HEALTHYCANADA by design

# Introduction to CITE TLC/CLASP Initiative

2013 CITE Conference

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# Presentation Overview

- Background
- Challenges and Considerations
- The Project

What is CLASP? What is this project?

# PROJECT BACKGROUND

# What is CLASP?

- CLASP: The **Coalitions Linking Action and Science for Prevention** initiative has brought together more than 60 health-care organizations to collaborate to improve the health of Canadians by preventing chronic disease.
- CLASP is involved in several ongoing projects. One of these is the **Healthy Canada by Design** initiative.

# Vision Statement of Healthy Canada by Design

Health officials, planners, engineers and NGOs in communities across Canada collaborate seamlessly to ensure built environments are designed to promote health and well-being, thus contributing to the reduction of risk factors for chronic diseases.

HEALTHYCANADA by design

# Three Cornerstones Contributing to Physical Activity in Communities

**Land Use Planning:** layout and arrangement of housing, businesses, and amenities within a community.

- Mix housing with other land uses such as retail destinations and workplaces.
- Encourage higher density urban areas.
- Conveniently locate schools and other amenities.

**Transportation Planning** including the design of streets, active transportation routes, and public transit systems.

- Provide useful and realistic alternatives to automobile use.
  - Complete networks for pedestrians and cyclists throughout communities for shorter trips.
  - Improve public transit for longer trips.
- Design streets that are safe for all pedestrians and cyclists.

**Active living infrastructure:** parks, public spaces, street furniture

- The provision of these can encourage active mode use and physical activity.
- Provide safe ways to get healthy that all can access.

# CLASP 1

- The previous Healthy Canada by Design project series (2007-2012) investigated how health considerations could be incorporated into land use planning/development.
- Partners were:
  - Heart & Stroke Foundation (HSF) – Secretariat
  - National Collaborating Centre Healthy Public Policy (NCCHPP)
  - Canadian Institute of Planners (CIP)
  - Urban Public Health Network (UPHN)
- "Need for collaborative partnerships between health advocates, planners, and other disciplines and levels of government in the development process to establish common, agreed-upon goals for effective implementation of health-oriented policy measures."

# Active and Healthy Communities

- Reports and research are indicating that society is becoming obese and less healthy in developed countries like Canada.
- There are many contributing factors… (diet, nature of work, nature of leisure activities, built environment)
- Canada's built environment could be designed to promote health (e.g. reduce the risk factors for chronic diseases and obesity)
  - *Obesity rates could be reduced by replacing some car travel with the use of active transportation (AT).*
- Our built environment today has generally been designed to facilitate automobile travel.
  - For example, many Canadian homes in urban and suburban areas are located too far away from destinations for walking to be practical.

