

BREATHTAKING MOMENTS BREATHGIVING RESEARCH

BREATHE
the lung association
2017/2018 Annual Report

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WHO WE ARE

WE ARE BREATHING LIFE INTO THE WORLD. Our commitment to Canada free of lung disease has never been stronger. We are Canada's oldest non-profit organization committed to the lung health of Canadians. Breathing—and the importance thereof—is the umbrella for all of our efforts in advocacy, research and education and it is what keeps our community of physicians, scientists, clinicians, educators, administrators, volunteers and donors so committed. The Canadian Lung Association is the leading organization in Canada working to promote lung health, while helping to prevent and manage lung disease. We do this by funding vital research, pushing for improved treatments, smarter policies, and supporting patients in managing their health.

When you donate to The Lung Association, you are donating towards better **education**, life-saving **research** and **advocacy** efforts that make Canada a better country to breathe in.

OUR VISION

All people free of lung disease.

OUR MISSION

To lead nationwide and international lung health initiatives; prevent lung disease; help people manage lung disease and promote lung health.

OUR HISTORY

LUNG STORY SHORT. It has been more than a century of progress, challenges and lifesaving research. The Lung Association was founded in 1900 as Canadian Association for the Prevention of Consumption and Other Forms of Tuberculosis.

We have accomplished a lot along the way. In our early years, we led the fight against tuberculosis and brought down this disease to manageable levels. We were among the first to attack smoking as the country's greatest preventable health risk. As a result, passengers now breathe easier on smoke-free trains, planes and buses; cigarettes carry graphic warnings and are poised to have plain and standardized packaging in the coming years; most tobacco advertising is banned; and smoking is prohibited in workplaces and outdoor spaces. We also achieved a landmark victory for breathers' rights with the passing of the Environmental Protection Act that regulated emissions from vehicles and engines. Despite all of the success thus far, we know that our mission is not yet finished. Tobacco remains the number one cause of preventable lung disease, majority of Canadians with asthma still do not know how to control their disease and COPD remains the number one reason for hospitalization in Canada, second only to childbirth. We have a long way to go yet, but our strong history, support of committed volunteers, donors and staff along with world-renown Canadian researchers put us in a favourable position to see a future free of lung disease.

This annual report is for the national office of the Canadian Lung Association. Provincial annual reports are available through individual provincial offices.

MESSAGE FROM THE CHAIR AND THE CEO



Anne Marie
Downey
Chairperson
National Board
of Directors



Terry
Dean
President and CEO
The Lung Association National

The Canadian Lung Association has a proud history. For more than a century, we have been fortunate to have been able to change the lives of many thanks to our committed volunteers, determined staff, generous donors and brilliant researchers. We have made significant achievements in public advocacy, education and research. However, our work is not finished.

We continue to review how we operate to ensure we honour our commitments to the many donors who give generously to support our mission priorities and the patients and caregivers who rely on us for support. To achieve a future free of lung disease, we recognize we must continue to evolve to remain a relevant and reliable

resource for Canadians. Thus, following the direction of our senior volunteer leaders, we are investigating a number of options, including changes to our governance structure and the implementation of a shared services model, to ensure we operate in a manner that best serves the needs of our stakeholders. We are confident that these changes, coupled with excellence in fundraising, will allow us to maintain our cherished position as Canada's lung health leader.

In fact, demonstrating the impact of donor dollars was one of the focal points of 2017 - 2018. During Lung Month, we released a five-year look at the amazing research we have funded across Canada. We are humbled by the life-changing ideas that our donor dollars have helped to advance. With nearly \$12 million invested in 300 projects over five years, we can confidently say that our donors have meaningfully advanced respiratory research in Canada, but more importantly, changed the lives of Canadians.

To ensure continued optimization of research funding, we are undertaking a review of our national research strategy and the work of the National Research Steering Committee. We are committed to ensuring we meet the needs of our researchers and the evolving world of respiratory research as a whole. Our commitment to creating strategic and impactful opportunities has never been stronger.

