

Land Use and Public Health Resources: A Guide and Summary

June 2011



Report to the
Greater Toronto Area Clean Air Council



Prepared by the Clean Air Partnership

TABLE OF CONTENTS

Preamble	4
About the Greater Toronto Area Clean Air Council	5
About the GTA-CAC Inter-Governmental Declaration on Clean Air	5
Land Use Planning and Public Health Resources: A Guide and Summary	6
GTA-CAC Member Reports	7
Peel Region Land Use and Health Reports	7
Halton Region Land Use and Health Reports	8
Toronto Public Health Land Use and Health Reports	9
Simcoe Muskoka District Health Unit Land Use and Health Reports	10
Toolkits	12
Planning By Design: A Healthy Communities Handbook	12
A Sustainability Planning Toolkit for Municipalities in Ontario	12
Creating Healthy Communities: Tools and Actions to Foster Environments for Healthy Living	13
Healthy Planning Guide	13
Heart and Stroke’s Shaping Active Communities Toolkit	14
Heart and Stroke Shaping Healthy, Active Communities Workshop Guide	14
How to Create and Implement Healthy General Plans	15
Checklists	16
Checklist: Public Health in Land Use Planning and Community Design	16
Sustainability Checklist for Rezoning & Development Permit Applications	16
Draft Checklist for Planners to Design Active Communities	16
Healthy Urban Development Checklist	16
World Health Organization Checklist of Essential Features of Age Friendly Cities	17
Support Documents	17
Healthy Communities Sustainable Communities: The 21 st Century Planning Challenge	17
Bringing Health to the Planning Table: A Profile of Promising Practices in Canada and Abroad	18
Environmental Best Management Practices for Urban and Rural Land Development in British Columbia	18
Child and Youth Friendly Land Use and Transport Guidelines for Ontario Bridging the Terminology Gap in Support of Active Communities: Land Use Planners and Public Health Professionals	19
The Built Environment and Health: A Review	19
National Collaborating Centre for Environmental Health – Built Environment Resources	20
Public Health Agency of Canada’s Bringing Health to the Planning Table Case Study Report	20
Understanding the Relationship Between Public Health and the Built Environment	20



CDC’s Creating a Healthy Environment: The Impact of the Built Environment on Health	21
Networks	22
OPHA – Health and the Built Environment Work Group	22
Project 1: Public Health and Planning 101: An Educational Resource for Professionals	22
Project 2: Increase Driver Awareness and Knowledge of Safely Sharing the Road with Cyclists	23
Project 3: Comprehensive Healthy Community Assessment/Audit	25
Coalitions & Collaborations	25
The Coalitions Linking Action and Science for Prevention (CLASP)	25
Healthy Canada by Design	25
Children’s Mobility, Health and Happiness: A Canadian School Travel Planning Model	26
Clean Air Council and Clean Air Partnership Land Use and Public Health Programs	26

Preamble

Executive Director

Eva Ligeti, Clean Air Partnership

Authors and Editors

Justin Jones, Clean Air Partnership

Gabriella Kalapos, Clean Air Partnership

Shazia Mirza, Clean Air Partnership

Fiona Kiernan, Clean Air Partnership

Clean Air Partnership (CAP) would like to thank the members of the Greater Toronto Area Clean Air Council for their financial support, as well as their time and thoughtful reflections on this material. CAP would also like to acknowledge the ongoing support of the City of Toronto and the Toronto Atmospheric Fund.

About the Clean Air Partnership

Clean Air Partnership (CAP) is a registered charity that works in partnership to promote and coordinate actions to improve local air quality and reduce greenhouse gases for healthy communities. Our applied research on municipal policies strives to broaden and improve access to public policy debate on air pollution and climate change issues. Our social marketing programs focus on energy conservation activities that motivate individuals, government, schools, utilities, businesses and communities to take action to clean the air.

Clean Air Partnership's mission is to transform cities into sustainable, vibrant, resilient communities, where the air is clean to breathe and greenhouse gas emissions are minimized.

© Clean Air Partnership, 2011. All rights reserved.

For more information, contact

Clean Air Partnership

75 Elizabeth Street

Toronto, Ontario M5G 1P4

Canada

416-392-6672

www.cleanairpartnership.org

About the Greater Toronto Area Clean Air Council (GTA-CAC)

The Greater Toronto Area Clean Air Council promotes the reduction of air pollution and greenhouse gas emissions and increased awareness of regional air quality and climate change issues in the Greater Toronto Area through the collective efforts of all levels of government. The Council identifies and promotes the most effective initiatives to reduce the occurrence of air pollution and greenhouse gas emissions. The goals of the Council are:

- To enable solutions to air quality and climate change challenges through a dynamic network that expands knowledge and enthusiasm, and encourages practical and successful policies and actions;
- To promote a better understanding of air quality and climate change problems and their implications for public health among policy makers and to improve their ability to address these problems in an economically effective way;
- To explore opportunities for joint initiatives to reduce air pollution and greenhouse gas emissions; and
- To liaise with municipalities in the GTA and across Canada, organizations with compatible mandates and communities within the region to share best practices for reducing air pollution and greenhouse gas emissions.

Clean Air Council Five Year Plan (2010 – 2015):

- Create a vision for a low carbon community;
- Share that vision with others;
- Show how it improves communities;
- Move clean air and climate change actions from pilot stage to business as usual;
- Track and share lessons learned on the implementation of clean air and climate change actions across the region;
- Support and track the transfer of those actions across the region;
- Report on progress; and
- Identify new opportunities being undertaken elsewhere and transferable to Southern Ontario.

