Appendix A to Report No. 055-18

Review of Public Health Services in Middlesex County

September 2018

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Cite reference as: Middlesex-London Health Unit (2018). *Review of Public Health Services in Middlesex County*. London, Ontario.

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Executive Summary

The Middlesex-London Health Unit (MLHU) is the largest autonomous health unit in Canada and has served the residents of both Middlesex County and the City of London since the merger of the Middlesex County Health Unit and London Public Health Department in 1971. During this time, MLHU has responded to many public health emergencies including the recent the opioid crisis (2017 – present), the H1N1 influenza pandemic (2009) and the SARS outbreak (2003). Additionally, MLHU has continuously provided high quality public health programs and services that impact the daily lives of our residents. There programs and services range from inspections in all food premises, the promotion of healthy active living, oversight of the vaccine supply, larviciding catch basins, to advocacy for safe roads. Our goal is to work upstream in our health system, preventing illness and disease before it happens.

The Review of Public Health Services in Middlesex County (RPHSMC) examines the programs and services delivered within the mandate outlined in the *Health Protection and Promotion Act* and the *Ontario Public Health Standards: Requirements for Programs, Services, and Accountability*.

This review comes after a comprehensive community engagement process that sought the input of Middlesex-London residents on the potential consolidation of MLHU's London offices that began in 2015. Significant work was done to gather input from the residents of Middlesex County and the City of London through online and telephone surveys and additional consultation with Middlesex County through a partner consultation process.

Throughout these consultations the Board of Health reiterated its intention of maintaining an office in Strathroy, and the commitment to not reduce services to County of Middlesex residents.

In addition to gathering input from all areas of Middlesex and London to guide their decision making, the Board of Health also made a specific commitment to ensure that services in Middlesex County are reviewed and strengthened if needed.

Throughout the Spring and Summer of 2018, a service review process was conducted by staff at MLHU which included the completion of:

- Presentations to all lower and upper tier municipalities;
- A community health status report;
- A literature review;
- A survey of municipal council members;
- Key informant interviews;
- An environmental scan of Ontario public health units; and
- A description of county service delivery for each MLHU program.

The information gathered in the service review was analyzed and collated to describe an overview of MLHU programs and services, key stakeholder priorities, the current population health status, best practices identified from research and other Ontario public health units and consideration for future MLHU practice. The findings are organized as follows:

- Population Characteristics;
- Mortality;
- Social Determinants of Health;
- Organizational Practices;
- Accessibility;
- Community Engagement;
- Foundational Standards;

- Chronic Disease Prevention and Well-Being;
- Food Safety;
- Healthy Environments;
- Healthy Growth and Development;
- Immunization;
- Infectious and Communicable Diseases Prevention and Control;
- Safe Water;
- School Health; and
- Substance Misuse and Injury Prevention.

Overall, the health status of Middlesex County compares favorably to the rest of Ontario across a wide range of health indicators corresponding to the standards listed above. Nevertheless, there are always improvements to be made.

Important issues identified during the Middlesex County Public Health Service Review include the need to:

1. Establish regular communication channels (delegations, newsletters / correspondence) to all municipal councils (upper and lower tier);
2. Enhance staff and programming presence at the Strathroy office;
3. Explore a partnership with Middlesex County to utilize comprehensive libraries for program and service delivery;
4. Ensure MLHU's planning processes takes into consideration the public health needs of Middlesex residents and that staff seek input from Middlesex residents;
5. Develop data sharing agreements with local organizations;
6. Develop a community engagement strategy that includes stakeholders identified during asset mapping;
7. Increase opportunities to deliver services and connect with Middlesex County residents online, over the phone and through other non-physical means; and
8. Develop mechanisms for the public to provide feedback on how to improve service delivery.

The considerations identified in this service review and feedback from the Board of Health and Middlesex County Council will be used to develop formal recommendations for Board of Health endorsement and implementation by MLHU.

Mandate of the Middlesex-London Health Unit

The Middlesex-London Health Unit derives its mandate from the *Health Protection and Promotion Act* (HPPA). The Act is a provincial statute that gives the Board of Health its legal mandate to deliver public health programs and services, to prevent the spread of disease and to promote and protect the health of the residents of Middlesex-London.

The HPPA defines the structure, governance and functions of the board of health as well as the activities and authority of medical officers of health.

To operationalize the HPPA, the Ministry of Health and Long-Term Care publishes the *Ontario Public Health Standards (*OPHS*).* The OPHS sets out the requirements for programs, services and accountabilities to which boards of health are held.

The scope of the OPHS lays out specific requirements but these are not intended to limit the potential scope of a board of health's programming. This allows for boards of health to respond to community health needs with activities that can promote and protect the health of the population and reduce health inequities. The specific standards with requirements that the board of health must meet include:

The Foundational Standards:

- Population Health Assessment;
- Health Equity;
- Effective public health practice; and
- Emergency Management

And the Program Standards:

- Chronic Disease Prevention and Well-being;
- Food safety;
- Healthy Environments;
- Healthy Growth and Development;
- Immunization;
- Infectious and Communicable Disease Prevention and Control;
- Safe Water;
- School Health; and
- Substance Use and Injury Prevention

A board of health may deliver additional services beyond these requirements should there be a demonstrated health need and population health interventions can be delivered to address those needs.

Additionally, the OPHS outlines organizational requirements under the Public Health Accountability Framework. This framework is composed of four Domains:

- Delivery of Programs and Services;
- Fiduciary Requirements;
- Good Governance and Management Practices; and
- Public Health Practices

Data Sources and Methods

The RPHSMC utilized qualitative and quantitative data. These methods were used to inform the considerations articulated in this report. Triangulation is the term used to broadly describe the use of multiple data sources to cross-validate key themes, findings and concepts. The blending and integration of a variety of data sources and methods is seen to lead to more valid results.

The methods of the review and data sources used for triangulation included:

- Presentations to municipal councils;
- A community health status report;
- A literature scan;
- A survey of municipal council members;
- Key informant interviews;
- An environmental scan;
- A description of county service delivery for each MLHU program; and
- Asset mapping.

Presentations to Municipal Councils

To facilitate data gathering and to keep municipal representatives informed about the RPHSMC, visits were conducted to each of the lower-tier municipalities in Middlesex County throughout June and July 2018. MLHU staff provided an overview of the Health Unit's mandate, the services provided throughout the County and the methodology of the review. At each meeting, a municipal councillor survey was distributed in pre-addressed and stamped envelopes and mayors and deputy mayors were encouraged to volunteer for the key informant interview. Additionally, councillors had the opportunity to ask questions regarding the review or other public health issues.

Community Health Status Report

A Community Health Status report (CHSR) contains health status information on a range of topics relevant to public health and draws on the information to fully understand the health status of the population. The CHSR included in this service review was conducted by MLHU Population Health Assessment and Surveillance Team. This CHSR provides information regarding population characteristics, social determinants of health, deaths, illness and injuries, behavioral risk factors, reproductive health and child health specifically for Middlesex County.

The fulsome CHSR can be found in Appendix A.

Literature Scan

A literature scan was undertaken to determine effective service delivery models for public health services in rural settings. The scan was limited to service delivery frameworks, models, or plans by provincial, state, or federal public health agencies, both in Canada and abroad, as well as the websites of the health agencies in the same Statistics Canada health peer group (Group A) as Middlesex-London Health Unit.

The scan did not look at program specific strategies to improve service delivery to rural areas. This process of identifying program specific strategies is integrated into MLHU's ongoing program planning, implementation and evaluation process.

The findings of the literature scan can be found in Appendix B.

Survey of Municipal Council Members

To understand the community needs and identify strategies to enhance access to public health services, the MLHU commissioned an online survey of municipal councillors to assess their areas of public health priority, how the Health Unit can increase accessibility, and gather feedback on ways to improve services. The survey was conducted by Middlesex-London Health Unit staff during the period of June 4th, 2018 to August 31st, 2018. The overall completion rate was 26.9%, with a total of 14 surveys completed. Average completion time of the survey was 11 minutes and 20 seconds. Only completed surveys were included for analysis.

The findings of the survey can be found in Appendix C.

Key Informant Interviews

Following the survey of municipal council members, MLHU reached out to mayors and deputy mayors of municipalities in Middlesex County to understand their perspectives on public health services being provided to their residents and opportunities for improvement. The key informant interviews were conducted by Middlesex-London Health Unit staff during the period of July 19th, 2018 to September 6th, 2018. A total of three telephone interviews were completed. Average completion time of the survey was 30 minutes.

The findings of the key informant interviews can be found in Appendix D.

Environmental Scan

MLHU reached out to Ontario Public Health Units with similar demographics to understand their strategies for servicing rural populations. Specifically, in order to ensure that the Health Unit is considering all possible strategies and best practices, this environmental scan sought to identify potential service improvements for Middlesex County residents. The environmental scan was conducted by Middlesex-London Health Unit staff during the period of July 19th, 2018 to August 31st, 2018. The overall completion rate was 35.7%, with a total of 5 surveys completed. Average completion time of the survey was 7 minutes and 28 seconds. Only completed surveys were included for analysis.

The findings of the environmental scan can be found in Appendix E.

Description of County Service Delivery for each MLHU Program

An essential component of the RPHSMC was a summary of the services delivered in the county on a program-by-program basis. The community health status report identifies public health needs in the community and MLHU endeavors to ensure that the programs and services are planned and implemented in such a way so as to address those concerns.

The data was collected from each program manager at MLHU and is summarized in the sections in this report relevant to their programming.

Asset Mapping

Asset mapping is an exercise that provides information about the strengths and resources available in a community that can help address public health issues. While not included in this report, an inventory of over 850 assets has been compiled using data available from Middlesex County and other sources. This data will be used to inform future improvement strategies.

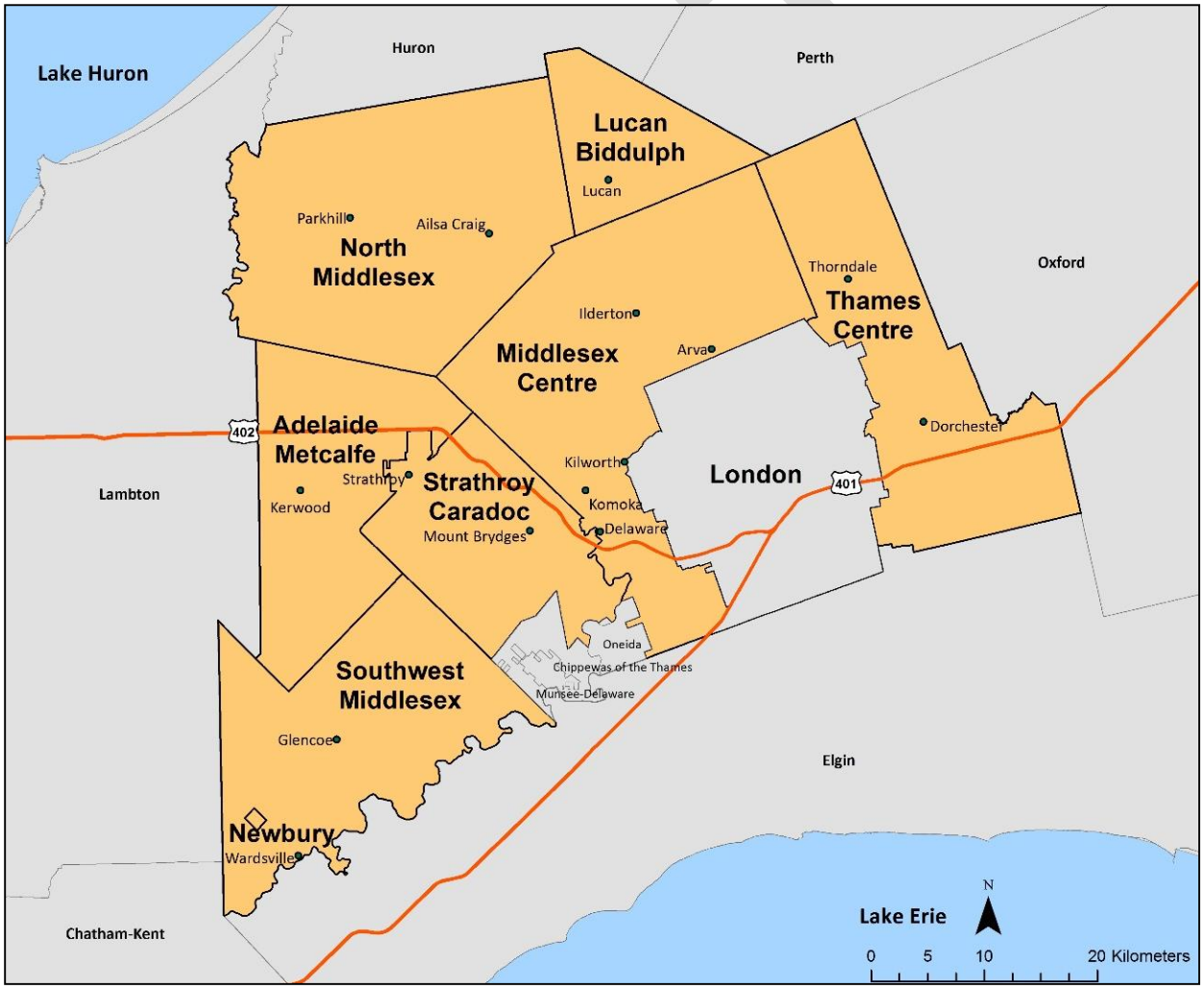
Findings

Population Characteristics

Middlesex County's population was 71,551 people according to the 2016 Census. The population of Middlesex County is concentrated in the three municipalities of: Strathroy-Caradoc, Middlesex Centre, and Thames Centre. These three municipalities account for nearly three quarters of Middlesex County's population and one in five of the residents of Middlesex County live in the town of Strathroy itself.

Middlesex County covers an area of 2,821 square kilometres in Southwestern Ontario and includes eight municipalities in order of geographic size (largest to smallest): North Middlesex, Middlesex Centre, Thames Centre, Southwest Middlesex, Adelaide Metcalfe, Strathroy-Caradoc, Lucan Biddulph and the Village of Newbury (Figure 1).

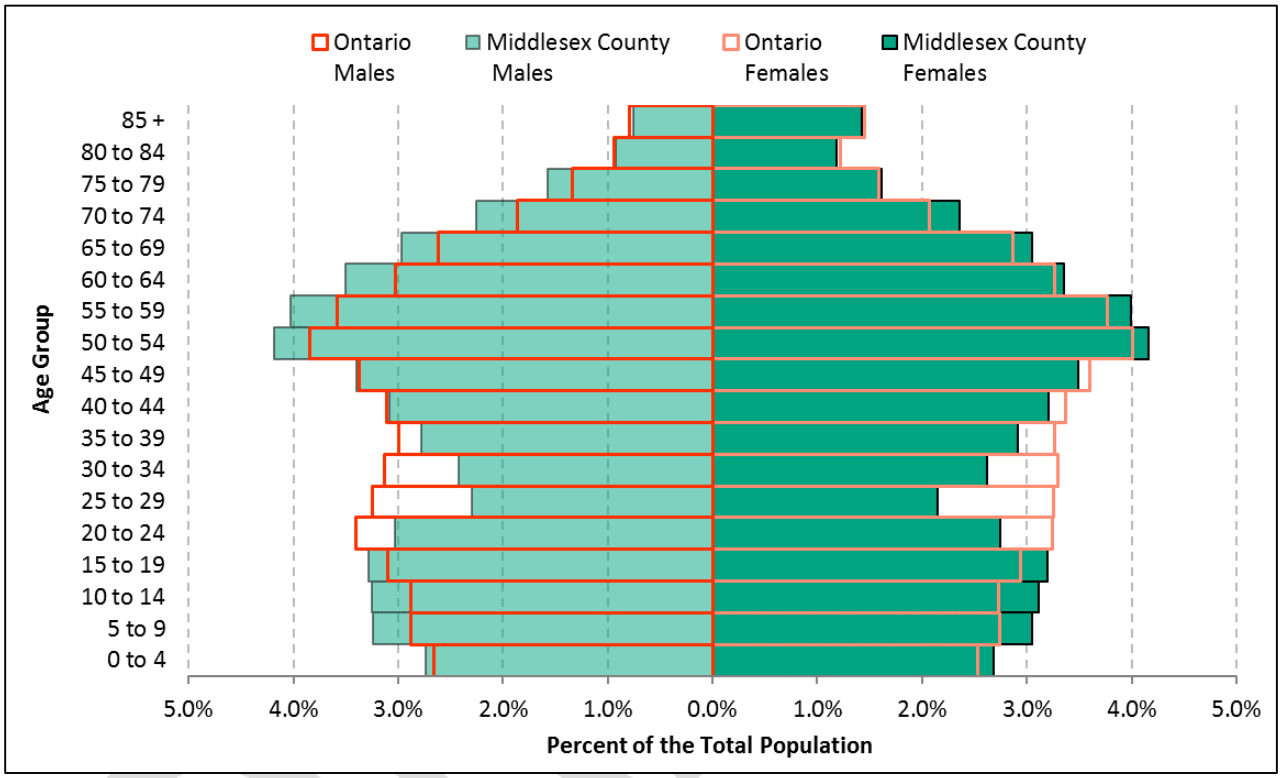
Figure 1. Middlesex County, municipalities and neighbouring areas, 2018.



Overall, there were similar numbers of males and females in Middlesex County in 2016. However, there were greater numbers of females than males in the oldest age group, 85 years and older (females 1025: males 545) which is consistent with the longer life expectancy for women in Middlesex County and may indicate that

public health could continue to work to close this gap by reducing risk factors for males. Generally, the age pyramid of Middlesex County was constricted in the young adult category (ages 20-39). This may be consistent with a general pattern seen in Ontario where youth and young adults migrate to more urban areas in search of education and employment opportunities (R.A. Malatest & Associates Ltd., 2002). Compared to the population of Ontario, the population of Middlesex County lacks younger adults aged 20-39 years and has a higher proportion of older children and older adults particularly older adult males.

Figure 2. Population Pyramid, percent of the population, by sex, by age group, Middlesex County and Ontario, 2016.



Data source: Statistics Canada. 2016 Census of Population (Unadjusted)

Middlesex County has had few immigrants in the past five years, with approximately 165 in total in 2016. They made up a much lower percent of the population (0.2%) than in Ontario overall (3.5%) Recent immigrants were concentrated in the three largest municipalities that surround the City of London. In general, the health of immigrants tends to be better than that of the overall population. This is largely due to the fact that immigrants must generally be healthy to immigrate and often have better diets and health behaviours initially than the Ontario population. However, resettlement may create vulnerabilities and require tailored public health services to reduce the health risks and promote well-being to stay healthy.

About 97% of the population of Middlesex County spoke English most often at home in 2016. Middlesex County had approximately 90 people who spoke French most often at home in 2016. The Middlesex-London Health Unit is a designated French language service area, and therefore endeavors to provide services in both official languages. However, 2.4% of the Middlesex County population spoke neither English nor French at home on a regular basis and may require public health services that meet their specific language needs. This proportion is much lower compared to the 14.4% in Ontario that do not regularly speak an official language at home.

For further details regarding population characteristics, refer to Appendix A.

Mortality

Death rates, also referred to as mortality rates, are frequently used as indicators of the overall health of a population. Trends in mortality can illustrate the health problems in our community that have the biggest impact on the population. Changes in mortality rates over time may be due to several different factors taking place in the community such as changes in the standard of living, the environment or other social determinants of health. Changes may also be due to access to quality health care, improved diagnosis and treatment of illness or the emergence of new health issues not seen before. Health protection and promotion efforts, such as those related to smoking prevention and cessation, may also have an important impact on mortality rates in populations.

The top eight leading causes of death between 2010 and 2012 in Middlesex County were chronic diseases (Table 1): ischemic heart disease, dementia and Alzheimer's disease, lung cancer, cerebrovascular diseases, lower respiratory diseases, colorectal cancer, diabetes and lymph and blood cancer. These accounted for 58.4% of all deaths. The ninth and tenth leading causes of death were influenza and pneumonia, and falls, respectively.

The top ten leading causes of death were the same for Middlesex County and Ontario, with the top eight causes following the same ranking order.

Ischemic heart disease, the leading cause of death in Middlesex County, accounted for 80% more deaths than lung cancer, the second leading cause of death.