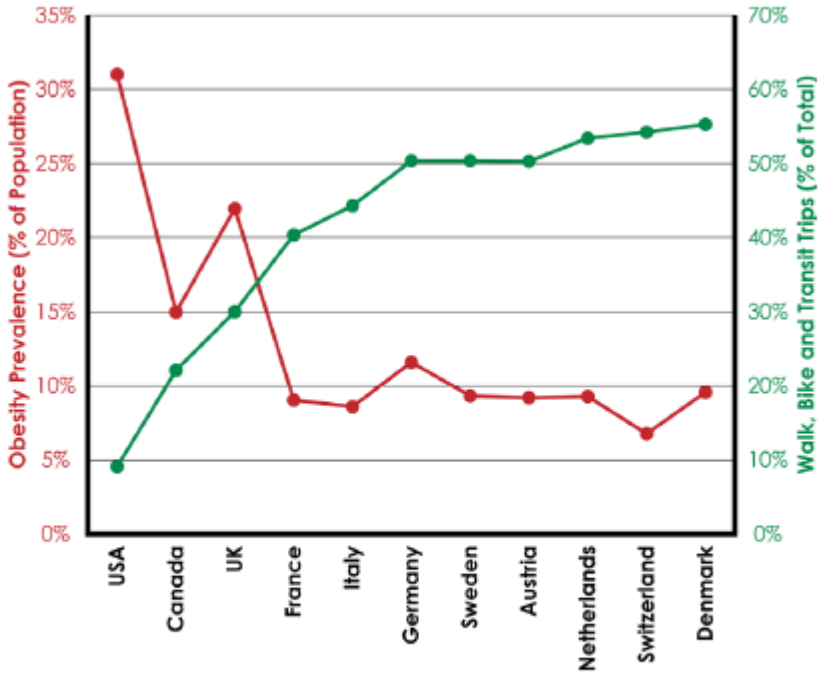



Figure 1: Transportation and Obesity Rates. *Source: John Pucher, Promoting Safe Walking and Cycling to Improve Public Health: Lessons from the Netherlands and Germany, 2003 http://www.hsph.harvard.edu/healthdesign/ppt-pdf/pucher_revised.pdf*

# CLASP 2

As one of the second series of projects, CITE has been tasked with investigating what the roadblocks are to creating healthier environments from a transportation standpoint and how these issues can be overcome.

- Investigate the challenges we face in transportation
- Document case studies
- Facilitate discussion with the stakeholders we work with

# Complex Problem

- Even if all barriers to AT implementation were eliminated, it may not be possible to “repair” all existing developments to create these healthy environments.
- Also, a better AT environment is not a “magic bullet” that automatically leads to improved health and higher levels of physical activity, because the choice to participate in physical activity is more complex than simply having AT infrastructure at-hand…
  - *There is a large segment of the population who aren't going to start using AT just because they live in an area that includes good AT networks.*
- **Remove the roadblocks that prevent AT networks from being put in place, make the changes wherever it’s practical, and then identify the remaining factors preventing people from engaging in physical activity once they are in place.**
- This will take a very long time.

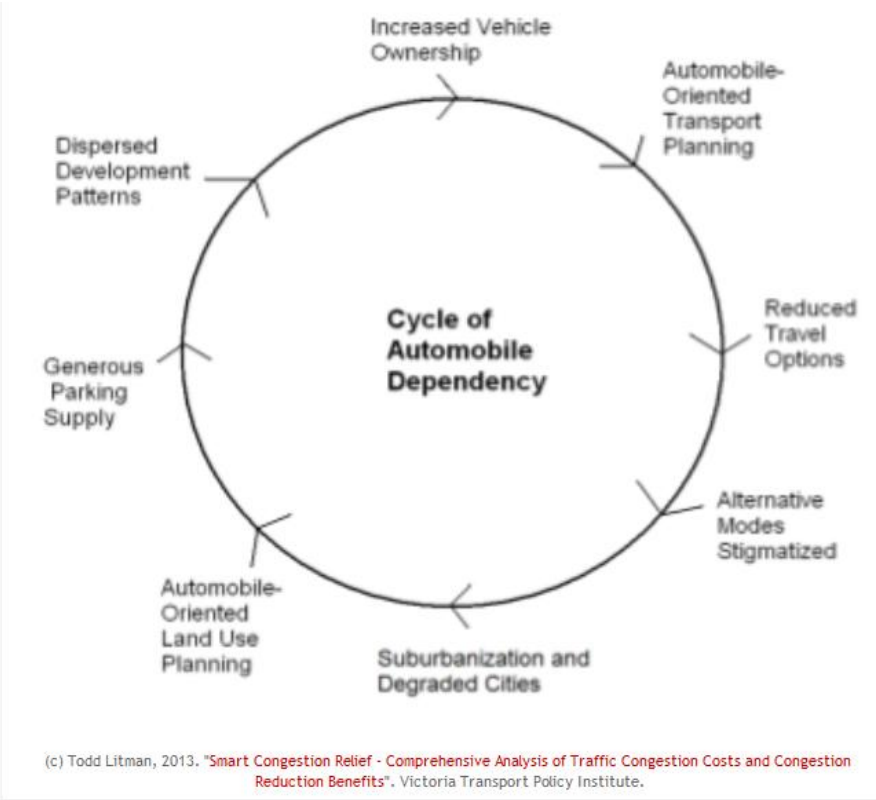
What are the issues?

