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 cancers	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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Chapter Contributors: Melinda Freer, Kathy Marshall, Lisa O'Brien, Suzanne Zimbaro

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