

**FINAL
REPORT**

**Assessing Perceived Health
Risks of Climate Change:
Canadian Public Opinion – 2008**

Prepared for:
Health Canada
por-rop@hc-sc.gc.ca

March 2008

Ce rapport est aussi disponible en français sur demande.

Contract number: H1011-070029/001/CY

Contract date: 2007-12-21



ENVIRONICS
RESEARCH GROUP

336 MacLaren Street
Ottawa, ON K2P 0M6

pn6234

CONTENTS

EXECUTIVE SUMMARY	I
RÉSUMÉ	XI
INTRODUCTION	1
CONCERNS ABOUT ENVIRONMENTAL HEALTH RISKS.....	3
KNOWLEDGE AND ATTITUDES ABOUT CLIMATE CHANGE.....	19
PERCEIVED HEALTH RISKS OF CLIMATE CHANGE	33
KNOWLEDGE AND ATTITUDES ABOUT EXTREME WEATHER EVENTS AND EMERGENCY PREPAREDNESS	55
SURVEY METHODOLOGY.....	79
APPENDICES	
A. QUESTIONNAIRES	
B. DETAILED BANNER TABLES (UNDER SEPARATE COVER)	

EXECUTIVE SUMMARY

Research purpose and objectives

Climate change will likely create new and unanticipated health effects on Canadians, and associated hazards such as air pollution, extreme weather events and vector-borne infectious diseases may impact many Canadians, especially those whose health is easily compromised: namely the elderly, children, and those with chronic conditions such as allergies, asthma, coronary artery disease and many others. The health effects of climate change could have significant economic impacts in the form of costs to the health care system.

Because much of the responsibility for adapting to the health impacts of climate change, such as those associated with extreme weather, is the responsibility of individuals, Health Canada identified the need to conduct research into Canadians' knowledge, awareness, attitudes and behaviours surrounding climate change, its potential impacts on health, and how they might be willing to change their behaviours in response to the health risks.

Methodology

The survey was conducted by the Environics Research Group and is based on telephone interviews conducted from February 12 to March 3, 2008, with 1,600 adult Canadians plus an oversample of 203 seniors and 200 persons aged 18 to 64 self-identifying as having at least one of a list of chronic conditions. A national sample of 1,600 provides results accurate to within plus or minus 2.4 percentage points in 19 out of 20 samples (larger margins of error apply for subgroups of this population).

Key findings

Climate change is now widely considered by Canadians to be an environmental reality that poses a significant threat at the global and local levels. Consistent with other public opinion research, this study confirms that most Canadians believe climate change or global warming is definitely occurring and that it is a growing problem, and those who are sure it is happening also believe that it is mostly due to human activity. A significant proportion of the population has noticed the evidence of climate change in their own community, and many believe it already poses risks to themselves and their families, if not now then in the near future. This means that the ground is ripe for behavioural change: people are aware of the problem, have some general sense of risk, and believe human activity is the cause.

At the same time, the research also reveals that the links that Canadians make between climate change and human health impacts are in their early stage. When prompted, the public readily accepts the notion that climate change must entail health risks, but relatively few appear to understand how climate change might impact health. This dichotomy stems in part from the fact that the public has come to understand, over time, that environmental hazards of almost any type present health risks of some sort, and so this link in the case of climate change may be accepted by Canadians whether or not it is well understood, especially if prompted on a survey. As well, there is evidence from this study and other research that the public does not always clearly distinguish climate change from the somewhat related and more well-established hazards of air pollution (as well as ozone layer depletion), which shares some of the same causes (e.g., industry and vehicle emissions). Air pollution has been widely recognized as a health hazard

for decades, and over this time Canadians have come to have a good understanding of the types of health impacts associated with it (e.g., respiratory illness).

The limited public understanding of the direct links between climate change and health should not be surprising, for two reasons. First, there has been an explosion of information about climate change in the past couple of years, but less coverage or discussion in the popular media has been devoted to the direct implications to human or public health. Second, the health impacts pertaining to climate change (except those related to heat waves) are one step removed: They are not the direct result of climate change itself, but from changes in disease vectors, frequency and strength of extreme weather events, and the conditions that foster poor air quality. The average Canadian now understands that climate change may lead to more frequent storms or coastal flooding and would at some level know that storms and flooding can pose risks to health. But this research suggests that relatively few Canadians have as yet given much thought to how climate change may affect health through these changes in weather and other physical environmental phenomena, or what actions they personally might consider taking to adapt to this new reality.

The strongest awareness and concern about the health impacts of climate change is expressed by those Canadians who are more sensitized to the issue of global warming (as identified by measures such as having noticed definite effects of climate change locally, believing that global warming is definitely happening and that it is happening *now*.) Those sensitized to the issue are more likely to believe they are personally vulnerable to its negative health impacts, and report having taken some action in the past year to guard against these.

However, it is not clear from the research whether or not this heightened sensitivity to climate change health risks is particular to climate change or more broadly based. It may be simply that there is a group

of Canadians who are more environmentally aware and health-conscious in general, and that this group has characteristics that make them more willing to take action to protect themselves against the health risks of climate change, just as they are more willing to undertake other environmental or health protection activities. The main challenge for Health Canada is to bring other Canadians to a similar stage of awareness about global warming and its environmental effects – specifically, to see the implications for their personal health and take protective steps.

This study included a special focus on “at risk” target populations: seniors and persons with chronic medical condition. Individuals with one or more chronic conditions are in fact more likely than others to be attuned to the potential impacts of climate change, including risks to their health. This may reflect a more generalized sense of vulnerability to environmental and health threats, rather than being more cognizant of the health risks associated with climate change *per se*. Those with chronic medical conditions may be more likely to discuss various potential environmental effects with health care professionals, as certain changes can be hazardous for them, and thus be more apt to assume that climate change also poses a personal risk for them.

Seniors, on the other hand, are less attuned to climate change relative to younger cohorts of the population, both in terms of acknowledging it as a current phenomenon (perhaps making them more apt to discount it) and recognizing its potential to affect them personally (a lack of personal experience with it, meaning that they do not have as good a grasp of its significance). It may be that seniors view climate change as a long-term problem that needs to be addressed by future generations once they are gone. Messages confirming the reality of climate change and outlining the potential for definite, short-term health effects may serve to enhance understanding and increase the participation of this population in preventive actions.

The following points summarize the key findings from the research.

Concerns about environmental health risks

- Without prompting, Canadians do not consider climate change to be an important environmental threat to health. Canadians are most likely to consider air pollution or smog (54%) to be the most significant top-of-mind environmental risk to human health, distantly followed by water pollution (18%). Few spontaneously identify global warming (10%) as posing a major health risk. Mentions of global warming are highest in Ontario and B.C. (12% each), and lowest in the North (5%).
- When prompted, seven in ten rate climate change as at least a moderate risk to health, with 32 percent rating it as major. This perceived level of risk is considerably below the ratings assigned to issues such as obesity (70% consider this a major risk), heart disease (65%) and air pollution (62%), the direct physical effects of which are well understood. The health risk of climate change is on par with pandemic flu epidemics (29%), and greater than heat waves (20%), West Nile virus (16%) and extreme cold (15%), which are more abstract risks. Quebec residents are the most likely to rate climate change as a significant health risk (41%). Those in the two target groups (seniors, persons with chronic conditions) are no more likely than other Canadians to rate climate change as a major health risk.
- Seven in ten (69%) Canadians think that the health risks posed by climate change have *increased* in the past 10 years. The perceived level of increased risk of climate change is somewhat lower than that of obesity (84% believe it has been increasing) or air pollution (76%), but is on a par with heart disease and chemical pollution (64% each), and higher than the proportion who think that risks from West Nile virus (50%) or pandemic flu (40%) are increasing.

Knowledge and attitudes about climate change

- Acknowledgement of the reality of climate change is now widespread. Seven in ten (69%) Canadians believe that global warming is definitely happening; this is the opinion of majorities in all regions of the country, but is highest in Quebec (78%). Younger Canadians are the most likely to say global warming is definitely happening.
- Almost all Canadians who believe global warming is definitely happening say that it is mainly (63%) or partly (34%) caused by human activity, with almost none expressing the view that humans are not implicated (3%). This suggests that messages around personal actions to combat climate change and its negative effects will be met with acceptance: people by and large believe it is happening, and that there is something they can do.
- The high level of recognition of the reality of climate change is connected to personal experience: one-quarter (24%) of Canadians have noticed a change in their community that they think is definitely attributable to global warming, and almost four in ten (37%) have noticed such a change in other parts of Canada. The changes most noticed are warmer temperatures (noticed by 33%) and less ice or snow (26%). Other environmental effects of climate change (storms, flooding, heat waves) are less cited.
- When prompted, Canadians are most likely to accept that global warming causes melting permafrost in the Arctic (58% say this is a definite impact). About four in ten each believe that climate change is definitely responsible for more frequent storms (41%), the loss of wildlife habitat (40%), and the flooding of rivers and coastal areas (39%). They are least likely to definitely connect climate change to forest fires (29%) or extreme cold weather (25%).

Perceived health risks of climate change

- Although Canadians have not made a clear connection between climate change and health in their minds, when prompted they believe such a connection is credible. Six in ten (63%) are able to cite at least one potential health risk of climate change, but no single effect is widely known. The most commonly mentioned risk is respiratory or breathing problems (22%). One in ten (11% each) spontaneously mention infectious diseases/flu, cancer and air quality impacts. When prompted with a list of potential health effects, Canadians are most likely to believe climate change definitely increases the risks of breathing problems and sunburn (46% each) and four in ten (39%) say it definitely impacts heat stroke.
- More than half of Canadians (54%) believe climate change is posing a health risk to Canadians today. Among the four in ten (39%) who think it will pose a future risk, there is no consensus of when negative effects may begin to be experienced, but five in ten think it will be some time in the next 10 years. Because so many are willing to accept that climate change is either a health risk now or will be in the near future, there is the potential for good uptake of communications stressing the need for immediate precautions.
- When Canadians are provided with information about the potential health impacts of climate change, many then are able to make a connection to local and even personal risk, at least in theory. Among Canadians who think that climate change poses a health risk, three-quarters say their community is either definitely (29%) or likely (47%) vulnerable to its negative effects. Two-thirds feel they are either definitely (25%) or likely (42%) vulnerable personally; and about half (46%) say someone in their household is especially vulnerable to climate change's health risks. When asked about populations that could be especially vulnerable, Canadians mention seniors (45%) and children (33%). Seniors themselves, however, are the least likely to consider seniors to be a vulnerable population.
- Many (51%) Canadians claim to have recently taken at least one step to protect themselves or their family against the negative health impacts of climate change in the past year. However, it should

be noted that many of the steps mentioned are actions to reduce environmental impacts in general rather than health protection in particular. This indicates that people understand they have a role to play in reducing global warming, but it is by no means clear whether or not they are making a direct connection with climate change and health protection. Protection from the sun (25%), and reducing garbage (11%), vehicle (7%) and energy (6%) use are the steps most frequently mentioned. Very few mention staying indoors in bad weather or dressing for the weather as steps they have undertaken to protect themselves from the negative health effects of climate change.

Knowledge and attitudes about extreme weather events and emergency preparedness

- Half (49%) of Canadians believe that an extreme weather disaster will affect their community at some point in their lifetime. The majority believe that an extreme weather event would pose only a moderate (36%) or minor (38%) health risk to their community. Few (11%) believe they would suffer major impacts. Prairies and Northern residents are the least likely to think the health impact of extreme weather would be major, possibly because they believe they already experience more severe weather than most. When prompted about specific risks, very few believe they would have great difficulty in protecting themselves or others in the event of severe flooding (15%), an extended power outage (13%) or a heat wave (7%).
- The majority (61%) of Canadians say that they or others in their household regularly check for extreme weather alerts; most (56%) would turn to television to get information about extreme weather events affecting their community, followed by radio (35%).
- Over half (55%) of Canadians claim they have an *emergency kit* at home. The two single most common reasons for not having such a kit are not having thought about it and not expecting to ever need it (32% each). Four in ten (42%) claim to have a *household emergency plan*, and the most common reason for not having one is never having considered the need for one (42%).

The following are notable findings from the survey for specific subgroups of Canadians.

Region

Majorities in all regions agree that global warming is happening and that its effects are observable now, but there are notable regional differences in perceptions about the local environmental effects, which influence subsequent attitudes about climate change and potential health impacts. There are also differences in their responses to questions about extreme weather and emergency preparedness.

Northern territories. Territorial residents make the fewest top-of-mind mentions about climate change as an environmental health risk. This is not because they have not noticed its effects locally (they are the most likely to say they have noticed definite effects) but because health risks due to extreme cold come more to mind, and because they may not be making the connection between climate change and health directly. When prompted to make this connection, they are among the most likely to think that the health risks of climate change have been increasing over the past 10 years, but are divided about whether human activity can be mainly or only partly blamed, and are no more likely than other Canadians to feel personally vulnerable to the associated health risks. Possibly due to their belief that their weather is already severe, they are among the least likely to believe an extreme weather event would pose a major health risk for their community

British Columbia. B.C. residents largely share the opinions of their fellow Canadians on issues around climate change and health, but they do differ in certain respects. Despite being more likely than other Canadians to think that persons living near the coast would be vulnerable to climate change, B.C. residents are among the least likely to think they are personally vulnerable to the health effects of climate change, possibly because of the region's temperate climate, and among the least likely to check regularly for extreme weather events. They are also among the least likely to think that climate change is affecting the health of Canadians today, or to be able to name a potential health effect caused by climate change.

Prairies. Residents of this region are the most sceptical about global warming, with the highest proportion of any region saying it may be happening but is not yet proven. They are the least likely to say they have noticed environmental effects that could be attributed to climate change, either locally or elsewhere in Canada, and the least likely to attribute various environmental effects to climate change. They are the Canadians least likely to consider the health effects of climate change to be increasing, to think that climate change currently impacts health, or to believe they are personally vulnerable to its risks. They are also less likely to see any health risks being posed by extreme weather, yet are more likely than other Canadians to say it would be very difficult for them to cope with severe flooding, heat waves or extended power outages.

Ontario. Like B.C., Ontarians largely share the views of most Canadians (being the largest regional segment of the population). They are among the most likely to think that climate change is affecting the health of Canadians today, and are among the most likely to be able to spontaneously name at least one potential health effect, notably respiratory or breathing problems. They are also among the most likely to believe that a heat wave would cause them great difficulty.

Quebec. Quebec residents stand out in their views around climate change and health, as they exhibit several characteristics indicating they are more sensitized to this issue. They are among the most likely to think that environmental problems pose a major risk to health, and to feel that environmental effects are at least likely to be caused by climate change, especially more frequent storms, heat waves and flooding. They are the most likely to be able to name a potential health effect from climate change without prompting, to believe that climate change definitely increases health risk, and that this is happening today. Quebecers are the most likely to say they are personally vulnerable to the health affects of global warming and that there is someone in their household who is especially vulnerable. They are the most likely to believe an extreme weather event would pose a major health risk but, despite this, are least likely to regularly check for extreme weather information.

Atlantic Canada. Atlantic residents in general share the views of other Canadians, with a few notable exceptions. They are quite likely to be able to name potential health risks associated with climate change, but less likely than Quebecers or Ontarians to think that climate change is impacting health today. They differ from other Canadians mainly when it comes to attitudes around extreme weather and emergency preparedness. Atlantic Canadians are the most likely to report having a household emergency kit, to think that an extreme weather-related disaster will impact their community within the next two years, and to think that a heat wave would cause them great difficulty.

Age groups

Age is one of the most significant factors in awareness of and attitudes towards climate change and health. Younger Canadians (aged 18 to 34) are the most likely to spontaneously mention climate change as an environmental health risk, to rate climate change as a major health risk when prompted, to believe climate change is definitely occurring, and to believe that the risks from climate change have been increasing in the past 10 years. The research indicates that these opinions are all linked to connecting climate change with health issues.

Despite being at potentially greater risk than younger Canadians, seniors are no more likely than others to think of climate change as a major health risk, and are in fact less likely to think it is definitely occurring or to have noticed community-level environmental effects attributable to global warming. Seniors are the least likely to be able to name at least one potential health risk due to climate change without prompting, to think that climate change poses health risks today, or to be able to say when they think climate change will begin causing such effects. They are also less likely than Canadians under age 65 to think that either they or their community is vulnerable, to say someone in their household is especially vulnerable, or to name seniors as a population that might be susceptible to the health risks of climate change. This last point is notable because seniors have received extensive messaging around their higher vulnerability to other health risks (for example, their increased need for influenza immunizations). Seniors are not making a direct connection between global warming and their personal vulnerability to its health effects.

Across generations, seniors are also the least likely to feel there are community health risks associated with extreme weather, although they are in fact the most likely to report having a household emergency kit or to regularly check for extreme weather information. They are the least likely to think their community will suffer a weather-related disaster in their lifetime, possibly because the balance of their lifetime is expected to be shorter than what younger Canadians can anticipate.

Chronic medical conditions

There are two aspects to having a chronic condition that were examined in this survey: whether the respondent or someone else in their household had a condition, and to what extent a reported chronic condition impaired the person's everyday living. Both aspects have some impact on opinions about climate change and health, but not always to a major extent.

Having a chronic condition is not a factor in opinions about whether climate change health risks have been increasing, or in rating the health risks from climate change. However, it is important to note that those with a chronic condition in the household (self or other) are more likely to believe that their community would be vulnerable to the health impacts of climate change, and also that they are personally vulnerable. This willingness to identify with vulnerability to risk when prompted indicates potential for messaging around specific health risks and related preventive actions.

Canadians with a chronic condition are more likely than others to have taken at least one step in the past year to protect against the negative effects of climate change. However, they are no more likely than others to believe that climate change is a major health risk, which means the specific connection between climate change's proximal risks and their own personal health remains to be established.

Persons with a chronic medical condition are more likely to acknowledge they would have difficulty in protecting themselves in the event of a heat wave, but are no more likely than others to think that an extreme weather emergency will be affecting their community at some point.

Other individual characteristics

Gender. There are few notable gender differences on climate change and health issues. Women are slightly more likely than men to believe they are personally vulnerable to the health impacts of climate change, and also to mention that seniors, children or sick persons would be especially vulnerable. Among those who have noticed any changes attributable to global warming, either locally or elsewhere in Canada, men are more likely than women to mention noticing warmer temperatures, or less ice and snow.

Education. There are some notable opinion differences by level of education, but this is not as important a factor as age. Canadians with a university degree are more likely than those with less education to say they have noticed changes elsewhere in Canada that they feel are definitely caused by climate change, and they are the most likely to mention this change is less ice or snow. Those with less than a high school diploma are the most likely to believe that global warming definitely causes heat waves and flooding. While those with higher levels of education express more scepticism about whether climate change actually increases specific health risks, they are also more likely to think that such health risks are occurring today. Those with higher levels of education are more able to mention any Canadians that might be especially vulnerable to the health impacts of global warming – notably Northern residents, poor or homeless persons, or coastal residents – and are more likely than those with less than a high school diploma to mention having taken a step in the past year to protect themselves or others from its negative effects. Education is also a factor in forming opinions about the risks of extreme weather: those with higher levels of education are more inclined to think that the health effects of an extreme weather event would be minor.

Household income. Income level plays only a minor role in awareness and attitudes about climate change and health. Those with the highest household incomes (\$100,000 or more) are the most likely to spontaneously name climate change as an environmental risk to health, and to believe that global warming definitely causes flooding. However, having a high household income is also linked to increased scepticism about

whether global warming actually increases health risks, and those with the greatest financial resources are also the most likely to think that an extreme weather event would pose little or no health risk to their community.

Attitudinal characteristics

Because demographic differences besides age are not pronounced for this issue, an analysis was undertaken to better understand attitudinal factors. This analysis does reveal some important differences, but there is no simple key to understanding why some Canadians are more sensitive to this issue than others.

Whether global warming is believed to be definitely happening (69% of Canadians) or an unproven possibility (27%) is an important differentiator in subsequent opinions about its impact on the environment and on health. Those who think global warming is not yet proven are less likely than believers to be able to name a top-of-mind environmental threat to health, to think climate change definitely increases specific health risks, or to believe they are personally vulnerable. They are less likely to perceive a major risk to health from extreme weather events, and are less likely to have already taken a step for self-protection from climate change. However, a significant proportion of those who do not think global warming is proven do actually believe that their community is at least likely to be vulnerable to its health impacts, and six in ten of them believe that climate change will begin affecting the health of Canadians within 15 years.

Belief in global warming is strongly linked to personal experience: that is, having noticed environmental changes in the community or elsewhere in Canada that are definitely attributable to climate change. Those who are aware of such environmental changes also seem more able to grasp, especially when prompted, that there is a link between global warming and environmental effects that can negatively impact health, and to consequently make the link to their personal health, to believe they are at risk, and to be willing to take action.

There is a connection between enhanced awareness of, or sensitivity to, the issue of global warming and having taken at least one step in the past year to protect against its negative health effects. Those with greater environmental awareness are also more likely to believe that an extreme weather event will affect the community within one's lifetime, and also to a heightened perception of the health risk such an event would cause.

Recommendations

The central challenge facing Health Canada and other public health organizations seeking to promote prevention-focused actions is to build public understanding of the links between climate change and health in a way that clearly identifies specific risks and their required actions. Rather than focusing on protecting health against climate change *per se*, which is generally viewed as posing uncertain types of risk over the long term (rather than short-term risks that are well-known), Health Canada should consider drawing attention to the health aspects of the proximate risks, rather than the more abstract issue of climate change or global warming, to make the need for behaviour modification both understandable and desirable. Communications should indicate the environmental effects that are being felt now, show what health implications these effects have, and outline the specific actions Canadians can take to lessen risk. Such risk prevention must be identified as personal, necessary and achievable.

Based on the research findings and conclusions, the following recommendations are presented to Health Canada for consideration:

1. Any social marketing or communications campaign aimed at increasing public awareness and engagement around climate change and health should be based on two interrelated types of messages. First, build public awareness of the health risks associated with the direct or proximal environmental risks (e.g., extreme weather events, disease vectors, air pollution, flooding and drought) because these are "conventional" hazards that only surface in public consciousness when disaster strikes. Second, reinforce step one with messages emphasizing the fact that these so-called conventional hazards are growing and need greater attention (i.e., specific preventive actions should be taken) because climate change is making them worse. Because climate change is widely acknowledged to be a reality, Canadians will understand that these actions need to be taken if the direct connections are made for them in the communications.
2. Information about health risks of climate change-related hazards need to be region-specific. In the North, for instance, climate change is perhaps most well-known and appreciated in terms of the environmental changes, but the implications for public health are not yet well-known. A different challenge exists in the Prairies, where the population tends to be more sceptical about climate change generally.
3. Communications should also be tailored to age cohorts. Messaging directed at seniors can build on the fact that this cohort is likely the most cognizant of conventional environmental hazards and has proven receptive to taking protective actions (e.g., checking regularly for extreme weather, having emergency kits at home). The focus with this group needs to be on building awareness of the significance of climate change as something that can affect their health in the short term and not at some nebulous future time. Health Canada can also build on other messaging that convinces seniors that they have greater vulnerability to certain health risks, as is being successfully communicated about influenza, for example. Younger Canadians more readily accept the seriousness of climate change as an environmental issue, but are typically less health-focused and feel less vulnerable to conventional environmental hazards. For this group, the key will be to use the climate change angle as a basis for taking the associated risks more seriously.
4. As with most public health promotion, television will be the most valuable medium for building broad public awareness of the key messages around climate change and health. TV remains the most widely-used public medium and is the best choice for reaching the target "at risk" populations. However, given TV's limitations in providing depth and tailored messaging, it should be used primarily to attract general attention and direct Canadians to

other media, including radio, newspapers and the Internet. Because seniors are a major target, it is important to continue to direct communications to print media, which they are more likely to use than the Internet (in the 2007 *National Radon and Indoor Air Quality* survey, to cite one example, when asked what sources they would use to get information about radon, those aged 60 years or older were half as likely to mention the Internet as were younger Canadians).

5. In developing the approach for public education and awareness around this issue, Health Canada should utilize the experience and lessons learned through its recent development of new communications tools which addressed a related challenge in terms of building public awareness and promoting protective actions around air quality and health.

RÉSUMÉ

But et objectifs de la recherche

Les changements climatiques entraîneront probablement des effets nouveaux et inattendus sur la santé des Canadiens et les risques pour la santé connexes tels que la pollution de l'air, les phénomènes météorologiques extrêmes et les maladies infectieuses à transmission vectorielle pourraient avoir une incidence sur un grand nombre de Canadiens, en particulier ceux dont la santé est aisément compromise, soit les personnes âgées, les enfants et ceux qui ont des problèmes de santé chroniques tels que des allergies, l'asthme, des maladies coronariennes et plusieurs autres. Les effets des changements climatiques sur la santé pourraient avoir de fortes répercussions économiques, en termes de coûts, sur le système de soins de santé.

Puisqu'une grande part de la responsabilité en matière d'adaptation aux effets des changements climatiques sur la santé, notamment ceux qui sont liés à des conditions météorologiques exceptionnelles, incombe aux individus, Santé Canada a identifié le besoin de réaliser une recherche portant sur les connaissances, la sensibilisation, les attitudes et les habitudes des Canadiens à l'égard des changements climatiques, des effets possibles sur la santé, ainsi que sur la mesure dans laquelle ils pourraient être disposés à modifier leurs habitudes en réponse à ces risques pour la santé.

Méthodologie

Le sondage a été mené par Environics Research Group et il est fondé sur des entrevues par téléphone réalisées du 12 février au 3 mars 2008 auprès de 1 600 adultes canadiens auxquels s'est ajouté un suréchantillon de 203 aînés et de 200 personnes âgées de 18 à 64 ans ayant déclaré être atteintes d'un des états pathologiques ou des maladies présentées sur une liste. Un échantillon national de 1 600 répondants donne des résultats qui sont exacts à plus ou moins 2,4 points de pourcentage

dans 19 échantillons sur 20 (des marges d'erreur plus grandes s'appliquent aux sous-groupes de cette population).

Résultats clés

Les Canadiens jugent que les changements climatiques représentent maintenant une réalité environnementale qui constitue une menace grave à l'échelle mondiale et locale. En concordance avec les résultats obtenus dans d'autres recherches sur l'opinion, cette étude confirme que la plupart des Canadiens croient que des changements climatiques ou le réchauffement planétaire se produisent certainement et que ce problème va croissant; ceux qui sont certains que cela se produit actuellement croient aussi que c'est surtout en raison de l'activité humaine. Une forte proportion de Canadiens a remarqué des manifestations tangibles des changements climatiques dans leur propre collectivité et un grand nombre d'entre eux croient que cela pose déjà des risques pour eux-mêmes et pour leurs familles, sinon maintenant, dans un avenir très rapproché. Cela signifie que toutes les conditions sont réunies pour susciter une modification des comportements : les gens sont sensibilisés au problème, ils comprennent la nature générale des risques et ils croient que l'activité humaine en est la cause.

Simultanément, la recherche révèle aussi que les Canadiens commencent seulement à établir des liens entre les changements climatiques et les effets sur la santé humaine. En présence de suggestions, la population accepte volontiers la notion selon laquelle les changements climatiques supposent forcément des risques pour la santé, mais une proportion relativement faible semble toutefois comprendre de quelle façon les changements climatiques peuvent avoir une incidence sur la santé. Cette dichotomie provient en partie du

fait qu'avec le temps, la population en est venue à comprendre que les dangers environnementaux de presque toute nature posent certains types de risques pour la santé et, par conséquent, il est possible que les Canadiens acceptent peut-être ce lien avec les changements climatiques qu'ils le comprennent ou non, en particulier lorsqu'on leur en fait la suggestion dans un sondage. En outre, certaines observations faites dans ce sondage et d'autres recherches suggèrent que la population ne fait pas toujours clairement la distinction entre les changements climatiques et des dangers connexes et mieux connus telle la pollution de l'air (de même que l'appauvrissement de la couche d'ozone), qui ont en commun certaines des mêmes causes (p.ex. les émissions industrielles et des véhicules). La pollution de l'air est largement reconnue comme un danger pour la santé depuis des décennies et, avec le temps, les Canadiens en sont venus à bien comprendre les types d'effets sur la santé qui y sont rattachés (p.ex. les maladies respiratoires).

La compréhension limitée que la population affiche au sujet des liens directs qui existent entre les changements climatiques et la santé ne doit pas surprendre, et ce, pour deux raisons. En premier lieu, nous avons assisté à une explosion d'information au sujet des changements climatiques au cours des dernières années, mais dans les grands médias, la couverture et les discussions se rapportant aux conséquences directes pour le public ou pour la santé publique ont été moins fréquentes. Deuxièmement, les effets sur la santé liés aux changements climatiques (à l'exclusion de ceux qui sont liés aux vagues de chaleur intense) occupent un rang moindre dans les rapports de causalité : ils ne sont pas le résultat direct des changements climatiques proprement dits, mais plutôt de changements dans les vecteurs de maladie, dans la fréquence et l'intensité des conditions météorologiques exceptionnelles, ainsi que dans les conditions qui débouchent sur une mauvaise qualité de l'air. Le Canadien ordinaire comprend maintenant que les changements climatiques peuvent entraîner un accroissement de la fréquence des tempêtes ou des inondations côtières et, jusqu'à un certain point, il sait que les tempêtes et les inondations peuvent poser des risques pour la santé. Toutefois, cette recherche suggère que relativement peu de Canadiens ont beaucoup réfléchi à la façon dont les changements climatiques peuvent avoir une incidence sur la santé humaine par le truchement de changements dans les conditions

météorologiques et autres phénomènes environnementaux ou, encore, aux gestes qu'ils peuvent poser individuellement pour s'adapter à cette nouvelle réalité. Le niveau de sensibilisation et de préoccupation le plus élevé au sujet des effets des changements climatiques sur la santé est exprimé par les Canadiens qui sont les plus sensibilisés au dossier des changements climatiques (identifié par des mesures telles qu'avoir remarqué des effets précis ou des changements climatiques à l'échelle locale, croire que le réchauffement planétaire se produit et qu'il est en train de se produire *maintenant*). Ceux qui sont sensibilisés à ce problème ont plus tendance à croire qu'ils sont personnellement vulnérables aux impacts négatifs sur la santé et ils rapportent avoir déjà adopté des mesures afin de se protéger contre ces impacts.

Cette recherche n'établit pas clairement si cette sensibilisation accrue aux risques pour la santé que posent les changements climatiques se rapporte uniquement aux changements climatiques ou à des causes plus générales. Cela pourrait simplement dire qu'il existe un groupe de Canadiens qui sont plus sensibilisés aux questions environnementales et plus soucieux de leur santé, en général, et que les membres de ce groupe possèdent des caractéristiques qui les prédisposent davantage à poser des gestes afin de se protéger contre les risques des changements climatiques sur la santé, de la même manière dont ils sont aussi plus disposés à entreprendre d'autres activités visant à protéger l'environnement et leur santé. Le principal défi pour Santé Canada consiste à relever la sensibilisation des autres Canadiens à l'égard du réchauffement planétaire et de ses effets environnementaux à ce même niveau – plus précisément, voir les conséquences sur leur santé individuelle et adopter des mesures pour se protéger.

