

Asthma and the workplace

**Working together to
support employee health**

New insights and solutions brought to you by Sun Life

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01 Introduction



Asthma is one of the most common chronic diseases in Canada, yet its profile is lower than many others. Cancer, heart conditions and diabetes tend to grab the headlines. But people often underestimate the impact of asthma – even those who suffer from it. They shouldn't.

Asthma affects nearly 11% of the population (3.8 million Canadians).¹ And health experts project it will cost the Canadian economy about \$4.2 billion annually by 2030.²

Its impact on the workplace is also significant. It's one of the leading causes of work loss through absenteeism and presenteeism.³ And research indicates that **those with asthma are 1.5 to 2 times more likely to have health-related work absences.**⁴ Across our group benefits plans, asthma was the fifth largest disease category in terms of overall drug spend in 2022.⁵

The vast majority of asthma sufferers can manage their symptoms well with the proper treatment plan. Unfortunately, many patients face challenges in adhering to treatment. Doctors estimate that **less than 50% of Canadian patients may be adhering to optimal treatment.**⁶

For employers, there's an opportunity to help. Through education, comprehensive benefits coverage and in-plan chronic disease management support, employees with asthma can effectively manage their disease. Employers may also have opportunities to reduce asthma triggers in the workplace. These steps can not only improve employee well-being, they can also reduce asthma-related absences and increase employee productivity.

02 Asthma and its risk factors



What is asthma?

Asthma typically involves the inflammation and narrowing of bronchial tubes, and symptoms vary by individual. They can include shortness of breath, chest tightness, coughing or wheezing – and variable restrictions to the airway.

For many people, allergic causes – such as dust mites, pollen, mold, and pet dander – trigger their asthma. But there are non-allergic triggers too, such as smoke, cold air, air pollutants – even intense emotions.



Risk factors for asthma

The risk factors for developing asthma include:

- **a family history** of the disease (genetics)
- **premature birth**
- **allergies**, such as hay fever
- **occupational exposure** to gases, dust and chemicals
- **poor air quality** in your environment
- **obesity.**

There can be comorbidities (in addition to obesity) associated with asthma. These include rhinosinusitis, gastroesophageal reflux disease and psychological conditions such as anxiety and depression. These comorbidities are significant health problems on their own – but they can also worsen asthma symptoms.

Asthma is also 40% more prevalent among First Nations, Inuit and Metis communities than in the general Canadian population.⁷



Asthma and climate change

While climate change can be a health risk for everyone, the risks can be greater for those with asthma. That's because warmer temperatures – and more severe weather events – can increase asthma triggers. These triggers include:

- a longer pollen season (and more potent pollen)
- mold from rainfall and floods
- smoke from wildfires
- increased smog due to warmer temperatures.

The recent wildfire season showed how significant the impact of climate-related events can be on lung health. The Centers for Disease Control and Prevention completed a study of New York state during its worst air quality date, June 7, 2023. It found **asthma-associated emergency room visits jumped 82%** statewide on that date.⁸

In Canada, the federal government maintains a national [Air Quality Health Index](#). The index provides a local reading of air quality as it relates to health. It can help those with asthma identify when air quality is at a safe level for outdoor activities.

03

Treating asthma



There are two main categories of asthma treatments


1. **Controllers for daily use.** Patients use these medications to treat persistent inflammation in the airways. These medications work to control symptoms – and lead to fewer symptoms over time.
2. **Relievers as needed.** Patients use reliever medications “as needed” for relief of breakthrough symptoms of asthma. Generally, using a reliever inhaler more than twice a week could indicate that asthma is not well controlled.⁹ Those with poorly controlled asthma are at increased risk of asthma exacerbation and even asthma-related death.

Canadian guidelines suggest that if a patient requires more than two reliever inhaler prescriptions a year, they should have their disease control plan reassessed by a specialist.¹⁰


Ideally, all people with asthma should:




Take asthma controller medications appropriately, as prescribed.