Table 1. Number, percent and rank of the leading causes of death, Middlesex County and Ontario, 2010 to 2012 annual average.

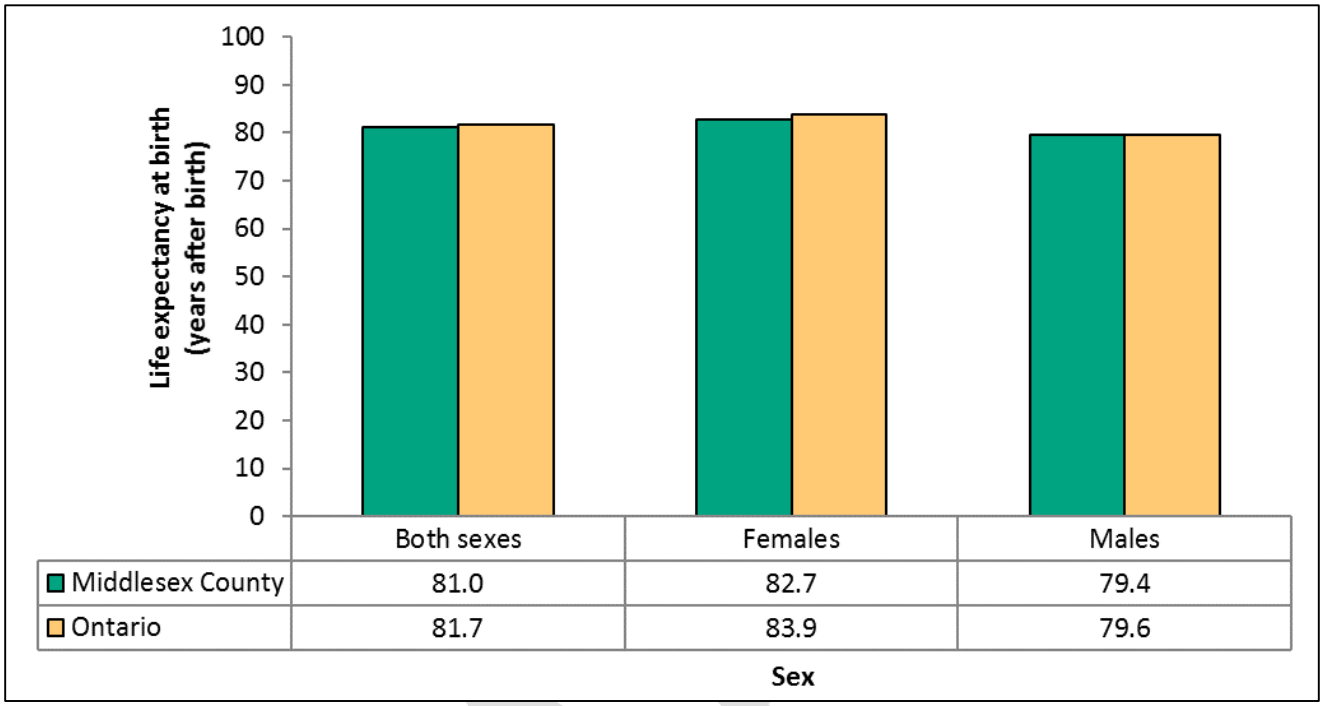
Leading Causes of Death	Average Annual Number of Deaths Middlesex County	Percent of All Deaths Middlesex County (%)	Ontario Rank
Ischemic Heart Disease	92	18.2	1
Dementia and Alzheimer's Disease	51	10.1	2
Lung Cancer	38	7.5	3
Cerebrovascular Diseases, incl. Stroke	31	6.2	4
Lower Respiratory Diseases	26	5.2	5
Colorectal Cancer	21	4.2	6
Diabetes	20	4.0	7
Lymph and Blood Cancer	14	2.9	8
Influenza and Pneumonia	14	2.7	10
Falls	13	2.7	9

Data source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Date Extracted: June 21, 2018.

Life expectancy is the average length of time that an individual will live if subjected to the mortality experience for the specified population and time period. Using data from 2010 to 2012, Middlesex County residents can expect to live on average 81.0 years at birth and 19.7 more years at age 65. The life expectancy for males was lower than females and the mortality rate for males was higher than for females.

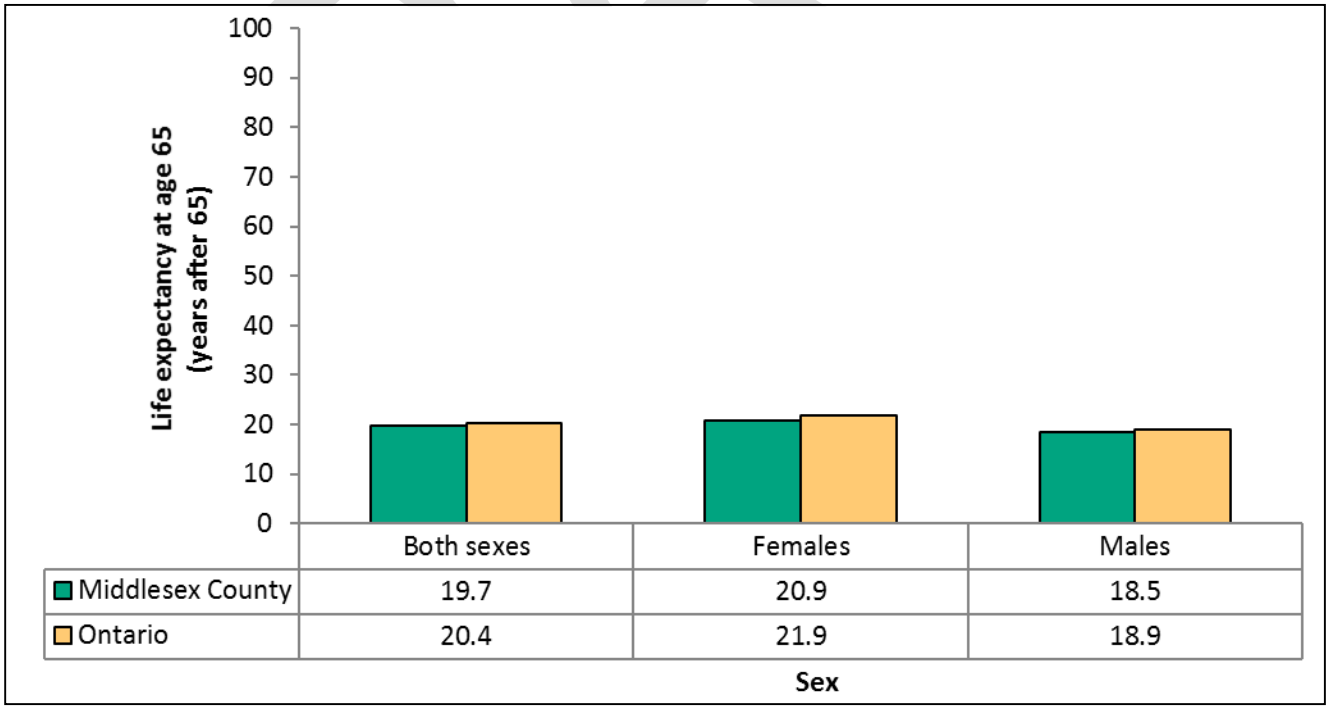
Males were much more likely to die prematurely than females in Middlesex County, generally reflecting higher rates of deaths in males at younger ages. Deaths due to breast cancer and lung cancer were the most common cause of premature death for females in Middlesex County; whereas for males it was ischemic heart disease.

Figure 3. Life expectancy at birth, by sex, Middlesex County and Ontario, 2008 to 2012 average.



Data source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Date Extracted: June 21, 2018.

Figure 4. Life expectancy at age 65, by sex, Middlesex County and Ontario, 2008 to 2012 average.



Data source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Date Extracted: June 21, 2018.

Potential years of lost life (PYLL) is an indicator of premature mortality. It measures the number of years lost from deaths before age 75. The younger a person is when they die, the greater the number of potential years of life that are lost.

As was the case in Ontario, males showed higher rates of PYLL than females in Middlesex County, generally reflecting higher rates of deaths in males at younger ages (Figure 5). Deaths due to breast cancer and lung cancer showed the highest PYLL rates for females in Middlesex County. The PYLL rates for both were slightly higher in Middlesex County females compared to Ontario females.

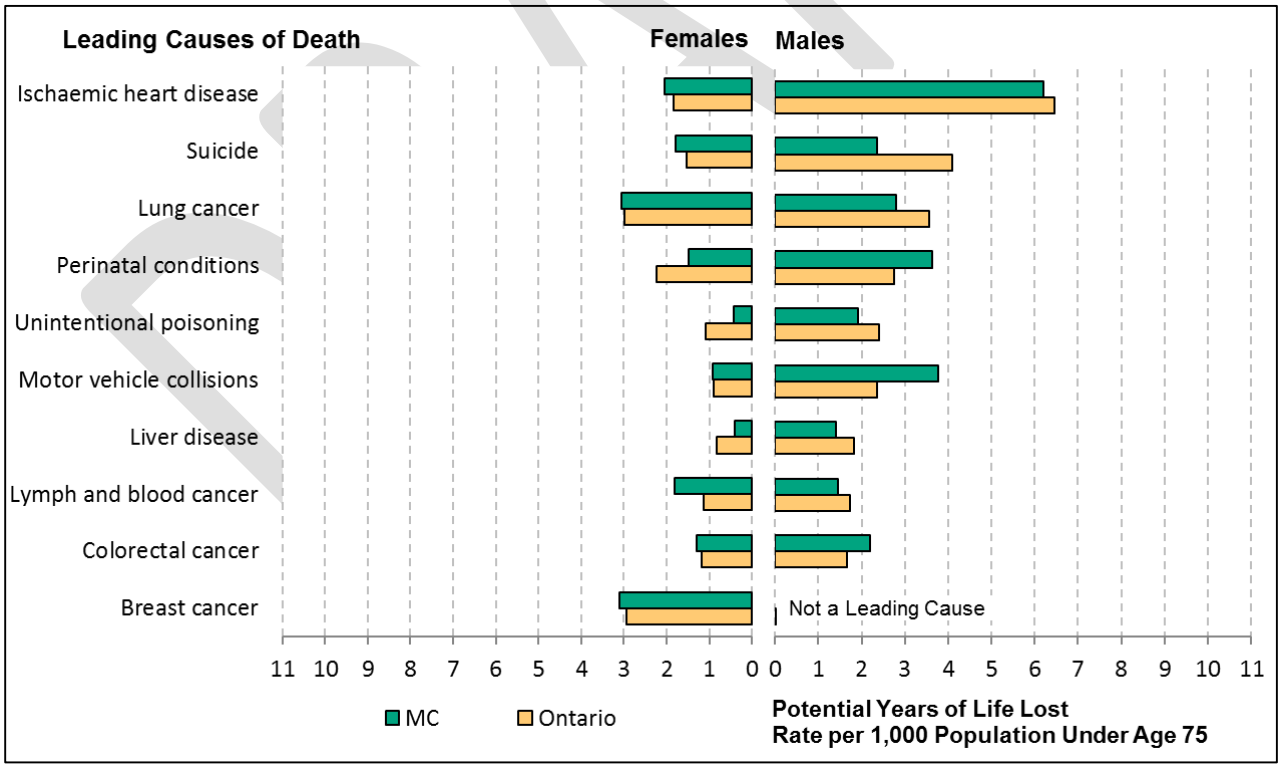
Ischaemic heart disease had the highest PYLL rate for males in both Middlesex County and Ontario. The PYLL rate for Middlesex County males was slightly lower than that for Ontario.

Deaths due motor vehicle collisions had the 2nd highest PYLL rate for males in Middlesex County; a rate higher than that for Ontario.

The presence of deaths due to perinatal conditions in this list of PYLL rates is largely reflective of the very young ages at which people die of these conditions. Compared to Ontario, the rate among women was lower for Middlesex County females, but higher for Middlesex County males.

For all cancers on the list (i.e., lung, lymph and blood, colorectal and breast), the PYLL rates for women were higher for Middlesex County than Ontario.

Figure 5. Potential years of life lost (PYLL) for leading causes of death, by sex, Middlesex County Ontario, 2010 to 2012 average.



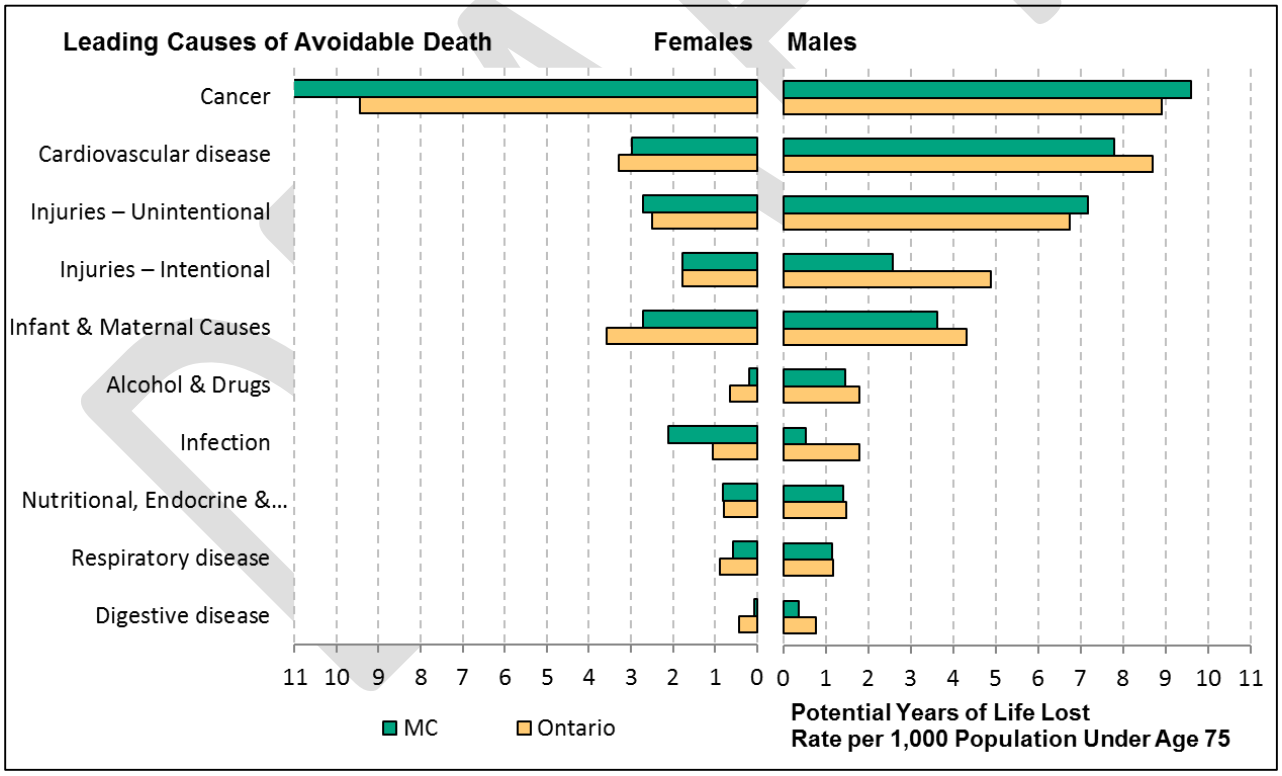
Data source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Date Extracted: June 21, 2018. Population Estimates, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario, Date Extracted: May 11, 2018.

Avoidable death refers to the number of deaths for every 1,000 people that could potentially have been avoided through effective health care, health promotion and disease prevention policies. The lower the number the better; it means that fewer individuals died prematurely from preventable or treatable causes. As was the case in Ontario, males showed higher rates of PYLL from avoidable causes than females in Middlesex County, generally reflecting higher rates of deaths in males at younger ages (Figure 6). For both sexes, cancer was the leading cause of avoidable death in both Middlesex County and Ontario. The PYLL rates for both sexes were higher for Middlesex County residents compared to Ontario.

Cardiovascular diseases, such as ischaemic heart disease, cerebrovascular disease, and rheumatic heart disease, were the second leading cause of avoidable death for both sexes in Middlesex County. PYLL rates for both females and males in Middlesex County were lower than Ontario.

Among females in Middlesex County, the third leading causes of avoidable death were due to unintentional injuries (e.g., falls, accidental poisoning, drowning) and infant and maternal causes (e.g., complications of perinatal period, congenital malformations, chromosomal anomalies). Among males in Middlesex County, the third leading cause of avoidable death was unintentional injuries and the PYLL rate was higher than Ontario.

Figure 6. Potential years of life lost from leading causes of avoidable death, by sex, Middlesex County and Ontario, 2010 to 2012 average.



Data source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Date Extracted: June 21, 2018. Population Estimates, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario, Date Extracted: May 11, 2018.

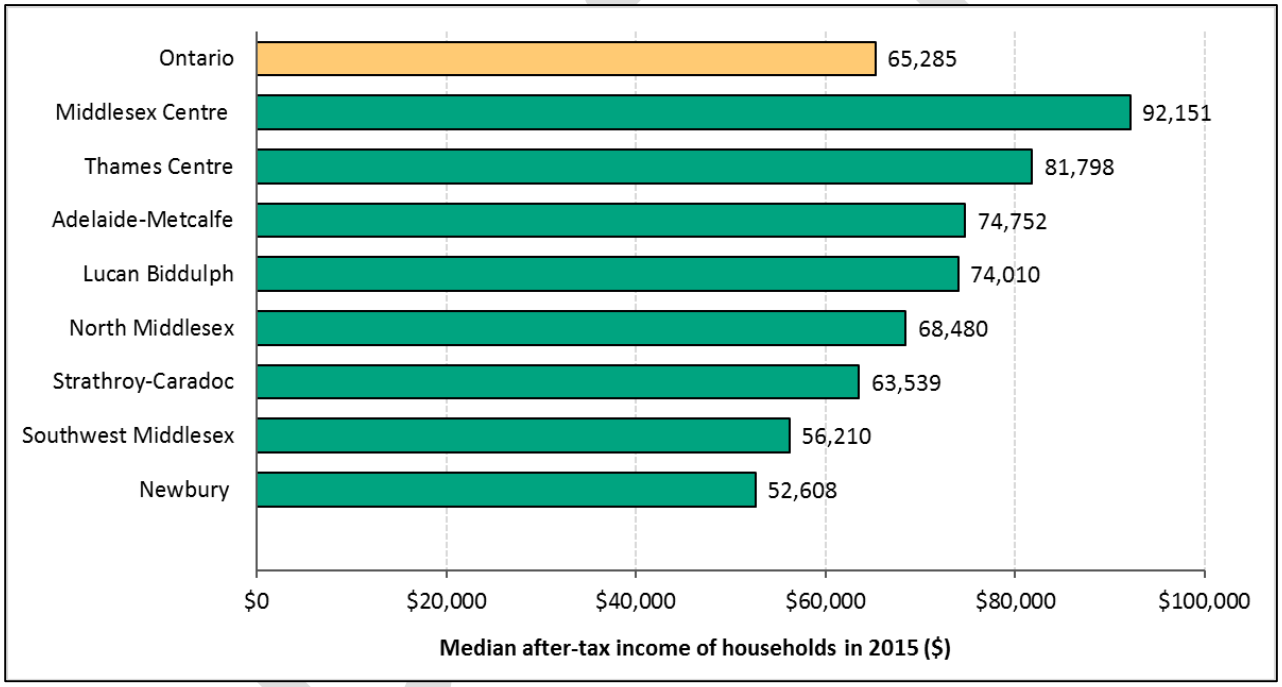
For further details regarding deaths in Middlesex County, refer to Appendix A.

Social Determinants of Health

Understanding the conditions in which people are born, grow up, live, work and play are known as the social determinants of health and contribute to the population health needs of communities. The programs and services delivered by the Middlesex-London Health Unit aim to reduce the negative impact of social determinants that contribute to avoidable differences in the health status of populations (i.e., health inequities) (Ontario Ministry of Health and Long-Term Care, 2018). Better health is associated with better socio-economic status (Williams, 2018). Generally, Middlesex County is better off than the province in terms of three key determinants of health: income, employment and education. However, within Middlesex County some disparities persist.