Yet another significant component needed to accomplish our mission is our work in public advocacy and policy. Last year was particularly significant in the field of tobacco control. Perhaps shockingly, tobacco remains the number one cause of preventable disease and death in Canada. It is for this reason that tobacco control remains one of our key priorities. We took on a leadership position within the Tobacco Endgame cabinet; continued our collaborative efforts to push for plain and standardized tobacco packaging regulations; and continue to advocate for a strong new federal tobacco strategy. We know all of this hard work will bear fruit in the coming year and positively affect generations of Canadians in years to come.

Our work over the past year has helped us strengthen the foundation for a stronger future. Our mission is to create a Canada where everyone can breathe freely and we believe that with our bold new brand, strengthened resolve and unwavering commitment to the lung health of Canadians, we will accomplish that. The year 2017-2018 was a challenging, exciting and busy year. We thank the researchers, staff, volunteers and donors who work diligently to drive us forward. Here is to a breathable future.

WHY WE MATTER

TOBACCO

Tobacco use is the #1 preventable cause of death and disease. Tobacco use remains the single greatest preventable cause of death and disease. Despite years of public education, smoke-free legislation, tax increases, advertising and sales restrictions and more, almost 5.4 million Canadians aged 15 and older (18 per cent) are still smoking. The Canadian Lung Association is calling for an Endgame on Tobacco where we see the lowering of tobacco use to less than 5 per cent by 2035.

COPD (CHRONIC OBSTRUCTIVE PULMONARY DISEASE)

COPD is the #1 avoidable cause of hospitalization in Canada. Chronic obstructive pulmonary disease (COPD) is the fourth leading killer of Canadians. It has a higher hospitalization rate and a higher hospital re-admission rate than heart failure, angina, and other serious chronic diseases; leaves some working-age people too sick to work, and costs billions of dollars a year nationally in medical bills and lost productivity. But the majority of Canadians don't know what COPD is, whether they're at risk, or how to get tested.

LUNG CANCER

Lung cancer kills more people than breast, colorectal and prostate cancer combined. Lung cancer is the number one cancer killer in Canada. Lung cancer is the most common cancer, accounting for 14 per cent of all cancers.² Smoking remains the main cause. Researchers have identified a number of other possible causes; the best known is second-hand smoke. Radon gas and asbestos exposure are also known causes. In addition, environmental pollution and genetic factors are believed to play a role.

plainpacks.ca/article/why-plain-and-standardized-packaging

www.cancer.ca/~/media/cancer.ca/CW/cancer%20information/cancer%20101/Canadian%20cancer%20 statistics/Canadian-Cancer-Statistics-2018-EN.pdf?la=en

ASTHMA

Asthma is a chronic (lifetime) disease that makes your lungs very sensitive and hard to breathe. About 2.4 million Canadians live with asthma.³ Asthma is the most common on-the-job lung disease, the third leading cause of lost work time, and the leading cause of school absenteeism and hospitalization for children. Though effective medication and treatment are available, many children and adults still do not effectively manage their asthma. In 2016, we coordinated a national survey on asthma management in Canada.

SLEEP APNEA

Statistics show that an estimated 5.4 million Canadian adults aged 18 years and older have been diagnosed with sleep apnea or are at high risk of sleep apnea.⁴ Obstructive sleep apnea is a serious breathing problem that interrupts one's sleep. Those affected stop breathing dozens or hundreds of times each night. Left untreated, the consequences can be life-threatening. People with sleep apnea are at a higher risk for heart attacks and strokes, high blood pressure, depression and memory loss; and they're seven times more likely to have a car crash.

AIR QUALITY

We breathe 22,000 times a day, passing 10,000 litres of air through our lungs, much of it containing air pollutants. Health Canada estimates that particle pollution, carbon dioxide and ozone combined kill 14,400 Canadians each year. This number doesn't include air pollution from other sources.⁵ Even so, convincing Canadians to take air pollution seriously is difficult, particularly if we rely on comparisons to cities and countries with even worse problems. Yet the evidence is clear: air pollution is an important public health issue, both in terms of the number of people affected and the range of diseases associated with it.

