

# FAST FACTS ABOUT ASTHMA

## DATA COMPILED FROM THE 2011 SURVEY ON LIVING WITH CHRONIC DISEASES IN CANADA

Asthma is a chronic condition characterized by cough, shortness of breath, chest tightness and wheezing. Asthma symptoms and attacks usually occur after exercise, exposure to allergens or irritants or viral respiratory infections.<sup>1</sup> Risk factors for asthma include: family history of allergies; high exposure to airborne allergens (pets, house dust mites, cockroaches, mould); frequent respiratory infections early in life; exposure to airborne irritants (such as tobacco smoke, chemicals and outdoor air pollution); and low birth weight and respiratory distress syndrome (RDS).<sup>2</sup>

In 2009–10, more than 2.4 million (8.4%) Canadians aged 12 years and over were living with asthma (9.8% of females and 7.0% of males). While there are many effective approaches to asthma including clinical management, medication and self-care, optimal control of the condition remains elusive for a majority of Canadians living with asthma.

The Public Health Agency of Canada (the Agency) developed the 2011 **Survey on Living with Chronic Diseases in Canada (SLCDC)**, which provides current information on how asthma affects Canadians. This survey, conducted by Statistics Canada, interviewed a nationally-representative sample of approximately 2,500 Canadians aged 12 years and older who reported having been diagnosed with asthma. Individuals experiencing both asthma and chronic obstructive pulmonary disease were excluded.

## HOW DOES ASTHMA AFFECT CANADIANS?

For the purpose of this fact sheet, we have focused on the subset of individuals with “active” asthma including only those who have had asthma symptoms or used asthma medications in the past 12 months. In 2009–10, more than 1.8 million Canadians were living with active asthma.

Only one in three (34.4%) had their asthma well-controlled.

- Canadians under the age of 65 years, people with total household incomes below \$80,000, and people living outside of an urban core were less likely to have their asthma well controlled. Current smokers and people with high blood pressure were also less likely to have their asthma controlled.

**TABLE 1:** Indicators of poorly controlled asthma.

<b>DEFINITION: “poorly controlled” asthma is defined as having at least one of the following indicators</b>	<b>PERCENT OF ACTIVE ASTHMA RESPONDENTS</b>
Experienced asthma symptoms $\geq 4$ days per week on average.	21.9
Experienced asthma symptoms $\geq 1$ night per week on average.	47.0
$>1$ of their usual activities is limited a lot by their asthma.	22.4
Using their reliever medication $\geq 4$ days per week on average.	17.3
$\geq 1$ visit to a hospital emergency room because of their condition in the last 12 months.	11.1
$>1$ overnight stay in hospital because of their condition.	2.8
<b>Poorly controlled asthma: any of the above</b>	<b>65.6</b>



**TABLE 2:** Common triggers of asthma symptoms in Canada.

TOP TEN ASTHMA TRIGGERS REPORTED	PERCENT
1. Colds or chest infections	74.1
2. Dust	68.1
3. Tobacco smoke	63.8
4. Exercise/physical activity	63.7
5. Cold air	57.5
6. Pollen	55.3
7. Mould or mildew	51.4
8. Dampness or humidity	50.2
9. Furry or feathered pets (for example, cats, dogs, rabbits, birds)	49.1
10. Outdoor air pollution	46.1

Each of the following triggers were reported by 43% or fewer of respondents: change in temperature or weather, chemical fumes or gases (e.g., gasoline, paint or cleaners), perfumes or colognes, fumes from a wood stove or wood furnace, feathers in items such as pillows, quilts or duvets, laughing or crying, stress, certain foods, and certain medicines.

### EXPOSURE TO TOBACCO SMOKE AMONG THOSE DIAGNOSED WITH ASTHMA

The negative health effects of tobacco smoke are well established.<sup>3</sup> For those with asthma, exposure to tobacco smoke, either directly or indirectly, can provoke or exacerbate an asthmatic condition (in addition to increasing risk of cancer or other diseases). Smoking cessation or elimination of second hand smoke exposure among those who have asthma can lead to better controlled asthma. The SLCDC found that among those who have asthma:

- 14.7% reported that they were current smokers (daily or occasional smoker).
- 26.2% reported that they were former smokers.
- 22.6% indicated members of their household smoke.
- Of those who indicated that a household member smokes, 37.5% indicated a doctor or other health professional suggested that other members of their household quit or cut down smoking to help control their asthma.