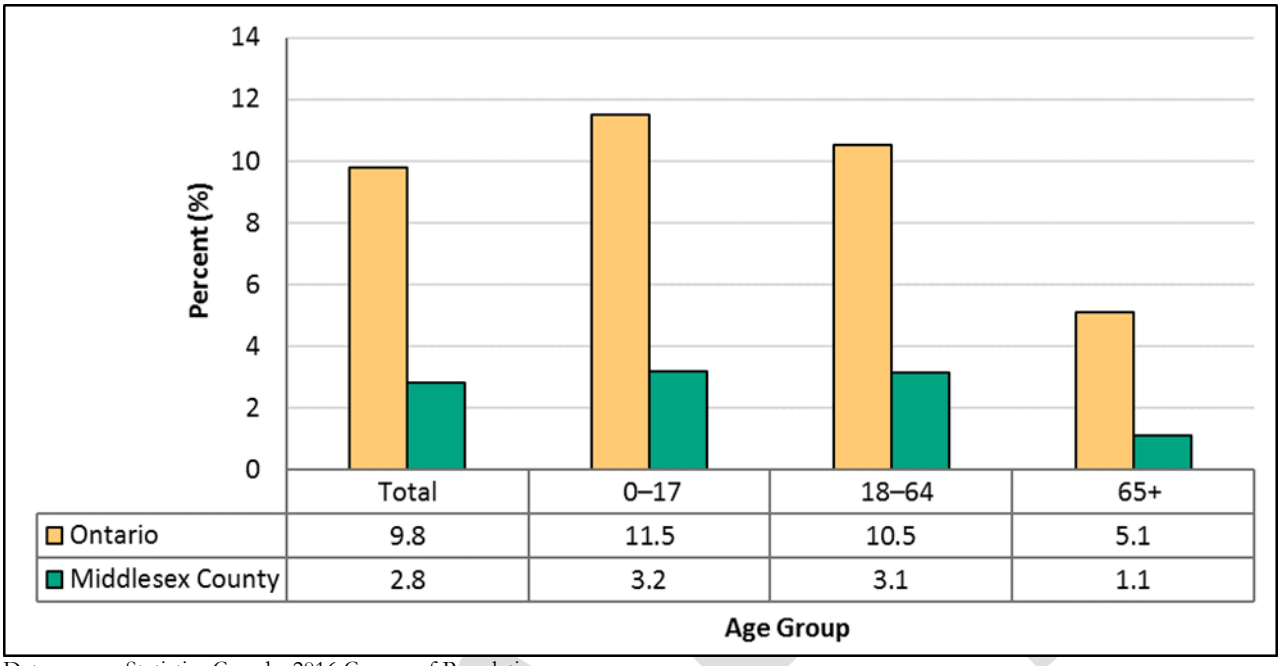
Median household income was higher than the Ontario median household income in five out of the eight municipalities and Middlesex County had a much lower percent of the population that was relatively worse-off financially living in low-income after tax in 2015 (2.8%) compared with Ontario (9.8%). However, children are disproportionately affected by low income within Middlesex County compared with seniors aged 65 and older.

Figure 7. Median after-tax income of households, Middlesex County by lower tier municipality and Ontario, 2015.



Data source: Statistics Canada. 2016 Census of Population

Figure 8. Percent of the population below the low income cut-off after tax, by age group, Middlesex County and Ontario, 2015.



Data source: Statistics Canada. 2016 Census of Population.

Unemployment rates in Middlesex County were generally better than the province and seven out of eight of the municipalities (all but the Village of Newbury) had rates lower than the province.

Table 2. Unemployment count and rate for population aged 15+, Middlesex County lower tier municipalities and Ontario, 2015.

Region	Number Unemployed	Number Participating in Labour Force	Unemployment Rate (%)
Newbury	35	190	18.4
Lucan Biddulph	130	2,730	7.4
Strathroy-Caradoc	545	11,235	4.9
Southwest Middlesex	135	3,000	4.5
Thames Centre	345	7,680	4.5
Middlesex Centre	425	9,690	4.4
North Middlesex	155	3,535	4.4
Adelaide-Metcalfe	65	1,715	3.8
Middlesex County	1,835	39,775	4.6
Ontario	529,525	7,141,675	7.4

Data source: Statistics Canada - 2016 Census, 25% Sample Data. Catalogue Number 98-400-X2016365.

Post-secondary education levels in Middlesex County have increased over time from 58.6% in 2006 to 64.1% in 2016 and became similar to the province in 2016 (65.1%). However, the type of postsecondary education differed. The residents of Middlesex County were more likely to have a college, apprenticeship or trades certificate and less likely to have a university degree than Ontarians as a whole.

Table 3. Percent of the population (age 25–64) by highest educational attainment, Middlesex County and Ontario, 2016.

Highest Level of Educational Attainment	Middlesex County (%)	Ontario (%)
No certificate, diploma or degree	9.9	10.4
High school certificate or equivalent	26.1	24.5
Postsecondary certificate, diploma or degree	64.1	65.1
Apprenticeship or trades certificate or diploma	9.2	6.2
College, CEGEP or other non-university certificate or diploma	33.7	24.7
University certificate or diploma below the bachelor level	2.2	2.4
University certificate, diploma or degree	19.0	31.9

Data source: Statistics Canada, 2016 Census of the Population.

For further details regarding social determinants of health, refer to Appendix A.

Organizational Practices

Overview

The Middlesex-London Health Unit takes great effort to deliver the best possible public health programs and services for the residents of Middlesex County and to meet the organizational requirements of the Ministry of Health and Long-Term Care. To meet these requirements, boards must:

- Deliver public health programs and services in accordance with the Foundational and Program Standards and incorporated protocols and guidelines
- Be accountable for using public health funding efficiently and for its intended purpose
- Use recommended best practices in governance and organizational processes
- Foster a culture of excellence in professional practice and a culture of quality and continuous organizational self-improvement.

Stakeholder Perspectives

There was no specific reference to organizational practices in the municipal councillor survey or the key informant interviews.

Current State

Considerable efforts have been undertaken to ensure that MLHU organizational practices optimize program and service delivery and ensure accountability for Middlesex County residents. Activities that support Ministry requirements include the annual service plan submission and reporting on accountability agreement indicators. The Annual Service Plan and Budget Submission is prepared by boards of health to communicate their program plans and budgeted expenditures for a given year. Information provided in the Annual Service Plan describes the programs and services boards of health deliver in accordance with the Ontario Public Health Standards: Requirements for Programs, Services, and Accountability, based on local needs and budgets at the program level. The Annual Service Plan includes board of health generated objectives and measures for monitoring achievements and reflects the requirements in the Standards.

From a fiduciary perspective, MLHU has adopted robust financial processes and controls including Program Budgeting Marginal Analysis (PBMA), quarterly variance reporting, and the factual certificate.

PBMA is a criteria-based budgeting process that facilitates reallocation of resources based on maximizing services. This is done through the transparent application of pre-defined criteria and decision-making processes to prioritize where proposed funding investments and disinvestments are made.

Health Unit management completes a factual certificate to increase oversight in key areas of financial and risk management. The certificate process ensures that the Finance and Facilities Committee has done its due diligence. The certificate is reviewed on a quarterly basis alongside financial updates. Management also provides financial analysis for each quarter and reports the actual and projected budget variance as well as any budget adjustments. Included are noteworthy items that have arisen since the previous financial update that could impact the Middlesex-London Health Unit budget.

From a governance perspective, MLHU has implemented a comprehensive governance program including board of health nomination, recruitment, orientation, development, annual attestations, risk management, strategic planning, Medical Officer of Health / Chief Executive Officer performance appraisal and bylaw, policy, and procedures review and development.

Regarding a culture of excellence, quality and continue improvement, MLHU has a chief nursing officer, nursing practice council, and a research advisory chair. MLHU has also implemented a detailed program planning and evaluation framework and is in the process of implementing a project management office.

Best Practices

Literature Scan

In other settings, it is public health professionals educating and supporting others to deliver the services rather than delivering services themselves. Some examples are family doctors or pharmacists providing immunizations, health screening, and health promotion messaging and schools implementing healthy policy and delivering public-health related curricula. Similarly, public health professionals can incorporate already existing facilities and infrastructure within the community into their public health services, such as referring clients to physical activity facilities or encouraging the use of walking trails; this reduces the amount of travel and potential costs to individuals while also not incurring operational costs for the public health system. Several results advocate for conducting community resource inventories or gap analyses to determine what services are being delivered and by whom to reduce redundancies in service provision.

While having public health issues addressed by others within the community has many benefits to improving access to services and reducing costs to the public health system, it can make it potentially challenging for community members to become aware of, and navigate to, all the different services. This emphasizes the importance of co-ordinating services. Developing formal partnerships with community stakeholders can improve co-ordination of effort, reduce duplication, incorporate non-health sector contributors to health and wellbeing, and provide consistent messaging; however, they also require planned communication to the community to raise awareness and inform how to access services. Some jurisdictions also incorporate the role of a wellness or system navigator who connects clients to the various services in their community depending upon their health needs.

Staffing mix also has an impact on maximizing service delivery and available resources. While mainly discussed within the context of primary health care teams whose services addressed public health issues, a prevalent model is multidisciplinary teams working together to provide services. The composition of these teams is dependent upon the needs of the specific community but can include not just physicians and nurses, but also allied health professionals, community health workers, and social service providers. Having multiple disciplines on the same team can improve the quality of care and reduce the need to travel as different disciplines are available together to provide their expertise. It can also improve the timeliness and cost-effectiveness of care as clients can receive service from the most appropriate professional, not necessarily the most expensive, for example receiving an immunization from a nurse practitioner or pharmacist rather than waiting to see the physician, who is then available to provide services outside of other professions' scopes. Success of this model necessitates that professionals practice at the full scope of their profession and with clear role delineation, thereby increasing the variety of services that are available in the community, often at reduced costs. Along those lines, several results also advocate for the increased use of generalist, as opposed to specialist professionals, as they can provide a greater breadth of services. This can be important in rural areas which may have difficulty recruiting or affording health care professionals or not have the volume of requests to support a specialist. Increasing the use of lay health educators or community health workers is also promoted as a more cost effective means of providing education and outreach, connecting clients to community resources, and possibly performing direct services such as screening and rapid tests.

For further details, see Appendix B

Environmental Scan

Other health units commented on the difficulty of obtaining data for rural areas but that it is important that feedback opportunities be built into program planning and evaluation.

Strategies to more effectively delivery services to rural populations included:

- Communication planning and resource coordination
- Educating municipal candidates about public health issues as a helpful way of ensuring key stakeholders understand the work of health units
- Development of a community engagement strategy to guide working with rural residents and municipalities
- Using community development approaches
- Ensuring that the board is representative of the community.

For further details, see Appendix E

Accessibility

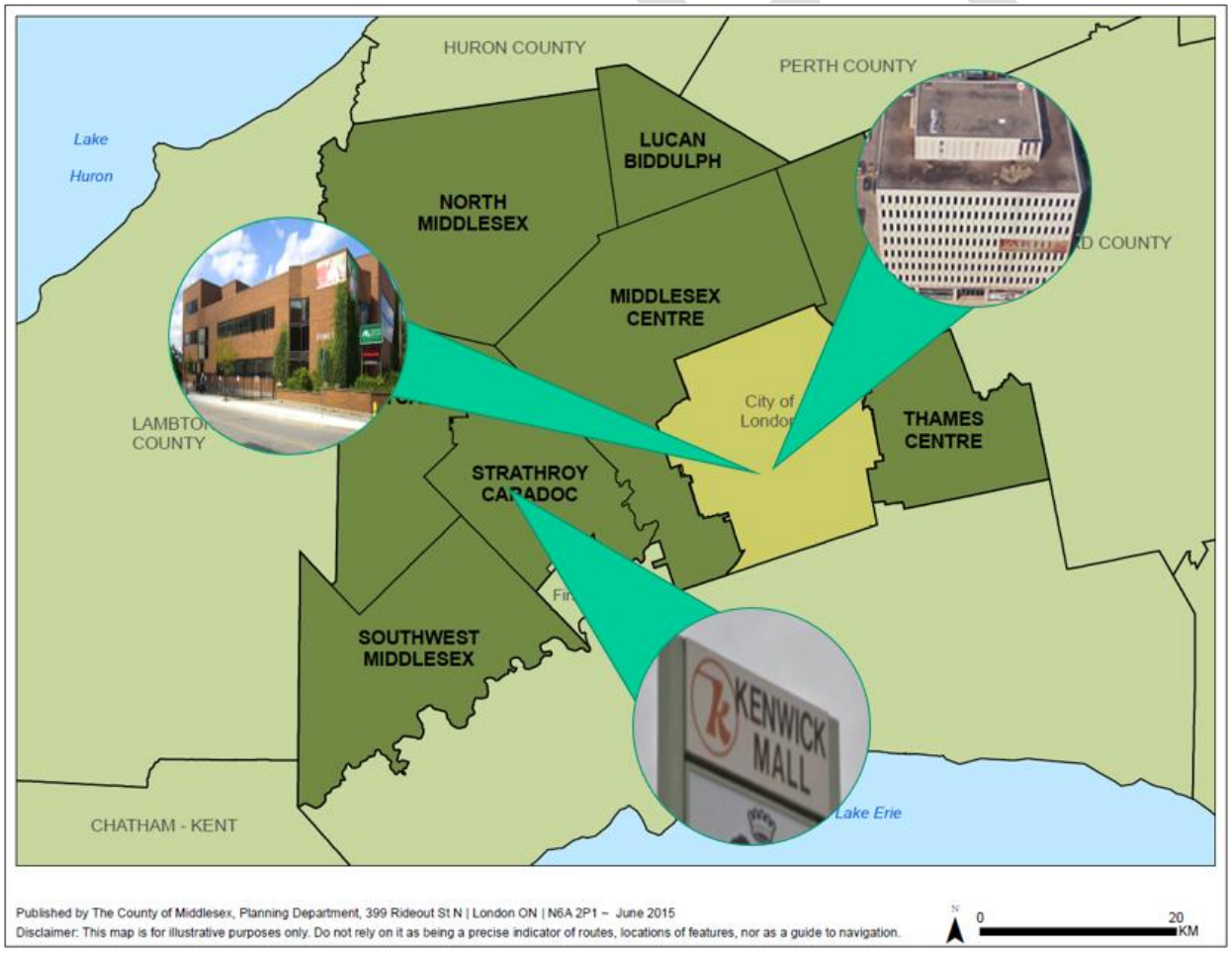
Overview

Low population densities can make it difficult to have health care offices and providers available in every community due to a lack of critical mass and economies of scale. This results in rural populations often needing to travel greater distances to access services or having trouble navigating the health system as some services are available locally while others are not.

Current State

The Middlesex-London Health Unit operates three different physical facilities, one of them being in Middlesex County at the Kenwick Mall in Strathroy. While MLHU does direct service delivery to clients in these offices, the majority of work is conducted as outreach in homes, schools, restaurants, long-term care homes and other spaces throughout Middlesex County as well as through numerous forms of print, electronic and social media. Online channels are increasingly important and MLHU has established a strong virtual presence, including online with its website, social media, online learning modules, over the phone, and through smart phone apps.

Figure 9. Middlesex-London Health Unit office locations, 2018.



Data source: The County of Middlesex, Planning Department. 399 Ridout St. N. | London ON | N6A 2P1 - July 2015

Stakeholder Perspectives

Of the respondents to the municipal councillor survey, 77% indicated that MLHU programs and services are very accessible or somewhat accessible to residents of Middlesex County.

Comments from the councillor survey indicated the Strathroy office services those in Strathroy or around it but not other parts of the county. Additionally, it was felt that there had been staffing cuts and fewer services are offered in Strathroy.

In the key informant interviews, all respondents noted that transportation is a significant challenge for their residents, particularly the most vulnerable residents. There is a lack of public transportation options for county residents and many residents are not familiar with MLHU locations and how to access them. It was also noted that it can be difficult for residents to get to downtown London for services.

All key informants also mentioned that libraries are becoming the hub of many communities and provide spaces for information to be shared and services to be delivered in a way that people would not be stigmatized for accessing MLHU services.

Lastly, all respondents touched upon the need to collaborate with community partners to share information and to use spaces that are already existing in the community. Some of the places to share information include schools, hospitals, primary care providers, town halls, municipality-specific web pages, local media, etc. Some of the physical spaces to use include schools, community rooms, grocery stores, libraries, town halls, social housing, etc.

Suggestions from the councillor survey to increase accessibility included:

- Providing programming in each community
- Offering more programming in Strathroy
- Participating in the regional transportation initiative
- Utilizing municipal/county spaces
- Offering rotating / mobile clinics around the county
- Improving the efficiency of responding to questions online or over the phone
- Offering programming through other health care providers / private sector

For further details, see Appendix C and D.

Best Practices

Literature Scan

Strategies to improve access to services in rural communities revolve around leveraging already-existing community assets. One approach is to collaborate with community organizations and other health service providers to deliver public health services. This can consist of public health employees delivering the services, but using other organizations' facilities, which reduces operational costs, increases the number of locations through which services can be delivered, and further encourages community development. It can also consist of already existing community organizations and health care providers addressing public health issues and providing public health services themselves, which expands potential hours and locations through which individuals can receive public health information and services, as well as reduces costs by requiring less public health-specific infrastructure and reducing duplication of efforts. In some settings, this is a component of the health care system as there are no specific public health agencies or organizations addressing specific issues.

In settings where primary care has responsibility for population and public health outcomes, the most prevalent model proposed is that of a "health hub", although the model goes by many different names. In

essence, a health hub is a model whereby many different health care providers and services are integrated, usually with multi-disciplinary teams, and co-located or networked with other social services such as housing, education, child services, and social assistance. Even in settings where separate public health entities exist, such as Ontario, the health hub model is promoted for rural settings with the vision that public health will collaborate with the health hubs. The health hub model helps to address several of the challenges rural communities face. Having multiple health and social services co-located or networked together can decrease operating costs such as physical and technological infrastructure. It can also decrease the amount of travelling rural residents are required to do to access various services. Having health and social services integrated to various degrees can also help to address the social determinants of health by improving access to, and collaboration among, the various services and supports such as housing, education, and social assistance and streamline referrals. Increased collaboration and integration of multiple services can also improve role clarity among providers, thereby reducing duplication of services which can free up capacity and resources.

Another theme which emerged was the need for expanding access to services in order to meet the diverse population needs within a community. In rural communities, populations are more dispersed, most services require driving to access, and unemployment and seasonal work are more prevalent, which can make accessing services from fixed sites during regular business hours more difficult. As such, different service delivery models are usually required; however, determining the appropriate service delivery model to implement depends upon the unique needs of each community and its residents, meeting people where they are and providing services in manners that are acceptable for them. Suggested methods for expanding access to services include, as mentioned above, providing services through other community organizations, facilities, or service providers, thereby increasing the number of locations and potential hours. Outreach, mobile, and home visiting services are also mentioned frequently, especially in the delivery of substance misuse, sexual health, and harm reduction services, but also to deliver maternal and child health services such as breastfeeding support. Developing formal service agreements between health authorities is another approach proposed from New South Wales in Australia to enable residents who live close to the border to access services from a neighbouring health authority should those services be closer. Finally, technology is advocated as being a manner through which to deliver both direct services through telehealth, as well as health education and information through web-based resources. Live telemedicine alleviates the challenge of having a full range of professionals located in the community, while pre-recorded telemedicine or web content and web-based tools address the challenge of accessing set locations during set hours. Examples of using technology to improve service delivery include using web-based tools to support self-care for chronic disease prevention and management, migrating vaccination reporting online, supplying information about community services online, telehealth for direct patient-provider consultations using either rooms equipped with required equipment or mobile smartphone applications, and telehealth to better connect community stakeholders and health care providers for collaboration, support, and professional development.

For further details, see Appendix B

Environmental Scan

Two of the five health units surveyed had more than one satellite office to service their populations and noted that these locations provided the same services as their main site.

All health units use community spaces for the delivery of their programs and services and described a wide range of locations including:

- Libraries
- Community centres
- Social housing common areas
- Recreation centres
- Municipal offices
- School spaces
- Community health centres
- Community hubs
- Early years centres
- Hospitals
- Faith-based organization spaces

They also outlined numerous other methods that they use to increase accessibility for their residents:

- Website, social media and other internet applications
- Phone service
- Information at municipal offices
- Drop off sites for water testing in rural communities
- Mobilizing and building capacity with community groups and partners to deliver services (health care providers, other social services, volunteers, etc.)
- Board meetings rotated between municipal and First Nation sites
- Partnerships with neighbouring health units when residents may have closer options
- Having staff working in schools across rural areas
- Staff attendance at community events
- Rotating the location of classes and courses
- Offering taxi vouchers

For further details, see Appendix E

Community Engagement

Overview

The Ontario Public Health Standards and the programs and services delivered by the Middlesex-London Health Unit are based on the principles of partnership, collaboration and engagement. This means engaging with multiple sectors, partners, communities, priority populations and citizens.