www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/health50a-eng.htm

⁴ www.ncbi.nlm.nih.gov/pmc/articles/PMC3938242/

publications.gc.ca/collections/collection_2018/sc-hc/H144-51-2017-eng.pdf

RESEARCH: FUNDING LIFE

BREATHING AS ONE AWARDS

Breathing As One—Boehringer Ingelheim COPD Catalyst Grant

In December 2017, Breathing As One awarded its second annual grants of this kind. The Breathing As One—Boehringer Ingelheim Canada COPD Catalyst Grant competition promotes innovative research related to the treatment/quality of life, mechanism of disease, and health care services for COPD. Catalyst grants are scalable research studies that can be pilot studies, feasibility studies, translational studies, and novel and innovative approaches. Funding for Breathing As One – Boehringer Ingelheim Canada COPD Catalyst Grant competition has been provided by Boehhringer Ingelheim Canada.

This year's awardees were:



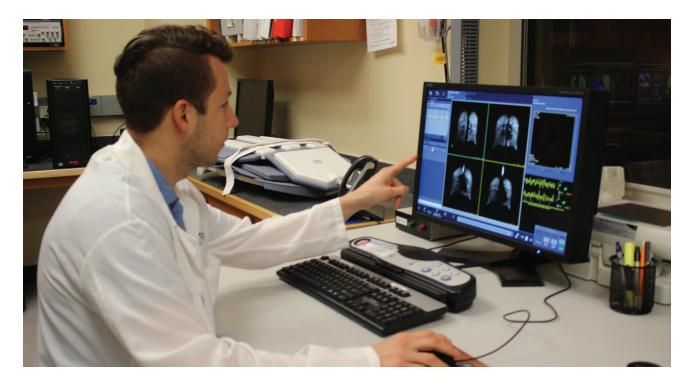
- Dr. Andrew Cave from the University of Alberta for his project, "Natural History of COPD in Primary Care: A National Retrospective Cohort Study"
 \$8,300
- Dr. Ma'en Obeidat from University of British Columbia Centre for Heart Lung Innovation, St. Paul's Hospital, for his project, "The Effect of Sex on Molecular Signatures in Lung Tissue from COPD Patients"
 \$21,700
- **Dr. Dennis Jensen** from McGill University, for his project, "Morphine: A Novel Intervention to Maximize the Benefits of Exercise Training in Adults with Chronic Obstructive Pulmonary Disease?" **\$30,000**

Breathing As One Inspiration Poster Award

Breathing As One hosted its first poster competition in spring 2017. We presented the inaugural Breathing As One Inspiration Poster Award during the Canadian Respiratory Conference in Montreal, following evaluation from a panel comprising a journalism, research and a patient experts.



This year's winner was Christopher Pascoe, PhD (Children's Hospital Research Institute of Manitoba) for his study "Intranasal Simvastatin Treatment Alters Eicosanoid Patterns in Allergen-Challenged Mice".



RESEARCH SUMMARY

The Canadian Lung Association has collectively funded a total of nearly \$2.3 million in research across Canada in 2017-2018 for one- and two-year projects (2017-2018; 2017-2019). The summary below shows the area of focus and the amount received.

Topic	# of projects	Total funding
Acute Lung Injury/ARDS	3	\$110,692.00
Air Quality	1	\$44,829.00
Asthma	10	\$389,821.00
COPD	10	\$295,517.90
Critical Illness	3	\$50,000.00
Cystic Fibrosis	3	\$120,000.00
Immunology	4	\$117,378.00
Infectious Diseases	3	\$71,500.00
Interstitial Lung Disease	1	\$10,676.00
Lung Cancer	3	\$36,698.00
Mechanical Ventilation/Biomechanics	1	\$46,321.00
Neonatal Lung Disease	3	\$90,000.00
Pulmonary Fibrosis	2	\$136,684.00
Pulmonary Hypertension	1	\$42,000.00
Sleep Disordered Breathing	2	\$80,000.00
Tobacco	2	\$61,350.00
Other	9	\$591,702.00
Total	61	\$2,295,168.90



RENASCENT: HELPING OUR RESEARCHERS GROW

The Canadian Lung Association takes pride in nurturing young talent. It is imperative that these researchers receive every opportunity to grow as researchers, as communicators and collaborators.