Understand personal asthma triggers and how to avoid them as much as possible. This includes speaking with their employer if they've identified a workplace trigger that the employer could reduce or eliminate.



Know the appropriate steps to take during an asthma attack.



Create an asthma action plan with their health-care provider. This plan outlines a person's recommended daily strategies to maintain control of their disease. It also outlines how to take their reliever medications when they lose control, and when to seek medical attention. Those with asthma who don't currently have a plan can speak to their pharmacist. They can also access [online resources](#) at Asthma Canada.

04

Asthma medicines



Severe asthma and high-cost biologic medicines

Up to 5% of asthma patients have severe symptoms that they are unable to control with standard therapies. We call this **severe asthma**. Severe asthma is distinct from uncontrolled asthma (which is often associated with non-adherence or poor inhaler technique).¹¹

Fortunately, drug companies have developed innovative therapies, including **biologic medicines** that can treat specific subsets of severe asthma. These treatments can be effective but are costly. Xolair, used to treat

severe allergic asthma, is one example. Xolair represented **only 0.2% of Sun Life claims in this category of drugs. But it accounted for 17% of the total paid amount for asthma drugs in 2022.**

The management of high-cost asthma treatments such as Xolair, Nucala, Fasenra and Dupixent in drug plans is critical. It helps ensure drug plans remain sustainable and that coverage for these important medicines is available.

We employ several strategies to manage high-cost drugs:



Prior authorization, where Sun Life must pre-approve plan members for coverage. We base this approval decision on medical criteria and detailed information provided by the plan member's doctor.



Product listing agreements with pharmaceutical manufacturers. We negotiate these discounts to help bring the price of high-cost drugs down. They work to balance drug plan sustainability with access to innovative and life-sustaining therapies.



Voluntary Specialty Preferred Pharmacy Network provides price discounts on select specialty medications. These pharmacies also provide plan members with valuable services, including reimbursement navigation and therapeutic support.

Common asthma medicines and generic substitution

Over 60% of claimants taking a top 10 asthma/chronic obstructive pulmonary disease (COPD) medicine had a lower-cost generic alternative available.¹² These include common molecules such as fluticasone, salbutamol and montelukast.

Generic substitution is a standard feature on Sun Life drug plans. It works alongside other solutions such as prior authorization, product listing agreements and Voluntary Specialty Preferred Pharmacy Network to control costs. For asthma drugs, generic substitution is an important solution in the overall management of drug costs and plan sustainability.



