

## National Respiratory Research Workshop – November 2009 Executive Summary

The Lung Association works at the national, provincial and community levels to improve and promote lung health. The Canadian Thoracic Society (CTS), the medical arm of the Lung Association, has a mission to collaborate and support the respiratory community by providing leadership, research, education and advocacy. In November 2009, the Canadian Lung Association (CLA)/ Canadian Thoracic Society convened a national workshop to consult and collaborate with a wide-range of stakeholder groups in order to strengthen its research program by creating a strong National Respiratory Research Agenda. It was concluded that the future of successful respiratory research lies in establishing an effective agenda that promotes capacity for collaborative research, translational research, excellence in training of clinical and basic science researchers, and strong support for researchers at all career levels. Moreover, to attain this objective, immediate strategic planning to establish and implement a National Research Plan, with leadership from CLA/CTS, is essential. The following points support these conclusions.

### **Respiratory illnesses are a leading cause of hospitalization in Canada.**

Respiratory diseases affect all ages and segments of the Canadian population and can have a major impact on the individual patient, the community and the health care system. In 2008, respiratory illnesses were a leading cause of hospitalization. Over six million Canadians — 1 in 5 — suffers from a respiratory disease. The most common ones that affect Canadians are asthma, chronic obstructive pulmonary disease (COPD), lung cancer, sleep apnea, cystic fibrosis, and tuberculosis. Because comparable national data are unavailable for other conditions, such as influenza, pneumonia, bronchiolitis, RDS, pulmonary fibrosis, etc., the total number affected by respiratory disease is estimated to be much higher.

Statistics Canada and Canadian Institute of Health Information (CIHI) report that COPD accounts for the highest rate of hospitalization amongst major chronic conditions in Canada. More people are admitted to hospitals with COPD exacerbations or 'lung attacks' than heart attacks, and that the number has been increasing dramatically over the years. In the CIHI report, 18% of COPD patients were readmitted once within the year and 14% were admitted at least twice within the year. These numbers are far greater than angina, heart failure, diabetes, or hypertension. For example, only 7% of patients with hypertension were readmitted once that year and only 2% were admitted at least twice within the year<sup>1</sup>.

### **Respiratory research is grossly underfunded.**

Given the burden of lung disease, respiratory research in Canada is grossly underfunded. While respiratory research conducted in Canada is of high quality, available funding is considerably below the commensurate cost of respiratory disease to the economy. Researchers in the field have been doing more with less for quite some time. For instance, while lung disease accounts for 6.5% of total health care costs, monies for research in this area represent just 3.9% of the \$4.3 billion for health research that has been funded by the federal government since 1999<sup>2</sup>. Canada has a wealth of respiratory research talent; an investment in our researchers to create supportive settings that includes sustained funding, a stable infrastructure/platform, and support at all levels of their career would result in development of a track to meet the growing demands of respiratory disease and ensure significant advances to healthcare. To develop and support a robust, competent, innovative and well-funded research community, it is important for all stakeholders to work more collaboratively with funding agencies such as the Canadian Institutes for Health Research (CIHR), the CLA and CTS, other national and provincial non-government charitable organizations, and federal and provincial government health departments.

<sup>1</sup> Health Indicators 2008. Canadian Institute of Health Information. Page 21.  
[http://secure.cihi.ca/cihiweb/products/HealthIndicators2008\\_ENGweb.pdf](http://secure.cihi.ca/cihiweb/products/HealthIndicators2008_ENGweb.pdf)

<sup>2</sup> The 6.5% figure excludes lung cancer and tuberculosis, as the indirect costs associated with short and long-term disability are not available. Therefore this figure could be, and is likely to be, higher than noted.

**There is a need for a bold National Respiratory Research Plan.**

From recent experience in the United Kingdom we have learned that a single integrated approach to medical research can effectively build capacity and stimulate funding. Multidisciplinary strategic teams, working with partners, have successfully narrowed the gap between discovery and delivery, and have enabled respiratory researchers to fulfill an effective research agenda.

**Research saves lives.** Medically supervised exercise programs have been proven to reduce respiratory symptoms, decrease the number of hospitalizations and improve the quality of life for people with COPD<sup>3</sup>. **Research saves money.** Research demonstrates that a targeted intervention that provides appropriate medication and education for patients with persistent asthma cut costs per patient in half for hospitalization, emergency room visits, and physician office visits.<sup>4</sup> **Research builds excellence.** By supporting the best ideas and brightest minds and maintaining Canada's competitiveness in today's knowledge economy; and a well-trained base of investigators with the skills and expertise to design thoughtful and innovative proposals aimed at improving health<sup>5</sup>.

Partnerships, networking and effective communication, such as regular newsletters and website that connect researchers, are powerful strategies to create innovative tools and a positive culture that supports collaborative research, and promotes initiatives that highlight the impact and successes of respiratory research leading to greater public awareness.

If Canada is to stem this impending crisis, there is an urgent need to establish and implement a bold National Respiratory Research Plan. Creating new provincial and regional research support structures, increasing funding through successful application processes, raising public awareness of lung health, increasing training and mentorship programs, and taking advantage of partnership opportunities are all ways in which a strong National Respiratory Research Agenda can be built and maintained.

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<sup>3</sup> Halpern, M.T. et al. Respiratory Medicine 2003.97/Supplement CI: S81-S89.

<sup>4</sup> American Journal of Managed Care. 7(9):897-906. 2001 (www.AJMC.com)

<sup>5</sup> CIHR – Health Research Roadmap: Creating innovative research for better health and health care 2009