Enhancing Vaccine Acceptance and Trust among Canadians with Asthma and Lung Health Conditions

Expertise Report

Asthma Canada

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Purpose

As part of the Immunization Partnership Fund, the purpose of the '*Enhancing Vaccine Acceptance and Trust among Canadians with Asthma and Lung Health Conditions'* project is to empower individuals with asthma by enhancing awareness and education about immunization. Through outreach, education, and advocacy, the project aims to encourage informed decision-making regarding immunization and its importance in routine asthma management, fostering a proactive approach to respiratory health and increasing vaccine confidence and uptake.

The project is designed to educate Canadians living with asthma and other lung health conditions on the impact of vaccine-preventable illnesses and underscore the crucial role of immunization in effective, routine management of their disease. This campaign will employ strategic outreach and education, using straightforward and candid messaging, leveraging social media, website, webinar sessions, e-mails, and letter distribution. The project will aim to increase vaccine confidence and empower Canadians in the asthma and respiratory community to make informed decisions regarding vaccination, thereby increasing vaccine uptake among those most vulnerable to the effects of preventable illnesses.

Principle

It is critical to improve vaccine acceptance and trust among Canadians with asthma and lung health conditions, while considering the intersectionality that may exist within this population.

Background

Vaccination is a key development in contemporary medicine and one of the most effective public health interventions in history. People with Asthma and lung health conditions are at a higher risk of developing complications from vaccine-preventable diseases (VPDs) such as influenza, pneumonia, Respiratory Syncytial Virus (RSV), herpes zoster (shingles) and COVID-19, leading to increased risks of morbidity and mortality, accompanied by a lowered quality of life. There is also critical importance in addressing diverse social determinants of health, such as age, education, language, geography, culture, and income, in shaping health disparities.

Despite the increased risk of serious consequences, many patients have fallen behind routine vaccination schedules. People are more likely to be vaccine hesitant and/or fatigued in the wake of the COVID-19 pandemic. Hesitancy and fatigue may stem from misinformation that vaccines may worsen health conditions, clash with existing medications or cause other serious adverse events. Though vaccinations are recognized as one of the most effective primary public health measures, it is still viewed as being unsafe and unnecessary by an increasing number of individuals. Vaccine hesitancy is defined by the World Health Organization as "the reluctance or refusal to vaccinate despite the availability of vaccines". In many countries, including Canada parents hesitate to vaccinate their children. Vaccine hesitancy occurs when individuals become anxious about vaccines and vaccination programs due to a number of

reasons, such as cultural or religious beliefs, lack of knowledge about vaccines, lack of understanding of the effectiveness and safety of vaccines, and the necessity of vaccinations.

Change is dependent on education and messaging that will help people with asthma understand what preventable illnesses they are more susceptible to, how their disease puts them at a greater risk of serious effects and the benefits of vaccination against these preventable illnesses. Understandable, accessible, and culturally safe resources need to be created to address the unique concerns and disparities of this patient population.

The next section highlights the five vaccine preventable diseases influenza, COVID-19, pneumonia, Respiratory Syncytial Virus (RSV) and Herpes Zoster (shingles). Information for each VPD is broken down by providing an overview of what the disease is, trends and risks, available vaccines, association with asthma and prevention and special considerations.

Influenza

What is Influenza (flu)

Influenza (flu) is an acute infectious respiratory disease that affects the nose, throat and lungs and symptoms vary from person to person. The flu can lead to a fever, sore throat, runny or stuffy nose, coughing, body aches and fatigue. It can also lead to worsening symptoms such as convulsions, seizures, and pneumonia in those people who have other medical issues. It is spread easily between people when coughing and sneezing. You can get the flu if you come into close contact with someone who is sick. When a person with the flu coughs or sneezes the virus is spread into the air that can infect those close by. You can also become infected by touching objects someone with the flu has touched such as phones, door handles, light switches, and elevator buttons.

Influenza trends and risk factors

According to the Public Health Agency of Canada, nationally, influenza has been estimated to cause approximately 12,200 hospitalizations and approximately 3,500 deaths annually. Influenza and pneumonia are ranked as one of the top 10 leading causes of death in Canada. There is greater risk of influenza-related complications in adults and children with chronic health conditions including pulmonary disorders such as bronchopulmonary dysplasia, cystic fibrosis, and asthma. As well as, residents of nursing homes and other chronic care facilities, adults 65 years of age and older, children 0 to 59 months of age, pregnant individuals, and Indigenous Peoples.