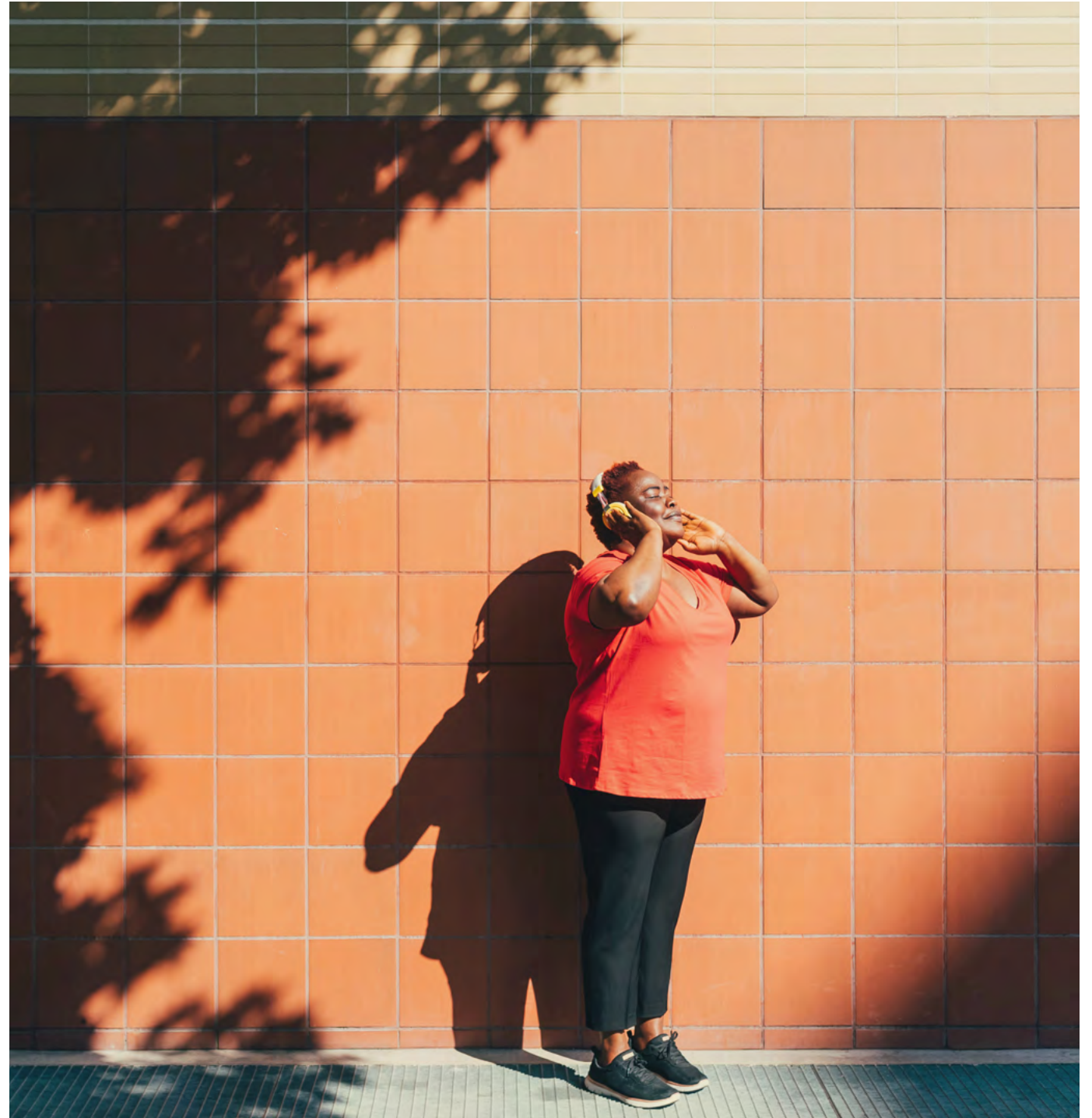
Adherence to asthma treatment – the challenges

There can be several challenges to adhering to an optimal asthma treatment plan. These include misunderstanding medication use instructions, forgetfulness, and the cost of medication.

And while **asthma kills about 250 Canadians each year**, there remains a perception that it's not a serious disease.¹³ This is especially so for patients with mild or moderate symptoms. This can lead to poor adherence, and there can be many factors involved.

These include:

- The stigma associated with having to use an inhaler or other treatments
- Concerns about medication side effects
- A denial that they have the disease, or a perception that they don't need treatment.





The stigma of asthma: still alive and well

In the 1950s and 60s, people often viewed asthma as a disease of the weak. One needed only a strong mind and willpower to overcome the disease. Or so they said.

We've come a long way in understanding that asthma has a physiologic basis. But those with asthma may often still feel stigmatised.

Stigma can create a barrier to effective asthma self-management. A large international meta study found that stigma was one of the important contributing factors for:

- frequent patient anxieties
- delayed diagnosis
- denial and limited disclosure of having asthma
- limited physical activity
- avoidance of inhaler use in public.¹⁴

This stigma is no different in Canada. A survey of Canadian adults with asthma found that **45% of young adults reported feeling stigmatized. This rose to 70% for those with severe asthma.**¹⁵

This stigma can extend to the workplace as well. An employee may not let people know they have it, or not use medication they need at work. This can lead to presenteeism, where the employee is at work but unwell and less productive.