Cette étude a apporté une attention spéciale aux populations « à risque » : les aînés et les personnes qui ont un problème de santé chronique. Les individus qui ont un ou plusieurs problèmes de santé chroniques sont, de fait, plus enclins que d'autres à être à l'écoute des impacts possibles des changements climatiques, y compris les risques pour leur santé. Cela peut correspondre à un sentiment plus généralisé de vulnérabilité aux dangers environnementaux et aux risques pour la santé, plutôt qu'à des connaissances accrues au sujet des risques pour la santé que posent les changements climatiques proprement dits. Ceux qui ont des problèmes de santé

chroniques ont peut-être plus tendance à discuter des effets environnementaux possibles avec des professionnels de la santé, puisque certains changements posent également des risques personnels pour eux.

Les aînés, pour leur part, sont moins au courant des changements climatiques que les plus jeunes cohortes de la population, tant pour reconnaître qu'il s'agit d'un phénomène actuel (ce qui peut expliquer qu'ils soient plus enclins à ne pas en tenir compte) que pour en reconnaître des effets possibles pour eux (le manque d'expérience personnelle signifie qu'ils n'en comprennent pas très bien toute la portée). Il est possible que les aînés jugent que les changements climatiques représentent un problème à long terme qui sera réglé par les générations futures quand ils n'y seront plus. Des messages confirmant la réalité des changements climatiques et soulignant les possibilités d'effets sur la santé précis et à court terme pourraient être utilisés afin d'accroître le niveau de compréhension et l'adoption de mesures de prévention chez cette population.

Les points suivants résument les résultats clés qui sont issus de cette recherche :

Préoccupations à l'égard des dangers environnementaux pour la santé

- Spontanément, les Canadiens ne jugent pas que les changements climatiques sont un danger environnemental grave pour la santé. Les Canadiens ont le plus tendance à mentionner spontanément que la pollution de l'air ou le smog (54 %) représente le plus important risque environnemental pour la santé humaine, suivi de loin par la pollution de l'eau (18 %). Peu d'entre eux disent spontanément que le réchauffement planétaire (10 %) pose un risque élevé pour la santé. Les mentions du réchauffement planétaire sont les plus fréquentes en Ontario et en Colombie-Britannique (12 % chacun) et les moins fréquentes dans le Nord (5 %).
- En présence de suggestions de réponse, sept sur dix disent que les changements climatiques posent au moins un risque modéré pour la santé, dont 32 p. 100 qui affirment qu'ils posent un risque élevé. Ce niveau du risque perçu est considérablement plus faible que les cotes assignées à des problèmes tels que l'obésité (70 % jugent qu'elle pose un risque

élevé), les maladies du cœur (65 %) et la pollution de l'air (62 %), dont les effets directs sur le corps sont bien compris. Le niveau de risque pour la santé qui est assigné aux changements climatiques est du même ordre que celui assigné aux pandémies de grippe (29 %) et il est plus élevé que celui assigné aux vagues de chaleur intense (20 %), au virus du Nil occidental (16 %) et au froid extrême (15 %), qui sont tous des risques plus abstraits. Les résidents du Québec sont ceux qui ont le plus tendance à dire que les changements climatiques posent un risque élevé pour la santé (41 %). Ceux qui appartiennent aux deux groupes cibles (les aînés et les personnes qui ont des problèmes de santé chroniques) n'ont pas plus tendance que d'autres Canadiens à dire que les changements climatiques posent un risque élevé pour la santé.

- Sept Canadiens sur dix (69 %) pensent que les risques pour la santé posés par les changements climatiques ont *augmenté* au cours des 10 dernières années. La perception de risques accrus posés par les changements climatiques est quelque peu plus faible que la proportion qui dit de même au sujet de l'obésité (84 % croient que les risques ont augmenté) ou de la pollution de l'air (76 %), mais elle se situe au même niveau que la proportion qui juge que les risques ont augmenté pour les maladies du cœur et les polluants chimiques (64 % chacun) et elle est supérieure à la proportion qui juge que les risques liés au virus du Nil occidental (50 %) et à la pandémie de grippe (40 %) ont augmenté.

Connaissances et attitudes à l'égard des changements climatiques

- La reconnaissance de la réalité des changements climatiques est maintenant très répandue. Sept Canadiens sur dix (69 %) croient que le réchauffement planétaire est certainement en train de se produire; il s'agit de l'opinion majoritaire dans toutes les régions du pays, la plus élevée se retrouvant au Québec (78 %). Les Canadiens plus jeunes sont ceux qui ont le plus tendance à dire que le réchauffement planétaire est certainement en train de se produire.
- Pratiquement tous les Canadiens qui croient que le réchauffement planétaire est certainement en train de se produire affirment que c'est surtout (63 %) ou

en partie (34 %) causé par l'activité humaine, alors que très peu expriment le point de vue selon lequel l'activité humaine n'en est pas la cause (3 %). Cela suggère que des messages sur les mesures individuelles destinées à contrer les changements climatiques et leurs effets négatifs seront bien accueillis : dans l'ensemble, les gens croient que cela est en train de se produire et qu'ils peuvent y faire quelque chose.

- Le niveau élevé de reconnaissance de la réalité des changements climatiques est lié aux expériences personnelles : le quart (24 %) des Canadiens ont remarqué des changements dans leur collectivité qui, selon eux, seraient certainement le résultat du réchauffement planétaire et près de quatre sur dix (37 %) sont au courant de changements qui se sont produits ailleurs au Canada. Les changements remarqués le plus souvent sont des températures plus élevées (remarquées par 33 %) et moins de glace ou de neige (26 %). D'autres effets environnementaux des changements climatiques (tempêtes, inondations, vagues de chaleur) sont cités moins souvent.
- En présence de suggestions de réponse, les Canadiens ont le plus tendance à accepter que le réchauffement planétaire cause la fonte de pergélisol dans les régions de l'Arctique (58 % affirment qu'il s'agit certainement d'un impact). Environ quatre sur dix croient que les changements climatiques sont certainement la cause de la fréquence accrue des tempêtes (41 %), de la disparition de l'habitat faunique (40 %) et des inondations aux abords des rivières et dans les zones côtières (39 %). Ils sont moins enclins à établir un lien de causalité direct entre les changements climatiques et les feux de forêt (29 %) ou les conditions de froid extrême (25 %).

Perception des effets des changements climatiques sur la santé

- Même si les Canadiens n'ont pas clairement établi un lien dans leur esprit entre les changements climatiques et la santé, quand on leur présente des suggestions de réponse, ils croient qu'un tel lien est crédible. Six sur dix (63 %) sont capables de citer au moins un risque possible des changements climatiques pour la santé, mais aucun effet n'est mentionné très souvent. Les risques mentionnés le plus souvent sont les problèmes respiratoires et difficultés à respirer (22 %). Un sur dix (11 % chacun)

mentionne spontanément les maladies infectieuses/la grippe, le cancer et les effets de la qualité de l'air. En présence d'une liste des effets possibles sur la santé, les Canadiens ont le plus tendance à croire que les changements climatiques accroissent certainement les risques de problèmes respiratoires et de coups de soleil (46 %, chacun) et quatre sur dix (39 %) affirment qu'ils accroissent certainement leur risque d'être victime d'un coup de chaleur.

- Plus de la moitié des Canadiens (54 %) croient que les changements climatiques posent déjà un risque pour la santé des Canadiens aujourd'hui. Parmi les quatre sur dix (39 %) qui pensent que les changements climatiques poseront un risque pour la santé à l'avenir, il ne se dégage pas de consensus sur le moment à partir duquel les effets négatifs commenceront à se faire sentir, mais quatre sur dix pensent que cela se produira à un certain moment au cours des 10 prochaines années. Puisqu'un si grand nombre d'entre eux sont disposés à accepter que les changements climatiques posent un risque pour la santé maintenant ou qu'ils en poseront un dans un avenir rapproché, il existe la possibilité d'une bonne intégration des communications insistant sur le besoin de prendre immédiatement des précautions.
- Quand on donne aux Canadiens de l'information au sujet des effets possibles des changements climatiques sur la santé, un grand nombre d'entre eux sont capables, théoriquement au moins, d'établir un lien avec les risques locaux, voire personnels. Chez les Canadiens qui pensent que les changements climatiques posent un risque pour la santé, les trois quarts affirment que leur collectivité est certainement (29 %) ou probablement (47 %) vulnérable à ces effets négatifs. Les deux tiers sont d'avis qu'ils sont certainement (25 %) ou probablement (42 %) vulnérables, soit eux-mêmes ou un membre de leur ménage, alors qu'environ la moitié (46 %) d'entre eux affirment qu'un autre membre de leur ménage est tout particulièrement vulnérable aux impacts potentiels des changements climatiques sur la santé. Quand on leur demande quelles sont les populations qui seraient tout particulièrement vulnérables, les Canadiens mentionnent les aînés (45 %) et les enfants (33 %). Les aînés eux-mêmes, toutefois, sont ceux qui ont le moins tendance à être d'avis que les aînés sont une population vulnérable.

- Un grand nombre de Canadiens (51 %) soutiennent avoir récemment adopté, soit depuis un an, au moins une mesure afin de se protéger, ainsi que les membres de leur famille, des impacts potentiels des changements climatiques sur la santé. Il est toutefois bon de noter qu'un grand nombre des mesures mentionnées sont des gestes visant à réduire les impacts environnementaux en général, plutôt que des mesures visant à protéger la santé. Cela indique que les gens comprennent qu'ils ont un rôle à jouer pour contrer le réchauffement planétaire, mais cela n'indique pas clairement qu'ils établissent ou non un lien direct entre les changements climatiques et la protection de la santé. Se protéger des rayons du soleil (25 %) et réduire la quantité de déchets (11 %), l'utilisation des véhicules (7 %) et la consommation d'énergie (6 %) sont les mesures mentionnées le plus souvent. Très peu mentionnent que demeurer à l'intérieur en cas de mauvais temps ou de se vêtir en fonction des conditions météorologiques sont des mesures qu'ils ont adoptées afin de se protéger des effets négatifs des changements climatiques sur la santé.
- La majorité (61 %) des Canadiens affirme qu'eux-mêmes ou d'autres membres de leur ménage surveillent régulièrement la diffusion d'alertes en cas de phénomènes météorologiques extrêmes; la plupart (56 %) se tourneraient vers la télévision pour obtenir de l'information au sujet d'un phénomène météorologique extrême qui pourrait toucher leur collectivité, suivie de la radio (35 %).
- Plus de la moitié (55 %) des Canadiens affirment posséder une *trousse d'urgence* dans leur foyer. Les deux raisons mentionnées le plus souvent pour justifier le fait de ne pas posséder de trousse d'urgence sont de ne pas y avoir pensé et de ne pas prévoir en avoir besoin (32 %, chacun). Quatre sur dix (42 %) soutiennent qu'ils possèdent un *plan d'urgence familial*; la raison mentionnée le plus souvent pour ne pas en avoir un est de n'avoir jamais envisagé en avoir besoin (42 %).

Les paragraphes suivants présentent des résultats notables extraits du sondage pour certains sous-groupes de Canadiens.

Connaissance et attitudes au sujet des phénomènes météorologiques extrêmes et des préparatifs d'urgence

- La moitié (49 %) des Canadiens croient qu'une catastrophe causée par un phénomène météorologique extrême aura des répercussions sur leur collectivité à un certain moment au cours de leur vie. La majorité croit qu'un phénomène météorologique extrême poserait seulement un risque modéré (36 %) ou léger (38 %) pour la santé des gens qui vivent dans leur collectivité. Peu d'entre eux (11 %) croient qu'ils subiraient de fortes répercussions. Les résidents des Prairies et du Nord sont ceux qui ont le moins tendance à penser que les répercussions sur la santé d'un phénomène météorologique extrême seraient graves, peut-être parce qu'ils croient subir déjà des conditions météorologiques pires que la plupart des Canadiens. Lorsqu'on leur demande de préciser de quels risques il s'agit, très peu croient qu'ils auraient beaucoup de difficulté à se protéger eux-mêmes ou d'autres personnes, en cas d'inondation grave (15 %), d'une longue panne d'électricité (13 %) ou d'une vague de chaleur (7 %).

Région

Des majorités dans toutes les régions sont d'accord pour dire que le réchauffement planétaire est en train de se produire et que ses effets s'observent déjà, mais il existe des différences régionales qui sont notables en termes de perceptions des effets environnementaux à l'échelle locale, ce qui vient influencer les attitudes de ces Canadiens à l'égard des changements climatiques et de leurs effets possibles sur la santé. Cela entraîne également des différences dans leurs réponses aux questions se rapportant aux conditions météorologiques extrêmes et à la préparation aux situations d'urgence.

Territoires du Nord-Ouest. Les résidents des territoires sont ceux qui, spontanément, mentionnent le moins souvent les changements climatiques en tant que danger environnemental posant un risque pour la santé. Ce n'est pas parce qu'ils n'ont pas remarqué leurs effets dans leurs collectivités (ils sont ceux qui ont le plus tendance à dire qu'ils ont remarqué certainement des effets), mais parce que les risques pour la santé liés au froid extrême sont plus présents et parce qu'ils n'établissement peut-être pas de lien direct entre les

changements climatiques et la santé. Quand on leur suggère d'établir ce lien, ils comptent parmi ceux qui ont le plus tendance à penser que les risques pour la santé posés par les changements climatiques ont augmenté au cours des dix dernières années, mais ils sont divisés quant à savoir si l'activité humaine en est surtout ou en partie la cause; ils n'ont pas plus tendance que d'autres Canadiens à se sentir personnellement vulnérables aux risques pour la santé qui y sont associés. Peut-être parce qu'ils croient que leurs conditions météorologiques sont déjà passablement extrêmes, ils comptent parmi ceux qui ont le moins tendance à croire qu'un phénomène météorologique extrême pourrait poser un risque grave pour la santé des gens de leur collectivité.

Colombie-Britannique. Les Britanno-Colombiens partagent les opinions des autres Canadiens au sujet des dossiers entourant les changements climatiques et la santé, mais ils sont aussi différents à certains égards. Même s'ils ont plus tendance que d'autres Canadiens à penser que les personnes vivant à proximité de la côte seraient vulnérables aux changements climatiques, les résidents de la Colombie-Britannique comptent parmi ceux qui ont le moins tendance à penser qu'ils sont personnellement vulnérables aux effets des changements climatiques sur la santé, peut-être en raison du climat tempéré de leur région; ils comptent aussi parmi ceux qui sont les moins enclins à surveiller régulièrement la diffusion d'alertes en cas de phénomènes météorologiques extrêmes. Ils comptent également parmi ceux qui ont le moins tendance à penser que les changements climatiques ont une incidence sur la santé des Canadiens aujourd'hui ou à être capables de nommer un effet possible sur la santé causé par les changements climatiques.

Prairies. Les résidents de cette région sont ceux qui sont les plus sceptiques à l'égard du réchauffement planétaire, affichant une proportion plus élevée que dans toute autre région affirmant que le réchauffement planétaire pourrait se produire, mais que cela n'a pas encore été prouvé. Ils sont ceux qui ont le moins tendance à dire qu'ils ont remarqué des effets environnementaux qui pourraient avoir été causés par les changements climatiques, soit dans leur collectivité ou ailleurs au Canada, et ils sont les moins enclins à dire que divers effets environnementaux ont été causés par les changements climatiques. Ce sont les Canadiens qui ont le moins tendance à penser que les effets des

changements climatiques sur la santé s'accroissent, à penser que les changements climatiques ont déjà une incidence sur la santé ou à croire qu'ils sont personnellement vulnérables à ces risques. Ils ont aussi moins tendance à dire que les phénomènes météorologiques extrêmes posent un risque pour la santé; ils ont pourtant plus tendance que d'autres Canadiens à dire qu'il leur serait très difficile de se protéger advenant de graves inondations, des vagues de chaleur ou de longues pannes d'électricité.

Ontario. Tout comme les Britanno-Colombiens, les Ontariens partagent les points de vue de la plupart des Canadiens (ils représentent aussi le plus important segment régional de la population). Ils comptent parmi ceux qui ont le plus tendance à penser que les changements climatiques posent déjà un risque pour la santé des Canadiens aujourd'hui, ainsi que parmi ceux qui ont le plus tendance à être capables de nommer spontanément au moins un effet possible sur la santé, notamment des troubles respiratoires et des difficultés à respirer. Ils comptent aussi parmi ceux qui sont les plus enclins à croire qu'une vague de chaleur leur créerait de grandes difficultés.

Québec. Les Québécois se démarquent dans leurs points de vue au sujet des changements climatiques et de la santé, en ce qu'ils affichent plusieurs caractéristiques indiquant qu'ils sont sensibilisés davantage à ce dossier. Ils comptent parmi ceux qui ont le plus tendance à penser que les problèmes environnementaux posent un risque élevé pour la santé et à être d'avis que les changements climatiques causent probablement des impacts environnementaux, en particulier la fréquence accrue des tempêtes, des vagues de chaleur et des inondations. Ils sont ceux qui ont le plus tendance à être capables de nommer spontanément un effet possible des changements climatiques sur la santé, à croire que les changements climatiques accroissent certainement les risques pour la santé et à dire qu'ils sont en train de se produire aujourd'hui. Les Québécois sont ceux qui ont le moins tendance à dire qu'ils sont personnellement vulnérables aux effets du réchauffement planétaire sur la santé et à dire qu'un individu dans leur ménage est tout particulièrement vulnérable. Ils sont ceux qui ont le plus tendance à croire qu'un phénomène météorologique extrême pose un risque élevé pour la santé, mais ils sont ceux qui, malgré tout, ont le moins tendance à surveiller la diffusion d'alertes en cas de phénomènes météorologiques extrêmes.

Canada atlantique. Règle générale, les résidents de la région atlantique partagent les points de vue d'autres Canadiens, avec quelques exceptions notables. Ils sont passablement enclins à être capables de nommer des risques possibles pour la santé associés aux changements climatiques, mais ils sont moins enclins que les Québécois ou les Ontariens à penser que les changements climatiques ont une incidence sur la santé aujourd'hui. Ils diffèrent des autres Canadiens surtout en ce qui a trait à leurs attitudes à l'égard des phénomènes météorologiques extrêmes et de la préparation en cas de situation d'urgence. Les Canadiens de la région atlantique sont ceux qui ont le plus tendance à rapporter qu'ils possèdent une trousse d'urgence, à penser qu'une catastrophe causée par un phénomène météorologique se produira dans leur collectivité au cours des deux prochaines années et à penser qu'une vague de chaleur leur créerait de grandes difficultés.

Groupes d'âge

L'âge est un des facteurs les plus importants en ce qui a trait à la sensibilisation et aux attitudes à l'égard des changements climatiques et de la santé. Les Canadiens plus jeunes (âgés de 18-34 ans) sont ceux qui ont le plus tendance à mentionner spontanément les changements climatiques en tant que risque pour la santé, à dire que les changements climatiques posent un risque élevé pour la santé quand on leur offre des choix de réponse, à croire que les changements climatiques sont certainement en train de se produire et à croire que les risques posés par les changements climatiques ont augmenté au cours des dix dernières années. La recherche indique que ces opinions sont toutes liées à l'établissement d'une association entre changements climatiques et problèmes de santé.

Même s'ils sont peut-être plus à risque que des Canadiens plus jeunes, les aînés n'ont pas plus tendance que d'autres à penser que les changements climatiques posent un risque élevé pour la santé et, de fait, ils ont moins tendance à penser qu'ils se produisent certainement ou à avoir remarqué dans leur collectivité des effets qui seraient causés par le réchauffement planétaire. Les aînés sont ceux qui ont le moins tendance à être capables de nommer spontanément au moins un risque possible pour la santé causé par les changements climatiques, à penser que les changements climatiques posent un risque pour la santé aujourd'hui ou à être

en mesure de dire à partir de quand ils pensent que les changements climatiques commenceront à causer ces effets. Ils ont aussi moins tendance que les Canadiens âgés de moins de 65 ans à penser qu'eux-mêmes ou leur collectivité sont vulnérables, à dire que quelqu'un dans leur ménage est tout particulièrement vulnérable ou à nommer les aînés en tant que population qui pourrait être vulnérable aux risques des changements climatiques sur la santé. Ce dernier point est notable parce que les aînés ont reçu une foule de messages à propos de leur plus grande vulnérabilité à d'autres risques pour la santé (par exemple, leur besoin accru de vaccin contre la grippe). Les aînés n'établissent pas de lien direct entre le réchauffement planétaire et leur vulnérabilité personnelle à son incidence sur la santé.

Parmi toutes les générations, les aînés sont aussi ceux qui ont le moins tendance à être d'avis que les phénomènes météorologiques extrêmes posent un risque pour la santé des gens qui vivent dans leur collectivité, et ce, même s'ils sont ceux qui, de fait, ont le plus tendance à rapporter qu'ils possèdent une trousse d'urgence ou surveillent régulièrement la diffusion d'alertes en cas de phénomènes météorologiques extrêmes. Ils sont ceux qui sont les moins enclins à penser qu'une catastrophe causée par un phénomène météorologique extrême se produira dans leur collectivité au cours de leur vie, peut-être parce que le nombre d'années qui leur reste sera probablement plus court que ce à quoi peuvent s'attendre les Canadiens plus jeunes.

Problèmes de santé chroniques

Deux aspects liés aux problèmes de santé chronique ont été examinés dans ce sondage : le fait de savoir si le répondant ou quelqu'un d'autre dans son ménage a un problème de santé chronique et dans quelle mesure le problème de santé chronique rapporté nuit à vie de tous les jours de cette personne. Ces deux aspects ont une certaine incidence sur les opinions au sujet des changements climatiques et de la santé, mais pas toujours une forte incidence.

Le fait d'avoir un problème de santé chronique n'est pas un facteur qui influence les opinions quant à savoir si les risques pour la santé causés par les changements climatiques ont augmenté ou pour coter le niveau de ce risque. Cependant, il est important de noter que ceux qui mentionnent la présence d'un problème

de santé chronique dans leur ménage (soi-même ou quelqu'un d'autre) ont plus tendance à croire que leur collectivité serait vulnérable aux effets des changements climatiques sur la santé et, aussi, qu'ils sont personnellement plus vulnérables. Cette disposition à s'identifier à un état de vulnérabilité aux risques, quand ont leur présente des choix de réponse, indique qu'il existe une possibilité de communiquer des messages se rapportant à des risques sur la santé précis et aux mesures de prévention connexes.

Les Canadiens qui ont un problème de santé chronique ont plus tendance que d'autres à avoir déjà adopté au moins une mesure depuis un an dans le but de se protéger des effets négatifs des changements climatiques. Cependant, ils n'ont pas plus tendance que d'autres à croire que les changements climatiques posent un risque élevé pour la santé, ce qui signifie que le lien précis qui doit exister entre les changements climatiques, en tant que facteurs de risque proximaux, et leur santé individuelle, reste encore à établir.

Les personnes qui ont des problèmes de santé chronique ont plus tendance à reconnaître qu'elles auraient de la difficulté à se protéger en cas de vague de chaleur, mais elles n'ont pas plus tendance que d'autres à penser qu'une catastrophe causée par un phénomène météorologique extrême se produira dans leur collectivité à un certain moment.

Autres caractéristiques individuelles

Sexe. Il y a peu de différences notables en matière de changements climatiques et de problèmes de santé en fonction du sexe. Les femmes ont légèrement plus tendance que les hommes à croire qu'elles sont personnellement vulnérables aux effets des changements climatiques sur la santé et, aussi, à mentionner que les aînés, les enfants ou les personnes malades seraient tout particulièrement vulnérables. Chez ceux qui ont remarqué des changements attribuables au réchauffement planétaire, soit dans leur collectivité ou ailleurs au Canada, les hommes ont plus tendance que les femmes à mentionner qu'ils ont remarqué des températures plus chaudes ou moins de glace et de neige.

Scolarité. Il existe certaines différences d'opinions notables en fonction du niveau de scolarité, mais ce

facteur n'est toutefois pas aussi important que l'âge. Les Canadiens possédant un diplôme universitaire ont plus tendance que ceux qui sont moins scolarisés à dire qu'ils ont remarqué, ailleurs au Canada, des changements qui sont certainement causés par les changements climatiques et ils sont ceux qui ont le plus tendance à mentionner que ce changement est une diminution de la quantité de glace ou de neige. Ceux qui possèdent moins qu'un diplôme d'études secondaires sont ceux qui ont le plus tendance à croire que le réchauffement planétaire cause certainement des vagues de chaleur et des inondations. Alors qu'ils sont plus sceptiques quant à savoir si les changements climatiques *accroissent* réellement certains risques pour la santé, ceux possédant des niveaux de scolarité plus élevés ont aussi plus tendance à penser que ces risques pour la santé existent *aujourd'hui*. Ceux qui sont plus scolarisés sont plus en mesure de mentionner les types de Canadiens qui pourraient être tout particulièrement vulnérables aux effets du réchauffement planétaire sur la santé, notamment les résidents du Nord, les personnes pauvres ou les sans-abri ou les résidents des zones côtières; ils ont aussi plus tendance que ceux qui possèdent moins qu'un diplôme d'études secondaires à mentionner qu'ils ont adopté au moins une mesure depuis un an, afin de se protéger, eux-mêmes ou d'autres individus, contre ces effets négatifs. L'instruction est aussi un facteur dans les opinions formées au sujet des phénomènes météorologiques extrêmes : ceux qui sont plus scolarisés sont plus enclins à penser que les effets d'un phénomène météorologique extrême sur la santé seraient légers.

Revenu du ménage. Le niveau de revenu n'est pas un facteur important dans la sensibilisation et les attitudes à l'égard des changements climatiques et de la santé. Ceux qui affichent les revenus du ménage les plus élevés (100 000 \$ ou plus) sont ceux qui ont le plus tendance à nommer spontanément les changements climatiques en tant que danger environnemental pour la santé, ainsi qu'à croire que le réchauffement planétaire cause certainement des inondations. Cependant, le fait d'afficher un revenu du ménage élevé est aussi lié à un scepticisme accru quant à savoir si le réchauffement planétaire accroît réellement les risques pour la santé; les mieux nantis sont aussi ceux qui ont le plus tendance à penser qu'un phénomène météorologique extrême poserait peu ou pas du tout de risque pour la santé des gens de leur collectivité.

Caractéristiques attitudinales

Parce que les différences démographiques, à l'exclusion de l'âge, ne sont pas très marquées sur cette question, une analyse a été effectuée afin de mieux comprendre l'importance de facteurs attitudinaux. Cette analyse révèle certaines différences importantes, mais il n'existe toutefois pas de clé simple permettant de comprendre pourquoi certains Canadiens sont plus sensibilisés à ce dossier que d'autres.

Le fait de croire que le réchauffement planétaire se produit certainement (69 % des Canadiens) ou qu'il n'est qu'une possibilité qui n'a pas encore été prouvée (27 %) est un important facteur de différenciation dans les opinions ultérieures au sujet de ses répercussions sur l'environnement et la santé. Ceux qui pensent que le réchauffement planétaire n'a pas encore été prouvé ont moins tendance que ceux qui y croient à être capables de nommer spontanément un danger environnemental pour la santé, à penser que les changements climatiques accroissent certainement les risques pour la santé ou à croire qu'ils sont personnellement vulnérables. Ils ont moins tendance à percevoir que les phénomènes météorologiques posent un risque élevé pour la santé et moins tendance à avoir déjà adopté une mesure, afin de se protéger contre les effets des changements climatiques. Cependant, une proportion importante de ceux qui ne pensent pas que le réchauffement planétaire ait été encore prouvé croient tout de même que leur collectivité est à tout le moins probablement vulnérable à ses effets sur la santé, alors que six sur dix d'entre eux croient que les changements climatiques commenceront à avoir une incidence sur la santé des Canadiens au cours des 15 prochaines années.

Le fait de croire que le réchauffement planétaire existe est fortement lié à des expériences personnelles : c'est-à-dire, avoir remarqué dans sa collectivité ou ailleurs au Canada des changements environnementaux qui sont certainement causés par les changements climatiques. Ceux qui sont conscients de tels changements environnementaux, semblent également mieux capables de comprendre, en particulier lorsqu'on leur présente des suggestions de réponse, qu'il existe un lien entre le réchauffement planétaire et des effets environnementaux qui, à leur tour, peuvent avoir des répercussions sur la santé et, ils sont également mieux en mesure d'établir le lien avec leur santé personnelle, à croire qu'ils sont à risque et à être disposés à adopter des mesures.

Il existe un lien entre la sensibilisation au problème du réchauffement planétaire et le fait d'avoir adopté au moins une mesure depuis un an pour se protéger contre ses effets négatifs sur la santé. Ceux qui sont plus sensibilisés aux dossiers environnementaux ont également plus tendance à croire qu'un phénomène météorologique extrême se produira dans leur collectivité au cours de leur vie et à afficher une perception plus marquée du risque qu'un tel phénomène pose pour la santé.

Recommandations

Le défi central auquel font face Santé Canada et d'autres organismes œuvrant dans le domaine de la santé publique qui cherchent à promouvoir des mesures centrées sur la prévention, consiste à accroître la compréhension du public au sujet des liens qui existent entre les changements climatiques et la santé, de manière à identifier clairement quels sont les risques précis et les mesures nécessaires. Au lieu de centrer ses efforts sur la protection de la santé contre les changements climatiques proprement dits, qui sont habituellement perçus comme posant des types de risques incertains et à plus long terme (plutôt que les risques à court terme qui sont bien connus), Santé Canada devrait envisager la possibilité d'attirer l'attention sur des aspects liés aux risques immédiats pour la santé, au lieu d'aborder le problème plus abstrait des changements climatiques ou du réchauffement planétaire, afin que le besoin d'une modification des comportements devienne à la fois compréhensible et souhaitable. Les communications devraient indiquer quels effets environnementaux sont ressentis maintenant, montrer quelles sont les répercussions de ces effets sur la santé, ainsi que présenter les mesures précises que les Canadiens peuvent adopter afin de réduire les risques. La prévention de ces risques doit être identifiée comme étant à la fois personnelle, nécessaire et réalisable.

