

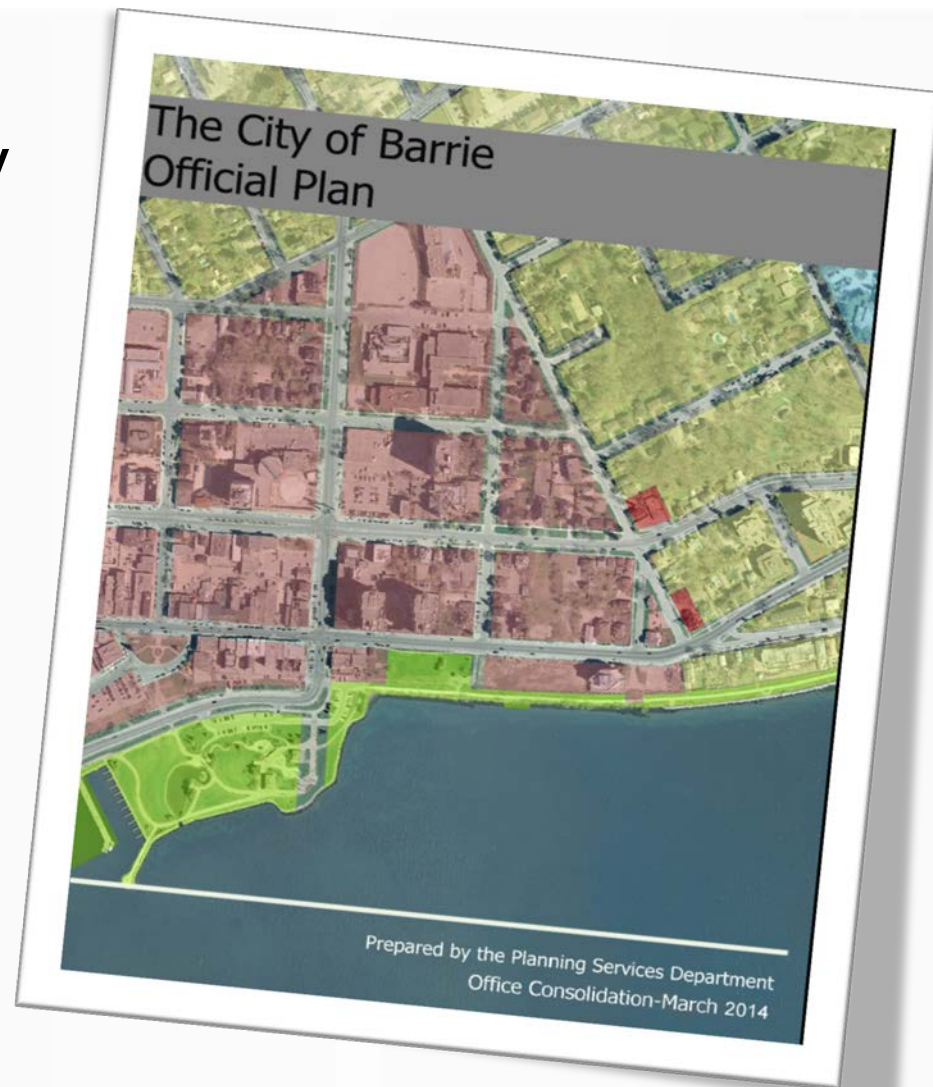
# Building Healthier Neighbourhoods in Barrie



**Charles Gardner, MD, CCFP, MHSc, FRCPC**  
**Medical Officer of Health**

# The City of Barrie

- Barrie has a visionary Official Plan...



