

***Canadian Sleep Review 2016:***  
**Current Issues, Attitudes and Advice to Canadians**

*Developed in consultation with the Canadian Sleep Review Panel  
with support from Dairy Farmers of Canada.*

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## ***Canadian Sleep Review 2016:*** **Current Issues, Attitudes and Advice to Canadians**

### **Introduction**

Sleep has long been a topic of broad interest and the subject of an extensive body of peer-reviewed research with widely reported and discussed findings. However, in the public sphere, there is less awareness and understanding of current perspectives of Canadians, including contemporary sleep habits and lifestyle implications.

The *Canadian Sleep Review 2016* was conducted to examine the current state of sleep behaviors and attitudes in Canada. It provides a snapshot of how Canadians sleep, including habits and attitudes, exposing key issues and direction on how Canadians can improve this important part of their lives.

The *Canadian Sleep Review 2016* is informed by findings from a robust survey of Canadians conducted in May 2016 by Vision Critical, a division of Angus Reid, designed to:

- Capture insights into sleep habits of Canadians, with the ability to cross reference by region, gender, age and other factors
- Identify values that Canadians assign to their sleep habits
- Expose areas of misinformation or contradiction

In addition, the *Canadian Sleep Review Panel*, a group of sleep experts with specializations in medicine, psychiatry and psychology, was assembled to review findings and provide informed context based on their knowledge of what is experienced in clinical settings and from published research. The *Canadian Sleep Review Panel* members provided insights together comprising of concluding discussion points and relevant advice to Canadians. These concluding discussion points and advice represent a consensus of *Canadian Sleep Review Panel* members' views on aspects of the topic of sleep.

### **Survey Methodology**

On May 6 and 7, 2016, Vision Critical conducted an online survey of 1,517 randomly selected Canadian adults who are Angus Reid Forum panelists. The margin of error, which measures sampling variability, is +/- 2.5%, 19 times out of 20. The results have been statistically weighted according to Census data regarding education, age, gender and region (and in Quebec, language) to ensure a sample representative of the entire adult population of Canada. Discrepancies in or between totals are due to rounding.

### **About Dairy Farmers of Canada**

Dairy Farmers of Canada (DFC) is interested in the topic of sleep as part of its efforts to encourage healthy living for Canadians.

Founded in 1934, DFC is the national organization defending the interests of Canadian dairy farmers and striving to create favourable conditions for the Canadian dairy industry. Working within supply management, DFC promotes safe, high quality, sustainable, and nutritious Canadian dairy products made from 100% Canadian milk through various marketing, nutrition, policy, and lobbying initiatives. Driven by a strong sense of community and pride, DFC and Canadian dairy farmers actively support a number of local and national initiatives. Visit [dairyfarmers.ca](http://dairyfarmers.ca) for more information.

## **Canadian Sleep Review Panel**

### **Lead Panelist:**

**Dr. Rachel Morehouse, MD, FRCPC, FAASM, DFCPA**  
**Professor of Psychiatry, Dalhousie University and Memorial University**  
**Clinical Director, Atlantic Sleep Centre, Horizon Health Network**

Dr. Rachel Morehouse is a Professor of Psychiatry at Dalhousie University and Memorial University of Newfoundland, as well as Clinical Director, Atlantic Sleep Centre, Horizon Health Network. A native of Saint John, New Brunswick, Dr. Morehouse trained at Dalhousie University (MD, psychiatry residency), the University of Western Ontario and the University of California San Diego (Sleep Medicine Fellowship). Her clinical and research interests are in sleep, affective disorders, and psychosomatic medicine. She developed the first Sleep Laboratory and Clinic in the Maritimes in Halifax in 1991 and then moved home to Saint John to develop the first sleep facility in New Brunswick in 1999. Dr. Morehouse has published extensively, is an active teacher of both undergraduate and postgraduate students and an internationally recognized speaker on sleep disorders medicine. Her research has focused on understanding the microarchitecture of sleep in depression, and on new treatments for narcolepsy, restless legs syndrome, insomnia, depression, and seasonal depression