05

The impact of asthma on your workplace and employees

Asthma affects more than 10% of the population.¹⁶ And health professionals diagnose more than 300 Canadians with asthma each day.¹⁷ With so many people affected, it's clear that asthma will have a presence in most workplaces.



When employees can manage their asthma, effects on the workplace can be minimal. But if it's not effectively managed, that's when workplace impacts begin.

Under-treated asthma can lead to sleep disturbances, tiredness during the day and poor concentration. So, even when an employee is at work, poor adherence to treatment can lead to lower productivity. Where asthma has a workplace trigger (such as dust or poor air quality), an employee could quit work altogether.

Poor adherence can also lead to higher benefit plan costs. For example, poorly controlled asthma can cause airway remodeling. This involves damage to the airways that can lead to decreased lung function. This can in turn lead to additional medical treatments, time off work and reduced capabilities for some jobs.

For children, asthma is the leading cause of absenteeism from school.¹⁸ This means that employees may also need time off work to care for a child with asthma.

By the numbers: the workplace impact of asthma

A recent study examined the impact of asthma on work productivity in adults receiving asthma maintenance therapy. It involved more than 1,500 people in multiple countries, including Canada.¹⁹ The study found that:

74% of participants overall reported a reduction in productivity at work caused by asthma.

67% of Canadian participants said their asthma affected their productivity at work. More than one-third (35%) reported a medium to large effect on productivity.

6.1% The average percentage of weekly work hours missed by Canadian respondents due to asthma symptoms.

The main symptoms felt at work by respondents were related to respiratory function. But many also noted tiredness, weakness, mental strain and physical impairments as symptoms.

A further factor was the negative perception they perceived from colleagues due to their asthma symptoms.



Asthma's impact on mental health

Studies have linked poorer mental health with many chronic diseases. Asthma is no exception. Anxiety and depression are 1.5 to 2.4 times more common in people with asthma than people without.²⁰

It can be a vicious cycle. The difficult physical symptoms of asthma can increase episodes of anxiety and depression. These mental health episodes can reduce an individual's ability to adhere to personal care regimens, which include asthma treatments. Poor adherence to these treatments often leads to worsening symptoms and further mental health issues.²¹



Anxiety and depression are 1.5 to 2.4 times more common in people with asthma than people without.

06

How we're helping

SUN LIFE SOLUTIONS

Introducing health coaching for employees with asthma through Lumino Health™ Pharmacy*



Lumino Health™ Pharmacy,* provided by Pillway,** is Sun Life's digital pharmacy service. It gives employees access to pharmacists virtually for medication, consultations, and provides a simple way to manage their prescriptions online using the Lumino Health Pharmacy App. Lumino Health Pharmacy is available to employees at no additional cost to you. It's an "always-on" digital pharmacy, that includes home delivery in Canada. It's there to help your employees manage their medications and take them as prescribed.

This year, through Lumino Health Pharmacy, we're launching specialized integrated health coaching programs for employees with chronic conditions. **We'll soon launch our program to support employees with respiratory conditions, specifically, asthma and chronic obstructive pulmonary disease (COPD).**

This follows our recently launched diabetes coaching program.

Employees who wish to enrol in the program will receive a focused assessment. They will

then have the option to get one-on-one coaching and follow-ups with trusted health-care providers to develop personalized action plans. Employees with asthma can receive dedicated coaching along key areas to help them manage their condition, including:

- drug treatment plan optimization
- inhaler device technique education
- trigger identification and support
- adherence support
- management of exacerbations
- co-morbid related-condition education.

Our coaching focuses on creating care plans and lifestyle habits that fit your employees' unique needs and schedules. This personalized approach allows us to optimize their health outcomes and best support them to reach their goals.

Lumino Health Pharmacy and the coaching program aren't currently available in Québec. Sun Life aims to offer access to online pharmacy services in Québec later this year.