# Urban Design Guidelines

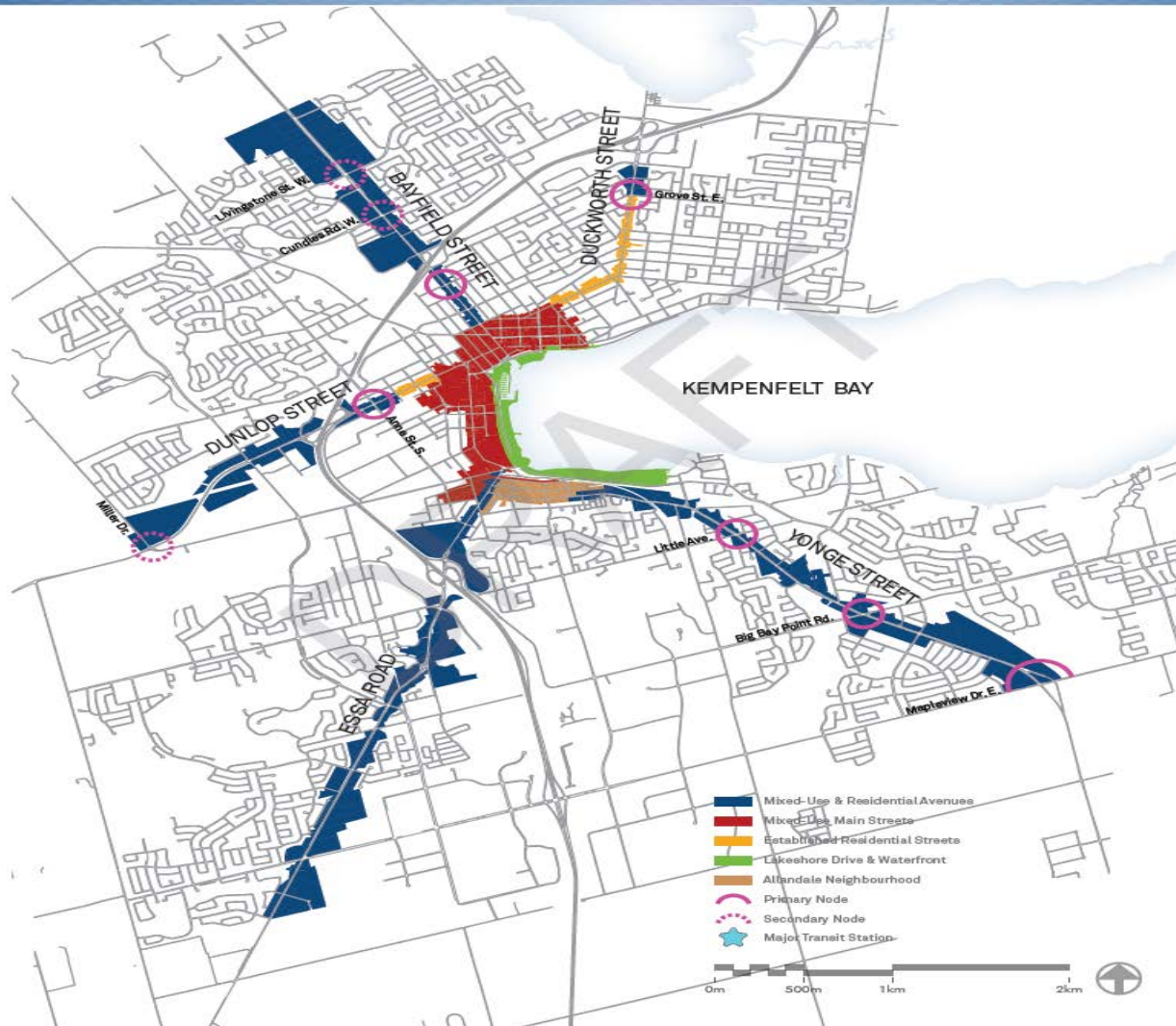
