

B R E A T H E
the lung association

R E S P I R E Z
l'association pulmonaire

CANADIAN LUNG ASSOCIATION'S STATEMENT FOR THE STANDING COMMITTEE ON HEALTH

Monday April 4, 2022

About The Canadian Lung Association

The Canadian Lung Association is the country's leading organization focused on helping Canadians breathe. We are working to improve lives, prevent lung disease and improve lung health through research, advocacy, education and support. As a non-profit and volunteer-based health charity, we depend on donations from the public to support our mission to lead nationwide and international lung health initiatives, prevent lung disease, help people manage lung disease and promote lung health.

Recommendation:

That the government identify a plan for research funding to ‘invest in the study of the long-term health impacts of COVID-19, including of long COVID on different groups, notably vulnerable populations and children’ as noted within government mandate letters.

Background

What is long COVID?

As we recover from the acute impacts of COVID-19, a new impact has begun to gain attention. Most people who develop COVID-19 resume a normal life about two weeks after their illness¹. However some individuals experience long-term symptoms including cognitive issues, such as brain fog, headaches, dizziness, anxiety, and/or persistent respiratory symptoms¹. These symptoms have been grouped together and called ‘long COVID’, or post-acute sequelae of SARS-CoV-2 (PASC), however the long-term impacts on lung health and support for management and/or treatment for those suffering largely remains unclear².

Most common long lasting symptoms include shortness of breath, fatigue, and cognitive challenges². These symptoms are not simply minor inconveniences. Many people experiencing long COVID describe them as ‘crushing’, ‘overwhelming’, ‘unmanageable’ and ‘unpredictable’².

Many of these patients may be experiencing symptoms that are challenging to explain. In fact a small pilot, which has since been expanded to a larger study, based out of the UK tested a new approach of using xenon gas to measure lung functioning³. In this pilot study, xenon gas mimicked oxygen in the lungs and demonstrated lung abnormalities amongst those suffering with long-lasting breathlessness from COVID. This was amongst individuals who had received normal CT scans and x-rays³.

Lingering symptoms of a viral infection are not completely new. In fact evidence of long term viral respiratory symptoms were first discovered with severe acute respiratory syndrome (SARS) where studies demonstrated the long-term impairment of exercise capacity and health status⁴. However, in Canada there were only 251 reported cases of SARS and so the number of impacted individuals was far less. As we move beyond the COVID pandemic the numbers are far more significant⁴.

Who is likely to experience long COVID

Generally there is a lack of data both in Canada and worldwide to give a clear proportion of how many people will be impacted by long COVID. This is owed in part to varying testing capacities and a lack of research on long COVID itself. Recent studies suggest anywhere from 10%-30% of individuals who had COVID-19 may experience long lasting symptoms^{5,6}. Some studies have indicated that as many as 1 in 2 people with lab confirmed infection demonstrate at least 1 persisting symptom².

As of April 2022, Canada has reported almost 3.5 million cases of COVID-19⁷. Using those figures, anywhere between 350,000 and 1,050,000 Canadians may experience symptoms of long COVID. However this does not capture individuals who were never tested or were probable COVID cases, and so may be higher.

A recent study of 6000 health care workers from Quebec in 2020-2021 estimated that 40% of those with COVID who were not hospitalized and 70% of those who were hospitalized had at least one lingering symptom⁷.

Likelihood of long-COVID:

Early indicators suggest that some individuals may be more likely than others to experience long-COVID. For example, rates appear to be higher amongst women over men. Other studies show a link between diabetes type 2 and appearance of symptoms as well as previous occurrence of Epstein Barr syndrome⁸. It does not appear that long COVID symptoms are linked to the severity of initial COVID symptoms⁸. The impact on children is unclear and additional research is needed in this area in particular⁹. More research is needed to create a more clear understanding of who may be more likely to experience longer lasting symptoms^{8,9}.

New and emerging evidence indicates that vaccination status may reduce the likelihood of long-COVID symptoms¹⁰. Given Canada's relatively strong vaccination rates this could be a promising finding, however this research is new and as such more is required in this area to understand more about associated risk factors.