Influenza vaccines

Antibodies against the influenza virus are produced by the body two weeks after the influenza vaccination is given. The antibodies provide protection against infection with the viruses that are in the vaccine. Most vaccine products that are authorized for use in Canada are approved for use in 6 months and older, these include the Inactivated Influenza vaccines (IIVs). The influenza vaccine is usually given as

one dose by injection, but there is also a nasal spray vaccine. The vaccine provided will be based on your age, availability and other factors.

In Canada, there are 10 influenza vaccines authorized and available for use in Canada:

1. Inactivated Influenza vaccines (IIV): These vaccines are made with inactive (killed) viruses and are given by injection.

    - **Flulaval®** Tetra (egg-based)
    - **Fluzone®** Quadrivalent (egg-based)
    - **Afluria®** Tetra (egg-based)
    - **Influvac®** Tetra (egg-based)
    - **Flucelvax®** Quad (cell culture-based)
    - **Fluzone®** High-Dose Quadrivalent (egg-based)
    - **Fluad Pediatric® and Fluad®**(trivalent)(egg-based)

2. Recombinant influenza vaccine (RIV4): This vaccine is produced by specific cell line, also given by injection
    - **Supemtek™** Recombinant (insect-vector expressed)

3. Live attenuated Influenza vaccine (LAIV): This vaccine is made from a weakened form of the virus, given as a nasal spray.
    - **FluMist®** Quadrivalent (egg-based)

Some protect against 3 strains of influenza (i.e., trivalent) and others protect against 4 strains of influenza (i.e., quadrivalent).

The LAIV or nasal spray flu vaccine should not be used in children or adolescents with severe asthma such as those who are currently on oral or high does inhaled glucocorticosteroids or have a history of active wheezing. People with asthma should talk to their health care provider before getting the nasal spray vaccine.

Influenza and Asthma

Individuals with asthma are at risk of a number of serious effects from influenza even if their asthma is mild or their symptoms are well-controlled by medication. Influenza can cause further inflammation of the airways and lungs leading to asthma attacks and worsening of asthma symptoms, and possibly pneumonia. Asthma is the most common medical condition among children and adults hospitalized. It is highly important that individuals with asthma become vaccinated.

Prevention and special considerations

According to the World Health Organization, vaccination for the influenza is the best way to prevent the disease. It is important that those people at high risk of influenza complications and their carers get the influenza vaccine annually. This includes those with chronic diseases including respiratory health issue such as asthma.

The National Immunization Coverage Survey conducted by the Public Health Agency of Canada looked at routine immunization coverage among adults in Canada, specifically influenza immunization coverage. According to the survey during the 2022 to 23 influenza season 44.4% of adults received the influenza vaccine. Those most likely to have been vaccinated included females and older adults (65+). Among those at higher risk of complications from influenza vaccination coverage was 74% for adults aged 65 years and older and 43% for adults aged 18–64 years with chronic medical conditions. This was below Canada's influenza vaccination coverage goal of 80% for those at higher risk. There was some vaccine hesitancy found among 18% of adults and the reason for being hesitant or reluctant to receive the influenza vaccine was because of concerns about the safety of vaccination and/or side effects and feeling the vaccination was unnecessary.

Coronavirus disease (COVID-19)

What is COVID-19

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. People infected with the virus can either experience mild to moderate respiratory illness or become seriously ill and require medical attention. Anyone can get COVID-19, but those who have an underlying medical condition such as chronic respiratory diseases including asthma are more likely to develop serious illness. The most common symptoms of COVID-19 include fever, cough, tiredness and loss of taste or smell. More severe symptoms include difficulty breathing or shortness of breath, loss of speech or mobility, or confusion and chest pain. The virus is spread through respiratory droplets when an infected person coughs, sneezes, speaks, sings, or breathes. It can take anywhere from 5 to 14 days from when someone gets infected with the virus for symptoms to show.

COVID-19 trends and risk

According to the Public Health Agency of Canada as of July 30, 2024 there have been 4,562, 906 cases of COVID-19 reported. Based on the number of cases reported in Canada, 54.8% were female and 32.7% were between 20 and 39 years old. Anyone can be infected by COVID-19.