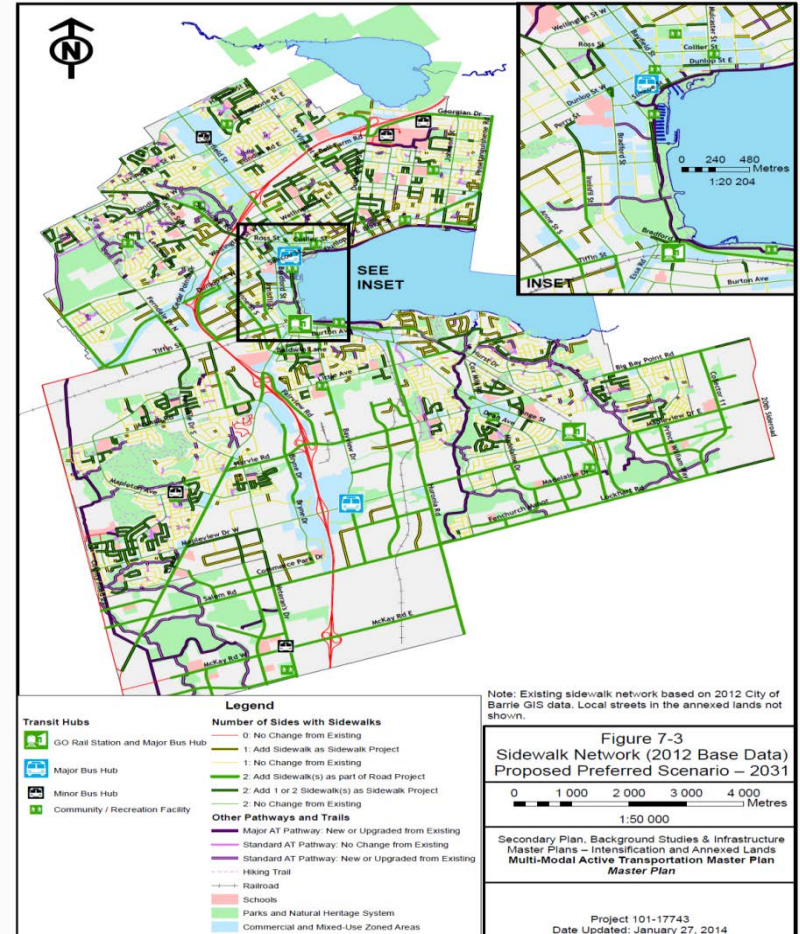
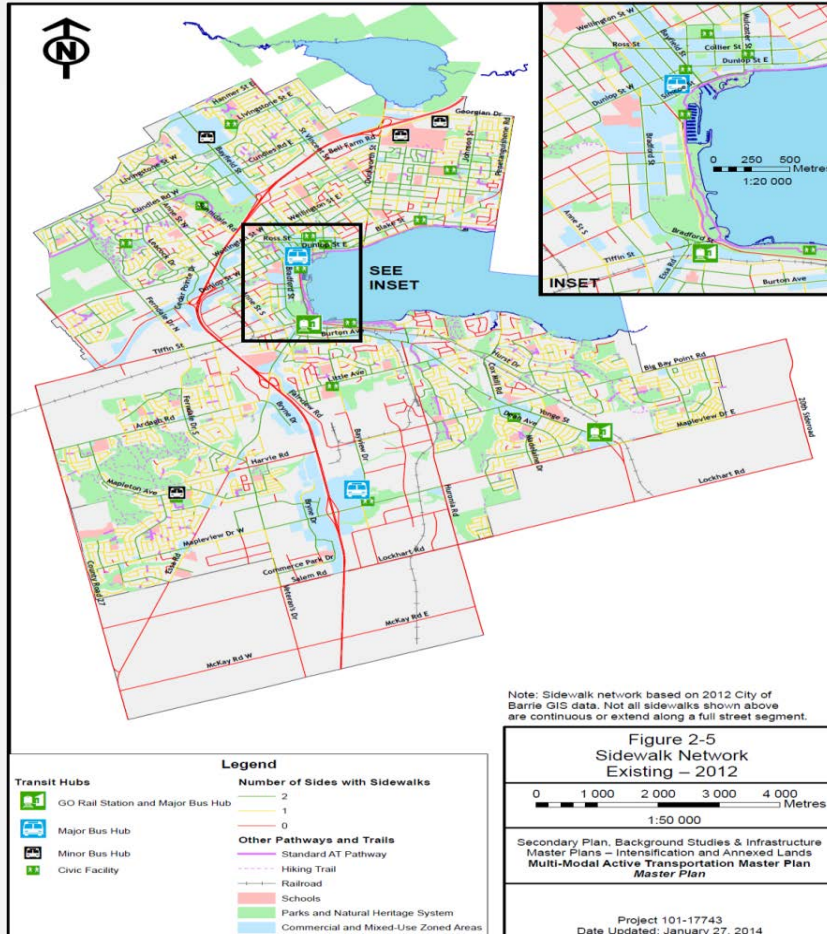


