Algoma's Community Health Profile



Algoma PUBLIC HEALTH Santé publique Algoma

Land Acknowledgement

The land on which we are gathered is in the traditional territories of the Anishinaabek, Ililiwak, and Wiisaakoodewiwiniwok.

Algoma Public Health delivers services and programs within some of the Robinson-Huron Treaty, Robinson-Superior Treaty, and Treaty 9 territories, specifically within the traditional territories of the Michipicoten, Missanabie-Cree, Batchewana, Garden River, Thessalon, Mississauga, Serpent River, and Sagamok First Nations.

Algoma Public Health also delivers services and programs within the traditional territory of the Huron-Superior Regional Métis Community, represented by the Historic Sault Ste. Marie Métis Council and the North Channel Métis Council as part of the Métis Nation of Ontario.

We say miigwech to thank Indigenous Peoples for continuing to take care of this land from time immemorial. We are all called to treat this sacred land, its plants, animals, stories and its Peoples with honour and respect.

We commit to the shared goal of Truth and Reconciliation.



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Message from the Acting Medical Officer of Health

You can't take action on a problem without understanding it. This is why assessing the health of communities is a core function of public health. Collecting and assessing this information doesn't only tell us what problems threaten our health, but it can tell us the extent of the problem and give us crucial clues as to how to improve it. At Algoma Public Health (APH), we routinely monitor health trends and alert community partners, key stakeholders, and the general public as they arise. This timely data is important, but often the numbers don't always tell the whole story.



I use the word story intentionally. Behind every data point lies a person's story. You can add these stories together to generate a statistic, but it's important not to lose sight of why we aggregated that data in the first place: If we understand the trends affecting our health, we can collaborate to increase our health, which is the most important and valued resource any person has.

The story of health in Algoma has certainly been a challenging one since our last Community Health Profile. In that time, we saw the biggest global pandemic in over a century. The pandemic brought immense suffering; not just to those who were ill or who have died, but to all of us who had to make significant sacrifices to keep everyone safe. Through this sadness, we also saw remarkable community resiliency. Communities came together to care for one another in incredible ways which inspires me still to this day.

While the pandemic brought about unprecedented challenges, we continue to face significant health challenges including the ongoing opioid crisis and the many ways that the social determinants of health can work against our health in the North. Our hope is that the information in this profile will help empower our community partners to do what they do best; come together to improve the lives of all of us in Algoma. This data, this collection of stories, is just the beginning and we at APH look forward to working with our communities to improve our health together.

Dr. John Tuinema Acting Medical Officer of Health

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Executive Summary

Our Vision

Our Mission

Our Values

Health for all. Together.

We promote and protect community health and advance health equity in Algoma. Excellence Respect Accountability & Transparency Collaboration

Highlights of the community served Algoma Public Health serves a vast area in northeastern Ontario, with an estimated population of 112,764 people. This is expected to increase by 2026. Health is shaped by a broad range of factors such as personal, social, economic, and environmental. Some groups of people face greater health challenges due to these factors. In Algoma, recent data highlights disparities in income, higher-education, and food insecurity. Addressing these disparities requires interventions focused on improving social and economic conditions to enhance overall health outcomes.



In Algoma, the pregnancy rate is higher than in Ontario, with challenges such as lower uptake of prenatal folic acid and prenatal education for families, and higher substance use during pregnancy. Addressing these challenges is important for fetal development and ensuring healthy starts for children.



Starting from early childhood and continuing throughout life, parental guidance and accurate sexual health information contribute to healthy relationships and reproductive health. Algoma youth engaging in sexual activity reported higher condom use than the provincial average. Promoting safe sex, proper use of contraception, and awareness of STIs is essential. Accessing reliable sources of information help people make informed decisions, supporting both individual health and public health efforts.



Vaccination is a crucial public health tool that saves lives, prevents the spread of diseases, and reduces healthcare costs. Routine vaccination rates during the pandemic decreased in Algoma. Algoma Public Health is working to improve this by offering catch-up clinics for school-aged children and supporting community healthcare providers to immunize their patients. Vaccination remains important throughout adulthood, especially for pregnant women and seniors.



Algoma's unintentional injury (e.g., falls, motor vehicle collisions) and intentional (e.g., assault, self-harm) injury-related harms remain high. Strategies to reduce these include enhancing safety measures, reducing alcohol and substance use, and improving mental health support.



In Algoma, alcohol, cannabis, tobacco, and toxic drug use rates are high. Harm reduction supports aim to minimize the health risks. Stigma around substance use is a barrier to accessing supports. Recent data highlights a significant increase in toxic drug-related harms, highlighting the need for continued and collaborative community supports.



Algoma's unintentional injury (e.g., falls, motor vehicle collisions) and intentional (e.g., assault, self-harm) injury-related harms remain high. Strategies to reduce these include enhancing safety measures, reducing alcohol and substance use, and improving mental health support.

Recent data on mental health shows high overall life-satisfaction rates, but significant mental health concerns among the youth in Algoma. Factors such as stress, financial insecurity, and limited access to care are key influences. Emphasis on positive childhood experiences and accessible support will help improve long-term outcomes.



Despite being preventable, dental issues like tooth loss and gum disease are prevalent in Algoma. Community water fluoridation and increased dental insurance coverage can improve oral health outcomes.



Algoma has higher rates of chronic diseases, such as cancer, heart diseases, and diabetes. We can improve these rates by creating healthy environments, decreasing smoking and alcohol consumption and increasing access to cancer screening and healthcare.



Active lifestyles and nutritious diets reduce chronic disease risks across all life stages. Algoma data shows low fruit and vegetable consumption. Physical activity levels across all age groups in Algoma are below recommended guidelines, though youth participation in organized sports is high. People in Algoma could benefit from decreased screen time and improved sleep quality.



Algoma Public Health uses a Hazard Identification and Risk Assessment (HIRA) to evaluate potential public health hazards. Recent emergency responses include managing the COVID-19 pandemic. APH also monitors climate-related hazards like air guality and extreme temperatures, adjusting strategies to protect community health.

Algoma Public Health plays an important role in identifying trends in population health, disparities, and opportunities for community collaboration to improve health. This report is a vital tool for public health, community partners, and the public, offering insights and opportunities for further inquiry that can shape our collective efforts to achieve health for all.



Demographics & Life Expectancy

KEY MESSAGES:

- Algoma is home to an aging population, with a higher proportion of seniors aged 65 years and older compared to Northeast Public Health Units (NE PHUs) and Ontario⁽¹⁾.
- A male and female baby born in Algoma are expected to live to 77.2 and 81.6 years respectively⁽⁵⁾.
- Infant mortality in Algoma has significantly reduced from 7.5 to 4.8 per 1,000 live births from 2000 to 2021⁽⁶⁾.
- Algoma's all-cause mortality (873.4 per 100,000) remains higher than the province (665.5 per 100,000)⁽⁶⁾.
- Lung cancer and accidental drug poisoning are the top two leading causes of preventable deaths in Algoma, respectively⁽⁶⁾.

Geography

Algoma Public Health's (APH) boundary covers over 41,000 square kilometers and contains 21 municipalities, two large unorganized areas and numerous Indigenous communities⁽¹⁾. The region serviced by the health agency stretches over an eight-hour drive along Highway 17 from Spanish in the east to White River in the north.

Northern Ontario is serviced by seven public health units, five of which serve the Northeast region while the other two serve the Northwest. The Northeast public health units (NE PHUs) include Algoma Public Health, North Bay Parry Sound District Health Unit, Porcupine Health Unit, Public Health Sudbury & Districts, and Timiskaming Health Unit.

Fun fact:

The Algoma Public Health service area is as large as half of Lake Superior - the largest of the Great Lakes, whose surface area spans over 82,000 square kilometers⁽²⁾.

Algoma Public Health





Note: Algoma Public Health's boundary differs slightly from the District of Algoma or the Census Division of Algoma, which are commonly used by Statistics Canada.

Population and age

The population serviced by Algoma Public Health in 2021⁽¹⁾





Average age of an Algoma resident⁽¹⁾:







- The population declined from 2011 to 2016 by 1.5%⁽¹⁾, and further from 2016 to 2021 by 0.28% and it is expected to grow by 4.6% between 2021 and 2026⁽³⁾.
- The average age in Algoma is higher than that of NE PHUs residents (44.7 years old) and Ontario residents (41.8 years old)⁽¹⁾.
- An alternate method of looking at age is to use the median, which is a measure that is less affected by extreme values in the population. The median age of an Algoma resident is 50 years old, compared to 46.8 and 41.6 years old in the NE PHUs and Ontario respectively⁽¹⁾.
- Algoma has a higher percentage of seniors than both the NE PHUs (23.3%) and Ontario (18.5%)⁽¹⁾.
- By 2026, residents aged 65 years and older are projected to be 29.2% of Algoma's population⁽³⁾.



Population distribution and projections by age group and gender in Algoma and Ontario⁽³⁾

Life expectancy

At birth

- According to the data available from 2015 2017, life expectancy at birth has increased in Algoma.
- Until updated Algoma-specific data becomes available, it is useful to refer to provincial level data for 2018 – 2020. This most recent data showed a decrease in life expectancy for boys and girls to 80.2 years and 84.5 years respectively. This decrease is primarily attributed to deaths due to the COVID-19 pandemic⁽⁵⁾. Note, the COVID-19 specific death rate during 2020 in Algoma was 0 while it was 66.7 per 100,000 people in Ontario.
- On average, a person born and living in Algoma lives for 3 years less than the provincial average life expectancy⁽⁵⁾.

Life expectancy at birth, by gender⁽⁵⁾



Life expectancy

At 65 years of age

- A 65-year-old person living in Algoma today is expected to live another 18 - 21 years. That is approximately one year less than the provincial average life expectancy⁽⁵⁾.
- On average, females have a longer life expectancy than males in Algoma, the NE PHUs and Ontario⁽⁵⁾.

Mortality in Algoma

All-cause mortality⁽⁶⁾

2013 - 2019 From 2013 to 2019, the annual average death rate in Algoma remained stable. 822.3 deaths per 100,000

NE PHUs: 788.4 and Ontario: 653.2

Leading causes of mortality⁽⁶⁾





Number of years expected to live after 65 years of age⁽⁵⁾

	Algoma	NE PHUs	Ontario
Male	18.2	18.2	19.8
Female	21.2	21.2	22.6

- 2021

In 2021, the death rate in Algoma increased, and continued to be higher than the province.

873.4 deaths per 100,000

NE PHUs: 860.0 and Ontario: 665.5



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Infant mortality



Algoma's infant mortality rate has declined from **7.5** per 1,000 live births to **4.4** per 1,000 live births⁽⁶⁾. This is similar to NE PHUs and Ontario. None of the causes of death are significantly higher in Algoma.

Premature mortalityⁱ

Between 2018 - 2020, the following percentages of deaths were premature^(6,7)

40% of Algoma42.3% of NE PHUs36.5% of Ontario





ⁱⁱ When someone dies before the age of 75, it is considered a premature death.

^{III} Mortality from preventable causes focuses on premature deaths from conditions that could potentially be avoided through primary prevention efforts, such as lifestyle modifications or population-level interventions (for example, vaccinations and injury prevention).

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Social Determinants of Health & Health Equity

KEY MESSAGES:

- Algoma's community is quickly diversifying as the proportion of visible minority population is growing⁽⁴⁾.
- The majority of Algoma residents have completed high school and are employed⁽⁴⁾.
- 1 in 5 Algoma households is experiencing food insecurity⁽⁵⁾.
- The average cost to feed a family of four in Algoma increased by nearly 7% in one year from 2022 2023⁽¹¹⁾.

Health is influenced by a broad range of factors, including our genetics, individual behaviour, and the physical, social and economic environments in which we live, work, and play. Factors beyond an individual's biology and behaviour are referred to as the **social determinants of health (SDOH)**. The SDOH contribute to individual and to community health outcomes⁽¹⁾.

Differences in health outcomes between individuals or groups are known as health inequalities. When health inequalities can be changed or decreased through social action, they are called **health inequities**⁽²⁾. Health inequities are health differences that are⁽³⁾:

- Systematic, which means that health generally improves as socioeconomic status improves
- Socially produced, and these can be avoided by making sure that the social and economic conditions needed for good health are accessible to all people
- Unfair and/or unjust

The social determinants of health in Ontario (SDOH)

Within Ontario, health equity is linked to the following key SDOH⁽¹⁾:

- Access to health services
- Culture, race, and ethnicity
- Disability
- Early childhood development
- Education, literacy, and skills
- Employment, job security, and working conditions
- Gender identity and expression
- Food insecurity

- Housing
- · Income and income distribution
- Indigenous status
- Personal health practices and resiliency
- Physical environments
- · Sexual orientation and attraction
- Social inclusion/exclusion
- Social support network

"Health equity is the absence of unfair systems and policies that cause health inequalities"⁽²⁾ so that all people can reach their full health potential without being disadvantaged based on their race, ethnicity, religion, gender, age, social class, socioeconomic status or other socially determined circumstance.



Some marginalized groups experience health inequities as a result of discrimination, racism and historical trauma

Key social determinants of health across Algoma

Visible minority⁽⁴⁾

Proportion of Algoma's population that is a visible minority has increased from **2.3% to 3.4%** in 2021, due to an influx of immigration over the past several years.



Ethnicity/language⁽⁴⁾

Most common visible minorities: South Asian, Chinese, Black

"Refers to a person registered under the Indian Act of Canada and belongs to a First Nation or Indian band, that has signed a treaty with the Crown.

^{III} Core housing need is a measure of whether a private household falls below at least one of the indicator thresholds for housing adequacy (not requiring any major repairs), affordability (spending less than 30% of before-tax income on shelter costs) or suitability (having enough space for the size and composition of household occupants).

Key social determinants of health across Algoma

Employment⁽⁴⁾

People aged 15+ years old in the labour force who are employed

Algoma **87.1%**

Ontario **87.7%**

NE PHUs 89.2%

People aged 15+ years old in the labour force who are unemployed

Algoma 12.9%

Ontario

2%

NE PHUs



Food insecurity

Households experiencing food insecurity⁽⁵⁾



Algoma

11.3%

Ontario

15.3%

Talked to a general practitioner or family doctor in the past 12 months about their emotional or mental health

90.5%



85.0%

Increasing health equity: A health promotion approach

Health promotion action means building healthy public policy, creating supportive environments for health, strengthening community action, developing personal skills and re-orienting health services to help people reach a complete state of physical, mental and social well-being⁽⁸⁾.

Upstream interventions try to change the conditions (social determinants of health) that cause health inequities. Upstream interventions based on evidence are necessary to reduce health inequities⁽¹⁾.

Levels of interventions⁽¹⁾

Downstream interventions

Seek to increase equitable access, at an individual level, to health and social services.

These changes generally occur at the service or access to service level.

They are about changing the effects of the causes.

Midstream interventions

Seek to reduce exposure to hazards by improving material working and living conditions, or to reduce risk by promoting healthy behaviours.

These changes generally occur at the micro policy level: regional, local, community or organizational.

They are about changing the causes.

Upstream interventions

Seek to reform the fundamental social and economic structures that distribute wealth, power, opportunities, and decision-making.

These changes generally occur at the macro policy level: national or transnational.

They are about diminishing the causes of the causes.

Focus on food insecurity and food affordability in Algoma

Food insecurity is uncertain or inadequate access to sufficient quantity and/or quality of food, because of financial limits. Food insecurity most often affects households with lower income. Many people who struggle with food insecurity have a job.



The other **39.8%** of food-insecure households in Canada receive their income through government transfers^{iv}, private retirement, and other sources.

...of food-insecure households in **Canada in 2021** were those who earned wages, salaries or were self-employed⁽¹⁰⁾.

of food-insecure households in **Ontario in 2021** were those who earned wages, salaries or were self-employed⁽¹⁰⁾.

58.6%

Food insecurity is associated with higher risk of chronic illnesses, mental illnesses, infectious diseases, substance use, and premature death. Because of systems of oppression, racial disparities are also observed in food insecurity, with Indigenous and Black households experiencing rates 2-3 times higher than White households⁽⁹⁾.

Government assistance income scenarios for Algoma, 2023ⁱ

	Family of four ^v on Ontario Works ^{vi}	Single parent with two children, on Ontario Works ^{vi}	Single person on Ontario Works ^{vi}	Single person on ODSP ^{vii}	Single pregnant person on ODSP ^{vii}	Single person on Old Age Security ^{v™} / Guaranteed Income Supplement
Monthly income ⁱⁱ	\$2821	\$2587	\$882	\$1386	\$1426	\$2010
Average monthly rent ⁱⁱⁱ	\$1220	\$1091	\$718	\$718	\$916	\$916
Monthly cost of food ^{iv}	\$1181	\$870	\$423	\$423	\$423	\$306
% of Income required to purchase healthy food	42%	34%	48%	31%	28%	15%
Amount leftover for other expenses	\$420	\$627	-\$260	\$46	\$108	\$787



\$420.00 is the amount leftover for 'other expenses,' which for many families include:

Daycare costs

Phone/internet bill

Personal care items





Transportation





Clothing



Heat/hydro



Cleaning products



The average cost to feed a family of four in Algoma in 2023 was representing a **6.86%** increase since 2022 (\$1099.86).

Social assistance rates do not pay enough to cover rent, food, and other household necessities. Further, the amount leftover is likely an overestimate, as the rental market data underestimates the current rental prices by as much as $35-50\%^{(11)}$.

Everyone in Algoma deserves dignified access to safe, nutritious, and culturally appropriate foods. Learn more about what you can do to help reduce household food insecurity.

Focus on gender identity & sexual orientation

Gender identity and sexual orientation also play a role in health outcomes. Gender-based discrimination intersects with other discrimination, such as ethnicity, socioeconomic status, disability, age, and geographic location, among others⁽¹²⁾.