About the GTA-CAC Inter-Governmental Declaration on Clean Air

On June 3rd, 2009 GTA-CAC member municipalities signed on to the 2009 *GTA-CAC Inter-Governmental Declaration on Clean Air*, committing them to take action on clean air and climate change.

Article 3.6 of the Declaration calls on the signatories to:

Develop a checklist/toolkit that supports the analysis of land use planning proposal applications using an air pollution, transportation demand management and public health perspective.

This scan was developed in response to the above GTA-CAC commitment and provides a summary of the various reports and tools aimed at supporting the ability of municipalities and planning and public health departments to determine the public health implications of various land use developments and practices.

On June 2nd, 2010 GTA CAC member municipalities signed onto the 2010 GTA CAC Inter-Governmental Declaration on Clean Air.

Article 3.3 of the Declaration calls on the signatories to:

Collaborate with the Ontario Public Health Association's and the Coalition Linking Action and Science for Prevention Working Groups to help create healthier communities.

Clean Air Partnership will support the ability of the GTA-CAC and its member jurisdictions to collaborate with the above networks.

Land Use Planning Toolkits: A Guide and Summary for Ontario Municipalities

This document will focus on some of the literature that has been released in the past decade regarding the impacts of land use planning on human health and environmental sustainability for a community. This summary will focus on five different sections:

GTA-CAC Member Reports: which provides a summary of the land use and public health reports undertaken by GTA CAC members as they develop mechanisms for integrating public health/land use principles into their community planning decision making;

Toolkits: which provides Clean Air Council members with recommendations, rationale, examples and other necessary resources to enact changes;

Checklists: which provide a short-form method of screening new development or new planning legislation; and

Support Documents: which provide important background information to support the case for designing and creating healthier, more sustainable communities. This paper is in conjunction with the upcoming Clean Air Council webinar series and the Ontario Public Health Association and the Coalition Linking Action and Science for Prevention Working.

Groups Networks: addressing the need for more sustainable planning decisions, is intended to provide Clean Air Council members with the information they need to move forward with these vital initiatives.

Links to Reports: are imbedded in the title of the reports and are accessible by pressing the control key and clicking on the linked report. If you are unable to access the imbedded links we suggest putting the name of the report and the organization/jurisdiction or author into Google or your search browser of preference.

GTA CAC Member Reports

Peel Region Land Use and Health Reports

Peel Regional Council formalized a connection between their Public Health and Planning Departments. Peel Health now comments on development proposals in the Region using the Peel Healthy Development Index (HDI). The Peel HDI consists of seven elements that are categories of built environment characteristics that are known to be associated with health. These elements include: Density, Service Proximity, Land Use Mix, Street Connectivity, Road Network & Sidewalk Characteristics, Parking, and Aesthetics & Human Scale. Each of the HDI elements are further refined into *measures*. Measures are quantifiable components of each element that are statistically associated with specific physical activity outcomes.

Also available are literature reviews on the connection between health and the built environment and suggestions for how to go about developing a Health Development Index.

- [Peel Healthy Development Index](#) – Dec. 2009 (280 pages)
- [Peel Health Position Statement](#) – Oct. 2008 (2 pages)
- [Literature Review on Health and the Built Environment by Larry Frank](#) – Nov. 2008 (97 pages)
- [Conceptual Models: Built Environment and Health](#) - Dec. 2008 (38 pages)
- [Realist Review on Health and the Built Environment by Jim Dunn](#) - Jan. 2009 (33 pages)
- [Final Report on Health Assessment Tool Development for Peel Region by Larry Frank - Executive Summary](#) - Jan. 2009 (12 pages)
- [Final Report on Health Assessment Tool Development for Peel Region by Larry Frank](#) – Jan. 2009 (116 pages)

Halton Region Land Use and Health Reports

[Protecting Health: Air Quality and Land Use Compatibility](#) - February 2009 (61 pages)

This discussion paper is intended to provide suggested directions for consideration and inclusion in the Sustainable Halton and Halton Region Official Plan Review processes. This paper focuses on the policies and practices needed to protect Halton residents from localized air pollution that can be associated with certain types of activities or land uses.

[Air Quality, Human Health and the Built Environment: Protecting Air Quality through the Land Use Planning Process](#) - February 2007 (50 pages)

This report summarizes the health impacts that have been associated with poor air quality, discusses the quality of Halton's air and the sources of air pollutants that impact on Halton's air quality. It discusses air quality and the built environment in three broad ways:

1. How air quality is affected by transportation within our communities which is related to the structure and design of our communities;
2. How air quality is impacted by energy use in buildings; and
3. How air quality health concerns can be created by point sources, incompatible land uses and/or the cumulative impacts of multiple emission sources in a localized area.

The report identifies the actions that can be taken to mitigate the negative air quality impacts that can be associated with growth and development.

[Creating Walking and Transit-Supportive Communities in Halton](#) - February 2009 (67 pages)

Provides a review of how the below parameters can be integrated into the Sustainable Halton and Regional Official Plan Review processes. Further details on how each of the below should be implemented are provided in the report.

1. To create transit-supportive densities.
2. To provide appropriate housing for people at all stages of life and income, align the housing mix with the density targets for activity nodes, transit nodes and activity corridors.
3. Residents live within 400 m of six diverse uses and within 800 m of 17 diverse uses.
4. Locate the land set aside for elementary schools within 1500 m of residents to maximize the numbers of students walking; and, locate the land set aside for secondary schools within 3000 m of residents and on local transit routes.