À partir des résultats et des conclusions de la recherche, les recommandations suivantes sont soumises à la réflexion de Santé Canada :

1. Toute campagne de marketing social ou de communication visant à accroître la sensibilisation du public et son engagement à l'égard des questions entourant les changements climatiques et la santé, devrait se fonder sur deux types de messages qui sont

étroitement liés. Premièrement, relever le niveau de sensibilisation du public à l'égard des risques pour la santé qui sont liés aux dangers environnementaux directs et proximaux (p.ex. les phénomènes météorologiques extrêmes, les vecteurs de maladie, la pollution de l'air, les inondations et les sécheresses), parce qu'il s'agit de dangers « traditionnels » qui font seulement surface dans la conscience collective en cas de catastrophe. Deuxièmement, renforcer la première étape à l'aide de messages mettant l'accent sur le fait que ces dangers dits traditionnels vont croissant et nécessitent qu'on y porte plus d'attention (c.-à-d. que des mesures de prévention précises doivent être adoptées) parce qu'ils sont aggravés par les changements climatiques. Parce que les changements climatiques sont largement reconnus comme étant une réalité, les Canadiens comprendront que ces mesures doivent être prises si des liens directs ont pu être établis par les communications.

2. L'information au sujet des risques pour la santé, qui sont liés aux dangers provenant changements climatiques, doit être de nature régionale. Dans le Nord, par exemple, les changements climatiques sont peut-être mieux connus et compris, en termes de changements environnementaux, mais les répercussions pour la santé publique ne sont pas aussi bien connues. Une difficulté différente se pose dans les Prairies, là où la population a tendance à être plus sceptique au sujet des changements climatiques, en général.
3. Les communications doivent aussi être adaptées aux différentes cohortes d'âges. Les messages s'adressant aux aînés peuvent tabler sur le fait que cette cohorte est probablement mieux renseignée au sujet des dangers environnementaux de nature traditionnelle et qu'elle s'est déjà montrée réceptive à l'adoption de mesures pour se protéger (p.ex. surveillez la diffusion d'alertes en cas de phénomènes météorologiques extrêmes, posséder des trousse d'urgence chez soi). Chez ce groupe, l'attention doit viser à relever le niveau de sensibilisation à l'égard de l'importance des changements climatiques en tant que quelque chose qui peut nuire à leur santé à court terme et non pas dans un nébuleux avenir lointain. Santé Canada peut aussi s'appuyer sur d'autres messages qui persuadent les aînés qu'ils sont plus vulnérables

à certains types de risques pour la santé, ce qui leur a été communiqué avec succès à propos de la grippe, par exemple. Les Canadiens plus jeunes acceptent plus facilement la gravité des changements climatiques en tant que problème environnemental, mais ils sont habituellement moins centrés sur leur santé et se sentent moins vulnérables aux dangers environnementaux traditionnels. Pour ce groupe, la clé sera d'utiliser l'angle des changements climatiques comme point de départ pour les inciter à prendre plus au sérieux les risques qui y sont associés.

4. Comme avec la plupart des promotions de la santé, la télévision sera le véhicule médiatique le plus utile pour généraliser la sensibilisation du public à l'égard des messages clés entourant les changements climatiques et la santé. La télévision demeure le véhicule médiatique le plus utilisé auprès du public et elle représente le meilleur choix pour rejoindre le public cible des populations « à risque. » Cependant, compte tenu des limitations inhérentes à la télévision pour donner des messages en profondeur et adaptés, elle doit être surtout utilisée pour attirer généralement l'attention et pour orienter les Canadiens vers d'autres sources médiatiques, y compris la radio, les journaux et Internet. Parce que les aînés représentent un groupe cible important, il est important de continuer d'émettre des communications dans les médias imprimés, qu'ils utilisent probablement plus qu'Internet (dans le *Sondage national de 2007 sur le radon et la qualité de l'air intérieur*, pour ne nommer qu'un exemple, lorsqu'ils ont été invités à dire quelles sont les sources qu'ils consulteraient pour obtenir de l'information au sujet de radon, les répondants âgés de 60 ans ou plus ont eu deux fois moins tendance à mentionner Internet que les Canadiens plus jeunes).
5. Dans le développement d'une approche pour éduquer et pour sensibiliser le public à l'égard de ce dossier, Santé Canada devrait mettre à profit les expériences et les enseignements tirés récemment, soit lors de l'élaboration de nouveaux outils de communication abordant un problème connexe, soit de relever le niveau de sensibilisation du public et de promouvoir l'adoption de mesures de protection liées à la qualité de l'air et à la santé.

INTRODUCTION

Background

Climate change is expected to create new, potentially unanticipated health effects on Canadians, and the associated hazards (such as air pollution, extreme weather events like heat waves, water- and air-borne contamination, and vector-borne infectious diseases) may impact many of us. The risks are considerably greater for those whose health is easily compromised: namely the elderly, children and those with chronic conditions such as allergies, asthma, chronic obstructive pulmonary disease (COPD) and coronary artery disease. Apart from the health impacts experienced by these individuals, such health effects may have economic impacts in the form of costs to the health care system, and lost worker productivity.

Although governments have an important role to play in informing citizens about their risks and of the precautions they can take to reduce them, much of the responsibility for adapting to the health impacts of climate change falls to individuals themselves. It is therefore important that Canadians become aware of, and understand, the health risks associated with climate change. To develop effective adaptations to aid in protecting public health, it is necessary to understand how Canadians perceive these risks and how they might be willing to change their behaviours in response to them. Health Canada commissioned public opinion research to address these information needs.

Research objectives

The purpose of this research is to acquire information about the views of adult Canadians (and, in particular, senior citizens and those with certain related chronic health conditions) on issues pertaining to climate change and its impact on health.¹ The results of this quantitative research will be used by public health and emergency management decision-makers and other interested stakeholders. It establishes baseline data against which public health campaigns on climate change health risks, and promoting effective adaptive behaviours can be developed and implemented.

More specifically, this research is intended to:

- Assess Canadians' level of concern about climate change and the extent to which it is seen as posing significant personal health threats;
- Determine Canadians' views about how climate-related health risks compare to other risks people face;
- Determine awareness, attitudes and behaviours around extreme weather and emergency preparedness.

This report begins with an executive summary outlining key findings and conclusions, followed by a detailed analysis of the survey data. Unless otherwise noted, all results are expressed as a percentage. The designation "n=" in a chart or table denotes the unweighted base of subgroup respondents.

¹ The terms "climate change" and "global warming" were used interchangeably in the survey questionnaire, and are thus used in a similar way in this report.

CONCERNS ABOUT ENVIRONMENTAL HEALTH RISKS

Canadians' understanding of how climate change might impact their health is best considered in the more general context of how other environmental issues are seen to affect health. Therefore, this survey began with broad-ranging questions about environmental health risks, the perceived level of risk that certain environmental problems pose to Canadians, and whether they feel the risks of these environmental factors are increasing or decreasing over time.

General concerns about environmental health risks

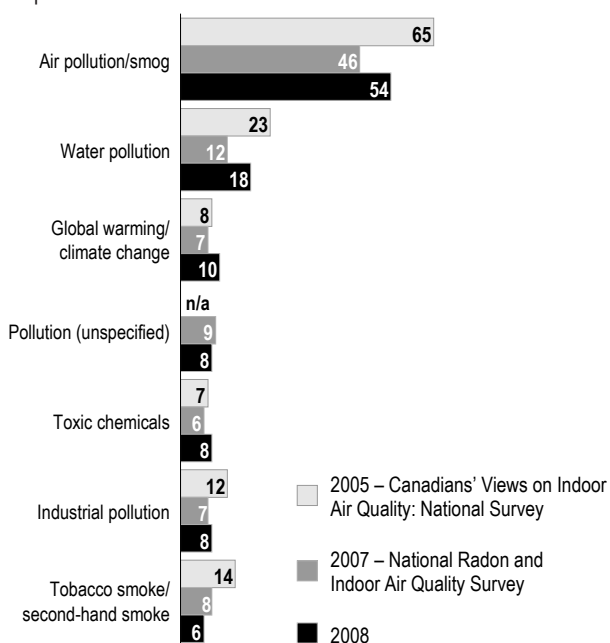
Canadians are most likely to consider air pollution or smog to be the most significant top-of-mind environmental risk to human health, followed by water pollution. By contrast, few identify climate change as posing the greatest health risk.

To place the issue of the health impacts of climate change in a broader context, people were asked to identify, without prompting, the environmental problems or hazards they believe pose the greatest risk to the health of Canadians. This question is intended to measure "top-of-mind" awareness (what comes first into peoples' minds) rather than assessing specific hazards, which are probed in a subsequent question. Multiple responses were permitted. This repeats a question previously included in a 2005 Health Canada survey on indoor air quality and a 2007 survey on radon.² The research shows that unprompted mentions of climate change have remained quite stable since 2005.

As was the case in these previous studies, air pollution or smog remains by far the most commonly cited top-of-mind environmental health risk, mentioned by 54 percent overall (either as their first mention or in a

Environmental problems that pose greatest health risk

Top mentions 2005 – 2008



Q.1

In your view, what environmental problem or hazard would you say poses the greatest risk to the health of Canadians? What other environmental problems or hazards pose a significant risk to people's health?

² *Canadians' Views on Indoor Air Quality: 2005 National Survey* and *2007 National Radon and Indoor Air Quality Survey*, both conducted for Health Canada by Environics Research Group.

subsequent mention). This is likely because the direct health effects of poor air quality have been widely experienced and are well understood. Far fewer mention other hazards, such as water pollution (18%, up 6 percentage points since 2007), global warming or climate change (10%), and toxic chemicals, pollution in general and industrial pollution (8% each). The personal health risks posed by these risks, while considerable, are less likely to have been experienced and are therefore more abstract. Second-hand smoke, cited as a health risk by 14 percent in 2005, has dropped to six percent in the current survey. Twelve percent say nothing or are unable to cite an environmental problem that constitutes a major health risk.

Air pollution is the top environmental problem in all regions of the country. The Canadians who are most likely to cite this issue are Ontarians (59%), while those least likely are residents of the Prairies (47%) and the Atlantic region (49%). There are no notable demographic differences in mentioning air pollution by age, gender, education or household income, but mentions are marginally higher among those who have someone in the home with a chronic condition (57%) than those who do not (50%).

At a later point in the survey, those who agree that climate change poses a health risk to Canadians either now or in the future (94% of the population) were asked the extent to which they feel *personally* vulnerable to the health impacts of climate change. Believing that one is personally vulnerable proves to be an important indication that someone is sensitive to the issue of climate change and its attendant environmental risks, and is a factor in attitudes expressed on various issues around climate change and health. For example, unprompted mentions of air pollution as a health risk are higher among those who say they are either definitely (59%) or likely (57%) vulnerable to the health effects of climate change than among those who believe they are not personally vulnerable (49%).

Top-of-mind mentions of global warming are highest in Ontario (12%) and B.C. (12%), and lowest in the North (5%). Those most likely to mention global warming are aged 18 to 34 (16%). Mentions of global warming decrease as age increases. It is also cited more by those with a university degree (14%), and those with household incomes of \$100,000 or more (14%) than those in lower socio-economic circumstances, and by Canadians with someone else in the household with a chronic medical condition that impairs that person a great deal (17%). There are no significant differences in citing global warming as a top-of-mind environmental health risk among those reporting they have a chronic condition.

Water pollution is cited most by residents of the Territories (26%) and Quebec (21%), and is actually mentioned least by those living near either coast: British Columbia (14%) and the Atlantic (12%). As with air pollution, water pollution mentions are linked to a perception of personal vulnerability to the effects of climate change.

Later in the survey, Canadians are asked if they believe climate change is definitely happening, or if it may be happening but is not yet proven. Those who believe that climate change is definitely occurring are more likely than those who do not think it is proven to spontaneously mention that health risks are posed by air pollution (56% vs. 48%), water pollution (21% vs. 10%) and global warming (13% vs. 5%). Those who think it is not proven are more likely to not be able to name an environmental problem that is a risk to health (20% vs. 9% who think global warming is definitely happening). Awareness of, or sensitivity to, climate change-related risk is a notable factor in responses to subsequent questions.

Ratings of environmental health risks

Seven in ten Canadians believe that climate change is a moderate to major risk to health. This perceived level of risk is considerably below obesity, heart disease and air pollution, on par with pandemic flu epidemics, and greater than heat waves, West Nile virus and extreme cold.

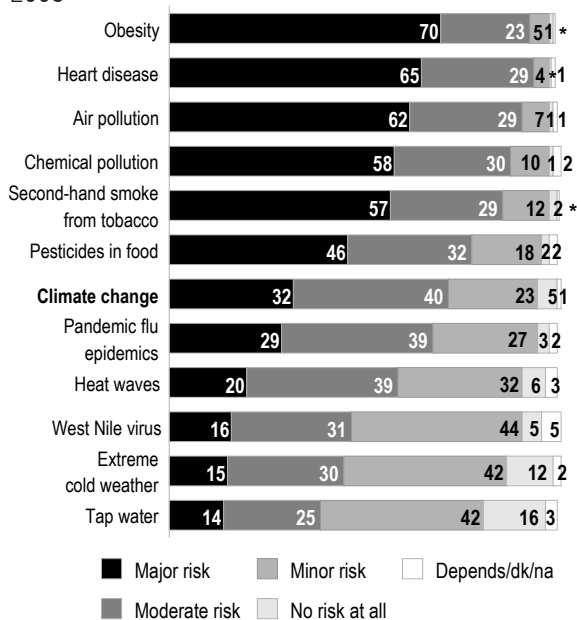
Canadians were asked to rate the risk of 12 specific potential hazards to health, to determine how climate change is viewed in relation to other major health risks when specifically prompted. A majority believe that most of these hazards are at least a moderate health risk. The exceptions are West Nile virus and extreme cold weather, considered at least a moderate risk by just under half, and tap water, considered risky by four in ten.

Among the 12 risks rated, the highest health risk rating is given to obesity (70% say it is a major risk), followed by heart disease (65%) and air pollution (62%). Climate change is considered a major health risk by three in ten adult Canadians (32%), with an additional four in ten (40%) who believe it to be a moderate risk. This is about the same level of risk that is assigned to pandemic flu epidemics, but below the risk assigned to pesticides in food.

As can be expected, there are some regional differences in regarding these factors as major risks to health. Quebec residents are among the most likely to say that these factors pose a major risk to health, particularly in the cases of chemical pollution (72% compared to an average of 53% in the rest of Canada), climate change (41% vs. an average of 29% elsewhere), air pollution (77%, vs. 58%), heat waves (32%, vs. 17%) and pesticides in food (57% vs. 43%).

Northern residents are, understandably, the most likely to see extreme cold weather (39%) as a major risk to health, and are the least likely to rate air pollution (34%) or climate change (17%) as major health risks. In the case of climate change, this is not because the environmental effects of climate change are going unnoticed in the region (this is addressed later in the report), but likely because Northerners are not yet making a connection between these effects and their personal health.

Risk of factors to health of Canadians 2008



* Less than one percent

Q.2

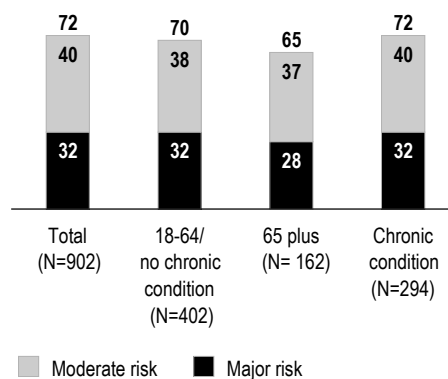
I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Base: Each respondent randomly asked 8/12 items

Atlantic Canadians are the most likely to think heart disease is a major health risk (82%). Concern about second-hand smoke from tobacco as a major health risk is lowest in the North (45%) and B.C. (46%), and increases as one moves east.

Persons with a chronic medical condition are marginally more likely than those who do not have such a condition to rate each of these factors as a major risk to health, with the sole exception of climate change. For climate change, their assessment of major risk is the same as that of persons under age 65 who do not have a chronic condition.

Risk of climate change to health of Canadians 2008



Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Base: Each respondent randomly asked 8/12 items

Major risk to health

By region 2008

		TOTAL	NORTH	B.C.	PRAIRIES	ONTARIO	QUEBEC	ATLANTIC
Obesity	(n=938)	70	69	59	66	72	77	68
Heart disease	(n=1,146)	65	46	58	66	67	61	82
Air pollution	(n=1,154)	62	34	53	46	64	77	64
Chemical pollution	(n=1,145)	58	54	51	41	59	72	49
Second-hand smoke	(n=1,139)	57	45	46	54	58	61	70
Pesticides in food	(n=919)	46	40	49	32	44	57	51
Climate change	(n=902)	32	17	27	22	31	41	34
Pandemic flu epidemics	(n=1,159)	29	34	25	29	30	31	28
Heat waves	(n=916)	20	20	15	11	20	32	13
West Nile virus	(n=1,168)	16	5	8	14	15	24	12
Extreme cold weather	(n=1,165)	15	39	8	12	15	17	20
Tap water	(n=903)	14	5	12	10	15	17	11

Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Base: Each respondent randomly asked 8/12 items

Although having a chronic medical condition by itself is not a factor in believing climate change to be a major risk, those whose condition causes them a great deal of

impairment are considerably more likely than those less affected to see climate change as a major risk.

Major risk to health

By existence of chronic condition and level of impairment 2008

		HAVE A CHRONIC CONDITION			HAVE A CHRONIC CONDITION: * LEVEL OF SELF-IMPAIRMENT **		
		TOTAL	No	Yes*	GREAT DEAL	SOME	NOT VERY/NONE
Obesity	(n=938)	70	69	74	67	73	71
Heart disease	(n=1,146)	65	61	75	75	77	70
Air pollution	(n=1,154)	62	60	69	69	69	68
Chemical pollution	(n=1,145)	58	54	68	65	70	64
Second-hand smoke	(n=1,139)	57	56	60	68	64	56
Pesticides in food	(n=919)	46	42	56	65	58	48
Climate change	(n=902)	32	32	32	43	35	29
Pandemic flu epidemics	(n=1,159)	29	26	38	41	34	34
Heat waves	(n=916)	20	18	25	36	26	18
West Nile virus	(n=1,168)	16	15	19	18	18	17
Extreme cold weather	(n=1,165)	15	12	21	25	22	14
Tap water	(n=903)	14	13	15	25	15	11

* includes seniors with chronic conditions

**includes persons with chronic conditions interviewed as an oversample

Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Base: Each respondent randomly asked 8/12 items

There are some notable differences by age subgroups. Younger Canadians are the least likely to rate most factors as major health risks, with the exceptions of climate change, which is seen as a major risk by higher proportions of those 18 to 34 years of age, and tap

water and extreme cold weather, which are considered a major risk by lower proportions of all ages. Despite being at potentially greater risk, seniors are no more likely than others to think of climate change as a major health risk.

Major risk to health

By age 2008

		TOTAL	18-34	35-49	50-64	65+
Obesity	(n=938)	70	61	74	73	71
Heart disease	(n=1,146)	65	59	70	72	73
Air pollution	(n=1,154)	62	59	64	65	62
Chemical pollution	(n=1,145)	58	46	64	60	60
Second-hand smoke	(n=1,139)	57	56	54	58	65
Pesticides in food	(n=919)	46	32	50	53	52
Climate change	(n=902)	32	35	32	30	28
Pandemic flu epidemics	(n=1,159)	29	23	26	34	39
Heat waves	(n=916)	20	18	16	23	26
West Nile virus	(n=1,168)	16	13	15	16	22
Extreme cold weather	(n=1,165)	15	14	10	17	19
Tap water	(n=903)	14	15	14	13	15

Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Base: Each respondent randomly asked 8/12 items

Canadians who believe that global warming is definitely happening are more likely than those who think it unproven to rate air pollution (71% vs. 43%) and climate change (39% vs. 15%) as major risks to health. However, they are also more likely to think this of chemical pollution (63% vs. 47%) and pesticides in food (50% vs. 37%), so it may be the case that these individuals simply have a more heightened environmental or health awareness in general, rather than concerns about climate change and health in particular.

Those who think that global warming is definitely happening were subsequently asked if they think it is mostly, partly, or not caused by human activity. Those who think that it is mostly caused by humans (47%) are more likely than those who only partly attribute its cause to humans (26%) to rate climate change as a major health risk.

Major risk to health

By belief in global warming and perception of cause 2008

		GLOBAL WARMING IS...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		TOTAL	DEFINITELY HAPPENING	NOT YET PROVEN	
					MOSTLY PARTLY
Obesity	(n=938)	70	74	60	76 70
Heart disease	(n=1,146)	65	66	63	66 67
Air pollution	(n=1,154)	62	71	43	73 69
Chemical pollution	(n=1,145)	58	63	47	67 55
Second-hand smoke	(n=1,139)	57	58	57	57 59
Pesticides in food	(n=919)	46	50	37	51 47
Climate change	(n=902)	32	39	15	47 26
Pandemic flu epidemics	(n=1,159)	29	29	30	29 29
Heat waves	(n=916)	20	23	16	25 19
West Nile virus	(n=1,168)	16	15	17	15 14
Extreme cold weather	(n=1,165)	15	13	18	11 15
Tap water	(n=903)	14	13	16	14 10

Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

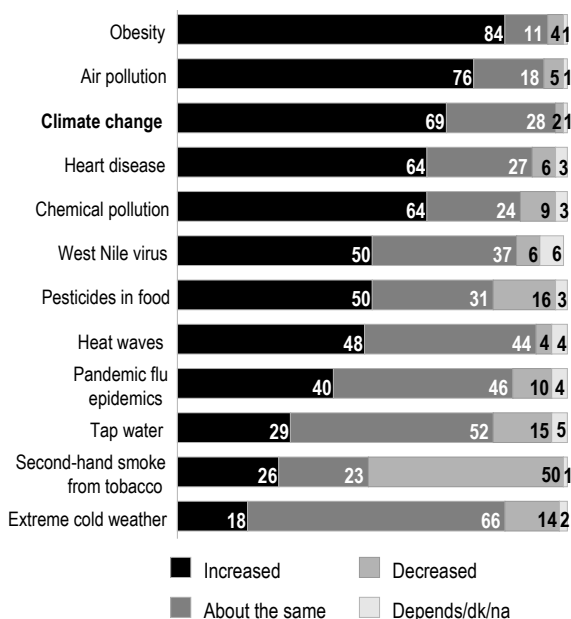
Base: Each respondent randomly asked 8/12 items

Change in health risks over past 10 years

Seven in ten think that the health risks posed by climate change have increased in the past 10 years, a similar perceived increase to heart disease and chemical pollution.

For each of the potential health risks rated, Canadians were also asked if they believe each specific risk has increased, decreased or remained the same over the past 10 years. Climate change now moves up the list of health risks relative to the others. Canadians are most likely to think that the risks posed by obesity (84%) and air pollution (76%) have increased, followed by climate change (69%), and are least likely to think that the risks from extreme cold weather have increased (18%). Fully half (50%) believe that the health risks posed by second-hand smoke have decreased in the past 10 years, the only issue presented where a perception of risk reduction is shared by a plurality.

Change in health risks over past 10 years 2008



Q.3

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

Base: Each respondent randomly asked 8/12 items

There are some regional differences in perception of health risk impacts. Residents of the three territories are the most likely to believe that the health effects of climate change (87%) have been increasing, and they are also among the most likely to state this about extreme cold, air pollution, pandemic flu and tap water. Quebec residents are the most likely to perceive increases in the risks of chemical pollution (71%) and heat waves (62%), and among the most likely to report increasing risk from air pollution (84%) and pesticides

in food (58%). Prairies residents are the most likely to say health risks of West Nile virus have been increasing (65%), and are the least likely to say that risks are increasing for chemical pollution, climate change, air pollution and heat waves.

The perception that certain health risks have been increasing in the past 10 years is linked to age. Those 18 to 34 years of age are more likely than older Canadians to indicate increasing risks being posed by

Health risks are increasing

By region 2008

		TOTAL	NORTH	B.C.	PRAIRIES	ONTARIO	QUEBEC	ATLANTIC
Obesity	(n=938)	84	73	89	86	84	84	79
Air pollution	(n=1,154)	76	88	75	68	75	84	78
Climate change	(n=902)	69	87	73	53	68	77	71
Heart disease	(n=1,146)	64	52	61	61	63	68	67
Chemical pollution	(n=1,145)	64	64	65	55	62	71	66
West Nile virus	(n=1,168)	50	40	41	65	53	40	49
Pesticides in food	(n=919)	50	46	46	46	47	58	60
Heat waves	(n=916)	48	49	43	35	47	62	36
Pandemic flu epidemics	(n=1,159)	40	63	43	45	39	33	43
Tap water	(n=903)	29	48	25	28	29	30	34
Second-hand smoke	(n=1,139)	26	16	18	31	26	28	26
Extreme cold weather	(n=1,165)	18	39	18	14	19	18	22

Health risks are increasing

By age 2008

		TOTAL	18-34	35-49	50-64	65+
Obesity	(n=938)	84	81	86	85	87
Air pollution	(n=1,154)	76	85	77	69	71
Climate change	(n=902)	69	82	68	64	58
Heart disease	(n=1,146)	64	68	67	60	57
Chemical pollution	(n=1,145)	64	66	68	60	59
West Nile virus	(n=1,168)	50	53	54	53	36
Pesticides in food	(n=919)	50	49	50	51	49
Heat waves	(n=916)	48	61	47	42	38
Pandemic flu epidemics	(n=1,159)	40	43	43	38	29
Tap water	(n=903)	29	30	32	28	24
Second-hand smoke	(n=1,139)	26	33	21	24	31
Extreme cold weather	(n=1,165)	18	23	15	17	19

Q.3

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

Base: Each respondent randomly asked 8/12 items

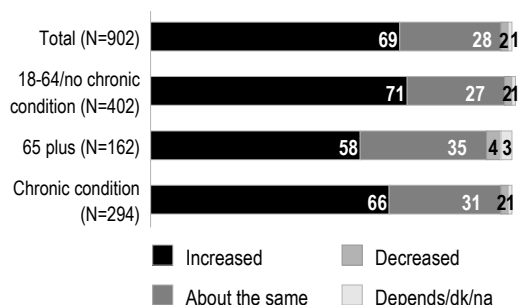
climate change (82%), and also by air pollution (85%) and heat waves (61%). The proportion perceiving an increased risk from each of these factors declines as Canadians age.

Canadians most at risk (persons with chronic medical conditions and seniors), are not significantly more likely than other Canadians to believe *any* of these health risks have been increasing, including climate change. The severity of chronic condition is not a significant factor in perception of mounting risk: for example, those with a condition causing a great deal of impairment are no more likely than those with a lower level of impairment to think that climate change has been increasing.

As might be expected, Canadians who have a greater awareness of or sensitivity to the issue of global warming are more likely to say that health risks from several of the examined environmental hazards have been increasing, most notably climate change, air pollution and heat waves. Those with less sensitivity to the global warming issue are more likely to say these specific environmental risks have remained the same over the past 10 years. However, it is interesting to note that a significant proportion of those who say that global warming is not yet proven still believe its effects have increased in the past 10 years (46%) – almost as many as think these effects have remained the same (49%).

Change in climate change risks over past 10 years

By target group 2008



Q.3c

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

Base: Each respondent randomly asked 8/12 items

Perceptions of climate change risks

By belief in global warming and perception of cause 2008

	TOTAL (N=902)	GLOBAL WARMING IS...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		DEFINITELY HAPPENING (N=601)	NOT YET PROVEN (N=260)	MOSTLY (N=373)	PARTLY (N=200)
Increased	69	80	46	85	72
About the same	28	17	49	12	25
Decreased	2	2	3	2	2
Depends/dk/na	1	1	2	*	1

* Less than one percent

Q.3c

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

Base: Each respondent randomly asked 8/12 items

Perceptions of climate change risks

By factors indicating greater sensitivity to the issue of climate change 2008

	NOTICED CLIMATE CHANGE IN COMMUNITY				CLIMATE CHANGE POSES HEALTH RISKS	
	TOTAL (N=902)	DEFINITELY (N=221)	LIKELY/ POSSIBLY (N=306)	NO (N=354)	NOW (N=500)	IN FUTURE (N=332)
Increased	69	87	75	53	84	53
About the same	28	13	22	41	13	43
Decreased	2	*	2	3	2	3
Depends/dk/na	1	*	*	3	1	*

	PERSONALLY VULNERABLE TO CLIMATE CHANGE				HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
	TOTAL (N=902)	DEFINITELY (N=221)	LIKELY (N=332)	NO (N=281)	ANY (N=434)	NONE (N=407)
Increased	69	83	81	50	82	59
About the same	28	14	18	44	16	36
Decreased	2	2	2	4	2	3
Depends/dk/na	1	1	*	2	*	1

* Less than one percent

Q.3c

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

Base: Each respondent randomly asked 8/12 items

Those who feel they are definitely (83%) or likely (81%) vulnerable to climate change are significantly more likely than those who believe they are not vulnerable (50%) to say climate change health risks have been increasing. This is also the case for those who say they have definitely (87%) or likely/possibly (75%) notice climate change-related changes in their community, those who feel climate change's effects can be felt now (84%), and those who say they have taken some action to combat the health effects of climate change in the past year (82%).

Canadians who think that climate change is a *major* health risk are more likely than Canadians in general to think that the specific risk has been increasing (93%). The reverse is also true: those who believe the health risks from climate change have been increasing are the most likely to think it poses a major risk (43%).

