# Smoking and Second-Hand Smoke Exposure: Ottawa Residents and Workers Still at Risk

### The Bad News about Smoking and Second-Hand Smoke in Ottawa:

- There is no safe level of exposure to second-hand smoke, even outdoors.<sup>1</sup>
- 19% of Ottawa residents are regularly exposed to second-hand smoke in public places.<sup>2</sup>
- Tobacco use is the leading cause of preventable death and disability.<sup>3</sup>
- Heart disease and lung cancer are the leading causes of death.<sup>4</sup>
- 15% of Ottawa residents smoke.<sup>5</sup>

Even occasional and brief exposure to second-hand smoke can cause immediate lung inflammation, acute cardiac events, and damage to blood vessels that can trigger a heart attack, stroke or aneurysm.<sup>6</sup>

#### **Lung Cancer:**

- Number one cause of cancer deaths in men and women.<sup>7</sup>
- 85% of lung cancer cases are caused by smoking.<sup>8</sup>
- Non-smokers exposed to second-hand smoke have a 20-30% increased risk of developing lung cancer.<sup>9</sup>
- Lung cancer in men and women has one of the lowest cancer survival rates.<sup>10</sup>

#### **Asthma:**

- **85,500** people over the age of 12 have asthma. 11
- Hospitalization rates are highest in children 1-4 years of age.<sup>12</sup>
- Accounts for more than 50,000 general practitioner and family physician visits and 4,600 emergency department visits per year in Eastern Ontario.<sup>13</sup>
- 1 in 3 Ontarians is at risk of developing asthma. 14
- The prevalence of asthma in Canada has increased over the past 20 years.<sup>15</sup>

## **Chronic Obstructive Pulmonary Disease:**

- 17,500 people have COPD. 16
- Number one reason for repeated emergency room visits and hospital admissions at the Queensway Carleton Hospital.<sup>17</sup>
- Accounts for 24,000 general practitioner and family physician visits; 7,000 emergency department visits; 2,300 hospitalizations, and 300 deaths per year in Eastern Ontario.<sup>18</sup>
- Caused mainly by smoking. Exposure to second-hand smoke and childhood respiratory infections are also risk factors.<sup>19, 20</sup>
- 1 in 4 Ontarians is at risk of developing COPD.<sup>21</sup>

#### **Heart Disease:**

- 26,600 people have heart disease.<sup>22</sup>
- Leading cause of death for men and women.<sup>23</sup>
- Individuals exposed to second-hand smoke have a 25-30% increased risk of developing heart disease.<sup>24</sup>

## Side Effects on Local Taxpayers' Wallets:

- Cost of treating a 10-day hospitalization for a COPD flare-up: \$10,000.<sup>25</sup>
- Annual cost of treating Ottawa residents hospitalized for diseases related to smoking and exposure to second-hand smoke: \$40 million.<sup>26</sup>
- Annual cost of treating cardiovascular disease in Ontario: \$7.6 billion.<sup>27</sup>
- Annual health care costs associated with tobacco use in Ontario: \$1.6 billion.<sup>28</sup>
- Annual economic cost of tobacco use in Ontario: \$6.1 billion.<sup>29</sup>
- Cost of implementing the Renewed Strategy for a Smoke-Free Ottawa: \$0.30
   Funds will be reallocated from current tobacco control funding sources:

City of Ottawa: \$265,000<sup>31</sup>

Province of Ontario: \$1.8 million.<sup>32</sup>

1,000 Ottawa residents die each year from illnesses related to smoking and exposure to second-hand smoke.<sup>33</sup>

# And the Great News for Ottawa Residents and the Local Economy:

Smoke-free workplaces reduce the incidence of heart attacks by 45% and the incidence of sudden cardiac death by 50%. 34, 35

- Healthy living strategies, including smoking cessation, would prevent:
  - 90% of lung cancers<sup>36</sup>
  - 30% of all other cancers<sup>37</sup>
  - 80% of heart disease<sup>38</sup>
  - 80% of strokes.<sup>39</sup>
- COPD is preventable.<sup>40</sup>
- 70% of smokers want to quit.<sup>41</sup>
- Smoke-free spaces help smokers to quit and stay smoke-free!<sup>42</sup>

#### **REFERENCES**

<sup>1</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. *Exposure to Tobacco Smoke Causes Immediate Damage, says New Surgeon General's Report*, News Release, December 9, 2010.