5. Design communities so that residents are within 400 m of an existing or planned transit stop. In addition, when developing new communities, adopt a “transit-first” principle.
6. Residents have access to a full range of parks described in the parkland hierarchy. Ideally residents will live within 400 m of a village square/parkette and within 800 m of a neighbourhood park. In addition, locate community parks, town/city wide parks and recreational facilities on local transit routes.
7. Consider “sense of place” when identifying and selecting preferred road alternatives.
8. Incorporate a *walking and cycling review* for pedestrian connectivity and safety at each stage in the planning process. Incorporate a *walking and cycling review* for cycling connectivity and safety, at each stage in the planning process, racks and showers in commercial buildings
9. Incorporate a *walking and cycling review* to consider the appeal of the pedestrian and cycling environment at each stage in the planning process.

Toronto Public Health Land Use and Health Reports

[Health Impact Assessment](#) - November 2005 (21 pages)

[Draft Toronto Public Health HIA Framework](#) - February 2008 (105 pages)

Provides an overview of health impact assessment as a potential tool for the development of healthy public policy in Toronto and outlines future steps. The World Health Organization describes health impact assessment as: "A combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population." Health impact assessments are commonly used to: assess or predict the health effects of a project or policy; inform or influence the decision-making process; and mitigate any health consequences of a decision.

[Air Pollution Burden of Illness from Traffic in Toronto - Problems and Solutions](#)

- November 2007 (57 pages)

In 2004, Toronto Public Health reported that exposure to five common smog pollutants contributed to about 1,700 premature deaths and 6,000 hospitalizations of Toronto residents each year. Although the 2004 report identified traffic as an important contributor to air pollution, it could not quantify its effects on health.

(http://www.toronto.ca/health/hphe/air_and_health.htm#1)

This report reviews the scientific evidence on the health effects of vehicle pollution; and determines the burden of illness and economic impact of traffic pollution in Toronto.



The report shows that traffic pollution gives rise to about 440 premature deaths and 1,700 hospitalizations each year in Toronto. Traffic pollution affects a very large number of people, and contributes to 67,000 acute respiratory symptom days, and 200,000 restricted activity days during which people spend days in bed or cut down on their usual activities. This study also estimates that mortality-related costs associated with traffic pollution in Toronto are \$2.2 billion each year and a 30% reduction in motor vehicle emissions in Toronto could save nearly 200 lives and result in 900 million dollars in health benefits annually.

The report has two major components: a comprehensive review of published scientific studies on the health effects of vehicle pollution; and, a quantitative assessment of the burden of illness and economic costs from traffic pollution in Toronto. This report also examines air pollution and traffic trends in Toronto, and provides an overview of initiatives underway or planned by the City to further combat vehicle-related air pollution.

Simcoe Muskoka District Health Unit

Healthy Community Design: Policy Statements for Official Plans - 2010 (34 pages)

- This guide focuses specifically on the health aspects of creating more sustainable communities, taking a broad definition of health and focusing on 5 key areas of health determinants: Environment, Injury and Safety, Physical Activity and Sun Safety, Food Access and Social Cohesion and Well-Being.
- This document makes explicit the links between the urban form and the health of residents, emphasizing the importance of incorporating healthy community planning at every stage of the planning process.
- Each key area is broken down into a series of objectives and actions that contribute to the broader goal of creating healthy communities.

This guide also features highly transferable recommendations for implementation actions to be undertaken by a municipality as they plan their community's growth.

Building Healthy Communities Environmental Scan - December 2007 (93 pages)

- This document identifies, through a number of interviews and questionnaires, the difficulty that Public Health Units and social/environmental groups have in integrating their concerns into the planning process.
- The results of the survey also indicate that Public Health Units and environmental groups are often performing research on similar topics, which creates an opportunity for greater collaboration.
- Perhaps most importantly, this document illustrates the necessity of addressing institutional siloing with regard to land use planning, and the importance of

considering all aspects (economic, social, environmental, public health, etc.) when planning decisions are made.

[The Impact of the Built Environment on the Health of the Population: A Review of the Review Literature](#) - November 2007 (133 pages)

This document provides an exceptional review of the literature regarding the ways in which the urban form can impact public health. This document focuses on 6 key areas of health determinants which are impacted by the urban form:

- **Physical Activity:** Low density, automobile dependent development leads to communities where active transportation is not a viable means of getting from place to place. There is low connectivity, services are far away, and often there are not any sidewalks, which discourage active transportation, decreases levels of physical activity and leads to higher instances of obesity.
- **Injury Prevention:** The automobile is, statistically, the most dangerous form of transportation. Injuries due to automobile collisions are a major contributor to hospitalizations and fatalities in Canada. The more vehicle kilometers people drive, and the faster they drive them, the more likely they are to be involved in a collision. Research has shown that more connected communities with lower speed limits have much lower instances of traffic related accidents and fatalities.
- **Air Quality:** Air pollution costs taxpayers in Ontario hundreds of millions of dollars a year in health care costs and results in thousands of premature deaths every year. While it is difficult to ascertain a direct causal link between land use planning and exposure to pollution due to the complex nature of air pollution, the evidence that does exist should warrant some attention. Reducing vehicle kilometers traveled, providing a good mix of land uses and creating denser, more connected communities all reduce the volume of air pollution due to vehicle exhaust that residents are exposed to, thus decreasing the health costs associated with that exposure.
- **Water Quality:** Sprawling land uses have many negative impacts on water quality, such as increased runoff due to more impermeable surfaces (such as roofs and roads) and contaminants such as lawn chemicals and automotive fluids. Development that incorporates green design principles, including green roofs and other permeable surfaces, can contribute to the protection of water quality.
- **Mental Health:** Road rage, stress, anxiety and a feeling of disconnect can all accompany suburban living. Building more connected, higher density communities allows people to spend more time at home and less time in their car,

and results in a more “neighborhood” feel.