Finally, there is an unequal experience of disease burden in Canada and worldwide. This has been the case with COVID-19 with some communities experiencing higher prevalence rates. It goes to reckon then that similar inequities could exist with the experience of long-COVID¹¹.

A limitation of many of these studies is that the human body is not a sterile environment. This means that variables such as treatment from initial COVID (ie. ventilator and/or steroid use) may be challenging to isolate for⁷. Additionally, issues like measuring increase in fatigue can be complicated to quantify objectively⁷.

As we look to recover from COVID-19, we must acknowledge the lasting impact. A full recovery requires significant dedicated funding to better understand how to diagnose, manage, and treat the symptoms associated with long COVID.

Joyce's Story

Joyce was 30 when she had a suspected case of COVID-19 in March 2020. Joyce, an entrepreneur, healthcare advocate and avid traveller, was abroad when she became sick.

While Joyce was not officially diagnosed with COVID-19 at the time due to limitations of tests, the symptoms she experienced were linked to COVID-19. Among her symptoms were extreme fatigue, dry cough, sore throat and chest pain. *"The chest pain was as if someone was sitting on my chest,"* Joyce shares.

While most of Joyce's symptoms faded quickly, the cough and chest pain persisted. After a few months of gradually worsening symptoms, Joyce sought help from her family doctor and was referred to a respirologist. Both have treated her case as suspected "long COVID." Joyce has gone through a series of tests, including a chest x-ray and pulmonary function tests to determine the cause of the chronic cough and chest pain.



"The most difficult part of this experience for me has been dealing with the uncertainty. It's hard not to think the worst when you have chest pain, and since so little is known about long COVID, it's been a journey to understand the cause of my symptoms and the prognosis."

Knowledge Gaps

Lung disease in Canada has long been underfunded and yet, now more than ever, an investment in lung health is critically important¹². Given the relatively novel manifestation of long COVID there exists a wide knowledge gap in terms of prevention, management, and treatment of long COVID symptoms.

There are a number of gaps in long COVID including, but not limited to: education and awareness raising through patient education, public awareness, as well as health care practitioner education; research into demographics, risk factors, and protective elements to long COVID; long lasting physiological changes to respiratory health and other body systems, and then management, support, and treatment options.

Service and support gaps

The UK is one of the countries leading a dedicated effort to investing in and supporting patients in COVID recovery^{13,14}. This effort includes resources, education, and support to manage and treat symptoms of long COVID^{13,14}.

In Canada, there is a need for coordinated national efforts to support those experiencing long COVID. In the face of a lack of evidence and options, private alternatives are beginning to emerge in North America, where organizations are seeing an opportunity to fill a need and demand¹⁵. Greater research could help establish whether these alternative options and treatments have a role in a holistic approach to addressing long COVID.

At the same time, anecdotal evidence is suggesting that the existing services and support for people with lung disease and other chronic diseases are being overburdened with new patients with long COVID seeking solutions.

What is happening in Canada?

In the 2021 Federal Election, the Liberal Government included within their platform, \$100 million in dedicated funding for long COVID. This intention was reinforced in the mandate letters of Ministers of Health and Science, Innovation, and Economic Development.

It is unclear to date how those funds will be released and the types of research and/or programming that will be included.

The Canadian Lung Association will continue to monitor as the 2022 Federal Budget is released on April 7 for indications of the continued commitment to funding long-COVID research.

Summary

As we move from pandemic to endemic, we must continue to invest in research to understand the longer lasting implications from COVID-19. There is a dearth of information on long-COVID to help guide healthcare decisions, patient education, as well as management and treatment options. Recovery from this pandemic requires addressing the potential chronic systems that will remain.

Currently long COVID is poorly defined both in terms of symptoms and patient profiles. The landscape of COVID and long COVID is ever evolving and requires responsive and progressive approaches to research and support. Other jurisdictions, such as the UK, offer some insight into the types of research and services that are required to recover from COVID. New research with respect to vaccines as a protective factor are promising and require further research.

The government acknowledged and demonstrated the need for further research on long-COVID, particularly amongst vulnerable populations. The Canadian Lung Association strongly encourages the government to fulfill this commitment to help Canadians better recover from the lasting impacts of this pandemic.

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