

## Report 9: Built Environment

September 2017

### Summary

- The 2016 Oxford Health Matters Survey (OHMS) was conducted for Oxford County Public Health (Public Health) to inform public health program development in new and emerging areas based on the needs and concerns of the community.
- The population's health and the built environment are connected, particularly in terms of preventing chronic diseases and reducing exposure to health hazards.<sup>1,2</sup>
- Oxford County has strategically set out to support healthy communities and built environments and to promote active transportation.<sup>3</sup>
- Overall, 93.4% of Oxford County residents reported that their neighbourhood was a great place to walk for leisure, and 70.0% felt that their neighbourhood was walkable for other reasons such as running errands or shopping.
- Those with lower household incomes (less than \$40,000) were less likely to report that their neighbourhood was walkable for leisure compared to those with incomes from \$70,000 up to \$100,000.
- Urban residents (77.7%) more than rural residents (54.8%) felt that their neighbourhoods were walkable for non-leisure reasons.
- Overall, 90.0% of residents reported it was important to have neighbourhood features such as pedestrian street lighting, shade trees and benches, 86.4% felt that having connected sidewalks or pathways was important, 86.3% of residents felt it was important to have public and open spaces where people can get together, and 74.6% felt that living in a neighbourhood where one can walk to places such as stores, restaurants, community centers or schools was important.

## Background

The built environment people live in is an important determinant of health that is often subtle and difficult to see or measure. However, it can influence a variety of behaviours like exercising and social interaction which in turn, can affect chronic disease rates and overall wellbeing.<sup>1</sup> It can also affect one's proximity to health hazards.<sup>2</sup> The built environment encompasses three main elements including: land use patterns, the transportation system and design features of the landscape.<sup>1</sup>

Research has found a strong relationship between the built environment and physical activity. For example, in areas where there is mixed land use, (e.g., residential areas within walking distance of shops, businesses and connected streets/paths), people may be more likely to use active transport such as walking and cycling. This is compared to suburban residents that tend to rely on cars to do errands.<sup>4,5</sup> A recent survey of Canadians found that 33% of people engaged in active transportation in areas with sidewalks on most of the streets, whereas only 12% of people engaged in active transportation in areas without sidewalks. Similarly, 64% of people were active in their leisure time in neighbourhoods where they could shop for necessities compared to 59% of people where these amenities were not available.<sup>6</sup> Pleasant surroundings such as parks, trails and availability of recreation facilities also helps residents be more physically active.<sup>4</sup>

Research has also identified that population health and the built environment are connected in terms of exposure to health hazards.<sup>2,7</sup> For example, living close to major roads and highways increases exposure to traffic-related air pollution (TRAP), is associated with respiratory illnesses like asthma, and may be related to an increase in cardiovascular disease and lung cancer.<sup>7</sup> In Ontario overall, 28.7% of residents live within TRAP exposure areas, while by comparison, 20.5% of Oxford County residents live within such areas.<sup>7</sup> Extreme heat events are also a concern, as urbanized areas tend to be hotter than rural areas. This is significant as climate scientists predict more frequent, prolonged and extreme heat events in Canada.<sup>2</sup> Further, seniors and children are the most vulnerable to illness from both TRAP and extreme heat events.<sup>2,7</sup>

Oxford County has strategically set out to support healthy communities and built environments and to promote active transportation, and to that end, works to support community sustainability, health and well-being.<sup>3</sup> This report specifically examines Oxford County residents' opinions of

the built environment. Given that residents live in a wide variety of settings and dwellings, it is important to consider these differences and their potential effects on physical activity levels and exposure to health hazards. Recent research on the built environment in rural, Northern and remote communities has found that rural communities have unique challenges addressing the built environment and physical activity, such as traffic safety.<sup>8,9,10</sup> Conversely, there are unique challenges in urban areas including high roadside concentrations of TRAP.<sup>7</sup>

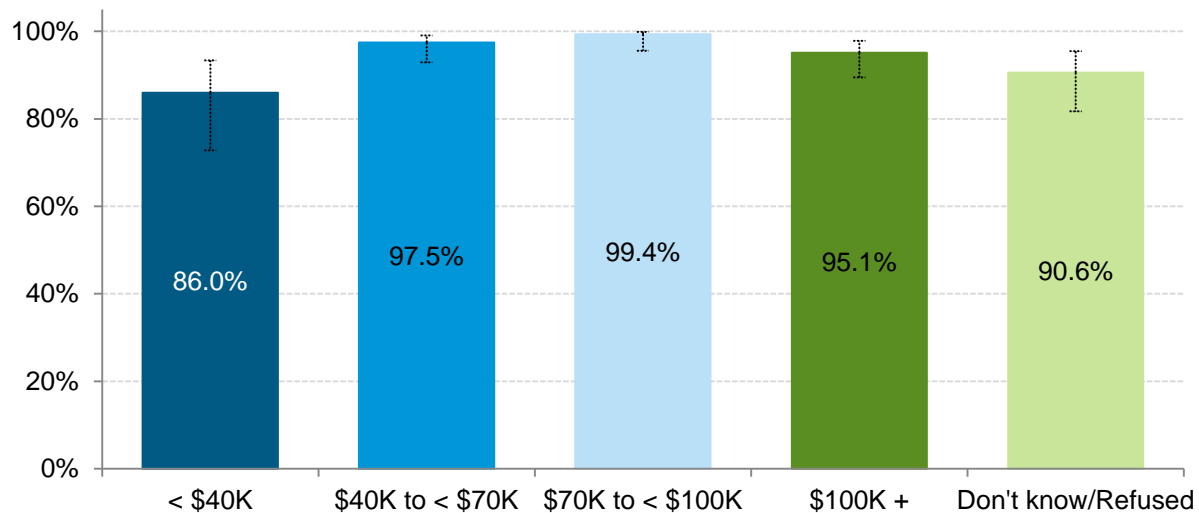
Public Health has an important role to play in working with community land use planners and other partners to inform and develop public policy that supports healthy, liveable and safe communities and neighbourhoods that facilitate well-being. In fact, it has been noted that it is important to work across sectors in order to reduce chronic disease and increase physical activity.<sup>5</sup> The Ontario Professional Planners Institute (OPPI) recently published a call to action for governments on ways to design the public realm for healthy communities by incorporating principles such as inclusiveness and accessibility, and creating multiple-function spaces.<sup>11</sup> Many regions, including Oxford County, have already incorporated many of these types of initiatives into their planning and continue to build upon them.<sup>7</sup> For example, the County Official Plan contains a range of policies that support the development of healthy, liveable and safe communities and public spaces. Strategies include the protection and enhancement of natural features, mix of land uses, connectivity of streets, trails and walkways, appropriate location of and connections between residential uses and recreation, shopping and public service facilities, separation of incompatible uses and a strong focus on accessibility, streetscaping and urban design. Implementation of these policies is often further supported through various County and Area Municipal measures and/or initiatives, such as urban design and site plan guidelines, Secondary Plans and Transportation, Recreation and Trails Master Plans. For example, the current update of the County Transportation Master Plan will consider related built environment issues, such as how to improve the active transportation network and associated facilities.