- **Social Capital:** Residents who feel connected to their community are more likely to join groups and associations, to volunteer their time and to assist their neighbours. The links between suburbanization and decreasing social capital are not as well-defined, but what scholars do agree on is that mixed-use neighborhoods are better for increasing social capital.

The document closes by providing a list of recommendations which are relatively universal in their scope. This list could be used as a toolkit by municipalities as they move forward with their own plans to develop more sustainable land use planning guidelines. Above all, this report provides valuable data that can be used as evidence for creating mixed-use, well-planned neighborhoods.

Toolkits

[Planning By Design: a Healthy Communities Handbook](#). Published by the Ministry of Municipal Affairs and Housing and the Ontario Professional Planners Institute. Fall 2009 (50 pages)

- This guide provides rationale and information for planning healthier, more sustainable communities.
- It focuses on the health impacts of having a poorly designed urban environment, and emphasizes the need to create landscapes which encourage active transportation and community living.
- The guide provides examples of short-term and long-term actions a municipality can take, in addition to providing a checklist designed to help municipalities create a plan that adequately addresses their goals and needs.
- In *Chapter 4*, the guide provides municipalities with a list of Planning Act sections that can be utilized by municipalities to create healthy-community based policies. *This section is particularly useful for municipal planners.*
- Chapter 5 provides examples and case studies of various municipal actions and policies that have resulted in the creation of more sustainable, healthier communities.

[A Sustainability Planning Toolkit for Municipalities in Ontario](#). Published by the Association of Municipalities of Ontario. June 2008 (84 pages)

- This toolkit provides municipalities with an opportunity to self identify their place along the sustainability continuum: from just beginning to plan their community’s journey to sustainability, to implementing some sustainability strategies, to embedding sustainable choices into the everyday practices of their municipality.

- Once a municipality has identified where they are along the spectrum, this toolkit provides a series of lessons learned from other municipalities across Ontario and other jurisdictions which have been selected to provide municipalities with transferable lessons and potential actions that could be undertaken.
- Finally, the toolkit provides a series of 13 “tools”, which are broad actions that can be taken by a municipality to either move them further towards building a sustainable community or help them build increasing capacity for their sustainability plans.
- The toolkit focuses on providing guidance for Ontario municipalities as they craft an ICSP which will make them eligible for Federal Gas Tax funds, and focuses heavily on transferable lessons that can help a municipality craft a built-to-purpose, adaptable sustainability plan.

[Creating Healthy Communities: Tools and Actions to Foster Environments for Healthy Living.](#) Published by Smart Growth BC. 2009 (86 pages)

This document provides recommendations for policies and actions aimed at creating more sustainable communities by focusing on 4 key areas:

- Building Community and Connecting Neighbours to Each Other
- Getting People Outdoors and Active
- Cleaning the Air and Water
- Increasing Access to Healthy Eating Choices

Each of the sections provides recommendations for actions, along with concrete examples and case studies highlighting where these actions have been successfully implemented in BC. This is particularly important because it provides examples of success that can be brought to light in order to raise awareness and garner support for similar initiatives here in Ontario.

[Healthy Planning Guide.](#) Published by the Bay Area Regional Health Inequities Initiative in partnership with Public Health Law and Policy. (10 pages)

- This guide focuses on bringing to light the health impacts of unhealthy community design. It identifies 9 key health areas that are impacted by traditional city planning: poor or inadequate nutrition, lack of physical activity, alcohol and tobacco use, unsafe streets, unsafe neighborhoods, polluted air, soil and water, poor housing conditions, unaffordable housing and social isolation.
- For each health impact, this toolkit identifies many of the causes leading to each negative outcome, and then identifies both a list of potential actions to mitigate these issues and a list of agencies and authorities that must be consulted in order to facilitate change.

- Many of these inequities and impacts are universal, and while not all of the recommended actions will be feasible for every municipality, many of the actions are quite transferable and applicable to Ontario municipalities.

[Heart and Stroke's Shaping Healthy Active Communities Toolkit](#)

The Heart and Stroke Foundation has developed a toolkit to help individuals and organizations who are interested in making their communities more supportive of physical activity through active, healthy community design.

Active, healthy community design strategies – such as good public transit, well-maintained parks, and safe, efficient walking and cycling networks – make it easier to get the physical activity Canadians need to promote heart health, prevent stroke and maintain a healthy lifestyle. With Canada's high rates of physical inactivity and obesity in adults and children, it is more important than ever to build active, healthy design supports into local environments. Residents and community organizations can play an important role in making this happen.

The toolkit includes information on:

- How community design affects heart health?
- What works in active, healthy community design?
- Local planning processes and opportunities for community input.
- Tips and tools for taking action to encourage active, healthy design in your own community.
- Canadian communities that are implementing active, healthy design.
- What the Heart and Stroke Foundation is doing to support active, healthy design?