Data suggests that sexual minority individuals^v are at a greater risk for mental health conditions and other chronic diseases⁽¹³⁾.

Focus on Indigenous social determinants of health

1.3 million

Canadian residents identify as part of the 2SLGBTQI+ communities⁽¹⁴⁾. We do not currently have Algoma-level gender and sexual identity data.

Indigenous Peoples aligned with APH include First Nations, Métis, and Inuit who live in First Nations communities, urban, and rural areas of Algoma. While Indigenous identity is recognized as a SDOH in Ontario, specific social determinants of Indigenous Peoples' health⁽¹⁵⁾ have also been identified.



Since the early days of colonialism, Indigenous Peoples have been denouncing the health harming effects of oppressive political, economic, and social structures and systems. During the past 25 years, national and international initiatives[...] have confirmed these assertions and espoused Indigenous self-determination and equity as vital pathways to wellness⁽¹⁵⁾.



Indigenous Peoples experiencing health inequities are more suscepitible to poor health and have limited access to beneficial resources. These inequities were identified in the <u>Mamow-Ahyamowen report on mortality experiences of First Nations in northern Ontario</u>. Compared to Ontario, Mamow-Ahyamowen community members are much more likely to die before retirement age (65 years) and many could live longer with better public health and/or medical care.

Indigenous health in Northern Ontario⁽¹⁶⁾

61%

of all deaths among band members occurred before retirement age (65 years old) compared to 22% for Ontario overall.

Cancers

883

total deaths or 17 deaths per 1,000

community members. This is about

the same rate as Ontario overall.

Common causes of death



Diabetes

392

total deaths or **8 deaths per 1,000** community members. This is 4.1x the rate for Ontario overall.



Respiratory

368

total deaths or **7 deaths per 1,000** community members. This is 1.5x the rate for Ontario overall.



Infections



total deaths or **3 deaths per 1,000** community members. This is 2.0x the rate for Ontario overall.



deaths in communities could potentially have been avoided with effective and timely health care or public health intervention. This means there are ways we can help Indigenous community members live longer.



International and unintentional injuries

1,369

total deaths or **27 deaths per 1,000** community members. This is 3.8x the rate for Ontario overall. \bigcirc

Other

963

total deaths or **19 deaths per 1,000** community members. This is 1.5x the rate for Ontario overall.



Circulatory (i.e. heart attacks, strokes etc...)

1,102 total deaths or 21 deaths per 1,000 community members. This is about the same rate as Ontario overall.

The First Nations principles of OCAP[®] (ownership, control, access, and possession) guide how First Nations' data is governed. First Nations own their data and control how it is collected, stored, interpreted, used, or shared. For more information, please visit the <u>First Nations</u> <u>Information Governance Centre</u> website.

Algoma Public Health is committed to Truth and Reconciliation, which includes building respectful relationships with Indigenous communities to advance health and well-being and increase health equity.

Through the principles of respect, commitment, trust, and self-determination, APH strives to work with local Indigenous communities, and local, provincial and federal Indigenous health service organizations in culturally safe and humble ways to decrease health inequities so everyone has equal opportunities for optimal health.

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¹ The Nutritious Food Basket (NFB) is a survey tool used to monitor the cost and affordability of healthy eating for Canadians. APH uses the NFB annually to determine the cost of healthy eating for individuals and families in Algoma. The NFB adds the cost of food to the rental market housing rates and compares the total to monthly income, for various individual and family household scenarios. ¹¹ Based on Ontario Averages, includes benefits, such as the Canadian Child Benefit and tax deductions.

ⁱⁱⁱ Based on Canadian Mortgage and Housing Corporation (CMHC) data and Consumer Price Index. Algoma Public Health conducted additional research to assess how well CMHC data represents the current rental market, and initial findings suggest it might still underestimate rental prices by as much as 35-50%. Please consider these limitations when evaluating the income scenarios.

^{iv} Calculated using the 2023 Nutritious Food Basket collected by Algoma Public Health.

- $^{\rm v}$ Family of four: two adults aged 31-50, one male aged 14, and one female aged 8.
- ^{vi} Provincial support program for those in need of assistance with food, housing, and/or employment support.

vⁱⁱ The Ontario Disability Support Program is a provincial support program for persons with a disability (as defined by the Ontario Disability Support Program Act, 1997) in 11 need of assistance with food, housing, and/or employment support.

viii Old Age Security (OAS) is a monthly pension payment for eligible Canadians aged 65 and older.

Public Health Standards:ChapPopulation Health AsssessmentCorirHealth EquityRicky

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Preconception Health, Parenting and Families

KEY MESSAGES:

- The birth rate for Algoma in 2022 was 7.1 live births per 1,000 people, a 19.0% decline from 2017⁽¹⁾.
- Mental health concerns during and post-pregnancy have been increasing in Algoma⁽²⁾.
- Alcohol and tobacco use during pregnancy has declined, but cannabis and drug use during pregnancy has
 risen in the last two years⁽²⁾.
- More than 90% of parents/guardians, in Algoma, reported that their neighbourhood is safe for their children to play outside⁽³⁾.

Preconception health refers to your health before becoming pregnant. Your nutrition, habits, and medication affect your baby before they are even conceived. The preconception and pregnancy stages are foundational to building healthy and resilient communities by making sure all children have the best start to life.

An infant's first 1000 days of life are a period of profound brain development. Safe, secure, and nurturing relationships, positive childhood experiences, and healthy communities support this development of a child's brain architecture, which becomes the foundation for all future learning, behaviour, and health throughout the child's life^(4, 5).

Pregnancies in Algoma

In 2021, the pregnancy rate per 1,000 women of reproductive ageⁱ in Algoma was higher than Ontario and NE PHUs⁽¹⁾.

The pregnancy rate per 1,000 women aged 15 to 19 years old in Algoma has decreased over time but as of 2021 is still more than double the Ontario rate⁽¹⁾.



 Algoma
 NE PHUs
 Ontario

 13.9
 13.9
 6.3



In Algoma, women younger than 30 years of age have significantly higher pregnancy rates, compared to Ontario⁽³⁾.

Who does a resident in Algoma see for prenatal care? On average (between 2017 - 2023), pregnant families in Algoma:

saw an obstetrician. This is a *decrease* by 16.1%⁽⁶⁾ **60%**

46.6% saw a midwife. This rate has *doubled* over this period⁽⁶⁾

4.1% saw a family physician. This is a *decrease* by 8.7%⁽⁶⁾

Healthy Pregnancy - Tips & Local statistics





Substance use during pregnancy

When a person is pregnant, the placenta physically connects the fetus to the pregnant person and facilitates the exchange of substances. The structural properties of the placenta allow for selective transfer of different substances while providing some protection for the fetus. Most drugs, from all classes, will cross the placental barrier⁽⁸⁾.

An infant's exposure to substances in the womb may lead to growth restrictions, poor fetal development, preterm labour, and other harms. Immediate complications after birth include Neonatal Abstinence Syndrome (NAS) causing withdrawal symptoms in a newborn.

For the health of the newborn, it is strongly recommended to abstain from, or at least reduce use of substances during pregancy.

Substance use among women in Algoma while pregnant (2021)



- Almost 6% lower than 2015
- 3X more than Ontario (4.8%)
- 2X more than Ontario (4.2%)

■ 10X more than Ontario (1.0%)

9.4%

(1 in 10)

Drug & Substance

Almost the same as Ontario (1.8%)

Alcohol

2.9%

(1 in 30)

What does this mean?

During 2020, the rate of hospitalizations due to neonatal withdrawal symptoms from mothers' use of substances was observed at a record high of **26 infants per 1,000 live births in Algoma**. This declined to **17.8 infants per 1,000 live births in 2021**⁽⁹⁾.

Long term impacts of prenatal substance exposure have also been found, such as learning delays, difficulties self-regulating, and development of risky behaviour as the child grows⁽¹⁰⁾.



Percentage of pregnant women in Algoma that reported smoking during pregnancy, by age group

A higher percentage of mothers who smoke, are exposed to cannabis or drug and substances are less than 25 years of age⁽¹⁾.

Births in Algoma

The average age of Algoma womenⁱⁱ at birth of their first infant is 28.2 years old. This is similar to NE PHUs (27.9 years old), and significantly younger compared to Ontario (30.4 years old)⁽¹⁾.

Between 2018 and 2022, an average of 870 babies were born each year in Algoma⁽¹²⁾.





In 2022, there were 73 pretermⁱⁱⁱ live births in Algoma, with a preterm live birth rate of 8.6 per 100 live births^(4,12). 4.2%⁽⁶⁾ of total births in Algoma are affected by a congenital anomaly^{iv}, this is similar to the national average of 4%⁽⁶⁾ births.

 The term women used in this section is in keeping with data source language and unfortunately does not capture everyone's experience in a fully inclusive way.
 Number of live births that occur between 20 and 36 weeks of gestation.

^{iv} According to the World Health Organizations, congenital disorders, also called birth defects, can be defined as structural or functional anomalies that occur during intrauterine life.

Feeding for a healthy start^{*}

New parents spend approximately 1800 hours feeding in the first year. This time can be one of the most rewarding experiences for a parent, as they build a strong attachment with their baby through focused feeding.

Breastmilk protects babies against illness, provides optimal nutrition, is cost-effective, and has lasting health benefits. Any amount of breastmilk provided offers protective antibodies and nutrients for your baby⁽¹³⁾. Cue-based feeding is important, regardless of the method of feeding. Learning to recognize the baby's signs of hunger and fullness, ensures the baby is getting just the right amount.

During 2021, **60.4% of Algoma** infants were exclusively breastfed after birth⁽¹⁾. This is significantly higher than 52.8% of infants in Ontario overall.



Adverse childhood experiences and toxic stress

In 2022, a total of 790 screens^v were completed as part of the Healthy Babies Healthy Children program⁽⁶⁾. Adverse Childhood Experiences (ACEs) are stressful or potentially traumatic events that occur within the first 18 years of life⁽¹⁴⁾. The number of ACEs an individual has directly influences the likelihood and severity of negative outcome. Examples of ACEs include:





Healthy child development

Infant and Early Childhood Mental Health (IECMH), is defined as the "developing capacity of the child from birth to five years of age to form close and secure adult and peer relationships, experience, manage and express a full range of emotions, and explore the environment and learn – all in the context of family, community, and culture."⁽¹⁶⁾

If a child experiences many ACEs without a supportive relationship with an adult serving as a protective factor, the experiences of ACEs will trigger the toxic stress response.

The toxic stress response occurs when a child experiences frequent and/or prolonged adversity which can have a wear-and-tear effect on the $body^{(17)}$.

Positive childhood experiences are protective factors

Parents can reduce the impacts of ACEs by introducing Positive Childhood Experiences (PCEs). A PCE can be found in both the individual and community environments.



Healthy attachment

A responsive relationship between a parent^{vi} and child is important to a child's development and well-being. Healthy brain development is built through safe, secure, nurturing relationships with a caring adult.



Participating in EarlyON activities can help promote healthy attachment with your child and buffer against adversity. A child's social-emotional development is the foundation to healthy attachment, which is built through responsive relationships with a caregiver/adult. Approximately 40% of children aged 0 to 5 living in the Algoma District attended an EarlyON site located in Algoma District at least once in 2023^(18, 19).



Safe neighbourhoods

While 91.9% of parents in Algoma with children 1- to 17-years-old reported that their neighbourhood was very safe or reasonably safe for their children to play outside, 8.1% reported it being unsafe for their children⁽³⁾.

Access to healthcare and early intervention services



2015 (Pre-pandemic)	2017 (Pre-pandemic)	2020 (Pandemic)
Algoma 57.8%	Algoma 51.6%	Algoma 50.4%
Ontario 72.9%	Ontario 72.0%	Ontario 66.6%

The proportion of children who received any type of 18-month well-child visit has decreased over the years and is noticeably lower than the provincial average⁽²⁰⁾.

vii Any adult in a caregiving role

^{viii} Includes curiosity about the world, eagerness to try new experiences, knowledge of standards of acceptable public behaviour, ability to control own behaviour, appropriate respect for adult authority, cooperation with others, and ability to play & work with children.

^{ix} Includes the ability to think before acting, a balance between too fearful and too impulsive, an ability to deal with feelings at the age-appropriate level, and empathetic response to other people's feelings.

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Public Health Standards:

Healthy Growth & Development

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Healthy Sexuality

KEY MESSAGES:

- More than half of youth in Algoma said that school (53.3%) or a parent/ caregiver (70.3%) was a typical source of sexual health information⁽²⁾.
- Only 48.3% of Algoma adults aged 20 29 reported using a condom the last time they had sex⁽³⁾.
- The rate of chlamydia and gonorrhea infections in Algoma, were lower in 2023 than previous years⁽⁴⁾.
- Rates of infectious syphilis in Algoma have increased drastically in the past 5 years, from 2.1 infections per 100,000 in 2019 to 37.4 infections per 100,000 in 2023, exceeding the Ontario average in 2023⁽⁴⁾.

Sexual health information

Just like our physical and mental health, taking care of our sexual health is important for overall health and wellness. Sexual health encompasses many components, such as healthy sexuality, healthy relationships, reproductive health, consent, and puberty. Sexual health spans the life course – beginning in early childhood and continuing into our aging years.

It's important to start conversations about sexual health early to lay the foundation for lifelong sexual health practices and behaviours. Ensuring that children and adolescents are given accurate and reliable sexual health information is important so they can develop knowledge and make informed decisions about sexual health behaviours.

Youth 15- to 17-years-old who said they have an adult available to talk to for questions or concerns about puberty, sexual development or sexual health $^{\!\!\!(2)}$

88.5% Algoma



Ontario

Percentage of youth (15- to 17-years-old) and where they get their sexual health information⁽²⁾

Algoma	Ontario
53.3%	60.2%
70.3%	50.3%
35.2%	36.9%
58.2%	50.2%
35.9%	20.0%
	Algoma 53.3% 70.3% 35.2% 58.2% 35.9%

While school was a less common source for youth in Algoma, compared to the province, a higher proportion of youth in Algoma got their sexual health information from parents or caregivers.

Some tips for having conversations about sexual health and healthy sexuality with your child include⁽⁵⁾:

Answering their questions honestly.

Give your child the information they want to know and use words they will understand.



Giving correct information.

Valid information from a trusted adult is encouraged as some children receive sexual health information (or misinformation) from friends or other unreliable sources.



Starting conversations.

Don't wait for your child to begin conversations as some may never ask.



Sharing your beliefs, concerns and values.

It's important for your child to know what is important.



choices and supporting their decisions. Building trust will increase the likelyhood that they continue to ask questions and

Encouraging your child to make good

see support, when needed.

Healthy relationships

Relationships make up a large part of our everyday lives and take many forms, such as those with family, friends, sexual partners, and even coworkers.

Building and maintaining healthy relationships

A healthy relationship is⁽⁵⁾:

- one where people feel safe and comfortable
- one that is honest, caring, and respectful
- one where trust is established
- \cdot one where the power is shared
- one that includes open communication

In Algoma, **73.7% of youth** said they spend time just talking with their parents/caregivers daily, while **12%** said they spend time just talking with their parent/caregiver only once a week⁽³⁾.

Sexual activity

Almost 3 in 5 (58.5%) Algoma youth (15- to 19-years-old) have had sex in their lifetime. This is comparable to other NE PHUs and significantly higher than the provincial rate of 26.9% for the same age group⁽³⁾.

Percentage of population sexually active and using condoms by region and age groups⁽³⁾

Algoma **NE PHUs** Ontario Algoma **NE PHUs** Ontario 58.5% 64.7%* 51.0% 26.9% 66.7%* 56.3% 15 - 19 year olds 15 - 19 year olds 90.9% 74.6% 48.3%* 43.7% 85.7% 20 - 29 year olds 35.8%* 20 - 29 year olds 10.5%* 20.9% 93.6% 93.8% 94.4% 10.9%* 30 - 39 year olds 30 - 59 year olds 5.5% 93.2% 96.2% 94.9% 60+ year olds 40 - 49 year olds

The proportion of Algoma residents who reported using a condom or another method of contraception (birth control)ⁱ decreased with increasing age.

Tips for practicing safe sex⁽⁶⁾:



Have had sex in their lifetime

Choose options that lower the chance of passing or getting sexually transmitted infections (STIs), such as using condoms.



Consider the use of hormonal/ non-hormonal contraceptives.



Take part in routine STI testing.



Know your options and consider your plans for pregnancy.



Have used a condom last time they had sex

Become comfortable speaking with your partner and having a mutual understanding of what you both want and don't want.



Give and receive consent - everyone has to say yes.

*Marginal to high sampling variability, interpret with caution. ⁱ Contraception includes the birth control pill, contraceptive patch, vaginal contraceptive ring, injection, hormonal implant, intrauterine device, vasectomy or tubal sterilization, spermicide, the rhythm method (tracking the ovulation cycle) or withdrawal/pulling out.

Condom use



Choosing options that lower the chance of getting or passing on an STI, such as using condoms, is one way of practicing safe sex. Condoms help reduce the risk of sexually transmitted and blood-borne infections and prevent pregnancy.

Algoma youth (15- to 19-years-old) and young adults (20- to 29-years-old) are more likely to have had vaginal and/or anal sex as compared to Ontario and NE PHUs⁽³⁾. Interestingly, Algoma youth and young adults are more likely to use condoms during sex as compared to Ontario and NE PHUs.

Contraception



In addition to condoms, there are numerous methods of hormonal and non-hormonal contraception. The most common form of hormonal contraception in Algoma is birth control pills.

According to a 2019 - 2020 survey, **32.4% of women aged 15- to 49-years in Algoma** reported taking birth control pills, while only 18.0% of women in Ontario reported using birth control pills⁽³⁾.

Therapeutic abortions

There are two types of legal abortion in Canada: medical and surgical.

Medicalⁱⁱ and surgical abortions, called therapeutic abortions, are available locally in the district of Algoma. It is important for individuals to know they are in control of their own health and have the right to make decisions that best serve them. This includes the decision of when to have a baby.