Please see definitions in the Data Notes for explanations of built environment terms and methods in the Data Notes for more information about the survey, sample and how the numbers are calculated and displayed.

## Results

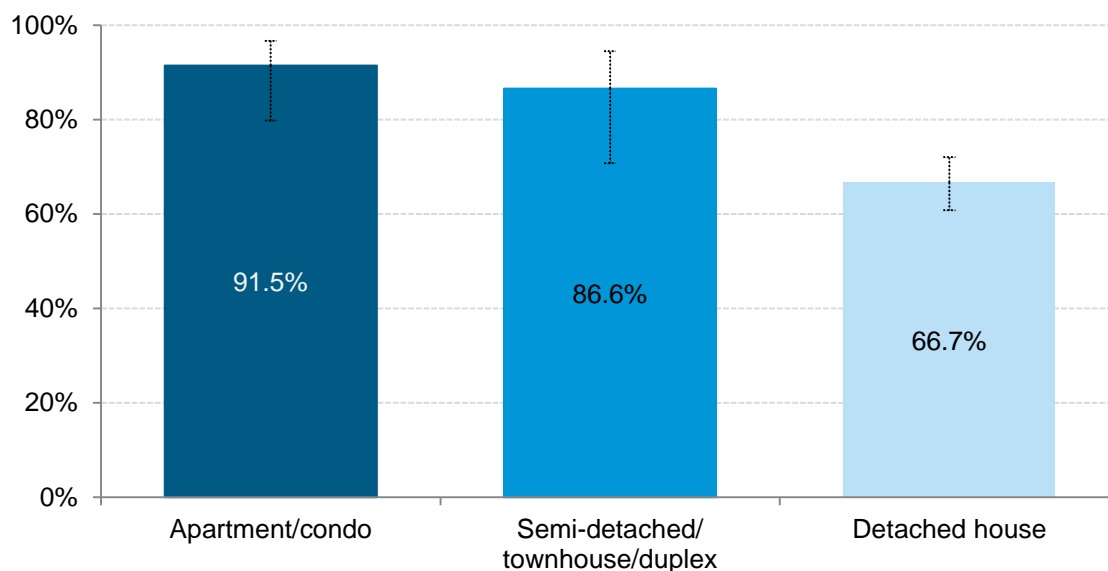
Overall, 93.4% of Oxford County residents felt that their current neighbourhood is a great (i.e., excellent, very good or good) place to walk for leisure (Appendix, Table 1). Walking for leisure includes walking for the purpose of fun, exercise or pleasure. There was a notable difference between groups on this indicator by income. Almost all residents (99.4%) with an annual income of \$70,000 to less than \$100,000 felt that their neighbourhood is a great place to walk for leisure. This is higher compared to 86.0% of residents with an annual household income of less than \$40,000 (Figure 1; Appendix, Table 1).

**Figure 1. Current neighbourhood is an excellent, very good or good place to walk for leisure by household income, Oxford County, 2016**