MLHU incorporates community engagement into all aspects of program planning, implementation and evaluation; however, there are always opportunities to improve engagement.

As part of this review, MLHU sought feedback from stakeholders on how to best engage the community using the International Association for Public Participation (IAP2) Spectrum.

Figure. 10 – IAP2 Spectrum of Public Participation

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.	To obtain public feedback on analysis, alternatives and/or decision.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Data source: International Association for Public Participation. https://iap2canada.ca/Resources/Documents/0702-Foundations-Spectrum-MW-rev2%20(1).pdf accessed May 2019.

Stakeholder Perspectives

Councillors and key informants identified potential opportunities for engaging with Middlesex County stakeholders across the spectrum including:

- Social media
- Sharing information at other locations (libraries, schools, town halls, doctors' offices, etc.)
- Online newsletters
- Regular delegations to municipal councils
- Developing good relationships with municipal decision makers
- Information sessions in the community and to service organizations
- Information in tax notices
- Digital media
- Print media
- Service clubs
- Billboards and portable signage

- Formal feedback mechanisms for the public to utilize on an ongoing basis
- Ensuring that mandates for decision-making are clear

Community assets that councillors and key informants felt MLHU should keep in mind during community engagement included:

- Local service clubs
- Existing health providers
- School boards and education providers
- Public transit providers
- Municipal councils and administrators
- Social service agencies and not-for-profits
- Faith-based organizations
- Community centres
- Private businesses
- Libraries
- Local media outlets
- Municipal offices
- Parks
- Arenas
- Sports clubs

For further details, see Appendix C and D.

Current State

The Middlesex-London Health Unit engages a wide-range of community partners on all public health issues. Community and stakeholder engagement is a core public health principle that is integrated into all of the programs and services delivered by MLHU.

A planning and evaluation framework that MLHU has implemented explicitly describes the importance of engaging with stakeholder and the process for effective engagement at the programmatic level.

At the organizational level, MLHU has partnership agreements with stakeholders across Middlesex County which formalize relationships and clarify mandates.

A major engagement initiative that MLHU also conducts is healthcare provider outreach. There is a dedicated team that provides a direct link between the programs and services that MLHU provides and the healthcare providers across Middlesex County. The team conducts annual visits to each healthcare provider in addition to sending out monthly communications regarding important public health issues.

Best Practices

Literature Scan

Consistent across the included papers was the idea that each rural community is unique with its own specific combination of challenges and assets. As such, there is no one-size-fits-all service delivery model that will work for rural communities. As a result, the importance of engaging with community members, community organizations, municipal government agencies, and other local health care providers to assess local needs and assets and to develop local strategies was prominent among the results.

For further details, see Appendix B

Environmental Scan

In regards to community engagement, Ontario public health units surveyed noted the following considerations:

- Surveys
- Community meetings
- Feedback is built into program delivery and evaluation
- Ensuring that residents and municipalities are involved in the planning process
- A community engagement strategy to guide work
- Residents and municipalities are involved in all aspects of planning, implementation and evaluation
- Staff that act as liaisons between stakeholder groups
- Use a community development approach
- Ensuring board representation of the community
- Build and use coalitions
- Public health units can provide advice to municipalities when they make decisions regarding public health matters

For further details, see Appendix E.

Foundational Standards

Overview

The Ontario Public Health Standards outline that public health programs and services are to be informed by evidence, responsive to the needs and emerging issues of the health unit's population and use the best available evidence to address them. This is done through:

- Population health assessment;
- A focus on health equity to support people to reach their full health potential;
- The application of evidence-informed decision-making, research, knowledge exchange, program planning and evaluation, and communication;
- A focus on quality and transparency; and
- Emergency management to ensure that programs and services have the capacity to respond to new and emerging events and cope with a range of disruptions.

Stakeholder Perspectives

In the municipal councillor survey, when asked how important is it for MLHU to focus on the following standards for public health practice:

- 91% of respondents indicated that Health Equity is very important or extremely important
- 93% indicated that Effective Public Health Practice is very important or extremely important
- 69% indicated that Emergency Preparedness is very important or extremely important
- 77% indicated that Population Health Assessment is very important or extremely important

For further details, see Appendix C and D.

Current State

The Middlesex-London Health Unit has staff dedicated to supporting the Foundational Standards and the work of all of the public health programs and services delivered in Middlesex-London. The teams that provide this support include the Population Health Assessment Team, the Health Equity Core Team, the Program Planning & Evaluation Team and the Emergency Management Team. These staff are based out of the London offices of MLHU.

Best Practices

Literature Scan

To further understand local community needs and the ability to monitor progress on desired health outcomes, another prevalent theme was having systems in place to collect, monitor, analyze, and share local data. Strategies included conducting regular community health assessments, having data sharing agreements with other community organizations, and having standard Electronic Medical Records in order to aggregate local data from multiple providers.

For further details, see Appendix B

Program Standard / Health Topics

Chronic Disease Prevention and Well-Being

Overview

The goal of these public health services is to reduce the burden of chronic diseases of public health importance including, but not limited to, obesity, cardiovascular diseases, respiratory disease, cancer, diabetes, intermediate health states (such as metabolic syndrome and prediabetes), hypertension, dementia, mental illness, and addictions and improve well-being.

The top eight leading causes of death between 2010 and 2012 in Middlesex County were chronic diseases (Table 1 – page 9): ischemic heart disease, dementia and Alzheimer's disease, lung cancer, cerebrovascular diseases, lower respiratory diseases, colorectal cancer, diabetes and lymph and blood cancer. These accounted for 58.4% of all deaths.

The top ten leading causes of death were the same for Middlesex County and Ontario, with the top eight causes following the same ranking order.

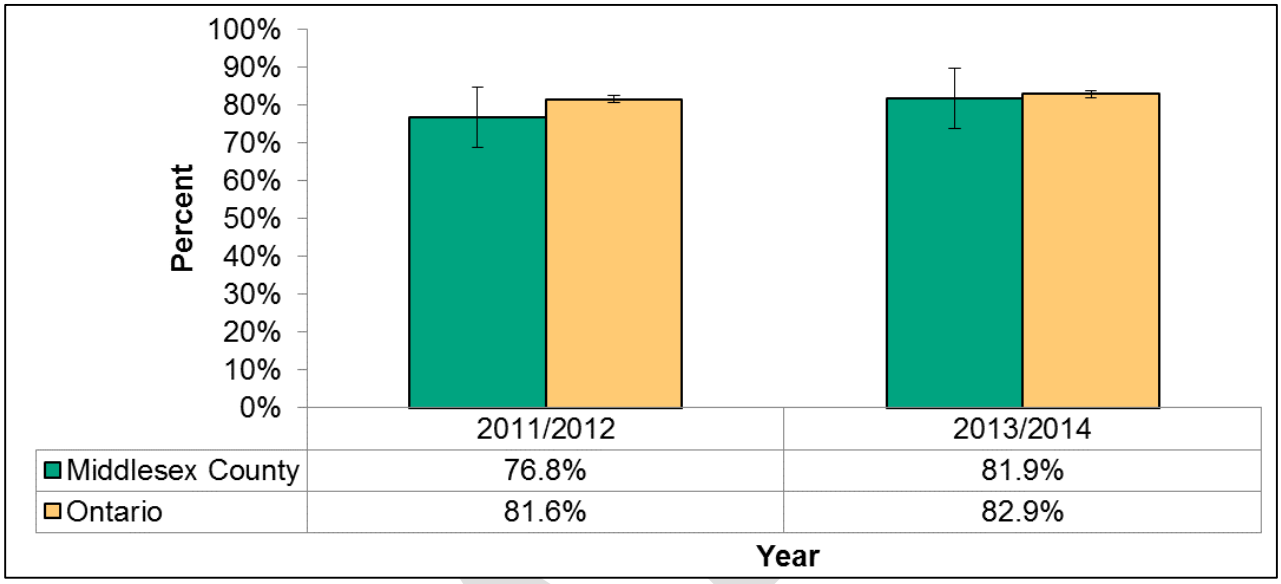
Ischemic heart disease, the leading cause of death in Middlesex County, accounted for 80% more deaths as lung cancer, the second leading cause of death.

Healthy weight has been measured by body mass index (BMI). This is ratio of weight to height (kg/m^2). Normal weight is classified as a BMI of 18.5–24.9, overweight is a BMI of 25.0–29.9 and obese is a BMI 30.0 and above. It is an important predictor of many chronic conditions including several of the leading preventable causes of death in Middlesex County. Over 60% the population was considered overweight or obese in Middlesex County in 2013/14. This represents an area of population health risk. Diabetes is a chronic condition for which BMI is a predictor. Looking at the rates of diabetes in the population there is a fairly steady rate over time between the years of 2004 to 2017. In general, the Middlesex County rate is lower than that of the province and males are disproportionately affected with higher rates.

Chronic diseases are linked to behavioural risk factors such as alcohol consumption, physical inactivity and smoking. In data from community health surveys from the years 2011 to 2014, a substantial portion of the population of Middlesex County reported behaviours that put them at risk for chronic diseases and injuries. For instance, only about half the population reported being active or moderately active during their leisure time, averaging 1.5 or more kcal/kg/day of energy expenditure from leisure-time physical activity. This is approximately the amount of exercise that is required to experience some health benefits. In the same time frame, only about half did not exceed the low risk alcohol drinking guidelines. Current smoking continues in about 20% of the adult population.

In 2013/2014, 81.9% of adults aged 19 years and over in Middlesex County reported that they were non-smokers (Figure 11). Compared to the province, Middlesex County had a similar proportion of non-smokers.

Figure 11. Percent of non-smokers among adults age 19 years or older, Middlesex County and Ontario, 2011/2012 and 2013/2014.

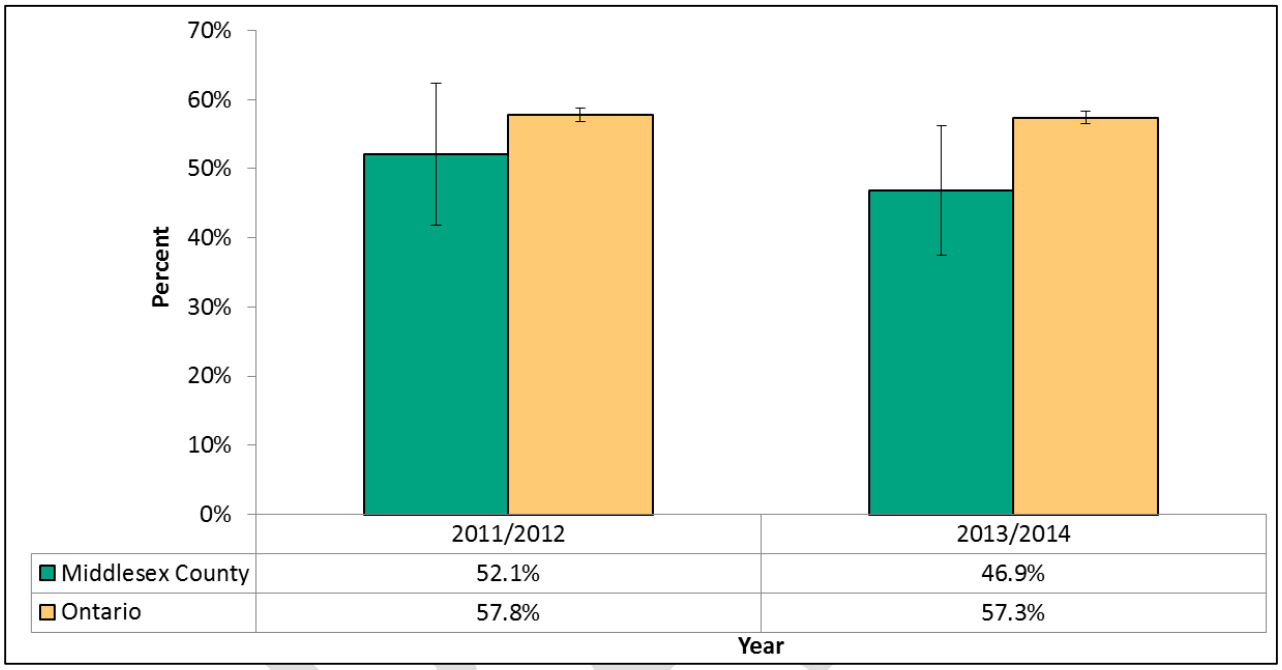


Data source: Canadian Community Health Survey, Statistics Canada, Share File, Ontario Ministry of Health and Long-Term Care.

The proportion of those aged 19 and older, in Middlesex County, who did not exceed the low risk drinking guidelines in 2013/2014 was 46.9% (Figure 12).

The rate in Middlesex County was significantly lower than that of Ontario (57.3%) in 2013/2014, however only approximately half did not exceed the drinking guideline in both 2011/2012 and 2013/2014 (Figure 12).

Figure 12. Percent of population (age 19 years and older) who did not exceed the Low Risk Drinking Guidelines, Middlesex County and Ontario, 2011/2012 and 2013/2014.

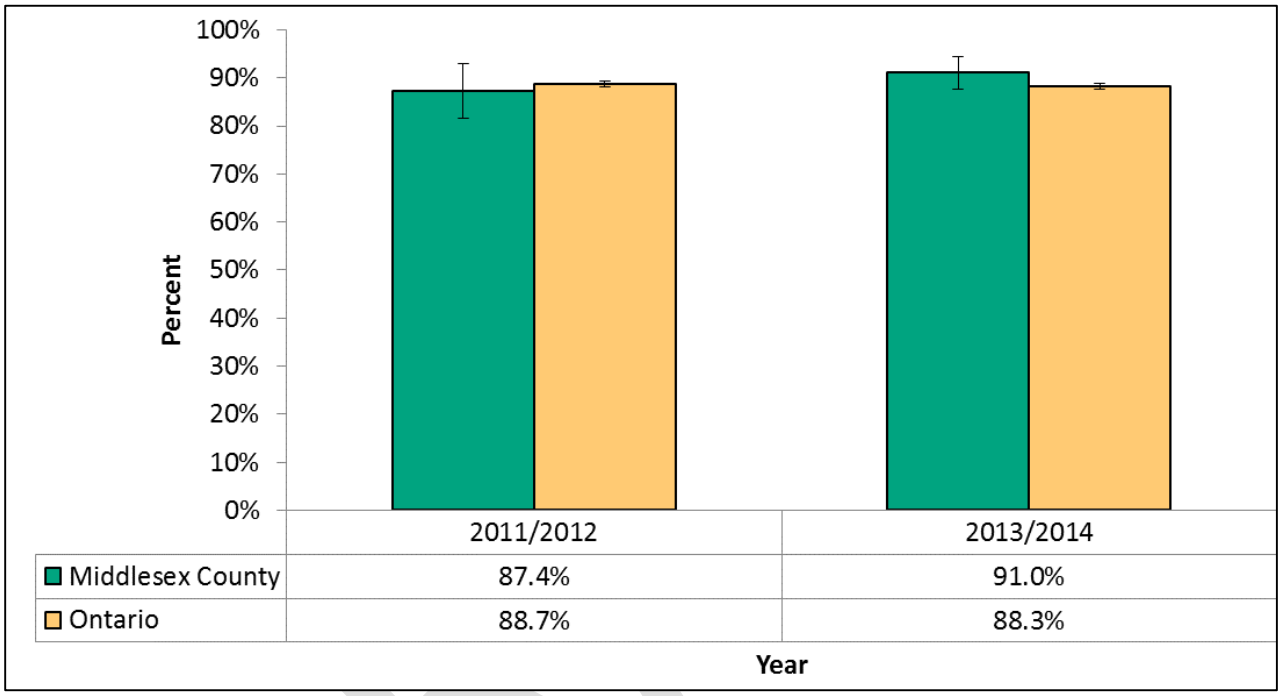


Data source: Canadian Community Health Survey, Statistics Canada, Share File, Ontario Ministry of Health and Long-Term Care.

Data indicates that Middlesex County patterns of behavioural risk factors are not different from Ontario. This could be due, partly, to a small number of people responding to the survey in Middlesex County. However, it likely indicates that lifestyle behaviour rates in Middlesex County are similar to the province.

Self-rated health is a self-assessment of an individual's current health status that encompasses both experiences and understanding of the causes and impacts of disease. It has been shown to be predictive of the development of chronic conditions and mortality. Over 90% of people rated their overall health as good, very good or excellent after taking physical, mental and social well-being into consideration. Respondents are asked to consider health, not just from the perspective of absence of disease and injury, but also to consider social, mental and physical aspects of their well-being.

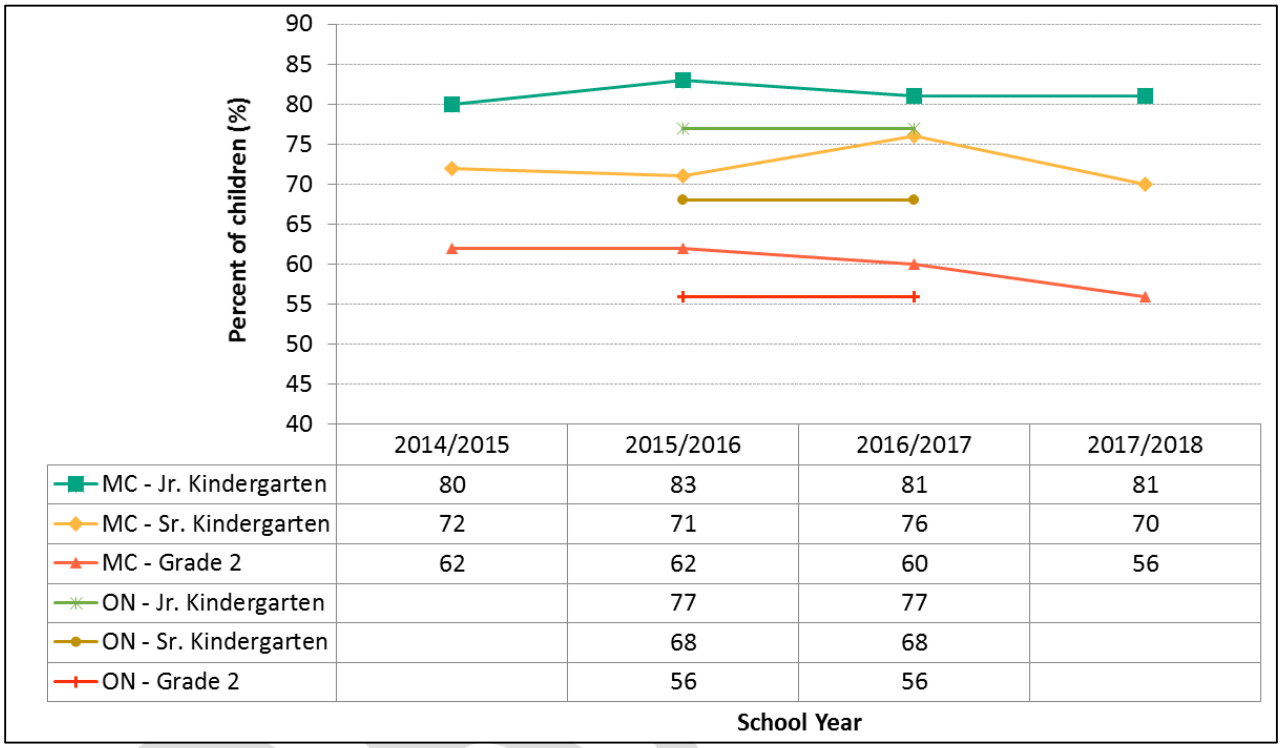
Figure 13. Percent of the population (age 12 years or older) who reported "excellent", "very good" or "good health", Middlesex County and Ontario, 2011/2012 and 2013/2014.



Data source: Canadian Community Health Survey, Statistics Canada, Share File, Ontario Ministry of Health and Long-Term Care.