### **Panel Members:**

**Dr. Judith R. Davidson, PhD, CPsych.**  
**Adjunct Associate Professor, Queen's University**  
**Psychologist, Kingston Family Health Team**

Dr. Judith Davidson is a scientist-clinician in the area of sleep who is an adjunct associate professor at Queen's University in Psychology and Oncology and a psychologist, Kingston Family Health Team, in Kingston, Ontario. She has worked in the field since 1981. She holds an MSc in Community Health (University of Toronto) and a PhD in Clinical Psychology (Queen's University). She received certification in behavioural sleep medicine from the European Sleep Research Society in 2012 with the designation "Somnologist". Her research focuses mainly on insomnia and its treatment in various medical settings. As clinical psychologist within a health care team since 2007, she has established evidence-based primary care programs for depression, anxiety and insomnia. She is the author of *Sink into Sleep: A Step-by-Step Workbook for Reversing Insomnia* (2013) and contributes to *The Globe and Mail* on topics related to sleep. Through writing, research, teaching and speaking, she is working to enhance access for Canadians to effective treatments for insomnia.

**Dr. Richard Horner, PhD**  
**Professor of Medicine and Physiology, University of Toronto**

Dr. Richard Horner is Professor of Medicine and Physiology at the University of Toronto, and holds a Canada Research Chair in sleep and breathing. His research identifies

mechanisms of sleep, sedation and anesthesia, and their impact on vital functions such as breathing and cognition. He is author of over a hundred research papers in peer-reviewed journals, and chapters in textbooks. Dr. Horner also leads undergraduate and graduate teaching on sleep science at the University of Toronto spanning physiology to clinical problems. Dr. Horner has won awards for his research and teaching, and is author of a book for the general public - *The Universal Pastime: Sleep and Rest Explained*.

**Dr. Charles M. Morin, PhD**  
**Professor of Psychology, Université Laval, and Director, Centre d'étude des troubles du sommeil, Institut universitaire en santé mentale de Québec**

Charles M. Morin, PhD, is Professor of Psychology and Director of the Sleep Research Center at Université Laval in Quebec City, Canada. He holds a Canada Research Chair in behavioral sleep medicine. Professor Morin is considered one of the world leaders in the field of behavioral sleep medicine and insomnia. He has published seven books and more than 250 scientific papers on the topic of insomnia, sleep, and treatment of sleep problems. He has held several leadership positions in the field of sleep medicine, including as former President of the Canadian Sleep Society and current President-Elect of the World Sleep Society.

## The Canadian Sleep Review 2016

### **State of Sleep in Canada: Key Findings**

#### **Amount/quality of sleep:**

*Canadians sleep times range between five and over seven hours a night, amounts which they wish were longer and of better quality.*

- The majority (74 per cent) of Canadians claim to sleep less than seven hours a night. Specifically, when asked about how many hours they sleep per night, Canadians respond as follows:
  - Less than five hours: 8 per cent
  - Between five and six hours: 28 per cent
  - Between six and seven hours: 38 per cent
  - More than seven hours: 26 per cent
- Canadians believe their sleep is falling short of ideal, both in terms of quality and quantity, with many (67 per cent) wishing they could get better quality sleep and more than half (59 per cent) not getting as much sleep as they would like every night.
- One in five (20 per cent) have used prescription medications and one quarter (26 per cent) have used over-the-counter medications to obtain or improve sleep.

#### **Putting values on sleep:**

*Canadians do not give sleep the highest priority but yet would trade money or luxuries for more and better sleep.*

- In terms of priorities, when considering what they should be doing to become healthier, Canadians indicate exercising more (37 per cent), eating healthier (26 per cent) and getting more sleep (20 per cent).
- When presented with the concept that lack of sleep can speed up ageing, including to skin and brain, many (57 per cent) report that they still sacrifice sleep when running short of time.
- A majority of Canadians (87 per cent) would pay up to \$500 for a week's worth of restful sleep.
- About half (53 per cent) would choose a luxurious bed to ensure a restful sleep every night over a week-long dream vacation, with the other half (47 per cent) choosing the dream vacation.
- One third of Canadians (36 per cent) would describe sleep as a rare luxury.