### CLINICAL CARE IS ESSENTIAL TO ENSURE THAT ASTHMA IS BEING PROPERLY MANAGED

Since asthma is a chronic condition, regular monitoring and education around how to manage asthma are key factors in well managed asthma. The SLCDC found that:

- 83.8% reported a family doctor or general practitioner was most responsible for their care.
- 62.3% reported having seen or talked to a family doctor or general practitioner about their condition in the past 12 months.
- 5.6% reported having seen or talked to an asthma or respiratory educator about their condition in the past 12 months.
- 77.8% reported ever receiving lung function testing.
- 65.2% reported ever having had allergy tests and 89.0% were told they have allergies.
- Individuals with uncontrolled asthma were more likely to report having received a written action plan from their health professional for asthma control compared to individuals with controlled asthma (14.8% vs. 9.4%).

### MEDICATION USE IS A KEY COMPONENT OF ASTHMA MANAGEMENT

There are two main types of asthma medicines: preventer (or controller) medicine and rescue (or reliever) medicine. Asthma preventer medicine is prescribed to be taken every day either on a regular basis or at certain times of year, to reduce the inflammation of the airways. Asthma rescue medicine is prescribed to be taken when needed—during an asthma attack or breathing difficulty, or sometimes before exercising or exposure to known triggers to open the airways.

- 87.2% reported that they currently take prescribed medications for their asthma.
- 58.0% reported taking a preventer medication in the past month.
- Those who used preventer medication in the past month were asked to identify when they take them (note the categories overlap as respondents could mark all options that applied):
  - 70.9% reported taking it at appropriate times (every day on a regular basis or at certain times of the year).

- In some cases people may be using their preventer medication as if it were a symptom reliever: 39.4% reported taking it at inappropriate times (when having an asthma attack, breathing difficulty, before exercise, or doing something which might cause an attack).
  - 65.3% reported taking a reliever or rescue medication in the past month.
    - 30.4% of respondents use a reliever medication four or more days per week suggesting that their asthma is not well controlled.
  - Those who used a reliever or rescue medication in the past month were asked to identify when they take them (note the categories overlap as respondents could mark all options that applied):
    - 86.0% reported taking it at appropriate times (when having an asthma attack or breathing difficulty or before exercise or doing something which might cause an attack).
    - In some cases people may be using their reliever medication as if it were a preventer medication: 32.1% reported taking it at inappropriate times (every day on a regular basis or at certain times of the year).
- Reducing exposures to environmental triggers is another key strategy.
- 35.1% reported a doctor or health professional suggested changing their home environment to help manage their asthma.