Understanding tooth decay in the school aged children population is important because of its implications for quality of life. In Middlesex County, where some drinking water is not fluoridated, tooth decay increases as children age from junior kindergarten until grade 2. The percentage of children with no cavities or decay goes down and the number of teeth affected in those with decay increases as grade level goes up. In comparison to a sample of health units making up approximately half on the Ontario population, Middlesex County rates of decay were lower in the 2015/2016 and 2016/2017 school years.

Figure 14. Percent of children who had no visible tooth decay (caries free) in Middlesex County and Ontario.



	2014/2015	2015/2016	2016/2017	2017/2018
MC - Jr. Kindergarten	80	83	81	81
MC - Sr. Kindergarten	72	71	76	70
MC - Grade 2	62	62	60	56
ON - Jr. Kindergarten		77	77	
ON - Sr. Kindergarten		68	68	
ON - Grade 2		56	56	

Data source: Oral Health Information Surveillance System (OHISS), Ministry of Health and Long-Term Care. Extracted date: July 17, 2018 & Oakley, D. 2018. Summary of 2015-2017 Oral Health Screening: Results from Participating Ontario Health Units: For the Ontario Association of Public Health Dentistry.

For further details, see Appendix A.

Stakeholder Perspectives

In the councillor survey, 84% of respondents indicated that it is important for MLHU to focus on Chronic Disease Prevention and Well-being.

Mental health was also noted in both the survey and key informant interviews. Specifically, key informants felt that it is an issue that requires the involvement of many different community organizations to solve and not just the Health Unit. With limited resources, the response will depend on communication and awareness about where people can access services, and partnerships between those who have resources in the county.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for chronic disease prevention and well-being includes:

Sun Safety and Ultraviolet Radiation Exposure

Intervention/Service	Location of Delivery	Frequency of Delivery
Provide health education on Sun Safety	Anywhere in the community that is requesting education or information on Sun Safety	Upon request
Increase public awareness of skin cancer and sun protective behaviours through social media	Social media platforms such as Facebook, Instagram, Twitter and the Carrot app	Weekly in the summer months
Advocate and collaborate with the Ontario Sun Safety Working Group to raise awareness and provide province wide recommendations on skin cancer prevention	Meet with working group to provide province wide messaging on Sun protective behaviours	Meet 3-4 times a year
Collaborate with the school health team to raise awareness and provide education on skin cancer prevention	Middlesex County schools	Upon request
Provide supportive environments by providing sun hats to high risk families within the Healthy Babies Healthy Children program	Healthy Baby Healthy Children home visits	Frequency of visits would vary for each family
Promote the Skin Cancer Prevention Act to reduce youth access to artificial tanning services	Artificial tanning operators – 7 in Middlesex County	Annual inspection to provide vendor education and ensure that signage is posted. Additional inspections would occur after a complaint has been received.
Environmental Support/Policy Development/Advocacy	Municipalities, workplaces, childcare facilities and programs and schools	Ongoing – frequency and location of service is dependent upon uptake

Food Literacy

Intervention/Service	Location of Delivery	Frequency of Delivery
Ailsa Craig and Area Food Bank food literacy program– a group of community members interested in cooking healthy, seasonal, low-cost recipes meet to prepare and enjoy a full meal together. Food literacy skills are developed and enhanced (including food and nutrition knowledge; food skills; self-efficacy and confidence) to improve dietary behaviours.	Community space (e.g., recreation facility kitchen space, faith-based organization's kitchen; typically in Ailsa Craig and/or Parkhill)	Pilot project initially conducted in April 2018. Will offer programming as requested, likely 2-4 times annually (seasonally).
Increase public awareness of healthy eating behaviours and increased community service capacity for the provision of food literacy programs and services through partnerships and social media platforms	Social media platforms such as Facebook, Instagram, and Twitter and promotion of UnlockFood.ca	Ongoing
Group Home and Youth Opportunities Unlimited Food Literacy Programming and Group Home Client Consultations	Strathroy (YOU), Ailsa Craig (Craigwood Youth Services) and Parkhill (Anago-Parkhill Therapeutic Care Residence)	Approximately 3 – 4 times annually per site

Food Insecurity

Intervention/Service	Location of Delivery	Frequency of Delivery
Collection of Nutritious Food Basket costing data	Grocery stores (costing)	Once per year
Advocating for provincial and federal policies to reduce the rate of household food insecurity (e.g., increased social assistance rates, basic income, affordable housing, annual monitoring of food insecurity)	N/A	Ongoing
Distribution of Harvest Bucks (vouchers redeemable for fresh vegetables and fruit at participating locations)	Community organizations (e.g., in 2018 – Oneida Nation of the Thames, SOAHAC Muncey)	Ongoing – community organizations distribute Bucks through their programming throughout the year based on program schedules
Increase public awareness of impact of food insecurity and the	Social media platforms such as Facebook, Instagram, and Twitter	Ongoing – capitalizing on "opportunities" when they present themselves

need for income-based solutions through social media		

Food Systems and Food Environment

Intervention/Service	Location of Delivery	Frequency of Delivery
Partnerships and Capacity Building- Work with Healthy Kids Community Challenge (HKCC) Middlesex County	Komoka Community Centre	2015-2017 (3 meetings of steering committee per year)
Partnerships and Capacity Building- Participation in 2018 Middlesex County Agriculture Forum	Coldstream Community Centre	April 18, 2018
Public Awareness and Education, Policy; Partnerships and Capacity Building- Improve food environments in Middlesex-London re: sugar sweetened beverages/ Marketing to Kids	Social media platforms such as Facebook, Instagram, and Twitter, and mass media channels as resources permit	1/year campaign for sports teams Ongoing through website/social media
Advocacy and Policy, Public Awareness and Education, Partnerships and Capacity Building- Middlesex-London Food Policy Council	Social media and website, meetings held at Middlesex County Building Ridout St. London, events across City and County	Established Nov. 2016; 9 meetings/year Action Groups; 5 meetings/year Events; 2 in 2017, 4 in 2018
Public Awareness and Education, Partnerships and Capacity Building- Development of Get Fresh... Eat Local Guide with Middlesex County Federation of Agriculture	Office work; provided nutrition content for guide	1/year
Public Awareness and Education, Policy; Partnerships and Capacity Building- Supporting workplaces wanting to make policy and culture change that would encourage healthy eating for employees (e.g., policy related to food and drink offered at meetings and events)	Workplaces	Upon request

Prevention of Tobacco Use and Emerging Products

Intervention/Service	Location of Delivery	Frequency of Delivery
Creation of a comprehensive substance use toolkit for high schools to provide support and resources related to tobacco, e-cigarettes and cannabis	Online Print	Upon request / as required
Education and awareness sessions related to emerging products such as e-cigarettes	In-person / onsite at requested location	Upon request
Support the development of comprehensive high school policies that create supportive environments and provide protection from second-hand smoke, tobacco and emerging products	Phone Email Dissemination of information / materials via mail or in-person on site	Upon request and / or in response to complaints
Host Smoke-Free Movie events to increase public awareness about the causal link between child and youth exposures to tobacco impressions in movies and tobacco use initiation	Municipality of Strathroy-Caradoc – Strathroy Fairgrounds	1 time per year
Implement Smoke-Free Movie activities that garner support for legislative changes to the movie rating system, including collection of signatures on petitions and engaging with local MPPs	Community spaces (e.g. parks) Social media/mass media MPP offices	Events to gather petition signatures happen over the course of the year Typically visits to MPP offices occur once/year
Host grassroots events in parks and playgrounds to promote tobacco- and vape-free restrictions	Community spaces (e.g. parks and playgrounds) Social media/mass media	3-4 times per year
Support and promote the That's Risky campaign to profile the risk between second-hand smoke exposure and breast cancer with young adults	Community spaces Social media/mass media	Campaign will occur once per year, with grassroots activities happening 1-2 times per year, as opportunities present themselves for appropriate community engagement
Promote and implement the Know What's in Your Mouth campaign to increase awareness about the dangers of smokeless tobacco use to young athletes and their parents	Community spaces (e.g. parks and playgrounds) High schools	1-2 times per year

Promote and disseminate WouldURather campaign materials with an emphasis on the "Don't Start and Win" category	Community spaces Social media/mass media	1 time per year
Participate and support SWTCAN's development of the Young Adult Male campaign to increase lifetime smoking abstinence rates among young adult males working in sales, service, and blue collar trades and to prevent young adult males who smoke occasionally from progressing to regular smoking	(in development)	(in development)

Tobacco Cessation

Intervention/Service	Location of Delivery	Frequency of Delivery
Tobacco Cessation Services through the Quit Clinic (one on one counselling and provision of nicotine replacement therapy at no cost)	MLHU Strathroy Office - Kenwick Mall Home visits Phone call and medication drop-offs	1 x month on site at Kenwick (depending on number of clients) Home visits based on needs of individual clients
Healthcare provider capacity building and partnerships Maintain Middlesex-London Tobacco Cessation Community of Practice (CoP) - sharing and dissemination of training opportunities and updated tobacco cessation resources; knowledge exchange among CoP members via online discussion board Dissemination of You Can Make It Happen Materials Training related to brief cessation interventions	Online (CoP) Discussion Board Email In-person / onsite Mail	Training related to brief cessation interventions upon request CoP updated monthly on CoP discussion board and via e-newsletter Knowledge exchange among CoP members as required by members Distribution of YCMIH materials upon request
Promotion of mass media campaigns related to smoking cessation to increase quit attempts	Dissemination of materials and messaging through mail Social media and online Media release	Mail out of resources happens 1 - 2 x/year or more frequent if requested Social media monthly (6-8 x / month) Media release 1-2 x / year
Support the development of policies that promote and support cessation for clients and employees within workplaces	Onsite / in-person meetings Phone and email communication MLHU website	Upon request

Protection from Second-hand Smoke and Emerging Products

Intervention/Service	Location of Delivery	Frequency of Delivery
Smoke-Free Housing Respond to complaints/ inquiries related to drifting second-hand tobacco and cannabis smoke in multi-unit housing Promotion of and advocacy for comprehensive smoke-free policies to landlords, property managers and tenants	Phone, mail and email (inquiries / complaints) Social media and online Mail for dissemination of resources In-person / onsite at buildings	Upon request Social media Oct / November and throughout the year as opportunities arise
Support the development of comprehensive policies that create supportive environments and provide protection from second-hand smoke and emerging products	Phone Email Dissemination of information / materials via mail or in-person on site	Upon request and / or in response to complaints
Promotion of campaigns related to the law and protection from second-hand smoke and emerging products Workplace campaigns Smoke-Free Parks Changes in legislation or bylaws Smoke is Smoke	Social media and online Paid advertising (print) Radio On-site in parks, workplaces etc. Email	1-2 x / year and / or dependent on changes to the legislation Oct during healthy workplace month
Work towards reducing retail density related to tobacco and e-cigarette retailers by the implementation of retail zoning and licencing measures	In-person Reports Email Phone	Dependant upon implementation plan and uptake by municipalities Licensing inspections for tobacco and e-cigarette retailers occur as new applications are received by municipalities

Tobacco Enforcement – Smoke-Free Ontario Act, Electronic Cigarettes Act, 2015 and municipal bylaws

Intervention/Service	Location of Delivery	Frequency of Delivery
Enforcement of the Smoke-Free Ontario Act – youth access provisions and display, promotion and marketing restrictions	Tobacco Retailers – approx. 45 in the County	Youth Access - at least three times per year Display Promotion and Handling Inspection – at least once per year New Retailer Onsite Education Visit – as needed Complaints generate additional inspections
Public Disclosure of tobacco retailer convictions and respond to request for property inquiries	Health Unit website	Ongoing
Enforcement of the Smoke-Free Ontario Act – public places and enclosed workplaces	Public places, workplaces, Middlesex Hospital Alliance (Strathroy General and Four Counties), common areas of multi-unit housing complexes, and schools (private, secondary and elementary)	Mandated to respond to all complaints received. In addition to complaint-based inspections, proactive inspections occur to support and promote compliance (as resources and capacity permit). 100% of all secondary schools are inspected and a meeting with school administration occurs at least once annually. Total Workplace, Schools, Hospitals, Vendors, Public Place Inspections for SFOA for 2017: Total Inspections: 4,764 County Inspections: 795 (16.7%) London Inspections: 3,969 (83.3%)
Enforcement of the Electronic Cigarettes Act, 2015	E-Cigarette Retailers – approx. 20 in the County	Youth Access - at least once per year Display Promotion and Handling Inspection – at least once per year New Retailer Onsite Education Visit – as needed Complaints generate additional inspections
Promotion and enforcement of the Strathroy-Caradoc Bylaw to Regulate and Prohibit Smoking Near Municipally-Owned Buildings	Arenas, community centres, municipal administration building, outdoor special events	Consultation with Municipal staff as requested/required. Complaint-based and proactive inspections, and the provision of signage scheduled on an ongoing and as-needed basis.

Promotion and enforcement of the Lucan Biddulph Smoke-free Municipal Spaces Bylaw	Arenas, trails, municipal administration buildings, public works offices, community centres, playgrounds, parks and sports fields, outdoor special events	Consultation with Municipal staff as requested/required. Complaint-based and proactive inspections, and the provision of signage scheduled on an ongoing and as-needed basis.
Environmental Support/Policy Development/Advocacy	Property that is under the management and oversight of municipal council, including land/property/spaces that fall under the Municipal Act.	Ongoing – uptake is dependant upon Municipal staff and Council support for policy change

Cannabis

Intervention/Service	Location of Delivery	Frequency of Delivery
Smoke-Free Housing Respond to complaints/ inquiries related to drifting second-hand cannabis smoke in multi-unit housing Promotion of and advocacy for comprehensive smoke-free policies to landlords, property managers and tenants to address cannabis use and the growth of cannabis in rental housing	Phone, mail and email (inquiries / complaints) Social media and online Mail for dissemination of resources In-person / onsite at buildings	Upon request Social media throughout the year as opportunities arise
Support the development of comprehensive policies that create supportive environments and provide protection from second-hand cannabis smoke	Phone Email Dissemination of information / materials via mail or in-person on site Email List Serv	Upon request and / or in response to complaints
Promotion of campaigns and provision of information related to the legalization of cannabis and promotion of the lower risk cannabis use guidelines to minimize harm from use of cannabis Workplace campaigns / workshops/mail-outs/inquiries Changes in legislation or bylaws Smoke is Smoke Local implementation of provincial/federal campaigns	Social media and online Paid advertising (print) Radio On-site in workplaces or through community events, etc. Email Healthcare Provider Outreach Email List Serv	1-2 x / year and / or dependent on changes to the legislation Oct during healthy workplace month

Creation of targeted messaging / materials for priority populations		
Provide advice and information regarding the public health approach to cannabis legalization, and sharing lessons learned from comprehensive tobacco control and alcohol, including retail density and zoning	In-person Reports Email Phone Email List Serv	Dependant upon implementation plan set out by the Provincial Government and decisions made by local municipalities regarding policies and bylaws to control the retail sale of cannabis
Creation of a comprehensive substance use toolkit for high schools to provide support and resources related to tobacco, e-cigarettes and cannabis	Online Print	Upon request / as required

Active Living/Physical Activity

Intervention/Service	Location of Delivery	Frequency of Delivery
Knowledge Transfer (Education/Awareness /Skill Building/consultation support) based on request from community partners ---------- Recent example: Move, Sleep, Sit – Raising Active Children – promotion of the 24-Hour Movement Guidelines for the Early Years (0-4 Years) and connection with theme 4 of HKCC Power Off and Play via Ilderton EarlyON Programs in Middlesex County	From office via email/phone, at community spaces ---------- Ilderton EarlyON Programs (Ilderton, Thorndale, Lucan, Komoka, Dorchester)	On request ---------- Attended 9 Groups (month of July and 1st week of August 2018) during all Ilderton EarlyON Programs held in the county
Provide support, encouragement and skill building for daycare staff to encourage implementation of physical literacy and physical activity practices and policies in child care centres	Daycare centres in Middlesex	On request
2013- 2017 inMotion Challenge campaign to promote physical activity *large campaign completed 2017.	Across Middlesex	Month of October and year round

Healthy Communities/Healthy Community Design

Intervention/Service	Location of Delivery	Frequency of Delivery
Healthy Communities / Healthy Community Design - Consultation	Meetings with consultants and Planners (various locations within Middlesex County) From office via email/phone	Upon request – ad hoc, e.g. Middlesex County Trails Guide, Middlesex Centre Trails Master Plan
Active Transportation - Consultation	Meetings with consultants and Planners (various locations within Middlesex County) From office via email/phone	Upon request – ad hoc
Public Health recommendations for official plans, master plans, etc.	Reports & presentations (various locations within Middlesex County) From office	When municipal processes are undertaken
Campaigns	Various locations within Middlesex County, e.g. Share The Road Signage Project (2014) - presentations to municipal Councils, road signage, radio ads, social media, hard copy promotional materials at various MC outlets)	As per partnership opportunities

Active & Safe School Travel

Intervention/Service	Location of Delivery	Frequency of Delivery
As part of a partnership, create supportive environments for active school travel by providing schools opportunity to submit expressions of interest for bike racks, and "wayfinding" signs with education packages	Elementary Schools	One time 2018-2019
Consultation with school staff, school community, or PHN's assigned to schools for the facilitation of School Travel Planning (STP) in order to remove barriers and promote active school travel	MLHU office via email/phone Data collection activities, events, and STP meetings and/or presentations at the school level occur at schools. Since 2010- Schools committed to School Travel Planning (STP) process: LDSCB = London 4, Middlesex 1 TVDSB = London 17, Middlesex 2 *note higher proportion of county schools have majority of students bussed.	Dependent on a particular school's involvement and commitment to the program. Average weekly consultations in an STP program school.
Policy input: As part of ASRTS partnership, provides input with data and evidence into policy decisions affecting safe active travel to school	Meetings, site visits (various locations).	When municipal processes are undertaken & Upon request – ad hoc
Through ASRTS, Student transportation services is hoping to implement a pilot project for Walking School Bus for schools that consent	School neighbourhoods and school property	Undetermined. New project.

Healthy Workplace Program

Intervention/Service	Location of Delivery	Frequency of Delivery
Biweekly and seasonal electronic newsletter	Email to workplace contacts	Bi weekly
Resources – guides and displays	Physical copies are available for drop off or pick up at MLHU offices by workplace representatives and arrangements made according convenience for both parties	Intermittent through year as requested
Annual workplace workshop. Topic changes by year e.g. physical activity in the workplace, healthy aging in the workplace, Sept 2018: Cannabis and the Workplace	Workshop typically held at a central location in London	Annually
Consultation for workplaces	From office via email/phone On location at workplaces	As requested throughout year

Oral Health

Intervention/Service	Location of Delivery	Frequency of Delivery
Follow Up	Follow up for all children screened in the clinic or at school	As required
Client Navigation	Assist families in finding a dentist / establishing a dental home	As required
Healthy Smiles Ontario (HSO) Program Promotion	HSO program is promoted throughout Middlesex County.	Ongoing

Food Safety

Overview

The goal of these public health services is to reduce the burden of food-borne illnesses.

Stakeholder Perspectives

In the councillor survey, 93% of respondents indicated that it is important for MLHU to focus on Food Safety. There were no comments or feedback regarding MLHU food safety programming in the key informant interviews.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for food safety includes:

Food Safety Inspections

Intervention/Service	Location of Delivery	Frequency of Delivery
Food Premises Inspections	All food premises in Middlesex County	1 – 3 compliance inspections per year, or more if required including re-inspections.
Bylaw Enforcement	All food premises in Middlesex County	1 – 3 checks per year, or more if required during re-inspections.
Special Events Inspections	Throughout Middlesex County	1 vendor inspection, depending on level of risk, per special event. Not all events are inspected, but assessed to determine if inspections are necessary.
Farmers Markets	Throughout Middlesex County	1 – 2 assessments per year at each Farmers Market, follow ups on a complaint basis and as required.