To this end, The Canadian Lung Association along with CRRN has co-developed RENASCENT (Respiratory National Scientist Core Education) training program that provides trainees and young investigators with opportunities to practice soft skills that complement their scientific acumen.

The RENASCENT Program has two components:

PRactical Education Program (PREP) and annual training workshops. The annual training workshops allow the trainees to improve their communication, grant writing and advocacy skills among others. Preceding Canadian Respiratory Conference 2017, RENASCENT hosted a series of workshops. These were well-received and well-attended.

The workshops addressed the following issues:

- Grant writing
- Communicating research to the media
- Communicating research to health policy makers

The workshops were well-received by the participants.

ADVOCACY: HELPING CANADA BREATHE BETTER

The Canadian Lung Association continues to be a leader in protecting Canadians' breathing. The Association is active in a number of advocacy areas on a federal level. During 2016, The Canadian Lung Association formed a partnership with two other leading organizations to address tobacco, which remains the number one cause of preventable lung disease.

PLAIN AND STANDARDIZED TOBACCO PACKAGING

The Canadian Lung Association has been actively advocating on behalf of Canadians to bring plain and standardized tobacco packaging to Canada. The concept would eliminate all marketing features, including shape, size and colour, and ensure that all tobacco products have consistent, bland colouring and packaging. The efforts on this front came to fruition on June 22, 2018 with the federal government's announcement of strong plain and standardized tobacco packaging regulations. The proposed regulations are strongest in the world, placing Canada once again as a global leader in tobacco control and cessation.

TOBACCO ENDGAME

The Canadian Lung Association recently took on the role of an administrator for the Tobacco Endgame Cabinet. Along with others, we have worked diligently to reduce smoking rates in Canada. Previous regulations, including implementation of graphic health warnings on tobacco packages, taxation increase on tobacco packages and improving access to cessation medication, have had a tremendous impact on reducing smoking rates in Canada to 18 per cent. The Canadian Lung Association has pledged to complement its current efforts and work diligently to lead and support the Endgame goal by continuing to provide accurate and pivotal lung health information to Canadians and healthcare professionals, working with decision-makers to affect legislative change, and fund and share today's most innovative research in lung health.

The efforts of this committed group that comprises the Tobacco Endgame Cabinet resulted in a stronger Federal Tobacco Strategy, released in May 2018. It expresses its commitment to meet the Endgame's goal of "less than 5 by 35," which refers to decreasing current percentage of those who smoke from 18 per cent to 5 per cent by 2035.

In addition to its advocacy efforts to the goal above, the Cabinet committed to exploring the impact of vaping products on the lung health of Canadians and advocating for stronger regulations of such products to be expressed in Bill S5.

CANNABIS

Throughout the year, we worked diligently to ensure that planned legalization of cannabis takes into consideration several preventative regulations, such as limiting exposure of products to youth and health information campaigns. Furthermore, we continue to advocate for more research dedicated to long-term lung health effects of cannabis usage.

Unfortunately, many questions in regards to the potential impact of cannabis remain unanswered. This is why cannabis will continue to be a topic of priority to us to ensure Canadians' lung health remains top of mind.



HEALTH CHARITIES COALITION OF CANADA COLLABORATION PharmaCare in Canada

Drug costs are increasing in Canada and Canadians with lung disease are struggling to pay for life-saving drugs. We believe that all people living in Canada should have equitable and timely access to necessary prescription medications based on the best possible health outcomes rather than the ability to pay. As a member of HCCC we advocate for the federal government to address pharmacare in Canada.

COMMUNICATIONS: SHARING KNOWLEDGE WITH CANADA

LUNG MONTH: WHY DOES RESEARCH MATTER?

This year, The Canadian Lung Association welcomed Lung Month as an opportunity to provide a transparent and engaging look at the research and researchers that were funded by our donors. The core theme was "Why Research Matters." This encapsulated celebrating, highlighting and explaining current research. We have taken a fulsome approach to tell the collective story through visuals, videos, figures and interviews. Lung Month 2017 was an investment into Canadian conversations. It was an investment into growing our impact. It was an investment into nurturing our relationships with our stakeholders—researchers, volunteers and donors. Our interactive bilingual microsite anchored the campaign and served as a well of content for external communications.