COVID-19 vaccines

To build full immunity from COVID-19, individuals must take all the required doses of the vaccine. For example, for the two dose vaccines they only give partial protection after one dose and requires the

second does to get full protection. However, for those who receive the one dose vaccine they get maximum immunity a few weeks after receiving the vaccination. Being vaccinated can still cause you to become infected. But the risk of severe illness, hospitalization, and death due to becoming infected is reduced if you have been vaccinated with the COVID-19 vaccine.

There are some vaccinations that have been authorized for use in Canada. All COVID-19 vaccines are given by injection in the muscle (usually the upper arm):

mRNA vaccines: will make a protein that will trigger an immune response in your body. These vaccines do not use live virus instead they help make a protein that will trigger an immune response leading to antibodies being made in your body that help fight the infection if the real virus would enter your body.

- **Moderna Spikevax COVID-19 Vaccine**: 2 doses for a primary series and 1 dose as a booster
- **Pfizer-BioNTech Comirnaty COVID-19 vaccine:** 2 doses for a primary series in ages 5 years and older or 3 smaller doses for a primary series in ages 6 months to under 5 years

Protein-based vaccines: Proteins resembling those in SARS-CoV-2 are injected directly into the body.

- **Novavax Nuvaxovid COVID-19 vaccine:** 2 doses for primary series in people not previously vaccinated and 1 dose in individuals previously vaccinated.

COVID-19 and Asthma

COVID-19 can trigger asthma symptoms if the individual has been infected with the virus. Though COVID-19 can infect anyone, it can cause more severe disease or outcomes for those individuals who are at higher risk such as those with chronic medical conditions including those individuals with moderate to severe asthma.

Prevention and Special Considerations

There is evidence in Canada that shows that vaccines are effective in preventing severe illness, hospitalization, and death from COVID-19. Therefore it is important to get the COVID-19 vaccination.

According to the National Advisory Committee on Immunization (NACI), COVID-19 vaccination is recommended for previously vaccinated and unvaccinated individuals at increased risk of COVID-19 infection or severe disease. This includes the following:

- All adults 65 years of age or older
- Those 6 months of age and older who are:
    - Residents of long-term care homes and other congregate living settings
    - Individuals with medical conditions such as moderate to severe asthma that place them at higher risk of severe COVID-19, including children with complex health needs
    - Individuals who are pregnant
    - Individuals in or from First Nations, Métis and Inuit communities

- Members of racialized and other equity-deserving communities
- People who provide essential community services

Respiratory Syncytial Virus (RSV)

What is Respiratory syncytial virus (RSV)

Respiratory syncytial virus (RSV) infection is a lower respiratory tract illness that impacts infants, young children and older adults. It is transmitted by direct or indirect droplets. Direct droplets from coughs or sneezes of an infected person who comes into contact with the mucous membranes of the eyes, nose, mouth, or airway of another person and indirect when individuals touch contaminated hands, surfaces and objects and touch their eyes or mouth. RSV is the most common cause of bronchiolitis and pneumonia among infants and young children and is responsible for more severe clinical outcomes among older adults, particularly among those with chronic health conditions. RSV causes yearly outbreaks of respiratory track illness, starting late fall to early spring. RSV can cause severe disease in older adults causing serious complications, including hospitalization, intensive care unit admission and death.

RSV trends and risk factors

In infants, RSV infection occurs in almost all infants by 2 years of age. One of the risk factors for RSV is prematurity. Infants born at less than 30 weeks gestational age have RSV hospitalization rates of 7.7 to 13.6% in the first year of life. Also at higher risk of RSV hospitalization are young children with chronic respiratory, cardiac or immunocompromising conditions. According to the Canadian Immunization guide, approximately 20 to 30% of infants infected with RSV develop bronchitis or pneumonia.

In adults, severe RSV disease, hospitalization, ICU admission and death occurs in those older than 75 years of age, particularly those with certain chronic health conditions such as asthma, cystic fibrosis, diabetes, moderate to severe immunodeficiency, and chronic renal and liver disease. Serious outcomes of RSV infection are also seen in adults 60 years of age and older who are residents of nursing homes and other chronic care facilities. In addition, adults may be at increased risk of severe RSV disease due to factors that intersect with social determinants of health.