#### **Sleep shortfall cause/effects:**

*Canadians have positive sleep habits and believe that exercise can improve sleep, while stress can impede it. Many wake feeling groggy or tired and most would nap if they could.*

- Most Canadians (67 per cent) have regular routines before bed and regular bed times (64 per cent).
- Stress (26 per cent), insomnia (18 per cent) and a non-conducive sleep environment (11 per cent) are seen as the top three factors adversely affecting sleep.
- Conversely, regular exercise (26 per cent), making the bedroom comfortable (21 per cent) and healthy eating (16 per cent) are the top three factors believed to positively impact sleep.
- The majority (65 per cent) of Canadians agree that watching television or being on a laptop before bed can adversely affect sleep.
- Almost half (45 per cent) wake feeling groggy or tired from a restless night's sleep on most mornings, and a majority (60 per cent) would take a short nap during the day if they could.

### **Impact on relationships:**

*Partners often sleep at different times and sleeping together can be disruptive, sometimes leading to tension.*

- Less than half (44 per cent) of those who sleep with a partner, go to bed at the same time as that person.
- Women are more affected by their partners' sleeping habits than men, with half (47 per cent) of women reporting that their partner's snoring disrupts their sleep versus one quarter (26 per cent) of men reporting the same thing.
- Half of women (48 per cent) report not getting enough sleep results in arguing with their partner, while fewer men (35 per cent) report this.

### **Parenting regarding sleep:**

*Most Canadian parents wish for better sleep. They work hard to make sure their children get to bed on time and when their children sleep well parents are rewarded with better sleep themselves.*

- The majority (75 per cent) of parents are most likely to wish they could get better sleep generally.
- Of parents with children under 18 years, the majority (76 per cent) work to ensure their kids have a regular bedtime routine.
- Over half of parents (60 per cent) say that when their kids sleep well, they will also get a good night's sleep.

### **Millennial sleep habits:**

*Millennials (18-34 years old) have poor sleep habits, sometimes working in environments that foster less sleep time and sacrificing sleep for other activities.*

- Many (56 per cent) who are considered Millennials sacrifice sleep in order to gain time for other activities, and they are also more likely to sleep more while on vacation (41 per cent), and many (58 per cent) sleep less in the spring/summer (more daylight hours) when doing other activities.



- About one quarter (27 per cent) of Millennials report that working extra hours and sacrificing sleep is championed in their workplace, compared with less than 15 per cent of Canadians overall.
- Only some (13 per cent) of Millennials find the lure of screens (e.g. phones) to have an adverse effect on their sleep.
- Most Millennials (71 per cent) believe that lack of sleep can increase ageing and signs of ageing, and say it is the first thing they sacrifice when running short of time, versus 57 per cent of Canadians overall.

**Workplace and productivity issues:**

*There are various indications that sleep habits may be impacting the workplace, with general tiredness and reported impact on productivity.*

- Half of Canadians (50 per cent) report that lack of sleep affects productivity at work.
- The majority of Canadians (60 per cent) would like to take a short nap during the day if they could.
- One third (34 per cent) feel jet-lagged after the first workday after the weekend.

### **Concluding Statements and Discussion Points:**

The following concluding statements and discussion points are based on input from members of the *Canadian Sleep Review Panel* following their review of survey findings, observations from clinical practice and analysis based on the body of Canadian and international academic research in this area.