# CHALLENGES AND CONSIDERATIONS

# Challenges

- Healthy design considerations often conflict with existing municipal, regional, provincial, and transportation standards and by-laws that were developed with priorities other than health in mind…
- **Inertia:** At present, there is a need to show that designing for health will translate into wider benefits (e.g., public safety, economic, environmental benefits) to obtain buy-in from decision-makers, developers, the public, etc. when changes to the status quo (including the use of new standards) are desired.

- Limited importance/significance associated with active modes in the past because they were generally a low percentage of total trips.
- Infrastructure for active modes was not included as part of road construction, and is now difficult to retrofit into existing corridors.
- Cycle lanes that require removal of travel lanes or parking lanes face opposition from residents and business-owners. Public, business owners, and developers question need for AT infrastructure.



# Greater Intersection Density and Reduced Block Sizes?

- Encourage permeability/connectivity and eliminate "superblocks" to encourage AT use.
  - Curvilinear streets and cul-de-sacs are sized and scaled for moving vehicles and offer limited connectivity.
  - As distances between locations increase, so does travelling time. Active forms of transportation are used less frequently and overall human health declines.

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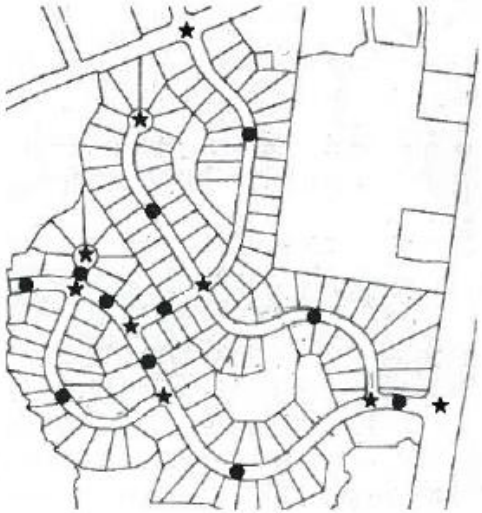
- Intersections are generally discouraged on higher classification roads; focus on limiting intersections and access to reduce delay and conflict points.
- Opposition from traffic engineers (safety) and developers (expense) to forms such as grid or fused-grid.
- Manuals such as TAC consider a hierarchy of road types, considering balance of access function vs. movement function.
  - Logic is to keep bikes and pedestrians away from many higher classification roads.
  - Prevailing viewpoint : roads are in place to move volumes of auto traffic quickly and efficiently. This is counter to arguments that say that the transportation network should provide equity for all modes.



**Connectivity Index**

$$\frac{\text{Links (street sections between intersections including cul-de-sacs but excluding perimeter major roads)}}{\text{Intersections (including T-intersections)}} = \text{Connectivity Index}$$

- Links – 11
- ★ Intersections – 9

Connectivity Index = 11/9 =1.22

# Lower Speed Limits?

- All new local roads ≤ 40 km/h?
- All new non-local roads ≤ 50 km/h?
- Safety argument – less trauma in the case of an incident with pedestrians at lower speeds.

- *This will face lots of opposition. Need to demonstrate that such measures are for the greater good and show the health benefits.*
- *What would impact be on motorists and travel? Can traffic can still flow at lower speeds?*
- *Not easily implemented or enforced on existing road networks, which were designed for higher operating speeds.*