RSV vaccines

Health Canada has recently authorized two vaccines, both based on the prefusion stabilized F protein (preF), to protect adults from RSV. The vaccines are given in a single dose and stimulate the immune system to produce antibodies to protect against severe RSV infections and complications including pneumonia.

- **AREXVY** (RSVPreF3) RSV subunit adjuvanted vaccine.
- **ABRYSVO™** (RSVpreF) RSV subunit vaccine.

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Both vaccines are administered intramuscularly and in adults 60 years of age and older. The NACI recommends RSV immunization programs for adults 75 years of age and older, particularly for older adults with chronic health conditions who are at increased risk of severe RSV disease. NACI also recommends RSV immunization programs for adults 60 years of age and older who are residents of nursing homes and other chronic care facilities.

In infants the Nirsevimab, the RSV monoclonal antibody, is preferred over palivizumab and the RSVpreF (Abrysvo™) vaccine. This vaccine is prioritized for infants with certain medical conditions such as:

- Infants born prematurely,
- Infants and children with chronic diseases,
- Infants and children whose transportation for severe RSV disease treatment is complex, and Infants and children whose risk of severe RSV disease intersects with established social and structural health determinants.

RSV and Asthma

Infants and children and people with chronic diseases such as pulmonary disorders (includes chronic obstructive pulmonary disease (COPD), asthma, cystic fibrosis, and conditions affecting ability to clear airway secretions) are at a high-risk. To prevent severe RSV disease during their first and second RSV seasons, RSV monoclonal antibodies are recommended for infants and children with chronic lung disease. Nirsevimab is preferred over palivizumab and should be provided for infants and children with chronic lung disease (including bronchopulmonary dysplasia) requiring ongoing assisted ventilation, oxygen therapy or chronic medical therapy in the 6 months prior to the start of the RSV season, as well as infants and children with cystic fibrosis with respiratory involvement and/or growth delay.

Prevention and special considerations

Getting vaccinated is very important for those who are more vulnerable such as Infants, older adults, and people with weakened immune systems.

Pneumococcal disease

What is pneumococcal disease

Streptococcus pneumoniae is a bacterial infection that infects the mucosal surfaces of the nasopharynx and upper respiratory airway. When the virus moves to the lungs, it can cause pneumonia or can enter the blood stream and can lead to bacteremia or sepsis.

There are two main types of pneumococcal disease.
Non-invasive pneumococcal disease which can cause infections in the ears, sinuses or lungs
Invasive pneumococcal disease (IPD) which is a lot more serious can lead to death or long-term complications. IPD can lead to pneumonia, bacteremia, sepsis or meningitis. It is most common in young children, the elderly and persons at increased risk due to underlying medical, environmental or living conditions.

Pneumococcal disease can cause three serious infections:
• meningitis (brain infection),
• bacteremia (bloodstream infection),
• pneumonia (lung infection).

Symptoms of pneumococcal disease include fever, irritability, and loss of appetite. Those who have meningitis and bacteremia may have headaches, vomiting, and a stiff neck. Those with pneumonia may cough up thick mucus and have difficulty in breathing. Those with otitis media will have severe ear pain.

Pneumococcal trends and risk factors

Infections caused by *streptococcus pneumoniae* are a major cause of illness and death worldwide. Pneumonia is the most common cause of pneumococcal-attributed death. The World Health Organization estimates that worldwide, almost 500,000 deaths among children aged less than 5 years are caused by pneumococcal disease each year.

Anyone can get pneumococcal disease but some people are at higher risk of infection or its complications. Adults and children with asthma are at greater risk of infection and complications from pneumococcal disease.

In Children
Every child under the age of two is at higher risk of IPD. Children with the following immunocompromising or chronic illnesses are also at risk of IPD:

- asthma;
- diabetes;
- HIV;
- chronic kidney, liver or heart disease;
- absent or poorly working spleen;
- nephrotic syndrome;
- chronic neurologic conditions causing difficulty with oral secretions;
- CSF leaks;
- transplants;
- immune deficiency (primary or secondary);
- sickle cell disease;

- and children with cochlear implants or on immunosuppressive therapy.