Perceptions of climate change risk 2008

IN PAST 10 YEARS CLIMATE CHANGE RISK HAS ...	TOTAL (N=902)	CLIMATE CHANGE SEEN AS			
		MAJOR RISK (N=290)	MODERATE RISK (N=340)	MINOR RISK (N=209)	NO RISK (N=52 ^B)
Increased	69	93	71	43	21
Decreased	2	1	2	3	9
Remained the same	28	6	26	51	70

CLIMATE CHANGE SEEN AS ...	TOTAL (N=902)	IN PAST 10 YEARS RISK FROM CLIMATE CHANGE HAS...		
		INCREASED (N=601)	DECREASED (N=25 ^A)	UNCHANGED (N=264)
Major risk	32	43	10	7
Moderate risk	40	41	40	38
Minor risk	23	14	30	42
No risk	5	2	20	13

^A Very small base (<50) – extreme caution is advised in interpreting results

^B Small base (<100) – caution is advised in interpreting results

Q.3c

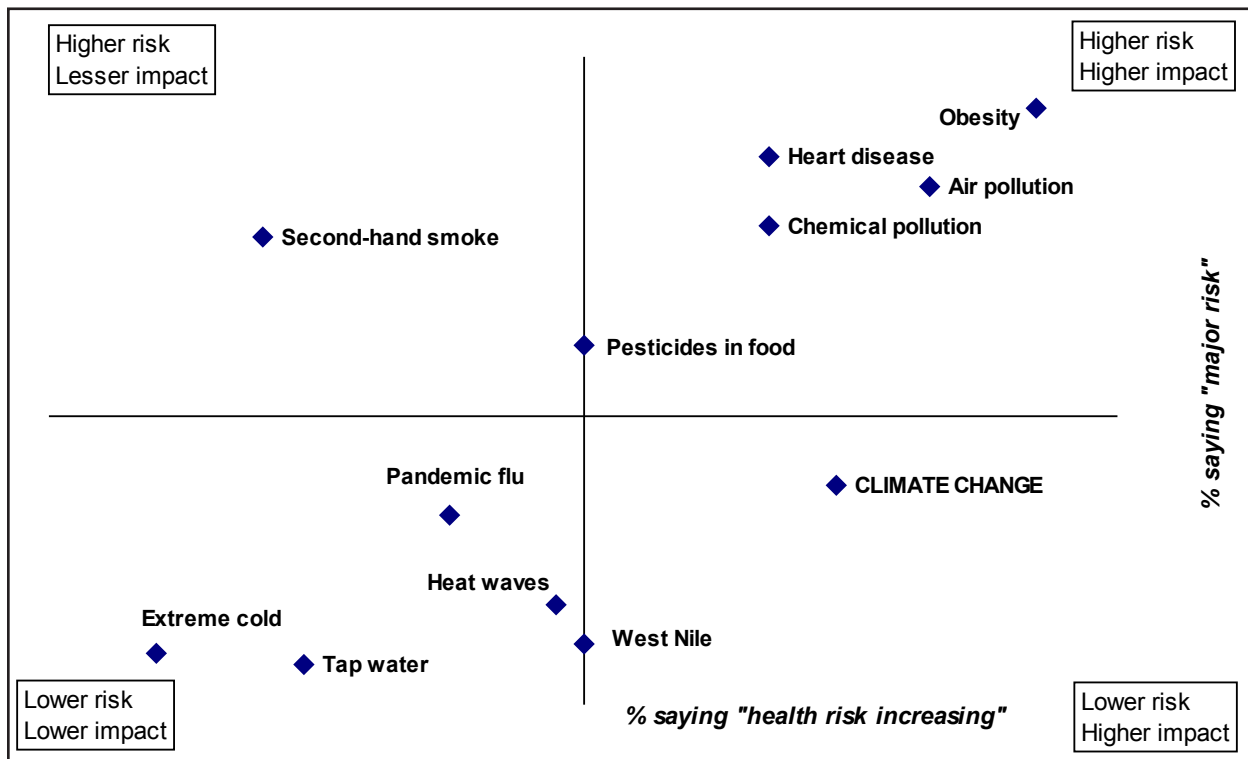
For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

Base: Each respondent randomly asked 8/12 items

The illustration on this page presents a “quadrant analysis” that summarizes the positions of each of the 12 health risks, plotted by the percentage who say that each is a *major* risk to health (presented along the Y axis) and the percentage saying that particular risk

has *increased* over the past 10 years (on the X axis). The axes intersect at the middle value of each. This analysis shows where climate change fits in Canadians’ perceptions of risk and rising impact, compared with the other health risks probed in the survey.

Comparison of health risks – quadrant analysis 2008



Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Q.3

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

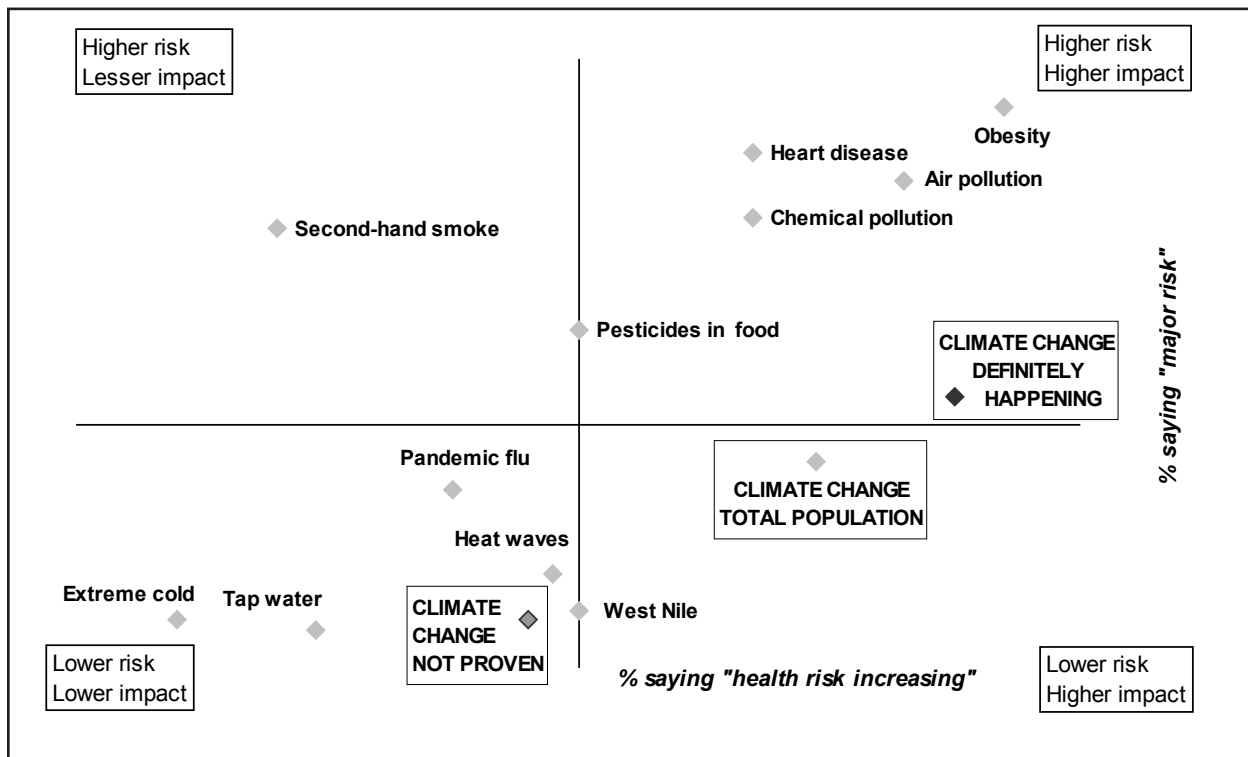
Base: Each respondent randomly asked 8/12 items

These results show that many Canadians believe the health risks from climate change have been increasing, although they are less likely to say this is a major health risk to Canadians compared to issues such as obesity, heart disease, air pollution and chemical pollution (risks in the upper right quadrant). The five risks in the lower left quadrant are the ones that fewer think

are major concerns and are less likely than climate change to be seen as increasing. Second-hand smoke (upper left quadrant) is considered a high health risk, but fewer think that its risk has increased in the past 10 years. Pesticides in food is also seen as a major, increasing risk by about half of Canadians (near the centre of both axes).

Comparison of health risks – quadrant analysis

Showing impact of belief in climate change 2008



Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Q.3

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

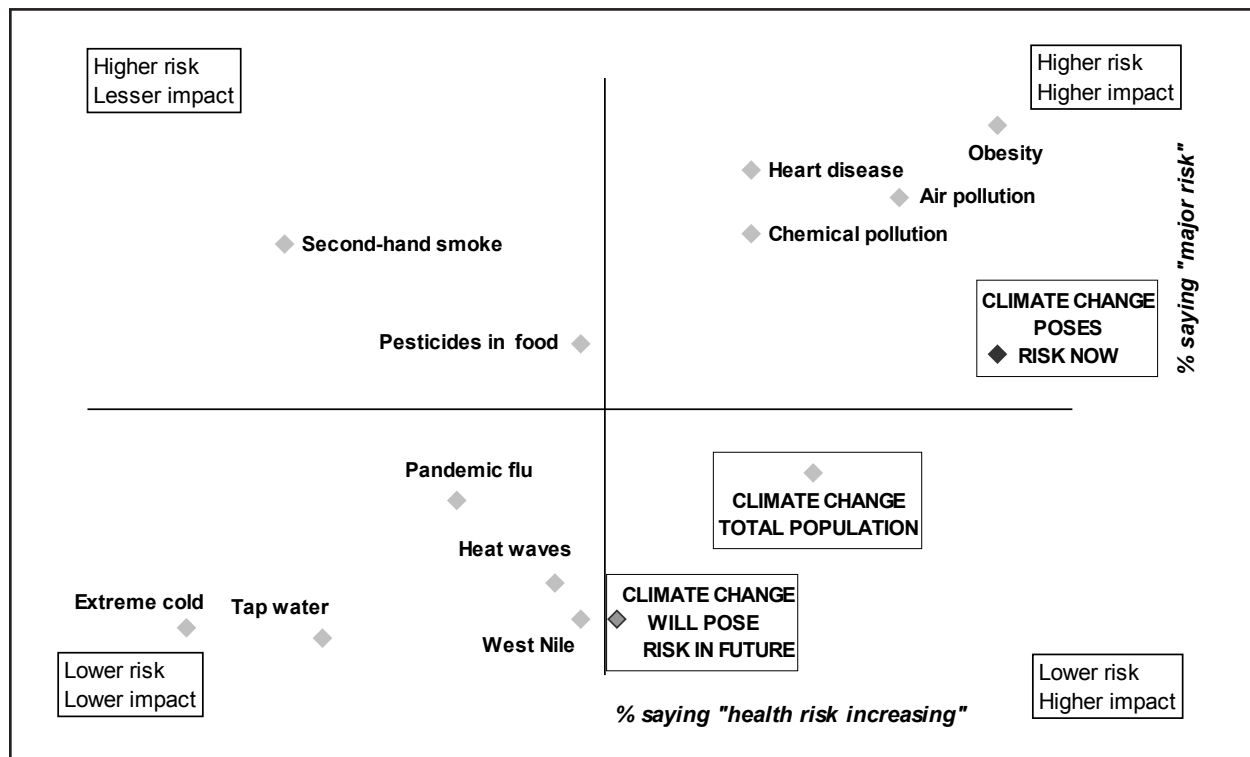
Base: Each respondent randomly asked 8/12 items

Opinions about climate change do have a modest impact. For those who think that global warming is definitely happening, climate change inches into the upper right quadrant, as these people are more likely to think that its health risk is major. Those who feel climate change is not yet proven are less likely to rate it as a major health risk and are also less likely to say that

it has been increasing over the past 10 years. The position of climate change for those who are more sceptical therefore shifts to the lower left quadrant, more akin to West Nile virus and heat waves. A very similar effect is evident when the factor being examined is whether or not climate change poses health risks currently or if this will happen in the future.

Comparison of health risks – quadrant analysis

Showing impact of perception of climate change health risk timing 2008



Q.2

I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk or no risk at all to the health of Canadians ...

Q.3

For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased or remained about the same over the past 10 years or so ...?

Base: Each respondent randomly asked 8/12 items

KNOWLEDGE AND ATTITUDES ABOUT CLIMATE CHANGE

Canadians have been receiving a wide variety of messages about climate change or global warming. Early media reports tended to emphasize scientific doubts and highlight debates regarding national and international greenhouse gas emission targets, while later reports have showed dramatic images of melting polar ice. To understand and classify responses about climate change and health, the survey asked questions about attitudes and perceptions of the reality of global warming/climate change.³

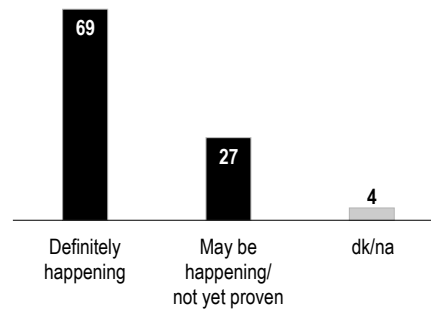
Belief that climate change is happening

Seven in ten Canadians believe that global warming is definitely happening.

To understand the issue of climate change and health risk, it is important to know if people believe that climate change is a real phenomenon. Canadians were asked if they think global warming is something that is definitely happening, or something that may be happening but is not yet proven. Seven in ten (69%) say that global warming is definitely happening, while one-quarter (27%) say it is not yet proven, and only four percent are uncertain one way or the other.

Majorities in all regions believe that global warming is definitely happening. Quebec residents (78%) are the most convinced that climate change is definitely occurring. Prairie residents express the lowest level of certainty (53% say it is definitely happening). Two-thirds of Northerners (68%) express this view.

Belief in global warming 2008



Q.4a

There has been a lot of discussion lately about the issue of climate change or global warming. Do you believe that global warming is something that is definitely happening, or something which may be happening but is not yet proven?

3 It should be recalled when reviewing these results that the survey was conducted in the middle of a winter with near-record-breaking snowfalls in some parts of Canada, and that some questions are only asked of those who believe global warming is definitely happening.

Belief in the reality of global warming is inversely related to age: younger Canadians are more likely than seniors to believe it is definitely occurring (74% of those 18-34, compared to 62% of those 65 and older). Men and women express similar views, and opinions on this question do not differ notably with

household income. The perception that global warming is definitely happening is also linked to higher levels of education, with Canadians possessing a university degree or higher being the most likely (75%) to think that global warming is definitely happening.

Belief in global warming

By level of education 2008

	TOTAL (N=1,600)	< HIGH SCHOOL (N=168)	HIGH SCHOOL (N=257)	COLLEGE/ SOME UNIVERSITY (N=582)	UNIVERSITY DEGREE (N=577)
Global warming is definitely happening	69	60	61	70	75
Global warming may be happening but is not yet proven	27	37	35	26	23
dk/na	4	4	4	5	2

Q.4a

There has been a lot of discussion lately about the issue of climate change or global warming. Do you believe that global warming is something that is definitely happening, or something which may be happening but is not yet proven?

The existence of a chronic medical condition does not notably impact one's opinion on the reality of global warming, nor does self-reported level of health. Those living with someone else who has a chronic condition that causes them a great deal of impairment (86%) are, however, more apt to think that global warming is definitely happening.

Canadians are significantly more likely to say that global warming is definitely happening if they have characteristics indicating a greater awareness of and

sensitivity to the issue of climate change. Those most likely to think global warming is definitely happening also believe they are definitely (86%) or likely (80%) vulnerable to its health risks (vs. 53% who think they are not in fact vulnerable). Believing that we are seeing the health impacts of climate change now (86%) is a factor, as is having taken some action in the past year to combat its health risks (80%), and having noticed definite effects of climate change in the community (92%).

Belief in global warming

By factors indicating greater sensitivity to the issue of climate change 2008

	TOTAL (N=1,600)	NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	No (N=622)	Now (N=867)	IN FUTURE (N=611)
Global warming is definitely happening	69	92	77	48	86	54
Global warming may be happening but is not yet proven	27	6	21	46	12	43
dk/na	4	2	2	6	3	4

	TOTAL (N=1,600)	PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
		DEFINITELY (N=366)	LIKELY (N=603)	No (N=513)	Any (N=759)	NONE (N=732)
Global warming is definitely happening	69	86	80	53	80	63
Global warming may be happening but is not yet proven	27	12	18	44	16	34
dk/na	4	3	3	3	3	3

Q.4a

There has been a lot of discussion lately about the issue of climate change or global warming. Do you believe that global warming is something that is definitely happening, or something which may be happening but is not yet proven?

Causes of climate change

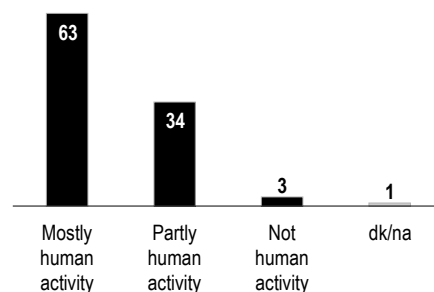
The majority of Canadians who believe global warming is definitely happening say this is mainly due to human activity.

Canadians who think that global warming is definitely happening were asked if they believe that it is *mostly* or *partly* caused by human activity, or *not* caused by human activity. Six in ten (63%) feel it is mainly caused by humans and one-third (34%) say that humans are at least partly to blame. Only three percent of those who believe that global warming is definitely happening say that it is not the result of human activity.

Across Canada, majorities in all regions except the North think that global warming is mainly due to human activity. In the three territories, opinion about the causes of global warming is more divided, with about half thinking that it is mostly (48%) or partly (47%) caused by humans.

There are few demographic differences of note, except that those most likely to say that global warming is mainly caused by human activity are aged 35 to 49 (70%). Socio-economic factors like education or household income do not appear to play a role, nor does the existence of a chronic condition.

Cause of global warming
2008



Q.4b

And do you believe that global warming is mostly caused by human activity, partly caused by human activity or not caused by human activity?

Subsample: Those who think that global warming is definitely happening (n=1,100)

As can be expected, greater sensitivity to the issue of global warming does have an impact. Those who have noticed definite climate change effects in their community (80%), those who feel its effects are evident now (70%), those who feel they are definitely vulnerable to

climate change personally (74%) and those who say they have taken recent actions to combat its negative health risks (68%) are the most likely to think global warming is mainly due to human activity.

Cause of global warming

By factors indicating greater sensitivity to the issue of climate change 2008

	TOTAL (N=1,100)	NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY (N=375)	LIKELY/ POSSIBLY (N=402)	No (N=290)	Now (N=739)	IN FUTURE (N=317)
Mostly caused by human activity	63	80	56	53	70	50
Partly caused by human activity	34	20	41	40	28	45
Not caused by human activity	3	1	2	6	1	4
dk/na	1	—	1	2	*	2

* Less than one percent

	TOTAL (N=1,100)	PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
		DEFINITELY (N=320)	LIKELY (N=471)	No (N=271)	ANY (N=606)	NONE (N=462)
Mostly caused by human activity	63	74	63	51	68	59
Partly caused by human activity	34	23	35	44	30	38
Not caused by human activity	3	2	1	4	2	3
dk/na	1	*	1	2	1	1

* Less than one percent

Q.4b

And do you believe that global warming is mostly caused by human activity, partly caused by human activity or not caused by human activity?

Subsample: Those who think that global warming is definitely happening (n=1,100)

Noticed changes due to climate change/global warming

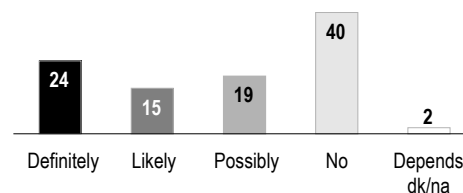
One-quarter of Canadians have noticed a change in their community that they think is definitely attributable to global warming, and almost four in ten have noticed such a change elsewhere in Canada. The changes most noticed are warmer temperatures and less ice/snow.

All respondents (whether or not they think that global warming is definitely happening) were asked if they have noticed any changes in their own community or in other parts of Canada that they believe are the result of climate change or global warming.

In the community. One-quarter of Canadians (24%) say they have noticed a local change that they would definitely attribute to global warming, while an additional one-third have noticed changes they feel are either likely (15%) or possibly (19%) the result of global warming. Four in ten (40%) say they have not noticed any such local changes.

As can be expected, some regional differences are reported. Those most likely to say they have noticed community changes that are definitely the result of climate change live in the Northern territories (41%). This view is least evident among Prairies residents (17%), who are the most likely to say they have not noticed any local changes (47%). This is consistent with residents of this region being more ambivalent about whether or not global warming is definitely happening.

Noticed changes in community due to climate change 2008



Q.5

Have you noticed any changes in your community which you think are definitely, likely or possibly the result of climate change or global warming?

Reports of local changes definitely caused by climate change are linked to age: Canadians aged 18 to 64 are more likely (25%) to report this than are seniors (16%). There are few other demographic or socio-economic differences of note.

Understandably, those who say global warming is definitely happening are the most likely to report noticing local changes they could definitely (32%) or likely (18%) attribute to climate change, while those who do not think global warming is yet proven are the most likely to say they have noticed no local changes attributable to it (68%). The perception that climate change effects are being felt now is also linked to having noticed community changes.

Noticed changes in community due to climate change

By belief in global warming and perception of when health impacts will be felt 2008

	TOTAL (N=1,600)	GLOBAL WARMING IS ...		CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)	NOW (N=867)	IN FUTURE (N=611)
Definitely the result of climate change	24	32	5	35	12
Likely the result of climate change	15	18	7	19	11
Possibly the result of climate change	19	20	19	21	19
No changes noticed	40	28	68	23	57
Depends/dk/na	3	3	1	3	2

Q.5

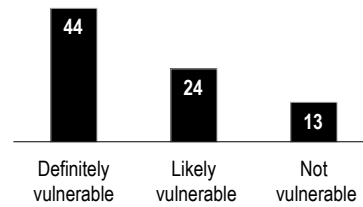
Have you noticed any changes in your community which you think are definitely, likely or possibly the result of climate change or global warming?

Canadians who feel they are definitely vulnerable to climate change personally (44%) are the most likely to say they have noticed a local change.

Other parts of Canada. Canadians were also asked whether they have noticed global warming-related changes in other parts of the country. Close to four in ten (37%) say they have noticed changes elsewhere that are definitely the result of climate change, and only one-quarter (24%) say they have not noticed any changes they would even possibly attribute to this cause.

Community changes that are *definitely* the result of climate change

By personal vulnerability to climate change 2008

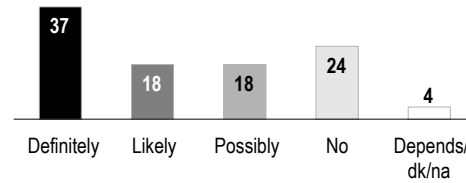


Q.5

Have you noticed any changes in your community which you think are definitely, likely or possibly the result of climate change or global warming?

Noticed changes in other parts of Canada due to climate change

2008



Q.6

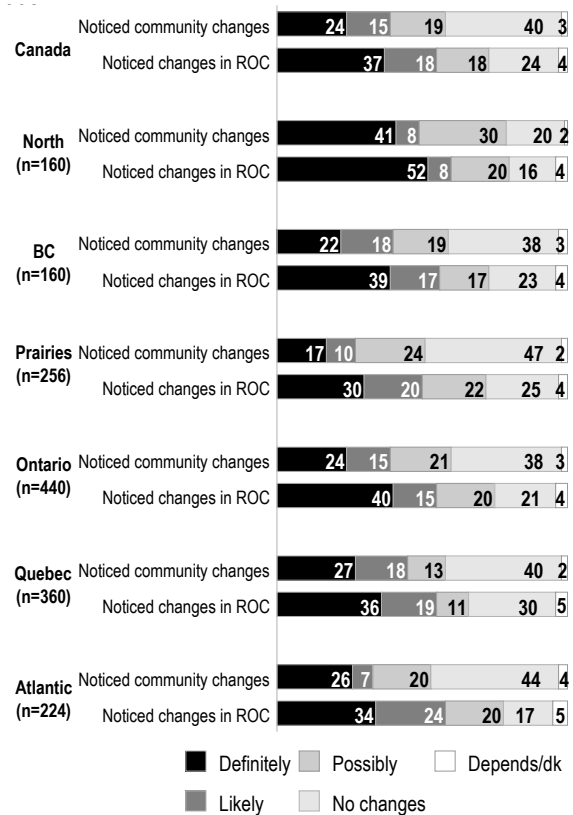
And are you aware of any changes in other parts of Canada which you think are definitely, likely or possibly the result of climate change or global warming?

Once again, Northern residents are the most likely (52%) to say they have noticed changes elsewhere in Canada that are definitely linked to global warming, while Prairie residents are the least likely to say this (30%). The difference between Prairies residents and other Canadians is not as marked as it was regarding local effects, however: they are not more likely than others to say they have noticed no changes elsewhere in Canada.

Canadians in all regions are more likely to say they have noticed changes elsewhere in the country than locally (see adjacent chart).

Unlike the case with community-level changes, age is not a factor in having noticed environmental changes in other parts of Canada that are definitely caused by climate change. However, education does play a role: those with at least a university degree are the most likely to say they have noticed a definitely attributable change, and they are more likely to say this about other parts of Canada (42%) than about their own community (27%). Household income does not impact the results.

Noticed changes due to climate change By region 2008



Q.5

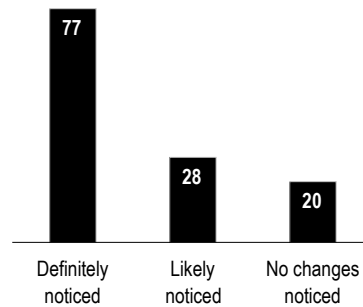
Have you noticed any changes in your community which you think are definitely, likely or possibly the result of climate change or global warming?

Q.6

And are you aware of any changes in other parts of Canada which you think are definitely, likely or possibly the result of climate change or global warming?

As might be expected, noticing changes elsewhere in Canada is related to having also noticed such changes in one's own community. Three-quarters (77%) of people who noticed local changes they definitely attributed to climate change have also noticed such changes elsewhere in the country, compared to only two in ten of those who have not noticed local changes. As with local changes, noticing changes elsewhere in Canada is linked to belief that global warming is definitely happening and that its effects are being felt now.

Changes elsewhere in Canada that are *definitely* the result of climate change By awareness of changes in *community* 2008



Q.6

And are you aware of any changes in other parts of Canada which you think are definitely, likely or possibly the result of climate change or global warming?

Noticed changes elsewhere in Canada due to climate change

By belief in global warming and perception of when health impacts will be felt 2008

	TOTAL (N=1,600)	GLOBAL WARMING IS ...		CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)	NOW (N=867)	IN FUTURE (N=611)
Definitely the result of climate change	37	49	9	51	23
Likely the result of climate change	18	19	16	18	18
Possibly the result of climate change	18	13	30	14	22
No changes noticed	24	15	42	14	32
Depends/dk/na	4	4	4	3	5

Q.6

And are you aware of any changes in other parts of Canada which you think are definitely, likely or possibly the result of climate change or global warming?

Types of changes noticed. Canadians saying they have noticed a change, either locally or elsewhere in Canada were asked what kinds of changes they have noticed (unprompted). The most commonly mentioned changes are warmer temperatures/weather (33%) and less ice and snow (26%).⁴ About one in six mention either that the weather is more unpredictable or that weather events appear to be more extreme (13% each). One in ten mention colder temperatures (11%) or have noticed changes that threaten to harm wildlife or plants (10%). Six percent are unable to indicate a precise change. The top mentions appear in the adjacent graphic.

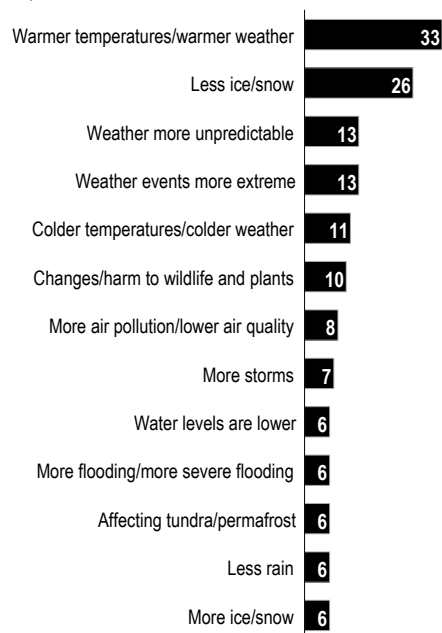
Mentions of warmer temperatures are more prevalent in Quebec and B.C. (41% each) than elsewhere in the country. Mentions of extreme weather are highest among those living in the Prairies (21%) and B.C. (18%).

Overall, the changes noticed are fairly consistent by age, although those aged 18 to 34 are the most likely to mention that there are more storms (11%, vs. 5% of those 35 and older) or that the weather is more unpredictable (19%, vs. 11% of older Canadians). Seniors are less likely than Canadians under age 64 to say there is less ice and snow, but are almost as likely to mention noticing warmer temperatures. Men are more likely than women to mention warmer temperatures (37%, vs. 29%), or less ice and snow (32%, vs. 20%).

Noticing less ice or snow is most prevalent among Canadians with the most education and incomes. There are no notable differences by existence of a chronic condition (self or in the household) or by the presence of a child in the house. Those most likely to mention air pollution or worse air quality in general are those who feel they are definitely vulnerable to the health risks of climate change (13%, vs. 5% who say they are not vulnerable). As well, those who believe that global warming is definitely happening are more likely than those who think it is not yet proven to mention noticing warmer temperatures (34% vs. 25%) and more air pollution or lower air quality (10% vs. 1%).

Kind of changes noticed

Top mentions 2008



Q.7

What kinds of changes have you noticed? Anything else?

Subsample: Those who have noticed changes that are the result of climate change (n=1,291)

⁴ It should be noted that the survey was conducted during a very snowy winter which threatened to break snowfall records in some regions of the country.

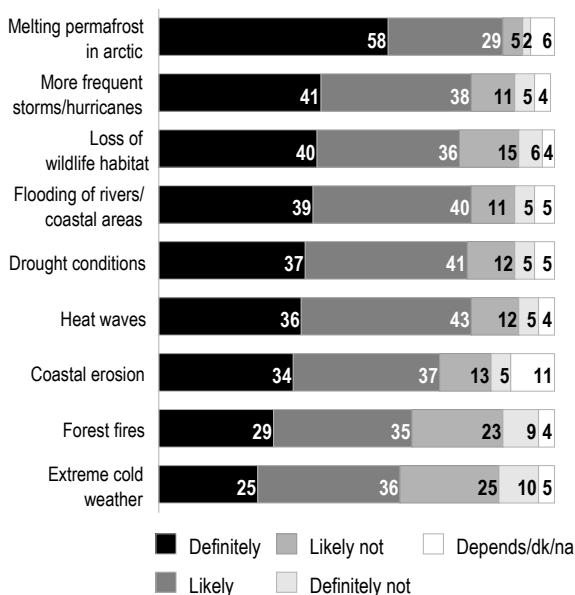
Environmental impacts of climate change

Canadians are most convinced that global warming causes melting permafrost in the Arctic; majorities believe that climate change is likely responsible for more frequent storms, the loss of wildlife habitat, and the flooding of rivers and coastal areas.

Canadians were presented with a series of environmental impacts in Canada and asked to indicate whether they think climate change causes or does not cause each (definitely or likely).⁵ In each case, the majority believe that climate change is at least a likely cause, with 10 percent or fewer saying it is definitely *not* the cause.

Canadians are most likely to believe that climate change definitely causes melting permafrost in the arctic (58%), and about four in ten each believe it is definitely the cause of more frequent storms (41%), loss of wildlife habitat (40%), and the flooding of rivers and coastal areas (39%). Slightly fewer definitely attribute drought conditions (37%), heat waves (36%) and coastal erosion (34%) to climate change. Canadians are least likely to say that climate change definitely causes forest fires (29%) or extreme cold weather (25%).

Environmental impacts of climate change 2008



Q.8

Would you say that climate change definitely causes, likely causes, likely does not cause or definitely does not cause each of the following types of environmental impacts in Canada ... Melting permafrost in the Arctic regions ... Coastal erosion ... Forest fires ... Heat waves ... Extreme cold weather ... More frequent storms, including hurricanes ... Loss of wildlife habitat ... Drought conditions ... Flooding of rivers and in coastal areas?