[Shaping healthy, active communities toolkit](#) (53 pages)

[Neighbourhood active, healthy design checklist](#) (3 pages)

[Sample PowerPoint presentation](#) (20 slides)

[Heart and Stroke Shaping Healthy, Active Communities Workshop Guide](#)

The purpose of this guide is to assist the Heart and Stroke Foundation and other community champions design and deliver a *Shaping Active, Healthy Communities* workshop in their community. The workshop introduces the Heart and Stroke Foundation's *Shaping Active, Healthy Communities Toolkit*, a resource guide for individuals and organizations interested in making their communities more active, healthier places to live. The purpose of the *Shaping Active, Healthy Communities* workshop is to:

- Build awareness of the links between community design, physical activity and health
- Introduce the Heart and Stroke Foundation's *Shaping Active, Healthy Communities Toolkit*
- Show how people can shape and influence their community's design to support more active, healthier living

[Shaping healthy, active communities workshop guide](#) (48 pages)

[PowerPoint presentation](#) (90 slides)

[PowerPoint presentation facilitator's notes](#) (17 pages)

[How to Create and Implement Healthy General Plans](#). Public Health Law and Policy - 2008 (118 pages)

This toolkit provides users with a logical progression of steps that can build upon one another. It is organized around a process of engagement, from building relationships and assessing existing conditions to creating and ultimately implementing policy language. The toolkit includes the following sections:

- **Laying the Groundwork for Healthy Planning:** discusses strategies health practitioners and advocates can use to build relationships with planners and other public officials while involving community members and building political capital and support for their work.
- **Assessing Existing Conditions:** addresses the role of data in developing plans and policies, and provides an overview of data sources and ideas for collecting and using data effectively.
- **Writing a Healthy General Plan:** contains a discussion of general plans and where to include health language in them.
- **Model Health Language:** includes goals, objectives, and policy ideas for communities to adapt to their own local general plan needs.
- **Implementation Policies, Plans, Programs, and Standards:** reviews tools where additional health-supporting policies can be included and where general plan policies can be translated into implementation.
- **Research on Land Use and Health from Two Different Perspectives:** provides an overview of the literature examining links between components of the built environment and health outcomes.

Checklists

[Checklist: Public Health in Land Use Planning and Community Design.](#) Published by the National Association of County and City Health Officials (4 pages)

- This checklist provides planners and officials with a simple checklist of considerations that should be considered when planning a new development.
- The checklist provides a method to ensure long term protection of public health and consistency in comments submitted for development plans, and broadens the health issues commented on by local public health agencies during the planning process. It can also be used to identify potential health impacts and provide a screening process for improving the quality of decision-making.

[Sustainability Checklist for Rezoning & Development Permit Applications.](#) Published by the City of Port Coquitlam (7 pages)

- This checklist was developed by the City of Port Coquitlam to ensure that new developments adhere to a triple-bottom-line approach, considering environmental, social and economic factors in all developments.
- This provides another example of a simple, yet comprehensive method of evaluating each new development and ensuring that all development actions take elements of complete sustainability into account.

[Draft Checklist for Planners to Design Active Communities.](#) Bergeron, Franklin & Lévesque – 2007 (15 pages)

The checklist offers principles and specific criteria that will aid in the design of active communities by influencing the planning recommendations by municipal planners in Ontario. Sections of the checklist include: Population Density; Street Connectivity; Street Design; Streetscape; Transportation/Transit System; Mixed Land Use; Parklands and Trails; and Safe Community Features.

[Healthy Urban Development Checklist.](#) New South Wales Australia Health – 2009 (192 pages)

Developed by New South Wales Health in Australia, the purpose of the checklist is to assist health professionals to provide advice on urban development policies, plans and proposals. It is intended to ensure that the advice provided is both comprehensive and consistent. The checklist is principally about helping to answer the questions:

- What are the health effects of the urban development policy, plan or proposal?
- How can it be improved to provide better health outcomes?

Although the checklist is a tool for reviewing and commenting on development plans, it is intended that it will also be helpful for providing input and advice from the earliest possible phases of the urban planning and development process.

The purpose of the checklist is to:

- Provide a standardized tool to guide and inform feedback and advice to, for instance, local government and developers on urban development policies and plans in NSW;
- Evaluate the health aspects of urban developments;
- Support engagement between urban planners and developers and health professionals; and
- Inform others (planners, developers, policy makers) about the range of factors that need to be considered in healthy urban developments.

[World Health Organization Checklist of Essential Features of Age Friendly Cities](#) - 2007 (4 pages)

This checklist of essential age-friendly city features is based on the results of the WHO Global Age-Friendly Cities project consultation in 33 cities and within 22 countries. The checklist is a tool for a city's self-assessment and a map for charting progress. It covers areas such as: outdoor spaces and buildings; transportation; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; community and health services.

Support Documents

[Healthy Communities Sustainable Communities: The 21st Century Planning Challenge.](#)
Published by the Ontario Professional Planners Institute – November 2007 (24 pages)

This document identifies five priority research questions, which are:

- How do the built environment and transportation systems contribute to obesity and related health issues?
- How do the built environment and transportation systems affect air quality along heavily traveled corridors and in areas of mixed uses and higher densities?
- How do the built environment and transportation systems affect air quality in general?
- How do the built environment and transportation systems, along with poverty and economic decline within and outside our major urban centres, affect human health?
- How do the built environment and transportation systems affect social cohesion?

- In every case, this document illustrates that the conventional form of development, which relies more heavily on sprawl and automotive transportation, is a significant contributing factor to many of the negative outcomes, such as obesity, poverty and diminishing social cohesion.
- This guide provides councilors and municipal staff with a list of reasons why current development and land use trends must be reexamined, and offers some suggestions regarding potential actions to take, but it does little to address the issue that it often raises, the difficulty in changing the status quo when it comes to land use and planning decisions.