Food Handler Training

Intervention/Service	Location of Delivery	Frequency of Delivery
Food Handler Training Exams	MLHU Strathroy Office	1 per month
Food Hander Training Course Instruction	Offsite at various locations throughout the County (churches, service clubs etc.)	This varies depending on demonstrated need (roughly 5 -10 per year)

DineSafe – Disclosure Program / Mandatory Food Handler Certification

Intervention/Service	Location of Delivery	Frequency of Delivery
DineSafe Website	Online	Ongoing
DineSafe on-site posting	All food premises in Middlesex County	Ongoing, checked during food premises inspections, 1 – 3 times per year
Mandatory Food Handler Certification	All food premises in Middlesex County	Ongoing, checked during food premises inspections, 1 – 3 times per year

Complaints and Service Requests (Food Safety, Health Hazards)

Intervention/Service	Location of Delivery	Frequency of Delivery
Food Safety Complaints (food handling, suspected and confirmed foodborne illness follow-ups, outbreak management work)	All food premises in Middlesex County	Several per week

Healthy Environments

Overview

The goal of these public health services is to reduce exposure to health hazards and promote the development of healthy natural environments that support health and mitigate existing and emerging risks, including the impact of a changing climate.

Stakeholder Priorities

In the councillor survey, 77% of respondents indicated that it is important for MLHU to focus on healthy environments. There were no comments or feedback regarding MLHU healthy environments programming in the key informant interviews.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for healthy environments includes:

Inspections of Facilities

Intervention/Service	Location of Delivery	Frequency of Delivery
Seasonal Farm Housing Surveillance and Inspections Management and Response Awareness and Education	Farms throughout Middlesex County	Inspections occur 2 times per year Ongoing surveillance, awareness and education
Recreational Camps Surveillance and Inspections Management and Response Awareness and Education	Recreational Camps throughout Middlesex County	Inspections occur 1 time per year, and more depending of food safety risk assessment Ongoing surveillance, awareness and education
Health Hazard Complaints (bed bugs, mould, indoor air quality, hoarding, special risk and vulnerable occupancies)	Private residences and various locations throughout the County	Several per week
Extreme temperature Warnings / Alerts	Through media releases with a focus on vulnerable residents (schools, retirement homes, shelters etc.)	Approximately 10 – 15 alerts are issued per year

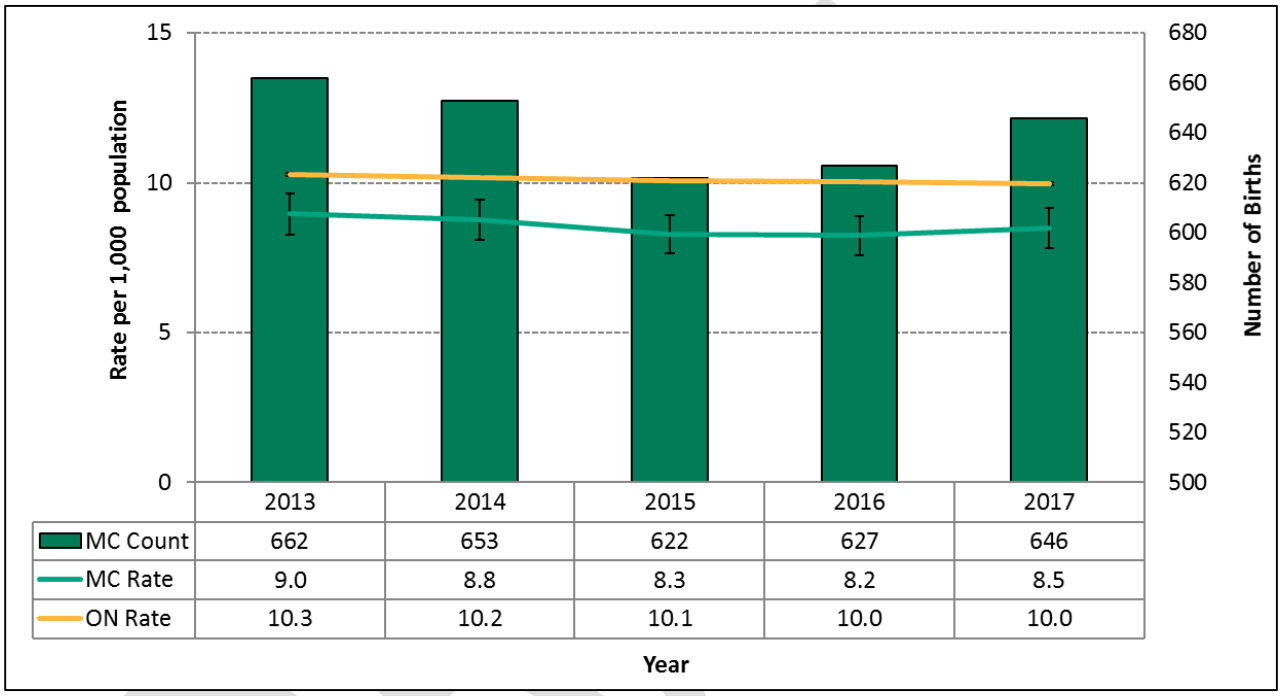
Healthy Growth and Development

Overview

The goal of these public health services is to achieve optimal preconception, pregnancy, newborn, child, youth, parental and family health.

Pregnancy rates in Middlesex County have remained relatively stable at a rate of approximately 8 births per 1,000 population. While stable, pregnancy rates in Middlesex County are consistently lower than those for Ontario.

Figure 15. Count and crude birth rates per 1,000 population, Middlesex County and Ontario, 2013 to 2017.

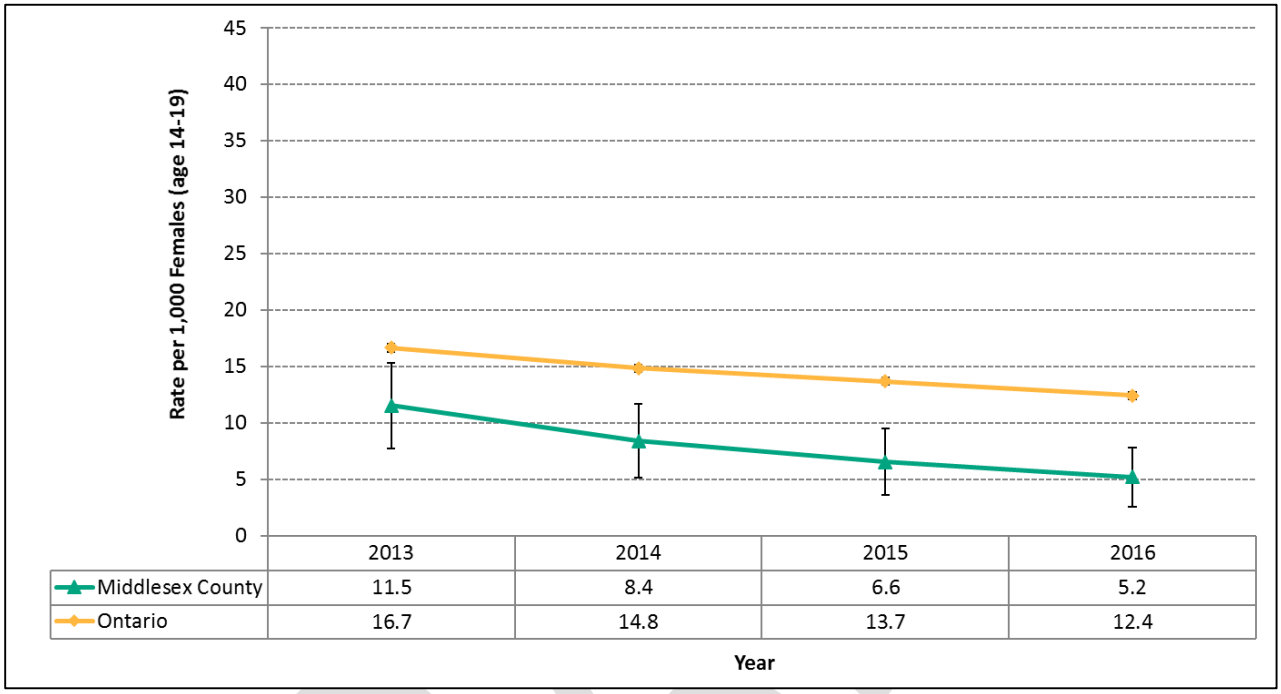


	2013	2014	2015	2016	2017
MC Count	662	653	622	627	646
MC Rate	9.0	8.8	8.3	8.2	8.5
ON Rate	10.3	10.2	10.1	10.0	10.0

Data source: BORN Information System, BORN Ontario. Information accessed on: July 7, 2018; Therapeutic abortions, Date Extracted: June 19, 2018 & Population Estimates, Date Extracted: May 11, 2018, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario.

In recent years, teen pregnancy (ages 14 to 19) rates in Middlesex County have been significantly lower than that for Ontario. The rates have declined each year from 2013 to 2016 which is a downward trend also observed in the province.

Figure 16. Teen pregnancy rate per 1,000 (age 14–19), Middlesex County and Ontario, 2013 to 2016.



	2013	2014	2015	2016
Middlesex County	11.5	8.4	6.6	5.2
Ontario	16.7	14.8	13.7	12.4

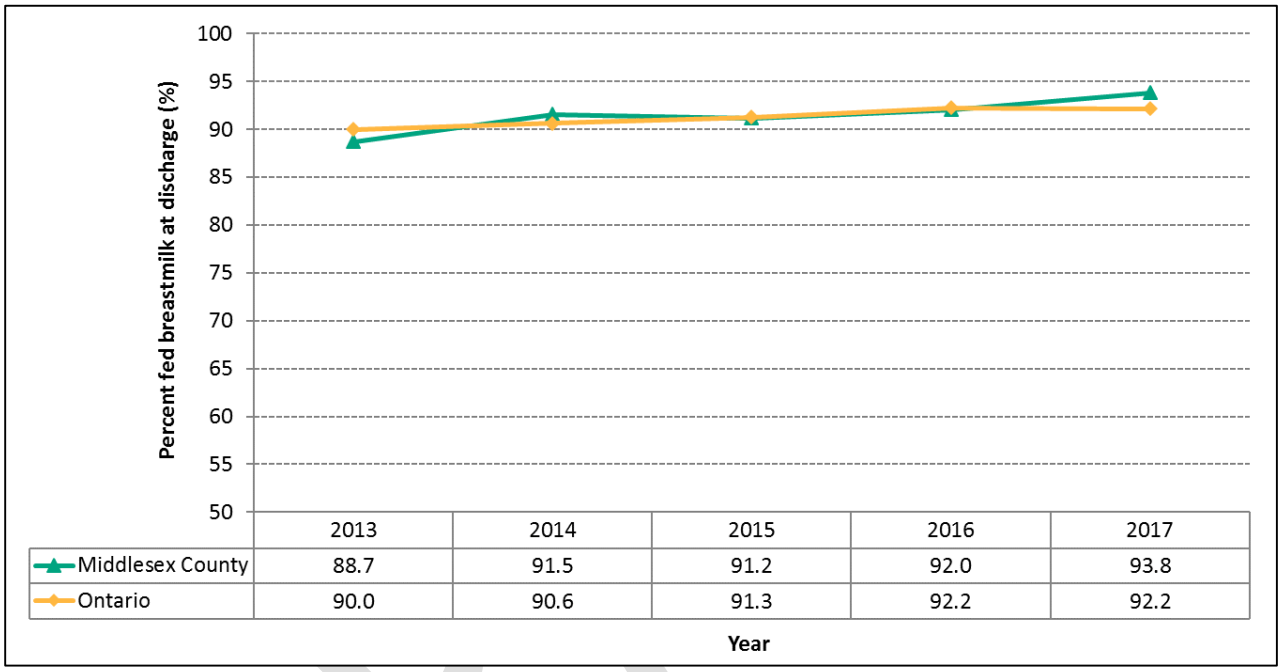
Data source: BORN Information System, BORN Ontario. Information accessed on: July 7, 2018; Therapeutic abortions, Date Extracted: June 19, 2018 & Population Estimates, Date Extracted: May 11, 2018, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario.

In Middlesex County and Ontario, the highest pregnancy rates are among women aged 30 to 34, followed by those aged 25 to 29. Compared to Ontario, females in Middlesex County tend to give birth at slightly younger ages: the third highest pregnancy rate is among women age 25 to 29, and pregnancy rates are significantly lower among women 35 years and older.

Pregnant women who are particularly young (i.e., teenagers) or old (i.e., ages 35 and older) tend to experience more problems delivering the baby and with various birth outcomes such as prematurity, low birth weight, and neonatal death. These mothers may therefore require more supports before and after birth than mothers in their twenties and early thirties.

Breastfeeding is the biologically natural way to provide infants with the nutrition they need for healthy growth and development. Health Canada recommends breastfeeding exclusively for the first six months, with continued breastfeeding for up to two years and beyond (Canadian Institute for Health Information, 2012). In 2017, over 93% of infants in Middlesex County were fed breastmilk at discharge from the hospital or midwifery practice group; a proportion slightly higher than the province and which has increased gradually over time since 2013.

Figure 17. Proportion of infants fed breastmilk (exclusively or in combination) at discharge from hospital or Midwifery Practice Group (MPG) per the number of live births discharged home and home births, Middlesex County and Ontario, 2013 to 2017.



	2013	2014	2015	2016	2017
Middlesex County	88.7	91.5	91.2	92.0	93.8
Ontario	90.0	90.6	91.3	92.2	92.2

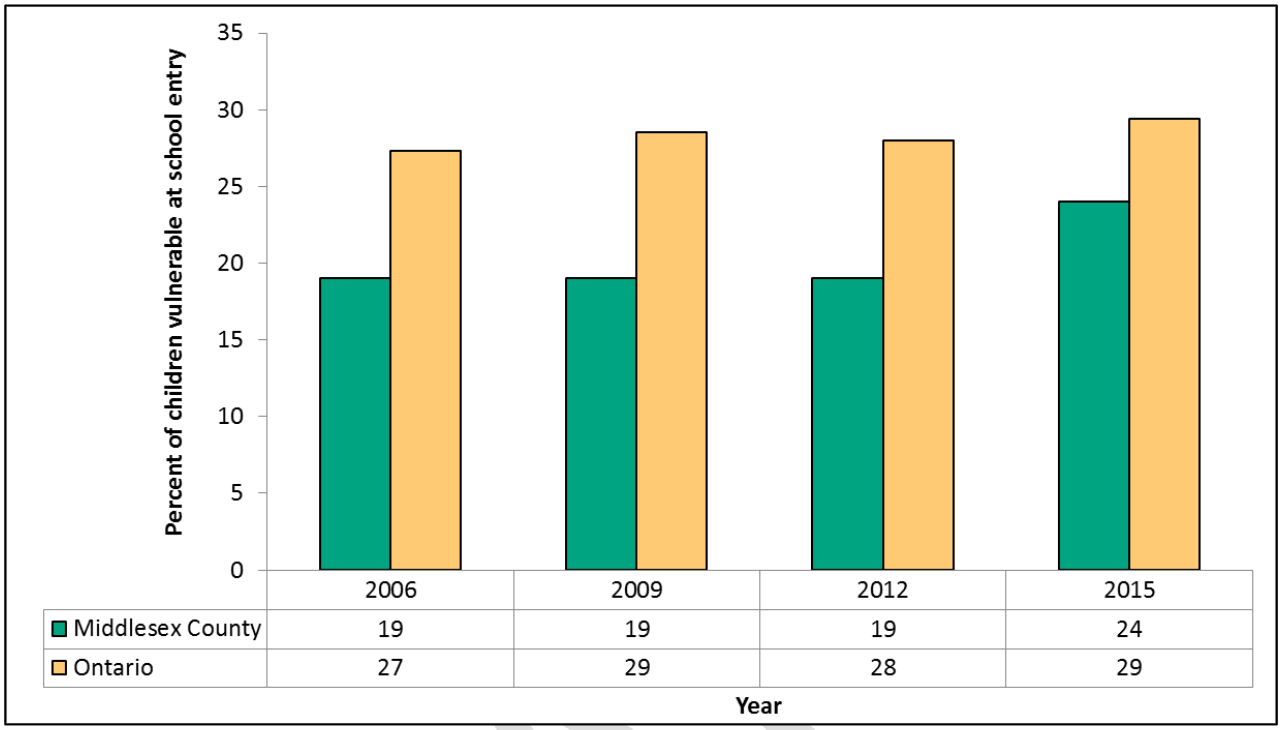
Data sources: (1) PHU – Newborn Clinical Report. BORN Information System, BORN Ontario. Information accessed on July 7, 2018. (2) Public Health Unit Analytic Reporting Tool (Cube), BORN Information System, BORN Ontario. Date Extracted: July 31, 2018.

The percent of children entering school that were vulnerable on at least one domain of the Early Development Instrument has been lower than the province since the inception of the measurement tool in 2006 (Figure 18). Recently, the Middlesex County rate has increased but continues to be lower than the province.

The physical health and well-being domain has the highest proportion of vulnerable children in Middlesex County (15.9%), followed by the emotional maturity domain (Table 4). These are also the top two areas for Ontario.

In all municipalities in Middlesex County results showed the percentage of children vulnerable from nearly all domains across all years tested to be lower than Ontario rates (data not shown).

Figure 18. Percentage of children vulnerable in one or more EDI domains, Middlesex County and Ontario, 2006, 2009, 2012, 2015.



Data source: Middlesex County Municipalities Child & Family Community Profile: Appendix 2: Early Development Instrument (EDI), 2012. (2013). Middlesex Children's Services Network. Available at https://www.middlesex.ca/sites/default/files/Appendix%202_Middlesex%20EDI%202012.pdf & Middlesex County community profile. (ca. 2016). [Unpublished report for the Middlesex Children's Service Network]. Middlesex Children's Service Network.

Table 4. Percentage of children at school entry vulnerable by EDI domain, 2015.

Early Development Instrument Domain	% of children vulnerable at school entry	
	Middlesex County	Ontario
Physical health and well-being	15.9	16.1
Emotional maturity	10.5	12.3
Social competence	7.3	10.7
Communication skills and general knowledge	7.2	10.2
Language and cognitive development	4.1	6.7
One or more EDI domains	24.0	29.4

Data source: Middlesex County Municipalities Child & Family Community Profile: Appendix 2: Early Development Instrument (EDI), 2012. (2013). Middlesex Children's Services Network. Available at https://www.middlesex.ca/sites/default/files/Appendix%202_Middlesex%20EDI%202012.pdf & Middlesex County community profile. (ca. 2016). [Unpublished report for the Middlesex Children's Service Network]. Middlesex Children's Service Network.

Stakeholder Priorities

In the councillor survey, 67% of respondents indicated that it is important for MLHU to focus on healthy growth and development. Key informants also commented on the challenges of mothers and families today who typically have to balance pregnancy and parenting with working and other priorities.

Mental health was also noted in both the survey and key informant interviews. Specifically, key informants felt that it is an issue that requires the involvement of many different community organizations to solve and not just the Health Unit. With limited resources, the response will depend on communication and awareness about where people can access services, and partnerships between those who have resources in the county.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for healthy growth and development includes:

Health Babies Health Children Home Visiting and Nurse Family Partnership

Intervention/Service	Location of Delivery	Frequency of Delivery
Home Visiting For families (pregnant women and families with children up to transition to school) that score with risk according to the HBHC Program Protocol 2018	Homes throughout Middlesex County	Offered continuously to all eligible families
Home Visiting – Nurse Family Partnership For first pregnancy or first time parenting; <21 years of age; enrolled prior to 28 weeks gestation; experiencing socioeconomic disadvantage	Homes throughout Middlesex County	Offered continuously to all eligible families

Shelter Work

Intervention/Service	Location of Delivery	Frequency of Delivery
Work in Shelters Public Health Nurses complete assessments, provide health teaching, and make referrals to other service providers and community agencies	Women's Rural Resource Centre (WRRC)	WRRC staff call PHN if there are appropriate referrals.