⁵ Each respondent was asked about only six of the nine environmental effects, to reduce response burden.

There are regional differences in regarding certain environmental effects as definitely being caused by climate change. Quebec residents are either the most likely or among the most likely to believe that any of these effects is definitely caused by climate change; this is particularly notable in the cases of more frequent storms or hurricanes (56% compared to an average of 36% in the rest of Canada), heat waves (50% vs. an average of 32% elsewhere), and the flooding of rivers and coastal areas (49%, vs. 36%). Prairies residents are somewhat less likely than other Canadians to definitely attribute environmental effects to climate change, especially regarding heat waves, more frequent storms

and droughts. This is consistent with their tendency to be less likely than other Canadians to have noticed climate change-attributable effects, and with being less likely to agree that global warming is definitely happening.

There are some notable differences by age as well. Canadians aged 35 to 49 are the most likely to believe that climate change definitely causes the flooding of rivers and coastal areas (47%). Seniors are the least likely to think that global warming definitely causes more heat waves (27%). Age differences are less marked for other environmental factors.

Climate change *definitely* causes environmental impacts

By region 2008

		TOTAL	NORTH	B.C.	PRAIRIES	ONTARIO	QUEBEC	ATLANTIC
Melting permafrost Arctic	(n=1,057)	58	57	57	51	58	64	56
More frequent storms/hurricanes	(n=1,097)	41	20	29	28	41	56	44
Loss of wildlife habitat	(n=1,083)	40	21	28	26	44	47	46
Flooding of rivers/coastal areas	(n=1,084)	39	17	35	33	38	49	35
Drought conditions	(n=1,048)	37	38	26	28	38	46	38
Heat waves	(n=1,081)	36	25	36	24	33	50	39
Coastal erosion	(n=1,059)	34	31	31	29	31	43	38
Forest fires	(n=1,067)	29	27	23	29	30	35	19
Extreme cold weather	(n=1,093)	25	23	18	22	25	31	23

Climate change *definitely* causes environmental impacts

By age 2008

		TOTAL	18-34	35-49	50-64	65+
Melting permafrost Arctic	(n=1,057)	58	56	63	54	58
More frequent storms/hurricanes	(n=1,097)	41	42	45	38	38
Loss of wildlife habitat	(n=1,083)	40	39	44	37	38
Flooding of rivers/coastal areas	(n=1,084)	39	38	47	36	35
Drought conditions	(n=1,048)	37	36	39	36	36
Heat waves	(n=1,081)	36	37	41	36	27
Coastal erosion	(n=1,059)	34	29	36	35	37
Forest fires	(n=1,067)	29	34	27	28	28
Extreme cold weather	(n=1,093)	25	24	27	24	22

Q.8

Would you say that climate change definitely causes, likely causes, likely does not cause or definitely does not cause each of the following types of environmental impacts in Canada ... Melting permafrost in the Arctic regions ... Coastal erosion ... Forest fires ... Heat waves ... Extreme cold weather ... More frequent storms, including hurricanes ... Loss of wildlife habitat ... Drought conditions ... Flooding of rivers and in coastal areas?

There are no clear patterns by socio-economic groups, although Canadians with less than a high school diploma are the most likely to think that global warming definitely causes heat waves (47%) and the flooding of rivers and coasts (48%), while those with household incomes of \$100,000 or more are the least apt to link global warming to flooding.

There is a notable difference in response patterns based on perceptions of the risks posed by climate change, that is, the extent to which someone is sensitized to this issue. Canadians who have noticed global warming-related changes in their community and who think that climate change is a risk now, rather than in the future, are more likely to accept that all of these effects are definitely caused by global warming, as do those who feel either definitely or likely vulnerable to climate change's health effects.

Climate change definitely causes environmental impacts

By factors indicating greater sensitivity to the issue of climate change 2008

		NOTICED CLIMATE CHANGE IN COMMUNITY				CLIMATE CHANGE POSES HEALTH RISKS	
		TOTAL	DEFINITELY	LIKELY/ POSSIBLY	No	Now	IN FUTURE
Melting permafrost Arctic	(n=1,057)	58	85	55	45	73	45
More frequent storms/hurricanes	(n=1,097)	41	67	39	26	54	27
Loss of wildlife habitat	(n=1,083)	40	63	37	29	54	25
Flooding of rivers/coastal areas	(n=1,084)	39	64	36	29	52	27
Drought conditions	(n=1,048)	37	61	37	22	51	23
Heat waves	(n=1,081)	36	65	31	23	49	23
Coastal erosion	(n=1,059)	34	53	35	22	47	21
Forest fires	(n=1,067)	29	46	30	19	43	15
Extreme cold weather	(n=1,093)	25	44	21	17	33	17

		PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR		
		TOTAL	DEFINITELY	LIKELY	No	ANY	NONE
Melting permafrost Arctic	(n=1,057)	58	75	65	46	68	53
More frequent storms/hurricanes	(n=1,097)	41	61	45	26	50	36
Loss of wildlife habitat	(n=1,083)	40	60	42	26	49	33
Flooding of rivers/coastal areas	(n=1,084)	39	60	42	24	48	34
Drought conditions	(n=1,048)	37	62	39	21	47	28
Heat waves	(n=1,081)	36	56	40	21	45	32
Coastal erosion	(n=1,059)	34	55	37	22	44	26
Forest fires	(n=1,067)	29	51	28	18	39	23
Extreme cold weather	(n=1,093)	25	41	26	15	28	24

Q.8

Would you say that climate change definitely causes, likely causes, likely does not cause or definitely does not cause each of the following types of environmental impacts in Canada ... Melting permafrost in the Arctic regions ... Coastal erosion ... Forest fires ... Heat waves ... Extreme cold weather ... More frequent storms, including hurricanes ... Loss of wildlife habitat ... Drought conditions ... Flooding of rivers and in coastal areas?

As well, those who think that global warming is definitely happening are more likely than those who think it is not yet proven to strongly link climate change to all of these effects. Among Canadians who think that

global warming is definitely happening, those who feel it is mostly due to human activity are the most likely to believe climate change is definitely linked to all of these problems.

Climate change *definitely* causes environmental impacts

By belief in global warming and perception of cause 2008

		GLOBAL WARMING IS...			GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		TOTAL	DEFINITELY HAPPENING	NOT YET PROVEN	MOSTLY	PARTLY
Melting permafrost Arctic	(n=1,057)	58	72	26	79	63
More frequent storms/hurricanes	(n=1,097)	41	52	15	61	38
Loss of wildlife habitat	(n=1,083)	40	50	15	57	39
Flooding of rivers/coastal areas	(n=1,084)	39	49	18	56	35
Drought conditions	(n=1,048)	37	45	17	51	35
Heat waves	(n=1,081)	36	45	15	50	37
Coastal erosion	(n=1,059)	34	42	14	49	31
Forest fires	(n=1,067)	29	37	10	41	31
Extreme cold weather	(n=1,093)	25	28	17	31	24

Q.8

Would you say that climate change definitely causes, likely causes, likely does not cause or definitely does not cause each of the following types of environmental impacts in Canada ... Melting permafrost in the Arctic regions ... Coastal erosion ... Forest fires ... Heat waves ... Extreme cold weather ... More frequent storms, including hurricanes ... Loss of wildlife habitat ... Drought conditions ... Flooding of rivers and in coastal areas?

PERCEIVED HEALTH RISKS OF CLIMATE CHANGE

A main objective of this research is to determine the extent to which Canadians are making the connection between environmental conditions and health effects. The survey asked for top-of-mind awareness of how climate change might affect health, prompted questions about health impacts, when global warming will pose risks to Canadians' health, and if they have personally taken any steps in the past year to protect themselves or their families from the potential health impacts of climate change.⁶

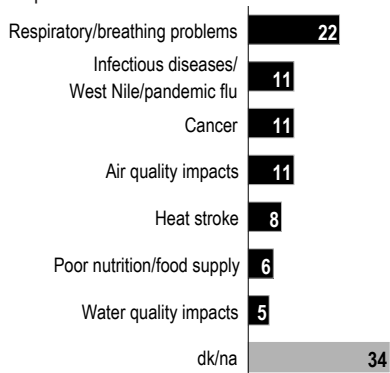
How climate change may affect health

Relatively few Canadians can cite, unprompted, any specific type of potential health risks of climate change, the most common being respiratory or breathing problems. When prompted, Canadians are most likely to link climate change to breathing problems and sunburn.

Unprompted awareness. Canadians were asked in an unprompted manner in what ways, if any, they thought climate change might pose a risk to personal health (multiple mentions were permitted). Six in ten Canadians can identify at least one potential health effect of climate change, but awareness of any one specific effect is relatively low, and close to four in ten either cannot think of any (34%) or maintain there are none (3%).

Canadians are most likely to link climate change to respiratory or breathing problems (22%), while one in ten each mention infectious diseases (such as West Nile or pandemic flu – 11%), cancer (11%), air quality impacts (11%) or heat stroke (8%). Mentions of breathing problems and air quality problems suggest that Canadians may be confusing climate change with air quality; previous research has demonstrated these

How climate change affects health of Canadians Top mentions 2008



Q.9

I would now like to ask you about how climate change may affect the health of Canadians. In what ways, if any, do you think climate change poses a risk to the health of Canadians? Anything else?

⁶ It should be recalled when reading this chapter that certain questions were asked only of those who believe that climate change poses a risk to health, which is a large majority – but not all – Canadians.

two environmental hazards sometimes overlap in the public's mind, and there is a well-established public understanding that respiratory problems are a major health impact of air pollution.⁷ Beyond this relatively short list of potential health impacts, fewer than one in ten Canadians cite any other single impact that might result from climate change, such as poor nutrition (due to impacts on the food supply – 6%) and water quality (5%).

Unprompted mentions of respiratory or breathing problems are highest among residents of Quebec (30%) and Ontario (25%), and are notably lower in the Atlantic (19%), B.C. (13%), the Prairies (9%) and the North (6%). Quebec residents are also more likely than other Canadians to mention infectious diseases (along with Northerners), air quality impacts and heat stroke. Inability to name any climate change effect on health is highest among territorial residents (63%),

but is also high in B.C. (45%) and the Prairies (45%). One-third of Ontarians (32%) and Atlantic Canadians (33%), and only one-quarter of Quebecers (24%) are unable to name a potential health effect.

Mentions of respiratory or breathing problems are higher in Montreal (36%) than in Toronto (24%) or Vancouver (12%), and are higher among women (27%) than men (16%). There are no patterns for age-related differences, except that seniors are the least able to name any potential health risk from climate change (46% do not know one, compared to 32% of those aged 64 and younger). There are also no significant differences in response by presence of a chronic condition in the home, either self or other, or by self-reported health level. Socio-economic factors such as education and household income also do not appear to influence responses to this question.

How climate change affects the health of Canadians

Top mentions By region 2008

	TOTAL (N=1,600)	NORTH (N=160)	B.C. (N=160)	PRAIRIES (N=256)	ONTARIO (N=440)	QUEBEC (N=360)	ATLANTIC (N=224)
Respiratory/breathing problems	22	6	13	9	25	30	19
Infectious diseases/flu	11	15	8	8	12	15	10
Cancer	11	2	10	8	10	14	15
Air quality impacts	11	5	8	4	13	14	11
Heat stroke	8	5	8	6	9	10	5
Poor nutrition/food supply	6	4	8	8	8	1	8
Water quality impacts	5	1	4	5	3	8	3
Stress/anxiety/mental health prob.	3	12	4	1	4	3	2
Sunburn	3	2	3	2	3	5	1
Poor water supply/quality	3	1	3	3	4	1	3
Frostbite/frozen skin	3	3	2	4	3	2	2
No impacts	3	*	3	6	2	2	1
Don't know	34	63	45	45	32	24	33

* Less than one percent

Q.9

I would now like to ask you about how climate change may affect the health of Canadians. In what ways, if any, do you think climate change poses a risk to the health of Canadians? Anything else?

7 There are a number of public opinion studies documenting these findings. See for example, *Development of a Health-Based Air Quality Index for Canada: Public Opinion Research 2004-2005*, prepared for Health Canada by Environics Research Group, May 2005.

The extent to which someone is sensitized to the issue of climate change plays a major role in being able to name a health risk associated with it. Those who believe global warming is definitely happening are more likely than those who feel it is not yet proven to name respiratory problems (26%), infectious diseases (13%), cancer (14%), air quality impacts (12%) and heat stroke (10%). Over half (54%) of those who feel that global warming is unproven are unable to name a potential health effect.

How climate change affects the health of Canadians

Top mentions By belief in global warming 2008

	GLOBAL WARMING IS...		
	TOTAL (N=1,600)	DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)
Respiratory/breathing problems	22	26	11
Infectious diseases/flu	11	13	7
Cancer	11	14	4
Air quality impacts	11	12	7
Heat stroke	8	10	3
Poor nutrition/food supply	6	8	2
Water quality impacts	5	6	1
Stress/anxiety/mental health problems	3	3	2
Sunburn	3	4	2
Poor water supply/quality	3	4	1
Frostbite	3	3	2
No impacts	3	1	6
Don't know	34	25	54

Q.9

I would now like to ask you about how climate change may affect the health of Canadians. In what ways, if any, do you think climate change poses a risk to the health of Canadians? Anything else?

Canadians who have noticed climate change effects in their community and those who say they have taken some action against climate change in the past year are more likely to be able to name health impacts than those who have not done these things. As well, persons

who feel definitely vulnerable to climate change are much more likely to be able to cite a potential health effect than those who do not, most notably respiratory or breathing problems (31%), cancer (16%), air quality impacts (14%) and heat stroke (12%).

How climate change affects the health of Canadians

Top mentions By personal vulnerability to climate change

	PERSONALLY VULNERABLE TO HEALTH EFFECTS OF CLIMATE CHANGE			
	TOTAL (N=1,600)	DEFINITELY (N=366)	LIKELY (N=603)	NOT (N=513)
Respiratory/breathing problems	22	31	26	12
Infectious diseases/flu	11	13	14	9
Cancer	11	16	14	5
Air quality impacts	11	14	14	7
Heat stroke	8	12	9	6
Poor nutrition/food supply	6	10	6	4
Water quality impacts	5	6	7	3
Stress/anxiety/mental health problems	3	4	3	2
Sunburn	3	6	3	2
Poor water supply/quality	3	5	3	2
Frostbite	3	5	2	3
No impacts	3	1	*	5
Don't know	34	16	26	47

* Less than one percent

Q.9

I would now like to ask you about how climate change may affect the health of Canadians. In what ways, if any, do you think climate change poses a risk to the health of Canadians? Anything else?

Prompted perceptions. After the unprompted question about the potential health risks posed by climate change, Canadians were presented with a list of six health problems and asked the extent to which climate change increases the risk of each. At least six in ten Canadians indicate that climate change increases the risk of each problem, either likely or definitely. The following analysis looks at the proportion saying that climate change *definitely* increases the risks.

When prompted, close to half of Canadians believe that climate change definitely increases the risk of respiratory and breathing problems (46%), and sunburn (46%), and four in ten (39%) feel that climate change definitely impacts heat stroke risk. Approximately three in ten each believe that climate change increases the risks of cancer (32%), injuries from storms/other extreme weather (32%), and infectious diseases such as West Nile virus or pandemic flu (27%).

Respiratory problems and sunburn are regarded across almost all subgroups as the health risks most likely to be increased by climate change, with some exceptions. There are regional differences in perception of the extent that climate change increases health risks. Quebecers are the most likely to believe that climate change definitely increases each of the health risks, while residents of the Prairies and the North are the most sceptical. Northern residents are notably less likely than other Canadians to think that sunburn (17%), cancer (7%) and infectious disease risks (8%) are definitely increased by climate change.

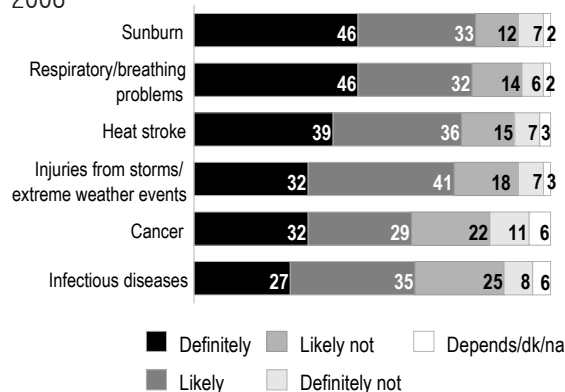
Climate change *definitely* increases health risk By region 2008

	TOTAL (N=1,600)	NORTH (N=160)	B.C. (N=160)	PRAIRIES (N=256)	ONTARIO (N=440)	QUEBEC (N=360)	ATLANTIC (N=224)
Respiratory/breathing problems	46	27	34	29	50	60	47
Sunburn	46	17	42	35	45	57	51
Heat stroke	39	24	33	28	39	50	33
Injuries from storms/extreme weather	32	26	27	21	33	41	31
Cancer	32	7	22	24	30	47	34
Infectious diseases	27	8	23	20	25	36	26

Q.10

I will now read you a list health risks that affect many Canadians today. Would you say that climate change definitely, likely, likely not or definitely does not increase the risk of ... Respiratory and breathing problems ... Infectious diseases, such as West Nile Virus and pandemic flu ... Heat stroke ... Injuries from storms or other extreme weather events ... Sunburn ... Cancer?

If climate change increases health risks 2008



Q.10

I will now read you a list health risks that affect many Canadians today. Would you say that climate change definitely, likely, likely not or definitely does not increase the risk of ... Respiratory and breathing problems ... Infectious diseases, such as West Nile Virus and pandemic flu ... Heat stroke ... Injuries from storms or other extreme weather events ... Sunburn ... Cancer?

Those aged 35 and over are less apt than younger Canadians to think that climate change is definitely or somewhat likely to increase the health risks of either heat stroke, or injuries from storms or other extreme weather events. Those with the highest household incomes and highest levels of education are also more sceptical about whether climate change increases these health risks.

Strong belief in the health impacts of climate change is linked to having noticed climate change effects in the community, or feeling that one is vulnerable personally to its health effects. This idea is also linked to having at least one chronic medical condition and, for most of the health risks mentioned, to higher levels of impairment as a result of this condition. The exception is infectious diseases, which are thought to be definitely increased by climate change by a consistent proportion of persons with chronic conditions, regardless of their level of impairment.

Climate change *definitely* increases health risk

By education and household income 2008

	TOTAL (N=1,600)	EDUCATION				HOUSEHOLD INCOME			
		< HIGH SCHOOL (N=168)	HIGH SCHOOL GRAD (N=257)	COLLEGE/ SOME UNIV. (N=582)	UNIV. DEGREE (N=577)	<\$40K (N=392)	\$40- UNDER 75K (N=435)	\$75-UNDER 100K (N=201)	\$100K + (N=299)
Respiratory/breathing problems	46	51	47	49	42	51	46	46	37
Sunburn	46	55	49	45	44	49	47	46	36
Heat stroke	39	43	42	40	35	40	40	39	30
Injuries from storms/ extreme weather	32	41	30	33	30	36	33	29	25
Cancer	32	38	34	31	32	35	32	31	26
Infectious diseases	27	30	31	27	24	29	28	29	18

Climate change *definitely* increases health risk

By chronic condition and level of impairment 2008

	HAVE A CHRONIC CONDITION		HAVE A CHRONIC CONDITION:* LEVEL OF SELF-IMPAIRMENT**		
	No (N=1,083)	Yes* (N=517)	GREAT DEAL (N=131)	SOME (N=241)	NOT VERY/ NONE (N=432)
Respiratory/breathing problems	42	59	63	61	51
Sunburn	43	54	59	57	49
Heat stroke	36	45	44	50	37
Cancer	29	41	50	39	33
Injuries from storms/extreme weather	30	37	45	38	30
Infectious diseases	24	34	36	31	33

* includes seniors with chronic conditions

** includes persons with chronic conditions interviewed as an oversample

Q.10

I will now read you a list health risks that affect many Canadians today. Would you say that climate change definitely, likely, likely not or definitely does not increase the risk of ... Respiratory and breathing problems ... Infectious diseases, such as West Nile Virus and pandemic flu ... Heat stroke ... Injuries from storms or other extreme weather events ... Sunburn ... Cancer?

As expected, those who exhibit greater sensitivity to the issue of climate change and health are more likely to indicate that climate change increases all of these risks. Believing that climate change is definitely happening is a factor, as is perceived personal vulnerability, having noticed the effects of climate change in one's

community, and believing its health effects are being felt now. As well, among those who believe global warming is definitely happening, those who believe it is mostly caused by human activity are more likely than those who feel humans are only the partial cause to say climate change definitely increases the risk of respiratory problems, sunburn and cancer.

Climate change *definitely* increases health risk

By belief in global warming and perception of cause 2008

	TOTAL (N=1,600)	GLOBAL WARMING IS ...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)	MOSTLY (N=695)	PARTLY (N=364)
Respiratory/breathing problems	46	56	22	61	49
Sunburn	46	55	24	59	51
Heat stroke	39	46	22	49	42
Injuries from storms/extreme weather	32	38	17	41	35
Cancer	32	39	16	44	32
Infectious diseases	27	31	15	33	28

Climate change *definitely* increases health risk

By factors indicating greater sensitivity to the issue of climate change 2008

	NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
	DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	No (N=622)	Now (N=867)	IN FUTURE (N=611)
Respiratory/breathing problems	72	47	30	64	29
Sunburn	70	47	31	62	30
Heat stroke	63	40	24	53	24
Injuries from storms/extreme weather	49	30	23	43	21
Cancer	51	31	22	45	20
Infectious diseases	43	27	17	36	17

	PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
	DEFINITELY (N=366)	LIKELY (N=603)	No (N=513)	ANY (N=759)	NONE (N=732)
Respiratory/breathing problems	78	50	26	59	38
Sunburn	73	50	29	61	35
Heat stroke	67	41	18	51	29
Injuries from storms/extreme weather	57	32	19	38	27
Cancer	59	34	16	45	23
Infectious diseases	51	27	12	34	21

Q.10

I will now read you a list health risks that affect many Canadians today. Would you say that climate change definitely, likely, likely not or definitely does not increase the risk of ... Respiratory and breathing problems ... Infectious diseases, such as West Nile Virus and pandemic flu ... Heat stroke ... Injuries from storms or other extreme weather events ... Sunburn ... Cancer?

Current versus future health risks of climate change

Over half of Canadians believe climate change is already posing a health risk to Canadians. Among those who believe this is a future risk, there is no consensus on when negative effects may begin to be experienced.

Canadians were asked if they think that climate change already poses a health risk today, or if this is something that will happen in the future. Over half (54%) believe that climate change poses a current health risk, while four in ten (39%) say it will pose such a risk in the future. Only four percent insist there are no health risks from climate change, either now or in the future.

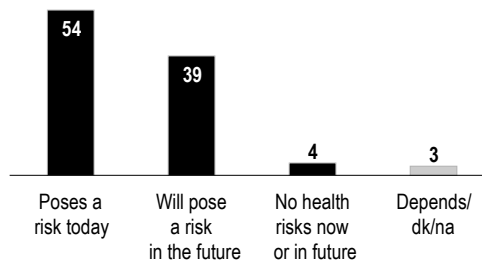
The Canadians most likely to think that climate change is impacting health today live in Quebec (59%), Ontario (57%) and the North (57%), while this view is least evident in Atlantic Canada (48%), B.C. (47%) and the Prairies (46%). There is no difference in opinion between urban and rural residents. Women (58%) are more likely than men (49%) to think that climate change is currently affecting health.

Age is a major factor on this issue. Those under the age of 50 (58%) are the most likely to believe that climate change poses health risks today. This view weakens with age and is lowest among seniors (43%). Seniors are more likely to be unable to respond: seven percent say “it depends” or do not know, compared to two percent of younger Canadians. This is consistent with seniors being less likely to believe that global warming is definitely happening, and also being less likely to report noticing local effects that they could directly attribute to climate change.

Belief that climate change poses a health risk today is also linked to education and income. Those most likely to think that global warming causes current health effects have higher levels of education (60% of those with a university degree, compared to 40% of those with less than a high school diploma) and household incomes of more than \$40,000 (57%, vs. 49% with lower incomes).

Does climate change pose a health risk to Canadians?

2008



Q.11

Do you think that climate change already poses a health risk to Canadians today, or do you think this is something that will happen in the future?

The existence of a chronic condition in the home has a negligible impact on whether someone feels that climate change is affecting Canadians' health now or will in the future. However, the perception that climate change is a current risk to health is linked to believing that global warming is definitely happening, having already noticed it in the community and feeling personally vulnerable to climate change. As well, those who feel global warming is mostly due to human activity are more likely than those who only partially attribute

it to humans to think that climate change poses a risk to health today.

It should also be noted that three in ten of those who have not noticed local changes (31%) and those who do not feel personally vulnerable to climate change (30%), and two in ten of those who think that global warming is not yet proven (23%) still believe that global warming poses a current health risk.

Does climate change pose a health risk to Canadians?

By noticing climate change in community and by personal vulnerability to climate change 2008

	TOTAL (N=1,600)	NOTICED CLIMATE CHANGE IN COMMUNITY			PERSONALLY VULNERABLE TO CLIMATE CHANGE		
		DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	NO (N=622)	DEFINITELY (N=366)	LIKELY (N=603)	NOT (N=513)
Poses a risk to health today	54	79	63	31	84	66	30
Will pose a health risk in future	39	20	34	56	15	33	64
No health risks now or in future	4	*	1	9	—	—	—
Depends/dk/na	3	1	2	5	2	2	6

* Less than one percent

Does climate change pose a health risk to Canadians?

By belief in global warming and perception of cause 2008

	TOTAL (N=1,600)	GLOBAL WARMING IS ...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)	MOSTLY (N=695)	PARTLY (N=364)
Poses a risk to health today	54	67	23	74	56
Will pose a health risk in future	39	30	62	24	41
No health risks now or in future	4	1	10	*	2
Depends/dk/na	3	2	5	2	2

* Less than one percent

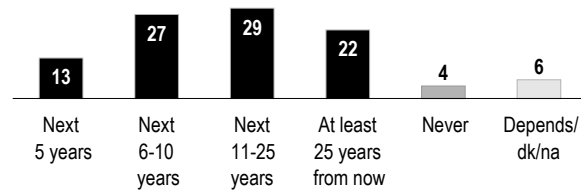
Q.11

Do you think that climate change already poses a health risk to Canadians today, or do you think this is something that will happen in the future?

Those who say that climate change will pose a health risk in the future (n=628) were asked when they think it will start affecting Canadians. Opinion on the time frame is divided. About one in seven (13%) think that health impacts on Canadians will be seen in the next five years, while about three in ten each think this will occur in either the next six to 10 years (27%) or in the next 11 to 25 years (29%). Two in ten (22%) say that it will be at least 25 years before climate change will begin affecting the health of Canadians.

There are no particular patterns for response by sub-groups. Residents of all regions are about equally likely to think that health effects will be evident either in the next 10 years, or in 11 or more years. The only notable age-related difference is that seniors are more likely than younger Canadians not to give an opinion on the time frame for climate change to impact health (13% say it depends or do not know, vs. 3% of younger Canadians). Those most likely to feel that climate change health effects will start in the next five years have household incomes of under \$100,000 (15%, vs. 3% with higher incomes).

When climate change will start affecting the health of Canadians 2008



Q.12

Do you think climate change will start affecting the health of Canadians ...?

Subsample: Those who say climate change will pose a risk in the future (n=628)

Those who think that global warming is definitely happening (18%), those who think it is mostly caused by human activity (25%) and those who say they have taken some action to combat its health effects in the past year (19%) are more likely than others to say that climate change events will be felt in the next five years. Thinking that health impacts will be felt sooner rather than later is also substantially higher among

those who have noticed definite climate change effects in their community (30%, vs. 7% who have not seen any local environmental effects). Belief that effects will be felt in the next five years is also significantly higher among those who feel they are definitely vulnerable to the health impacts of climate change (30%) than those who do not think their health is susceptible (8%).

When climate change will start affecting the health of Canadians

By noticing climate change in community and by personal vulnerability to climate change

	TOTAL (N=628)	NOTICED CLIMATE CHANGE IN COMMUNITY			PERSONALLY VULNERABLE TO CLIMATE CHANGE		
		DEFINITELY (N=82 ^β)	LIKELY/ POSSIBLY (N=188)	NO (N=346)	DEFINITELY (N=62 ^β)	LIKELY (N=190)	NOT (N=335)
In the next five years	13	30	17	7	30	19	8
In the next 6 to 10 years	27	31	34	23	30	33	24
In the next 11 to 15 years	29	22	29	31	23	28	33
At least 25 years from now	22	12	16	28	11	18	28
None	4	—	*	6	—	—	—
Depends/dk/na	6	5	5	6	7	2	6

* Less than one percent

^β Small base (<100) – caution is advised in interpreting results

Subsample: those who say climate change will pose a risk in the future

When climate change will start affecting the health of Canadians

By belief in global warming and perception of cause 2008

	TOTAL (N=628)	GLOBAL WARMING IS ...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		DEFINITELY HAPPENING (N=328)	NOT YET PROVEN (N=278)	MOSTLY (N=159)	PARTLY (N=148)
In the next five years	13	18	6	25	13
In the next 6 to 10 years	27	30	24	31	29
In the next 11 to 15 years	29	30	31	28	33
At least 25 years from now	22	13	31	13	14
None	4	2	5	2	3
Depends	6	6	4	2	9

Subsample: those who say climate change will pose a risk in the future

Q.12

Do you think climate change will start affecting the health of Canadians ...?

Subsample: Those who say climate change will pose a risk in the future

Vulnerability to climate change health impacts

Three-quarters say their community is either definitely or likely vulnerable; two-thirds feel personally vulnerable; and half say someone in their household is especially vulnerable to the health risks of climate change.

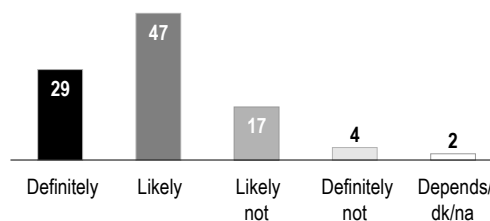
Community vulnerability. Canadians who believe that climate changes poses a risk to health either now or in the future were asked if they believe that people in their *community* are vulnerable to the potential health impacts of climate change. A strong majority believes that their community is either definitely (29%) or likely (47%) vulnerable.

Perceived community vulnerability is similar across Canada, but those most likely to say their community is *definitely* vulnerable live in the three northern territories (57%). Residents of Montreal are also considerably more likely (41%) than those living in Toronto (27%) and Vancouver (20%) to say that their community is definitely vulnerable to the health impacts of climate change.