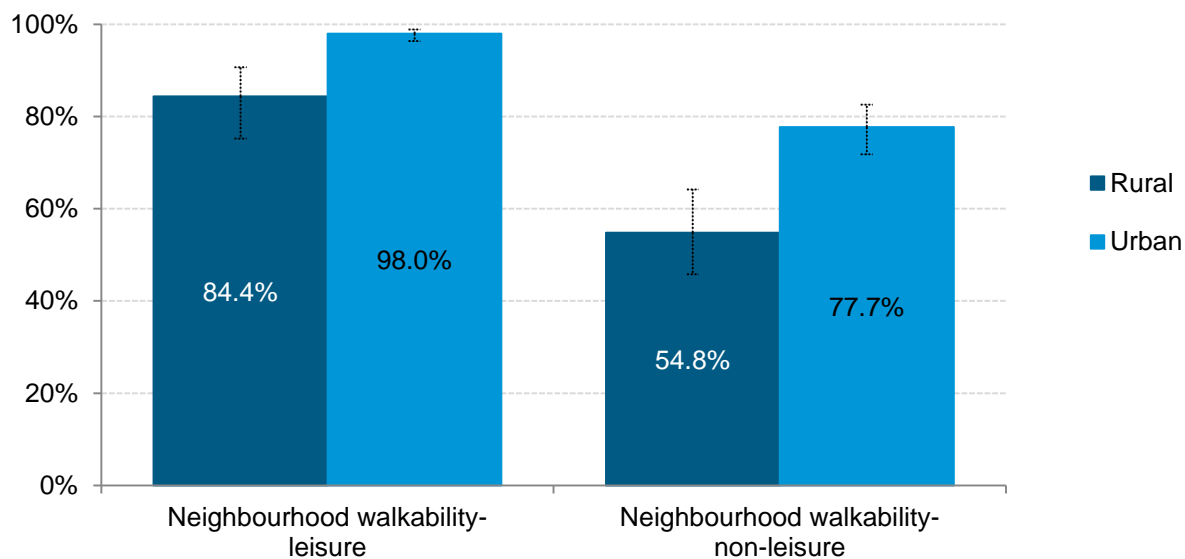
Residents were also asked about whether their current neighbourhood was walkable for reasons other than leisure. This included reasons such as running errands, shopping or going to places like the library or post office. Overall, 70.0% of residents felt that their current neighbourhood was great (i.e., excellent, very good or good) for walking for reasons other than leisure (Appendix, Table 2). There were differences between groups based on the type of dwelling (structure) that people live in. While 91.5% of residents living in apartment or condominium buildings felt that their current neighbourhood was walkable for reasons other than leisure, only 66.7% of residents living in detached homes did (Figure 2; Appendix, Table 2).

**Figure 2. Current neighbourhood is an excellent, very good or good place to walk for reasons other than leisure by dwelling type, Oxford County, 2016**



Place of residence also affected whether people felt that their current neighbourhood was walkable for leisure or for reasons other than leisure; 84.4% of rural residents felt their current neighbourhoods were great (i.e., excellent, very good or good) for walking for leisure and 54.8% of rural residents thought the same of walkability for non-leisure (Figure 3; Appendix, Table 3). This is lower than those living in urban areas, 98.0% of whom felt their current neighbourhoods were great for leisure walkability, while 77.7% of urban residents felt the same for non-leisure walkability (Figure 3; Appendix, Table 3).

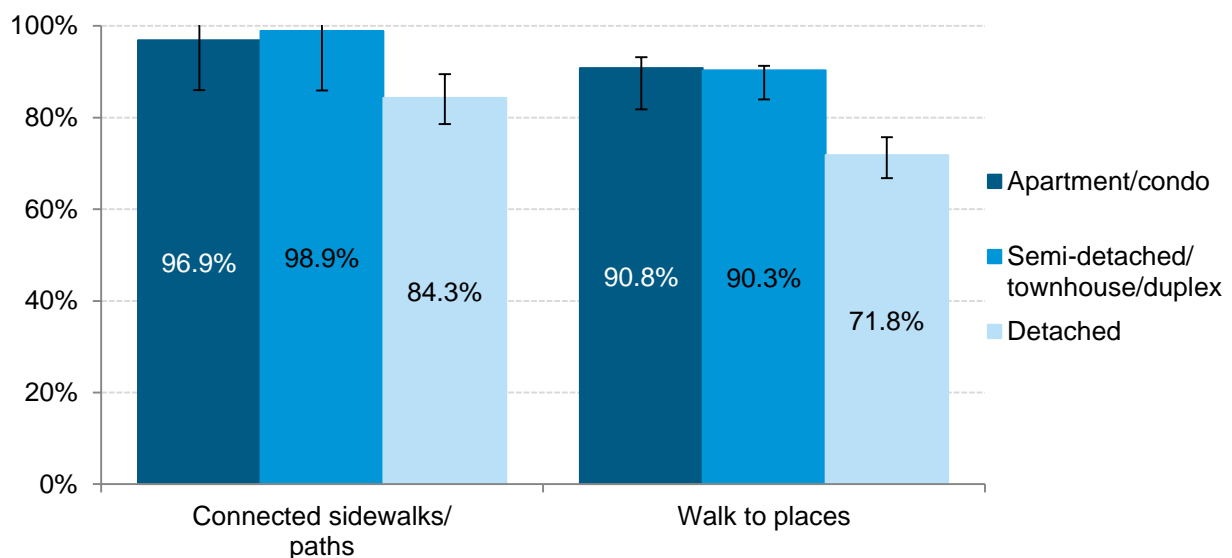
**Figure 3. Current neighbourhood is an excellent, very good or good place to walk for leisure and non-leisure by rural or urban residence, Oxford County, 2016**



When asked about the importance of certain characteristics in their hypothetical “ideal” neighbourhood, overall, 90.0% of residents felt it was very or somewhat important to have neighbourhood features such as pedestrian street lighting, shade trees and benches (Appendix, Table 1). Also, 86.4% of all residents felt that having sidewalks or pathways that are connected to each other is very or somewhat important (Appendix, Table 1). Similarly 86.3% of residents felt it was very or somewhat important to have public and open spaces where people can get together, while 74.6% of all residents felt that living in a neighbourhood where one can walk to places such as stores, restaurants, community centers or schools was very or somewhat important (Appendix, Table 1).