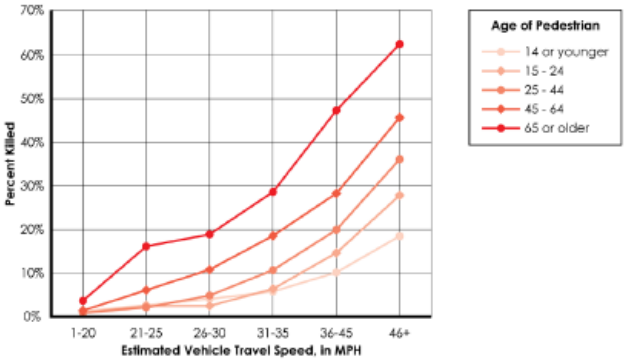


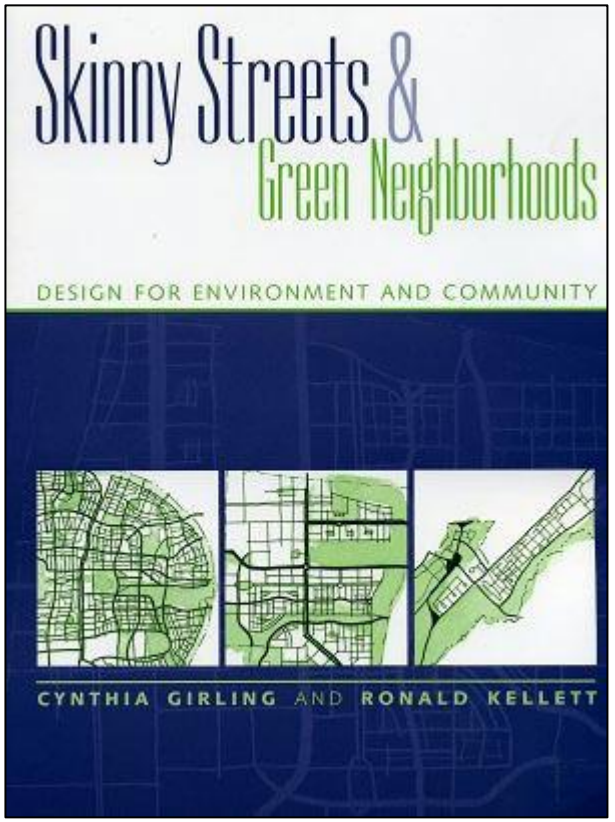

Figure 1: Fatal Injury Rates by Vehicle Speed, by Pedestrian Ages. *Source: Literature Review on Vehicle Travel Speeds and Pedestrian Injuries Among Selected Racial/Ethnic Groups, US Department of Transportation National Highway Traffic Safety Administration, 1999. http://www.nhtsa.gov/people/injury/research/pub/hs809012.html*

# Skinny Streets/Complete Streets?

- Highway standards developed by Provincial transportation ministries or departments have typically been used as a template for municipal street standards, with a primary focus being the safe and unhindered movement of automobiles.

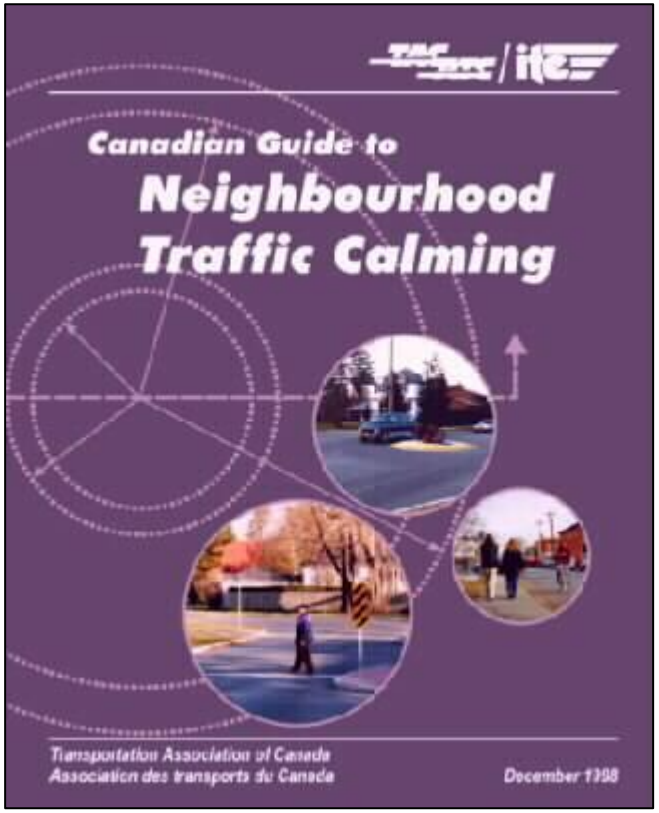
- Communities are responding to these problems by adopting new standards for narrower new streets, and retrofitting old streets to narrow the road portion of the right-of-way, and allocate the freed-up ROW to other modes.