There are no specific patterns by socio-economic groups or gender. Interestingly, older Canadians are less likely than younger ones to think that their community is

If community is vulnerable to climate change health impacts

2008



Q.13

Do you believe that people living in your community are definitely vulnerable, likely vulnerable, likely not vulnerable or definitely not vulnerable to the potential health impacts of climate change?
Subsample: Those who say climate change poses a health risk (n=1,511)

If community is vulnerable to climate change health impacts

By chronic condition and level of impairment 2008

	HAVE A CHRONIC CONDITION			HAVE A CHRONIC CONDITION:* LEVEL OF SELF-IMPAIRMENT**		
	TOTAL (N=1,511)	No (N=1,020)	Yes* (N=491)	GREAT DEAL (N=129)	SOME (N=234)	NOT VERY/ NONE (N=405)
Definitely vulnerable	29	27	34	43	37	25
Likely vulnerable	47	48	46	42	42	50
Likely not vulnerable	17	18	13	10	14	18
Definitely not vulnerable	4	4	4	1	4	5
Depends/dk/na	2	2	2	4	4	2

* includes seniors with chronic conditions

** includes persons with chronic conditions interviewed as an oversample

Q.13

Do you believe that people living in your community are definitely vulnerable, likely vulnerable, likely not vulnerable or definitely not vulnerable to the potential health impacts of climate change?
Subsample: Those who say climate change poses a health risk

vulnerable. Perception of community vulnerability is linked to the existence of a chronic condition in the home, whether that condition is one's own or someone else's, and also to the level of impairment caused by that condition.

Perception of community vulnerability is also linked to one's sensitivity to the issue of global warming in general: those most likely to say their community is definitely vulnerable believe that global warming is definitely happening (34%, vs. 16% who say it is not yet proven), and those who feel it is mostly caused by human activity (39%, vs. 27% who think humans are only partially responsible).

Finally, as might be expected, the extent to which it is believed that one's community is vulnerable to the health impacts of climate change is directly linked to whether changes attributable to climate change have been noticed locally. Half (50%) of those who have noticed changes they would definitely attribute to climate change say that their community is definitely vulnerable, while only two in ten (18%) who have not noticed local changes believe this.

If community is vulnerable to climate change health impacts

By noticing climate change in community 2008

	NOTICED CLIMATE CHANGE IN COMMUNITY		
	DEFINITELY (N=402)	LIKELY/ POSSIBLY (N=526)	No (N=544)
Definitely vulnerable	50	26	18
Likely vulnerable	42	57	42
Likely not vulnerable	5	14	27
Definitely not vulnerable	1	2	9
Depends/dk/na	2	1	4

Q.13

Do you believe that people living in your community are definitely vulnerable, likely vulnerable, likely not vulnerable or definitely not vulnerable to the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

If community is vulnerable to climate change health impacts

By belief in global warming and perception of cause 2008

	TOTAL (N=1,511)	GLOBAL WARMING IS ...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		DEFINITELY HAPPENING (N=1,080)	NOT YET PROVEN (N=385)	MOSTLY (N=690)	PARTLY (N=353)
Definitely vulnerable	29	34	16	39	27
Likely vulnerable	47	50	41	48	54
Likely not vulnerable	17	12	32	9	14
Definitely not vulnerable	4	3	9	2	3
Depends/dk/na	2	2	3	2	2

Q.13

Do you believe that people living in your community are definitely vulnerable, likely vulnerable, likely not vulnerable or definitely not vulnerable to the potential health impacts of climate change?

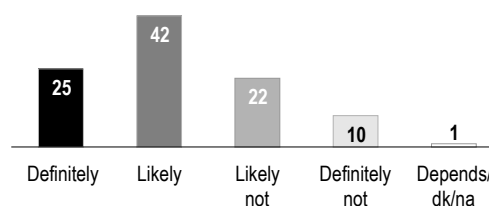
Subsample: Those who say climate change poses a health risk

Personal vulnerability. Canadians who think that climate change poses a risk to health either now or in the future were also asked if *they personally* feel vulnerable to the potential health impacts of climate change. Two-thirds believe that they are either definitely (25%) or likely (42%) vulnerable. These results are quite similar to the levels expressed for community vulnerability, with marginally higher proportions saying they are likely not or definitely not vulnerable.

As with community vulnerability, the perception of definite personal vulnerability is similar across Canada, but Quebec residents (73%) are the most apt to feel definitely or likely vulnerable, while those least inclined to say they are vulnerable reside in B.C. (58%) and the Prairie provinces (63%). Territorial residents are not more likely than others to feel definitely vulnerable and are the most likely to say they do not know (12%).

Women are slightly more likely than men to feel that they are personally vulnerable to the health impacts of climate change (70% vs. 63% at least likely to be vulnerable), but there is no clear pattern by level of education or household income. Feeling personally vulnerable is reported by higher proportions of Canadians under age 65, especially those aged 35 to 49 (71% at least likely to be vulnerable) than by seniors (59% at least likely to be vulnerable), which is consistent with younger Canadians being more inclined than older ones to believe that global warming is definitely happening,

If personally vulnerable to climate change health impacts 2008



Q.14

What about your own health? Do you believe that you personally are definitely, likely, likely not or definitely not vulnerable to the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk (n=1,511)

If personally vulnerable to climate change health impacts

By belief in global warming and perception of cause 2008

	TOTAL (N=1,511)	GLOBAL WARMING IS ...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		DEFINITELY HAPPENING (N=1,080)	NOT YET PROVEN (N=385)	MOSTLY (N=690)	PARTLY (N=353)
Definitely vulnerable	25	29	11	34	20
Likely vulnerable	42	46	30	46	49
Likely not vulnerable	22	16	41	12	22
Definitely not vulnerable	10	8	18	6	8
Depends/dk/na	1	1	1	1	1

Q.14

What about your own health? Do you believe that you personally are definitely, likely, likely not or definitely not vulnerable to the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

and to indicate they have witnessed its environmental effects in their community.

Indeed, those most likely to feel personally vulnerable are those who say they have noted a community change they would definitely attribute to climate change (84% at least likely to be vulnerable, vs. 46% who have not noticed any attributable local change). Personal vulnerability, like community vulnerability, is linked to believing that climate change is definitely happening and that it is mostly caused by human activity.

As with community vulnerability, the perception of personal vulnerability is linked to the existence of a chronic condition in the home, whether that condition is one's own or someone else's, and also to the level of impairment caused by that condition. Although seniors in general are less likely to feel vulnerable, seniors who have chronic conditions are much more likely (31%) than seniors who do not (15%) to say they are definitely vulnerable.

If personally vulnerable to climate change health impacts

By chronic condition and level of impairment 2008

	HAVE A CHRONIC CONDITION			HAVE A CHRONIC CONDITION:* LEVEL OF SELF-IMPAIRMENT**		
	TOTAL (N=1,511)	No (N=1,020)	Yes* (N=491)	GREAT DEAL (N=129)	SOME (N=234)	NOT VERY/ NONE (N=405)
Definitely vulnerable	25	21	34	39	40	24
Likely vulnerable	42	43	39	32	34	41
Likely not vulnerable	22	24	17	20	15	22
Definitely not vulnerable	10	11	9	7	10	12
Depends/dk/na	1	1	1	2	2	1

* includes seniors with chronic conditions

** includes persons with chronic conditions interviewed as an oversample

Q.14

What about your own health? Do you believe that you personally are definitely, likely, likely not or definitely not vulnerable to the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

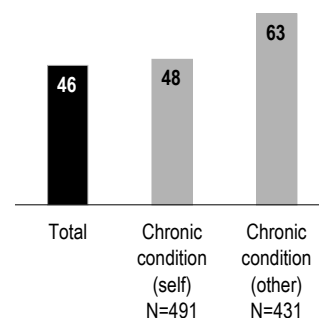
Other household member vulnerability. Canadians who believe that climate change either currently poses a risk to health or will do so in the future were asked if there is anyone in their immediate household that would be especially vulnerable to these potential health impacts. Close to half (46%) say there is someone in their household who would be particularly impacted, a proportion that rises to just over six in ten (63%) for households reporting that someone else has a chronic medical condition.

Two regions stand out on this question. Just over six in ten (63%) Quebec residents report that someone in their household is vulnerable to climate change, while only one-quarter (25%) of Northerners say this is the case.

Canadians are more likely to report having an especially vulnerable household member if their household includes someone under the age of 16 (64%, compared to 48% without) or if it does *not* include someone aged 60 or over (48%, vs. 41% of those with an older household resident). Seniors (32%) are in fact less likely than those 64 years of age and under (48%) to report that someone in their household would be particularly susceptible.

There are no significant differences on this issue by gender or education. However, the incidence of having someone in the household who is vulnerable is higher among those with household incomes of \$40,000 or over (49%) than those with incomes under \$40,000 (38%).

Someone in household is especially vulnerable to climate change health impacts 2008



Q.15

Is there anyone else in your immediate household who you think would be especially vulnerable to the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk (n=1,511)

As with other perceptions about the health risks of climate change, having a vulnerable household member is connected to being more sensitized to the global warming issue. Those who feel they are personally vulnerable to climate change's health effects are more likely (69%) than those who do not think they are personally vulnerable (15%) to report a household member at risk. This is also more likely among Canadians who have noticed climate change effects in their community (62% of those who definitely attribute local changes to global warming, vs. 35% who have not noticed changes).

Someone in household is especially vulnerable to climate change health impacts

By noticing climate change in community & personal vulnerability to climate change 2008

	TOTAL (n=1,511)	NOTICED CLIMATE CHANGE IN COMMUNITY			PERSONALLY VULNERABLE TO CLIMATE CHANGE		
		DEFINITELY (n=402)	LIKELY/ POSSIBLY (n=526)	No (n=544)	DEFINITELY (n=366)	LIKELY (n=603)	NOT (n=513)
Yes	46	62	47	35	69	55	15
No	52	36	51	62	29	42	83
dk/na	2	2	2	3	2	2	2

Q.15

Is there anyone else in your immediate household who you think would be especially vulnerable to the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

Canadians who feel that climate change is a current risk are more likely (58%) than those who believe it will be a risk in future (29%) to mention having a vulnerable household member, as are those who claim to have taken some protective action recently against the health effects of climate change (57%, vs. 34% who

have not taken such an action). Reporting that someone in the household is especially vulnerable to climate change is linked to the belief that global warming is definitely happening, and that is it mostly caused by human activity.

Someone in household is especially vulnerable to climate change health impacts

By action against climate change and by perception of when health impacts will be felt 2008

	TOTAL (N=1,511)	TOOK ACTION IN PAST YEAR AGAINST CC HEALTH EFFECTS		CLIMATE CHANGE WILL START AFFECTING HEALTH	
		ANY (N=759)	NONE (N=732)	NOW (N=867)	FUTURE (N=589)
Yes	46	57	34	58	29
No	52	41	63	40	68
dk/na	2	2	3	2	3

Someone in household is especially vulnerable to climate change health impacts

By belief in global warming and perception of cause 2008

	TOTAL (N=1,511)	GLOBAL WARMING IS ...		GLOBAL WARMING CAUSED BY HUMAN ACTIVITY	
		DEFINITELY HAPPENING (N=1,080)	NOT YET PROVEN (N=385)	MOSTLY (N=690)	PARTLY (N=353)
Yes	46	51	29	55	46
No	52	46	70	42	51
dk/na	2	3	2	3	3

Q.15

Is there anyone else in your immediate household who you think would be especially vulnerable to the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

Especially vulnerable populations. Those who believe climate change poses a health risk were asked (unprompted) what types of Canadians (if any) would be most likely to experience the negative effects of climate change. Nine in ten are able to provide some response.

Canadians are most likely to volunteer that seniors (45%) would be especially vulnerable to the health risks of climate change, followed by children (33%). This is not unexpected, given that these groups are widely understood to have special health needs and to be vulnerable to conditions such as influenza. Less likely to be cited as potentially vulnerable are sick/ill people (14%) and Northern residents (8%). About one in ten believe that everyone is equally likely to be affected (8%).

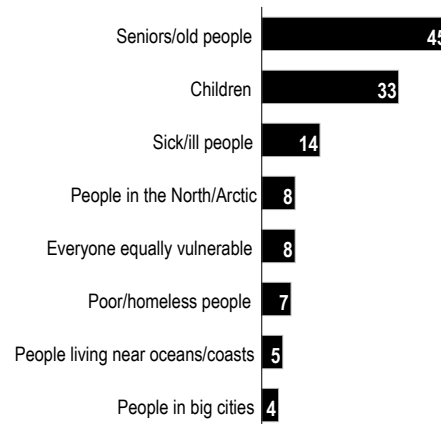
Other individual mentions are provided by seven percent or fewer and include poor/homeless people, coastal residents and urbanites. One in ten cannot name a type of Canadian at risk, and one percent of those who believe that climate change does pose a health risk thinks that no one is especially vulnerable.

There are some interesting regional patterns in response to this question. Across Canada, Quebec residents stand out as those most able to name groups at risk, and also as the most likely to cite seniors (60%), children (41%) and sick people (21%). Most likely to name residents of the North as being at special risk are Territorial residents (27%), while Quebecers are least likely to think of this group (4%). Persons living near oceans or coasts are mentioned most by residents of the Prairies (11%) and B.C. (10%). Atlantic Canadians are the most likely to think that persons living in big cities are at risk (11%). There are no notable differences in mentions by whether someone lives in an urban or rural community.

Notably, those *least* likely to mention seniors as being particularly susceptible to the health risks of climate change are seniors themselves (34%, vs. 48% of those aged 18 to 64). Younger seniors (aged 65-69 – 36%) are somewhat more likely than older ones (aged 80+ – 29%) to name seniors as persons at special risk. Consistent with this finding, those reporting a person over age 60 living in their household (39%) are *less* likely

Canadians most likely to be affected by climate change

Top mentions 2008



Q.16

What types of Canadians, if any, do you think might be most likely to experience the negative effects of climate change?

Subsample: Those who say climate change poses a health risk (n=1,511)

than those who do not (48%) to mention seniors as being at risk. However, those whose household includes someone under the age of 16 (44%) are more likely to mention children as being susceptible than those who do not have a younger person at home (28%). Those most likely to mention children are under age 50.

Women are more likely than men to cite seniors (49% vs. 41% of men), children (39% vs. 27%) or sick persons (18% vs. 10%) as being vulnerable; men are more likely to think of Northern/Arctic (10% vs. 5%) or coastal residents (7% vs. 3%). Mentions of either seniors or children increase proportionally along with level of education, and those with university degrees are the most likely to mention Northern residents, poor/homeless persons or coastal residents. There is no distinct pattern by household income to mentioning seniors, but citing children, Northern residents, and poor or homeless persons is linked to higher income levels.

Canadians are not more likely to mention sick/ill persons as being susceptible if they or someone else in their household has a chronic health condition. The Canadians most likely to mention seniors or children, or to think that everyone is personally vulnerable, are those who believe themselves to be personally vulnerable to the health effects of climate change, those who have noticed climate change effects in their community, and those who believe that global warming is definitely happening.

Canadians most likely to be affected by climate change

Top mentions By belief in global warming 2008

	GLOBAL WARMING IS...		
	TOTAL (N=1,511)	DEFINITELY HAPPENING (N=1,080)	NOT YET PROVEN (N=385)
Seniors/old people	45	50	37
Children	33	38	22
Sick/ill people	14	16	12
People in the North/Arctic	8	7	11
Everyone is equally vulnerable	8	9	4
Poor/homeless people	7	7	8
People living near oceans/coasts	5	4	7
People in big cities	4	4	4
No one is vulnerable	1	1	2
dk/na	10	7	13

Q.16

What types of Canadians, if any, do you think might be most likely to experience the negative effects of climate change?

Subsample: Those who say climate change poses a health risk

Canadians most likely to be affected by climate change

By noticing climate change in community & personal vulnerability to climate change 2008

	TOTAL (N=1,511)	NOTICED CLIMATE CHANGE IN COMMUNITY			PERSONALLY VULNERABLE TO CLIMATE CHANGE		
		DEFINITELY (N=402)	LIKELY/ POSSIBLY (N=526)	No (N=544)	DEFINITELY (N=366)	LIKELY (N=603)	NOT (N=513)
Seniors/old people	45	51	49	39	46	53	34
Children	33	41	39	23	37	42	20
Sick/ill people	14	15	17	12	14	15	14
People in the North/Arctic	8	5	8	10	7	5	11
Everyone equally vulnerable	8	12	7	5	16	7	3
Poor/homeless people	7	10	7	6	7	5	7
People near oceans/coasts	5	3	5	6	4	4	4
People in big cities	4	3	4	4	3	3	6
No one is vulnerable	1	*	1	2	*	1	3
dk/na	10	7	8	13	9	9	13

* Less than one percent

Q.16

What types of Canadians, if any, do you think might be most likely to experience the negative effects of climate change?

Subsample: Those who say climate change poses a health risk

Steps taken to protect against potential health impacts of climate change

Many claim to have recently taken steps to protect themselves or their family against the negative health impacts of climate change, but some steps mentioned are actions to reduce environmental impacts in general rather than being specifically health-related.

Canadians who say climate change poses a health risk were asked (unprompted) if they have personally taken any steps in the past year to protect themselves or their families from the potential health risks of climate change. Half (51%) claim to have taken at least one step although, as analysis of the steps indicates, the actions are more likely to do with reducing personal contribution to climate change than protecting oneself from potential health impacts.

The step most likely to be mentioned is protection from the sun, mentioned by one-quarter (25%), followed by several steps to reduce energy or resource complications: recycling/reducing garbage (11%), reducing vehicle use or fuel consumption (7%), and increasing energy efficiency (6%). Less than five percent mention any other single action, such as eating healthier foods, dressing for the weather and avoiding going outside in bad weather.

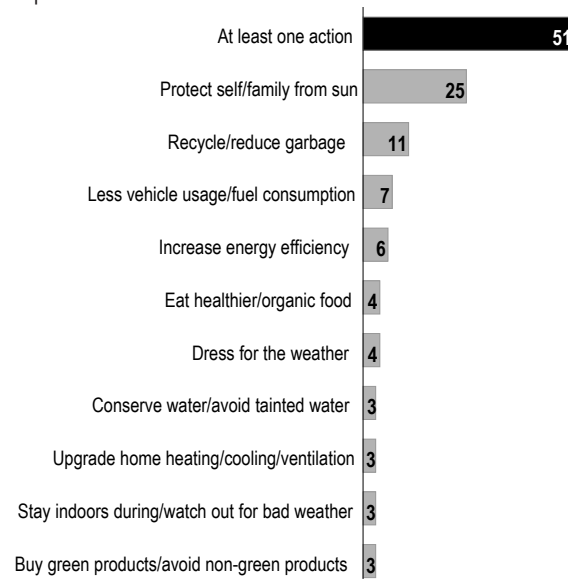
There are few differences of note by region. Protection from the sun is consistently mentioned, although somewhat less by territorial residents than elsewhere. Staying indoors in bad weather is mentioned slightly more by residents of Ontario (5%) and the Prairies (4%) than elsewhere.

Mentions of using sun protection are higher among Canadians under age 65 (26%) than seniors (16%), and those under age 50 are more likely than older Canadians to report recycling, and reducing vehicle or fuel use. Older Canadians in turn are more likely to mention eating healthier or organic foods. Mentions of sun protection or increased energy efficiency are linked to higher levels of education; those with less than a high school education are the least likely to report having taken any steps.

Persons who have a chronic condition are not more likely than those who do not to say they used sun protection, but they are more likely to report eating

Steps taken in past year to protect from climate change health impacts

Top mentions 2008



Q.17

Have you personally taken any steps in the past year to protect yourself or family members from the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

healthier or organic foods. Canadians with a household resident who is aged 60 or over are more likely than others to mention eating better or staying indoors, and less likely to mention sun protection, recycling or reducing vehicle use.

Reporting at least one step to combat climate change is higher among people who are more sensitized to the issue. Those who believe that global warming is definitely happening are more likely to have taken most of the top steps, while two-thirds (66%) of those who think global warming is not yet proven have not taken any step.

Steps are also most likely to have been taken by those personally vulnerable to the negative health effects of climate change (67% of those definitely vulnerable took at least one step, vs. 31% who do not feel vulnerable), and by people who have noticed community changes that are definitely due to climate change (70% took at least one step, compared to 34% who did not notice a local change).

Steps taken in past year to protect from climate change health impacts

Top mentions By belief in global warming 2008

	GLOBAL WARMING IS...		
	TOTAL (N=1,511)	DEFINITELY HAPPENING (N=1,080)	NOT YET PROVEN (N=385)
Took at least one step	51	56	33
Protection from sun	25	29	17
Recycle/reduce garbage	11	13	4
Less vehicle/fuel use	7	8	3
Increase energy efficiency	6	7	2
Eat healthier foods	4	5	1
Dress for weather	4	4	3
No step taken	48	43	66
dk/na	1	1	1

Q.17

Have you personally taken any steps in the past year to protect yourself or family members from the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

Steps taken in past year to protect from climate change health impacts

Top mentions By noticing climate change in community and by personal vulnerability to climate change

	NOTICED CLIMATE CHANGE IN COMMUNITY				PERSONALLY VULNERABLE TO CLIMATE CHANGE		
	TOTAL (N=1,511)	DEFINITELY (N=402)	LIKELY/ POSSIBLY (N=526)	No (N=544)	DEFINITELY (N=366)	LIKELY (N=603)	NOT (N=513)
Took at least one step	51	70	54	34	67	56	31
Protection from sun	25	30	30	17	29	31	16
Recycle/reduce garbage	11	18	9	7	15	12	5
Less vehicle/fuel use	7	12	7	4	13	7	2
Increase energy effic.	6	11	5	5	10	6	3
Eat healthier foods	4	7	5	2	5	5	2
Dress for weather	4	4	6	1	4	4	2
No step taken	48	30	45	64	32	43	68
dk/na	1	*	1	2	1	1	1

* Less than 1 percent

Q.17

Have you personally taken any steps in the past year to protect yourself or family members from the potential health impacts of climate change?

Subsample: Those who say climate change poses a health risk

Those who reported taking at least one step in the past year to protect themselves or others from the health impacts of climate change were then asked if they took that step specifically because of health concerns or for other reasons. This was recorded for each mention they say they took.

For their first mention, eight in ten say that they took the step either specifically for health reasons (44%) or for both health and other reasons (34%). Reasons vary depending on the actual step taken. The step most likely to have been taken due to specific health concerns is sun protection, followed by dressing for the weather. Although health reasons are still indicated, Canadians are somewhat more likely to acknowledge that environmentally-related steps, such as recycling or reduction of vehicle use, may have been undertaken for reasons other than health.

Among those who took the step of *protecting themselves or their family from the sun* (n=374), Quebec residents are the most likely to say this was for health reasons (73%), while those in the Prairies are the most likely to say it was for other reasons (15%). Those who are definitely (12%) or likely (10%) vulnerable to climate change are more likely than those who do not feel vulnerable (2%) to say sun protection was undertaken for reasons *other* than health.

The bases of those undertaking other individual steps are too small to allow for detailed subgroup analysis.

Reasons for steps being taken to protect from climate change health impacts

By specific step taken First mention 2008

		SPECIFICALLY TOOK STEP FOR HEALTH REASONS	BOTH HEALTH AND OTHER REASONS	TOOK STEP FOR OTHER REASONS	DK/NA
All steps	(n=759)	44	34	18	4
Protection from sun	(n=374)	60	29	10	1
Dress for weather	(n=56)	48	32	20	—
Other steps	(n=348)	40	35	19	6
Less vehicle use/fuel use	(n=109)	30	43	21	6
Eat healthier foods	(n=64)	30	39	25	6
Recycle/reduce garbage	(n=142)	28	43	26	4
Increase energy efficiency	(n=78)	23	43	25	10

Q.17.1

Did you take this step specifically because of concerns about the potential health impacts of climate change or for another reason such as reducing your impact on the environment?

Subsample: Those who have taken at least one step to reduce the health impact of climate change

KNOWLEDGE AND ATTITUDES ABOUT EXTREME WEATHER EVENTS AND EMERGENCY PREPAREDNESS

Because much of the onus will be on individuals to protect themselves from the health risks of climate change, it is important to assess what Canadians know about the risks of extreme weather events and what, if any, preventive steps they may be prepared to undertake. The survey asked opinions about extreme weather events as a health risk; about perceptions of the likelihood of extreme weather events; and about whether the household has taken emergency preparedness steps.

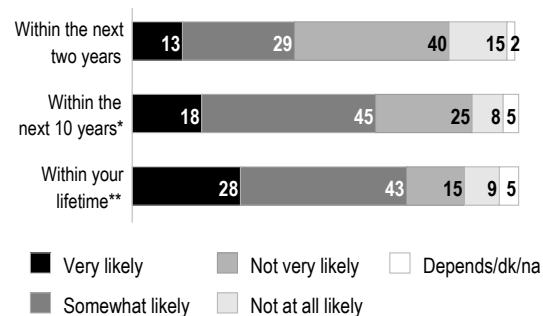
Likelihood of a community disaster caused by extreme weather

Many Canadians believe that an extreme weather disaster will affect their community at some point in their lifetime.

While many agree that climate change is real and is happening now, it may only be an abstract concern if they do not believe that they will be personally affected by extreme weather as a result of climate change. The survey asked about the likelihood that a disaster caused by extreme weather will occur and affect them or their community, within the next two years, within the next 10 years or within their lifetime.⁸

One in seven (13%) Canadians believe an extreme weather event is very likely within the next two years. Slightly more say it is very likely such an event will occur locally within the next 10 years (18%) and three in ten (28%) think it very likely this type of weather disaster will occur at some point in their lifetime. Taken all together, half (49%) of Canadians believe it is very likely that an extreme weather disaster will affect their community at some point in their life.

Likelihood of an extreme weather-related disaster in community 2008



Q.24

Do you think it is very, somewhat, not very or not at all likely that a disaster caused by extreme weather will occur and affect you or your community ... Within the next two years ... Within the next 10 years ... Within your lifetime**?*

**Subsample: Asked about the next 10 years (n=1,365)*

***Subsample: Asked about lifetime (n=1,133)*

8 The question about “the next two years” was asked first. Respondents answering “very likely” were not asked further timing questions. Those who said that a community disaster was “very likely” within the 10 years were not asked the question about their lifetime.

Atlantic residents stand out as being the most apt to think it very likely a weather-related disaster will occur within the next two years (21%, compared to between 8% and 13% of other regions). Apart from this, disaster expectation is fairly uniform across the country, and does not vary significantly by type of community (urban vs. rural).

There is an understandable age difference when contemplating the time frame for a potential extreme weather disaster. Younger Canadians (aged 18 to 49) are more apt than older ones to think that there will very likely be such a disaster within their lifetime (38%, vs. 22% of those aged 50 to 64 and 9% of seniors). Those aged 18 to 49 are also more apt to believe such an event will very likely take place within the next 10 years (22%) than older Canadians (13%).

Thinking that an extreme weather event is very likely within one's lifetime is not notably influenced by having a chronic condition. However, there is a definite link between anticipating a local weather disaster and increased sensitivity to the issue of climate change. Those who know global warming is definitely happening are no more likely than those who say it is yet to be proven to believe a community weather disaster is very likely within the next two years. However, this gap grows as the time frame lengthens: Those who are convinced global warming is now a reality are twice as likely to think a local weather disaster will very likely occur within their lifetime (34% vs. 16%).

Likelihood of an extreme weather-related disaster in community

By belief in global warming 2008

	GLOBAL WARMING IS...		
	TOTAL (N=1,600)	DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)
Very likely within the next two years	13	14	10
	(n=1,365)	(n=921)	(n=397)
Very likely within the next 10 years	18	22	10
	(n=1,133)	(n=734)	(n=357)
Very likely within lifetime	28	34	16
Somewhat likely within lifetime	43	42	46
Not very likely within lifetime	15	14	19
Not at all likely within lifetime	9	6	13
Depends/dk/na	5	4	7

Q.24

Do you think it is very, somewhat, not very or not at all likely that a disaster caused by extreme weather will occur and affect you or your community ... Within the next two years ... Within the next 10 years ... Within your lifetime**?*

**Subsample: Asked about the next 10 years (n=1,365)*

***Subsample: Asked about lifetime (n=1,133)*

Those who feel most personally vulnerable to the health impacts of climate change are the most pessimistic about the likelihood of an extreme weather disaster. As well, those who have already noticed community impacts due to global warming are more likely to think

they will live to see a local weather disaster, as do those who have taken some recent action against the health risks of climate change, and those who feel climate change is a current risk to health.

Likelihood of an extreme weather-related disaster in community

By factors indicating greater sensitivity to the issue of climate change 2008

	NOTICED CLIMATE CHANGE IN COMMUNITY				CLIMATE CHANGE POSES HEALTH RISKS	
	TOTAL (N=1,600)	DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	NO (N=622)	NOW (N=867)	IN FUTURE (N=611)
Very likely within the next two years	13	20	15	8	16	10
	(n=1,365)	(n=309)	(n=455)	(n=562)	(n=707)	(n=546)
Very likely within the next 10 years	18	37	16	10	26	10
	(n=1,133)	(n=212)	(n=382)	(n=506)	(n=537)	(n=490)
Very likely within lifetime	28	40	33	21	36	24
Somewhat likely within lifetime	43	39	49	40	44	42
Not very likely within lifetime	15	10	12	20	11	18
Not at all likely within lifetime	9	6	4	13	5	9
Depends/dk/na	5	5	3	7	3	6

	PERSONALLY VULNERABLE TO CLIMATE CHANGE				HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
	TOTAL (N=1,600)	DEFINITELY (N=366)	LIKELY (N=603)	NO (N=513)	ANY (N=759)	NONE (N=732)
Very likely within the next two years	13	22	15	6	16	11
	(n=1,365)	(n=279)	(n=499)	(n=482)	(n=627)	(n=639)
Very likely within the next 10 years	18	31	19	11	24	14
	(n=1,133)	(n=196)	(n=405)	(n=430)	(n=486)	(n=549)
Very likely within lifetime	28	40	38	17	37	24
Somewhat likely within lifetime	43	41	45	41	44	43
Not very likely within lifetime	15	10	9	23	12	17
Not at all likely within lifetime	9	6	5	12	4	10
Depends/dk/na	5	4	3	7	3	6

Q.24

Do you think it is very, somewhat, not very or not at all likely that a disaster caused by extreme weather will occur and affect you or your community ... Within the next two years ... Within the next 10 years ... Within your lifetime**?*

**Subsample: Asked about the next 10 years (n=1,365)*

***Subsample: Asked about lifetime (n=1,133)*

Perceived health risks of extreme weather events

The majority of Canadians believe that an extreme weather event would pose only a moderate or minor health risk to their community; few believe their community would suffer major impacts.

Canadians were asked to rate how much of a health risk they believe extreme weather events present to people living in their community. The majority of Canadians say that an extreme weather event would pose either a moderate (36%) or minor (38%) health risk to their own community. One in ten (11%) believe extreme weather events pose a major health risk, while one in seven (14%) feel that such an event is no health risk at all.