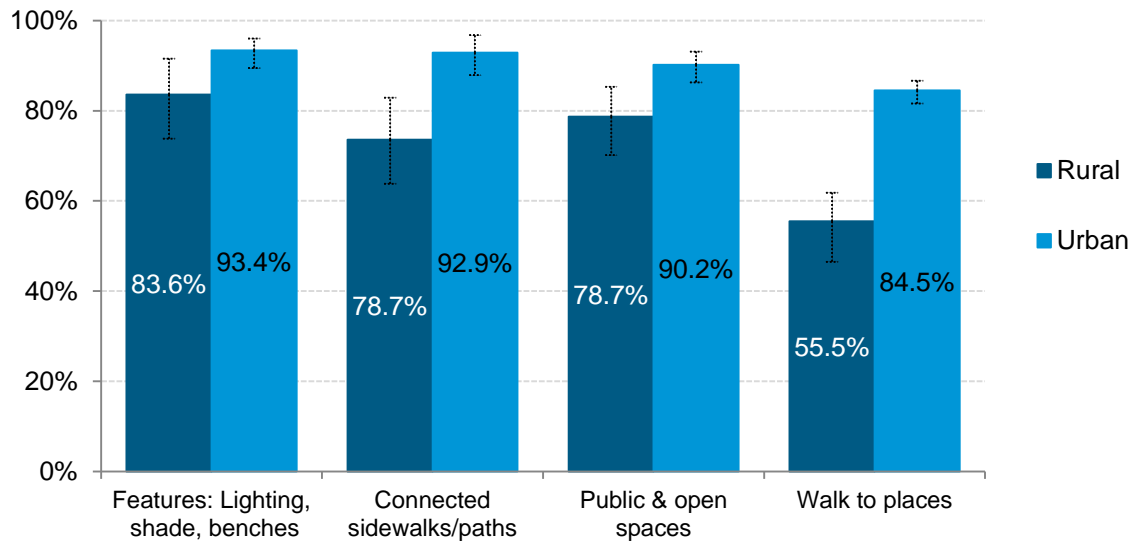
There were some differences in subgroups on these “ideal” neighbourhood design elements. For example, 98.9% of those living in semi-detached homes, townhouses or duplexes felt that it was very or somewhat important to have sidewalks or pathways that are connected to each other, compared to 84.3% of those living in detached homes (Figure 4; Appendix, Table 2). Similarly, 90.8% of residents living in apartment or condominium buildings and 90.3% of residents living in semi-detached homes, townhouses or duplexes felt that it was very or somewhat important to be able to walk to places such as stores, restaurants, community centers or schools, compared to 71.8% of those living in detached homes (Figure 4; Appendix, Table 2).

**Figure 4. Importance of ideal neighbourhood characteristics by dwelling type, Oxford County, 2016**



There were also some notable differences based on place of residence (Figure 5; Appendix Table 3). For all neighbourhood features, including lighting, shade and benches, connected paths, having public and open spaces to meet and ability to walk to places, a higher per cent of urban residents said these features were very or somewhat important compared to rural residents.

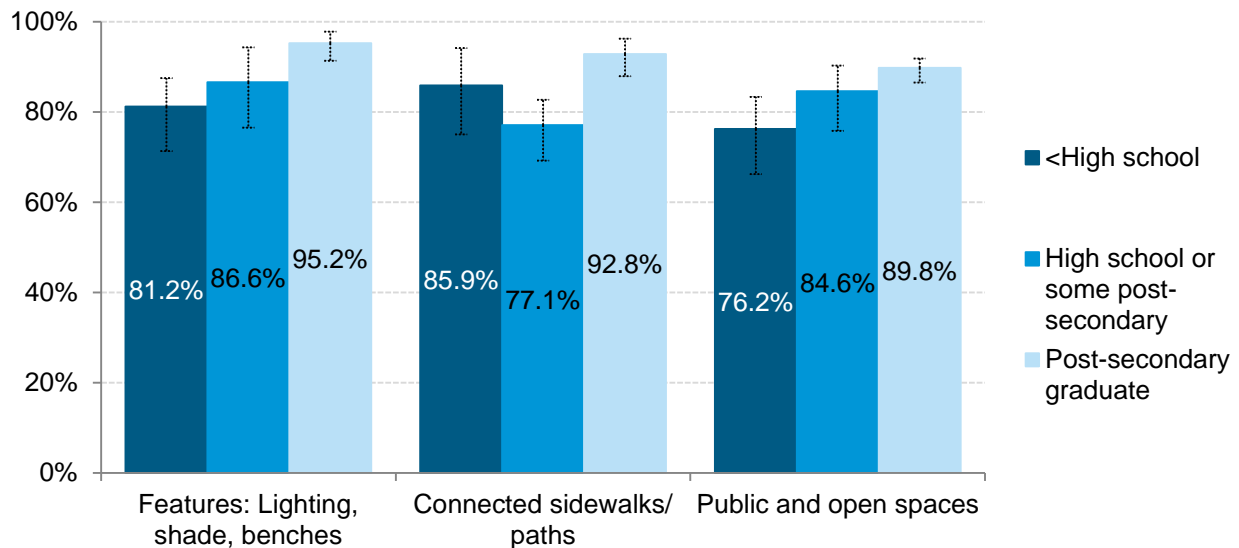
**Figure 5. Importance of ideal neighbourhood characteristics by rural or urban residence, Oxford County, 2016**





Differences in opinion were also found among residents of different education levels (Figure 6, Appendix Table 4). More post-secondary graduates placed greater importance on neighbourhood features such as pedestrian street lighting, shade trees and benches (95.2%) and having public and open spaces where people can get together (89.8%) compared to those with less than high school education (81.2% for neighbourhood features and 76.2% for open spaces). More post-secondary graduates also placed greater importance on having connected paths and sidewalks (92.8%) compared to high school graduates (77.1%).

**Figure 6. Importance of ideal neighbourhood characteristics by education level, Oxford County, 2016**



Additional information about resident characteristics and the built environment is available in the Appendix, Tables 5-8.