Figure 1: Intensification Typologies

# 20 years – for cycling...



# ...and for walking



# Mixed land use – good for health

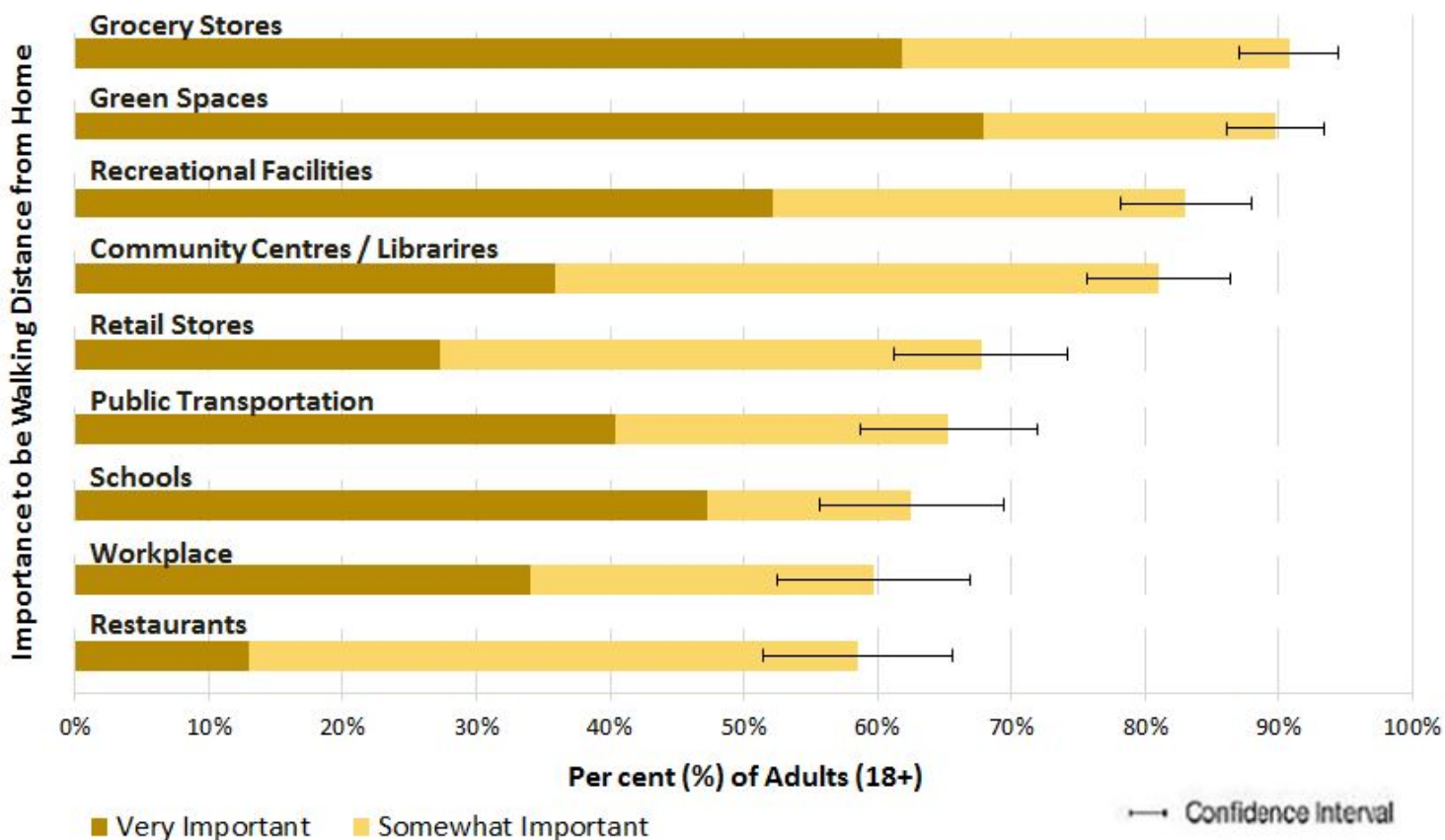


**Figure 2: Mixed-Use and Residential Avenue Rendering**

*The Mixed-Use and Residential Avenues should evolve into street-oriented, mixed-use development at a low to mid-rise scale.*

# Public Desire for Access

How Important Certain Destinations are to be within a 1 km Walk from Home, Barrie Residents, 2010 RRFSS



Data Sources: Rapid Risk Factor Surveillance System (RRFSS), Cycles 5-6 (May - Dec, 2010). Simcoe Muskoka District Health Unit. Data collected on behalf of the health unit by the Institute for Social Research (ISR) at York University, Toronto, Ontario. Sample Size = 200