The four-year (2017 - 2020) average therapeutic surgical abortion rate for womenⁱⁱⁱ 15- to 49-years-old in Algoma was **24.1 per 100 pregnant women**⁽⁷⁾.

Therapeutic surgical abortion rates (per 100) of pregnant women aged 15 to 49 in Algoma, by age group⁽⁷⁾



ⁱⁱ Medically/pharmacologically induced abortions in hospitals. Those induced by the emergency contraceptive pill, RU 486, or methotrexate (usually reserved for ectopic pregnancies) are not captured in this therapeutic abortion data.

"The term "women" is used in this section to stay consistent with the data source. Trans-men and non-binary individuals are also able to get pregnant and have children.

Sexually transmitted and blood-borne infections (STBBIs)

Sexually transmitted infections (STIs) are infectious diseases that spread from one person to another through sex or close contact, particularly vaginal, oral or anal sex.

Blood-borne infections (BBIs) are caused by viruses that are carried in the blood and can be transmitted through sexual contact, sharing contaminated equipment (e.g., needles), needle-stick injuries, from mother to baby during pregnancy, during birth or through breastfeeding. BBIs may also exist in other bodily fluids. Sexually active people can be at risk of STBBIs at any age.

Practicing safer sex with every new partner is important at any life stage.



Personal service settings (e.g. tattooing, piercing, and salons) can pose a significant health risk if infection control measures are not followed. Public Health Inspectors (PHIs) inspect and support these personal settings to ensure compliance and cleanliness to prevent illnesses. Illnesses associated with personal services include HIV, Hepatitis B and C and other bacterial and fungal infections.

STBBI rates in Algoma^{iv}

Chlamydia

Chlamydia continues to be the most common bacterial sexually transmitted infection in Algoma. The rate of chlamydia infections decreased from 2021 to 2023 and is similar to the rate for Ontario overall^{(4).}

Count and age-standardized rate (per 100,000) of Chlamydia



Gonorrhea

Gonorrhea infections in Algoma increased noticeably from 2020 to 2021. In 2023, the rate for Algoma remained higher than prepandemic rates, but was lower than the Ontario rate overall. Those aged 25 - 34 had the highest rates of gonorrhea in Algoma in 2023⁽⁴⁾.

Count and age-standardized rate



^{iv} Interpret data for 2020 through 2022 with caution due to impact of the COVID-19 pandemic on testing and reporting of diseases of public health significance in Ontario.
Syphilis

Syphilis is a sexually transmitted infection caused by the bacteria Treponema pallidum, and if left untreated it can cause serious health problems. such as damage to the heart, brain and other organs of the body, and in very rare cases, may even cause death. It is transmitted through unprotected vaginal, anal and oral sex. It can also be transmitted from infected mother to infant during pregnancy or birth causing health concerns for the infant. Early symptoms can include genital sores, rash and headache. Prenatal testing and condom use can reduce the risk of spread⁽⁸⁾.



The annual rate of infectious syphilis in Algoma has increased by **1685%** from the pre-pandemic rate in 2019 (2.1 per 100,000) to 2023 (37.4 per 100,000).

Algoma's rate of infectious syphilis in 2023 was higher than both the NE PHUs and for Ontario overall⁽⁹⁾.



In 2023, 28.9% of cases were among females of childbearing age. Increased syphilis in this group raises the risk of congenital syphilis. Algoma had its first case of congenital syphilis in 2022, after 10 years without any cases. Screening is recommended for pregnant people in Ontario during their first trimester or at the first prenatal visit, with possible re-screening later⁽¹¹⁾.

Algoma's syphilis rates were higher than Ontario's, with females 3.7 times higher and males 1.6 times higher in Algoma compared to the provincial averages⁽⁹⁾.

In 2023, age-standardized syphilis rates in Algoma were twice as high among males (51.1 per 100,000) compared to females (24.4 per 100,000)⁽⁹⁾.





Hepatitis C

Hepatitis C infection is caused by a virus that attacks the liver. It is transmitted through contact with infected blood and is most often spread through sharing contaminated drug-use equipment (e.g. needles, straws, pipes, cookers, etc.) to inject or snort drugs. It can also be spread by sharing personal care items like a razor, nail clippers or a toothbrush with a person who has the infection. Sexual transmission of hepatitis C is less common, but it can happen, especially when there is a chance that infected blood is present (such as during menstruation). There is currently no vaccine to prevent hepatitis C, although effective therapy is now available⁽¹²⁾.

The rate of new hepatitis C diagnoses decreased in Algoma from 2019 to 2022 but increased by 17% from 2022 to 2023. In 2023, the Algoma rate per 100,000 (48.2) was similar to the NE PHU rate (49.5), but twice as high as the rate for Ontario $(21.9)^{(9)}$.



There are highly effective treatments that cure more than 95% of people of hepatitis C. Direct-acting antivirals (DAAs) block the ability of the hepatitis C virus to replicate. Treatment includes taking one to three pills once a day for eight or 12 weeks. Since 2014, DAAs have been available under the Ontario Drug Benefit (ODB) program. If you are interested in learning more about Hepatitis C treatment, please contact your health care provider or the HEP Care Program⁽¹⁾.

HIV

DID YOU

From 2019 to 2022, Algoma had lower rates of HIV infection compared to NE PHUs and Ontario overall. In 2023, Algoma's rate per 100,000 (5.5) increased by 200% from 2022, above the NE PHU rate (2.5); however, rate changes in Algoma should be interpreted with caution due to the small number of cases⁽⁹⁾.

Ways to prevent HIV transmission or acquisition:

- 1. Pre-Exposure Prophylaxis (PrEP) is a combination of medication that can reduce your chances of getting HIV from sex or injection drug use. It can be taken by HIV-negative individuals at high risk of infection. When taken as prescribed, the medication reduces the risk of acquiring sexually transmitted HIV by more than 90%. If an individual acquires HIV infection, PrEP must be discontinued immediately⁽¹²⁾.
- 2. People living with HIV who take anti-retrovial therapy (ART) and who achieve and maintain an undetectable viral load have effectively no risk of transmitting HIV sexually⁽¹²⁾.



Count and age-standardized rate

	Algoma	NE PHUs	Ontario
	262.2	2001	975 A

Age-standardized incidence rates (per 100,000) of STBBIs in 2023⁽⁴⁾

	Chlamydia	262.2	309.1	275.4
	Gonorrhea	56.2	32.1	91.1
	Hepatitis C	48.2	49.5	21.9
leel leel	Syphilis*	37.4	24.1	19.7
	Hepatitis B**	2.9	3.7	11.2
	HIV	5.5	2.5	9.2

*The syphilis rate is the rate of infectious syphilis.

** Hepatitis B rate includes incidence of acute and chronic hepatitis B.

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Public Health Standards:

Infectious and Communicable Disease Prevention Healthy Growth and Development School Health Chronic Disease Prevention

Chapter Contributors:

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Immunizations

KEY MESSAGES:

- Community partners, along with the immunization and school health teams at APH have been working hard to catch students up with their immunizations as COVID-19 closures impacted coverage rates.
- HPV coverage for Algoma 17-year-olds in the 2022 2023 school year was 63.5% compared to 68.5% across Ontario⁽⁵⁾.
- Influenza immunizations rates for our 65+ age-group are nearly 40% higher than the rest of our population⁽⁷⁾.

Immunization is one of the greatest public health achievements of all time. Vaccines save lives, prevent the spread of diseases and reduce healthcare costs. While immunization takes place around the world, access and coverage varies across countries. In Ontario, we are fortunate to have publicly funded vaccines. Different vaccines are recommended at different times through your life.

Childhood and school-based immunizations

In Ontario, there is a series of recommended routine immunizations that each child should receive before they reach school age. The vaccines required for school protect against tetanus, diphtheria, pertussis (whooping cough), polio, measles, mumps, rubella, varicellaⁱ (chicken pox), and meningitis.

Public health nurses visit schools across Algoma to administer vaccines to all grade 7 students (with parental consent), every year. These include a mandatory meningococcal (meningitis) vaccine, and the recommended hepatitis B and human papillomavirus (HPV) vaccines.

The Child Care and Early Years Act & Immunization of School Pupil's Act (ISPA)

These acts require children who attend licensed childcare and/or schools in Ontario to be immunized against certain infections.



Why does my child need a vaccine to protect them from the HPV virus when they aren't sexually active yet?

The HPV vaccine is offered to grade 7 students so that they have excellent protection against this infection if they become sexually active in the future.

The vaccine is very safe and effective. Evidence from the delivery of over 270 million doses of HPV vaccine show that there are no serious side effects after receiving it⁽²⁾. A full series of the vaccine prevents 9 types of HPV that can lead to genital warts, and cancers such as cervical, vulvar, vaginal, penile, anal, throat and mouth. HPV causes almost 100% of all cervical cancer cases. Achieving an HPV vaccination rate of over 90% by 2025, together with effective screening and treatment could eliminate cervical cancer by 2040^(3, 4).

The HPV vaccine is offered to all students in grade 7, and they remain eligible to receive this vaccine at no charge until the end of high school. The vaccine is available to adults for a fee and is free for men, up to age 26, who have sex with other men.

Immunization coverage

Prior to the COVID-19 pandemic (2018-2019 school year), the combined immunization coverage of 7-year-old Algoma students who were upto-date in their routine ISPA immunizations was notably lower than Ontario students. On the other hand, 17-year-old Algoma students had a coverage rate that was higher than Ontario students⁽⁵⁾.



Combined immunization coverage in the 2018 - 2019 school year

The pandemic reduced school vaccination coverage and reporting because schools were closed. Public health was also focused on pandemic measures across the province. Coverage for routine immunizationsⁱⁱ between 2018 –2023 has been steadily declining in Algoma for 7-year-olds^(5, 6).



Tdap coverage rate for 17-year-olds went down steadily during the pandemic because a booster dose of this vaccine is required during high school. Many students missed this dose due to pandemic closures^(5,6). It is anticipated that both, the 7-year-old and 17-year-old coverage rates will improve due to the significant catch-up work that APH and community partners have done in 2024.





[®] Reference vaccine glossary at end of chapter.

" The MMR and polio coverage have been omitted from this graph as no further doses of these vaccines are required after the last booster at age 6.

Catch-up clinics

Ontario's Immunization of School Pupils Act (ISPA) requires that children and adolescents attending primary or secondary school get immunized against certain diseases, unless they have a valid exemption.

Throughout 2024, APH has been offering catch-up clinics for school-age children who are behind on their immunizations because of the pandemic. Keeping vaccine coverage high helps to strengthen the immunity for everyone as most of the population is vaccinated.

Although school-based immunizations were lower during the 2020 - 2021 school year (12-year-olds), they improved in the 2021 - 2022 school year. 17-year-olds also had a decrease in coverage between the 2021 and 2023 school years⁽⁶⁾.



School-based immunization coverage trend





Routine childhood immunization coverage rate 2022 - 2023, 12-year-olds

	Algoma	Ontario
Нер В	59.6%	58.2%
HPV	56.6%	47.8%
MCV4	78.1%	73.7%

Routine childhood immunization coverage rate 2022 - 2023, 17-year-olds

	Algoma	Ontario
Нер В	72.0%	76.4%
HPV	63.5%	68.5%
MCV4	85.9%	91.1%

Post-pandemic coverage (2022 - 2023 school year) in 7-year-olds is much lower than the historical coverage pre-pandemic. The 17-year-old cohort in Algoma has high coverage rates for mumps, measles, and rubella (MMR), and polio, just above provincial coverage. This coverage meets the national goal⁽⁶⁾.



National coverage goals

Health Canada has set vaccination coverage goals for 2025, in a joint effort with the World Health Organization (WHO). You can read more about this at <u>Vaccination Coverage Goals and Vaccine Preventable Disease Reduction Targets by 2025</u>.

2025 national coverage goals for 7 and 17-year-olds⁽¹⁾:

95% 7-year-olds for all childhood vaccines



17-year-olds for measles, mumps, polio, and rubella vaccines 90%

17-year-olds for diphtheria, pertussis, and tetanus vaccines

School-based immunization coverage for the 2022 - 2023 school year was low in 12-year-olds, but still above the provincial rate. Meanwhile, immunizations in 17-year-olds was much higher, but still below the province⁽⁶⁾.



School-based immunization coverage and goals 2022 - 2023, 12 and 17-year-olds

Most healthcare providers (HCPs) do not automatically report vaccines they administer to APH. Parents/guardians have to report their child's immunizations.

How can a parent or guardian report their child's immunization to APH?

- Email a copy of the record to immunizations@algomapublichealth.com
- Bring a copy of the record to the front desk of any APH office.
- Request their HCP to fax a copy of their immunization record to 705-541-5959
- Submit (or view) immunizations online at: www.algomapublichealth.com/ICON



Adult immunizations

Vaccines are important throughout your life and many require boosters or annual vaccination into adulthood. Seniors are more susceptible to certain vaccine-preventable diseases, such as pneumococcal infections and shingles. A full schedule of recommended doses for each adult is available from the Ministry of Health.

Some vaccines may be recommended for certain high-risk groups in addition to the routine recommendation for adults. Algoma Public Health or your Health Care Provider can review your health history to see if you should receive further vaccines.

Did you know? Over two-thirds of shingles cases occur in individuals over 50 years of age⁽⁷⁾

You are at risk for developing shingles if you've ever had the chickenpox. Nearly **1 in 3** Canadians who have not been immunized develop shingles in their lifetime. The most common complication of shingles is long-term, debilitating nerve pain, that can severely impact your quality of life. Your risk of getting shingles **increases** with each year past the age of 50.

Talk to your health care provider about getting your shingles vaccine if you are at least 50 or have a weakened immune system⁽⁶⁾.

Influenza and COVID-19 immunizations

Influenza vaccines are recommended annually in the fall for all Ontario residents over 6 months of age. It's especially important for pregnant women, young children, adults aged 65 and over, and those with immunocompromised systems to get a flu shot.

About 50% of Algoma residents aged 65 or older recieved the flu vaccine during the 2022 - 2023 flu season, in comparison to just 7.4% of children under 5 years.

Overall, an estimated 20.5% of Algoma residents were vaccinated with a flu shot during the 2022 - 2023 flu season⁽⁸⁾.



Influenza immunization rate by age groups in Algoma

During the pandemic, public health agencies across the province ran mass COVID-19 immunization clinics to ensure that our communities and priority populations had access to vaccines. Since the pandemic, booster vaccines have helped maintain protection against the serious effects of COVID-19 infection.



Nearly 80% of Algoma's population completed their primary series of COVID-19 immunization⁽⁹⁾

Less than **50%** also received at least one booster dose⁽⁹⁾

Vaccine glossary

Vaccine product	Diseases covered by vaccine
Hib	Haemophilus influenza B
MCV4	Meningococcal disease
Men-C-C	Meningococcal disease
MMR	Measles, mumps, rubella
MMR-V	Measles, mumps, rubella, varicella
Тдар	Tetanus, diphtheria, pertussis
Tdap-IPV	Tetanus, diphtheria, pertussis, polio
Varicella	Chicken Pox



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Infectious Diseases and Environmental Health

KEY MESSAGES:

- Cases of invasive pneumococcal disease jumped to 54 cases in 2023 from 16 cases in 2019, causing the rate of infection to significantly rise in Algoma as compared to Ontario⁽¹⁾.
- In early 2022, COVID-19 cases peaked in Algoma, resulting in increased illnesses, hospitalizations, and deaths.
- Algoma had 44 cases of invasive group A streptococcal (iGAS) disease in 2023, the highest it has been in 10 years⁽¹⁾.
- A significant rise in food-borne illness was observed in Algoma in 2023. The rate of infection in Algoma (49.2 per 100,000) was higher than Ontario (44.0 per 100,000) and NE PHUs (39.5 per 100,000)⁽¹⁾.



Pathogens are the cause of infectious diseases, but the environment can have a significant impact on the circumstances in which the viruses grow, spread, and cause harm. Through environmental interventions like basic sanitation, preventive methods like vaccine development, food and water safety awareness, and effective treatment in the form of antibiotics, significant progress has been made in the control of infectious diseases.

However, microorganisms adapt and evolve to their conditions which allow them to continue to grow. In addition, human behaviour (e.g. personal hygiene, sexual behaviour, drug use, needle and equipment sharing), globalization (e.g. travel), and the social determinants of health (e.g. income and income distribution) play a significant role in the spread of infectious diseases.

Even with all advancements, several long-established and emerging infectious diseases are difficult to control. They can cause serious or fatal infections, and might have the potential for outbreaks, imposing a significant burden on the health of the community. Algoma Public Health monitors <u>Diseases of Public Health Significance</u> (DOPHS) for timely management and surveillance to prevent communicable disease outbreaks from occurring.

This section includes a summary of selected DOPHS that had a higher than usual rate of infection during, and post-pandemic, in Algoma. Note that sexually transmitted and blood-borne infections (STBBIs) are summarised in the Healthy Sexuality chapter.

Vaccine preventable infectious diseases

There are some infectious diseases for which vaccines are available. Vaccines have prevented countless cases of infection and saved millions of lives. A gap in vaccination coverage along with limited access to routine healthcare services can lead to cases of vaccine preventable diseases (VPD) in a community. This section focuses on the rate of VPDs while the **Immunization chapter** summarizes the vaccination coverage in Algoma.

Pneumococcal disease

Pneumococcal disease is caused by the Streptococcus pneumoniae bacteria. Those most at risk for serious complications from invasive pneumococcal disease are individuals 65 years and older and children less than 2 years old. The invasive form of the pneumococcal disease (bacteria in the blood stream, spinal cord, or brain) is monitored across Ontario. The rate of streptococcal pneumonia invasive infection in Algoma has been rising since 2018 and in 2023, it was two times that of NE PHUs and four times that of the provincial rate.