www.hhs.gov/news/press/2010pres/12/20101209a.html

- <sup>2</sup> Ottawa Public Health. *Ottawa Public Health Releases Let's Clear the Air A Renewed Strategy for a Smoke-Free Ottawa*. News Release, January 30, 2012. <a href="http://ottawahealth.tumblr.com/post/16758131076/ottawa-public-health-releases-lets-clear-the-air-a">http://ottawahealth.tumblr.com/post/16758131076/ottawa-public-health-releases-lets-clear-the-air-a</a>
- <sup>3</sup> Champlain Cardiovascular Disease Prevention Network. Annual Report 2010-2011. University of Ottawa Heart Institute, Ottawa, 2011, p. 16. www.ccpnetwork.ca/documents/FINALCCPNAR10-11\_000.pdf
- <sup>4</sup> Ottawa Public Health. *Mortality and Morbidity 2012*. p.33.
- <sup>5</sup> Ottawa Public Health. *Ottawa Public Health Releases* Let's Clear the Air A Renewed Strategy for a Smoke-Free Ottawa. News Release, January 30, 2012. <a href="http://ottawahealth.tumblr.com/post/16758131076/ottawa-public-health-releases-lets-clear-the-air-a">http://ottawahealth.tumblr.com/post/16758131076/ottawa-public-health-releases-lets-clear-the-air-a</a>
- <sup>6</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. *Exposure to Tobacco Smoke Causes Immediate Damage, says New Surgeon General's Report*, News Release, December 9, 2010.

www.hhs.gov/news/press/2010pres/12/20101209a.html

- <sup>8</sup> Health Canada. *Lung Cancer*. <u>www.hc-sc.gc.ca/hc-ps/tobac-tabac/body-corps/disease-maladie/lung-poumon-eng.php</u>
- <sup>9</sup> U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General—Executive Summary.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006. p. 13.

www.surgeongeneral.gov/library/secondhandsmoke/report/executivesummary.pdf

- <sup>10</sup> Canadian Cancer Society. Media backgrounder: Canadian Cancer Statistics 2011. <u>www.cancer.ca/Canada-wide/About%20us/Media%20centre/CW-Media%20releases/CW-2011/Backgrounder%20Canadian%20Cancer%20Statistics%20at%20a%20glance.aspx?sc\_lang=en</u>
- <sup>11</sup> Ottawa Public Health. *Mortality and Morbidity* 2012, p. 7.

- <sup>13</sup> Champlain Local Health Integration Network. Champlain Health Partners Strengthen Lung Health Services, Build Public Awareness, News Release, April 15, 2009.
- www.champlainlhin.on.ca/WorkArea/showcontent.aspx?id =3050
- <sup>14</sup> To T, Wang C, Guan J, McLimont S, and Gershon AS. What Is the Lifetime Risk of Physician-diagnosed Asthma in Ontario, Canada? The American Journal of Respiratory and Critical Care Medicine 2010; 181: 337-43.
  <a href="https://www.ncbi.nlm.nih.gov/pubmed?term=What%20Is%20the">www.ncbi.nlm.nih.gov/pubmed?term=What%20Is%20the</a>
  %20Lifetime%20Risk%20of%20Physician-diagnosed%20Asthma%20in%20Ontario%2C%20Canada
  a%3F
- <sup>15</sup> Asthma Society of Canada. Asthma Facts and Statistics.

http://www.asthma.ca/corp/newsroom/pdf/asthmastats.pdf

- <sup>17</sup> Champlain Local Health Integration Network. Champlain Health Partners Strengthen Lung Health Services, Build Public Awareness, News Release, April 15, 2009.
- www.champlainlhin.on.ca/WorkArea/showcontent.aspx?id =3050

- <sup>19</sup> Gershon, AS et al. *Lifetime risk of developing chronic obstructive pulmonary disease: a longitudinal population study.* The Lancet. 10 September 2011. Vol 378, Issue 9795:991-996.
- www.thelancet.com/journals/lancet/article/PIIS0140-6736%2811%2960990-2/abstract

- <sup>21</sup> Institute for Clinical Evaluative Sciences. *One in 4 Ontarians will be diagnosed with COPD*, News Release, September 8, 2011.
- $\frac{www.ices.on.ca/webpage.cfm?site\_id=1\&org\_id=117\&mo}{rg\_id=0\&gsec\_id=3086\&item\_id=6914\&utility\_link\_id=308}{\underline{6}}$

<sup>&</sup>lt;sup>7</sup> Ottawa Public Health. Cancer in Ottawa 2012. p. 11.

<sup>&</sup>lt;sup>12</sup> Ibid, p. 69.

<sup>&</sup>lt;sup>16</sup> Ottawa Public Health. *Mortality and Morbidity* 2012, p.7.

<sup>&</sup>lt;sup>18</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> Ibid.

<sup>22</sup> Ottawa Public Health. Mortality and Morbidity 2012, p.2.