# Community design is a health priority

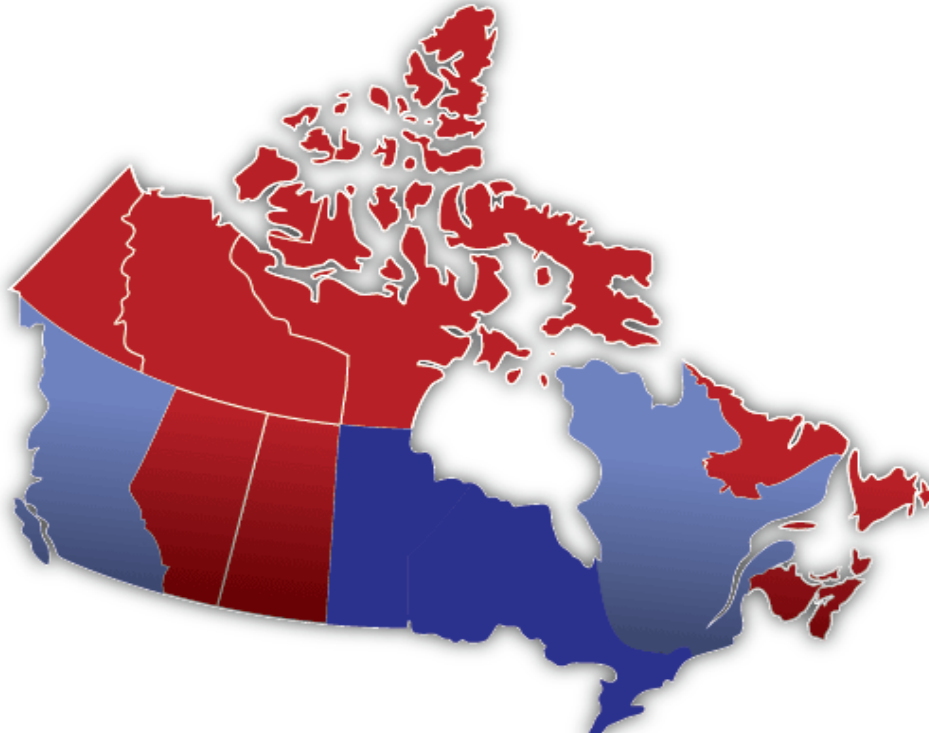


Many of our health challenges are related to how we have built our communities.