Microsite

Our research report microsite www.lung.ca/research (www.poumon.ca/recherche) provided complementary visual, narrative and financial elements that appealed to a wide range of Canadians. The English microsite and the research impact shared within resulted in a significant increase in research-related page views. In fact, a data comparison of www. lung.ca from November 2016 showed that the microsite led to a 40 per cent increase in total page views and nearly a 60 per cent increase when compared to October 2017.

The top elements included within the microsite were:

- Video stories of select researchers who are global leaders in the field.
- Video stories of select patients who participated in clinical trials.
- Written stories about select researchers.
- Comprehensive database of all funded projects

Social Media

As stated above, many of the elements used to push our campaign forward were largely drawn from the microsite. However, each element was adjusted to fit the selected platform. Our focus was divided between Twitter and Facebook, complemented by YouTube.

- Video stories of select researchers who are global leaders in the field
- Video stories of select patients who participated in clinical trials
- Graphic representation of financial data represented within the database

Media

In addition to organic support garnered from our social media audiences, we also reached out to Canadians through traditional media. This resulted in a great number of impressions and reach to an audience that might have otherwise gone unappreciated.

News Release

• Our news release (EN/FR) was distributed nationally as well as posted on www.lung.ca

Matte Stories

 We released a collection of four complementary stories (EN/FR) that focused on several key topics in lung health (air pollution; asthma and exercise; flu, cold and pneumonia; importance of deep breaths. These evergreen topics were shared by 45 publications, with a total reach of 3.3 million Canadians.



PATIENT ENGAGEMENT: WHY DO OUR PATIENTS MATTER?

We are in the process of developing a comprehensive patient engagement strategy. Going forward, this will involve a variety of projects and means of engagement. The aforementioned strategy builds upon our patient engagement workshop held in 2016. The overall goal is to build relationships with our patients across Canada and—ultimately—groom them into collaborators, advocates and ambassadors.

Workshop overview

We have identified an opportunity that would ensure that our patient representatives have the proper training to be the voice of patients in national and local media efforts as well as with decision-makers.

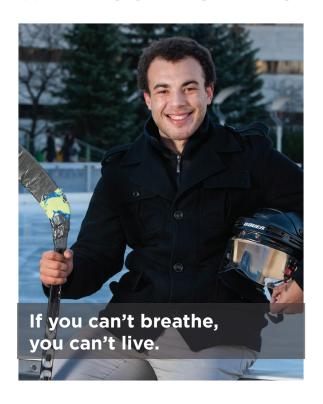
In December 2017, we held a one-day workshop for five lung disease patients from across Canada. The provincial lung association representatives selected each of the patients. We ensured that these patients represented a variety of diseases, a range of ages and geographical locations to show the true impact of lung disease in Canada. This workshop was funded by Roche Canada.

The basic media training workshop included interview tips, key message development exercises and mock interviews.

Comments from the participants:

- Thank you for putting on such a wonderful event. It was informative and something
 that is very near and dear to my heart. I appreciate everything you all have done for
 lung health.
- I found the day to be very informative and I believe I came away with a much better understanding of how to approach interaction with the media and look forward to further opportunities to practice what I learned.
- Thank you very much for the opportunity to attend this workshop. It was a greatly appreciated and valuable resource to me.

PATIENT PROFILE: WHY YOUR DONATIONS MATTER



Lung disease doesn't pick and choose. Lung disease can—and does—affect anyone. Asthma is one such disease. Despite its prevalence, there is still a shocking number of misconceptions about those have it.

One of these misconceptions, in part supported by the results of an Asthma Control survey published by The Canadian Lung Association in 2016, is that asthma prevents its sufferers from exercise and activity. However, this does not have to be the case.

Kyle Clarke is an athlete, a coach and a leader in his community in the Greater Toronto Area. He is 21 years old and at the top of his game in hockey. He also has asthma.

"I live with asthma. I'm playing hockey—currently the captain of my team," the North York Rangers captain opens up.