<sup>24</sup> U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General—Executive Summary. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006. p. 13.

www.surgeongeneral.gov/library/secondhandsmoke/report/executivesummary.pdf

- <sup>25</sup> Mittmann, N. et al. *The cost of moderate and severe COPD exacerbations to the Canadian healthcare system.* Respiratory Medicine 2008;102:413-421.
- Ottawa Public Health. Report to Board of Health. Let's Clear the Air. A Renewed Strategy for a Smoke-Free Ottawa. February 6, 2012, p. 4. <a href="http://www.ottawa.ca/calendar/ottawa/citycouncil/obh/2012/02-06/Smoke">http://www.ottawa.ca/calendar/ottawa/citycouncil/obh/2012/02-06/Smoke</a> free Ottawa EN.htm
- <sup>27</sup> Champlain Cardiovascular Disease Prevention Network. Annual Report 2010-2011. University of Ottawa Heart Institute, Ottawa, 2011, p. 3.
  <u>www.ccpnetwork.ca/documents/FINALCCPNAR10-11\_000.pdf</u>
- <sup>28</sup> Ontario Medical Association, *More Smokers in Ontario Today than in 1960s: Ontario's doctors*, News Release, April 20, 2010.

www.oma.org/Mediaroom/PressReleases/Pages/MoreSmokersTodaythan1960s.aspx

<sup>30</sup> Ottawa Public Health. Report to the Board of Health. Let's Clear the Air. A Renewed Strategy for a Smoke-Free Ottawa. February 6, 2012, p. 30. <a href="https://www.ottawa.ca/calendar/ottawa/citycouncil/obh/2012/02-06/Smoke free Ottawa EN.htm">www.ottawa.ca/calendar/ottawa/citycouncil/obh/2012/02-06/Smoke free Ottawa EN.htm</a>

- <sup>34</sup> Hurt, RD et al. *Myocardial Infarction and Sudden Cardiac Death in Olmsted County, Minnesota, Before and After Smoke-Free Workplace Laws*. Presented to the American Heart Association Scientific Sessions. Orlando, November 14, 2011.

  <a href="https://www.circ.ahajournals.org/cgi/content/meeting\_abstract/12">www.circ.ahajournals.org/cgi/content/meeting\_abstract/12</a>

  4/21 MeetingAbstracts/A16722?sid=9c4b8bb4-0a61-
- <sup>35</sup> Mayo Clinic News Bureau. *Mayo Clinic study confirms smoke-free workplaces reduce heart attacks*, News Release, November 14, 2011. <a href="https://www.eurekalert.org/pub\_releases/2011-11/mc-mcs111411.php">www.eurekalert.org/pub\_releases/2011-11/mc-mcs111411.php</a>

4a94-9e8c-885be42a6750

- <sup>36</sup> Ontario Ministry of Health and Long-Term Care. Preventing and Managing Chronic Disease: Ontario's Framework. Toronto, May 2007, p. 4. <a href="https://www.health.gov.on.ca/english/providers/program/cdpm/pdf/framework\_full.pdf">www.health.gov.on.ca/english/providers/program/cdpm/pdf/framework\_full.pdf</a>
  <sup>37</sup> Ibid.
- <sup>38</sup> Champlain Cardiovascular Disease Prevention Network. Annual Report 2010-2011. University of Ottawa Heart Institute, Ottawa, p. 2.
  <u>www.ccpnetwork.ca/documents/FINALCCPNAR10-11\_000.pdf</u>
- <sup>39</sup> Champlain Cardiovascular Prevention Stroke Network. Stroke Prevention.
  <u>www.champlainstrokecentre.org/index.php?option=com\_c</u>
  <u>ontent&view=article&id=18&Itemid=55</u>
- World Health Organization. Chronic Obstructive Pulmonary Disease. Fact sheet No. 315. November 2011. = <a href="http://www.who.int/mediacentre/factsheets/fs315/en/inde">http://www.who.int/mediacentre/factsheets/fs315/en/inde</a> x.html
- <sup>41</sup> Dr. Terry Pechacek. *A Cup of Health with CDC: Quit for Your Family's Sake*. U.S. Centers for Disease Control and Prevention Podcast.. November 2008. www2c.cdc.gov/podcasts/player.asp?f=10294
- <sup>42</sup> U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General.*Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

www.cdc.gov/tobacco/data\_statistics/sgr/sgr\_2006/index.htm.

<sup>&</sup>lt;sup>23</sup> Ibid.

<sup>&</sup>lt;sup>29</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>&</sup>lt;sup>33</sup> Ottawa Public Health. *Ottawa Public Health Releases* Let's Clear the Air – A Renewed Strategy for a Smoke-Free Ottawa. News Release, January 30, 2012. <a href="http://ottawahealth.tumblr.com/post/16758131076/ottawa-public-health-releases-lets-clear-the-air-a">http://ottawahealth.tumblr.com/post/16758131076/ottawa-public-health-releases-lets-clear-the-air-a</a>