Healthy Start Infant Drop-ins

Intervention/Service	Location of Delivery	Frequency of Delivery
Assessment, education and support/counselling for a variety of topics including, but not limited to: Breastfeeding, infant feeding and nutrition, growth and early childhood development, safety, sleep, car seat safety, physical literacy, physical well being, attachment, perinatal and infant mental health, parenting, suggestions/referrals for community supports and interventions. Referrals are also made to other MLHU services	Glencoe Early ON Centre at Glencoe Presbyterian Church – biweekly Strathroy MLHU – biweekly Strathroy Early ON Centre – biweekly Ilderton (Library) Early ON Centre – every 4 weeks Komoka Wellness (Early ON) Centre – every 4 weeks Lucan (Library) Early ON Centre – biweekly Dochester (Library) Early ON Centre – biweekly Parkhill (Library) Early On Centre – biweekly	On a regular basis throughout Middlesex County

Breastfeeding Home Visiting

Intervention/Service	Location of Delivery	Frequency of Delivery
Breastfeeding Home Visits (screening, assessment and visits)	Homes throughout Middlesex County	Offered continuously to all eligible families

Preconception Health

Intervention/Service	Location of Delivery	Frequency of Delivery
Presentations through London Family Court Clinic	Community spaces in Ailsa Craig and Parkhill	As requested
Awareness and education	Social media Webpages Print material	Ongoing

Prenatal Health

Intervention/Service	Location of Delivery	Frequency of Delivery
Universal prenatal education sessions	Strathroy MLHU office	Groups run one night per week for 6 weeks; We offer 5 series per year in Strathroy. Other County locations (Ilderton, Dorchester, Lucan) have had low enrolment and are not currently offered
Online prenatal education modules	Online	Ongoing
Smart Start for Babies Prenatal and Postpartum Program	Strathroy MLHU office	If 3 clients are registered, the class would be once per week for 2 hours. If less than 3 clients, the program is offered in the client's home.

Preparation for Parenthood

Intervention/Service	Location of Delivery	Frequency of Delivery
Preparation for Parenthood Class	Ontario Early Years Centres /Family Centres	Several are scheduled throughout the year but are occasionally cancelled due to low registration

Baby-Friendly Initiative

Intervention/Service	Location of Delivery	Frequency of Delivery
Infant Feeding Surveillance System	Client's are contacted by telephone	Parents of newborns are phoned or emailed and asked to complete a survey – at 6 months, 12 months, and 18 months postpartum
Baby-Friendly Initiative (BFI) 20-Hour Breastfeeding Course for Health Care Providers	As requested	As requested
Printed information about infant feeding	Prenatal Classes in Strathroy; In hospital before discharge; home visits	Ongoing
MLHU website information about infant feeding	MLHU website	Ongoing
National Breastfeeding Week Awareness Campaign	MLHU website & social media	Annually

Food Skills

Intervention/Service	Location of Delivery	Frequency of Delivery
Awareness and education about healthy eating and food literacy	MLHU website	Ongoing
Food Skills Program	Family Centres, Community Centres (with approved commercial kitchen)	When a partnership is formed with a community partner, 8 sessions monthly or bi-monthly

Immunization

Overview

The goal of these public health services is to eliminate the burden of vaccine preventable disease through immunization.

The *Immunization of School Pupils Act* identifies a number of diseases against which students need to be vaccinated. Each year, the Middlesex-London Health Unit reviews the immunization records of students attending schools in the region to ensure that their immunizations are up to date (Ontario Ministry of Health and Long-Term Care, 2016). In the 2017–2018 school year, greater than 95% of immunization records of 7-year old students in Middlesex County schools were up-to-date for seven key diseases.

Table 5. Proportion of immunization records forecast up-to-date* for childhood vaccines among 7-year olds†, Middlesex County§, 2017–2018 school year.

Vaccine component	Up-to-date status	
	Middlesex County schools estimate (%)	Middlesex County schools range (%)
Diphtheria	96.9	80.0–100
Measles	97.4	80.0–100
Mumps	97.5	80.0–100
Pertussis	96.9	80.0–100
Polio	97.1	80.0–100
Rubella	98.8	80.0–100
Tetanus	96.9	80.0–100

Data source: Middlesex-London Health Unit Panorama Enhanced Analytics and Reporting (PEAR): Forecaster Compliance for Disease by Age or School – Aggregate – STD – PR2001. Toronto ON: Ontario Ministry of Health and Long-Term Care; 2018 August 14 [cited 2018 August 14].

* Records were considered to be up to date when the immunization forecast was classified as up to date, and not eligible, due or overdue for the identified immunization based on the Publicly Funded Immunization Schedule for Ontario (Ministry of Health and Long-Term Care, 2016).

† Birth year is 2010 for the 2017-18 school year.

§ Middlesex County estimate based on enrollment of children born in 2010 in elementary schools (public and private) located in Middlesex County for which the Middlesex-London Health Unit screened immunization records in the 2017-18 school year.

Stakeholder Priorities

In the councillor survey, 83% of respondents indicated that it is important for MLHU to focus on immunization. It was described as an issue of primary public health concern by three of the councillors responding to the survey and one councillor noted regarding adverse effects. There were no comments or feedback regarding MLHU immunization in the key informant interviews.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for immunization includes:

Immunization Program

Intervention/Service	Location of Delivery	Frequency of Delivery
Immunization clinic (walk-in and appointment based)	Strathroy office	First Wednesday of every month
School immunization clinics for grade 7 students and high school students (including private schools)	All schools in Middlesex County	Elementary schools are visited twice every school year High schools are visited once every school year
Immunization phone line, fax and email service (for immunization record submissions and contact with staff member)	Virtual - over the phone, email or fax machine	Available as needed
Immunization screening and follow up of select grades of students in elementary and high schools (and child care centres as of fall 2018)	Work is done within the London health unit office and information flow and suspension orders filter through school and child care offices	Once per year for each school /child care centre
Cold chain inspections of all fridges holding Ontario publicly funded vaccine	Every healthcare provider office in Middlesex County that holds publicly funded vaccine is inspected	Once per year

Infectious and Communicable Diseases Prevention and Control

Overview

The goal of these public health services is to reduce the burden of communicable diseases and other infectious diseases of public health significance.

There are approximately 70 diseases of public health significance that are reported to the local Medical Officer of Health under the *Health Protection and Promotion Act*. Among these, HIV/AIDS*, hepatitis C†, and active tuberculosis§ are all infections that can have long-term impacts on effected individuals and, once diagnosed, require follow up with a health care provider.

Between 2005 and 2017, the average reported incidence rates of HIV/AIDS, hepatitis C, and active tuberculosis cases were lower among Middlesex County residents compared to the provincial rate (Table 6).

Table 6. Reported incidence rate of HIV/AIDS, hepatitis C, and active tuberculosis, Middlesex County and Ontario, 2005–2017 average.

Infectious disease	Rate per 100,000 population	
	Middlesex County	Ontario
HIV/AIDS*	1.5	6.5
Hepatitis C†	16.9	33.3
Tuberculosis (active)§	<1.0	4.8

Data source: Middlesex County data: Middlesex London Health Unit integrated Public Health Information System (iPHIS) Cognos Report Net: custom report. Ontario Ministry of Health and Long-Term Care; Extracted August 13, 2018. Ontario data: Public Health Ontario. Infectious Diseases Query: Ontario: Case counts and crude rates of reportable diseases by public health unit and year. Ontario Agency for Health Protection and Promotion; Extracted August 15, 2018.

* HIV/AIDS cases are reported by encounter date, which is the date that public health was first notified of the case.

† Hepatitis C cases are reported by episode date, which is the earliest available of symptom onset date, specimen collection date, laboratory test date, or date reported to public health. Hepatitis C cases include all cases with a positive antibody test, and therefore includes people with acute infections, spontaneously resolved acute infections, chronic infections, and those who have received effective anti-viral therapy (cured).

§ Active tuberculosis cases are reported by the date the individual was diagnosed with active tuberculosis.

Stakeholder Priorities

In the councillor survey, 92% of respondents indicated that it is important for MLHU to focus on infectious and communicable disease prevention and control. Respondents to both the councillor survey and the key informant interviews indicated that vector-borne disease is a public health issue of primary concern particularly due to reports of West Nile Virus being present in North Middlesex. Respondents felt that the larviciding program is important to county residents.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for infectious and communicable disease prevention and control includes:

Rabies Prevention and Control

Intervention/Service	Location of Delivery	Frequency of Delivery
Investigating human exposures to animals suspected of having rabies	Based on the location of the animal owner and/or victim	Referral-based
Confirming the rabies vaccination status of the animals (suspected of having rabies)	Veterinary clinics	Referral-based
Rabies prevention awareness activities	Municipal offices, library locations, MLHU-Strathroy office	Regularly
Partnering with veterinary clinics to organize low-cost rabies clinic	Veterinary clinics	Once a year

Vector-Borne Disease

Intervention/Service	Location of Delivery	Frequency of Delivery
Assessing standing water sites in Middlesex-London on public property and develop local vector-borne disease control strategies based on this data	Bodies of standing water located on public property	May to September
Surveillance of ticks and mosquitos	Across the county	April to November
Responding to complaints and inquiries from residents regarding Vector Borne Diseases	Complaint-based	Year around
Assessing private properties when standing water concerns are reported and oversee remedial actions	Referral-based	May to September
Educating and engaging residents in practices and activities at local community events in order to reduce exposure to Vector Borne Diseases	Across the Middlesex County	May to September

Reportable Disease Follow up and Case Management

Intervention/Service	Location of Delivery	Frequency of Delivery
Investigation and management of cases of reportable enteric illnesses (e.g., salmonella, *E. coli*), vaccine preventable diseases (e.g., pertussis, mumps), and individuals with vector-borne diseases (e.g., West Nile virus, Lyme disease) Interview all reported suspect and confirmed cases. Ensure clients have been notified of their diagnosis, have completed appropriate testing, and receive counselling about their illness and how to prevent transmission to others	Over the phone	Year round
Support and education for facilities managing communicable disease cases (e.g., disease exposures in child care centres, long-term care homes with residents with communicable diseases)	By email, over the phone, or at the location of the centre/home	Year round
Follow up of active TB cases Coordinate the provision of publicly funded tuberculosis treatment medications and provide direct observed therapy (DOT)	In the client's home	Year round DOT can range from a daily to monthly visit to the client's home until the course of treatment is completed, usually six months to one year.
Follow up of suspect tuberculosis (TB) cases Ensure that appropriate testing has been completed, and that clients receive counselling about how to prevent transmission to others	Over the phone or in the client's home	Year round
TB assessment and treatment clinic – physician led Provide clinical assessment and treatment plan for high risk government assisted refugees and immigration surveillance clients who may have latent TB infection, and contacts of active TB cases who do not have a primary health care provider	MLHU 50 King Street site	Every two months

TB assessment and treatment clinic – public health nurse led Provide follow up, clinical assessment, and medication for clients of the physician led clinic who receive latent TB treatment	MLHU 50 King Street site	Every month

Outbreak Management

Intervention/Service	Location of Delivery	Frequency of Delivery
Follow up respiratory and gastroenteritis outbreaks in licensed long-term care homes, retirement homes, and hospitals Provide public health recommendations for outbreak management, and participate on outbreak management meetings as required.	By email, over the phone, or at the location of the home/hospital	Year round
Follow up gastroenteritis outbreaks in licensed child care centres Provide public health recommendations for outbreak management	By email, over the phone, or at the location of the centre	Year round

Inspections

Intervention/Service	Location of Delivery	Frequency of Delivery
Food Premises Inspections of licensed long-term care homes and retirement homes	At the location of the long-term care/retirement home	1 – 3 compliance inspections per year, or more if required including re-inspections.
Food Premises Inspections of licensed child care centres and extended day programs (before and after school programs)	At the location of the child care centre/extended day program	1 – 3 compliance inspections per year, or more if required including re-inspections.
Infection prevention and control (IPAC) inspections of personal service settings (e.g., tattoo and piercing shops, spas, nail salons)	At the location of the business	1 compliance inspection per year, or more if required including re-inspections
IPAC inspections of funeral homes	At the location of the business	1 compliance inspection every other year, or more if required including re-inspections
IPAC inspections of licensed child care centres and extended day programs (before and after school programs)	At the location of the child care centre/extended day program	1 compliance inspection per year, or more if required including re-inspections

Infection Prevention and Control (IPAC) Management and Investigations

Intervention/Service	Location of Delivery	Frequency of Delivery
Complaints and Service Requests (CSR) from members of the public related to IPAC practices in health care settings (e.g., medical and dental clinics) and personal service settings (e.g., tattoo shops, salons). Assess adherence to IPAC practices and determine if a lapse in practice has occurred. Assess risk of infectious disease transmission to clients of the service	At the location of the clinic/business	As reported. There are usually several CSR to investigate each month.
Participation in Professional Advisory Committee (PAC) meetings at licensed long-term care homes Provide support and recommendations regarding IPAC issues	At the location of the long-term care home	Quarterly
Licensing consultation for retirement homes Provide support and recommendations regarding IPAC issues	At the location of the retirement home	Annually
Licensing consultation for new personal service settings Provide support and recommendations regarding IPAC issues	At the location of the business	Year round, as new businesses open

Sexual Health Clinics

Intervention/Service	Location of Delivery	Frequency of Delivery
Sexually Transmitted Infection Clinic and Family Planning Clinic led by Public Health Nurse under Medical Directives	MLHU Strathroy location	Once a week on Thursdays three times per month
Sexually Transmitted Infection Clinic and Family Planning Clinic led by Physician	MLHU Strathroy location	Once a month

Needle Exchange

Intervention/Service	Location of Delivery	Frequency of Delivery
Access to harm reduction supplies and disposal of used equipment Referral to addiction services, housing etc. Access naloxone kits to prevent overdoses	MLHU Strathroy office Shopper's Drug Mart 78 Front Street	Once a week at MLHU Strathroy office and one evening a month Daily at the Shopper's Drug Mart

TI and Blood-Borne Infection Case Management

Intervention/Service	Location of Delivery	Frequency of Delivery
Case management for reportable infectious diseases i.e. Chlamydia, Gonorrhea, Syphilis, HIV, and Hepatitis B and C Ensure clients have been notified of their disease, treated according to Guidelines, and notification of for testing	Management of cases is conducted over the phone Clients in the county who need treatment can access the Strathroy office	Once a week on Thursdays three times per month for Public Health Nurse Care Once a month for Physician care

Sexual Health Promotion

Intervention/Service	Location of Delivery	Frequency of Delivery
Campaigns to target populations at risk. Campaigns include presentations, posters and social media.	Presentations are targeted to the priority populations of Middlesex-London. There are presentations in the county as requested.	Ongoing and as requested

Safe Water

Overview

The goal of these public health services is to prevent or reduce the burden of water-borne illnesses related to drinking water and to prevent or reduce the burden of water-borne illnesses and injuries related to recreational water use.

Stakeholder Priorities

In the councillor survey, 100% of respondents indicated that it is important for MLHU to focus on safe water. Key informants noted that the well water drop-off sites are a valuable service to Middlesex residents.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for safe water includes:

Drinking Water

Intervention/Service	Location of Delivery	Frequency of Delivery
Responding to Adverse Water Quality Incidents in municipal systems	Over the phone	N/A
Responding to Adverse Water Quality Incidents in Small Drinking Water Systems	Over the phone	N/A
Risk assessment of Small Drinking Water Systems	Location of the SDWS	Once every three years
Monitoring the test results of Small Drinking Water Systems regularly	Results reviewed at MLHU office	Bi-monthly
Issuing Drinking/Boil Water Advisories as needed	Advisories issued through media, online, etc.	N/A
Conducting water haulage vehicle inspections	Location of the business	Once a year
Delivering resources (test kits and information) and offering guidance to private well owners	Municipal offices, library locations, MLHU-Strathroy office	Every day
Fluoride Monitoring	Monitor fluoride levels on all municipal water systems	Monthly

Recreational Water

Intervention/Service	Location of Delivery	Frequency of Delivery
Inspection of public pools	All public pools in Middlesex County	4 times per year
Inspection of public spas	All public spas in Middlesex County	4 times per year
Inspection of wading pools and splash pads	All wading pools and splash pads in Middlesex County	2 times per year
Investigating complaints related to recreational water facilities	All public pools, spas, wading pools, splash pads in Middlesex County	Complaint-based

Beach Water Management Program

Intervention/Service	Location of Delivery	Frequency of Delivery
Testing and monitoring beaches	All public beaches in Middlesex County	Once per week, June to September

School Health

Overview

The goal of these public health services is to achieve optimal health of school-aged children and youth through partnership and collaboration with school board and schools.

Understanding tooth decay in the school aged children population is important because of its implications for quality of life. In Middlesex County, where some drinking water is not fluoridated, tooth decay increases as children age from junior kindergarten until grade 2. The percentage of children with no cavities or decay goes down and the number of teeth affected in those with decay increases as grade level goes up. In comparison to a sample of health units making up approximately half on the Ontario population, Middlesex County rates of decay were lower in the 2015/2016 and 2016/2017 school years.

The *Immunization of School Pupils Act* identifies a number of diseases against which students need to be vaccinated. Each year, the Middlesex-London Health Unit reviews the immunization records of students attending schools in the region to ensure that their immunizations are up to date (Ontario Ministry of Health and Long-Term Care, 2016). In the 2017–2018 school year, greater than 95% of immunization records of 7-year old students in Middlesex County schools were up-to-date for seven key diseases.

Stakeholder Priorities

In the councillor survey, 85% of respondents indicated that it is important for MLHU to focus on school health. There was also considerable feedback that highlighted schools as a primary location where MLHU should be delivering public health services.

Mental health was also noted in both the survey and key informant interviews. Specifically, key informants felt that it is an issue that requires the involvement of many different community organizations to solve and not just the Health Unit. With limited resources, the response will depend on communication and awareness about where people can access services, and partnerships between those who have resources in the county.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for school includes:

Healthy Schools

Intervention/Service	Location of Delivery	Frequency of Delivery
Increasing Vegetable and Fruit Consumption Toolkit	All elementary and secondary schools in Middlesex County	Ongoing / as needed
Reducing Sedentary Behaviour Toolkit	All elementary and secondary schools in Middlesex County	Ongoing / as needed
Improving School Connectedness Toolkit	All elementary and secondary schools in Middlesex County	Ongoing / as needed
Promoting Healthy Growth and Development Toolkit	All elementary and secondary schools in Middlesex County	Ongoing / as needed
Reducing Substance Use Toolkit	All elementary and secondary schools in Middlesex County	Ongoing / as needed
Let's Get Cookin'	Elementary Schools	N/A
Social Media Promotion	N/A	Ongoing / as needed
Healthy School Recognition Program	All elementary and secondary schools in Middlesex County	Ongoing / as needed
Active and Safe Routes to School	All elementary schools in Middlesex County	N/A

Situational Supports

Intervention/Service	Location of Delivery	Frequency of Delivery
One-on-one situation supports with students in secondary schools	All secondary schools in Middlesex County	As needed
Principal and school staff consultation	All elementary and secondary schools in Middlesex County	As needed
Parent consultations	All elementary and secondary schools in Middlesex County	As needed

Parenting

Intervention/Service	Location of Delivery	Frequency of Delivery
School Enterers packages	All elementary schools in Middlesex County	Once per year
Parenting presentations/workshops	All elementary and secondary schools in Middlesex County	As requested

Curriculum Supports

Intervention/Service	Location of Delivery	Frequency of Delivery
Fact Sheets	All elementary schools in Middlesex County	As needed
Presentations and Lesson Plans	All elementary schools in Middlesex County	As needed
Classroom Support – Reach and Teach Kits	All elementary schools in Middlesex County	As needed

Oral Health

Intervention/Service	Location of Delivery	Frequency of Delivery
Dental Screening in Schools	All elementary schools in Middlesex County	Once per year
Dental Screening + Fluoride Varnish Application in Daycare Settings	Dental screening and fluoride varnish are offered to daycares in the county.	Three times per year
Fluoride Varnish Application in Elementary Schools	Fluoride varnish is offered at schools in the county.	Three times per year

Substance Misuse and Injury Prevention

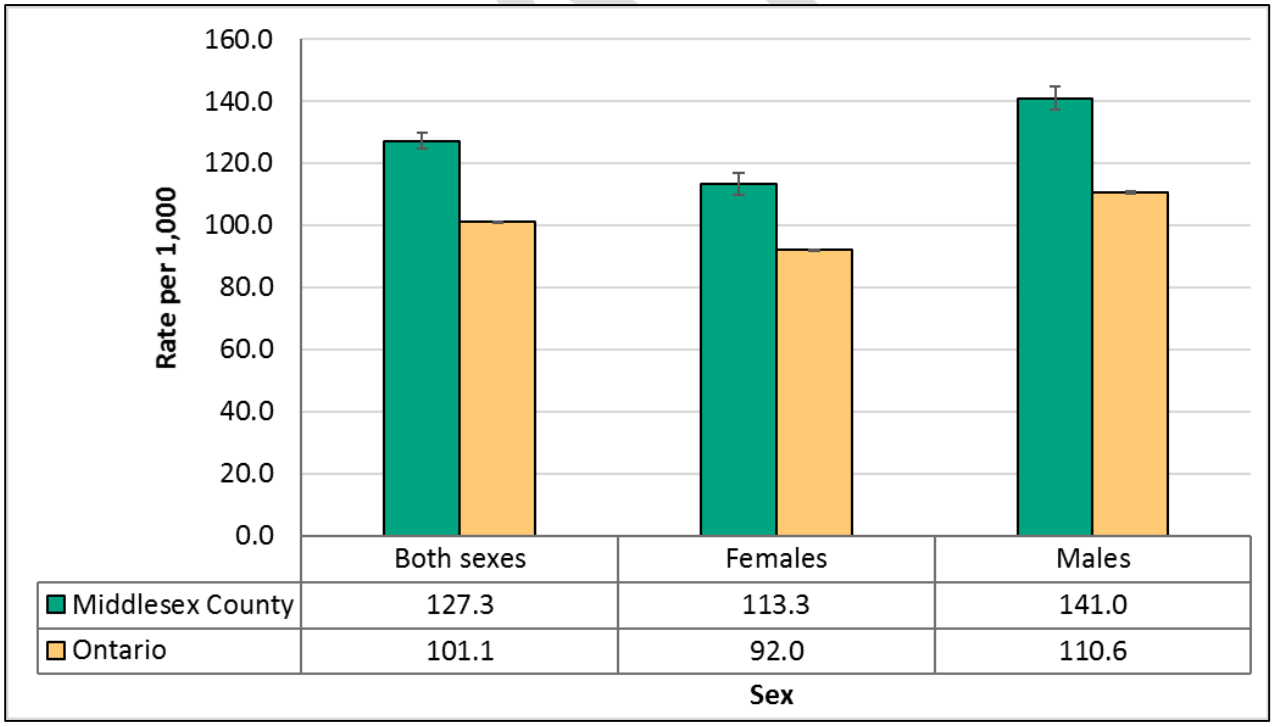
Overview

The goal of these public health services is to reduce the burden of preventable injuries and substance use.