# Dramatic Increase in Obesity

## Obesity Trends Among Canadian Adults CCHS, 2003



No Data  <10%  10-44%  15-19%  >20%

## Obesity Trends Among Canadian Adults HPS, 1985

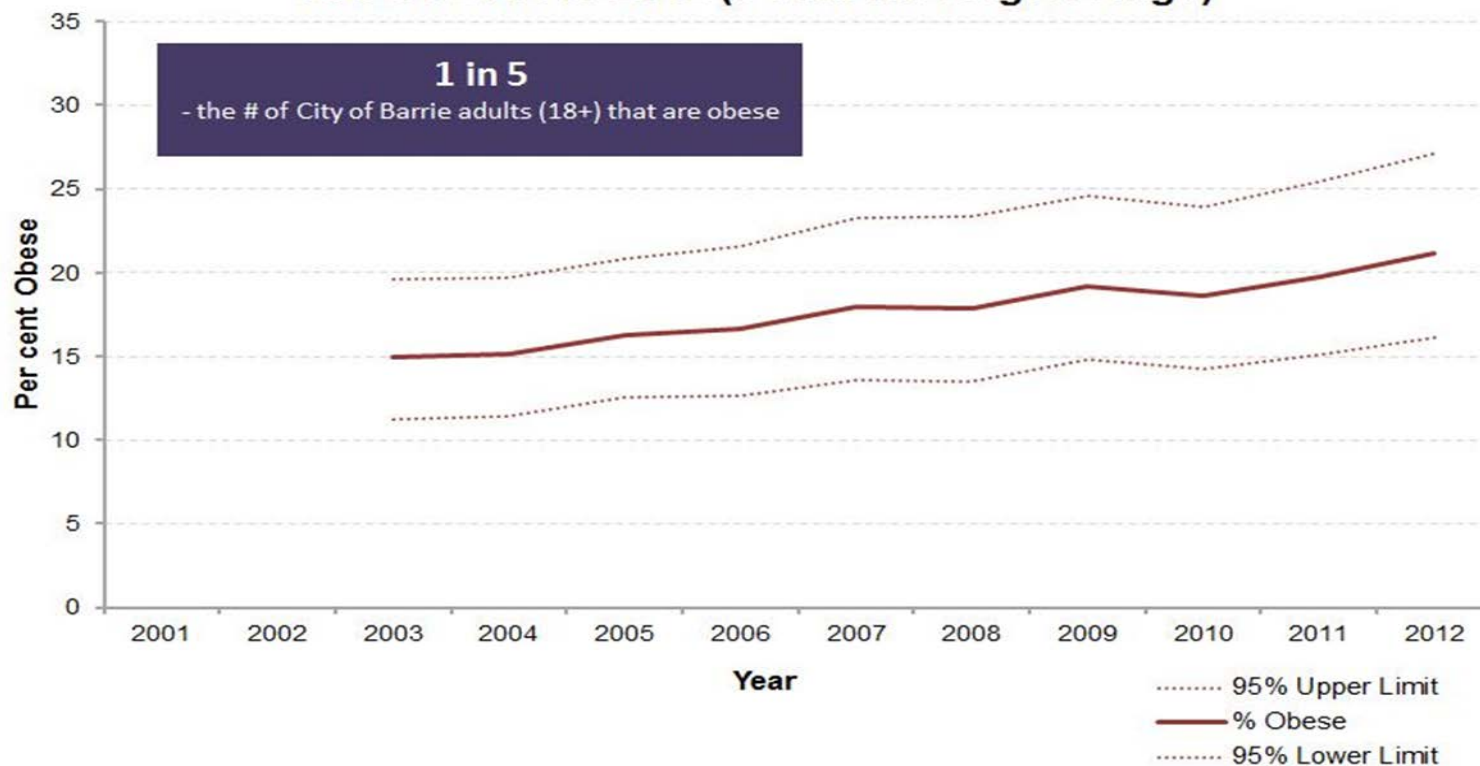


No Data  <10%  10%-44%  15-19%  >20%

Source: Katzmarzyk PT. Can Med Assoc J 2002;166:1039-1040

# Increasing Obesity in Barrie

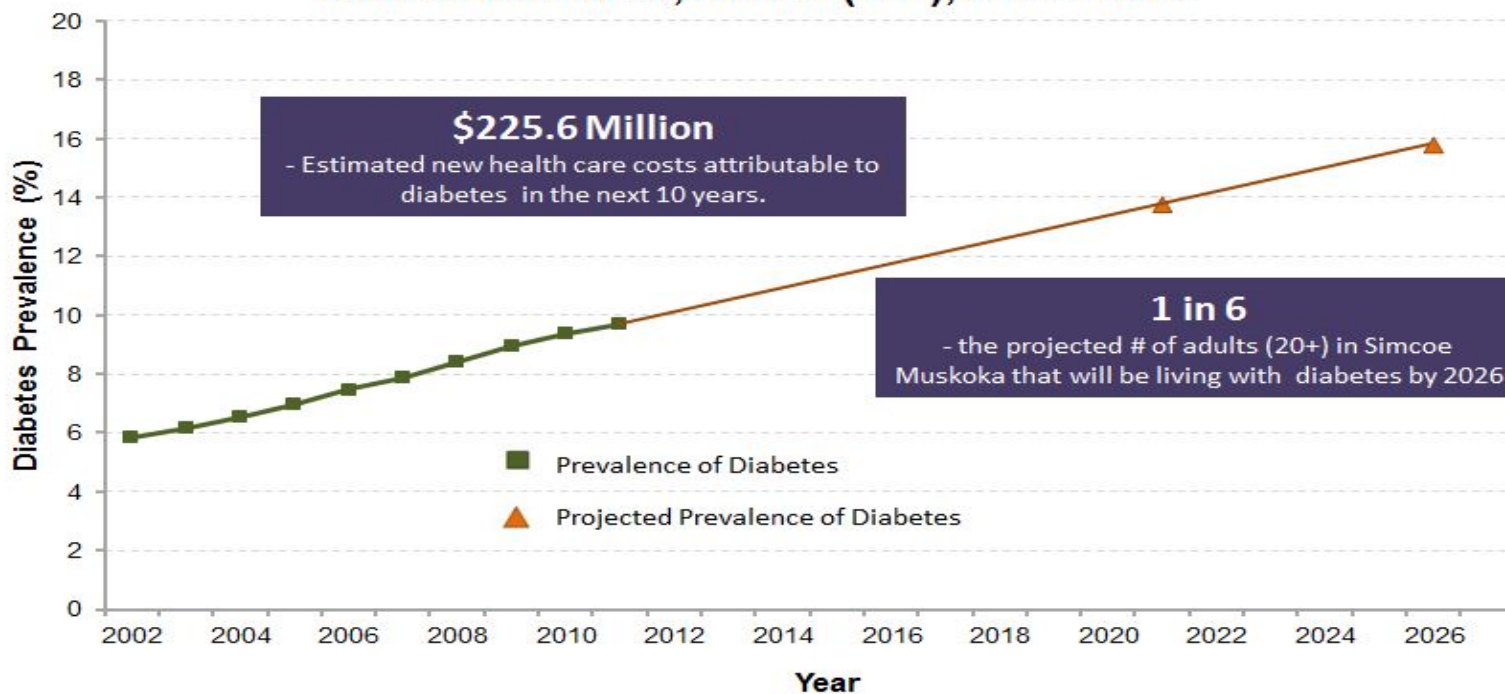
**Trend in Adult (18+) Obesity, City of Barrie Residents, RRFSS 2001 to 2012 (3 Year Moving Average)**



Data Sources: Rapid Risk Factor Surveillance System (RRFSS), waves 1 - 96 (2001 to 2008) & cycles 1-12 (2009 to 2012). A three-year moving average of the point estimates and confidence intervals was used to smooth the trend line. Simcoe Muskoka District Health Unit. Data collected on behalf of the health unit by the Institute for Social Research (ISR) at York University, Toronto, Ontario.