*Many Canadians are functioning with chronic sleep debt, a pervasive issue and a significant health concern for many people, affecting many segments of the population.*

- Canadians are not satisfied with the amounts or quality of sleep they are getting, expressing a desire for more and better sleep, in itself indicating a sleep shortfall.
- Reported sleep hours are significantly below what is generally advised, generally between seven and eight hours for most adults. Importantly, a significant proportion report getting less than six hours a night, possibly putting them at risk of falling asleep at inopportune times, with inherent safety risks, and for developing serious health problems.
- A meaningful test of getting enough sleep is feeling rested. It is clear that many Canadians are not getting enough sleep with so many not waking refreshed and feeling irritable attributable to lack of sleep.
- High use of over-the-counter and prescription medications is another indication of generalized sleep problems.

*Canada's sleep culture is not conducive to the best possible sleep. It could be improved through greater understanding and acceptance of the fundamental necessity of enough sleep, varying sleep styles and how to adapt in the modern world.*

- Optimal sleep duration is individual and changes constantly through the lifecycle. In adults, sleep duration and the ability to sleep uninterrupted through the night generally decreases with increasing age. Sleep needs are greater in children and teenagers relative to adults.
- There are variations in in the timing of alertness and sleep in the population, called chronotypes. Whereas some are morning types (up and alert early in the morning), others are evening types (late night people who are later risers), and some are in between.
- There is an element of current culture whereby extended sleeping is not socially acceptable and it can be socially desirable to claim to function with little sleep, fostered in some work environments and impacting productivity.
- Many factors that impede sleep are consequences of modern living, such as being “ultra connected” with excessive exposure to screens, long commutes and working more than one job. In certain situations, work environments may champion sleep deprivation, and this is potentially serious to health, safety and performance.
- Napping is somewhat stigmatized and viewed as indulgent. However, can be helpful to some people. It is considered acceptable in some other countries and can be energizing, and therefore positive.

*Canadians have not made sleep a top priority – they value sleep, have positive sleep habit knowledge but may be less concerned about long term implications, and are challenged to make meaningful changes.*

- Canadians can identify the main culprits of sleep loss, including working too much, stress and social media, all of which are under their control, but they sometimes have difficulty taking the steps to change these factors.
- Canadians are aware of the immediate impacts of sleep loss and poor sleep quality, including productivity, energy level and quality of relationships, but are likely less aware of serious longer term health effects, including links to serious illness such as diabetes, obesity and mental health.
- Canadians' level of knowledge about good sleep habits is impressive, including the importance of routines before bed, regular bed times, and other factors. In some cases, variations in bedtime can produce "social jet lag" shown by grogginess in the morning, often experienced as "Monday morning blues", and a major element in feeling sleep deprived.
- Canadian parents are diligent when it comes to children and sleep, expressing knowledge and confidence in this area and recognizing the importance of sleep for their kids. Making sure children have regular routines and get a good night's sleep is worthwhile.
- Not only is sleep loss a burden for the individual, society pays a price, such as in the workplace with potential loss of human resources, including decreased productivity and increased absenteeism.

### **Advice to Canadians:**

- ***Prioritize getting a good night's sleep.*** Getting enough sleep is as critical to healthy living as good nutrition and exercise, playing a pivotal role in promoting mental and physical health, in some cases possibly protecting against development of chronic health issues. For adults, between seven and eight hours are normally recommended, depending on age, with more for children. Look after yourself first.
- ***Become your own sleep expert.*** Get to know yourself, be aware of when and how you get the best sleep and make it part of your life – make your own sleep style work for you. Regular exercise is beneficial for many as are commonly held beliefs such as avoiding caffeine before bed, limiting smoking and alcohol. Limit the use of medications as sleep aids.
- ***Establish sleep routines including bed time and rise time.*** A regular rise time is just as important, or even more so, as the same bed time every night, helping to set our circadian rhythm. Getting outside and exposing ourselves to direct sunlight can also help set and sustain our circadian rhythm. Have a relaxing routine before bedtime that is conducive to sleep. Also, get out of bed when you can't sleep.
- ***Limit exposure to screens, especially for children and teens.*** Round the clock use of smart phones is impacting sleep, and so parents should continue their diligence on ensuring good sleep through the teen years.
- ***Do not put too much pressure on yourself regarding sleep.*** While sleep is important, do not stress about it or fixated on a specific amount of sleep. Sleep is not something you can force and so you need to learn to relax to allow sleep to happen. Take comfort in that while you might not be getting quite enough, you are doing what you can.
- ***Reach out and seek help if needed.*** When lack of sleep is causing distress and interfering with daily functioning, additional help should be sought from your family doctor or a psychologist, and sometimes referral to a sleep clinic is called for. Cognitive behavioral therapy is recognized as effective, long term treatment for persistent insomnia.