Quebec residents are the most likely to believe that extreme weather events would pose either major (17%) or a moderate (48%) health risk. In other regions, pluralities believe that the health risk of such events would be minor (from 41% in the Prairies to 50% in the North). Prairies residents are least likely to expect major health risks from extreme weather.

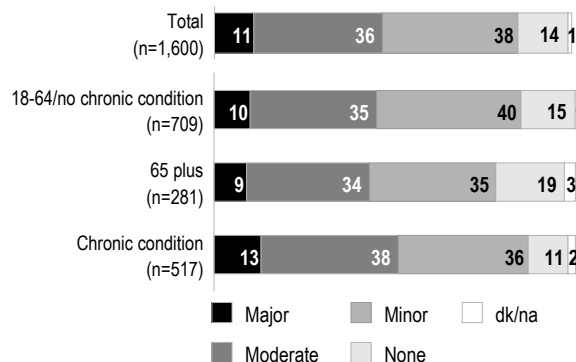
Opinions on this question do not differ by gender, by whether one is an urban or rural dweller, or by whether a child or an older person (60+) lives in the household. Seniors themselves are the most likely to say there is no community health risk at all due to extreme weather (19%, vs. 12% of persons under age 65).

Socio-economic factors play some role in forming opinions about the health risks of extreme weather. Canadians with higher education levels are more inclined to think that extreme weather health risks would be minor (39%) than are those with less than a high school diploma (24%), while those with household incomes of \$100,000 or more are the most likely to say there would be *no* community health risks posed by extreme weather (21%, vs. 12% of those with lower incomes).

There are no differences by whether there is someone with a chronic condition in the home, but there is a link to health: Those most likely to say that extreme weather poses a major community health risk are Canadians who personally have a chronic condition that impairs their activities a great deal (23%) and those describing their health as poor (20%).

Health impact of extreme weather events on community

By target groups 2008



Q.18

I would now like to ask you about extreme weather events, such as hurricanes, violent wind storms, heat waves, floods and major blizzards. How much of a health risk do you believe extreme weather events presents to people living in your community? Do they present ...?

Perceived risks are also higher among those who are more sensitized to the issue of climate change. Canadians who believe that global warming is definitely happening are more likely to think that a local extreme weather event would cause major (13%) or moderate (40%) health problems for their community, while those who think it is not yet proven are twice as likely (23% vs. 10%) to think such an even would pose no health risk at all.

Other indications of increased awareness of, and sensitivity to, the issue of global warming have similar effects on belief in the potential severity of a local weather disaster, with those who are more involved in the issue taking a more pessimistic view. Those who have noticed the definite effects of climate change in their own communities; those who think climate change health risks are apparent now; those who feel they are personally vulnerable to the health risks of climate change and those who have taken recent action to combat its negative health impacts are more likely to think the health effects of a severe local weather event would be major or moderate.

Perceived health risk of extreme weather events By belief in global warming 2008

	GLOBAL WARMING IS...		
	TOTAL (N=1,600)	DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)
A major health risk	11	13	7
A moderate health risk	36	40	30
A minor health risk	38	36	41
No health risk at all	14	10	23
dk/na	1	1	*
* Less than one percent			

Q.18

I would now like to ask you about extreme weather events, such as hurricanes, violent wind storms, heat waves, floods and major blizzards. How much of a health risk do you believe extreme weather events presents to people living in your community? Do they present ...?

Perceived health risk of extreme weather events

By factors indicating greater sensitivity to the issue of climate change 2008

	NOTICED CLIMATE CHANGE IN COMMUNITY				CLIMATE CHANGE POSES HEALTH RISKS	
	TOTAL (N=1,600)	DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	No (N=622)	Now (N=867)	IN FUTURE (N=611)
A major health risk	11	18	13	6	14	8
A moderate health risk	36	47	39	28	45	28
A minor health risk	38	28	43	40	34	44
No health risk at all	14	6	5	25	6	19
dk/na	1	2	1	1	2	1

	PERSONALLY VULNERABLE TO CLIMATE CHANGE				HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
	TOTAL (N=1,600)	DEFINITELY (N=366)	LIKELY (N=603)	No (N=513)	Any (N=759)	NONE (N=732)
A major health risk	11	27	9	5	16	8
A moderate health risk	36	46	45	24	42	34
A minor health risk	38	22	40	47	34	40
No health risk at all	14	5	5	24	7	17
dk/na	1	1	1	1	1	1

Q.18

I would now like to ask you about extreme weather events, such as hurricanes, violent wind storms, heat waves, floods and major blizzards. How much of a health risk do you believe extreme weather events presents to people living in your community? Do they present ...?

The perception that an extreme weather event will have major health consequences is linked directly to how likely one feels it is that such a disaster will occur. Those who feel that an extreme weather-related event is *very* likely (regardless of the time frame) are more apt to believe that the health effects of extreme weather

would be either major or moderate. The reverse is also true: those who think that an extreme weather event is imminent are more likely to think it will have a major health impact than those who believe it will be over 10 years before such an event occurs.

Perceived health risk of extreme weather events

By likelihood of occurrence 2008

	TOTAL (N=1,600)	EXTREME WEATHER EVENT IN COMMUNITY IS VERY LIKELY...			EXTREME WEATHER EVENT IN COMMUNITY IN YOUR LIFETIME IS...		
		WITHIN NEXT TWO YEARS (N=235)	WITHIN NEXT 10 YEARS (N=232)	IN YOUR LIFETIME (N=292)	SOMEWHAT LIKELY (N=478)	NOT VERY LIKELY (N=185)	NOT AT ALL LIKELY (N=112)
A major health risk	11	29	19	11	6	2	3
A moderate health risk	36	45	47	42	34	18	21
A minor health risk	38	24	28	40	45	50	30
No health risk at all	14	2	5	6	14	28	44
dk/na	1	—	1	2	1	1	2

Q.18

I would now like to ask you about extreme weather events, such as hurricanes, violent wind storms, heat waves, floods and major blizzards. How much of a health risk do you believe extreme weather events presents to people living in your community? Do they present ...?

Difficulty of protection against extreme weather

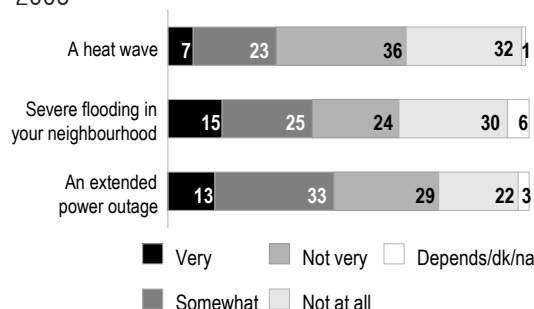
Few Canadians believe they would have great difficulty in protecting themselves or others in the event of severe flooding, an extended power outage or a heat wave.

Canadians were asked if they or others in their household would find it difficult to protect themselves at home in the event of three extreme events: a heat wave, severe flooding or an extended power outage. Canadians are rather optimistic about their ability to protect themselves in the event of each of these types of emergencies.

Of these three types of events, about three in ten anticipate no difficulty at all in coping with a heat wave (32%) or severe flooding (30%); two in ten (22%) believe it would be not at all difficult to protect against an extended power outage. Canadians are about equally likely to say it would be very difficult to protect themselves against flooding (15%) or an extended power outage (13%), and somewhat less likely to anticipate great difficulty in coping with a heat wave (7%).⁹

There are some regional variations, as might be expected. Quebec residents are the most likely to say it would be very difficult to cope with severe flooding (20%). Prairies residents are also quite concerned about the effects of severe flooding: 19 percent expect it would be very difficult to protect themselves or others – and this does not differ significantly whether a resident of Alberta, Saskatchewan or Manitoba.

Difficult to protect self/others in household in the event of an emergency 2008



Q.30

Would you or others in your household find it very, somewhat, not very or not at all difficult to protect yourself at home in the event of ...?

9 It should be recalled that most of the interviewing for this survey was conducted in February of a very snowy winter.

Ontario residents are the most likely to anticipate at least some difficulty in handling an extended power outage (51% very or some difficulty), while Atlantic Canadians are the most likely to say a heat wave would cause them difficulties (37% either very or some difficulty). Northerners express the lowest level of concern about severe flooding but are similar to others with regard to the other emergencies.

There is little difference by type of community (urban/rural) in anticipating difficulties from these three events. There is also relatively little difference by age, except that younger Canadians 18 to 34 are somewhat less likely to believe they would find it either very or somewhat difficult to cope with an extended power outage (40%, vs. 49% of older Canadians).

Difficult to protect self/others in household in the event of an emergency

By region 2008

	TOTAL (N=1,600)	NORTH (N=160)	B.C. (N=160)	PRAIRIES (N=256)	ONTARIO (N=440)	QUEBEC (N=360)	ATLANTIC (N=224)
Severe flooding							
<i>Net: difficult</i>	40	16	41	43	38	43	39
Very difficult	15	7	12	19	13	20	15
Somewhat difficult	25	8	29	25	25	23	25
Not very difficult	24	10	23	20	29	17	32
Not at all difficult	30	38	32	31	30	27	27
Depends/dk/na	6	33	2	1	2	2	1
Extended power outage							
<i>Net: difficult</i>	47	45	39	47	51	45	45
Very difficult	13	20	8	15	14	16	10
Somewhat difficult	33	25	31	32	37	29	35
Not very difficult	29	9	39	30	28	26	31
Not at all difficult	22	33	22	21	19	27	23
Depends/dk/na	3	13	1	2	2	3	2
Heat wave							
<i>Net: difficult</i>	30	25	29	33	32	25	37
Very difficult	7	14	9	5	7	8	11
Somewhat difficult	23	11	20	28	25	17	27
Not very difficult	36	14	39	35	38	34	36
Not at all difficult	32	48	31	31	29	40	27
Depends/dk/na	1	13	1	*	1	1	1

* Less than one percent

Q.30

Would you or others in your household find it very, somewhat, not very or not at all difficult to protect yourself at home in the event of ...?

There is a notable difference by whether someone has a chronic condition and if that condition causes significant impairment. Those whose chronic condition causes them a great deal of impairment are the most likely to think they would have major difficulty with all three types of emergencies. There is also a difference

by self-reported level of health, with those reporting fair or poor health being the most likely to say it would be very difficult to protect themselves or others in the event of a heat wave (18%), severe flooding (23%) or an extended power loss (22%).

Difficult to protect self/others in household in the event of an emergency

By chronic condition and level of impairment 2008

	HAVE A CHRONIC CONDITION			HAVE A CHRONIC CONDITION:** LEVEL OF SELF-IMPAIRMENT***		
	TOTAL (N=1,600)	No (N=1,083)	Yes** (N=517)	GREAT DEAL (N=131)	SOME (N=241)	NOT VERY/ NONE (N=432)
Severe flooding						
<i>Net: difficult</i>	40	41	40	51	42	31
Very difficult	15	16	15	25	14	13
Somewhat difficult	25	25	25	26	28	18
Not very difficult	24	25	22	19	24	25
Not at all difficult	30	30	28	24	25	35
Depends/dk/na	6	1	3	1	4	3
Extended power outage						
<i>Net: difficult</i>	47	44	52	62	56	45
Very difficult	13	12	17	29	19	11
Somewhat difficult	33	33	35	33	37	34
Not very difficult	29	31	25	21	25	29
Not at all difficult	22	23	19	18	16	23
Depends/dk/na	3	2	4	—	3	4
Heat wave						
<i>Net: difficult</i>	30	27	39	48	47	28
Very difficult	7	6	11	22	11	6
Somewhat difficult	23	21	28	25	35	22
Not very difficult	36	37	34	29	30	39
Not at all difficult	32	35	26	23	21	32
Depends/dk/na	1	*	2	—	2	2

* Less than one percent

** includes seniors with chronic conditions

*** includes persons with chronic conditions interviewed as an oversample

Q.30

Would you or others in your household find it very, somewhat, not very or not at all difficult to protect yourself at home in the event of ...?

Canadians who are more informed about or sensitive to the issue of climate change are somewhat more pessimistic regarding protection in the event of an emergency. This is in keeping with their being more likely to think weather-related emergencies may impact their community in their lifetime, and that such events would entail major or moderate health risks. For example, those who believe global warming is definitely happening are the most likely to think that protection in the event of all three eventualities would be at least somewhat difficult, while those who think global warming is not yet proven are somewhat more likely to think they would not find self-protection difficult at all.

Difficult to protect self/others in household in the event of an emergency

By belief in global warming 2008

	GLOBAL WARMING IS...		
	TOTAL (N=1,600)	DEFINITELY HAPPENING (N=1,100)	NOT YET PROVEN (N=445)
Severe flooding			
<i>Net: difficult</i>	40	43	35
Very difficult	15	16	13
Somewhat difficult	25	26	22
Not very difficult	24	24	23
Not at all difficult	30	27	37
Depends/dk/na	6	6	6
Extended power outage			
<i>Net: difficult</i>	47	50	40
Very difficult	13	14	12
Somewhat difficult	33	36	28
Not very difficult	29	28	33
Not at all difficult	22	20	25
Depends/dk/na	3	3	2
Heat wave			
<i>Net: difficult</i>	30	33	23
Very difficult	7	8	5
Somewhat difficult	23	25	18
Not very difficult	36	37	36
Not at all difficult	32	29	40
Depends/dk/na	1	1	1
* Less than one percent			

Q.30

Would you or others in your household find it very, somewhat, not very or not at all difficult to protect yourself at home in the event of ...?

Those most likely to feel that each of these emergencies would cause a great deal of difficulty are those who feel personally vulnerable to the effects of climate change. Those who have noticed climate change effects in their community are more likely than those who have not

to feel that heat waves and extended power outages would be at least somewhat problematic, and those who believe climate change is currently causing health risks are more likely to believe all three events would cause them at least some difficulty.

Difficult to protect self/others in household in the event of an emergency

By factors indicating greater sensitivity to the issue of climate change 2008

		NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
	TOTAL (N=1,600)	DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	NO (N=622)	NOW (N=867)	IN FUTURE (N=611)
Severe flooding						
<i>Net: difficult</i>	40	41	45	36	46	34
Very difficult	15	18	14	15	17	14
Somewhat difficult	25	23	31	20	30	20
Not very difficult	24	25	24	23	23	26
Not at all difficult	30	28	25	35	24	35
Depends/dk/na	6	2	2	1	2	1
Extended power outage						
<i>Net: difficult</i>	47	49	50	42	50	43
Very difficult	13	15	14	12	15	12
Somewhat difficult	33	35	36	30	36	31
Not very difficult	29	26	31	30	27	32
Not at all difficult	22	23	18	25	21	23
Depends/dk/na	3	1	2	3	2	2
Heat wave						
<i>Net: difficult</i>	30	36	36	21	35	27
Very difficult	7	11	8	5	8	7
Somewhat difficult	23	25	28	17	27	19
Not very difficult	36	36	36	38	37	36
Not at all difficult	32	29	27	40	28	36
Depends/dk/na	1	*	*	1	*	1

* Less than one percent

Q.30

Would you or others in your household find it very, somewhat, not very or not at all difficult to protect yourself at home in the event of ...?

There are some differences in anticipated difficulty in responding to an extreme event by type of housing. In general, Canadians living in housing types that are not single-family detached homes (for example, in apartments or mobile homes) are more likely to believe they would have great difficulty in handling heat waves or an extended power outage. There is less difference when it comes to severe flooding, although those living

in higher apartment buildings are less apt than others to indicate this would be very difficult. For all three types of events, the Canadians considering themselves to be the most vulnerable are those living in mobile homes or trailers. Heat waves are considered to be less difficult to handle by those with air conditioning (5% very difficult, vs. 10% with no air conditioning).

Difficult to protect self/others in household in the event of an emergency

By factors indicating greater sensitivity to the issue of climate change 2008

		PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
	TOTAL (N=1,600)	DEFINITELY (N=366)	LIKELY (N=603)	No (N=513)	ANY (N=759)	NONE (N=732)
Severe flooding						
<i>Net: difficult</i>	40	48	45	30	43	39
Very difficult	15	21	15	12	17	15
Somewhat difficult	25	27	30	19	26	25
Not very difficult	24	21	26	24	24	24
Not at all difficult	30	24	25	37	27	31
Depends/dk/na	6	3	1	2	2	1
Extended power outage						
<i>Net: difficult</i>	47	49	52	41	49	46
Very difficult	13	18	14	10	16	12
Somewhat difficult	33	31	38	31	34	34
Not very difficult	29	30	27	30	28	30
Not at all difficult	22	19	19	28	21	23
Depends/dk/na	3	2	1	1	2	1
Heat wave						
<i>Net: difficult</i>	30	40	34	23	36	27
Very difficult	7	11	8	4	9	6
Somewhat difficult	23	29	26	19	27	21
Not very difficult	36	31	38	38	35	38
Not at all difficult	32	29	27	39	29	34
Depends/dk/na	1	*	*	1	1	1
* Less than one percent						

Q.30

Would you or others in your household find it very, somewhat, not very or not at all difficult to protect yourself at home in the event of ...?

Frequency of checking for extreme weather alerts

The majority of Canadians say they or others in their household regularly check for extreme weather alerts. Such behaviour is strongly linked to age.

Another indicator of proactive responsibility for the health effects of climate change is being aware of the weather, so that precautions can be taken if needed. The survey asked Canadians how frequently they or other household members listen or check for extreme weather alerts in their local area.

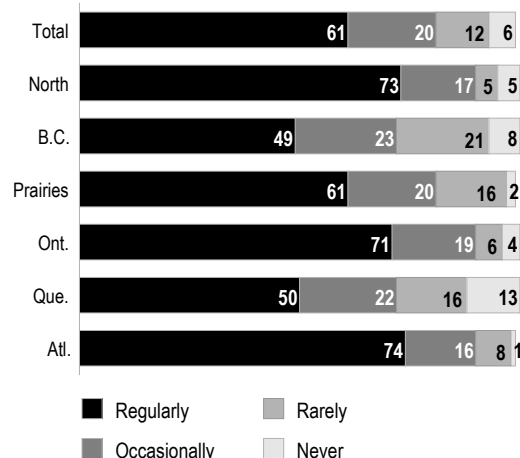
Six in ten (61%) Canadians say household members check regularly for such weather information, and a further two in ten (20%) check at least occasionally. About two in ten indicate that they rarely (12%) or never (6%) check for extreme weather news.

Checking regularly for extreme weather information is highest in Atlantic Canada (74%), the Northern territories (73%) and Ontario (71%), while residents of Quebec (50%) and B.C. (49%) are the least likely to say they regularly check for extreme weather information. Residents of these provinces are the most likely to say they rarely or never check. Frequency of checking for extreme weather alerts does not vary by community type (urban or rural) or by the presence of a child in the household, and is also not a product of socio-economic factors such as education or household income.

There is a strong age link to seeking extreme weather information: regular checking for weather alerts increases with age and is highest among seniors (70%, vs. 51% of those aged 18 to 34), and is similarly high in households containing someone aged 60 or more (69% vs. 58% without an older resident). Checking regularly for weather alerts is linked to having a chronic condition that causes a great deal of impairment (73%) and to having someone else in the household with a chronic condition (68%).

Frequency of checking for extreme weather alerts

By region 2008



Q.23

How often do you or others in your household listen or check for extreme weather alerts in your local area? Is this done ...?

Checking for weather alerts is also linked to having noticed local changes that are definitely or likely due to global warming, and to the belief that the health effects of climate change are evident now. As previously

discussed, factors linked to increased sensitivity to the issue of global warming indicate greater environmental awareness in general, which may also be linked to being more weather-conscious.

Frequency of checking for extreme weather alerts

By factors indicating greater sensitivity to the issue of climate change 2008

	TOTAL (N=1,600)	NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	No (N=622)	Now (N=867)	IN FUTURE (N=611)
Regularly	61	67	64	55	65	57
Occasionally	20	16	20	24	19	24
Rarely	12	10	12	14	11	13
Never	6	6	4	8	6	6

Q.23

How often do you or others in your household listen or check for extreme weather alerts in your local area? Is this done ...?

Information sources about extreme weather

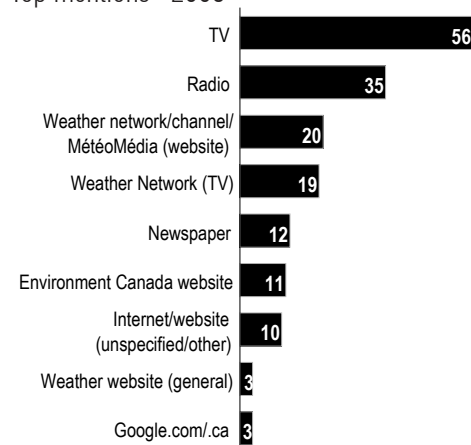
Most Canadians would rely on television to get information about extreme weather events affecting their community, followed by radio and the Internet.

Canadians were asked where they would be most likely to look for information about extreme weather that might affect their community. The top-of-mind source for close to six in ten (56%) is television. An additional two in ten (19%) specify they would watch the Weather Network. One-third (35%) mention they would try to seek out such information on the radio. Two in ten (20%) would turn to the Weather Network's website, and 12 percent would look in the newspaper which, although a less frequently updated source, could conceivably provide more in-depth information.

There are some regional differences in how Canadians obtain weather information. Those most likely to cite television as their first mention source reside in Quebec (46%) and Ontario (43%). While television is also the most cited first source for those living in the Atlantic region (33%), residents there are also quite likely to initially mention getting information from the Environment Canada website (21%). This website is also the most frequent top-of-mind source for those in the

Sources of information about extreme weather

Top mentions 2008



Q.25

Where are you most likely to look for information about extreme weather that might affect your community? Anything else?

Sources of information about extreme weather

Top mentions Total mentions By region 2008

	TOTAL (N=1,600)	NORTH (N=160)	B.C. (N=160)	PRAIRIES (N=256)	ONTARIO (N=440)	QUEBEC (N=360)	ATLANTIC (N=224)
Television	56	11	50	57	60	55	56
Radio	35	16	41	44	40	18	41
Weather network/channel/Météomédia (website)	20	27	22	16	24	15	16
Weather Network (TV)	19	6	17	19	26	12	19
Newspaper	12	3	18	6	16	9	9
Net Environment Canada (web/other)	11	29	11	14	9	9	25
Internet/website (various)	10	17	13	13	7	10	7
Weather website (general)	3	2	2	7	3	1	5
Google.com/Google.ca	3	1	5	1	2	5	*
Other mentions (<3% each)	13	41	17	12	12	9	11
dk/na	2	2	—	3	1	5	1

* Less than one percent

Q.25

Where are you most likely to look for information about extreme weather that might affect your community? Anything else?

territories (25%), who are the least likely to initially seek this type of information on television (6%).

Use of television as a weather information medium increases along with an increase in age and is highest among seniors (50% giving it as their first mention, 68% overall). Canadians aged 35 and over are also more likely to use the radio as a source for weather information than are those aged 18 to 34, and seniors are the most likely to mention the newspaper (23% overall). Consistent with this, use of the Weather Network website or other Internet sources is highest among Canadians aged 18 to 34 and proportionally decreases with age.

Source used are also linked to education and household income: television in general is cited more by those with less than a university degree (60% overall) than those with higher education (50%). Those in higher socio-economic strata are more likely to mention an Internet source for weather information. Citing a particular

information source does not appreciably change if there is someone else with a chronic condition in the home; however, those who have a chronic medical condition personally are more likely than those who do not to mention television (62% vs. 54%) and radio (42% vs. 32%) as sources. Those in excellent health are the most likely to report use of Environment Canada sources (17%, vs. 4% of those in only fair or poor health).

Mentions for preferred extreme weather information sources are not notably linked to increased awareness of or sensitivity to the issue of global warming. There are few notable differences by belief that global warming is definitely happening, by having noticed local effects of climate change or by perceived vulnerability to its health effects, except that a modestly higher proportion of these would use the televised Weather Network. Those who have recently taken some action to combat the health effects of climate change are more likely than those who have not to mention radio (39% vs. 30%) and the Weather Network on TV (23% vs. 17%).

Sources of information about extreme weather

Top mentions Total mentions By age 2008

	TOTAL (N=1,600)	18-34 (N=277)	35-49 (N=525)	50-64 (N=485)	65+ (N=281)
Television	56	43	57	62	68
Radio	35	21	40	41	42
Weather network/channel/Météomedia (website)	20	31	23	13	6
Weather Network (TV)	19	18	20	22	16
Newspaper	10	10	10	11	23
Net Environment Canada (web/other)	11	13	15	10	5
Internet/website (various)	10	13	11	8	5
Weather website (general)	3	3	5	3	1
Google.com/Google.ca	3	8	1	2	*
Other mentions (<3% each)	13	11	14	9	14
dk/na	2	2	2	2	4

* Less than one percent

Q.25

Where are you most likely to look for information about extreme weather that might affect your community? Anything else?

Household emergency kit

A slim majority of Canadians claim they have an emergency kit at home, although this is likely overstated. The two most common reasons for not having a kit are not having thought about it and not expecting to ever need it.

The government of Canada has promoted the idea of individual and household emergency preparedness for years. This study sought to assess the extent to which Canadians feel they are able to deal with emergencies.

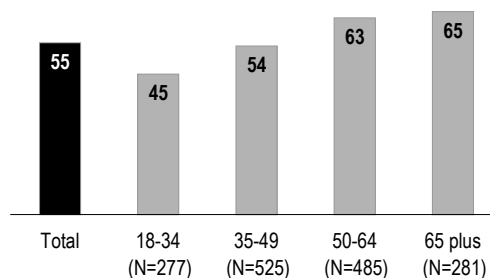
Canadians were presented with a list of items that could potentially be included in an emergency kit and then asked if their household has such a kit.¹⁰ In this survey, over half (55%) of Canadians claim they currently have an emergency kit in their home, a proportion that is very likely overstated. There is a high level of social desirability associated with having an emergency kit, especially in the context of this survey, and it should also be recalled that this survey was undertaken during a major public awareness campaign for the *Get Prepared – 72 Hours/Préparez-vous – 72 Heures* program. It is also likely that some respondents, recognizing that they have a number of the mentioned items in their home, reasoned that they had the components of an emergency kit and so answered in the affirmative. Reports of household emergency kits are highest in the Atlantic (66%) and the North (62%), and are also higher among rural respondents (62%) than those in urban centres (54%).

Reporting an emergency kit is more likely in households with someone aged 60 or older (63% vs. 52% without). This is linked to respondent age: saying the household has an emergency kit increases proportionally with age. The presence of a child under age 16 in the home is not a factor in saying there is an emergency kit.

Having a chronic condition in the home does not appear to be a factor on its own, when age is controlled for, and there is no clear pattern by self-reported level of health. The presence of an emergency kit also is not linked to education and household income in

Household has emergency kit

By age 2008



Q.19

Some households have an emergency kit that includes such items as a first aid kit, flashlight and batteries, food that won't spoil, water and other essential things people need to live for at least three days in the event of a disaster or emergency. Does your household have this type of emergency kit?

¹⁰ The question was presented as follows: "Some households have an emergency kit that includes such items as a first aid kit, flashlight and batteries, food that won't spoil, water, and other essential things people need to live for at least three days in the event of a disaster or emergency. Does your household have this type of emergency kit?"

any meaningful way, or to perceived likelihood of an extreme weather event that would affect the local community at some time in one's life.

There is no significant difference in reporting a household emergency kit by whether one believes that global warming is definitely happening or is not yet proven. However, Canadians with more direct involvement with climate change, thereby exhibiting greater

sensitivity to it and to environmental issues in general, are also somewhat more likely to say they have an emergency kit: those who believe they are definitely vulnerable to the effects of climate change, those who have noticed definite effects in their community, and those who have recently taken some action to combat its negative effects.

Household has emergency kit

By factors indicating greater sensitivity to the issue of climate change 2008

	TOTAL (N=1,600)	NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY (N=403)	LIKELY/ POSSIBLY (N=533)	No (N=622)	Now (N=867)	IN FUTURE (N=611)
Yes	55	62	55	52	56	52
No	44	39	45	48	44	47

	TOTAL (N=1,600)	PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
		DEFINITELY (N=366)	LIKELY (N=603)	No (N=513)	ANY (N=759)	NONE (N=732)
Yes	55	66	51	52	59	50
No	44	34	49	47	41	50

Q.19

Some households have an emergency kit that includes such items as a first aid kit, flashlight and batteries, food that won't spoil, water and other essential things people need to live for at least three days in the event of a disaster or emergency. Does your household have this type of emergency kit?

Those who say that their household does *not* have an emergency kit (n=679) were asked (without being given answer categories) the main reason they do not have one. The top two reasons, each given by three in ten Canadians, are that they never thought about it or that they are not worried about emergencies. Far fewer give other reasons, such as already having some of these items, procrastination or not having the time to purchase the components. Four percent volunteer that they are planning to create a kit. Four percent are unable to give a reason for not having an emergency kit.

It is important to note that almost all of the reasons given for not having an emergency kit confirm that Canadians feel this is a *personal* responsibility. Only one in ten (1%) Canadians volunteer that they do not have a kit because they expect that the community or neighbourhood will help out in the event of an emergency.

For ease of analysis, reasons given for not having an emergency kit were grouped by type into major categories: Not Necessary, Never Considered, Lack of Information and Excuses/Other.

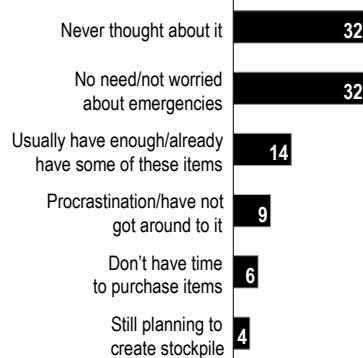
Never considering an emergency kit is cited by higher proportions of residents of Quebec (41%). That such a kit is not necessary is the reason given most by Northerners (85%) and Atlantic Canadians (60%). Those most likely to make various excuses are residents of B.C. (35%) and Ontarians (27%). Mentions of lack of information as a barrier are quite low across the country.

That there is no need for a household emergency kit is mentioned more by men (54%) than women (36%); women are more likely than men to make an excuse (31% vs. 16%), notably that they were procrastinating (12%, vs. 6%) or do not have time to purchase the items (8% vs. 3%). Seniors are the most likely to believe an emergency kit is not necessary (53%), while younger Canadians are more likely to make some excuse (25%, vs. 14% of seniors).

It is interesting to observe that those who are more sensitized to the issue of global warming are more likely to say they never considered having an emergency kit or to give some excuse, while those who are less sensitive to the issue are the most likely to indicate a kit

Reasons for not having a household emergency kit

Top mentions 2008



Q.20

What would you say is the main reason you don't have an emergency kit?