"It's still a struggle but it's something I've learned to manage and not let it control me, but I control it. Some days are better than others but for the most part, I would say I live a normal active life that I was afraid I might never get to but (I can) through the help of The Lung Association and the great doctors I've had," he adds.

As Kyle explains, he has met with a number of misconceptions as an athlete with asthma. "Many people think you can just work through it or it will go away if you just sit it out." He explains that pushing kids with asthma beyond their capacity is not the kind of encouragement that some coaches may believe it to be. Rather, it worsens the situation.

However, that does not mean that asthma should put athletes-to-be on the sidelines. He speaks of the happy medium of recognizing asthma as a disease and enabling those who have asthma to participate in physical activity and exercise.

"There's a fine line between coddling (people with asthma) and pushing them beyond their limits."

Overall, Kyle says, he lives a healthy life and overcomes the misconceptions that are associated with lung disease. While he has recalled a number of scary moments when asthma took his breath away, he is committed to living an active life on and off the ice. His asthma is under control and his hockey game is strong. After all, he is more than his disease. "People need to change the way they think about lung diseases in general," he encourages.

Kyle's complete story will be showcased along with a number of others during next year's campaign.

SPONSORS & SUPPORT

NATIONAL CORPORATE SPONSORS

- Roche Canada
- Trudell Medical International
- GlaxoSmithKline (GSK)

BREATHING AS ONE NATIONAL CORPORATE SUPPORTERS

- Boehringer Ingelheim
- ProResp Inc.

ALLIANCES

We are proud to work with the following organizations and coalitions:

- Alpha-1 Canada
- Asthma Society of Canada
- Canadian Cancer Society
- Canadian Council for Action on Tobacco
- Canadian Institutes of Health Research
- Canadian Thoracic Society
- David Suzuki Foundation
- Global Lung Cancer Coalition
- Health Canada
- Health Charities Coalition of Canada
- HealthPartners
- Heart and Stroke
- Pulmonary Hypertension Association of Canada
- Quality End-of-Life Care Coalition of Canada
- Take Action on Radon

Thank you.

Together, we can all help

Canadians breathe easier.

FINANCIAL STATEMENTS

Fiscal Year April 1, 2017 to March 31, 2018

Statement of Operations				В	reathing	2018	2017
B		General Fund	Research Fund	C	As One ampaign	Total	Total
Provincial assessments Program and project contracts Sponsorship Donations, bequests & memorials Membership Endorsements Sale of materials Campaign donations Interest and investment income	\$	785,734 27,649 59,209 146,423 — 20,000 — — 25,905	\$ 500,000 51,987 43,526 — — — — — — 30,334	\$	- - - - - - 114,980	\$ 1,285,734 79,636 102,735 146,423 — 20,000 — 114,980 56,392	\$ 1,288,360 114,100 27,879 98,988 — 20,000 — 263,160 116,497
	1	064,920	625,847		115,133	1,805,900	1,928,984
Expenses (Schedules) Admin allocation Advertising and promotion Consultants Meetings and travel Other operating expenses Office rentals and leases Professional fees Research grants and awards Salary		(80,179) 9,878 23,409 125,538 127,049 59,036 242,314 - 526,101 1,033,146	80,179 9,138 31,919 31,173 25,294 422 - 441,455 182,794 802,374		- 15,607 468 3,999 8,997 - - 55,450 7,796 92,317	34,623 55,796 160,710 161,340 59,458 242,314 496,905 716,691 1,927,837	53,213 323,628 197,964 204,426 91,552 126,309 368,887 1,331,826 2,697,805
Excess (deficiency) of revenue over expenses before unrealized items		31,774	(176,527)		22,816	(121,937)	(768,821)
Unrealized gain (loss) on investments		(11,695)	(16,150)		_	(27,845)	(9,610)
Excess (deficiency) of revenue over expenses for the year		20,079	\$ (192,667)	\$	22,816	\$ (149,782)	<u>\$ (778,431)</u>

The condensed financial information above has been extracted from the 2017 Audited Financial Statements. The complete Audited Financial Statements, including the independent report of auditors Collins Barrow Ottawa LLP, as well as notes and more detailed financial information, are available on our website.

2017/2018 BOARD OF DIRECTORS



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