While less impactful than chronic disease, injuries are also within the top causes of death and are a large burden in potential years of life lost. Injuries commonly bring people to the emergency department for care and Middlesex County is no exception. In fact, between 2015 and 2017 rates of emergency department (ED) visits for injury were significantly higher in Middlesex County (127.3 per 1,000 people) compared to Ontario (101.1 per 1,000 people). The rate of deaths from injuries, however, was not higher than Ontario. This indicates that residents of Middlesex County experienced more non-fatal injuries than those in the province overall. The most common reason for an injury-related visit to the ED was falls, which was higher in females than males. Being struck against or cut by objects and overexertion were the next most common causes for both sexes. Motor vehicle crashes were the fifth most common injury for females and sixth most common for males. Off-road vehicle collision rates were higher than the provincial rate; whereas, pedestrian-related injury visits are lower. There is no difference with cycling collisions.

Intentional injuries such as the ED visit rate for self-harm in Middlesex County was similar to the Ontario rate. The rate of assault-related ED visits was significantly lower than the province.

Figure 19. Emergency department visits for all injuries, unadjusted rates per 1,000 population, by sex, Middlesex County and Ontario, 2015 to 2017 annual average.



Data source: National Ambulatory Care Reporting System (NACRS), Ontario Ministry of Health and Long-term Care, IntelliHEALTH ONTARIO, Extracted: August 16, 2017.

Table 7. Emergency department visit counts and unadjusted rates per 100,000 population, by sex, Middlesex County, 2015 to 2017 annual average.

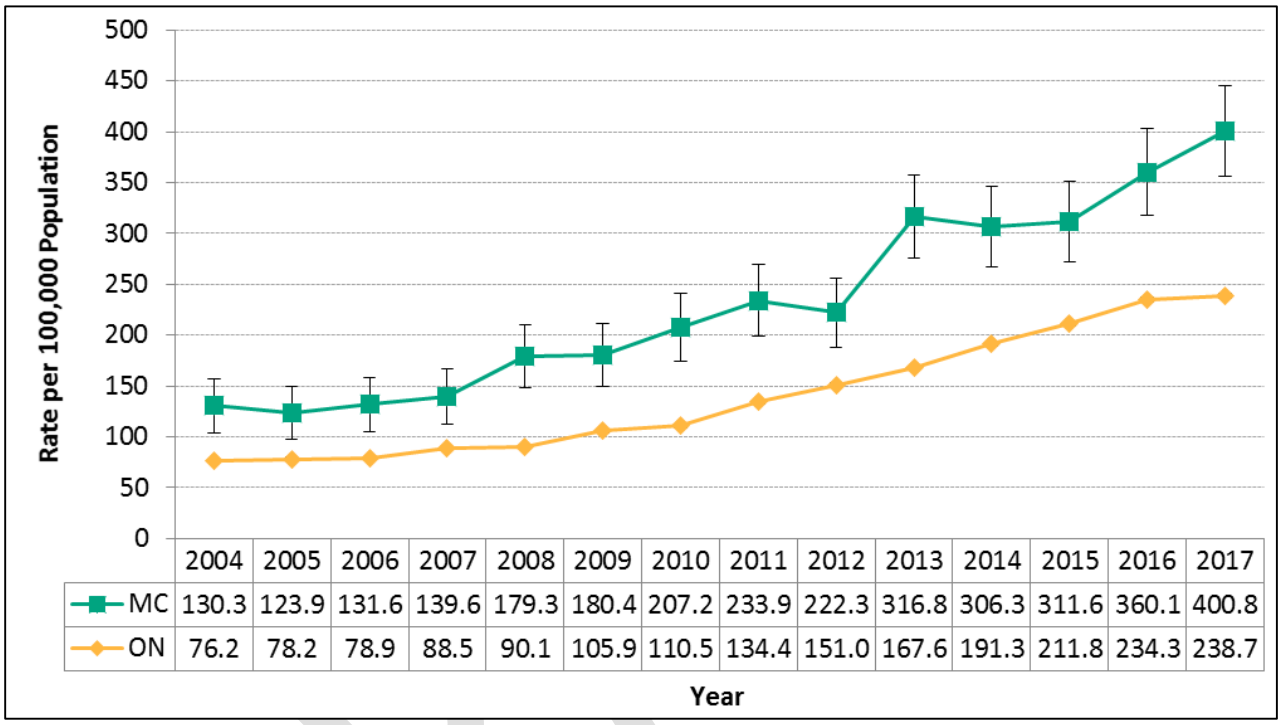
Middlesex County rank	Cause Unadjusted rate per 100,000 ± 95% Confidence Interval (Count)	
	Females	Males
1	Falls* 4,049.6 ± 203.1 (1527)	Falls* 3,377.3 ± 184.7 (1285)
2	Struck by/against object* 1,708.4 ± 131.9 (644)	Struck by/against object* 2,812 ± 168.5 (1,070)
3	Overexertion* 1,004.0 ± 101.1 (379)	Cut/pierced by object* 1,687.3 ± 130.5 (642)
4	Cut/pierced by object* 742.4 ± 87 (280)	Overexertion* 1,063.6 ± 103.6 (405)
5	Motor vehicle collision 637.2 ± 81 (240)	Foreign body in eye/orifice* 1,049.5 ± 102.9 (399)
6	Bite by Dog or other Mammal* 332.3 ± 58.2 (125)	Motor vehicle collision* 807.7 ± 90.3 (307)
7	Caught/crushed between objects* 295.2 ± 54.8 (111)	Caught/crushed between objects* 437.2 ± 66.4 (166)
8	Foreign body in eye/orifice 281.0 ± 53.5 (106)	Bite by dog or other mammal* 261.9 ± 51.4 (100)
9	Insect bite 198.9 ± 45.0 (75)	Other land transport collisions 223.4 ± 47.5 (85)
10	Other land transport collisions* 197.1 ± 44.8 (74)	Poisoning 184.9 ± 43.2 (70)
All unintentional injuries*	11,008.6 ± 334.9 (4,152)	13810.5 ± 373.4 (5,254)

Data source: National Ambulatory Care Reporting System (NACRS), Ontario Ministry of Health and Long-term Care, IntelliHEALTH ONTARIO, Extracted: August 16, 2017.

Note: * indicates the MC sex-specific rate is statistically significantly higher than the ON sex-specific rate.

Concussion-related ED visits have also been on the rise in recent years and Middlesex County experienced a substantially higher rate than in the province overall. Local research indicates children in rural populations who experience concussions are much more likely to have sustained the injury in a motor vehicle crash compared to their urban counterparts (Stewart, Gilliland & Fraser, 2014).

Figure 20. Unadjusted rates of emergency department visits for concussions per 100,000 population, Middlesex County and Ontario, 2004 to 2017.

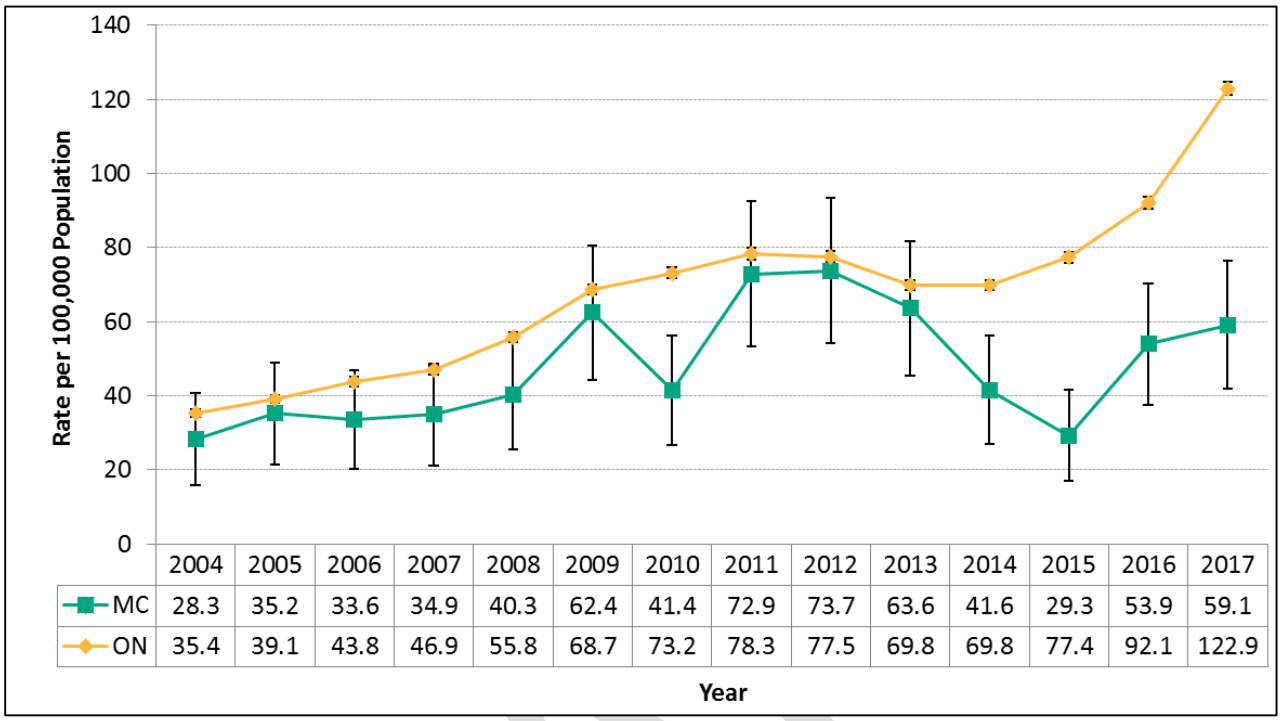


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
MC	130.3	123.9	131.6	139.6	179.3	180.4	207.2	233.9	222.3	316.8	306.3	311.6	360.1	400.8
ON	76.2	78.2	78.9	88.5	90.1	105.9	110.5	134.4	151.0	167.6	191.3	211.8	234.3	238.7

Data source: National Ambulatory Care Reporting System (NACRS), Ontario Ministry of Health and Long-term Care, IntelliHEALTH ONTARIO, Extracted: August 9, 2018.

The harms associated with drug use are important to consider in light of the public health crisis related to opioids and cannabis legalization in Canada. In Ontario there has been an increase over time in emergency department visits associated with each of these substances both for poisonings and related mental or behavioural disorders. It is worth noting that rates of ED visits in Middlesex County are lower than Ontario and the difference is statistically significant for both cannabis and opioids. Cannabis visit rates have increased significantly since 2004. However, opioid ED visits have not shown a statistically significant increase between 2004 and 2017 in Middlesex County. This is a marked difference from the trend seen in Ontario and surrounding communities.

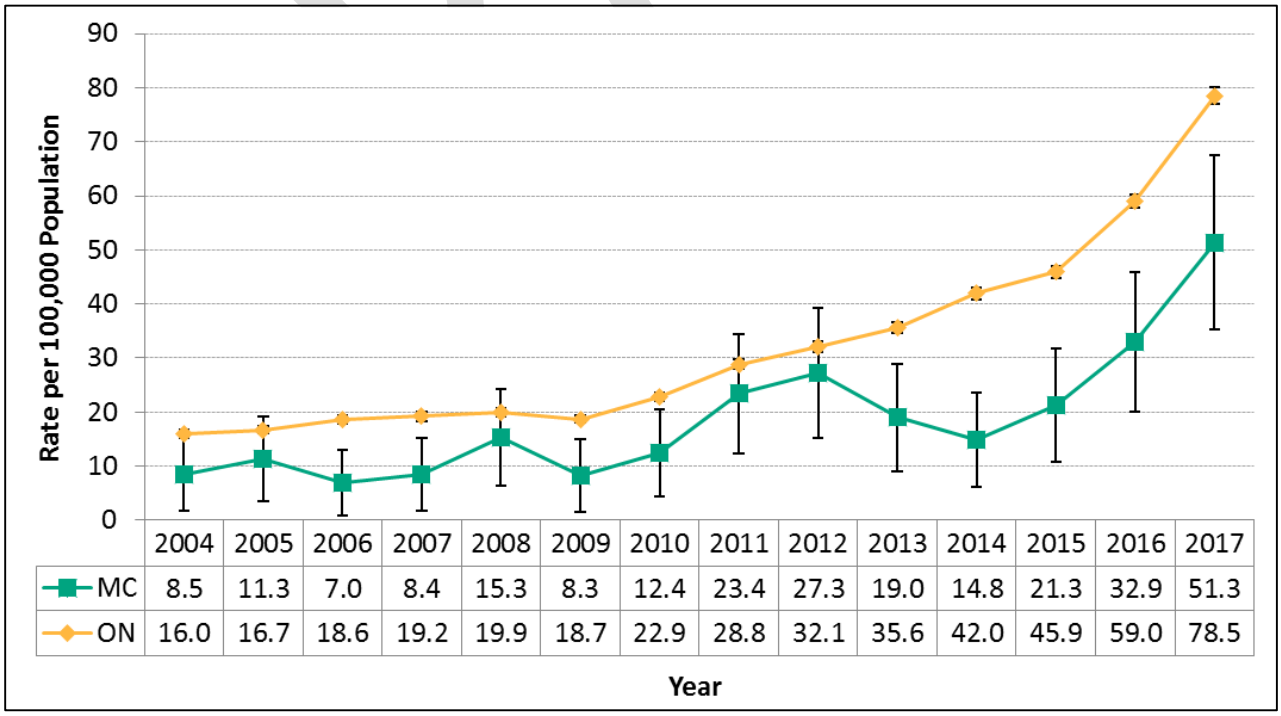
Figure 21. Opioid-related emergency department visits, counts and unadjusted rates per 100,000 population, Middlesex County and Ontario, 2004 to 2017.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
MC	28.3	35.2	33.6	34.9	40.3	62.4	41.4	72.9	73.7	63.6	41.6	29.3	53.9	59.1
ON	35.4	39.1	43.8	46.9	55.8	68.7	73.2	78.3	77.5	69.8	69.8	77.4	92.1	122.9

Data source: National Ambulatory Care Reporting System (NACRS), Ontario Ministry of Health and Long-term Care, IntelliHEALTH ONTARIO, Extracted: August 23, 2018.

Figure 22. Cannabis-related emergency department visits, counts and unadjusted rates per 100,000 population, Middlesex County and Ontario, 2004 to 2017.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
MC	8.5	11.3	7.0	8.4	15.3	8.3	12.4	23.4	27.3	19.0	14.8	21.3	32.9	51.3
ON	16.0	16.7	18.6	19.2	19.9	18.7	22.9	28.8	32.1	35.6	42.0	45.9	59.0	78.5

Data source: National Ambulatory Care Reporting System (NACRS), Ontario Ministry of Health and Long-term Care, IntelliHEALTH ONTARIO, Extracted: August 23, 2018.

Stakeholder Priorities

In the councillor survey, 77% of respondents indicated that it is important for MLHU to focus on substance use and injury prevention. Opioids were the public health issue of primary concern for councillors who responded to the survey. This was reiterated in the key informant interviews where respondents noted the intersections between opioids, drug addiction, housing and mental health.

Mental health was also noted in both the survey and key informant interviews. Specifically, key informants felt that it is an issue that requires the involvement of many different community organizations to solve and not just the Health Unit. With limited resources, the response will depend on communication and awareness about where people can access services, and partnerships between those who have resources in the county.

For further details, see Appendix C and D.

Current Program and Service Delivery

Programming to meet Middlesex County needs for substance use and injury prevention includes:

Healthy Aging & Falls Prevention

Intervention/Service	Location of Delivery	Frequency of Delivery
Education/Awareness /Skill Building and consultation support related to Healthy Aging / Fall Prevention	Website, social media, availability of paper resources ---------- Office by phone email, presentations at various locations	Ongoing ---------- On request

Substance Misuse Prevention (Alcohol and Other Drugs)

Intervention/Service	Location of Delivery	Frequency of Delivery
Municipal Alcohol Policy Review/Consultation	Done via email and/or in-person visit to municipal office	Every second year (review/consultation)
Provision of Health Promotion Information	Done via email/mail outs predominantly	As needed/requested/available
Public Inquiries regarding alcohol concerns	Via telephone or email	As requested
Middlesex-London Community Drug and Alcohol Strategy: 1)Environmental scan and survey of organizations and service providers to identify needs ---------- 2) community consultations as part of developing final strategy	Email and phone Online In person	Ongoing

Road Safety

Intervention/Service	Location of Delivery	Frequency of Delivery
2017-2018 Pedestrian cross over (PXO campaign)	Social media, Youtube, Note: no PXOs in Middlesex County however MLHU You Tube, Facebook and Twitter channels and the MTO - LMRSC Facebook channel cover city and county, for county-city commuters.	One time campaign (April 16, 2018 – May 18, 2018), ongoing information sharing
National Teen Driver Safety Week promotion of messaging and event	2018 event to be held at a county secondary school, exact location TBA	Yearly campaign
Not By Accident (NBA) fall forum (project of South West Injury Prevention Network). Focus changes annually e.g. Cannabis and road safety, vision zero etc. --- 2018 no NBA planned related to limited resources. Alternately a planned Vision Zero forum "Primer" for smaller number of participants (project of South West Injury Prevention Network)	Held in London – central location to surrounding municipalities --- to be held at MTO office, Exeter Road	Previous annual forum for >10 years
Winter driving campaign. --- 2018 Snow How Winter Driving campaign – LMRSC & Ontario Good Roads Association	Social media --- Social Media	Annual with MTO

Child Safety

Intervention/Service	Location of Delivery	Frequency of Delivery
Farm Safety day	Elementary schools	Annually at different schools
Drowning Prevention campaign messaging	Radio, Billboards, social media	Annually, usually June-September
Helmets on Kids campaign helmet distribution	Elementary schools & at request of community partners/organizations	Annually in June
Safety Never Hurts newsletter	Emailed newsletter	Seasonal
Kids Need a Boost program – Education to all populations and distribution of booster seats to families in need when requested	Various Community spaces, elementary schools, home visits, reserves, social media	Throughout the year as requested
Various presentations, resources and/or materials related to Child Safety as requested	Various community spaces, elementary schools, family centres, reserves	As requested throughout the year

Next Steps

The findings and considerations outlined in this report are intended to highlight tangible opportunities for MLHU and assist with the identification of recommendations that merit endorsement by the board of health.

These findings and considerations will be shared with Middlesex County Council to seek their input on the review findings and to identify recommendations they feel should be considered.

Additionally, these findings will be disseminated to all program teams at MLHU for inclusion in their ongoing planning processes.