

Rekindling the planning/health relationship

By Gayle Bursey, James Dunn, Christine Gutmann, Daniel Leeming, Dr David Mowat, Bhavna Sivanand



The verdict is in: When it comes to health, place matters. In the fight to combat today's rising rates of diabetes and obesity, the auto-dependent "obesogenic" suburbs that typify many North American cities are the first opponents. Over the past two centuries, public health's focus on disease prevention and control has shifted from epidemics of infectious diseases to epidemics of chronic diseases. These chronic conditions are often labelled "diseases of the environment" because of the significant role played by the natural and built environments in spreading diseases such as diabetes, cardiovascular and respiratory disorders, asthma and cancer. As such, combating the chronic diseases of the 21st Century requires non-traditional means of disease prevention. It requires a shift in traditional practices when dealing with our environment. It requires a collaboration of efforts across multiple sectors not typically associated with health. Specifically, it requires a joint vision and strong partnerships among people working in land-use planning, transportation and health.

The concept of a synergistic relationship between planning and health is not new, as public health and city planning have worked side-by-side in the past. In 19th Century North America transportation options were limited so people lived close to places of employment. The Industrial Revolution saw a boom of employment options and populations migrating to the urban cores, leading to noise, pollution and overcrowding. Infectious diseases, such as tuberculosis, cholera, typhoid and yellow fever, spread by poor air and water quality and a lack of sanitation systems, were the major public health challenges, until the Sanitary Movement brought these diseases under control. Soon after, zoning was put into place to further protect the public

from exposure to the environmental toxins released from industrial production.

The creation of a department of public works that enabled expansion of development and a regulated separation of land uses led to the movement of people away from the city core and the development of suburbs as we know today. The availability of unlimited space on the outskirts of city centres and the surge of personal automobile use led to low-density devel-

opments comprising larger lot sizes, a separation of residential areas from commercial and retail spaces, and large distances between destinations. Over time, the partnership between public health and planning diminished, as the need to control the spread of infectious diseases in overcrowded city centres no longer existed. One of the unexpected consequences of this movement of people away from compact urban cores was a decrease in the ability to lead active lifestyles, presenting public health with a new challenge of chronic disease prevention.

In the traditional suburban development of today, many people work far away from their homes, children get bussed or driven to school, people use their personal vehicles to run daily errands, and neighbours have limited places for social interaction. These neighbourhoods under-support physical activity and over-support personal vehicle use: smaller



PHOTO: ASSOCIATION OF PEDESTRIAN AND BICYCLE PROFESSIONALS (APBP)

Bicycle integration as part of active transportation network

Above: Only 12% of Canadian children meet Canada's physical activity guidelines (Public Health Agency of Canada, 2010) of 90 minutes per day. More than 90% of kids begin watching TV before the age of 2, despite recommendations that screen time should be zero for children under 2 and limited to 1 hour for kids 2-5. (Active Healthy Kids Canada (AHKC) Report Card on Physical Activity for Children and Youth, 2010)

neighbourhood schools are often amalgamated into one larger distant school. This then decreases the walkable access for more and more children and denies them the use of a local schoolyard as a central recreational space. While contributing to physically inactive lifestyles, these neighbourhoods are also socially and physically isolating for some, such as seniors and new Canadians, who may be without driver's licences and may still be learning English.

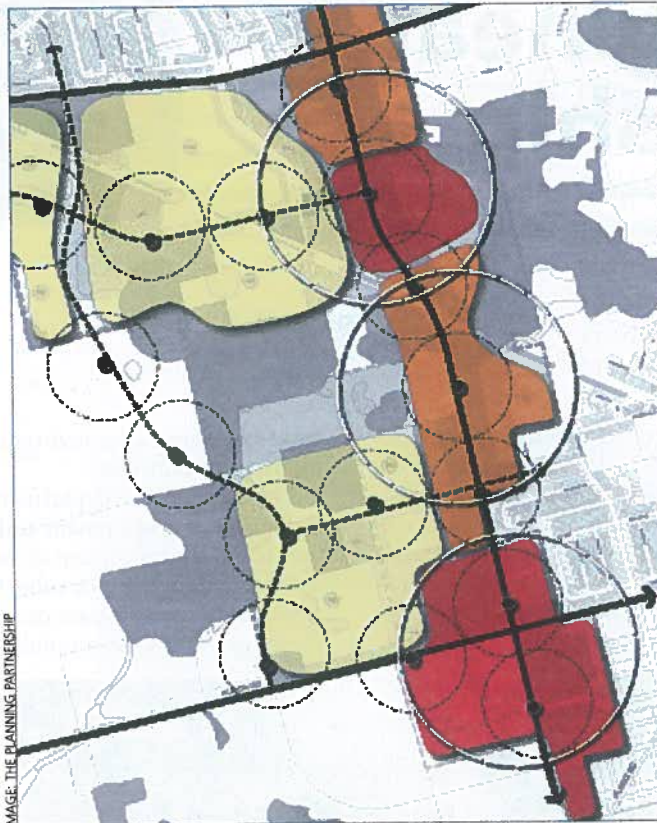
Research has established a strong relationship between health and socio-economic status. Low socio-economic status is often associated with an increased risk of developing chronic diseases.^{1,2}

Diseases of the environment may disproportionately affect those with lower socio-economic status, be it the downwind exposure to environmental toxins during the Industrial Revolution or the lack of access to healthy foods and healthcare services of today. Individuals with low socio-economic status may live in poorer communities that are more exposed to pollution from industrial sources. As well, individuals living in socio-economically disadvantaged areas may be at higher risk for morbidity and mortality resulting from chronic disease.^{3,4} Hence, the relationship between place and health involves a dimension of health equity, since many of the risk factors mediated by the built environment, such as access to healthy foods or healthcare services, interact with socio-economic variables.⁵ Reducing the issue of diabetes and obesity to simply a consequence of individual behaviour avoids addressing the more complex interactions of the environment, socio-economics, social norms and behavioural abilities. The impact of the physical environment

on health behaviour and ultimately health status often precludes or strongly influences individual choice, and this is particularly true for disadvantaged populations.