# Increasing Diabetes in Simcoe Muskoka

## Actual and Projected Prevalence of Diabetes, Simcoe Muskoka, Adults (20+), 2002 - 2026



Data Source: Ontario Diabetes Database (2011). Institute for Clinical Evaluative Sciences (ICES). Toronto, Ontario, 2013. Rosella LC et al. 2010. A population based risk algorithm for the development of diabetes: development and validation of the Diabetes Population Risk Tool (DPoRT). J Epidemiology Community Health, doi:10.1136/jech.2009.102244. Survey data from the Canadian Community Health Survey (CCHS), Statistics Canada, Annual Content (2011/12). Ontario Share File, Distributed by the Ontario Ministry of Health and Long-Term Care.

# Physical activity reduces...

- Heart disease
- Falls and injuries
- Obesity
- High blood pressure
- Adult-onset diabetes
- Osteoporosis
- Stroke
- Depression
- Colon cancer
- Premature death



# Air Quality

- Increasing health impact estimates – OMA estimate in 2009 of 9,500 deaths annually in Ontario
- Over 350 deaths annually in Simcoe Muskoka



# Physical Activity- Walkable Communities

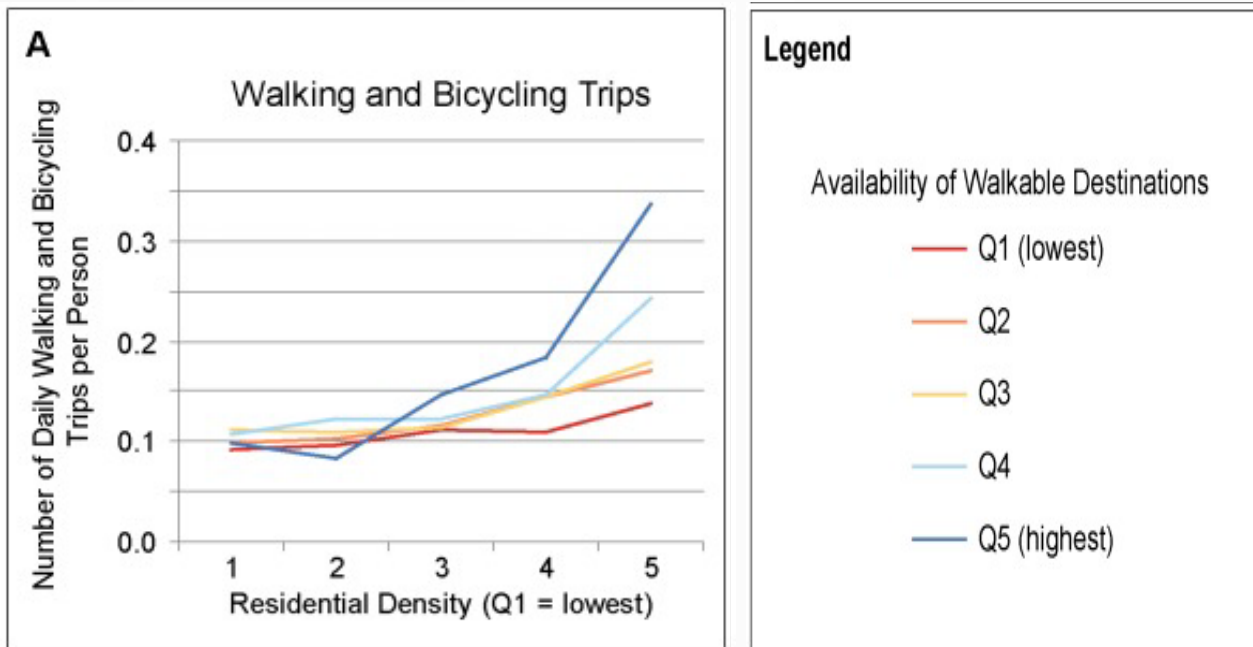
- An analysis of studies in 6 communities found that on average, residents in highly-walkable neighbourhoods took twice as many walking trips as people in less walkable neighbourhoods. Most of the increase was due to walking for errands or to go to work.<sup>[1]</sup>



[1] Saelens, B.E., Sallis, J.F., & Frank, L.D., Environmental Correlates of Walking and Cycling: Findings From the Transportation, Urban Design and Planning Literatures," Annals of Behavioural Medicine, 2003.