[Bringing Health to the Planning Table: A Profile of Promising Practices in Canada and Abroad.](#) Published by the Healthy Living Issue Group of the Pan-Canadian Public Health Network (86 pages)

This document profiles practices and policies from across Canada where public health is considered in land use planning decisions. By examining these case studies, the authors have determined that there are 3 key elements to success:

- **Cultivating effective partnerships:** include all stakeholders in the decision making process, and build upon the relationships that have already been established to further the goal of incorporating health into land use planning considerations.
- **Building commitment to the importance of the work being done:** A community is more likely to support the project if they believe in it, and if they primarily provide the direction and drive for the project. By performing research and publicizing the benefits of including health in land use planning decisions, you increase the buy-in from all stakeholders.
- **Maintaining a focus on results through implementation:** This means setting goals appropriate to the context of the jurisdiction. Starting small is the only way to build momentum for larger projects, and rural jurisdictions must have different expectations than urban jurisdictions.

Each of the 15 case studies offer lessons learned and advice for other jurisdictions based on their experiences, which range from creating active transportation groups to the creation of land use planning toolkits.

[Environmental Best Management Practices for Urban and Rural Land Development in British Columbia: Air Quality BMPs and Supporting Information.](#) Published by the British Columbia Ministry of Environment – 2006 (18 pages)

- Based on dispersions of air pollutants and studies that illustrate the effects of pollutants such as diesel emissions and other automobile sources of emissions, this Best Management Practices guide provides setback guidelines,

- considerations for avoiding the construction of street canyons, recommendations for increased tree cover and restrictions on loading docks and air intakes.
- These guidelines are recommended based on numerous studies that have focused more on schools, especially with regard to major roadways being located near schools. It subsequently extrapolates the restrictions that are placed on school location to all construction where people spend significant amounts of time (7-8 hours or more per day). This would thus include residential zones, and it aims to reduce residents' exposure to pollutants in all aspects of their life.

[Child and Youth Friendly Land Use and Transport Planning Guidelines for Ontario](#). The Centre for Sustainable Transportation – March 2009 (92 pages)

This document is organized in three parts. The first part provides reasons as to why land use and transport planning should be made more child- and youth-friendly. The second part sets out 21 guidelines that could be applied in the course of a municipality or other agency becoming more child and youth friendly in its transport and land use planning. The third part provides some discussion of implementation issues.

[Bridging the Terminology Gap in Support of Active Communities: Land-use Planners and Public Health Professionals](#) – Webinar on March 30, 2011.

Provides an overview of:

- The need for land use planners and public health professionals to work together to design, support and promote active communities;
- Planning Active Communities across Ontario Committee;
- The development of a joint glossary of terms for land use planners and public health professionals based on provincial terms;
- Innovative ways that this resource can and is being used to strengthen collaborative partnerships to design active communities.

[The Built Environment and Health: A Review](#). Prepared for the City of Calgary by Larence Frank – June 2008 (151 pages)

This City of Calgary review sets the foundation for two other products – a set of evidence-based indicators that can be used to evaluate the health and wellness impacts of the built environment, and a set of policy recommendations for the City of Calgary. This report fed into the development of the [Plan it Calgary, Transportation Plan and Municipal Development Plan](#).

National Collaborating Centre for Environmental Health – Built Environment Resources

Resource materials that include a: readiness assessment tool; fact sheets, case studies, and workshop presentations to help health departments learn more about the built environment and how to work with different departments in this area.

Also provides an extensive listing of articles, reports, case studies, courses, procedural documents, journal articles, and presentations on the land use and public health connections (http://www.ncceh.ca/en/additional_resources/environmental_planning-built_environment).

Public Health Agency of Canada's Bringing Health to the Planning Table – Case Study Report (99 pages)

This report profiles case studies of 13 Canadian communities where collaborative approaches to improve health outcomes have been a key consideration in planning decisions related to the built environment. This focus was chosen so that the successes (and lessons learned) of a variety of different projects could be shared with other communities. With one case study from each province and territory, it provides a pan-Canadian perspective. Two international examples highlight similar work happening abroad. The key informants interviewed for this report offered helpful "lessons learned" from their experience. Their insights can be grouped under three general headings: cultivate effective partnerships; build commitment about the importance of the work; and maintain a focus on end results throughout implementation.

Understanding the Relationship Between Public Health and the Built Environment. US Green Building Council & Lawrence Frank and Company – May 2006 (137 pages)

The report is comprised of eight chapters:

- **Respiratory and Cardiovascular Health:** introduces the concept of the land use and transportation connection as part of a discussion about how the urban environment impacts vehicle travel and emissions.
- **Fatal and Non-fatal Injuries:** presents extensive information about links between roadway and network design, traffic calming and other aspects of transportation with incidents of injuries.
- **Physical Fitness:** presents evidence about the growing health epidemic related to physical inactivity and the relationship that research has shown between rates of walking, bicycling and transit use and the built environment.

- **Social Capital:** describes the benefits that accrue from healthy social networks and how the built environment may help or impair the formation and sustenance of those systems.
- **Mental Health:** presents what little is known about the links between urban form and mental health issues including overall mental health, depression, stress, aggressive driving and road rage.
- **Special Populations:** discusses the disproportionate impacts that poor public transportation, inadequate pedestrian environments and car dependent environments have on subgroups in America including women, children, low income communities, the elderly and persons with disabilities.
- **Summary Conclusions:** summarizes the findings from the previous chapters in terms of characteristics of the built environment that can be affected by developers to provide maximum public health benefits.

