nearby, the more these women walked (King, 2003).

Open space can aid in mental restoration:

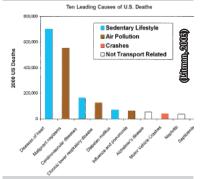
- Providing a sense of fascination as well as a greater extent, separating users from distraction (Kaplans, 1998), reducing negative emotions, holding a person's attention, and blocking stressful thoughts (Ulrich, 1981) have all been shown to occur in natural landscapes.
- Patients with views of nature have significantly less post-operative stay times, less medication use and experience fewer minor post-operative complications than patients with views of a wall (Ulrich, 1984).

There are health implications to certain landscape materials:

- The chemicals incorporated into open space through fertilizers for lawns can lead to cancer in wildlife and humans (Steingraber, 2002).
- Total emissions from lawn mowers and tractors have surpassed cars in the amount of several pollutants that cause ozone formation (Lyman, 2000).
- Trees as opposed to grasslands provide the greatest airborne particulate sequestration, finer more complex foliage patterns of conifers can allow for greater particulate capture (Beckett, 2000)







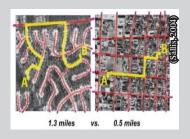












Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity.

~W.H.O., 1948



## Are there particular populations that benefit from more open space? What types of open spaces are most beneficial?

Population	Healthy Choice	Open Space Considerations
Children and Adolescents (Foxhall, 2004) (Stratton, 2000)	Walking to school	Safe, connected and short distance (grid system) sidewalk routes or trail system with adequate sight lines.
	Playing outside near homes	Speed humps or other traffic calming measures in and around roadways.
	Playing outside at school	Marking pavement for play (hop- scotch, 4-square) and providing balls, equipment and supervision.
Low socio-economic status individuals, especially low SES ethnic minorities and senior citizens (Popkin, 2005)	Active Recreation	More programs and/or facilities organizing space, especially if street crime is prevalent
	Active Transportation	Safe, connected and short distance routes: may incorporate walking routes with driving routes (driver "eyes on street") to enhance feeling of safety.
	Nutrition	Besides greater access to supermarkets and health stores, more farmers mar- kets, p-patches and rooftop gardens within neighborhood
Female-heads of household (Eyeler, 2002)	Combining childcare with physical needs of mother	Intergenerational recreation areas like walking tracks surrounding playgrounds
Those with "no time for exercise"	Active Transportation	Close by trails linking destination hubs, grid streets, mixed use develop- ment (closer proximity to errand destination)
	Active Recreation	Closer proximity to home and/or work

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