## **Appendix: Relevant Research Studies**

The following list of research documents, including peer-reviewed published research, is based on suggestions from the *Canadian Sleep Review Panel*, and is provided as reference.

### ***Caught in the Time Crunch: Time Use, Leisure and Culture in Canada***

Examines realities in family structure, workplace characteristics, and broader society and trends that are reshaping time use, leisure and culture activities.

[Canadian Index of Well Being](#) (University of Waterloo) June, 2010.

### ***The economic burden of insomnia: direct and indirect costs for individuals with insomnia syndrome, insomnia symptoms, and good sleepers***

Suggests that the economic burden of insomnia is very high, with the largest proportion of all expenses (76 per cent) attributable to insomnia-related work absences and reduced productivity.

[Sleep](#). 2009 Jan; 32(1):55-64.

Authors : [Daley M](#)<sup>1</sup>, [Morin CM](#), [LeBlanc M](#), [Grégoire JP](#), [Savard J](#).

### ***Fatigue, alcohol and performance impairment***

Moderate levels of fatigue produce higher levels of impairment than the proscribed level of alcohol intoxication.

[Nature](#) 388, 235 (17 July 1997)

Authors: Drew Dawson Kathryn Reid

### ***Human Behavior: Sleep in Hunter-Gatherer Societies***

How much would we sleep if we lived without the pressures and distractions associated with industrialized lifestyles? Research shows that hunter-gatherer societies sleep for 6-7 hours a night - a level similar to industrialized societies.

[Current Biology](#). 2015, Dec 7; 25 (23): R1133-5

Authors: [Peever J](#), [Horner RL](#). (University of Toronto)

### ***Metabolic consequences of sleep and sleep loss***

Examines build up of a chronic sleep debt and cardiometabolic dysfunction, diabetes and obesity that has occurred over recent years including awareness, education and effective management of sleep disorders.

[Sleep Medicine](#). 2015 Volume 9, S23 - S28

Authors: Van Cauter, Eve et al.

### ***National Sleep Foundation's sleep time duration recommendations: methodology and results summary***

Sleep time duration recommendations conducted by multi-disciplinary expert panel.

[Sleep Health: Journal of the National Sleep Foundation](#), 2015, Volume 1, Issue 1, 40 – 43

Authors: Hirshkowitz, Max et al.

***Natural Sleep and Its Seasonal Variations in Three Pre-industrial Societies***

Preindustrial societies in Tanzania, Namibia, and Bolivia show similar sleep parameters. They do not sleep more than “modern” humans, with average durations of 5.7–7.1 hr. [Current Biology](#), 2015 Volume 25, Issue 21, 2862 - 2868

Authors: Yetish, Gandhi et al.

***A Prospective Study of Sleep Duration and Coronary Heart Disease in Women***

Short and long self-reported sleep durations are independently associated with a modestly increased risk of coronary events.

[Arch Intern Med](#). 2003; 163(2):205-209.

Authors: Najib T. Ayas et al.

***Prevalence of insomnia and its treatment in Canada.***

Estimates prevalence of insomnia and examine its correlates and treatments, concluding that few seek professional consultation and prescribed medications remain the most widely used therapeutic option.

[Canadian Journal of Psychiatry](#). 2011 Sep; 56(9):540-8.

Authors : Morin CM, [LeBlanc M](#), [Bélanger L](#), [Ivers H](#), [Mérette C](#), [Savard J](#). (Université Laval)