## Considerations

These results provide insight into Oxford County residents' thoughts on neighbourhood walkability and the importance of some specific built environment characteristics to different subgroups of the population. Encouragingly, nearly all residents (93.4%) felt that their neighbourhood is walkable for leisure and 70.0% of residents felt their neighbourhoods are walkable for reasons other than leisure. This is a positive result given that Oxford County aims to support healthy communities and built environments and to promote active transportation. There were some important differences in responses among sub-groups, which may point to areas for potential future consideration in the development of community planning policy and community infrastructure (e.g., trails) and public service facilities (e.g., parks). Specifically, those with lower incomes, those living in detached homes and rural residents rated their neighbourhoods as less walkable than others.

The relative importance of built environment features to Oxford residents was as follows:

- 90.0% indicated pedestrian street lighting, benches and shade trees were important
- 86.4% indicated connected paths and sidewalks were important
- 86.3% indicated public and open spaces where people can get together were important
- 74.6% indicated the ability to walk to places was important

As such, continuing to develop the public realms of Oxford County to incorporate these features, using methods such as co-location of key neighbourhood features such as schools, parks, residences and businesses will be important. Sidewalk connectivity is important, particularly around schools, so that children don't have to walk on roads, or cross streets repeatedly to stay on sidewalks. Also, developing neighbourhoods to be more grid-like, rather than with winding cul-de-sacs, can improve active transportation options.

More urban than rural residents place importance on neighbourhood features, paths and walkability and public and open spaces; similarly, people living in higher-density housing like condos find it more important to be able to walk to places than those living in detached homes. It is possible that these features may be one of the factors in choosing a place of residence and that the underlying expectations and importance of various features of the built environment will continue to diverge based on urban or rural residence.

This report will help inform Public Health's efforts to implement programs to address the burden of illness from chronic disease, and to inform the development of healthy natural and built environments by considering the unique perspectives of resident sub-groups in Oxford County. Continued collaboration among the different community sectors and Departments within the County will be key in supporting varied, inspiring ways to create and maintain healthy, active and sustainable communities.

## Appendix: Tables

Table 1. Perceptions of built environment characteristics, by household income, Oxford County, 2016

Indicator	Per cent (95% CI)					
	Overall	<\$40K	\$40K to < \$70K	\$70K to < \$100K	\$100K +	Don't know/ Refused
<b>Current Neighbourhood Characteristics</b>						
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.4% (89.9%-95.8%)	86.0% † (72.8%-93.4%)	97.5% (92.9%-99.1%)	99.4% †‡ (95.6%-99.9%)	95.1% (89.5%-97.8%)	90.6% ‡ (81.7%-95.5%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	70.0% (64.7%-74.8%)	70.8% (57.5%-81.3%)	76.4% (65.1%-84.9%)	71.2% (58.2%-81.5%)	64.6% (53.2%-74.5%)	70.1% (59.7%-78.7%)
<b>Ideal Neighbourhood Characteristics</b>						
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.4% (82.0%-89.8%)	84.3% (67.0%-93.4%)	82.7% (72.4%-89.6%)	87.2% (75.3%-93.8%)	91.8% (84.8%-95.7%)	84.7% (75.2%-91.0%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.6% (69.5%-79.1%)	81.6% (70.4%-89.2%)	78.1% (66.9%-86.2%)	72.5% (57.6%-83.6%)	68.1% (55.7%-78.4%)	76.0% (67.1%-83.1%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.3% (82.5%-89.4%)	82.9% (71.7%-90.3%)	88.9% (80.7%-93.9%)	80.9% (66.1%-90.2%)	87.8% (78.5%-93.4%)	87.2% (80.6%-91.8%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.0% (86.4%-92.8%)	86.3% (75.9%-92.6%)	91.0% (82.7%-95.5%)	91.7% (82.1%-96.3%)	96.2% (91.5%-98.3%)	86.0% (77.3%-91.8%)

† ‡ Statistically significant difference between groups based on a 95% confidence interval.

**Table 2. Perceptions of built environment characteristics, by dwelling type, Oxford County, 2016**

Indicator	Per cent of residents (95% CI)			
	Overall	Detached house	Semi-detached/duplex/ townhouse	Apartment/ condo building
<b>Current Neighbourhood Characteristics</b>				
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.4% (89.9%-95.8%)	92.6% (88.5%-95.4%)	97.9% (91.5%-99.5%)	97.5% (84.1%-99.6%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	70.0% (64.7%-74.8%)	66.7% † (60.8%-72.1%)	86.6% (70.8%-94.5%)	91.5% † (79.8%-96.7%)
<b>Ideal Neighbourhood Characteristics</b>				
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.3% (81.9%-89.7%)	84.3% † (79.3%-88.2%)	98.9% † (92.6%-99.9%)	96.9% (87.9%-99.3%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.6% (69.5%-79.1%)	71.8% † ‡ (66.1%-77.0%)	90.3% † (77.3%-96.2%)	90.8% ‡ (79.9%-96.1%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.3% (82.5%-89.4%)	85.0% (80.6%-88.5%)	95.6% (85.8%-98.8%)	91.7% (79.1%-97.0%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.1% (86.5%-92.8%)	89.7% (85.6%-92.8%)	92.4% (79.0%-97.5%)	91.9% (78.1%-97.3%)

† ‡ Statistically significant difference between groups based on a 95% confidence interval.

**Table 3. Perceptions of built environment characteristics, by rural or urban residence, Oxford County, 2016**

Indicator	Per cent of residents (95% CI)		
	Overall	Rural	Urban
<b>Current Neighbourhood Characteristics</b>			
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.4% (89.9%-95.8%)	84.4% † (75.2%-90.7%)	98.0% † (96.4%-98.9%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	70.0% (64.7%-74.8%)	54.8% † (45.1%-64.2%)	77.7% † (71.8%-82.6%)
<b>Ideal Neighbourhood Characteristics</b>			
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.4% (82.0%-89.8%)	73.6% † (63.8%-81.5%)	92.9% † (89.0%-95.5%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.6% (69.5%-79.1%)	55.5% † (45.7%-64.8%)	84.5% † (79.5%-88.4%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.3% (82.5%-89.4%)	78.7% † (70.2%-85.3%)	90.2% † (86.3%-93.1%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.0% (86.4%-92.8%)	83.6% † (74.6%-89.9%)	93.4% † (90.5%-95.5%)

† Statistically significant difference between groups based on a 95% confidence interval.