In Adults

Adults with asthma, HIV, diabetes and heart disease are at higher risk for invasive pneumococcal disease. Your risk for getting IPD can also be impacted by environmental or lifestyle factors. Adults in the following categories are also at higher risk:

- who are smokers
- who have smoking-related diseases such as COPD
- without a working spleen
- with weakened immune systems
- who are on immunosuppressive therapy
- have a cochlear implant
- 65 years of age and older
- who are homeless
- who use illicit drugs
- with alcoholism
- living in long-term care facilities

Pneumococcal vaccines

Vaccination is the most effective prevention against pneumococcal disease. Pneumococcal vaccination is part of routine immunization schedules in Canada. There are different pneumococcal vaccines available and recommended in Canada. Pneumococcal vaccines are recommended for routine immunization of infants, children and adults, as well as those at increased risk of IPD.

There are two main types of vaccine to prevent IPD: conjugate pneumococcal vaccines and pneumococcal polysaccharide vaccines.

Pneumococcal conjugate vaccines

- **SYNFLORIX®** (pneumococcal 10-valent conjugate vaccine) (Pneu-C-10)
- **Prevnar®13** (pneumococcal 13-valent conjugate vaccine) (Pneu-C-13)
- **VAXNEUVANCE®** (pneumococcal 15-valent conjugate vaccine) (Pneu-C-15)
- **PREVNAR 20™** (Pneumococcal 20-valent conjugate vaccine) (Pneu-C-20)
- **CAPVAXIVE™** (Pneumococcal 21-valent conjugate vaccine) (Pneu-C-21) (This vaccine is being reviewed by the NACI for use in adults)

Conjugate vaccines are recommended for routine immunization of infants. The effectiveness of Pneu-C-13 in children less than 5 years of age is 20% and 77% against pneumonia and 67% to 96% against invasive pneumococcal disease.

Pneumococcal polysaccharide vaccine

- **PNEUMOVAX®23** (pneumococcal polysaccharide 23-valent vaccine) (Pneu-P-23)

The polysaccharide vaccine is recommended for those over the age of two years who are at high risk of IPD and among healthy young adults. The efficacy of Pneu-P-23 vaccine is more than 80% against invasive pneumococcal disease among health young adults and 50% to 80% in older adults and high-risk groups.

Pneumonia and Asthma

The proportion of Canadians aged 12 years and over who report having been diagnosed by a healthcare professional as having asthma is around 10%. Current evidence indicates that asthma is a risk factor for invasive pneumococcal disease, even in the absence of prolonged systemic corticosteroid use or COPD. Pneumococcal infection can cause severe disease in asthmatics and the most effective way to prevent these infections is through immunization.

Prevention and special considerations

Among the 92 recognized serotypes of *streptococcus pneumoniae*, invasive disease caused by 24 serotypes can be prevented by vaccination.

Shingles (Herpes Zoster)

What is Herpes Zoster (Shingles)

Shingles is the name commonly used for herpes zoster (HZ), an infection that shows up as a painful skin rash with blisters, usually on part of one side of the body (left or right), often in a strip. Shingles is caused by the varicella zoster virus. People get shingles when the virus that causes chicken pox, varicella zoster, is reactivated in their body. The varicella zoster virus doesn't leave the body, even after a person has recovered from chicken pox. It can flare up again, causing shingles, often many years after a person has had chicken pox. The virus tends to reactivate when a person's immune system is weakened because of another health problem. People with shingles often experience pain, tingling or itching and then a painful rash. The rash consists of groups of small, fluid-filled blisters that dry, scab over, and heal (like chickenpox) in a few weeks. Healing is usually complete, but some people may be left with scars. Herpes zoster occurs most frequently among older adults and immunocompromised persons.

Herpes Zoster trends and risk factors

Nearly 1 in 3 Canadians develops herpes zoster in their lifetime. The incidence and severity of both Herpes zoster and Postherpetic neuralgia (PHN) is neuropathic pain that occurs due to damage to a peripheral nerve caused by the reactivation of the herpes virus increases sharply after 50 years. Some people experience pain around the rash site for a month or more–pain that is severe enough to interfere with daily activities. Scratching the rash can also cause a secondary infection if harmful bacteria get into the sores. Shingles on the face can involve the eyes, which can cause scarring and blindness. The occurrence and severity of shingles and its complications increase with age.