FIGURE 1: WHAT ARE CANADIANS DOING TO MANAGE THEIR ASTHMA

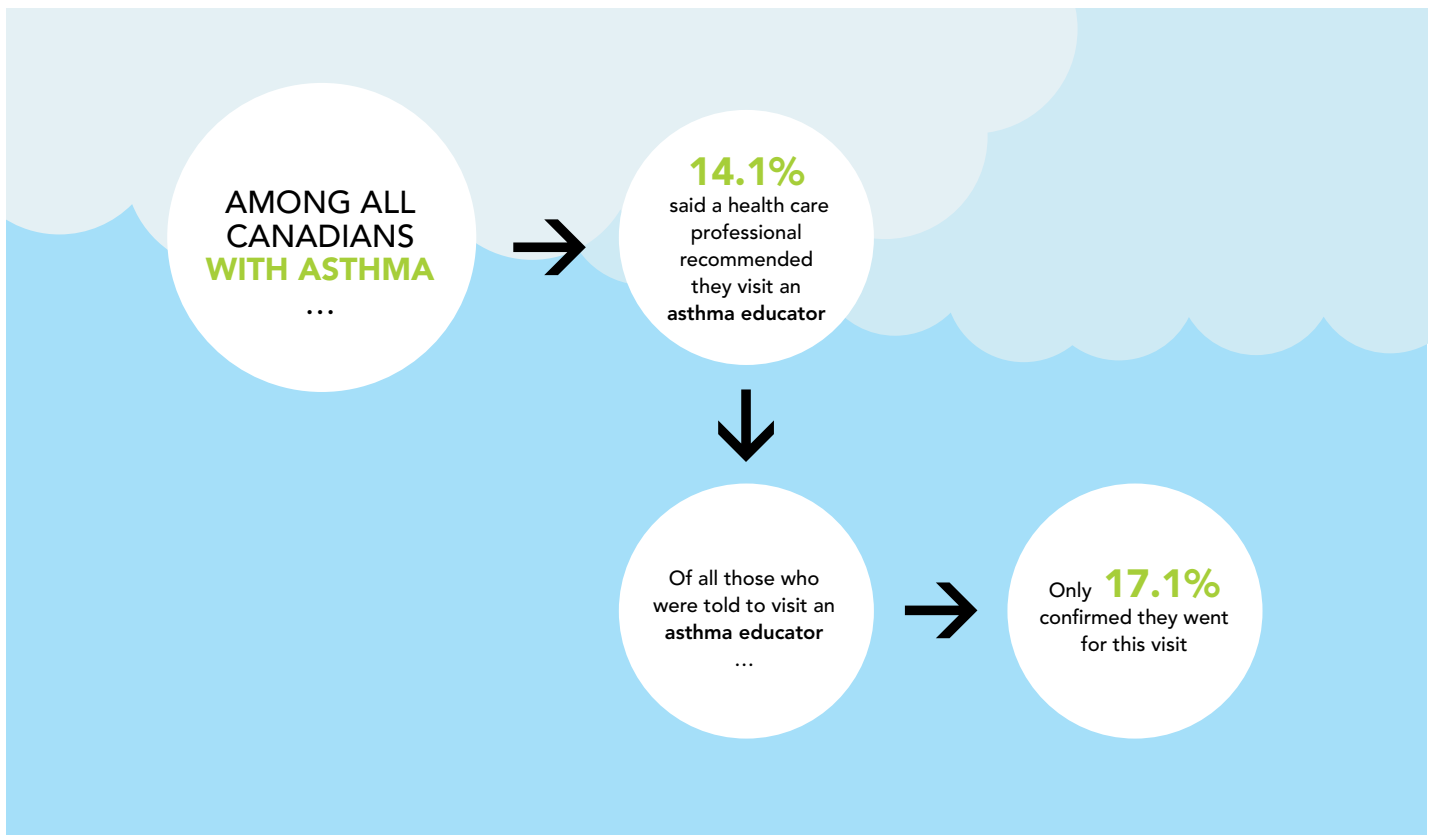
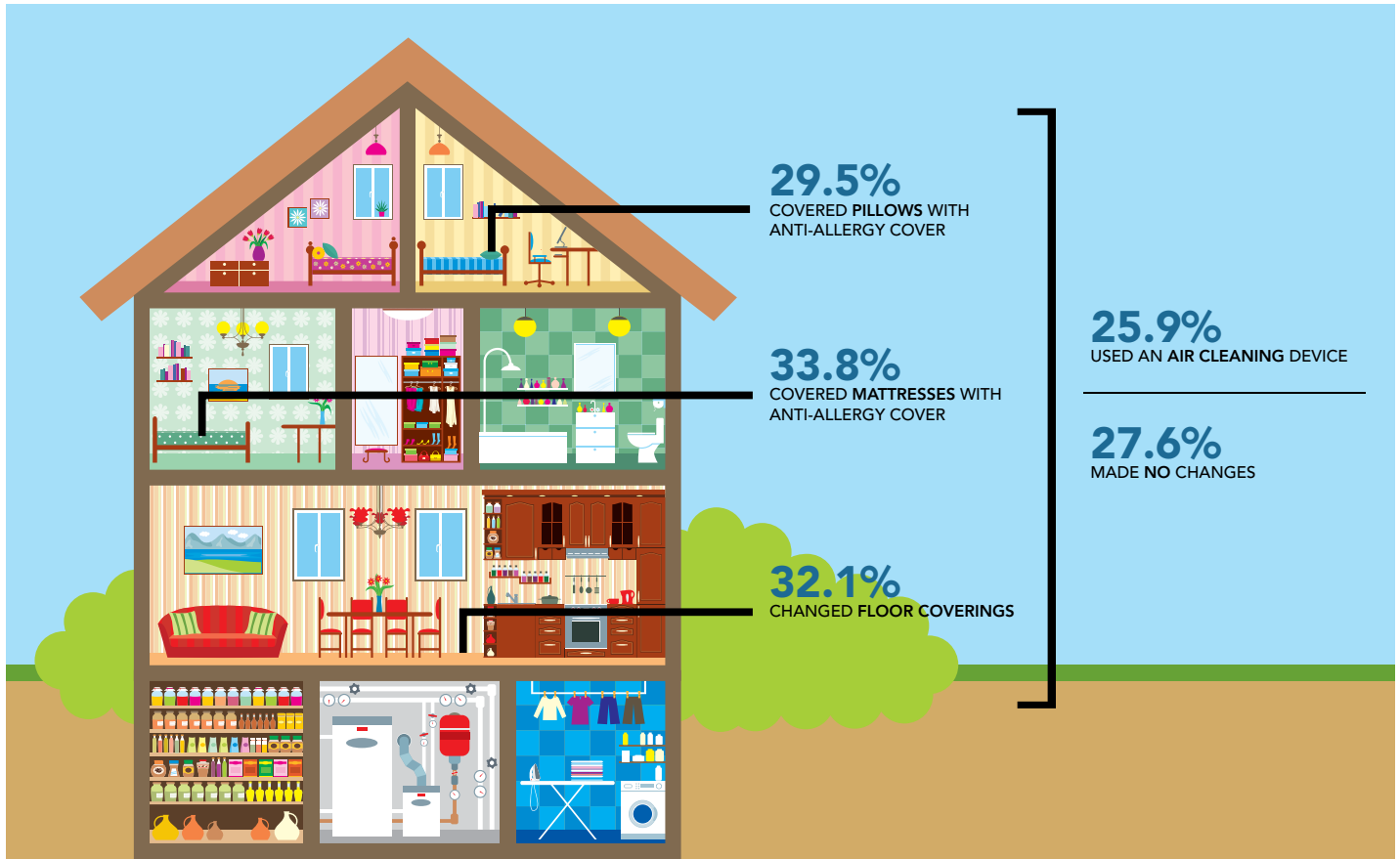