CDC's Creating a Healthy Environment: The Impact of the Built Environment on Health

Centre for Disease Control and Prevention: Richard Jackson and Chris Kochtitzky – 2010 (20 pages)

We believe that applying public health criteria to land use and urban design decisions could substantially improve the health and quality of life of the American people; therefore, in this monograph, we focus mainly on the following:

- The relation of land use decisions to air quality and respiratory health;
- The built environment (including all manmade physical components of human settlements such as buildings, streets, open spaces, and infrastructure) in terms of whether it promotes or discourages physical activity;
- The impact of urban design on the number of pedestrian injuries and deaths, particularly among children;
- The choices communities make about the built environment that improve mobility and the quality of life for their elderly and disabled residents; and
- The ways that various land-use decisions affect community water quality, sanitation, and the incidence of disease outbreaks.

A brief summary of other health impacts of urban sprawl is also included, with a final section that describes some steps that both the planning community and the public health community can take to ensure that public health concerns figure prominently in decisions made about the built environment.

Networks

OPHA – Health and the Built Environment Work Group

OPHA’s Health and the Built Environment Working Group will work collaboratively to improve the health of the public as it is impacted by the built environment by building upon initiatives, research and advocacy done in local public health units and/or by other organizations recognized for their expertise in the area of health and the built environment.

The Health and the Built Environment Workgroup will focus on the following types of activities in order to accomplish its purpose:

1. Advocacy
2. Health Promotion
3. Policy Development
4. Research

Task groups will be assigned to work on the above areas and to cover the various issues related to health and the built environment. Membership is open to staff of local public health units in Ontario and members of organizations who collaborate with public health units on issues that affect health outcomes associated with the built environment.

The OPHA Health and Built Environment Workgroup received three proposals for projects and all three were accepted by the Steering Committee!

Below are details about each of the OPHA Health and Built Environment Workgroup projects, along with contact information on each of the projects.

Project 1 - Public Health and Planning 101: An Educational Resource for Professionals

Background: Public health, planners and other professionals (e.g. engineers) are working more closely on many land use planning initiatives that affect health and the built environment including Official Plans, Transportation Master Plans, Pedestrian & Cycling Plans and Sustainability Plans, to name a few. However, for many in the field, collaborations between various professionals involved in the land use planning process is new and there exists a lack of knowledge and understanding between the professions regarding each others overall mandate, legislation, and decision-making processes used to influence the land use planning process. As a result, there is a clear need to better educate public health, planning and other professionals, as well as politicians and key-decision makers in order to more effectively influence public policy decisions related to health and the built environment.

Purpose: To increase knowledge amongst public health, planning and other professionals involved in the land use planning process, through the development of educational training resources that can be used by staff, politicians and key-decision makers to help inform public policy related to health and the built environment.

Activities:

- Consult with interested stakeholders.
- Conduct an environmental scan to identify work undertaken in other jurisdictions including consulting with the Provincial Health Services Authority in British Columbia.
- Assess recommendations from the Clean Air Partnership’s Public Health and Land Use Planning project.
- Develop an on-line survey to be sent to public health, planning and engineering professionals by the second quarter of 2011 to help identify obstacles, barriers, challenges, learning needs and opportunities. The results of the survey will be the critical element in the development of the resources.
- Develop a strategy to ensure resources will be kept up to date.
- It is expected that it will take 12-24 months to develop the resources including pilot testing of the product.
- Resources to be developed include: web based resources, basic orientation educational resource manual, power point presentations, case studies, healthy community policies that be used by all stakeholders to assess land use planning initiatives.

Kevin Haley

Environmental Health Specialist
York Region Community and Health Services Department
Phone: 1-877-464-9675 ext. 4571
Email: kevin.haley@york.ca

Project 2 - Increase Driver Awareness and Knowledge of Safely Sharing the Road with Cyclists

Background: In Ontario, 58.6% of adults are overweight or obese. Obesity is associated with many chronic diseases and in 2005, obesity-related chronic conditions accounted for \$4.3 billion in direct (\$1.8 billion) and indirect (\$2.5 billion) costs.

Physical activity is known to help control weight gain and has many protective health benefits. Even small increases in physical activity have been shown to decrease mortality. Many people identify that they are not physically active because it is too hard for them to get to places to be active or that they are unable to afford recreational activities. We have also decreased natural physical activity through walking and cycling to destinations (active transportation).

As stated in the Green Paper for an Ontario Bicycling Policy, by Share the Road Cycling Coalition, March 2010, ‘Sixty percent of Ontarians say that they would prefer to cycle more often; they indicate that the primary reason they do not ride more often is they are “worried about safety on the road”.’ By increasing motorist awareness of what to do when they come upon a cyclist on the road, and providing education for the cyclist on how to cycle on the road, this may increase safety for the cyclist, which may in turn, lead to more cyclists on the road supporting an increase in physical activity. It is important to consider that motorists are also cyclists and that people may switch back and forth between modes of transportation depending on the situation.

Purpose: This project has three distinct components which include:

- **Part A** - To increase the driver education component of safely sharing the road with cyclists through increasing the cycling information in the Official MTO Driver’s Handbook.
- **Part B** - To create policy that driver education companies must include sharing the road with cyclists education into their teaching.
- **Part C** - To increase knowledge of current motorists on sharing the roads and the rights and responsibilities of cyclists. There is more than one type of road user. Through these policy changes, road users are going to become more aware of sharing the road.

Planned Activities:

Part A - Work with the Ministry of Transportation (MTO) to include more extensive share the road education in the next printing of the Official MTO Driver’s Handbook.

Part B - Get feedback from driver training programs and the Ministry of Transportation, Program Development and Evaluation Branch, to see how cycling education can be included into their teaching/ training.

Part C – Work with the MTO to include educational messages about sharing the road within the licensing renewal process.