**Table 4. Perceptions of built environment characteristics, by education level, Oxford County, 2016**

Indicator	Per cent of residents (95% CI)			
	Overall	< High school	High school or some post- secondary	Post-secondary graduate
<b>Current Neighbourhood Characteristics</b>				
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.5% (89.9%-95.8%)	94.1% (86.9%-97.4%)	91.8% (83.8%-96.0%)	94.5% (89.4%-97.2%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	69.9% (64.6%-74.8%)	81.6% (71.2%-88.8%)	63.6% (53.4%-72.7%)	71.4% (64.3%-77.5%)
<b>Ideal Neighbourhood Characteristics</b>				
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.3% (82.0%-89.8%)	85.9% (76.0%-92.2%)	77.1% † (67.0%-84.8%)	92.8% † (88.9%-95.4%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.9% (69.8%-79.4%)	78.5% (68.1%-86.2%)	75.5% (65.6%-83.2%)	73.6% (66.4%-79.8%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.2% (82.4%-89.3%)	76.2% † (65.3%-84.5%)	84.6% (76.7%-90.2%)	89.8% † (84.9%-93.2%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.3% (86.7%-93.0%)	81.2% † (71.2%-88.3%)	86.6% (77.8%-92.3%)	95.2% † (91.9%-97.2%)

† Statistically significant difference between groups based on a 95% confidence interval.

**Table 5. Perceptions of built environment characteristics, by sex, Oxford County, 2016**

Indicator	Per cent of residents (95% CI)		
	Overall	Male	Female
<b>Current Neighbourhood Characteristics</b>			
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.4% (89.9%-95.8%)	92.6% (85.5%-96.4%)	94.2% (91.0%-96.4%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	70.0% (64.7%-74.8%)	66.0% (57.2%-73.8%)	73.8% (68.0%-78.9%)
<b>Ideal Neighbourhood Characteristics</b>			
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.4% (82.0%-89.8%)	83.0% (75.3%-88.6%)	89.7% (85.1%-93.1%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.6% (69.5%-79.1%)	71.7% (63.1%-79.0%)	77.4% (71.6%-82.3%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.3% (82.5%-89.4%)	85.7% (78.9%-90.6%)	86.9% (82.7%-90.2%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.0% (86.4%-92.8%)	87.1% (80.4%-91.8%)	92.9% (89.4%-95.3%)



**Table 6. Perceptions of built environment characteristics, by age group, Oxford County, 2016**

Indicator	Per cent of residents (95% CI)			
	Overall	18 to 34 years	35 to 64 years	65+ years
<b>Current Neighbourhood Characteristics</b>				
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.4% (89.8%-95.8%)	90.3% (76.5%-96.4%)	95.4% (92.0%-97.4%)	92.5% (88.4%-95.2%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	69.8% (64.5%-74.6%)	59.2% (44.4%-72.4%)	72.8% (66.9%-78.0%)	75.5% (69.4%-80.7%)
<b>Ideal Neighbourhood Characteristics</b>				
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.4% (82.0%-89.8%)	80.4% (66.0%-89.7%)	90.6% (86.3%-93.7%)	83.9% (78.1%-88.3%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.5% (69.4%-79.0%)	64.1% (49.4%-76.5%)	80.4% (74.9%-84.9%)	73.8% (67.6%-79.3%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.3% (82.4%-89.4%)	90.5% (77.0%-96.5%)	86.1% (81.3%-89.9%)	81.6% (75.9%-86.1%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.0% (86.3%-92.7%)	90.5% (77.0%-96.5%)	92.1% (88.0%-94.9%)	84.6% (79.0%-88.9%)

**Table 7. Perceptions of built environment characteristics, by employment status, Oxford County, 2016**

Indicator	Per cent of residents (95% CI)		
	Overall	Employed or self-employed	Taking care of family, student, retired or unable to work
<b>Current Neighbourhood Characteristics</b>			
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.6% (90.0%-95.9%)	94.6% (89.1%-97.4%)	92.0% (86.1%-95.6%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	70.0% (64.7%-74.8%)	71.7% (64.3%-78.1%)	70.9% (63.3%-77.4%)
<b>Ideal Neighbourhood Characteristics</b>			
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.5% (82.1%-89.9%)	86.5% (79.7%-91.3%)	86.1% (80.5%-90.3%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.5% (69.3%-79.0%)	72.8% (65.2%-79.2%)	75.7% (68.7%-81.6%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.4% (82.6%-89.5%)	86.2% (80.2%-90.6%)	87.2% (82.4%-90.8%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.1% (86.5%-92.9%)	89.7% (83.8%-93.6%)	91.3% (87.1%-94.2%)