Pertussis (whooping cough)

In Algoma, there was a pertussis ("whooping cough") outbreak that began in Fall 2023 (the first since 2016) infecting 17 people. While people of all ages were affected, most affected were infants and children under the age of 15 (10 out of 17 cases or 58.8%)⁽¹⁾. All the cases were among those not vaccinated for pertussis.

Measles

Starting September 2023 and continuing into 2024, Canada reported an unusually high number of measles cases. The majority of reported cases occurred in individuals who were unvaccinated, many of whom were children⁽²⁾.

While 12 cases of measles have been reported across Ontario from September 2023 to March 2024, 0 cases were from Algoma or Northeastern Ontario⁽¹⁾.

Childhood communicable diseases

There are many common childhood communicable diseases that families will experience. These diseases are not monitored and therefore infection rates are not available, nevertheless information on how to prevent and manage these illnesses is available on our <u>website</u>.



Fifth disease



Hand, Foot and Moth (HFM)



Impetigo







Head Lice

Respiratory infections: COVID-19, influenza and tuberculosis

COVID-19



Age-standardized rate (per 100,000) of COVID-19 cases

In 2020 and 2021, Algoma experienced a lower volume of COVID-19 cases than Northeastern Ontario and Ontario. Algoma's COVID-19 cases peaked in early 2022 when the Omicron variant began circulating, with case numbers dropping during the year.



long term care homes.

Due to the peak in COVID-19 cases throughout 2022, Algoma COVID-19-related hospitalizations and deaths also peaked in the first quarter (Q1) of 2022.

The magnitude and complexity of the COVID-19 pandemic made it a significant public health event both globally and locally. From the detection of the first confirmed case in Algoma on March 16, 2020, Algoma Public Health worked with external partners to respond effectively and to control the spread of the virus. The **Emergency Management** section elaborates on COVID-19 emergency response metrics in Algoma.



Throughout the pandemic, most of Algoma's outbreaks were within

COVID-19 outbreaks in Algoma by setting and season

Influenza

Influenza is a viral respiratory infection that occurs in annual epidemics during the winter months and is commonly referred to as the flu. The most important infection control measure to prevent serious morbidity and mortality is annual influenza immunization. All Ontario residents aged 6 months and older are eligible to receive publicly funded influenza vaccine yearly. Other infection prevention strategies include hand hygiene and proper respiratory etiquette (e.g., covering your cough).

Both COVID-19 and influenza can be causes of outbreaks in institutions such as retirement homes, hospitals, and long-term care homes.

Public health inspectors and public health nurses' complete case and contact management to determine the source of infection, possible lapses in infection control practices, and limit the spread of diseases to prevent an outbreak. Support and guidance are offered to facilities to ensure they are incorporating best practices for infection prevention.

From September 2022 to August 2023, there were 125 respiratory outbreaks in Algoma. Of these, 73 were due to COVID-19, 7 were due to influenza A virus, 13 were due to rhinovirus (common cold) and 32 were due to either unknown or other less common respiratory viruses⁽⁷⁾.



Number of influenza outbreaks in Algoma by season and setting⁽⁷⁾



Respiratory outbreaks from September 2022 to August 2023

Tuberculosis

Algoma continues to report among the lowest rates of active tuberculosis in Ontario. Between 2019 and 2023, six cases were diagnosed with active tuberculosis in Algoma⁽¹⁾.

It is important for health care providers to support the medical surveillance of tuberculosis by providing screening, and follow-up for clients to prevent further infection or progression of TB disease.

Group A streptococcal disease, invasive (iGAS)

The number of iGAS cases in Algoma have been increasing since 2018 to a record high of 44 cases in 2023⁽¹⁾. In Algoma, between July 2018 to June 2023, this serious bacterial infection affected the following high-risk groups: Increasing trends in iGAS cases are not exclusive to Algoma.

Although our cases are disproportionately high in the North due to the higher prevalence of the above risk factors, a surge in iGAS cases has also been seen in recent years (2022 - 2023), provincially, nationally as well as internationally⁽⁹⁾. Learn more about the severity of iGAS and how to avoid it, on our website.



Adults, 41 - 65 years in age (63.1% of cases)⁽⁸⁾







such as diabetes, chronic wounds, or immunodeficiencies⁽⁸⁾



Injection drug users (67.9% of cases)⁽⁸⁾

Homeless or underhoused (48.8% of cases)(8)

Blastomycosis

Blastomycosis is a rare fungal infection caused by breathing in a fungus (blastomyces dermatitis). The fungus is found in acidic, moist soil native to parts of Northern Ontario. Learn more about blastomycosis and how to avoid it, on our website.

The average yearly incidence of blastomycosis in Algoma from 2018 to 2022 was 1.4 cases per 100,000 people. However, it increased to 7.6 per 100,000 people in 2023 and is significantly higher than the provincial 0.8 per 100,000 $people^{(1)}$.

There are no identifiable trends in common exposures/locations among detected cases during 2023. Therefore, this increase may be a positive sign that detection/diagnosis is improving, which is important as the outcome of blastomycosis infection can be greatly improved with early detection.

Age-standardized rate (per 100,000) and case count of group A streptococcal (iGAS) infection⁽¹⁾



Age-standardized rate (per 100,000) and case count of blastomycosis infection



Enteric infections

Food-borne illness[®]

PHIs complete routine inspections to ensure facilities follow mandatory food regulations and guidelines. <u>Safe Food Handler courses</u> are also offered through APH to certify that individuals are prepared with knowledge and training to prevent improper handling of food.





Despite these efforts, food-borne illnesses still occur. When food-borne illnesses are suspected or confirmed, PHIs work directly with those experiencing symptoms to help identify potential sources of exposure and to avoid re-infection.

The rate of food-borne illnesses in Algoma has notably fluctuated between 2018 and 2023, with a rise in 2020 and peaking in 2023 during which time the rate was higher than NE PHUs and Ontario⁽¹⁾.

The average rate (per 100,000) of food-borne illnesses from 2019 to 2023 was:





38.5 Ontario

Focus on salmonellosis and campylobacteriosis

Salmonellosis and Campylobacteriosis are the most common food-borne illnesses worldwide. <u>Visit our website</u> to learn more about the symptoms, and how to protect yourself from getting sick.

Who is most at risk?



When unsafe water is anticipated or confirmed, Algoma Public Health takes precautionary measures which include: issuing drinking and boil water advisories, closure of pools and spas, and posting warnings at beaches, among other meaures.



The annual rate of infection for both the diseases has fluctuated over the past five years. The rate of infection in Algoma during 2023 exceeded the provincial as well as NE PHUs rate.



During 2023, a record high of 23 Salmonellosis cases were reported in Algoma resulting in 19.5 cases (per 100,000) in comparison to 15.4 cases (per 100,000) in Ontario⁽¹⁾.

Water-borne illness

It is important that the water we use for drinking, bathing, swimming, and playing is safe to prevent illnesses and injuries. PHIs complete routine inspections of small drinking water systems to ensure individuals have access to safe and reliable drinking water. PHIs also inspect recreational water facilities including public pools, spas, and splash pads to help ensure public safety. Despite these efforts, water-borne illnesses still occur.

The rate of water-borne illnesses in Algoma remained higher than NE PHUs and Ontario from 2018 to 2022, followed by a noticeable drop in 2023⁽¹⁾. The average rate (per 100,000) of water-borne illnesses from 2019 to 2023 was:

 13.8
 12.1
 10.2

 Algoma
 NE PHUs
 Ontario





During 2023, a record high of 26 Campylobacteriosis cases were reported in Algoma resulting in 21.1 cases (per 100,000) in comparison to 16.4 cases (per 100,000) in Ontario⁽¹⁾.





Vector-borne illness

Vector-borne illness are diseases that are caused by viruses, bacteria or parasites that originate in animals and are transmitted to humans through a 'vector' (i.e. tick or mosquito). Blacklegged ticks (ixodes scapularis) are found in the Algoma region. This species of ticks can carry the pathogen that causes Lyme disease.

Anaplasmosis, babesiosis and Powassan disease, are vector-borne diseases transmitted through infected blacklegged ticks, that have recently (July 2023) been added to the DOPHS list for surveillance of local cases. This will now allow us to collect data for future reporting.

While the risk of vector-borne infection in Algoma region is currently low, warming weather due to climate change means animal vectors that carry these pathogens are found further north every year⁽¹¹⁾. Visit our website to learn more about how to avoid getting a <u>tick bite</u> and what to do if you have been bitten.

West Nile Virus disease is rare in Algoma. Between 2017 - 2023, Algoma has had **O** confirmed cases of West Nile Virus disease⁽¹⁾.



The average rate of Lyme disease between 2018 - 2022 is **0.5** (per 100,000) compared to the Ontario rate of 7.6 (per 100,000)⁽¹⁾.



cases of lyme disease were reported and diagnosed in Algoma residents between 2018 - 2022.



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Substance Use Health

KEY MESSAGES:

- Like other regions in Northern Ontario, Algoma has disproportionately higher rates of opioidrelated hospitalizations and deaths compared to Southern Ontario. In 2022, the rates of deaths and hospitalizations due to opioid toxicity in Algoma were almost three times higher than in Ontario⁽¹⁾.
- Algoma has higher rates of smoking, heavy drinking and cannabis use compared to the provincial average⁽²⁾. For example, the rate of daily smoking in Algoma is 16.2%, compared to 10.1% for Ontario⁽³⁾.
- Vaping has become popular among youth, with 1 in 4 Ontario students in grades 7-12 reporting having vaped. The majority (84%) vape nicotine which is highly addictive⁽⁴⁾.
- Algoma Public Health works closely with a variety of partners to support the health, wellness, and safety of people who use substances.

Substance use refers to the consumption of psychoactive substances, such as opioids, alcohol, tobacco/nicotine, and cannabis. They can be used for a variety of reasons including medical, religious, or ceremonial purposes, for personal enjoyment or to deal with stress, trauma or pain^{(5).}



Some of the most used substances in Algoma were alcohol, cannabis, and tobacco⁽²⁾.



Substance use looks different for everyone and can be viewed on a spectrum⁽⁶⁾. People move up and down the spectrum throughout their lifetime, achieving health & wellness at any stage. **A public health approach to substance use focuses on reducing harms and maximizing benefits**⁽⁷⁾.



Stigma

Many people who use substances are stigmatized or face stigma. Stigma is defined as negative attitudes, beliefs or behaviours about or towards a group of people because of their situation in life⁽⁸⁾. There are various types of stigma, including structural, social, and self-stigma.

When people who use substances experience stigma, it leads to feelings of shame, low self-esteem and fear of being judged that can cause somebody to not access support⁽⁸⁾. Substance use disorder is not a choice, it is a treatable medical condition.

Harm reduction

Harm reduction approaches reduce health and social harms associated with a behaviour without requiring a person to stop the behaviour. This approach respects human dignity and people's right to make informed decisions about their behaviours. Providing harm reduction services builds trusting relationships with clients, often leads to referrals for other support services, and can help reduce health care costs⁽⁹⁾.

Algoma Public Health partners with local health and social service providers to deliver harm reduction programs. An example of this is the **Needle Exchange Programs** which provide access to new drug equipment to reduce the risks associated with sharing or re-using drug equipment, such as transmission of Hepatitis B, C and HIV.

Opioids and toxic drugs

Opioids are a class of drugs used to treat pain and to treat opioid use disorder (e.g., oxycodone, hydromorphone, morphine, methadone). Other types of opioids, such as heroin, fentanyl, and carfentanil, are found in the unregulated or non-pharmacological markets. Unregulated drugs are unpredictable and can lead to harms such as accidental poisonings.

There is also increased risk of toxicity-related harms and death when opioids are used together with other substances, such as alcohol, stimulants (cocaine, methamphetamine), benzodiazepines (Valium[®], Xanax[®]) and tranquilizers⁽¹⁰⁾. This is referred to as polysubstance use and it makes responding to drug toxicity more complicated by reducing the effectiveness of Naloxone, which only works on opioids.

The number of EMS (emergency medical services) calls, emergency department visits and deaths related to opioid toxicity in Algoma have increased significantly since the onset of the COVID-19 pandemic.

Between 2018 - 2022

The number of opioid-related EMS calls increased almost three times, from 129 to 378⁽¹¹⁾.

The number of opioid-related emergency department (ED) visits doubled, from 121 to 253⁽¹⁾.

The number of opioid-related **deaths** almost doubled, from 28 to $51^{(12)}$.

In 2022, the rate of **ED visits** for opioid toxicity in Algoma was **almost three times** that of Ontario⁽¹⁾.

In 2022, the rate of **hospitalization** for opioid toxicity in Algoma was **almost three times** that of Ontario⁽¹⁾.



In 2022, the rate of **deaths** due to opioid toxicity in Algoma was **almost three times** higher than Ontario. There were 56 deaths due to opioid toxicity in Algoma in 2022⁽¹⁾.



According to data available from the Office of the Chief Coroner, Sault Ste. Marie had the **fourth highest opioid toxicity mortality** rate in the first 9 months of 2023. Thunder Bay, North Bay, Timmins and Greater Sudbury were also listed in the top ten census subdivisions with the highest mortality rate during this period⁽¹²⁾.

What does this mean?

There are **health inequities** that exist in the North. Surveillance data on opioid-related harms are updated quarterly:

- Algoma Public Health Opioid Related Health Harms in Algoma
- Ontario Drug Policy Research Network (ODPRN) <u>Suspect Drug-Related and Drug Toxicity Deaths in Ontario</u>
- Public Health Ontario <u>Interactive Opioid Tool</u>

Naloxone

Naloxone is a lifesaving medication that can temporarily reverse an overdose from opioids, including heroin, fentanyl, morphine, oxycodone and prescription opioids. It is commonly administered into the nose (intranasal) or muscle (intramuscular) and starts working within 2 to 5 minutes. Naloxone needs to be given promptly when a person is showing signs of an opioid overdose.

Calling 911 is critical because a person is at risk of overdosing again when the naloxone wears off. Algoma Public Health leads naloxone distribution and training for eligible community agencies through the Ontario Naloxone Program.

Naloxone supplies distributed across Algoma in 2023:



Anyone can administer naloxone and help save a life. There is no harm in giving naloxone, even when unsure what substance a person has taken. You can visit our <u>website to learn more about</u> <u>naloxone</u> and find where you can access a free kit.



Opioid Agonist Therapy

Opioid Agonist Therapy (OAT) is a medical treatment where long-acting opioid medications (e.g., methadone, suboxone[®]) are prescribed to reduce cravings for opioids and prevent severe withdrawal symptoms⁽¹⁵⁾. OAT helps improve stability and day to day functioning for people with an opioid use disorder.



Nearly 1 in 85 people in Algoma received treatment for opioid use disorderⁱ in 2022⁽¹⁶⁾

The amount of OAT that was dispensed in Algoma in 2022 was significantly higher than Ontario

The rate of people who were dispensed treatment for opioid use disorder in 2022⁽¹⁶⁾



Tobacco use

Smoking tobacco is the leading cause of preventable illnesses and death in Ontario. It increases the risk for several chronic diseases, including cancer, chronic obstructive pulmonary disease (COPD), asthma, heart disease, stroke, and diabetes⁽¹⁷⁾. Smoking rates in Algoma have been consistently decreasing, however remain significantly higher than the provincial rate.

Between 2019 - 2020, the highest rate of daily smokers in Algoma was observed in people aged 45-64 at 17.9%, followed by people aged 20-44 at 17.3%⁽³⁾.

Smoking rates among people 20 years and older, 2019 - 2020





The percentage of youth aged 12-19 in Algoma **who have never smoked** a cigarette increased slightly from 86% to 87.4% between 2019 - 2020⁽³⁾. However, the rates of vaping among this age group have increased substantially.

In an average year, an estimated 18.6% of deaths in people aged 35 and older in Algoma are attributable to smoking tobacco^(17, 18).

In other words:

18.6% of deaths could be avoided in our population if smoking tobacco were reduced^(17, 18).

The Smoke Free Ontario Act (SFOA)

APH enforces this act to protect the public from second-hand smoke and vapour. The goal of enforcement activities is to educate, facilitate and achieve compliance in efforts to preserve quality of life for Algoma residents.

You can visit our website to view enforcement activity.

Vaping (e-cigarettes)

Vapes (e-cigarettes) were originally designed to help smokers quit smoking.

How popular are vapes among youth and young adults? Among students in Grades 7 - 12 in Ontario:



have tried vaping/e-cigarette in their life, while 15.3% reported using at least once in the past year



more female students vape compared to male students⁽⁴⁾

Vaping causes harms, although the long-term effects are still unknown. Vapes can contain roughly the same amount of nicotine as **20 cigarettes** in a standard cartridge. This is a highly addictive substance that poses dangers, especially for youth, pregnant adults and fetuses. Vaping can also lead to lung issues caused by toxic chemicals and heavy metals in the aerosols produced by the device. Vaping devices can also be used to consume cannabis and other drugs⁽¹⁹⁾.

Of students from grade 7-12 who reported using vapes/e-cigarettes, the majority **(84%) used nicotine based** vapes/e-cigarettes⁽⁴⁾.

Why does a student vape? Among students who vaped with nicotine in the past 30 days, the most common reasons were⁽²⁰⁾:

22.6% to relax and relieve tension

20.9% because they are addicted to it

12.6% because they enjoy it

12.7% to feel good/get a nicotine high

Nicotine from vaping can cause short-term effects such as coughing, shortness of breath, chest pain, nausea and vomiting, diarrhea, depression, increased blood pressure and increased heart rate. It could also affect concentration, learning, memory, and brain development⁽²¹⁾.

Nicotine pouches are increasing in popularity with youth because they are discrete, smokeless, and have a stimulant effect. These pouches were authorized to help adults quit smoking and should not be used recreationally, by non-smokers or by people under the age of 18.