The importance of inhaler device coaching

Inhalers deliver medication directly to the airways to treat inflammation and bronchial constriction. This makes using the correct inhaler technique critical to ensuring medications produce their maximum benefit.

Unfortunately, many asthma patients use their inhalers incorrectly, meaning medications do not reach their airways. Education on inhaler technique from a pharmacist or other health care professional can help ensure medication is properly absorbed.

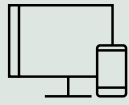


*Pharmacy services are provided by Pillway.

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More ways Sun Life can help



Lumino Health Virtual Care, provided by Dialogue, is a leading digital health care and wellness platform. Through a single, user-friendly web or mobile application, it provides 24/7 access to health and wellness services. Online medical assessments, prescription renewals, wellness resources and specialist referrals are all part of the experience. For those with asthma, Lumino Health Virtual Care can enable access to care quickly. This is especially important for those who don't have a family physician or can't get a timely appointment.



Coverage for mental health care can be an important support for employees with asthma.

Stress Management & Well-Being (SM&WB) program is part of our Lumino Health Virtual Care platform, provided by Dialogue. It provides employees and their eligible dependents with fast, convenient access to quality mental health care. And there are no out-of-pocket costs to the employee. They have access to goal-focused therapy that is unlimited until remission.

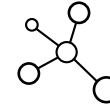
Learn more about Sun Life's innovative solutions to create a mentally healthy workplace.

As well as adding virtual care and pharmacy supports, there are other supports you may want to consider:

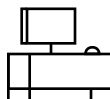


Have the right drug coverage in place.

About 10% of Canadians with asthma have reported going without their medication due to cost.²² So having the right drug coverage under your plan is critical. In addition, you may want to consider optional coverages for conditions that may be related to asthma. These might include smoking cessation programs, vaccines, and weight management medications.



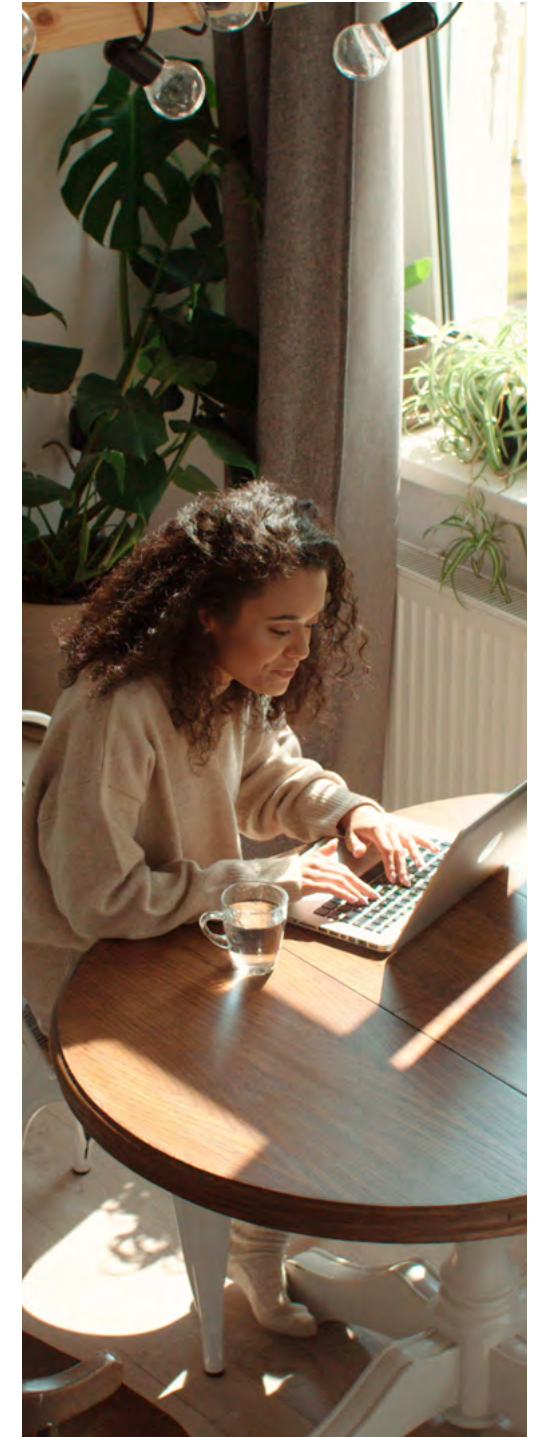
Reduce occupational exposure. About 36% of adult-onset asthma is likely work-related.²³ Steps to reduce exposure to irritants such as dust, gases, or chemicals can help prevent asthma or reduce symptoms. Other steps might include eliminating any workplace mold, cleaning ventilation systems, and limiting the use of carpets.