**Table 8. Perceptions of built environment characteristics, by marital status, Oxford County, 2016**

Indicator	Per cent of residents (95% CI)			
	Overall	Married or living with a partner	Never married	Widowed, divorced or separated
<b>Current Neighbourhood Characteristics</b>				
Current neighbourhood is an excellent, very good or good place to walk for leisure	93.4% (89.9%-95.8%)	93.7% (89.7%-96.2%)	92.3% (76.5%-97.8%)	93.7% (87.4%-97.0%)
Current neighbourhood is an excellent, very good or good place to walk for reasons <i>other than leisure</i>	70.0% (64.7%-74.8%)	69.7% (63.7%-75.1%)	62.4% (46.3%-76.2%)	81.4% (72.5%-87.9%)
<b>Ideal Neighbourhood Characteristics</b>				
Having sidewalks or pathways that are connected to each other is very or somewhat important	86.4% (82.0%-89.8%)	87.4% (82.7%-90.9%)	80.1% (64.2%-90.0%)	90.7% (82.8%-95.1%)
Living in a neighbourhood where one can walk to places such as stores, restaurants, community centres or schools is very or somewhat important	74.9% (69.8%-79.4%)	73.1% (67.0%-78.3%)	73.4% (57.1%-85.1%)	84.7% (76.3%-90.6%)
Living in a neighbourhood with public and open spaces and other areas that create a place where people in the community can get together and talk is very or somewhat important	86.2% (82.4%-89.3%)	87.0% (82.7%-90.3%)	83.6% (70.0%-91.8%)	86.7% (78.3%-92.2%)
Things such as pedestrian street lighting, shade trees and benches or places to rest are very or somewhat important	90.1% (86.5%-92.9%)	91.6% (87.7%-94.4%)	85.2% (71.4%-93.0%)	90.4% (82.9%-94.9%)

## Data Notes

### Definitions

**Built environment:** Overall, the built environment includes land use patterns, the transportation system and design features that together provide opportunities for travel and physical activity.<sup>1</sup> Land use patterns mean how human activities are distributed in space. The transportation system means the services and physical infrastructure that make the links or connections among activities. Design is the aesthetic, physical and functional qualities of the built environment. This may include the design of buildings and streetscapes, and relates to both land use patterns and the transportation system.<sup>1</sup>

**Rural versus Urban Comparisons:** Results are presented for Oxford County as a whole, and where possible, reported by whether the resident lives in a 'rural' or 'urban' area within the County. Although there are a mixture of rural and (sub)urban areas even within the municipalities, for the purposes of this report, they were subdivided as follows:

1. **Rural:** Zorra, East Zorra-Tavistock, Blandford-Blenheim, Norwich and South-West Oxford.
2. **Urban:** Woodstock, Ingersoll and Tillsonburg.

**Dwelling:** A separate set of living quarters with a private entrance from the outside or from a common hallway or stairway inside the building. This entrance should not be through someone else's living quarters. The possible types of dwellings include: detached house (bungalow, split level, 2-storey, farm house); semi-detached house or duplex; attached house (townhouse or row house, including condo town/row house); apartment building or condo building; mixed use building; retirement/nursing home/seniors' complex; mobile home/trailer/cottage or tent.<sup>12</sup>

### Methods

The 2016 Oxford Health Matters Survey (OHMS) was conducted for Oxford County Public Health by the Institute for Social Research (ISR) at York University. The purpose of the survey was to collect data to help shape public health programs in new and emerging areas based on the needs and concerns of the community. The survey interviewed by telephone a total of 550 randomly selected households from September to December 2016 with Oxford County residents aged 18 years or older. This resulted in an overall response rate of 44%, which is

comparable to other recent Canadian health surveys. If the household included a person aged 18-30 years old, they were selected to answer the survey to increase the number of young people in the sample, as they are typically harder to reach with this type of survey. Otherwise, the person with the first birthday in the household was asked to complete the survey. The number of responses for various questions may not total 550 due to survey skip patterns and differing amounts of non-response to each question. Responses to questions relevant to individuals are weighted by age and sex to adjust for fewer males and younger individuals completing the survey. This weighting allows the sample to more closely represent the population of Oxford County.

### **Confidence Intervals**

The per cents in brackets that follow each per cent estimate in the tables are the confidence intervals (CIs). Each estimate is based on the survey sample, and a CI is a range of values that describes the uncertainty surrounding an estimate.<sup>13</sup> The 95% CI shows a range of values that have a 95% chance of including the true estimate in the population if the survey was repeated. The larger a 95% CI, the more caution should be used when using the estimate. In graphs, the 95% CI is shown by an error bar. Error bars and CIs that don't overlap show statistically significant differences between groups (e.g., when comparing males and females). Statistically significant results indicate the finding is unlikely to be due to chance alone.

### **Variability**

Throughout the report, some numbers may be suppressed because they are unstable due to high variability, as measured by the coefficient of variation (CV). The CV indicates how precise an estimate is. Higher CVs indicate more variability, which often occurs when there is a small sample size. When the CV is between 16.6 and 33.3, the estimate should be interpreted with caution because of high variability. In tables, this is shown with an asterisk (\*). Estimates with a CV of 33.3 or more are not reportable and the estimates are replaced with double asterisks (\*\*). Estimates may also not be reportable if they are based on an unweighted denominator of less than 30 or a numerator of less than 5.

## Missing Responses

“Don’t know” and “Refused” responses are usually removed from the analysis, unless they account for over 5% of the responses. Then they are included as a separate category.

Responses are self-reported and may be subject to recall bias (trouble remembering) and social desirability bias (answering in the “expected” or socially acceptable way).