Already the leading causes of death in Canada and most developed nations, chronic diseases are also a rising burden on the healthcare system. Cardiovascular diseases are responsible for 32.1 per cent of deaths and are the leading cause of hospitalizations and drug costs in Canada.⁶ However, up to 80 per cent of cardiovascular diseases may be preventable through lifestyle changes. Diabetes alone is expected to cost Canadians \$12.2-billion dollars in 2010.⁷ Cancer is the leading cause of premature death in Canada, with an estimated 1 out of 4 Canadians expected to die from cancer.^{8,9} However, the proportion of cancers that are preventable is estimated at 50 per cent.⁸ Given the volume of disease, a focus on improving systems of treatment alone will not be sufficient to significantly reduce the burden of chronic diseases and so prevention must be the first priority. Effective disease prevention demands a shift in focus towards upstream causes of chronic disease, such as physical inactivity and unsupportive environments. Furthermore, interventions must take a systems approach, focusing on the interaction of multiple systems as determinants of health, with the goal of improving health on a population level.

A shift in an entire population's health cannot be brought about by simply changing individual behaviour on a case-by-case basis, but instead requires a change in the environments that contribute to the disease. In addition, population health approaches (and systems approaches in general) require a balance between individual choices and the collective good. In



Transit proximity, high and low order

IMAGE: THE PLANNING PARTNERSHIP

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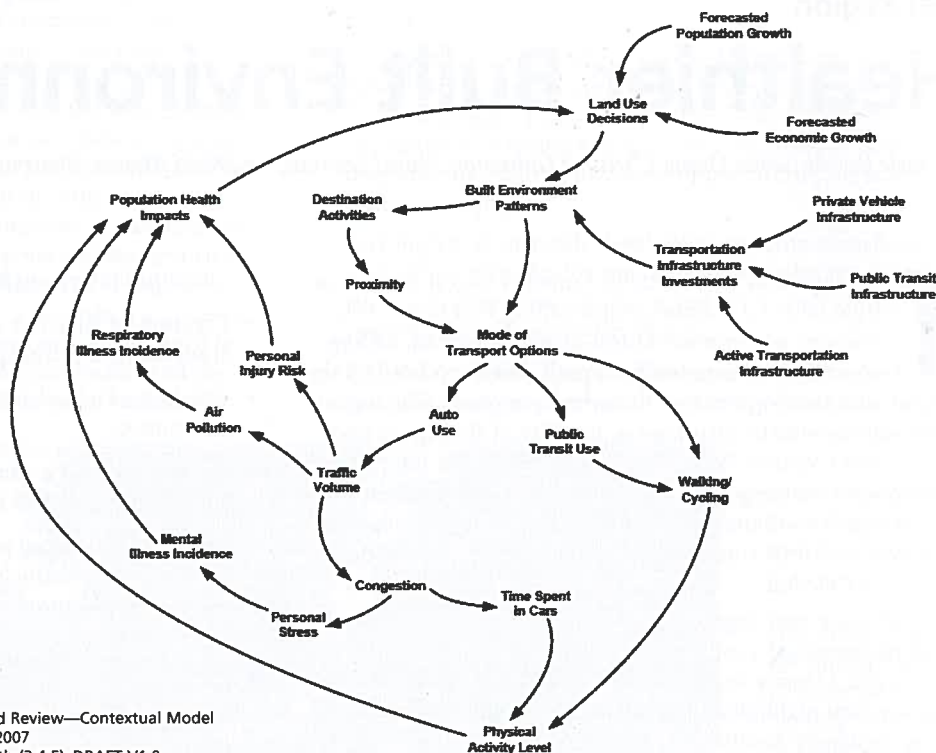
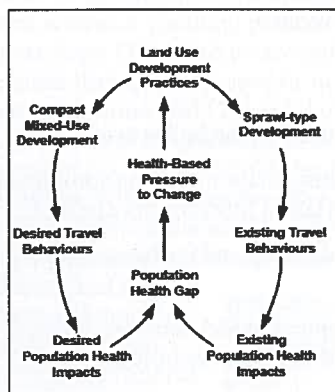
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Conceptual Model – Example



First Draft of Evidence and Best Practices Based Review—Contextual Model
Lawrence Frank and Company, December 21, 2007
Layer – From Built Environment to Public Health (3,4,5)—DRAFT V1.0

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suburban environments of today, residents and homeowners have very limited choice of neighbourhoods that would provide a range of services. These services include adequate transit, shops, local parks and community facilities that can be walked or biked to in 10 minutes or less. While people may still choose to live in an older, traditional suburban neighbourhood, they need to have the choice of affordable alternatives where they can lead active lifestyles through every phase of their lives.

Understanding the grave consequences of maintaining the status quo, the Region of Peel is endeavouring to provide some healthier lifestyle options for its residents. [See article this issue: *Peel Region, Healthier Built Environments.*]

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Since 2006, OPPI's healthy communities initiative has been the institute's leading public policy focus. For more information go to www.ontarioplanners.on.ca/content/Publications/innovativepolicyapers.aspx.

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