FIGURE 2: CHANGES CANADIANS HAVE MADE TO THEIR HOME ENVIRONMENT TO MANAGE THEIR ASTHMA



Each of the following changes was made by fewer than 25% of the respondents: installed dehumidifier, installed air conditioning, changed window coverings in the bedroom, gave up a pet, or changed heating source.

Individuals with poorly controlled asthma were more likely to report having made changes to their work, school or volunteer activities compared to individuals with controlled asthma (18.6% vs 5.6%).

The National Advisory Committee on Immunization recommends that those with asthma get the annual seasonal flu vaccine (with some exceptions among those with severe asthma or with recent or active wheezing) as they are at high risk of complications due to influenza.<sup>4</sup> Among those with asthma, 68.8% reported getting the flu vaccine.

## SUMMARY

Despite the increase in adherence to appropriate care strategies and awareness of asthma attack triggers, two out of three Canadians with active asthma do not have good control of their condition. Moreover, the proportion of people with asthma who have less than optimal control may have worsened over the last 15 years.<sup>5,6</sup>

This situation is not limited to Canada. Studies in Europe and the US have also shown high rates of poorly controlled asthma.<sup>7,8,9</sup> There is a clear need to improve patient and self-management in Canada. To that effect, the Canadian Thoracic Society released in March 2012 updated diagnosis and management guidelines.<sup>10</sup> Maintaining a healthy lifestyle, combined with avoidance of allergens and other triggers, smoking cessation, and medication adherence and compliance is the basis of asthma self-management.

Additional Information on Asthma and can be found at:

- **Canadian Thoracic Society guidelines on asthma management**  
[www.respiratoryguidelines.ca/sites/all/files/cts\\_asthma\\_consensus\\_summary\\_2010.pdf](http://www.respiratoryguidelines.ca/sites/all/files/cts_asthma_consensus_summary_2010.pdf)
- **Public Health Agency of Canada**  
[www.phac-aspc.gc.ca/cd-mc/crd-mrc/index-eng.php](http://www.phac-aspc.gc.ca/cd-mc/crd-mrc/index-eng.php)
- **The Canadian Lung Association**  
[www.lung.ca/home-accueil\\_e.php](http://www.lung.ca/home-accueil_e.php)
- **Asthma Society of Canada**  
[www.asthma.ca/adults](http://www.asthma.ca/adults)
- **Allergy/Asthma Information Association**  
[www.aaia.ca](http://www.aaia.ca)

More information about the 2011 Survey on Living with Chronic Diseases in Canada can be found at: [www.statcan.gc.ca/start-debut-eng.html?site=full](http://www.statcan.gc.ca/start-debut-eng.html?site=full)

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