  - *Pros: Skinny Streets are more pedestrian friendly than their wider counterparts, cost less to build and maintain, reduce storm water runoff, decrease utility infrastructure costs, reduce traffic speed and provide more room for shade trees.*
  - *Cons: They can cause impacts to municipal services such as increased costs for snow removal, reduce street parking options, and conflict with minimum access requirements for EMS vehicles*
  - *What is impact on traffic? In some cases, very little impact on traffic throughput.*



# Traffic Calming?

- The implementation of traffic calming measures often is hindered because the measures are contrary to standards and preferred practices.
  - *Changes to corner radii opposed by developers and EMS.*
  - *Speed bumps opposed by EMS, transit, and snow removal considerations.*
- Other standards in place also discourage AT implementation
  - *Midblock crossings (that may be part of the "shortest route" may not be approved.*
- Traffic calming is currently prescriptive, not preventative, and generally not incorporated into new development.



# Winter Climate?

How do you encourage active mode use in Canadian locations with a winter climate?

- Extreme cold can make ice and snow harder and more predictable to travel on…
- With proper equipment and clothing, winter cold can be overcome.
- Winter sidewalk, path, and trail maintenance. (potential prioritization)
- Becoming more common to see bikes in use during winter, but minimal data on use.
- Winter bike use still somewhat unusual or unrealistic by many.


# Parking Requirements

- Proposal: To encourage the use of alternatives to driving, consider eliminating parking minimums?
- Developers may appreciate relaxed standards, but potentially only so that they can “dump” the responsibility for parking onto city streets. For such measures to be effective in altering mode choice, other measures must be in place so that there are alternatives to requiring a car, such as strong transit and good AT connectivity... It may only be appropriate for certain areas of a city.
- Some developers do not wish to relax a project’s parking, and do not see a value to doing so. They may say that they cannot be competitive if they do not provide certain parking levels.
- Shared parking arrangements are often optional, and many developers oppose being forced to participate.

# Multiple Stakeholders

- Challenges when multiple levels of jurisdiction must work together:
  - municipal road ROWs, provincial highway
  - regional trails
  - transit
- Each generally have similar objectives in principle but they may not doing a good job of working together (e.g. using compatible standards.)

# Buy-in From Those We Serve

- Even if transportation has bought into alternatives to auto-oriented design concepts…
  - Have developers?
  - Have decision-makers?
  - Has the public?
- Transportation engineers/planners need support!

What's Next?

# THIS PROJECT

- CITE recognizes that there is logic behind existing transportation decision-making, while at the same time, there is a desire for change.
- On which issues should there be a change in "how we do business", and on which issues should we take a firm stand? What if there is disagreement within CITE on certain aspects?
- What level of advocacy, if any, should CITE take?

# TLC/CLASP Project

- Small team in has been formed to author a report, contact me at david.p.patman@gmail.com if you would like to be involved!
- It is anticipated that a grad student will participate in the project, with the role of conducting research and compiling information – we are in process of organizing this, it will take place through a call to the Student CITE chapters.
- Webinars throughout process to share information and communicate interim findings, seek support for positions taken as we proceed.
- 1.5 year timeline

# What do you think?

- Perhaps you are in favour of moving towards healthier communities ASAP. Perhaps you would advise caution when considering changes to existing standards… let us know!
- Apparent that it is not “all transportation’s fault”…
- For this project, it will be very useful to feature case studies from all over the country where implementation of health-oriented transportation infrastructure and concepts were successfully implemented or encountered challenges. What went well? What didn’t? What was the nature of the opposition? What compromises were made?
- What are the challenges you have experienced when attempting to promote alternatives to entrenched standards or methodologies?

# Let’s get in touch!

Thanks!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