Algoma Public Health strives to protect youth from the harms of vaping by supporting government legislation to prevent vaping initiation and decrease vape use, working closely with schools to deliver evidence-based health teaching, and educating parents and caregivers about vaping. More information about recognizing the signs of youth vaping, talking to children about vaping and resources to quit smoking or vaping are available on <u>our website</u>.

Alcohol

Canada's <u>Guidance on Alcohol and Health</u> states that even a small amount of alcohol can be damaging to health.

The new guidance presents evidence that less is better when it comes to drinking alcohol and that any level of alcohol consumption increases the risk of long-term harms on health such as cancer, heart disease, increased blood pressure and alcohol dependency.

Alcohol consumption per week

Drinking alcohol has negative consequences. The more alcohol you drink per week, the more the consequences add up.



More than half of the adults in Algoma (53.5%) aged 19 and older exceeded drinking guidelines⁽²⁴⁾ⁱⁱ.

The prevalence of **heavy drinkers**ⁱⁱⁱ in Algoma was 21.2% which is higher compared to the provincial prevalence of 16.0% (NE PHUs were 25.9%)⁽²⁴⁾.

The prevalence of **heavy drinking is higher in males**; however, the rate of **heavy drinking among females is increasing** in Algoma (19.0% in 2019 - 2020 compared to 15.8% in 2017 - 2018)⁽²⁴⁾.

National data shows that alcohol continued to be the substance with the highest prevalence of use among students in grades 7-12 in 2021 -2022. The Canadian Student Tobacco, Alcohol and Drugs Survey found that 39% of students in Canada reported consuming alcohol in the past 12 months and on average students tried their first alcoholic beverage at 13.1 years of age⁽²¹⁾.

According to the most recent (2017 - 2018) data available for Algoma, 1 in 5 (24.9%)* 12 to 18 year olds have reported consuming alcohol. For the same period, the rate of underage drinking in Ontario and NE PHUs was much higher than Algoma at 31.9% and 40.1%, respectively⁽²⁴⁾.

Recent provincial (26.8%) and NE PHUs (35.1%) data from 2019 - 2020 reported reduced rates of underage drinking as compared to 2017 - 2018⁽²⁴⁾.

Several studies showed an increase in alcohol consumption after the start of the COVID-19 pandemic⁽²⁵⁻²⁷⁾. This may not be surprising since alcohol is the most commonly consumed substance in Ontario and often used to cope with emotions such as stress, anxiety, and loneliness.

In 2021, the rate of hospitalizations for conditions entirely attributable to alcohol among Algoma residents was 371.2 per 100,000. While this rate has reduced by 34.3% since 2012, it is still significantly higher compared to the provincial rate of 210.9 per 100,000⁽²²⁾.

In an average year, an estimated 4.1% of deaths in people aged 15 and older in Algoma are attributable to alcohol consumption.

In other words:

Up to **4.1%** of deaths could be avoided in our population if alcohol consumption were reduced⁽¹⁸⁾.



Percentage of deaths and hospitalizations attributable to **alcohol consumption**, in a year^(17, 18).

Reducing the harms associated with alcohol consumption requires changing social norms around drinking through increasing awareness of the health risks, as well as policies to regulate the availability and promotion of alcohol. Algoma Public Health has a variety of mocktail videos promoting Canada's Guidance on Alcohol and Health available on our social media channels and continues to be a strong advocate for evidence-based policies, such as alcohol warning labels.

Cannabis

Cannabis is the second most commonly consumed substance in Ontario after alcohol. Cannabis is often smoked or vaped, used as topicals, concentrates, in oils, edibles or extracts.

Like other substances, the rates of cannabis consumption in Algoma are higher than the province.



more than once in their lifetime⁽²⁾



Smoking cannabis poses similar health risks as tobacco since cannabis smoke contains many of the same carcinogens⁽²⁹⁾. While consuming edibles reduces the harms associated with smoking, it does create other risks such as motor vehicle collisions from impaired driving and cannabis poisoning, particularly among children who may unintentionally ingest them.

In 2022, Algoma had the highest rate in Ontario for emergency department visits for cannabis-related poisoning⁽³⁰⁾. 52.7 per 100,000 in Algoma

Ontario: **10.2 per 100,000**

Algoma also had a **significantly higher** rate of hospitalizations for mental health conditions caused by cannabis compared to other NE PHUs⁽³⁰⁾.

125.8 per 100,000 in Algoma NE PHUs: **119.8 per 100,000**

Cannabis consumption has been increasing for years, even before it became legalized in 2018. Studies also showed that people who used cannabis increased their use during the COVID-19 pandemic^(26, 27, 31). While cannabis remains illegal for anyone under the age of 19, it is commonly consumed by youth.



Algoma Public Health encourages people who use cannabis to follow <u>Canada's Lower-Risk Cannabis Use Guidelines</u> to reduce the harms of cannabis use. Parents/guardians are encouraged to utilize the resources available on the Parent Support Hub at <u>Drug Free Kids Canada</u> to talk to children and youth about cannabis.

We recognize the need to work together as a unified community to address both the upstream and downstream drivers of substance use and related harms, as outlined in the Chief Medical Officer of Health's 2023 Annual Report <u>Balancing Act: An All-of-Society Approach to Substance</u> <u>Use and Harms</u>.

We also strive to implement the <u>Canadian Public Health's Framework</u> for a Public Health Approach to Substance Use.

The following resources are available for anyone looking for support with mental health and substance use.

The **best antidote** for addiction and other substance use harms is connection and a sense of belonging: strong, healthy, connected families and communities. - CMOH Report



Mental Health & Addiction Treatment Services Connex Ontario

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Injuries

KEY MESSAGES:

- The top three unintentional injuries that result in emergency department (ED) visits, hospitalizations, and deaths are falls, land transport collisions, and unintentional poisonings⁽¹⁾.
- Among the 0-19 age group, hospitalizations due to intentional injuries peaked in 2021, with Algoma having
 one of the highest rates in Ontario⁽²⁾.
- There was a significant increase in the rate of death due to assault during the pandemic (3.0 per 100,000) compared to pre-pandemic (0.9 per 100,000) in Algoma⁽¹⁾.
- Algoma has significantly higher rates of ED visits due to assault compared to Ontario (370.8 vs. 202.0 per 100,000)⁽³⁾.

Injuries can be from unintentional causes (e.g., falls, motor vehicle collisions, being struck by an object, contact with hot substances, poisoning, and others) or intentional causes (e.g., self-harm, and assault).

Public health focuses on taking action as early as possible to reduce risk and prevent injuries. For example, creating age-friendly communities where the social and physical environments allow people of all ages and abilities to live safe, active, and meaningful lives can reduce the risk of falls in older adults. Additionally, working together with community partners to promote mental health, eliminate stigma, and reduce substance use-related harms can help prevent drug poisonings, self-harm, suicide and violence.

Injury-related emergency department (ED) visits and hospitalizations

The rate of emergency department (ED) visits for injuries was stable from 2017 (17.3 per 100) to 2019 (16.3 per 100), followed by a notable drop in 2020 (12.9 per 100)⁽³⁾.

In 2022, rate of ED visits per 100 people due to any injury was⁽³⁾:



The majority (95.4%) of injury-related ED visits in Algoma are due to unintentional injuries⁽³⁾. Of those coming to the ED, 6.0% (annual average 2018 – 2022) needed to be hospitalized due to various factors^(2,3). Hospitalization rates in Algoma have been gradually decreasing from 2017 (887.6 per 100,000) to 2020 (647.2 per 100,000)⁽²⁾.

Age-standardized rate (per 100,000) of injury-related hospitalizations⁽²⁾

Leading causes of injury-related ED visits and hospitalizations by age groups in Algoma (2022)^(2,3)



Age-standardized rate (per 100,000) of injury-related hospitalizations, in 2022 was⁽²⁾:

Algoma	NE PHUs	Ontario
661.0	683.2	549.3
(9.2% of	(8.3% of	(8.9% of
nospitalizations)	hospitalizations)	hospitalizations

Of the nearly 1000 hospitalizations in Algoma due to injuries, 87.4% were unintentional injuries and 13.0% were intentional injuries in $2022^{(2)}$.

The decrease in rate of ED visits and hospitalizations during 2020 was likely because of the COVID-19 pandemic, when people avoided going to the hospital as much as possible.

Based on the rate of ED visits and hospitalizations, the leading causes of unintentional injuries in Algoma for all age groups are, falls, land transport collisionsⁱ, and unintentional poisonings".

	ED visits	Hospitalizations
0 - 19 year olds	Falls Struck by or against an object Cut or pierced by an object Land transport collisions Overexertion	Land transport collisions Unintentional poisoning Falls Struck by or against an object Suffocating/choking
20 - 44 year olds	Falls Cut or pierced by an object Struck by or against an object Land transport collisions Overexertion	Unintentional poisoning Land transport collisions Falls Assault Suffocating/choking
40 - 64 year olds	Falls Struck by or against an object Cut or pierced by an object Overexertion Land transport collisions	Falls Land transport collision Intentional self-harm Unintentional poisoning Suffocating/choking
65 - 74 year olds	Falls Struck by or against an object Cut or pierced by an object Overexertion Land transport collisions	Falls Land transport collision Intentional self-harm Suffocating/choking Unintentional poisoning
75+ year olds	Falls Struck by or against an object Cut or pierced by an object Land transport collisions Foreign body in an eye or orifice	Falls Suffocating/choking Land transport collisions Unintentional poisoning Struck by or against an object

Land transport collisions is a broad category that includes motor vehicle collisions (MVC), including those involving pedestrians, cyclists, and passengers, as well as all-terrain vehicles or snowmobiles. ¹¹ Unintentional poisoning includes ICD-10 code X40-X49. That includes accidental poisoning by and exposure to nonopioid analgesics, antiepileptic/antiparkinsonism, and psychotropic drugs, as well as narcotics and alcohol.



Vision Zero strives towards a goal of zero fatalities or serious injuries on roadways by designing road systems that account for human error. This approach recognizes that road deaths and injuries can be prevented through education, enforcement, engineering, evaluation and engagement. The City of Sault Ste. Marie acknowledges Vision Zero as a best practice in the <u>Soo Moves Active Transportation Plan</u>.

Injury-related deaths

Between 2013 and 2021, 914 Algoma residents died because of an injury⁽¹⁾. This accounted for 7.1% of all deaths in Algoma between 2013 and 2021. This is comparable to 7.8% of all deaths in the NE PHUs and 7.3% of all deaths in Ontario⁽⁴⁾.



During 2013 to 2021, there were approximately 900 injury-related deaths in Algoma. Of these deaths, 77.8% were due to unintentional injuries and 17.0% were due to intentional injuries⁽¹⁾.





Leading causes of injury-related deaths (per 100,000) in Algoma (2013 – 2021)^{iii(1,5)}


Falls

Overall, falls are the number one type of injury that result in ED visits or hospitalizations. **Falls are preventable**. Below are a few ways that individuals, communities and health professionals can help prevent falls:



The rate of fall-related hospitalizations for the 45 to 64 age group in Algoma (245.1 per 100,000), increased in 2022 and is now significantly higher than the rate in Ontario (174.9 per 100,000) and NE PHUs (215.1 per 100,000)⁽²⁾.

For people aged 65 to 74 years, the rate (per 100,000) of fall-related hospitalizations increased in Algoma from 512.2 in 2019, to 647.1 in 2022⁽²⁾. Algoma residents aged 75 years and older continue to be the group most likely to be hospitalized for falls with similar rates to Ontario and NE PHUs⁽²⁾.

Leading causes of fall-related hospitalizations in Algoma, during 2022 are (in order)⁽⁶⁾

- Fall on same level from slipping, tripping or stumbling
- Fall on and from stairs and steps
- Fall involving bed
- Fall on same level involving ice and snow
- Fall involving adult walker

In Algoma, 56.0% of the falls requiring hospitalization occur at home. This is higher compared to 51.9% and 49.7% falls in NE PHUs and Ontario, respectively. Algoma (9.1%) has lower proportion of falls in residential institutions as compared to NE PHUs (10.8%) and Ontario (12.7%)⁽⁶⁾.

Stay on Your Feet (SOYF) is a regional strategy that supports healthy, active aging for older adults. Algoma Public Health works together with local partners and public health agencies across the north to help older adults stay active, stay independent, and stay on their feet.

Intentional injury

Algoma continues to report higher ED visits and hospitalizations due to intentional injuries (self-harm, assault, etc.) compared to the NE PHUs and Ontario.

	Algoma	NE PHUs	Ontario
ED visits	723.1	622.0	340.9
Hospitalizations	122.5	132.0	73.9

Age-standardized rate (per 100,000) for intentional injuries in 2022^(2, 3)

Women are more likely to visit the ED or be hospitalized for intentional injuries than men. This is true for Algoma, the NE PHUs, and Ontario.

The rate of ED visits for intentional injuries among women increased between 2016 and 2022 from 755.2 to 783.8 (per 100,000)⁽³⁾. However, the rate of hospitalization decreased from 236.6 to 159.6 (per 100,000) in the same period⁽²⁾.

For the 20-44 age group in Algoma, the rate of hospitalizations due to intentional injuries noticeably reduced between 2016 to 2022 (from 306.9 to 179.0 per 100,000), however, it is still significantly higher than in Ontario (94.0 per 100,000)⁽²⁾.

In contrast, for the 0-19 age group, the rate of hospitalizations due to intentional injuries peaked in 2021 (274.9 per 100,000 people), and Algoma had one of the highest rates of all health units in Ontario⁽²⁾. This rate went down in 2022, (104.4 per 100,000 people) to remain lower than the pre-pandemic average⁽²⁾. Intentional injuries can be caused by self-harm or assault. Information on injuries due to self-harm is presented in the **Mental Health** chapter.

In Algoma during 2022, 61.9% of the ED visits and 19.8% of hospitalizations for intentional injuries were due to assault^(2, 3).

Age-standardized rate (per 100,000) for assault-related ED visits in 2022⁽³⁾

Algoma

370.8 (Significantly higher than Ontario)



In Algoma, the annual average rate of deaths due to assault has increased from 0.9 (per 100,000) pre-pandemic (2013 – 2019) to 3.0 (per 100,000) during the pandemic (2020 – 2021)⁽¹⁾.

This high rate and increasing trend of assault highlights the need for multi-sector collaboration and strategies to address violence in Algoma.

Preventing injuries

Alcohol is a leading preventable cause of death, disability and social problems, including unintentional injuries and violence⁽⁷⁾. In an average year, an estimated 14.3% of land transport collision-related deaths in Algoma are attributable to alcohol consumption.

In other words, 14.3% of land transport collision-related deaths can be avoided in our population if alcohol consumption was reduced⁽⁸⁾.

Estimated percentage of deaths and hospitalizations due to injuries attributable to alcohol consumption⁽⁸⁾

	Deaths	Hospitalizations
Intentional injuries	18.6%	19.4%
Unintentional injuries	11.5%	9.6%
Land transport collision	14.3%	13.2%

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Public Health Standards: Substance Use and Injury Prevention **Chapter Contributors:** Melinda Freer, Lisa O'Brien, Angela Piaskoski

Mental Health

KEY MESSAGES:

- Algoma residents are satisfied in their lives (93.9%)⁽⁵⁾ though females (22.4%) are more likely to feel stressed compared to males (17.1%)⁽⁵⁾.
- On average, the longest wait time for counselling and therapy for children and youth in Algoma was over a year (370 days)⁽¹⁸⁾.
- Hospitalizations for self-harm in Algoma (109.6 per 100,000) are higher than in Ontario (66.8 per 100,000), with females in Algoma being more likely to be hospitalized for self-harm (164 per 100,000) than males (59.8 per 100,000)⁽²⁸⁾.
- In Algoma, youth aged 10-19 years old are hospitalized for self-harm more often than any other age group⁽²⁸⁾.
- Emergency department visits for eating disorders in Algoma increased 85% in 5 years, from 15.4 per 100,000 to 28.5 per 100,000⁽²⁵⁾.
- Emergency department visits for cannabis-related mental illness in Algoma (170.1 per 100,000) is more than double the provincial rate (82.8 per 100,000)⁽³³⁾.

Mental health in Canada⁽¹⁾



- More than 5 million Canadians are living with a mental illness
- Half of Canadians have or have experienced a mental illness by the time they reach 40 years of age
- Females have higher rates of mood and anxiety disorders and are more likely to experience self-harm related to mental illness
- 15- to 24-year-olds are more likely to experience mental illness and/or substance use disorders than any other age group
- · Canadians in the lowest income group are 3 to 4 times more likely to report having poor to fair mental health
- On average, 11 deaths by suicide occur each day in Canada

Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community⁽³⁾.

Mental health

Mental health is an integral part of our health and well-being. Positive mental health is having the capacity to feel, think, and act in ways that let us enjoy life and deal with the challenges we face⁽⁴⁾. Mental health is more than the presence or absence of mental illness and it changes over time.

Algoma residents report having very good or excellent mental health ⁽⁵⁾ 68%		Youth 12-17 years old report having fair or poor mental health ⁽⁶⁾	
		Algoma	Ontario
		19.2%	13.1%
Residents feel satisfied or very satisfied with their lives ⁽⁵⁾		Adult residents reporting being usually happy and interested in life ⁽⁵⁾	
Algoma	Ontario	Algoma	Ontario
93.9%	92.7%	72%	76%
Youth 12-17 years old who report usually being happy and interested in life ⁽⁵⁾		Algoma youth 12-17 years old who report being happy and interested in life ⁽⁵⁾	
Algoma	Ontario	Males	Females
80%	74%	84%	80%
Algoma youth 12-17 years old who reported changing their eating habits to manage weight ⁽⁶⁾		Algoma children and youth who report feeling anxious, nervous or worried almost daily ⁽⁶⁾	
21.2%		5-11 years	12-17 years
		15.5%	24.3%
Algoma youth 12-17 years old who reported being preoccupied with a desire to be thinner ⁽⁶⁾ 28.1%		Algoma youth 12-17 years old who reported daily feelings of sadness and/or hopelessness which resulted in them discontinuing their usual activities within the past year ⁽⁶⁾ 26.4%	
Ontario youth 12-17 years old who reported vomiting to lose weight in the past year ⁽⁶⁾		Ontario youth and adult suicidal thoughts at leas	s reported experiencing st once in the past year ⁽⁶⁾
Les	s than	5-17 years	Adults
3%		16%	4%

Factors affecting mental health

Many factors can make mental health better or worse, including our life experiences, social connections, the physical environment and economic conditions.