Although any person who has had chickenpox can get shingles, most people who do so are older than 50 or have a weakened immune system. For example, a person might be susceptible if they have cancer, take medicines that weaken their immune system, or have HIV or AIDS, even if they are younger than 50.

Herpes Zoster vaccines

The only vaccine for use in Canada is the **Shingrix®** (Recombinant Zoster Vaccine, RZV).

RZV is administered intramuscularly in two doses. The second dose is administered between two and six months after the first dose. It is safe and highly effective in reducing the incidence shingles and Persistent nerve pain (postherpetic neuralgia, PHN). Treatment options for shingles (HZ) and persistent nerve pain (PHN) have limited effectiveness.

- Recommended for individuals 50 years and older.
- Individuals under 50 who are or will be at increased risk of shingles due to immunodeficiency or immunosuppression caused by their disease or therapy.

Those who have an allergy to any component of Shingrix or its container should not receive the vaccine.

Herpes Zoster and Asthma

Chronic respiratory diseases are risk factors for HZ. Asthma and COPD increase a person's risk of HZ and associated complications at any age and may be further elevated in those receiving inhaled corticosteroids.

Prevention and Considerations

The best protection from shingles is vaccination. People can still get shingles after receiving the varicella vaccine but they are 4 to 12 times less likely to do so than if they haven't been immunized. The vaccine is recommended for most people 60 and older. Some people should not receive the vaccine; for example, those with certain allergies or who are taking certain medications.

Barriers to Vaccination

There are barriers to getting vaccinated in certain populations. These include people living in low income households, homeless individuals, people with chronic conditions or disabilities, newcomers, 2SLGBTQIA+ community, Indigenous People. Access is among the most frequently reported barriers. Other barriers include access to the internet, language barriers, transportation and childcare, lack of accommodations for disability or health conditions, demanding work schedules and feeling unsafe.

When we look at the different VPDs we see the impact that social determinants of health have on individuals. Social determinants of health "are broad range of personal, social, economic and environmental factors that determine individual and population health." The main determinants of health include: income and social status, employment and working conditions, education and literacy, childhood experiences, physical environments, social supports and coping skills, healthy behaviours, access to health services, biology and genetic endowment, gender, culture and race / racism. It is important to address that certain social determinants of health such as discrimination, racism and historical trauma impact priority populations including Indigenous Peoples, 2SLGBTQIA+ and Black Canadians.

Barriers that individuals face when accessing vaccinations is similar across all VPDs. For the influenza vaccine, there are several barriers including not having access to free vaccinations in all provinces and territories, level of education and household income, living in rural areas, not having a family doctor, being born outside of Canada, and having a medical condition. Vaccinations against shingles and pneumococcal is also low amongst Canadians. Other reasons for not being vaccinated is individuals do not think it is necessary to get the shingle and pneumococcal vaccine, they have never heard of the vaccine, the doctor may not mention it or because of the cost of the vaccine.

There are numerous factors that affect the uptake of vaccines that require continued efforts to reach vaccine hesitant groups and promote vaccine uptake which are essential to protecting all Canadians against the disease.

Conclusion

Individuals with chronic lung diseases such as bronchopulmonary dysplasia, cystic fibrosis, asthma or chronic obstructive pulmonary diseases (COPD) are at increased risk of complications from influenza, pneumococcal, COVID-19, RSV and Herpes Zoster infection. It is important that we work towards improving vaccine acceptance and provide knowledge about vaccines to all Canadians with lung health conditions, including asthma while considering the impact the social determinants of health might have within this population group. When we look at the different VPDs we see the impact that social determinants of health have on individuals with asthma. Numerous factors affect the uptake of vaccines and vaccine hesitancy that require continued efforts to reach vaccine hesitant groups and promote vaccine uptake. It is important to work with individuals to understand their hesitancy in taking vaccines and working towards protecting all Canadians against these diseases.

This report has been produced by Asthma Canada to outline the problem on vaccine uptake in Canada with focus on asthma and chronic conditions post COVID. This report will be used to plan vaccine awareness and education for those living with ashma and chronic respiratory conditions while demonstrating the knowledge and understanding of cultural factors. As well as considering the social determinants of health and their impact on individuals with asthma or lung health conditions living on low incomes, those who are precariously housed or experiencing homelessness, individuals with

substance use disorders, people with chronic conditions or disabilities, newcomers, and members of the 2SLGBTQIA+ community.

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