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Investing in Health-Promoting Infrastructure

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The Health Impact of Community and Transportation System Design

The built environment is part of our physical surroundings and includes the buildings, parks, schools, road systems, and other infrastructure that we encounter in our daily lives. [i] The built environment, and in particular, the choice between low-density, car-dependent suburban sprawl and more compact designs, powerfully affects our health. The most researched effect, and arguably the most important, is upon physical activity, but the built environment also affects air quality, safety and social connectivity. The characteristics of a health-sustaining built environment are essentially the same as those which support environmental sustainability and economic sustainability, and improve quality of life. [ii] [iii]

Health promoting urban and rural community design includes a range of elements. [iv] One of the most significant health promoting components is whether urban design enables people to conveniently, safely and affordably be transported with options other than by single occupant vehicle use in order to meet their physical and social needs. These required elements include the following:

- sufficient residential, employment and service density,
- proximity between residential, employment and service locations – complete communities/mixed use,
- grid street pattern/connectivity,
- design to support active transportation (walking and cycling, strollers, wheelchairs, in-line skating, etc.),
- public transit,
- green space access, sun protection, aesthetics and social spaces. [v] [vi] [vii] [viii]

The built environment also has health equity impacts. The provision of complete communities with sufficient infrastructure for active transportation, public transit, and access to education, work, retail and services is particularly important to those of lower income who may not have their own vehicle to rely upon, or who are otherwise disadvantaged. [ix]

There are a wider range of benefits that can be achieved beyond public health, including municipal cost containment and tax reduction, economic vitality, environmental sustainability (including climate change mitigation and adaptation), and quality of life. The changes in the design of our communities align well with those being sought to achieve the "co-benefits" in these other areas of societal interest. [x], [xi] Indeed there is interplay between these co-benefits that impact on population health, and also have health equity implications; for example, climate change has been noted to disproportionately impact on the wellbeing of low income populations, and thus efforts to mitigate it and adapt address health equity. [xii]

In 2012 the provincial government communicated in its report Ontario Action Plan for Health Care that its health priorities include childhood obesity and diabetes reduction.[xiii] The prevalence of these conditions is heavily influenced by the degree to which the built environment supports walking, cycling and other forms of active transportation.

There are many stakeholders seeking to influence government decisions regarding the built environment, in order to achieve many ends, very heavily driven by individual economic interests. The built environment can serve as a means of achieving much societal good (whether health, economic, environmental or quality of life), and thus all levels of government should apply a *health in all policies* approach in their policy development in this area, in keeping with alPHa and OPHA resolutions in 2015. [xiv]

Public Health Action on the Built Environment

Reports of the Chief Medical Officer of Health of Ontario have included citation to the built environment as a contributor to chronic disease. [xv] The Provincial Public Health Strategic Plan includes the built environment as a priority area. [xvi]

The Ontario Public Health Standards specifically cite the built environment under Chronic Disease Prevention and Health Hazards Investigation and Management. [xvii] In keeping with this local public health agencies have been active on a wide range of fronts, working with local and provincial partner agencies and with their municipalities, promoting the creation of health-promoting community design. [xviii] [xix]

Examples of work done by local public health agencies include health impact assessments, board of health reports, literature reviews, and municipal planning policy guidelines, as well as presentations and workshops with municipal planners, and the provision of input into provincial documents such as the Provincial Policy Statement review. [xx] [xxi] [xxii] [xxiii]

Public Health Ontario has supported built environment initiatives through webcasts and content in The Ontario Public Health Conventions. It has provided a literature review on cycling

safety interventions, and has also fostered health unit research on the built environment through their local collaborative projects.

A considerable amount of joint work has been done in collaboration with the Ontario Professional Planners Institute, which has made healthy communities a strategic priority for the past decade. [xxiv] Similarly, the Heart and Stroke Foundation, the Ontario College of Family Physicians, the Ontario Medical Association, and Ontario's Chief Coroner have all reported on aspects of the built environment and health. [xxv] [xxvi] [xxvii] [xxviii]

Federal and Provincial Government Infrastructure Funding

The mandate letters to the federal Minister of Transportation and to the Minister of Infrastructure and Communities both reference the importance of working with provinces and municipalities to improve infrastructure, including public transit, green infrastructure and social infrastructure. [xxix], [xxx] The Government of Canada has committed to $80 billion of infrastructure funding over 10 years. This will include the provision of funds to municipalities for roads, public transit and community facilities through Infrastructure Canada. [xxxi] This represents a substantial opportunity to create more health and health equity-promoting community and transportation system design; however the contents covered to not specifically include population health as an objective nor to they explicitly include healthy community concepts such as complete communities, green space or active transportation.

A component of this includes $10-billion for projects of national, local or regional significance, and a Small Communities Fund (PTIC–SCF) that will provide $1 billion for projects in municipalities with fewer than 100,000 residents. While the objectives are commendable (Economic growth, a clean environment, and stronger communities) they do not include improving population health.

It should be noted that this program was part of the 2015 Federal Budget, and that the new government is still in the process of defining their budget commitments for their renewed emphasis on infrastructure. The federal government is presently preparing to release their 2016 budget, which is anticipated to contain more current details on infrastructure funding.

The federal mandate letters to the ministers speak to the importance of bilateral agreements with the provinces. For a number of years the Government of Ontario has been pursuing healthy build design policy such as Places to Grow, its CycleOn strategy for cycling infrastructure and supports, and with positive changes in its Provincial Policy Statement for the Planning Act; specifically the Provincial Policy Statement speaks to the characteristics of "healthy, liveable and safe communities" and of their importance. [xxxii] The contents of the provincial review on the protection of Green Belt, Oak Ridges Moraine and the Niagara

Escarpment are excellent examples of policy develop for land stewardship to achieve multiple societal benefits. [xxxiii] However, the opportunity remains to apply such policy to all provincial funding grants and expenditures for infrastructure. [xxxiv] [xxxv] [xxxvi]

The province can play a significant role in the design and retrofit of institutional settings in Ontario (e.g., hospitals, government buildings, government-funded projects, post-secondary institutions and schools); the application of health and health equity-design criteria (such as those within the Provincial Policy Statement) would be very helpful. Examples of health promoting design resulting from provincial funding include the $45 million expenditure on an active building design for the new Ryerson University, Student Learning Centre. The consideration of healthy design concepts in the review of possible revisions 400 series highways and Hydro One corridors could achieve a healthier placement of infrastructure within and adjacent to communities, and to better enable active transportation options. The Ontario Public Health Association has provided comment to the province on such opportunities. [xxxvii] [xxxviii]

Conclusion

Public health in Ontario and across the country has been working with partners to improve our communities and our transportation systems to be more conducive to health. Although the Association of Local Public Health Agencies (alPHa), the Ontario Public Health Association (OPHA) and their respective members have been very active on this topic, to date neither has had a resolution specifically calling on the federal and provincial governments to apply a built environment lens to funding decisions. The commitments for enhanced infrastructure funding from the federal government and the ongoing infrastructure expenditures and planning requirements of municipal governments made by the provincial government in Ontario are opportunities for positive change.

A resolution to this end from alPHa and OPHA would be timely, and would also position us for nimble responses to future advocacy opportunities on this front. Given the stated intentions of the leadership within the federal government to moving forward with infrastructure spending at this time, with anticipate citation within the upcoming 2016 federal budget, it would be wise to move forward with such advocacy in the very near future.

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