Proportion of people who report feeling a strong sense of belonging to their local community⁽⁵⁾

Algoma	Ontario
74.5%	71.3%

Positive childhood experiences

Positive childhood experiences such as healthy relationships, safe environments, and access to supportive services, contribute to positive mental health and well-being in children and youth. Participation in clubs, sports and activities, and spending time with friends and family can promote positive mental health throughout life.



Over **90%** of Algoma children receive positive praise often from the person most knowledgeable (PMK) in their lives⁽⁶⁾



90% of Algoma PMKs reported often spending intentional time talking or playing with the child⁽⁶⁾



55.4% of Algoma PMKs reported playing sports/games, participating in hobbies or doing something special for their child once in a while⁽⁶⁾



49.1% of Algoma children and youth (3-17 years old) reported participating in either organized clubs/ community groups or music, drama, art clubs/lessons in the past year⁽⁶⁾



Nearly **95%** of Algoma PMKs reported laughing with their children often throughout the day⁽⁶⁾

It has been noted that 70% of mental health problems in Canadian adults begin in childhood and adolescence⁽⁷⁾. This means that prevention and early identification of mental health concerns is important for positive long-term health outcomes.

In 2023, the <u>Algoma Youth Wellness Hub</u> opened on Dennis Street in Sault Ste. Marie. The hub provides a safe and welcoming space for youth aged 12 to 25 to participate in activities, learn new skills, connect with friends, and access services related to mental health, substance use and primary care. The site is operated by Algoma Family Services with support from various community partners.

Stress

Stress is a natural response when people are faced with a challenge or threat⁽⁸⁾. While small amounts of stress can be good, prolonged or toxic stress can cause physical and/or mental health problems. Everyone experiences different levels of stress throughout their life, and the way we respond and cope with that stress can have an important impact on our mental health and well-being.



- **1 in 5 (19.7%)** people in Algoma reported experiencing quite a bit or extreme stress, most days in their lives or at their jobs⁽⁵⁾.
- Algoma females (22.4%) reported feeling stressed more often than males (17.1%)⁽⁵⁾.
- In Algoma, **18%** of youth aged 12 to 17 reported experiencing quite a bit or extreme stress, most days in 2019, compared to **21.4%** of Ontario youth⁽⁵⁾.

Money concerns

Money concerns can negatively impact mental health. Several surveys have shown increasing levels of stress and anxiety among Canadians as inflation rates rise and more people are having a hard time meeting their financial needs⁽⁹⁻¹¹⁾. People living in food insecure households are at a higher risk of depression, anxiety, mood disorders, and suicidal thoughts⁽¹²⁾.



Between 2018 and 2023, nearly half of all opioid toxicity deaths in Ontario occurred among people living in areas where there was extreme difficulty meeting their basic material needs⁽¹³⁾.

The Canadian Institute of Health Information report results from the 2023 Commonwealth Fund (CMWF) survey, highlighting the association between basic economic needs and stress⁽¹⁴⁾.



Proportion of Canadians who reported being always or usually stressed or worried about economic stressors, 2020 to 2023

The way we talk about food and body weights can impact people's relationships with food and their body. Diet culture and weight stigma can lead to poor body image, disordered eating behaviours, and eating disorders. Public health commits to removing stigma from conversations about food and body weight and educating others on the importance of food neutral and <u>weight-inclusive</u> approaches to improve health and well-being for all.

Mental health care access

Research shows that many people have trouble accessing the mental health services they need⁽¹⁵⁾. There can be many reasons for this, including cost of services, distance from services, wait times, limited number of providers, not knowing how to get help, fear of stigma, language barriers and culture, and a complex system that is hard to navigate⁽¹⁶⁾.

Health care costs related to mental illness and substance use cost Ontario more than cancers and infectious diseases⁽¹⁾

- Approximately 14% of Algoma residents reported having consulted a mental health professional at least once in the past year⁽⁵⁾.
- Less than 8% of Algoma and Ontario adults reported receiving medication to help treat their emotions, mental health or substance use⁽⁵⁾.
- More than 1 in 3 (36.6%) Canadians living with mood, anxiety, or substance use disorders reported having unmet or partially met mental health care needs⁽¹⁷⁾.

Longest wait times in Algoma for children and youth under 18 years in 2019⁽¹⁸⁾

Average wait times in Ontario for children and youth under 18 years in 2019⁽¹⁹⁾

Wait time for	Wait time for	Wait time for	Wait time for intensive
counselling & therapy	intensive treatment	counselling & therapy	treatment
Algoma	Algoma	Ontario	Ontario
370	632	67	92
days	days	days	days

Stigma has been defined as "negative attitudes, beliefs or behaviours about or towards a group of people because of their situation in life. It includes discrimination, prejudice, judgment and stereotypes"⁽²⁰⁾. The Centre for Addiction and Mental Health estimates that stigma prevents 40% of people with anxiety or depression from seeking medical help⁽²¹⁾.

Mental illness

Mental illness may look and feel different for each person. Mental illness is defined as "alterations in thinking, mood or behaviour associated with significant distress and impaired functioning"⁽²⁾. These include mood disorders, anxiety disorders, schizophrenia, personality disorders, and eating disorders⁽²²⁾. Eating disorders have the highest mortality rate of any mental illness and are one of the most common chronic illnesses among youth, particularly females⁽²³⁾.

- A decrease in the proportion of Algoma residents living with mood disorders was seen. Between 2019 2020,
 9.7% of Algoma residents reported diagnosis of a mood disorder, compared to 15.1% in 2015 2016^(5, 24).
- Conversely, Ontario's proportion of residents who reported living with a mood disorder has increased to 9.5% between 2019 - 2020 from 8.7% in 2015 - 2016^(5, 24).
- Mood disorder, including depression, bipolar disorder, mania and dysthymia are reported more frequently among females province-wide⁽⁵⁾.
- Between 2019 2020, **8.8%** of Algoma residents reported a diagnosis of an anxiety disorder, compared to 10.8% of Ontario residents⁽⁵⁾.
- Females aged 10 24 are more likely to seek medical treatment for eating disorders in Ontario⁽²⁵⁾.



Self-harm

Hospitalizations

Hospitalization rates due to self-harm have been notably higher in Algoma compared to Ontario for the last several years but seem to be on a downward trend. Females in Algoma are more likely to be hospitalized for self-harm (164.4 per 100,000) compared to males (57.8 per 100,000)⁽²⁸⁾. Self-harm hospitalization rates in Algoma are consistently higher amongst adolescents and young adults⁽²⁸⁾.

Count by sex and overall age-standardized rate (per 100,000) of hospitalizations for self-harm⁽²⁸⁾





Age-standardized rate (per 100,000) by age group of hospitalizations for self-harm⁽²⁸⁾



Age-standardized rate (per 100,000) for self-harm ED visits in 2022⁽²⁸⁾

Algoma **310.6** per 100,000 Ontario **151.3** per 100,000



Emergency department mental health visits can be an indication that people did not receive timely and appropriate care for mental illness or addiction in the community⁽²⁷⁾.



Age-standardized rate (per 100,000) of ED visits for 10-19-year-olds were seen in the ED for self-harm more than any other age group⁽²⁸⁾



Eating disorders

Emergency department visits for eating disorders in Algoma have been steadily increasing since 2016, peaking in 2021 then dropping off in 2022. This is similar to the trend seen in Ontario, while it continued to rise in the NE PHUs.

Algoma reached a rate of **28.5 per 100,000** people in 2021, an 85% increase since 2016 (15.4 per 100,000 people)⁽²⁵⁾.

Hospitalizations for eating disorders in Algoma have fluctuated over recent years, rising in 2021 to nearly double the 2016 rate, similar to Ontario and other NE PHUs who more than doubled their rate in 2021. Individuals aged 10-24 years old are more likely to be hospitalized for eating disorders than other age groups⁽²⁹⁾.



Acute Psychiatric Beds

There is an average of **729** admissions to adult acute psychiatric beds for mental illness in Algoma each year⁽²⁹⁾. This rate has been consistently higher than Ontario for the last several years.

Algoma saw a steep drop in admissions in 2020 and has not risen since, while Ontario's rate has remained relatively stable⁽²⁹⁾.



Age-standardized rate (per 100,000) of hospitalization to adult acute psychiatric beds⁽²⁹⁾

Deaths by suicide in Algoma, 2013 - 2021⁽³⁰⁾



Mental health and substance use

The relationship between mental health and substance use is complex. Substances can be used to cope with mental health symptoms, and on the other hand, using substances can trigger mental health problems. Substance use disorder is a treatable medical condition. When mental illness and substance use disorder occur together, it is more serious and complicated to treat⁽³¹⁾.

Algoma saw an average of **539** hospitalizations per year due to mental health and substance use disorders between 2017 - 2022 (average rate of 491.5 per 100,000 people)⁽²⁹⁾.

Canadians living with a mental illness increased their use of substances during the pandemic⁽³²⁾. **Daily cannabis use** can negatively impact our mental health and increase feelings of anxiety and depression. Local data shows a notable increase in Algoma ED visits for cannabis-related mental illness during the pandemic and rates consistently higher than the province for the last few years.

In Algoma, males and youth aged 13 to 18 years old sought medical treatment for cannabis-related mental illness more often than females and other age groups. Adults aged 19 to 44 years old were the second most common age group seen⁽³³⁾.



Count by sex and overall age-standardized rate (per 100,000) of ED visits for cannabis-related mental illness⁽³⁰⁾



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Public health is focused on improving population mental health through health promotion. This involves strengthening protective factors, building resiliency, and working collaboratively across all sectors to address the social, physical, and socioeconomic environments that determine the mental health of populations and individuals.

Resources:

<u>Get Help | 9-8-8: Suicide Crisis Helpline (988.ca)</u> www.jack.org <u>CMHA Algoma</u> Algoma Public Health - Mental Wellness

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Oral Health

KEY MESSAGES:

- Two in every 5 students entering school in Algoma have current or a history of tooth decay, indicating a high prevalence of dental issues among school-aged children in the region⁽³⁾.
- Only 3 in 10 senior residents in Algoma reported having dental insurance coverage, highlighting a lack of access to dental care for this population⁽⁵⁾.
- Three out of the 21 municipalities in Algoma region fluoridate their water supplies, indicating that a majority of the population does not have access to the benefits of community water fluoridation.
- The population-to-dentist ratio in Algoma is approximately 1961 residents to 1 dentist, indicating a low availability of dental services compared to Ontario (1230 people to 1 dentist) and Canada overall⁽⁹⁾.
- Many residents in Algoma turn to hospital emergency departments for non-traumatic oral health problems due to inadequate access to affordable dental care, resulting in a significantly higher rate of emergency department visits compared to the provincial average^(11, 12).

Oral health is an essential component of general health and well-being. The ability to eat, speak, smile, and express emotions is all impacted by oral health⁽¹⁾. Moreover, a person's attendance and performance at work or school, academic achievement, and sense of self-worth are impacted by their oral health⁽²⁾.

Although dental problems are generally avoidable, they can affect anybody. In the adult population, tooth loss, untreated dental decay, and moderate to severe gum disease are common and frequently get worse with age.

Oral health screening and surveillance

Dental screenings are held in all elementary schools in Algoma annually. Children in JK, SK, grades 2, 4, and 7 are screened to meet the <u>Oral</u> <u>Health Protocol</u>, 2021.

The percentage of students in Algoma (2018 - 2019 school year)ⁱ who were caries-free (no cavities, fillings, or missing teeth) during dental screening, excluding children who were absent or refused screening⁽³⁾.



63% in Senior kindergarden (SK)





Percentage of students in 2018 - 2019 school year with 0 cavities, fillings, or missing teeth

An overall total of 60% of students screened in JK, SK and grade 2 were caries-free⁽³⁾. Reduced access to dental care, along with other impacts of the pandemic might have negatively affected the oral health of children in Algoma.

In Algoma, 18% of 3-4-year-old students entering school (JK) had untreated decayed teeth. In Algoma, 3.4% of children screened at school during the 2018 – 2019 school year were in need of urgent dental care⁽³⁾.



When should a child first visit a dentist?

Health Canada, the Canadian Dental Association, and the Canadian Pediatric Society recommend children be seen by a dental professional six months after the eruption of their first tooth or by the time they are 12 months old. A visit to a dental health professional can go a long way toward preventing decay.

Proper care of baby teeth is very important. Baby teeth help a baby chew food for nutrition, help with learning speech, and make space for the permanent teeth.

Pregnancy and oral health

Oral Health is an important part of prenatal care. Pregnancy changes like lifestyle, habits and hormones can affect your oral health. Mother and baby benefit from proper tooth and gum care.

What you can do:



Brush every morning and night with fluoridated toothpaste for 2 minutes. This helps keep your gums healthy and prevent gum disease. Ê ∳ ₩

Regular dental cleanings are safe and healthy for your pregnancy.

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)	<u> </u>	(

Rinse your mouth if you throw up (vomit) and wait 30 minutes before you brush.

Early treatment of gum disease during pregnancy may reduce the risk of premature birth and low birth weight⁽⁴⁾.

Oral health routine



Dental insurance coverage

Between 2017 - 2018ⁱⁱ, **over 6 in 10 (63.1%)** Algoma residents aged 18 and over reported having insurance or government program coverage for all or part of their dental expenses. Only **3 in 10 (29.3%)** senior (65 and older) individuals have insurance or government program coverage for all or part of their dental expenses. This is significantly lower than 42.7% of Ontario seniors and the lowest in comparison to all other health units⁽⁵⁾.

In 2019, almost **9 in 10 (88%)** children aged 1 to 17 in Algoma had insurance or government program coverage for all or part of their dental expenses. This is higher than 80% of children in Ontario and 87.2% in NE PHUs⁽⁶⁾. Healthy Smiles Ontario is a no-cost dental program for eligible children (17 and under) that provides check-ups, preventive care, and treatment. Good oral health is important to a child's overall health.

The new <u>Canadian Dental Care Plan (CDCP)</u> will help ease financial barriers to accessing oral health care for eligible Canadian residents including seniors.

Access to oral health

The map below illustrates that the distribution of **dentists** and **dental hygienists** varies widely across Algoma:



Dentist

The population-to-dentist ratio in Algoma stands at approximately 1961.4, meaning that for every **dentist** in Algoma, there are approximately 1961 people^(7,8). Dental services for Algoma residents are in low availability as compared to the province (1:1230) and Canada overall (1:1530)⁽⁹⁾.

- 3390 in North Algoma
 1637.4 in Sault Ste. Marie
- > 6488 in Central & East Algoma
- > 2274.4 in Elliot Lake

Dental hygienist

The population-to-dental hygienists ratio in Algoma stood at approximately 930, meaning that for every **dental hygienist** in Algoma, there are 930 people⁽¹⁰⁾. The availability of dental hygiene services in Algoma is slightly better than in Northern Ontario (1:996) and Ontario overall (1:1028)⁽¹⁰⁾.

2543 in North Algoma
 753 in Sault Ste. Marie
 1854 in Central & East Algoma
 1625 in Elliot Lake

Direct impacts on the health care system

Increase in emergency department visits

One consequence of inadequate oral health care access is that many are turning to hospital emergency departments (EDs) because they are in pain and cannot access or afford to see a dentist in a traditional oral healthcare environment. On average there are **1558 ED visits** annually for non-traumatic oral health problems.

Pre-pandemic (2015 - 2019) The average annual rateⁱⁱⁱ of non-traumatic ED visits in Algoma was significantly higher than the provincial average rate⁽¹¹⁾.

1459.3 per 100,000 in Algoma Ontario: **486.5 per 100,000** Pandemic (2020 - 2022) The average annual rate of non-traumatic ED visits in Algoma dropped while still being significantly higher than the provincial average rate⁽¹²⁾.

> **1158.2 per 100,000** in Algoma Ontario: **382.1 per 100,000**

What does this mean?



Residents of Algoma who face high residential instability^{iv} or dependency^v, are more than twice as likely to visit the ED for non-traumatic oral health conditions⁽¹³⁾.

Residents of Algoma who face high material deprivation^{vi} are almost three times more likely to visit the ED for non-traumatic oral health conditions⁽¹³⁾.

160

140

Increase in day-surgeries

It is common for surgery that can't be performed in a regular dental office (extensive decay requiring general anesthesia) to be done in the hospital day surgery or operating room (OR).

From 2015 to 2021, there was an annual average of 520 day-surgeries performed for non-traumatic oral health problems, an average annual rateⁱⁱⁱ of **497 day-surgeries per 100,000** people in Algoma⁽¹²⁾. This is significantly higher than the provincial average of 194 day-surgeries per 100,000 people in Ontario⁽¹²⁾.

Children 1 to 10 years had the highest rate of day surgeries⁽¹²⁾.

Over 60% of day surgeries in children and adults were for unspecified caries-related (cavities) concerns⁽¹²⁾.

Average number of non-traumatic oral health surgeries in Algoma by age group⁽¹²⁾



^v Includes indicators to describe % seniors (65+), the dependency ratio (the ratio of seniors and children to the population 15 - 64) and % not participating in the labour force.
 ^{vi} Includes indicators that measure access to and attainment of basic material needs, such as % unemployment and % without a high school degree.

91

ⁱⁱⁱ Age-standardized rate

^{iv} Includes indicators that measure types and density of residential accommodations, and certain family structure characteristics, such as % living alone and % dwellings not owned.