Accommodate where possible. If an employee has asthma symptoms at work, consider whether a job accommodation could reduce or eliminate these symptoms. Different people have different asthma triggers, so the type of accommodation needed will vary by individual. Accommodations might include:

- Offering alternative workspaces in the case of renovations or painting
- Providing a parking spot that's closer to the building in winter months
- Giving the flexibility to work from home when outdoor air quality is poor.

To further workplace inclusivity, you may want to discuss plans for offsite events with employees with asthma. They could advise on whether workplace plans (such as a company picnic) could safely accommodate employees with asthma.





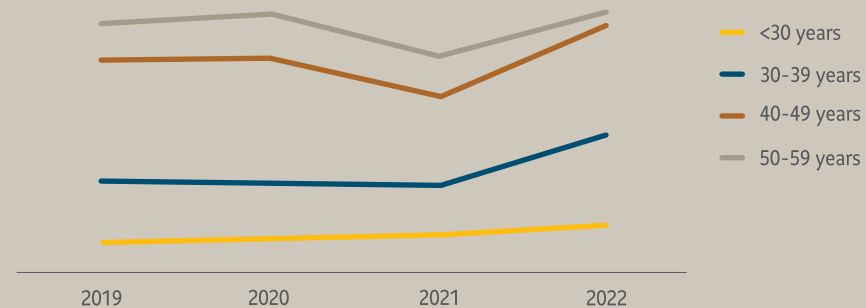
The role of vaccines – and how plan coverage can help

There are no vaccines for asthma itself. But there are vaccines for common, and potentially serious, respiratory infections, such as pneumonia and respiratory syncytial virus (RSV).

Infections like these can be more serious for people with asthma, exacerbating their symptoms and creating health complications. For example, people with chronic conditions such as asthma are up to nine times more likely to be hospitalized with pneumonia.

The Sun Life data in the chart below shows how claims for asthma drugs declined early in the pandemic. This was due in part to reduced exposure to irritants (better air quality, work from home) during lockdowns. The upward trend that followed coincided with the rapid spread of both the Omicron variant of COVID-19 and RSV in 2022.

Asthma drug claims per covered plan member, <60 years old



While governments cover COVID-19 vaccine costs, vaccines for other respiratory infections, like RSV and pneumonia, may not be covered. At Sun Life, we've made coverage for vaccines standard in our plans. Plan sponsors can further elect to adjust coverage based on their organization's needs. This can be an important support for employees with asthma who have a greater risk of complications from common respiratory infections. It can also help you by avoiding additional claims for asthma drugs and reducing employee absences and longer leaves.



Consider asthma supports for your workplace

Asthma symptoms can vary greatly. But in almost all cases, employees and their families can successfully manage their disease with the right supports.

As an employer, you can play an important role by providing:

- the drug coverage they need
- a healthy work environment that reduces asthma triggers
- access to professional support for disease education and management.

With supports in place, you can help ensure employees dealing with asthma remain healthy and productive at work. And as your group benefits partner, we're here to help. We can work with you to support the health of your employees.