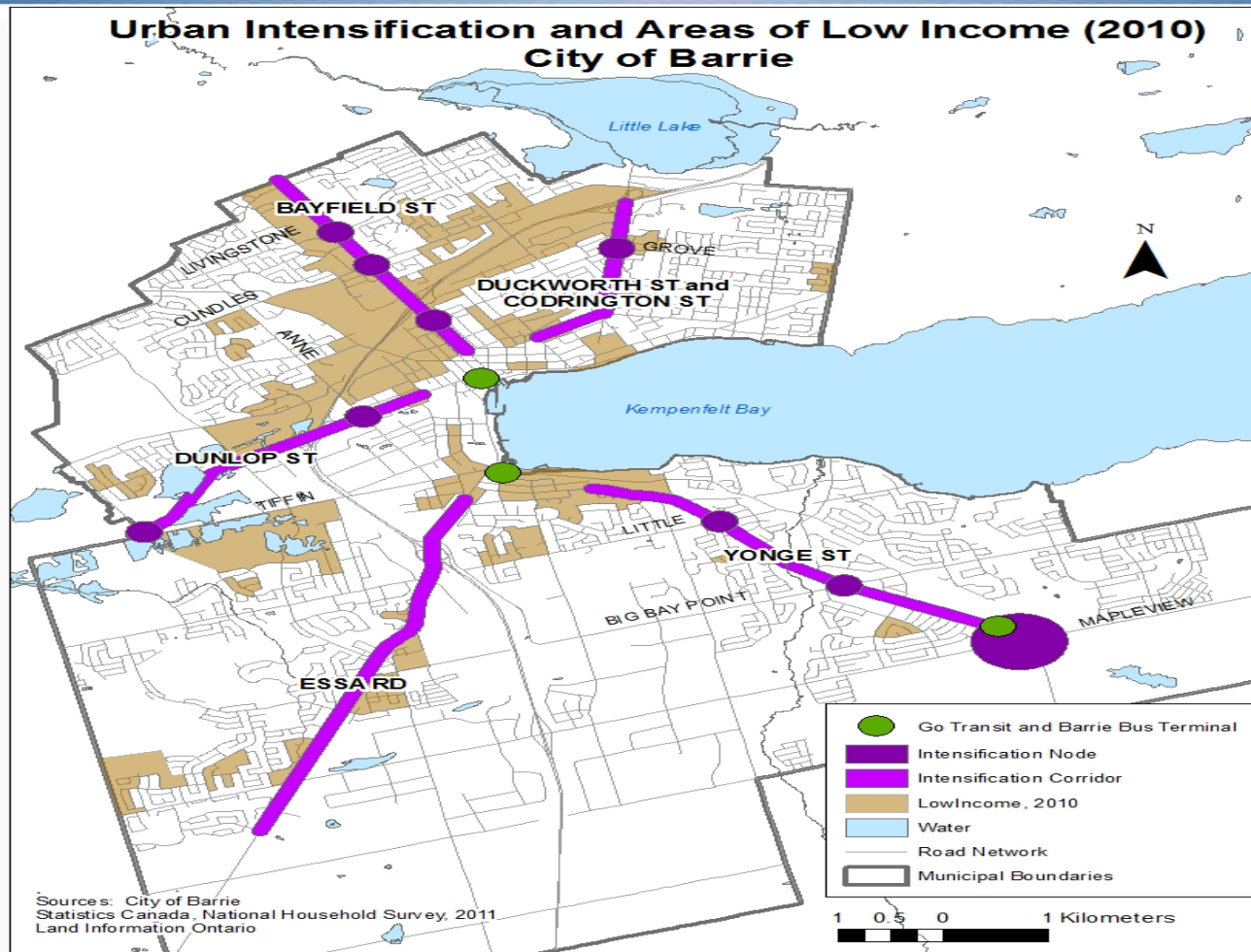
# Walkable destination in Ontario

## Transportation Behaviors and Health Outcomes by Residential Density and Availability of Walkable Destinations.



Booth GL, Glazier RH, Creatore MI, Weyman JT, Fazli G, Matheson FI, et al. (2014) Density, Destinations or Both? A Comparison of Measures of Walkability in Relation to Transportation Behaviors, Obesity and Diabetes in Toronto, Canada. PLoS ONE 9(1): e85295 doi:10.1371/journal.pone.0085295

# Walking Access for Lower Income People





# A healthy community provides opportunities...

- For people to walk and cycle to work.
- For children to be able to walk and bike safely to school.
- To be connected to parks, other neighbourhoods and trails.
- To enjoy the natural environment such as water, farmland and green space.
- To have access to healthy foods that are fresh and affordable in every neighbourhood.
- To have sidewalks, pathways, trails and bike lanes that are inviting, accessible, safe and connected to amenities and public transit.
- For connection to community gathering places.
- Has sufficient density to support all of this.



# Whether you are 8 or 80...



...you need walkable access to services in every neighbourhood...

# Final Thoughts

## Mixed Use Design and a Healthier Barrie

- Community design is important for people's health.
- People are more active and healthier in neighbourhoods with amenities in walking distance.
- Barrie has excellent plans for healthy, complete neighbourhoods.