Direct impacts on the health care system

Increase in day surgeries

The annual average number of day surgeries and rate were higher in children (0 to 17) than adults. There were 320 surgeries per year on average in children (annual average rate of 1590 day-surgeries per 100,000 population) compared to 207 surgeries per year on average in adults (annual average rate of 213 day-surgeries per 100,000 population)⁽¹²⁾.



Rate (per 100,000) of non-traumatic oral

Community water fluoridation

Community water fluoridation (CWF) is the process of monitoring and adjusting the fluoride level in drinking water to the optimal level for caries prevention. It contributes to oral health equity by overcoming common social determinants of health including age, education, income, and access to professional dental care⁽¹⁴⁾. Fluoridation of community water supplies is the single most effective public health measure to prevent tooth decay⁽¹⁵⁾.</sup>

As of 2024, in Algoma, the communities of Wawa, Blind River and Elliot Lake (15.3% of Algoma residents⁽⁸⁾) have access to community water fluoridation. As of 2022, 73.2% of Ontarians benefit from fluoridated water⁽¹⁴⁾.

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Public Health Standards: School Health Chronic Disease Prevention

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Chronic Diseases

KEY MESSAGES:

- Chronic diseases are the leading cause of death in Algoma (72.3% in 2021)⁽¹⁾, with cancer and heart diseases as the major contributors.
- Of cancer deaths, lung cancer is the most common in Algoma. From 2016 2020 the rate of deaths related to lung cancer was 61.0 per 100,000 in Algoma, compared to 41.9 per 100,000 in Ontario⁽²⁾.
- Cancer screening rates have decreased from 2018 2022⁽²⁾ and are expected to get worse as the number of
 residents in Algoma without a primary care provider continues to increase.
- The heart disease-related hospitalization rate in Algoma and NE PHUs is significantly higher than the average rate in Ontario⁽³⁾.
- Chronic diseases are largely preventable. Smoking and exposure to smoke is a key modifiable risk factor.

Chronic diseases in Algoma

Chronic diseases are largely preventable by reducing risk factors and increasing protective factors. There are some risk factors that cannot be changed, such as biological factors, genetics and family history. There are many **lifestyle behaviours** that can be protective, like not smoking or using nicotine, reducing alcohol, getting adequate sleep, eating well, being physically active, and reducing sedentary behaviour. Other important protective factors include social connectedness, community belonging and mental well-being.

Other risk factors, like the **Social Determinants of Health & Healthy Equity**, are harder to change because they are highly influenced by social, economic, political and ecological conditions and policies. However, changes in these determinants can have a bigger impact on reducing rates of chronic disease at the population level.

Compared to Ontario, Algoma and northeastern Ontario experience higher rates of cancer, cardiovascular diseases, and chronic lower respiratory diseases.

Causes of death in Algoma

Chronic diseases (cancer, cardiovascular disease, chronic lower respiratory diseases, and diabetes) were the leading cause of death in Algoma (72.3%) between 2017 and 2021⁽¹⁾.



Key social determinants of health (SDOH) that can increase chronic disease risk. Refer to the **Social Determinants of Health & Health Equity** chapter for more information:

- Income and social statusEducation level
- Food insecurity
- Discrimination
- Social supports

Community actions that can positively impact the SDOH:

- Providing living wages and adequate social assistance rates.
- Applying anti-racist, anti-oppressive, and culturally-safe approaches.
- Creating healthy built environments (transportation networks, neighbourhood design, housing, food systems, natural environments).

Cancer

New diagnosis and prevalence

Housing

Cancer is a major illness in Algoma. Algoma had the highest rate of new cancer diagnoses in Ontario from 2016 - 2020⁽²⁾.

Age-standardized (per 100,000) rate of new cancer diagnosis in people across all age groups⁽²⁾ from 2016 - 2020

NF PHUs

581.6

Ontario

527.1

ne annual rate of cancer in Algoma has declined between 2013 and 2020 (728.0 to 608.2 per 100,000 people) $^{(2)}$.	

Algoma

633.3 (5,210 new cases)

In **males**, the most commonly diagnosed cancers are prostate, lung, and colorectal (in that order), while the leading cause of cancer-related deaths in males is lung cancer followed by colorectal cancer⁽²⁾.

In **females**, the most commonly diagnosed cancers are breast, lung, and colorectal (in that order), while the leading cause of cancer-related deaths in females is lung cancer followed by breast cancer⁽²⁾.

As of 2018, nearly 8,000 (6.7%) people living in Algoma had received a cancer diagnosis in the past 30 years⁽²⁾.

- Access to health care
- Childhood experiences
- Employment and working conditions

Hospitalizations and death

In an average year, there are 820 hospitalizations for all cancer types in Algoma⁽⁴⁾.

In 2021, more than 1 in 4 (26.8%) deaths in Algoma were due to cancer, which is similar to NE PHUs (27.3%) and Ontario (26.8%)⁽¹⁾. Between 2014 and 2018, 1,995 deaths in Algoma were due to cancer, of which 525 deaths were due to lung cancer⁽²⁾.

Age-standardized rate (per 100,000) of newly diagnosed cancer cases for common cancers (2016 - 2020)⁽²⁾

			:
All concors	Algoma	NE PHUs	Ontario
All callcers	636.3	581.6	527.1
	Algoma	NE PHUs	Ontario
Prostate (male)	134.9	117.8	115.0
	Algoma	NE PHUs	Ontario
Breast (female)	134.0	128.1	142.7
	Algoma	NE PHUs	Ontario
Lung	85.9	87.5	63.1
	Algoma	NE PHUs	Ontario
Colorectal	59.4	58.4	53.0
	Algoma	NE PHUs	Ontario
Thyroid	30.0	17.2	19.8
	Algoma	NE PHUs	Ontario
Melanoma	26.6	24.4	24.7
	Algoma	NE PHUs	Ontario
Kidney	23.8	20.3	16.3
Oral and	Algoma	NE PHUs	Ontario
Pharynx	14.5	15.9	12.4
	Algoma	NE PHUs	Ontario
Cervical	9.8	10.7	8.3

Age-standardized rate (per 100,000) of cancer-related deaths from common cancers (2016 - 2020)⁽²⁾

All cancers	Algoma 235.2	NE PHUs 235.6	Ontario 183.5
Lung	Algoma 61.0	NE PHUs 64.1	Ontario 41.9
Prostate (male)	Algoma 24.5	NE PHUs 29.8	Ontario 23.9
Breast (female)	Algoma	NE PHUs	Ontario
	29.1	26.0	23.6
Colorectal	Algoma 21.4	NE PHUs 24.1	Ontario 19.2
Kidney	Algoma	NE PHUs	Ontario
	5.7	5.2	3.7
Oral and	Algoma 4.5	NE PHUs	Ontario
Pharynx		4.6	3.5
Melanoma	Algoma	NE PHUs	Ontario
	3.1	2.9	3.1

Impact of risk factors

In an average year, an estimated 46% of cancer-related deaths in people aged 35 years and older in Algoma are attributable to **smoking tobacco**. In other words, 46% of cancer related deaths could be avoided in our population if smoking tobacco were reduced⁽⁵⁾.

Estimated percentage of deaths and hospitalizations due to cancer that are attributable to the following risk factors⁽⁵⁾

		Deaths	Hospitalizations
	Smoking tobacco (35 years and older)	46.0%	35.6%
¢ g	Alcohol consumption (15 years and older)	13.1%	14.6%

Screening

Cancer screening rates in Algoma have been declining from 2018 - 2022ⁱ⁽²⁾. Screening for cancer is critical because early detection can significantly improve health outcomes. More information about cancer screening programs can be found at Cancer Care Ontario.

Breast cancer sc (One of the lowest	reening participation ⁱⁱ in the province in 2020) ⁽²⁾	Cervical c parti	ancer screening cipation ⁱⁱⁱ⁽²⁾	Colorectal parti	cancer screening cipation ^{iv(2)}
2018	59.3%	2018	57.8%	2018	35.9%
2019	60.4%	2019	56.9%	2019	36.6%
2020	54.1%	2020	52.5%	2020	39.4%
2021	52.5%	2021	47.8%	2021	60.8%
2022	57.3%	2022	49.3%	2022	62.0%



Radon exposure is the second leading cause of lung cancer, after smoking. Radon can enter your home or building through any opening where the house contacts the ground. Visit our website to learn more about how to test for radon levels in your home and actions to take.

ⁱ There is a decrease in the screening participation starting in 2020 due to the impacts of the COVID-19 pandemic.

- "Percentage of screen-eligible people, aged 50-74 years old, who completed at least one mammogram within a 30-month period.
- Percentage of screen-eligible people, 21-69 years old, who completed at least one Pap test in a 42-month period.
 Percentage of screen-eligible people, 50-74 years old, who were up-to-date with a colorectal test.

Cardiovascular diseases (heart diseases)

Cardiovascular disease (CVD) is a general term that describes diseases of the heart or blood vessels. Heart disease is the term used for a group of conditions that affect structure and function of the heart such as heart attacks and strokes. Heart disease is the leading cause of death for both men and women. Stroke is a condition in which the brain can't get enough blood flow. There are many different causes of heart disease and stroke. Almost 80% of premature stroke and heart disease can be prevented through lifestyle behaviours, such as eating well, being active, managing stress and reducing substance use⁽⁶⁾. Other causes include medical conditions, genetics and the social determinants of health.

New diagnosis and prevalence

In 2019 - 2020, about 5.4% of Algoma's population (aged 12 years and older) self-reported living with heart disease, which is comparable to 6.3% in NE PHUs and 4.3% in Ontario⁽⁷⁾.

Hospitalizations and death

In Algoma, hospitalizations due to cardiovascular diseases decreased by 14.0% between 2019 and 2022 but continue to be higher than Ontario⁽³⁾.

Age-standardized rate (per 100,000) of hospitalizations due to cardiovascular diseases in 2022⁽³⁾

Algoma	NE PHUs	Ontario
959.7	1,089.5	776.9

A total of 1,747 hospitalizations in Algoma in 2022 were due to heart disease, out of which 33.5% were due to ischemic heart disease (a narrowing of arteries that supply blood to the heart) and 12.9% were due to stroke⁽³⁾.

In Algoma, heart disease caused 407 deaths in 2021, out of which 53.8% were due to ischemic heart disease and 13.3% were due to stroke⁽⁸⁾.

Impact of risk factors

In an average year, an estimated 23.4% of cardiovascular-related hospitalizations in people aged 35 and older in Algoma are attributable to smoking tobacco. In other words, 23.4% of cardiovascular-related hospitalizations could be avoided in our population if smoking tobacco was reduced⁽⁵⁾.

Estimated percentage of deaths and hospitalizations due to heart diseases attributable to the following risk factors⁽⁵⁾

		Deaths	Hospitalizations
	Smoking tobacco (35 years and older)	19.9%	23.4%
F F G	Alcohol consumption (15 years and older)	4.3%	-

Screening

Screening for cardiovascular disease generally begins at age 40. Primary health care providers assess risk by asking questions about family history, lifestyle behaviours and by measuring blood pressure, cholesterol levels, and blood sugars. Identifying risk factors that can be modified, including medical conditions like high blood pressure, high cholesterol and sleep apnea, is a key step towards disease prevention. For more information on risk and prevention visit <u>Heart and Stroke</u>.

Percentage of population with self-reported risk factors in 2019 - 2022

Ò	High blood pressure (12+ years old) ⁽⁷⁾	Algoma 23.8% approx.1 in 4	NE PHUs 23.7%	Ontario 17.7%
@	High blood cholesterol (18+ years old) ⁽⁹⁾	Algoma 18.9%	NE PHUs 17.6%	Ontario 15.7%
A	Sleep apnea (12+ years old) ⁽⁹⁾	Algoma 9.0%	NE PHUs 9.9%	Ontario 6.8%

New hypertension (high blood pressure) diagnoses in Algoma adults (20 years and older), has reduced by 15% from 2015 (2097.5 per 100,000 people) to 2020 (1681.2 per 100,000 people). It is still significantly higher than Ontario (1536.3 per 100,000 people)⁽¹⁰⁾.



Increasing time spent in nature can help reduce the risk of developing cardiovascular disease, high blood pressure and diabetes⁽¹¹⁾. Communities can be designed to provide easy access to trails, parks and other green spaces⁽¹¹⁾.

Chronic respiratory diseases

New diagnosis and prevalence

Chronic obstructive pulmonary disease (COPD) is a group of diseases that cause problems in breathing and block airflow (e.g. chronic bronchitis and emphysema). Smoking and air pollution are the most common causes of COPD⁽¹²⁾.

In 2020, 548 Algoma adults (20 years and older) were newly diagnosed with COPD and 14,483 (14.8%) were living with an existing COPD diagnosis⁽¹⁰⁾.

Percent of adults (20 years and older) living with COPD in 2020⁽¹⁰⁾

Algoma	NE PHUS	Ontario 7 5%
11.0 /0	117 /0	7.3 /0

Count and age-standardized rate (per 100,000) of new COPD cases

In 2020, a total of 144 people in Algoma were newly diagnosed with asthma, and about 16,168 (13.5%) were living with an asthma diagnosis.





Chronic lower respiratory diseases^v caused 366 hospitalizations in Algoma in 2022⁽³⁾, and 351 in 2021.

In Algoma, there were 62 deaths in 2021⁽⁸⁾ due to chronic lower respiratory diseases.

COPD was the leading cause of lower respiratory related hospitalizations (90.4%)⁽⁸⁾ and deaths (98.4%) in Algoma⁽⁸⁾.

Impact of risk factors

Among Algoma residents aged 35 years and older, 62.7% of deaths and hospitalizations due to chronic lower respiratory diseases could be avoided if smoking tobacco was reduced⁽⁵⁾.

Key preventative measures to reduce the risk and severity of chronic respiratory disease:



Getting appropriate immunizations for age



Wearing a mask



Lifestyle behaviours (not smoking, eating well, being active, and good sleep hygiene)

Reducing exposure to smoke



Staying home

when sick

Practicing good hygiene (handwashing, coughing and sneezing etiquette)

Diabetes

There are three types of diabetes: Type 1, Type 2 and Gestational. The most common is Type 2 which usually develops in adulthood. Type 1 is an autoimmune disease that generally develops in childhood or adolescence. Gestational diabetes occurs during pregnancy and is usually temporary but can increase the risk of developing diabetes later in life for both mother and child⁽¹³⁾.

New diagnosis and prevalence

In 2020, 624 people in Algoma ages 20 and older were newly diagnosed with diabetes and 14,826 were living with a diagnosis of the disease⁽¹⁰⁾. The prevalence of diabetes among those aged 20 years and older continued to increase from 9.7 per 100 people in 2011, to 11.6 per 100 people in 2020⁽¹⁰⁾.

Hospitalizations and deaths

In 2022, there were 197 hospitalizations for diabetes in Algoma, out of which 34.0% were due to Type 1 diabetes and 63.5% were due to Type 2 diabetes⁽⁴⁾.

Screening

Prediabetes is when blood sugar levels are higher than normal, but not in the range to be diagnosed with Type 2 diabetes. Screening for prediabetes is important to prevent or delay the development of Type 2 diabetes, as well as long-term complications such as heart disease. Anyone 40 years old or older should have their blood sugars checked by a primary health care provider⁽¹⁴⁾. Our <u>Diabetes Prevention</u> page has more information about identifying and reducing risk for diabetes.

Creating environments that support health is necessary for preventing chronic disease. Everyone in the community has a role to play. See the **Healthy Eating and Active Living** chapter for more information.

Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. See **Social Determinants of Health & Health Equity** chapter for more information.

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Healthy Eating and Active Living

KEY MESSAGES:

- Vegetable and fruit consumption is declining, with only 21.7% of people in Algoma who are 12 years old and over, consuming vegetables and fruit 5 times a day in 2020⁽¹⁾.
- The physical activity levels of youth in Algoma are low. In 2019, only 33.3% of youth aged 12-17 met daily
 physical activity guidelines⁽²⁾.
- In Algoma, physical activity levels decline after age 50. In 2020, 49.2% of people aged 50-64 years and 43.2% of people aged 65 and over were active according to the recommendations for their age group⁽³⁾.
- The majority of youth in Algoma (79.7%) use electronic devices before falling asleep⁽²⁾.
- The environments in which we live, work and play have an impact on healthy behaviours and can be modified to make the healthy choice the easy choice.

Healthy behaviours

Enjoying an active lifestyle along with nutritious foods and beverages, while limiting sedentary behaviour (including screen time) and getting enough restful sleep can positively impact the health and well-being of people in all age groups. In children, they support healthy growth and development and provide them with the energy and nutrients needed to learn and perform to the best of their abilities. In adults, these behaviours can improve overall quality of life and reduce the risk of developing chronic diseases.

Food and nutrition



<u>Canada's Food Guide</u> (CFG) recommends consuming a variety of nutritious foods and beverages each day, including vegetables, fruit, whole grains, and protein foods (with an emphasis on plant-based proteins) for positive health benefits. In 2019 CFG was revised to focus on overall eating patterns with the promotion of a simple plate concept: fill half of the plate with vegetables and fruit, a quarter with protein foods and a quarter with whole grains.

Vegetable and fruit consumption has been declining among some populations

In 2015, 26.6% of people aged 12 and over in Algoma ate vegetables and fruit 5 or more times a day. This number decreased to 21.7% in 2020⁽¹⁾.

The number of youth aged 12 - 19 who ate vegetables and fruit **less than** 5 times a day increased from 73.3% in 2016 to 90.9% in 2020. Algoma's rate in 2020 was notably higher than Ontario (80.6%) and other NE PHUs (75.9%)⁽¹⁾.

Vegetable and fruit consumption is low in Algoma

In 2020, only 21.7% of people aged 12 and over in Algoma ate vegetables and fruit 5 or more times a day. This rate was comparable to Ontario (21.3%) and slightly lower than other NE PHUs (24.2%)⁽¹⁾.