## References

1. Transportation Research Board Institute of Medicine Committee on Physical Activity, Transportation and Land Use. Does the built environment influence physical activity? Examining the Evidence [Internet]. Washington, DC, USA: Transportation Research Board Institute of Medicine; 2005. Report No. 282 [cited Aug 10, 2017]. Available from: <http://onlinepubs.trb.org/onlinepubs/sr/sr282.pdf>
2. Dimoulas-Graham P et al, on behalf of the Built Environment Locally Driven Collaborative Project team. An environmental scan of built environment data related to walkability and environmental exposures in urban Ontario: A locally driven collaborative project [Internet]. Toronto, ON: Queens Printer for Ontario; 2012 [cited Aug 10, 2017]. Available from: <https://www.publichealthontario.ca/en/ServicesAndTools/Documents/LDCP/Final%20Report.pdf>
3. Oxford County. 2015-2018 strategic plan vibrant communities [Internet]. Woodstock, ON: Oxford County; 2013 [cited Aug 29, 2017]. Available from: <http://www.oxfordcounty.ca/general/strategicplan/pdf/2015-2018StrategicPlan.pdf>
4. Public Health Agency of Canada. Supportive environments for physical activity: how the built environment affects our health [Internet]. Ottawa, ON: Public Health Agency of Canada; 2014 [cited Aug 10, 2017] Available from: <https://www.canada.ca/en/public-health/services/health-promotion/healthy-living/supportive-environments-physical-activity-built-environment-affects-health.html>
5. Robeson P, Dobbins, M. Urban design and land use transportation policies and practices to increase physical activity: evidence and implications for public health [Internet]. Hamilton, ON: McMaster University; 2009 [cited Aug 31, 2017]. Available from: [http://www.healthevidence.org/documents/byid/16887/Heath2006\\_EvidenceSummary\\_EN.pdf](http://www.healthevidence.org/documents/byid/16887/Heath2006_EvidenceSummary_EN.pdf)
6. Public Health Agency of Canada. Fast facts about Canada’s neighbourhoods and physical activity [Internet]. Ottawa, ON: Public Health Agency of Canada; 2014 [cited Aug 10, 2017] Available from: <https://www.canada.ca/en/public-health/services/health-promotion/healthy-living/fast-facts-about-canada-s-neighbourhoods-physical-activity.html>

7. Public Health Ontario. Traffic-associated air pollution: avoiding the trap zone [Internet]. Toronto ON: Ontario Agency for Health Protection and Promotion; 2016 [cited Aug 31, 2017]. Available from: <https://www.publichealthontario.ca/en/DataAndAnalytics/OntarioHealthProfile/Pages/OH-P-IWR-TRAP.aspx>
8. Bergeron K, Cragg, S. Built environment elements supportive of healthy eating, physical activity and health equity in rural, remote and northern communities: A scoping review. Ontario Agency for Health Protection and Promotion, Public Health Ontario Rounds [Webinar] October 9, 2015. Available from: [https://www.publichealthontario.ca/en/LearningAndDevelopment/EventPresentations/Built\\_environment\\_elements\\_Bergeron\\_Cragg\\_2015.pdf](https://www.publichealthontario.ca/en/LearningAndDevelopment/EventPresentations/Built_environment_elements_Bergeron_Cragg_2015.pdf)
9. Coghill C, Valiatis R, Eyles JD. Built environment interventions aimed at improving physical activity levels in rural Ontario health units: a descriptive qualitative study. BMC Pub Health. 2015; 15(464).
10. Caldwell WJ, Kraehling P, Kaptur S, Huff J. Healthy rural communities tool kit – a guide for rural municipalities [Internet]. Guelph, ON: University of Guelph; 2015 [cited 2017 Sept 26]. Available from: <https://www.publichealthontario.ca/en/ServicesAndTools/Documents/LDCP/HealthyRuralCommunitiesToolKit%20compressed.pdf>.
11. Ontario Professional Planners Institute. Healthy communities and planning for the public realm [Internet]. Toronto, ON: Ontario Professional Planners Institute; 2016 [cited 2017 Sept 1]. Available from: <http://ontarioplanners.ca/getmedia/14fe24a2-9f01-4f91-93a1-1e7aa079df9d/Healthy-Communities-and-Planning-for-the-Public-Realm.aspx>
12. Institute for Social Research. Rapid Risk Factor Surveillance System: Data dictionaries. [Internet] Toronto, ON: Institute for Social Research; n.d. [cited July 28, 2017]. Available from: <http://www.rfss.ca/index.php?pid=14>
13. United States Census Bureau. A basic explanation of confidence intervals. [Internet]. Washington DC, USA: United States Census Bureau; 2013. [cited Apr 18, 2017]. Available from: <https://www.census.gov/did/www/saipe/methods/statecounty/ci.htm>



**OXFORD COUNTY PUBLIC HEALTH**

410 Buller Street  
Woodstock, Ontario  
N4S 4N2  
519.539.9800 | 1-800-755-0394  
[www.oxfordcounty.ca/health](http://www.oxfordcounty.ca/health)

Email: [healthevidence@oxfordcounty.ca](mailto:healthevidence@oxfordcounty.ca)

**Author**

**Hilary Caldarelli, B.Sc., MPH**  
Epidemiologist  
Foundational Standards  
Oxford County Public Health

**Reviewers**

**Melissa MacLeod, B.H.Sc. (Hon), M.Sc.**  
Epidemiologist  
Foundational Standards  
Oxford County Public Health

**Ruth Sanderson, M.Sc.**  
Manager  
Foundational Standards  
Oxford County Public Health

**Cara-Lee Coghill, M.Sc.N., RN, CCHC(C)**  
Public Health Nurse,  
Health Protection  
Oxford County Public Health

**Meagan Lichti, B.Sc.N., RN**  
Public Health Nurse,  
Health Promotion  
Oxford County Public Health

**Michael Gorgey, B.Sc.N., RN**  
Supervisor  
Health Promotion  
Oxford County Public Health

**Susan MacIsaac, M.Sc., RD**  
Manager  
Health Promotion  
Oxford County Public Health

**Lynn Beath, B.Sc.N., RN, MPA**  
Director/CEO  
Oxford County Public Health & Emergency  
Services

**Amelia Sloan, B.Sc., MCIP, RPP**  
Development Planner  
Community Planning  
County of Oxford