Jackie Gervais

Health Promoter, Niagara Region Public Health

P: 905-688-8248 ext. 7332

E-mail: jackie.gervais@niagararegion.ca

Project 3 - Comprehensive Healthy Community Assessment/Audit

Background: Health impact assessment and/or audits are one tool that can be used to assist planners and public health staff in assessing a planning application or to assess and advocate for improvements to neighborhoods.

Project Purpose: This project involves background research on existing health impact assessment/audit tools to determine the most appropriate strategy for assessing a healthy community.

Planned Activities:

- Review best practice literature for healthy communities to help formulate content of audit
- Review existing toolkits (e.g., walkability, shade audits, food audits)
- Consultation with key stakeholders
- Develop a recommendation report

Sharon Mackinnon

Public Health Nurse, Hamilton Public Health Services

Phone: 905-546-2424 ext 3522

Email: Sharon.mackinnon@hamilton.ca

Coalitions & Collaborations

[The Coalitions Linking Action and Science for Prevention \(CLASP\)](#) initiative recognizes that, across the country, organizations and agencies are implementing programs to promote healthier living and create healthier communities. CLASP brings together more than 30 organizations, including disease-specific groups, health ministries and cancer agencies, to integrate research, practice and policy work on cancer and chronic disease prevention and to accelerate action on shared priorities. Specific activities include: Residential Preferences Survey; Software Tool; Health Background Studies Framework; Built Environment and Health Inequalities report.

Clean Air Partnership will ensure the collaboration between the below two CLASP initiatives and the GTA-CAC.

[Healthy Canada by Design](#)

To examine the impact of and to improve neighbourhood design and community planning with respect to health and chronic disease, working with planners, public health officials, developers, policy-makers and the public through partnerships in British Columbia, Alberta, Manitoba, New Brunswick, Newfoundland and Labrador, and Prince Edward Island. The Healthy Canada by Design initiative will make health-based decision

support tools available to policy makers and land use planners, improving understanding of the relationship between built environment and health, and fostering collaboration among non-governmental organizations, the public health community and planning professional in promoting community sustainability and good health.

[Children's Mobility, Health and Happiness: A Canadian School Travel Planning Model](#)

Promotes healthy lifestyles by targeting the use of active transportation to get to and from school; and encourages supporting policies and practices. Projects are underway in Ontario, British Columbia, Alberta, Nova Scotia, Manitoba, Saskatchewan and Yukon and will be disseminated to all provinces and territories.

Clean Air Council and Clean Air Partnership Land Use and Public Health Programs

Clean Air Council Complete Streets Community of Practice

At the 2010 Clean Air and Climate Change Summit CAC jurisdictions committed to: *Develop a Complete Streets Community of Practice that will work collaboratively to identify and implement strategies designed and operated to enable safe, attractive, and comfortable access and travel for all users.*

The CAC Complete Streets COP will enhance the ability of CAC jurisdictions and staff to support each other's efforts to develop and implement Complete Streets policies, practices and actions. Many of the CAC member jurisdictions struggle with how to move from the idea of complete streets to the design and constructions of them and how the complete streets principles can be integrated into overall transportation and community planning.

The CAC Complete Streets COP and their participating jurisdictions would greatly benefit from TCAT's expertise and support and the resources and lessons learned that would be developed as part of the **Completing the Streets across Ontario** project. In return the GTA and SWO CAC jurisdictions will serve as pilot communities to test out the resources and tools developed and for how to develop and implement Complete Streets policies and practices and integrate them in overall transportation and community planning. In addition the lessons learned from CAC jurisdictions will greatly benefit the overall movement to build complete streets capacity, support and strategies for municipalities across Ontario and even Canada.

The Complete Streets COP will:

- Increase awareness within departments, council and staff of the opportunities and benefits of Complete Streets policies and how complete streets can be designed and implemented;

- Share experiences, resources and lessons learned regarding the development and approval of Complete Streets Policies and how to move from policies to practices and actions;
- Facilitate inter-departmental collaboration between municipal departments;
- Facilitate collaboration between GTA and SWO CAC jurisdictions; and
- Document the development and adoption of Complete Streets Policies and Complete Streets actions within CAC jurisdictions and share their learnings with municipalities across Ontario and Canada.

For more information on Complete Streets Visit the [2011 Complete Streets Forum proceedings](#). For more information on the Complete Streets COP and Webinar Series contact Gabriella Kalapos at gkalapos@cleanairpartnership.org

Clean Air Partnership Health & Environment Program

In 2010, the Clean Air Partnership (CAP), in partnership with the Ontario Public Health Association (OPHA), received funding from the Ministry of Health Promotion and Sport's Healthy Communities fund to examine how ten public health units in Ontario are working to influence the land use planning processes in their communities to help create healthier and more sustainable communities. The background and summary reports from this project are available on the [Clean Air Partnership web site](#).

CAP plans to build on the work with policy work that delves deeper into some of the issues identified in the background report.

Toronto Active Transportation Coalition

Since 2009, TCAT, a project of the Clean Air Partnership (CAP), has championed the concept of “complete streets” in Canada and was instrumental in building multi-organizational endorsement of complete streets policies prior to the 2010 municipal election. The concept of complete streets is simple yet powerful: all streets should be designed, built, operated and maintained to consider the needs of all users. Cycling and walking (i.e. active transportation) are crucial elements of complete streets. To date, over 200 jurisdictions in the U.S. have adopted these inclusive policies, but there are none yet in Canada.

TCAT organizes an annual Active Transportation conference, attracting hundreds of registrants and numerous sponsors. Called “Bike Summit” in 2008 and 2009, it was renamed “Complete Streets Forum” in 2010, an influential event prompting the City of Toronto to announce it would begin to develop its own complete streets policy.