Eating behaviours, such as preparing and eating meals together at home, eating mindfully, and respecting body diversity also play a crucial role in supporting health and well-being. Establishing **positive eating behaviours and a healthy relationship** with food at an early age through positive role modelling, experiential learning, and sharing intergenerational knowledge helps build the foundation for lifelong health.

Percentage of children who ate an evening meal with their family for 6 – 7 days a week $^{\!(\!2\!)}$



It is important to note that food intake and eating behaviours are significantly impacted by social, economic, physical, and environmental factors. As noted in the Social Determinants of Health & Health Equity chapter, **food insecurity is a barrier to eating well for 1 in 5 households in Algoma**. Creating policies to support equitable access to nutritious food can have a positive impact on food choices and food environments across Algoma.

Algoma Public Health (APH) also seeks opportunities to promote and enhance food literacy and availability within the community. APH collaborates with the Ministry of Health, Ontario Fruit and Vegetable Growers Association and local school boards to coordinate implementation of the <u>Northern Fruit and Vegetable Program</u>, which provides two servings per week of vegetables and fruit to all elementary students in Algoma.

Physical activity

<u>Canada's 24-Hour Movement Guidelines</u> provides recommendations for physical activity, sedentary behaviour and sleep for all ages. For optimal health benefits, the following levels of physical activity are recommended:



Child and youth (5 - 17 years old): An accumulated time of at least 60 minutes per day of moderate to vigorous physical activity⁽⁴⁾.



Adults (18+ years old):

An accumulated time of at least 150 minutes per week of moderate to vigorous physical activity⁽⁴⁾.

In general, physical activity levels in Algoma are below what is recommended, although similar or slightly higher compared to the province. Males are notably more active than females and physical activity levels decline with older age.

Children and youth

- In a 2019 survey, 1 in 3 (33.3%) youth (12 17 years old) in Algoma reported meeting the physical activity guidelines. In comparision, 1 in 4 (26.4%)
 Ontario youth met the guidelines⁽²⁾.
- In 2019, 33.7% of Algoma youth (12 17 year olds) engaged in physical activity with their parents or caregivers weekly⁽²⁾.



Positive role modelling and being active together is a great way to increase physical activity. 60 minutes of a parent's physical activity adds 15 minutes to a child's average daily physical activity⁽⁵⁾. <u>Active for Life</u> has a variety of activities, games, and resources for parents, caregivers, and educators.

 1 in 4 (26.2%) children and youth (aged 3 to 17 years old) in Algoma are not participating in organized sports. This is comparable to 25.6% of Ontario's children and youth⁽⁶⁾.

There can be multiple reasons for why children and youth are not participating in organized sports, including facing barriers related to income and transportation. Efforts should be made to make organized sports inclusive and accessible for everyone so all can benefit.

The value of **unstructured play** should not be overlooked. Unstructured play (indoors and outdoors) occurs when children follow their instincts, ideas, and interests without an imposed outcome. It supports healthy growth and development and benefits physical, mental, emotional, and social health⁽⁷⁾. **Active outdoor play** is a component of unstructured play which can help children build resilience, self-regulation, and skills to deal with stress.

Percentage of youth (12 - 17 years old) who participated in outdoor activities in the past 7 days⁽²⁾

Algoma	Ontario
58.1%	61.1%

Percentage of youth (12 - 17 years old) who spent time outdoors in the past 7 days in Algoma⁽²⁾



Adults

Percentage of adults who were considered active according to physical activity guidelines in 2020⁽³⁾

18 to 44 years old		45 to 64 years old		65 years and older	
Algoma 58.2%	Ontario 56.8%	Algoma 48.5%	Ontario 52.5%	Algoma 43.2%	Ontario 39.4%

Staying active is an important part of healthy aging. Algoma Public Health is committed to working with municipalities, community organizations and service providers to provide **Age-Friendly Communities**. Age-Friendly Communities "ensure that local policies, programs and services are inclusive and support the social and physical environments that enable Ontarians to live safe, active and meaningful lives"⁽⁸⁾.

Healthy built environment

The way communities are designed and built lays the foundation for healthy living⁽⁹⁾. Built environment refers to anything that is human created, such as buildings, parks, and neighbourhoods. It also includes land use patterns and transportation systems⁽¹⁰⁾.

Connected streets, bike lanes, multi-use paths, sidewalks and public transportation routes can increase physical activity and support active transportation which benefits both human and planetary health⁽⁹⁾. Walk and Bike Scores show how walkable (e.g., walking routes to stores, schools, parks and restaurants) and bikeable (e.g., bike infrastructure topography, destinations and road connectivity) an area is on a scale of 0-100⁽¹¹⁾.



Walk and bike score for cities and towns in Algoma⁽¹¹⁾

Pe act	ercentage of child tive transportation in the past 7	dren 3 - 17 who used on to travel to school days in 2019 ⁽²⁾	Percei mode	ntage of adults 1 es of transportat cycling to w	8 - 65 who used active ion such as walking or ork in 2019 ⁽¹²⁾
	Algoma	Ontario		Algoma	Ontario
	7.5%	16.5%	AC	39.1%	45.1%

Green spaces, public parks, outdoor play areas and recreation facilities provide places for people of all ages to be active and social. <u>HealthyPlan.City</u> has maps exploring a variety of conditions such as large natural spaces, parks, and recreation and sports facilities.

Creating healthy built environments is a shared responsibility. APH works with communities to support healthy community design policies and long-term planning for aging populations and climate resiliency.

Sedentary behaviour and screen time

Sedentary behaviour refers to activities that do not increase energy expenditure substantially above resting level, such as sleeping, sitting, laying down, watching television, and other forms of screen-based entertainment. Reducing sedentary behaviour and moving more can improve health, quality of life, and reduce the risk of chronic disease.

Canada's 24-Hour Movement Guidelines provide the following recommendations for sedentary behaviour and screen time



Child and youth (5 - 17 years): No more than **2 hours per day** of recreational screen time and limited sitting for extended periods⁽⁴⁾.



Adults (18+ years): No more than **3 hours per day** of recreational screen time and break-up long periods of sitting⁽⁴⁾.

Screen time refers to time spent on screen-based behaviours, such as watching TV and using a smartphone, tablet or computer. Recreational screen time includes time spent on screens that is not related to school or work⁽⁴⁾.

Screens are a big part of daily life as they are frequently used for education, work, and entertainment. Digital devices help us communicate and stay connected, however there are health-related concerns when they are used too much. Spending prolonged periods of time on screens takes time away from engaging in other health-promoting activities and can negatively impact mental, cardiovascular, and sleep health⁽¹³⁾.



54.5%

54.1%



1 in 2 (50.2%) 3 to 4 year olds in Algoma, met the recommended screen time limit of one hour or less per day⁽¹⁴⁾.

5-to 11-year-olds who met the recommended screen time of two hours or less per day



About 3 in 5 (62.3%) children and youth ages 5 to 11 years in Algoma, met the recommended screen time limit of two hours or less per day⁽¹⁴⁾.

12-to 17-year-olds who met the recommended screen time of less than two hours per day



7 in 10 (69.6%) youth ages 12 to 17 years in Algoma, met the recommended screen time limit of two hours or less per day⁽¹⁴⁾.

Using screens before bed is not recommended as it can lead to difficulty falling asleep and poor quality of sleep⁽¹⁵⁾. As age increases, more children use electronic devices before sleeping. **Algoma has a higher percentage of children and youth who use electronic devices before sleeping compared to Ontario overall**^(2, 14).

Too much screen time can have a negative impact on children. It can hinder how they think, including academic performance, decision making, and controlling and monitoring their everyday behaviours. Screen time has also been linked to language, social and emotional development, and lifelong mental health.

Use of electronic devices before sleeping, by age group^(2, 14)

3 - 4 years old	-	NE PHUs 14.0%	Ontario 12.6%
5 - 11 years old	Algoma 24.7%	NE PHUs 22.7%	Ontario 22.3%
12 - 17 years old	Algoma 80.9%	NE PHUs 79.9%	Ontario 74.5%

Parents and caregivers can support less screen time by paying attention to what and how much children are watching, getting involved and engaging with children off screens, modelling good screen behaviours, setting boundaries, and talking to youth about the impacts of screen time. For more tips on setting limits on screen time you can visit <u>About Kids Health by SickKids</u>.

Sleep health

Getting enough good-quality sleep is essential for brain function, mental health, a strong immune system, and feeling well overall^(16, 17). Not sleeping well can negatively impact mood, energy level, concentration, and behaviour. Over the long-term, poor-quality sleep can increase risk for heart disease, cognitive decline, and depression^(18, 19).

Sleep hygiene refers to habits and practices that, when practiced on a regular basis can help promote good sleep. Visit <u>Sleep On It Canada</u> for more information and tips for better sleep.

Canada's 24-Hour Movement Guidelines recommends consistent bed and wake up times and getting the following amounts of sleep

7-8 hours⁽²³⁾

65+ years old

Most children and youth (3 to 17 years old) in Algoma meet the recommendations for sleep. However, the trend shows the number decreasing with age⁽²⁾

3 - 4 years old	10-13 hours ⁽²⁰⁾	3 - 4 years old	Algoma 89.7%	NE PHUs 90.3%	Ontario 87.5%
5 - 13 years old	9–11 hours ⁽²¹⁾	5 - 11 years old	Algoma 80.5%	NE PHUs 86.1%	Ontario 85.4%
14 - 17 years old	8-10 hours ⁽²¹⁾	12 - 17 years old	Algoma	NE PHUs	Ontario
18 - 65 years old	7-9 hours ⁽²²⁾		13.2%	00.0 %	02.0 /0
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Emergency Management

KEY MESSAGES:

- During the COVID-19 pandemic the actions of the community and external partners, and with guidance from Algoma Public Health employees helped control the spread of infection.
- Increased number of wildfires in 2023 impacted air quality across Canada. There were 10 air quality alerts for different regions of Algoma⁽¹⁾; these are associated with more Chronic Obstructive Pulmonary Disease (COPD)-related emergency department (ED) visits⁽²⁾.
- Climate change has increased the frequency and duration of extreme heat in the past 10 years and are
 projected to further increase by 2030⁽³⁾.
- Despite the declining number of extreme cold days, the average rate (2019 2023) of cold exposure-related ED visits was higher than heat exposure-related ED visits in Algoma⁽²⁾.

The communities serviced by Algoma Public Health are vulnerable to many hazards which could result in an incident or emergency that impacts population health or the day-to-day operations of APH. APH has developed an emergency management program to support a coordinated and effective emergency response. This program aligns with the local health sector, municipal, provincial, and federal plans.

Hazard Identifications and Risk Assessment

APH conducts a Hazard Identification and Risk Assessment (HIRA) process to identify hazards and assess if they will result in an incident or emergency with public health impacts.

The HIRA method considers the hazard, its probability, and its consequences. This method is used by emergency management programs across Ontario to develop controls, safeguards, and strategies to mitigate and respond to incidents and emergencies. The development of a HIRA occurs during the preparedness phase of the emergency management cycle.

In 2023, the hazards most likely to result in a public health incident or emergency, in Algoma included COVID-19, water quality, and extreme heat. Other hazards identified included mass gatherings, wildfires, poor outdoor air quality, and flooding. Once hazards are identified we monitor local data to inform emergency management.

During an emergency, Algoma Public Health collaborates with partners to ensure an effective response. Two recent examples are detailed in this chapter.



Focus on COVID-19: an infectious disease hazard

The World Health Organization declared COVID-19 a pandemic on March 11, 2020⁽⁵⁾. APH activated its Emergency Response Plan (ERP) and Incident Management System (IMS) on March 11, 2020 to respond to COVID-19 at the local level. APH focused its efforts on pandemic response over the next couple of years.

COVID-19 emergency response metrics (March 2020 – March 2023)



231 outbreaks managed & supported⁽⁷⁾

business sectors partnered with APH throughout the pandemic





unique vaccination clinics (including pharmacies and provincial clinics)



letters of Instructions (LOI) and/or Section 22 class orders enforced



58,000+

calls received on the general COVID-19 information line



15,200+ calls with businesses, organizations,

schools and childcare centres



155 electronic newsletters to various workplaces



312,189

vaccine doses administered⁽⁸⁾

▶ From 2021 - June 2023, APH-led clinics administered a total of 145,393 doses of COVID-19 vaccine



COVID-19 testing rate (per 100,000)

Testing rate in Algoma peaked in the first quarter of (Q1) 2021. At this time Northeastern Public Health Units (NE PHUs) had a higher testing rate than Algoma and all of Ontario



COVID-19 vaccine coverage rate by age groups, as of March 2023

Percentage of population with 2 doses of COVID-19 vaccine



Focus on the St. Mary's River oil spill: a water quality hazard

On June 9, 2022 a quantity of gear oil was released from Algoma Steel Inc.'s wastewater treatment plant into the St. Mary's River. As part of APH's work to investigate potential public health hazards, APH activated its internal ERP and implemented an IMS structure on June 10, 2022.



A public warning was issued to downstream users, warning residents not to drink, swim, bathe, or shower with the water, along with other precautionary measures. The response operations focused on residents most at risk, primarily those who take water from the river downstream or use those waters for fishing and recreation.

In addition, APH worked with the Ministry of Environment's Abatement and Drinking Water divisions, Public Health Ontario's technical experts, and community partners such as First Nation and Indigenous partners to ensure public health safety.

The APH team conducted risk assessments, provided guidance to partners, and communicated with the public. Once sampling was satisfactory, the warning was lifted, and residents could resume activities safely. On June 27, 2022 APH was able to stand down the IMS response and declare the emergency response over.

Focus on hazards related to climate change

Air quality

Ontario Ministry of Environment, Conservation and Parks issue Special Air Quality Statements (SAQS), when the Air Quality Health Index (AQHI)ⁱ is 7 (high risk) or greater (high to very high risk) for one to two hours⁽⁹⁾.

The graph below indicates that the number of SAQS in Algoma region increased in 2023 as compared to 2018.



Count of Special Air Quality Statements (SAQS) in Algoma by weather region



Until recently, the Algoma region had only one air quality monitoring station located in Sault Ste. Marie. Algoma Public Health has coordinated with partners to facilitate the installation of small-scale air quality monitoring equipment throughout the district.

Keep in mind the <u>AQHI</u> to assess health risk. For instance, an AQHI rating of 4-6 indicates 'moderate risk', when it is advised to cut back on physically demanding outdoor activities, especially for those with heart and lung issues. Keep in mind that everyone may experience symptoms differently. Also, different air quality monitoring systems use different scales and measurements to display health risks.

In the 2023 forest fire season (April to October) there were 741 confirmed forest fires in Ontario, which is higher than the 10-year average of 690 forest fires⁽¹⁰⁾. Out of the 741 in 2023, one-third (35.8%) were reported in the northeastern region⁽¹¹⁾. Wildfires lead to smoke events that are a major source of air pollution and can impact air quality in areas far from the fire.

Research suggests that even short-term exposure to air pollution can increase emergency department (ED) visits for respiratory infections, particularly among people with pre-existing conditions like asthma or COPD⁽¹²⁾. Local data shows an association between poor air quality and elevated ED visits for COPD⁽²⁾.

Extreme temperature

As the climate in northern Ontario warms, we may see an increase in extreme temperatures. The health consequences of both extreme heat and extreme cold are a major public health concern. These extremes can be dangerous to health if preventative measures are not taken. Visit our <u>website</u> to learn how to protect yourself and identify signs and symptoms during extreme temperature events.

Extreme temperature events can also cause feelings of anxiousness, stress, worry, panic, sadness, or isolation. It is important to take care of your mental health and well-being during these times, as well as to check in on those around you.



Extreme heat

Climate statistics show that the areas served by Algoma Public Health have already warmed up by 2°C since 1985^{(13).}

As the climate continues to warmⁱⁱ, it is predicted that by 2030 and 2050, the average summer temperatures across Algoma could increase by 2.3°C and 3.6°C, respectively. This would mean a projected increase of 5 to 15 additional heat warnings per year⁽³⁾.

The Ministry of Environment and Climate Change Canada (ECCC) defines a heat warning in northern Ontario as a daily high temperature (Tmax) of 29°C or higher, and nightly high temperature (Tmin) of 18°C or higher, or a daytime maximum humidity of 36°C for two or more consecutive days⁽¹⁴⁾.

Projectedⁱⁱ number of days with reported

Tmax > 29°C and Tmin > 18°C across Algoma

20 15 10 5 0 Historical baseline 1985 - 1999 Number of days where Tmax > 29°C

Extreme cold

The ECCC issues extreme cold warnings for northern Ontario when the temperature or wind chill is expected to fall below -40°C for at least two hours⁽¹⁴⁾. It is important to keep in mind that health impacts of cold can also happen at temperatures higher than -40°C, such as -15°C to -20°C.

Common health impacts of extreme cold include hypothermia, frostbite, and windburn.

Climate models predict that extreme cold will happen less often and be less severe⁽³⁾, but emergency visits for cold exposure are higher than for heat exposure. This means people still need to protect themselves from extreme cold.

ⁱⁱ Predictions using the SSPS5 – 8.5 model: Considering 'business as usual' i.e. high emission scenario.

As the frequency of hot days in the region increases, so may the illness and death linked with them. Heat may exacerbate pre-existing illnesses and health issues. Common health impacts of extreme heat include heat strokes, sun strokes, sunburns and dehydration.

A trend emerges when comparing the number of heat-related emergency department visits in Algoma to the number of days with extreme heat.

The 5-year average (2019 – 2023) rate of ED visits due to heat-related illness is **18.4 per 100,000** people in Algoma⁽²⁾.

Heat-related emergency department visits in Algoma



The 5-year average (2019 - 2023) rate of ED visits due to cold-related illness is **23.2 per 100,000** people in Algoma⁽²⁾.

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