For more information on how we can help, talk to your Sun Life Group Benefits representative.

This report provides general information only. It does not provide employment, legal, health, or financial advice. Consult with the appropriate professional advisor to meet your organization's needs.

¹ Public Health Agency of Canada. Report from the Canadian Chronic Disease Surveillance System: Asthma and Chronic Obstructive Pulmonary Disease (COPD) in Canada, 2018.

² <https://asthma.ca/wp-content/uploads/2020/07/Asthma-101.pdf>

³ <https://asthma.ca/wp-content/uploads/2020/07/Asthma-101.pdf>

⁴ Jacob L, Shin J II, López-Sánchez GF, et al. Association between asthma and work absence in working adults in the United States. *J Asthma* 2023;60(6):1115-1122.

⁵ Sun Life data, 2022

⁶ Beaulac MF, Lemiere C. Global Initiative for asthma report: How will new recommendations affect practice in Canada? *CMAJ*. 2020;192(17):E456-E458. doi: 10.1503/cmaj.191445

⁷ <https://asthma.ca/wp-content/uploads/2022/06/2021-Annual-Report-Final.pdf>

⁸ Meek HC, Aydin-Ghormoz H, Bush K, et al. Notes from the Field: Asthma-Associated Emergency Department Visits During a Wildfire Smoke Event — New York, June 2023. *Morb Mortal Wkly Rep* 2023;72:933–935 DOI: <http://dx.doi.org/10.15585/mmwr.mm7234a6>

⁹ Asthma Canada, Asthma Control Digital Toolkit

¹⁰ Canadian Thoracic Society 2021 Guideline update: Diagnosis and management of asthma in preschoolers, children and adults

¹¹ FitzGerald JM, Lemiere C, Lougheed MD, et al. Recognition and management of severe asthma: A Canadian Thoracic Society position statement. *Can J Resp Crit Care Sleep Med*. 2017;1(4):199–221.

¹² Sun Life data, 2022

¹³ Asthma.ca – 2021 Annual Report

¹⁴ Ahmad S, Ismail NE. Stigma in the lives of asthma patients: A review from the literature. *Int J Pharm Pharmaceut Sci*. 2015; 7(7) :40-46

¹⁵ <https://asthma.ca/wp-content/uploads/2019/09/A-Snapshot-of-Asthma-in-Canada-2019-Annual-Asthma-Survey-Report-1.pdf>

¹⁶ Public Health Agency of Canada. Report from the Canadian Chronic Disease Surveillance System: Asthma and Chronic Obstructive Pulmonary Disease (COPD) in Canada, 2018

¹⁷ <https://asthma.ca/wp-content/uploads/2022/06/2021-Annual-Report-Final.pdf>

¹⁸ Asthma Management in Schools - Best practices. <https://asthma.ca/wp-content/uploads/2020/07/Asthma-Management-in-Schools-%E2%80%93-Best-Practices-WEB-1.pdf>

¹⁹ Gruffydd-Jones K, Thomas M, Roman-Rodríguez M. Asthma impacts on workplace productivity in employed patients who are symptomatic despite background therapy: A multinational survey. *J Asthma Allergy*. 2019;12:183-194

²⁰ [A-Snapshot-of-Asthma-in-Canada-2019-Annual-Asthma-Survey-Report-1.pdf](https://asthma.ca/wp-content/uploads/2019/09/A-Snapshot-of-Asthma-in-Canada-2019-Annual-Asthma-Survey-Report-1.pdf)

²¹ Katon W, Lin EHB, Kroenke K. The association of depression and anxiety with medical symptoms burden in patients with chronic medical illness. *Gen Hosp Psychiatry*. 2007;29:147–155.

²² Canadian Institute for Health Information. How Canada Compares: Results from The Commonwealth Fund's 2016 International Health Policy Survey of Adults in 11 Countries

²³ Canadian Thoracic Society 2021 Guideline

Life's brighter under the sun

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