Subsample: Those who do not have an emergency kit in the household (n=679)

Reasons for not having a household emergency kit

By belief in global warming 2008

	TOTAL (n=679)	GLOBAL WARMING IS...	
		DEFINITELY HAPPENING (n=467)	NOT YET PROVEN (n=189)
Not necessary (net)	44	40	55
Never considered (net)	32	34	30
Excuses/other (net)	24	26	18
Lack of information	2	2	3
dk/na	4	4	3

Q.20

What would you say is the main reason you don't have an emergency kit?

Subsample: Those who do not have an emergency kit in the household

is not necessary, mostly because they do not expect to need it or are not worried about emergencies. Over half (55%) of those who say global warming is not yet proven who do not have an emergency kit believe this is not necessary. This is a similar proportion to those

who have not noticed any local effects due to climate change (57%), those who believe the negative health effects due to climate change will be felt in the future (49%), and those who do not feel personally vulnerable to such health effects (57%).

Reasons for not having a household emergency kit

By factors indicating greater sensitivity to the issue of climate change 2008

	TOTAL (N=679)	NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY (N=153)	LIKELY/ POSSIBLY (N=227)	NO (N=283)	NOW (N=359)	IN FUTURE (N=277)
Not necessary (net)	44	34	35	57	38	49
Never considered (net)	32	35	39	26	38	28
Excuses/other (net)	24	35	25	17	29	19
Lack of information	2	2	3	2	2	3
dk/na	4	2	5	3	2	6

	TOTAL (N=679)	PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
		DEFINITELY (N=120)	LIKELY (N=277)	NO (N=245)	ANY (N=304)	NONE (N=342)
Not necessary (net)	44	34	38	57	37	48
Never considered (net)	32	42	34	26	35	32
Excuses/other (net)	24	27	29	16	29	20
Lack of information	2	2	3	2	3	2
dk/na	4	3	4	5	4	4

Q.20

What would you say is the main reason you don't have an emergency kit?

Subsample: Those who do not have an emergency kit in the household

Household emergency plans

Four in ten Canadians claim to have a household emergency plan. The most common reason for not having such a plan is never having thought about the need for one.

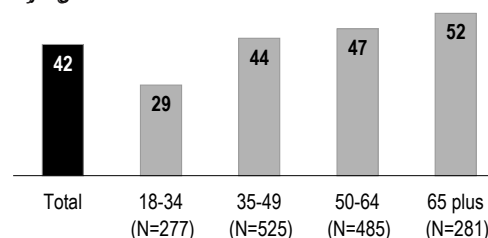
Dealing with emergencies successfully involves more than an emergency kit. Household members should prepare and discuss an emergency plan so that they can locate each other and protect each other more effectively. Canadians were asked if their household currently has a plan for how to protect themselves in the event of a disaster or emergency.¹¹ Four in ten Canadians claim to have such a plan, a proportion which, like those stating they have an emergency kit, is likely overstated.

As with claiming to have an emergency kit, having an emergency plan is linked to age and is highest among seniors (52%, vs. 29% of those aged 18 to 34). The existence of an emergency plan is reasonably uniform across the country with the exception of Quebec, where residents are the least likely to say they have such a plan (30%). Emergency plans are equally common in urban and rural locations, in households with children or without, and are somewhat more likely in households reporting the presence of someone over age 60, the latter two factors being linked to age.

Those who have a chronic health condition are more likely to have an emergency plan (50%), and plan prevalence is also higher among those who believe that a local extreme weather event is very likely in the next two years (54%). Interestingly, having a household emergency plan is not linked to education level, household income, self-reported health or perception of personal vulnerability to the health effects of climate change. There is, as might be expected, a high correlation between having an emergency kit and having an emergency plan.

Household has emergency plan

By age 2008



Q.21

Does your household currently have a plan for what to do to protect yourself and your family in the event of a disaster or emergency? Such a plan might include how you would evacuate your home or how to stay in contact with other family members.

¹¹ The question was presented as follows: "Does your household currently have a plan for what to do to protect yourself and your family in the event of a disaster or emergency? Such a plan might include how you would evacuate your home, or how to stay in contact with other family members."

Those who said they do not have a household emergency plan (n=892) were asked, unprompted, their main reason for not having one. By far the main reason, cited by four in ten (42%), is that they have never thought about having such a plan. Almost three in ten (27%) say they do not have an emergency plan because they do not expect to need to evacuate. One in ten or fewer cite any other reason, such as not having got around to creating a plan, not knowing for sure how to create one, or having no need for a formal plan because they live alone or do not have children for whom to be responsible. Again, the majority of reasons reflect the predominant idea that creating an emergency plan is a personal responsibility: only two percent cite as their main reason for not having a plan their belief that they would get assistance from their neighbourhood or community.

For ease of analysis, reasons given for not having an emergency plan were grouped by type into major categories: Not Necessary, Never Considered, Lack of Information and Excuses/Other.

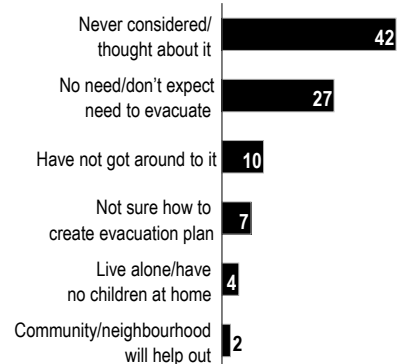
Never having considered an emergency plan is the main reason cited by higher proportions of Quebecers (56%) and Ontarians (44%). Residents of the North (53%), Atlantic Canada (50%), the Prairies (47%) and B.C. (46%) are the most likely to say such a plan is not necessary, with Northern residents specifically being the most likely to say they could handle an emergency situation without a plan (28%). Quebec residents are the most likely to say that they lack information on how to create an evacuation plan (18%).

Reasons for not having a formal emergency plan do not differ for urban or rural residents. Never having considered a plan is a reason given more commonly by women (46%) than men (38%), and by younger Canadians (48% of those under age 50) than those who are older (34% of those 50 and over). Canadians aged 50 and over are more likely than younger persons to say their lack of a plan is because it is not necessary (42%, vs. 29% under age 50).

Rationale for the lack of an emergency plan does not differ significantly by the existence of a chronic condition in the home. As was the case with emergency kits, those who are more sensitized to the issue of global warming are more likely to say they never considered

Reasons for not having a household emergency plan

Top mentions 2008



Q.22

What would you say is the main reason you don't have a household emergency plan?

Subsample: Those who do not have a household emergency plan (n=892)

Reasons for not having a household emergency plan

By belief in global warming 2008

	TOTAL (N=892)	GLOBAL WARMING IS...	
		DEFINITELY HAPPENING (N=624)	NOT YET PROVEN (N=235)
Never considered (net)	42	45	37
Not necessary (net)	34	31	41
Excuses/other (net)	16	16	16
Lack of information	7	7	6
dk/na	5	4	4

Q.22

What would you say is the main reason you don't have a household emergency plan?

Subsample: Those who do not have a household emergency plan

having an emergency plan, while those who are less sensitive to the issue are the most likely to indicate a plan is not necessary, mostly because they do not expect to need to evacuate. Four in ten (41%) of those who say global warming is not yet proven and who do not have an emergency plan believe such a plan is not necessary. This is a similar proportion to those who have not noticed any local effects due to climate change (42%), those who believe the negative health effects due to climate change will be felt in the future (41%), and those who do not feel personally vulnerable to such health effects (43%).

Among the 613 respondents who have neither an emergency kit nor an emergency plan, there is a strong correlation between the reasons given for not having each. Those most likely to say they never thought about an emergency kit are also those who indicate they have not considered an emergency plan; those who do not expect to need one are also the most likely to say they do not expect to need the other.

Reasons for not having a household emergency plan

By factors indicating greater sensitivity to the issue of climate change 2008

	TOTAL (N=892)	NOTICED CLIMATE CHANGE IN COMMUNITY			CLIMATE CHANGE POSES HEALTH RISKS	
		DEFINITELY (N=211)	LIKELY/ POSSIBLY (N=298)	No (N=358)	Now (N=488)	IN FUTURE (N=338)
Never considered (net)	42	49	47	35	47	38
Not necessary (net)	34	32	26	42	26	41
Excuses/other (net)	16	11	22	13	20	11
Lack of information	7	8	3	10	7	7
dk/na	5	2	6	5	4	5

	TOTAL (N=892)	PERSONALLY VULNERABLE TO CLIMATE CHANGE			HAVE TAKEN ANY ACTION AGAINST CLIMATE CHANGE IN PAST YEAR	
		DEFINITELY (N=184)	LIKELY (N=351)	No (N=295)	ANY (N=388)	NONE (N=450)
Never considered (net)	42	42	51	35	46	40
Not necessary (net)	34	27	29	43	31	34
Excuses/other (net)	16	21	13	15	16	16
Lack of information	7	6	7	7	6	8
dk/na	5	7	4	4	5	4

Q.22

What would you say is the main reason you don't have a household emergency plan?

Subsample: Those who do not have a household emergency plan

SURVEY METHODOLOGY

The results reported here are based on a telephone survey conducted from February 12 to March 3, 2008, with 1,600 adult Canadians randomly drawn from the population, plus an oversample of 203 seniors and 200 persons self-identifying as having at least one of a list of chronic conditions. A telephone survey was considered to be the best methodology to obtain information from the target audience of Canadians 18 years of age and over in the 10 provinces and three territories. As well, the telephone methodology offered a chance to identify those who are seniors or who have chronic medical conditions, as these are the primary audience for climate change health impact messaging.

A national sample of 1,600 will provide results accurate to within plus or minus 2.4 percentage points in 19 out of 20 samples (larger margins of error apply for subgroups of this population). The sample of 484 seniors (including those identified as part of the national survey as well as the oversample interviews) provides results accurate to within 4.5 percentage points in 19 out of 20 samples. The sample of 807 Canadians with chronic conditions (including those identified as part of the national survey as well as the oversample interviews) provides results accurate to within 3.4 percentage points in 19 out of 20 samples.

Sample distribution

GROUP	BASE	OVERSAMPLE	TOTAL	MARGIN OF ERROR ⁺
National	1,600	403	2,003	(+/- 2.4%)
Seniors	281	203	484	(+/- 4.5%)
Chronic conditions:	517	290	807*	(+/- 3.4%)
18-64	352	199	551	(+/- 4.2%)
65+ *	160	90	250	(+/- 6.2%)

⁺ Margin of sampling error at the 95% confidence level

* Total is more than base + oversample due to overlap between target populations (i.e. some seniors in the oversample also have chronic conditions). A small number of respondents with chronic conditions refused to give their age and thus do not appear

Questionnaire design

The questionnaire used for this study was developed by Environics in consultation with Health Canada. The survey contained questions about knowledge and awareness of the environmental and health impacts of climate change and also behaviours around extreme weather events, including whether Canadians have taken actions in the past year to mitigate the effects of climate change. A copy of the final questionnaire is in the Appendix attached to this report.

The questionnaire was pre-tested (in English and French) on a sample of “live” respondents prior to being finalized, using the same methodology that was used for the final survey. Some minor changes to the questionnaire were required as a result of this pre-test.

Sample design, selection and weighting

The sampling method for this survey was designed to complete 1,600 interviews with Canadians (over 18 years of age) living within households randomly selected across the 10 provinces and three territories, plus an oversample of 400 interviews with two target groups of interest (seniors and persons with chronic medical conditions). Quotas disproportionate to the provincial populations were used to allocate interviews, in order to ensure robust sample sizes for all provinces. The final regional sample was distributed as follows.

Environics used a sampling method in which sample is generated using the RDD (random digit dialling) technique. Samples are generated using a database of active phone ranges. These ranges are made up of a

series of contiguous blocks of 100 contiguous phone numbers and are revised three to four times per year after a thorough analysis of the most recent edition of an electronic phonebook. Each number generated is put through an appropriate series of validation procedures before it is retained as part of a sample. Each number generated is looked up in a recent electronic phonebook database to retrieve geographic location, business indicator and “do not call” status.

The postal code for listed numbers is verified for accuracy and compared against a list of valid codes for the sample stratum. Non-listed numbers are assigned a “most probable” postal code based on the data available for all listed numbers in the phone exchange. This technique ensures both unlisted numbers and numbers listed after the directory is published are included in the sample.

From within each multi-person household contacted, respondents 18 years of age and older were screened for random selection using the “most recent birthday” method. The use of this technique produces results that are as valid and effective as enumerating all persons within a household and selecting one randomly.

In the data analysis, the sample was weighted by region based on population data to reflect the actual proportions of each region. The general population sample was also weighted by age and gender to reflect proportions found in the general population.

When analysing the responses of seniors and persons with chronic conditions, all persons fitting those categories (including those surveyed as part of the general

Regional sample distribution

	ATLANTIC							PRAIRIES				
	CANADA	NF	NS	NB	PE	QC	ON	MB	SK	AB	B.C.	NORTH
TOTAL	2,003	71	67	71	73	447	545	74	78	168	204	205
	100%	4%	4%	4%	4%	23%	28%	4%	4%	9%	10%	10%
General population	1,600	56	56	56	56	360	440	60	60	136	160	160
<i>Oversamples:</i>												
Seniors	203	7	7	7	7	44	55	8	8	18	22	20
Chronic condition 18-64	200	8	4	8	10	43	50	6	10	14	22	25

population survey) were tabulated into special tables. These tables were weighting using special weighting factors as follows:

- The seniors results were weighted to the national distribution of seniors by age groups within gender within region, based on 2006 Census data.
- National statistics on persons with this specific list of chronic conditions are not available. It would not be appropriate to simply apply general population weights, as persons with some of these medical conditions tend to be older. The chronic condition results were weighted to the proportions of persons with chronic conditions located during the general population survey, by age within gender, and then the sample was weighted by region to the normal national distribution.

Survey administration

Fieldwork was conducted at Environics' central facilities in Toronto and Montreal. Field supervisors were present at all times to ensure accurate interviewing and recording of responses. Ten percent of each interviewer's work was unobtrusively monitored for quality control in accordance with the standards set out by the Marketing Research and Intelligence Association (MRIA). A minimum of eight calls were made to a household before classifying it as a "no answer." The average length of time to complete a survey interview was 21 minutes.

Completion results

The sample for this survey consisted of 1,600 interviews completed among adult Canadians, and 400 over-sample interviews with target audiences. The effective response rate for the survey is 10 percent for both the general population survey and the oversample.¹² For the general population survey, this is calculated as the number of responding participants (completed interviews plus those disqualified because of quotas being filled) (1,716), divided by unresolved numbers (e.g., busy, no answer) (4,491) plus non-responding households or individuals (e.g., refusals, language barrier, missed callbacks) (11,134) plus responding participants (1,716) $[R/(U+IS+R)]$. The disposition of all contacts is presented in the table on the next page.

Sample profile and non-response bias analysis

The table on the next page presents a profile of the final general population sample (n=1,600), compared to the actual population of Canada (2006 Census information except where indicated).

The final sample over-represents those with higher levels of education. This is a typical pattern for telephone surveys in Canada (e.g., individuals with more education are more likely to respond to telephone surveys). The final sample also under-represents younger persons, which again is a typical pattern for telephone surveys in Canada, as they are more mobile and more likely to live in cell-phone only households. Age has been corrected in the data weighting.

¹² This response rate calculation is based on a formula developed by MRIA in consultation with the Government of Canada (Public Works and Government Services).

Completion results

	GENERAL POPULATION N	OVERSAMPLE INTERVIEWS N
Total sample dialled	21,677	22,776
UNRESOLVED NUMBERS (U)	4,491	5,361
Busy	155	116
No answer	1,755	1,594
Answering machine	2,581	3,651
RESOLVED NUMBERS (Total minus Unresolved)	17,186	17,415
OUT OF SCOPE (Invalid/non-eligible)	4,336	4,663
Non-residential	308	297
Not-in-service	3,608	3,851
Fax/modem	420	515
IN SCOPE NON-RESPONDING (IS)	11,134	10,934
Refusals – household	5,868	5,061
Refusals – respondent	3,196	3,078
Language barrier	575	559
Callback missed/respondent not available	1,365	2,149
Break-offs (interview not completed)	130	87
IN SCOPE RESPONDING (R)	1,716	1,818
Disqualified	9	1,095
Quota filled	107	320
Completed	1,600	403
RESPONSE RATE [R / (U + IS + R)]	10%	10%

Sample profile

CHARACTERISTICS	SAMPLE SIZE	UNWEIGHTED SAMPLE %	WEIGHTED SAMPLE %	CENSUS %
Province				
Nunavut	47	3	*	*
Northwest Territories	65	4	*	*
Yukon	48	3	*	*
British Columbia	160	10	13	13
Alberta	136	9	10	10
Saskatchewan	60	4	3	3
Manitoba	60	4	4	4
Ontario	440	28	38	39
Quebec	360	23	24	24
Newfoundland/Labrador	56	4	2	2
Nova Scotia	56	4	3	3
New Brunswick	56	4	2	2
Prince Edward Island	56	4	1	*
Community size				
1 million plus	416	27	33	33+
100,000 to 1 million	341	21	25	25+
5,000 to 99,999	329	21	20	20+
Less than 5,000	354	22	21	21+
Gender				
Male	802	50	49	48
Female	798	50	51	52
Age group				
18 to 24 years	75	5	11	12
25 to 34 years	202	13	16	16
35 to 44 years	336	21	20	20
45 to 54 years	383	24	20	20
55 to 64 years	291	18	15	15
65 years plus	313	20	18	17
Education level				
High school or less	425	26	25	45++
College	442	28	28	36++
University +	717	45	46	15++

* Less than one percent

+ Canadians of all ages EXCL. NWT, Yukon, Nunavut 2001

++ Population aged 15 years and older 2001

APPENDIX A:
QUESTIONNAIRES

Health Canada
2008 Health Risks of Climate Change Survey
FINAL Questionnaire

Introduction

Good afternoon/evening. My name is _____ and I am calling from Environics Research Group, a public opinion research company. Today we are conducting a study on behalf of Health Canada. Please be assured that we are not selling or soliciting anything. This survey is registered with the national survey registration system.

IF ASKED: The survey will take about 20 minutes to complete

IF ASKED: The registration system has been created by the Canadian survey research industry to allow the public to verify that a survey is legitimate, get information about the survey industry or register a complaint. The registration systems toll-free telephone number is 1-800-554-9996.

We choose telephone numbers at random and then select one person from each household to be interviewed. To do this, we would like to speak to the person in your household, 18 years of age or older, who has had the most recent birthday. Would that be you?

IF PERSON SELECTED IS NOT AVAILABLE, ARRANGE FOR CALL-BACK

IF PERSON SELECTED IS NOT AVAILABLE OVER INTERVIEW PERIOD, ASK FOR PERSON WITH NEXT MOST RECENT BIRTHDAY

CONFIRM WHETHER RESPONDENT WOULD LIKE TO BE INTERVIEWED IN ENGLISH OR FRENCH

[WILL MODIFY SURVEY FOR RECRUITING OVERSAMPLE OF SENIORS AND RESPONDENTS WITH CHRONIC CONDITIONS
ONCE INTERVIEWS WITH CORE SAMPLE HAS BEEN COMPLETED]

A. General Health Risks

I would like to start off by asking you about some health issues . . .

2005 IAQ/Q1; 2007 Radon/Q1

1. In your view, what environmental problem or hazard would you say poses the greatest risk to the health of Canadians? What other environmental problems or hazards pose a significant risk to people's health?
DO NOT READ – CODE FIRST AND OTHER MENTIONS SEPARATELY, UP TO THREE

- 01 – Air pollution/smog
- 02 – Indoor air quality/Indoor air pollution
- 03 – Water pollution
- 04 – Global warming/climate change
- 05 – Ozone depletion/UV radiation
- 06 – Industrial pollution
- 07 – Toxic chemicals
- 08 – Drinking water contamination
- 09 – Genetically modified foods (GMOs)
- 10 – Municipal garbage/landfills
- 11 – Nuclear energy/nuclear waste
- 12 – Radon
- 13 – Cell phone use
- 14 – Food safety/contaminated food
- 15 – Pollution – general PROBE FOR AIR POLLUTION OR WATER POLLUTION
- 16 – Mould
- 17 – Formaldehyde
- 18 – Carbon monoxide
- 98 – Other (SPECIFY _____)
- 99 – DK/NA

2. I will now read you a list of potential risks to the health of Canadians. Please tell me whether you think each of the following poses a major risk, a moderate risk, a minor risk, or no risk at all to the health of Canadians.

READ IN RANDOMIZED ORDER – READ RANDOMIZED LIST OF 8 ITEMS TO EACH RESPONDENT

- a. Second-hand smoke from tobacco
- b. Chemical pollution
- c. Climate change
- d. Air pollution
- e. Heat waves
- f. Pesticides in food
- g. Obesity
- h. Tap water
- i. Pandemic flu epidemics
- j. West Nile Virus
- k. Extreme cold weather
- l. Heart disease

01 – Major risk

02 – Moderate risk

03 – Minor risk

04 – No risk at all

VOLUNTEERED

05 – Depends

99 – DK/NA

3. For each of these potential risks to health, would you say the risks to Canadians have generally increased, have generally decreased, or remained about the same over the past ten years or so?

READ IN SAME LIST OF 8 ITEMS IN SAME SEQUENCE AS IN Q.2

- a. Second-hand smoke from tobacco
- b. Chemical pollution
- c. Climate change
- d. Air pollution
- e. Heat waves
- f. Pesticides in food
- g. Obesity
- h. Tap water
- i. Pandemic flu epidemics
- j. West Nile Virus
- k. Extreme cold weather
- l. Heart disease

01 – Risks have increased

02 – Risks have decreased

03 – Risks have remained about the same

VOLUNTEERED

05 – Depends

99 – DK/NA

B. Climate Change

- 4a. There has been a lot of discussion lately about the issue of climate change or global warming. Do you believe that global warming is something that is definitely happening, or something which may be happening but is not yet proven?

01 – Global warming is definitely happening

02 – Global warming may be happening but is not yet proven

SKIP TO Q.5

VOLUNTEERED

99 – DK/NA

SKIP TO Q.5

- 4b. (IF GLOBAL WARMING IS DEFINITELY HAPPENING IN Q.4a) And do you believe that global warming is mostly caused by human activity, partly caused by human activity, or not caused by human activity?

01 – Global warming is caused mostly by human activity

02 – Global warming is caused partly by human activity

03 – Global warming is not caused by human activity

VOLUNTEERED

98 – Other (SPECIFY _____)

99 – DK/NA

5. Have you noticed any changes in your community which you think are definitely, likely, or possibly the result of climate change or global warming?

01 – Definitely the result of climate change/global warming

02 – Likely the result of climate change/global warming

03 – Possibly the result of climate change/global warming

04 – No changes noticed

VOLUNTEERED

05 – Depends/hard to say

99 – DK/NA

6. And are you aware of any changes in other parts of Canada which you think are definitely, likely, or possibly the result of climate change or global warming?

01 – Definitely the result of climate change/global warming

02 – Likely the result of climate change/global warming

03 – Possibly the result of climate change/global warming

04 – No changes noticed

VOLUNTEERED

05 – Depends/hard to say

99 – DK/NA

7. (IF DEFINITELY/LIKELY/POSSIBLY IN Q.5 OR Q.6) What kinds of changes have you noticed?
DO NOT READ – CODE ALL THAT APPLY; PROBE: Anything else?

01 – Warmer temperatures/warmer weather

02 – Colder temperatures/colder weather

03 – Weather more unpredictable

04 – Weather events more extreme

05 – More storms

06 – Stronger winds

07 – More air pollution/lower air quality

08 – Water levels are lower

09 – Water levels are higher

10 – More flooding/more severe flooding

11 – Less ice/snow

12 – Less rain

13 – More ice/snow

14 – More rain

15 – Affecting tundra/permafrost

98 – Other (SPECIFY _____)

99 – DK/NA

8. Would you say that climate change definitely causes, likely causes, likely does not cause or definitely does not cause each of the following types of environmental impacts in Canada?

READ IN RANDOMIZED ORDER – READ RANDOMIZED SET OF 6 ITEMS TO EACH RESPONDENT

ONLY REPEAT RESPONSE SCALE AS NEEDED

- a. Melting permafrost in the Arctic regions
- b. Coastal erosion
- c. Forest fires
- d. Heat waves
- e. Extreme cold weather
- f. More frequent storms, including hurricanes
- g. Loss of wildlife habitat
- h. Drought conditions
- i. Flooding of rivers and in coastal areas

01 – Definitely causes

02 – Likely causes

03 – Likely does not cause

04 – Definitely does not cause

VOLUNTEERED

05 – Depends

99 – DK/NA

9. I would now like to ask you about how climate change may affect the health of Canadians. In what ways, if any, do you think climate change poses a risk to the health of Canadians?

DO NOT READ – CODE ALL THAT APPLY; PROBE: Anything else?

01 – Air quality impacts (PROBE FOR SPECIFICS)

02 – Respiratory/breathing problems

03 – Infectious diseases/West Nile/Pandemic flu

04 – Water quality impacts (PROBE FOR SPECIFICS)

05 – Water-borne diseases

06 – Heat stroke

07 – Sunburn

08 – Cancer

09 – Frostbite/frozen skin

10 – Stress/anxiety

98 – Other (SPECIFY _____)

97 – None

99 – DK/NA

10 I will now read you a list health risks that affect many Canadians today. Would you say that climate change definitely, likely, likely not or definitely does not increase the risk of:
READ IN RANDOMIZED ORDER – ONLY REPEAT RESPONSE SCALE AS NEEDED

- a. Respiratory and breathing problems
- c. Infectious diseases, such as West Nile Virus and pandemic flu
- d. Heat stroke
- e. Injuries from storms or other extreme weather events
- f. Sunburn
- g. Cancer

01 – Climate change definitely increases the risk
02 – Climate change likely increases the risk
03 – Climate change likely does not increase the risk
04 – Climate change definitely does not increase the risk
VOLUNTEERED
05 – Depends
99 – DK/NA

11. Do you think that climate change already poses a health risk to Canadians today, or do you think this is something that will happen in the future?

01 – Poses a risk to health today	SKIP TO Q.13
02 – Will pose a health risk in the future	
VOLUNTEERED	
03 – No health risks now or in the future	SKIP TO Q.18
04 – Depends	
99 – DK/NA	SKIP TO Q.13

12 (IF HEALTH RISK IN FUTURE/DEPENDS IN Q.11) Do you think climate change will start affecting the health of Canadians:
READ IN SEQUENCE – CODE ONE ONLY

01 – In the next 5 years	
02 – In the next 6 to 10 years	
03 – In the next 11 to 25 years, or	
04 – At least 25 years from now	
05 – None	SKIP TO Q.18
VOLUNTEERED	
05 – Depends	
99 – DK/NA	

13. Do you believe that people living in your community are definitely vulnerable, likely vulnerable, likely not vulnerable, or definitely not vulnerable to the potential health impacts of climate change?

01 – Definitely vulnerable
02 – Likely vulnerable
03 – Likely not vulnerable
04 – Definitely not vulnerable
VOLUNTEERED
05 – DEPENDS
99 – DK/NA

14. What about your own health? Do you believe that you personally are definitely, likely, likely not, or definitely not vulnerable to the potential health impacts of climate change?

- 01 – Definitely vulnerable
- 02 – Likely vulnerable
- 03 – Likely not vulnerable
- 04 – Definitely not vulnerable
- VOLUNTEERED
- 05 – DEPENDS
- 99 – DK/NA

15. Is there anyone else in your immediate household who you think would be especially vulnerable to the potential health impacts of climate change?

- 01 – Yes
- 02 – No
- 99 – DK/NA

FC 73 – TRUDEAU FOUNDATION / Q.7

7. What types of Canadians, if any, do you think might be most likely to experience the negative effects of climate change?

DO NOT READ – CODE FIRST AND OTHER MENTIONS SEPARATELY, UP TO THREE

- 01 – Poor people
- 02 – Seniors/old people
- 03 – Sick/ill people
- 04 – Children
- 05 – Our grandchildren/descendants
- 06 – People living near oceans/coasts
- 07 – People in the North/arctic
- 08 – People in big cities
- 09 – Farmers
- 10 – Everyone equally vulnerable
- 97 – No one is vulnerable
- 98 – Other (SPECIFY _____)
- 99 – DK/NA

17. Have you personally taken any steps in the past year to protect yourself or family members from the potential health impacts of climate change?

SPECIFY UP TO THREE RESPONSES

- | | |
|--------------|--------------|
| _____ | SKIP TO Q.18 |
| 97 – No/None | |
| 99 – DK/NA | SKIP TO Q.18 |

17.1 (FOR EACH STEP IDENTIFIED IN Q.17) Did you take this step specifically because of concerns about the potential health impacts of climate change, or for another reason such as reducing your impact on the environment?

- 01 – Specifically because of health concerns
- 02 – For other reasons
- 03 – Both for health and other reasons
- 99 – DK/NA

C. Extreme Weather Events

I would now like to ask you about extreme weather events, such as hurricanes, violent wind storms, heat waves, floods and major blizzards . . .

18. How much of a health risk do you believe extreme weather events presents to people living in your community? Do they present:

01 - A major health risk
02 - A moderate health risk
03 - A minor health risk, or
04 - No health risk at all
VOLUNTEERED
99 - DK/NA

19. Some households have an emergency kit that includes such items as a first aid kit, flashlight and batteries, food that won't spoil, water, and other essential things people need to live for at least three days in the event of a disaster or emergency. Does your household have this type of emergency kit?

01 – Yes SKIP TO Q.21
02 – No
99 – DK/NA

20. (IF NO/DK TO Q.19) What would you say is the main reason you don't have an emergency kit?
DO NOT READ – CODE MORE THAN ONE IF VOLUNTEERED

01 – Never thought about it
02 – No need for one/don't expect to need it
03 – Not sure what kind of food to store
04 – Community/neighborhood will help out
05 – Still planning to create stockpile
06 – Usually have enough of these items in the home
07 – Too expensive to purchase items
08 – Don't have time to purchase items
09 – No place to keep emergency kit
10 – Don't expect to need one/not worried about emergencies
98 – Other (SPECIFY _____)
99 – DK/NA

21. Does your household currently have a plan for what to do to protect yourself and your family in the event of a disaster or emergency? Such a plan might include how you would evacuate your home, or how to stay in contact with other family members.

01 – Yes SKIP TO Q.23
02 – No
99 – DK/NA

22. (IF NO/DK TO Q.21) What would you say is the main reason you don't have a household emergency plan?
DO NOT READ – CODE MORE THAN ONE IF VOLUNTEERED

01 – Never considered or thought about it
02 – Have not got around to it
03 – No need for one/don't expect need to evacuate
04 – Not sure how to create evacuation plan
05 – Community/neighborhood will help out
06 – Still planning to create plan
98 – Other (SPECIFY _____)
99 – DK/NA

23. How often do you or others in your household listen or check for extreme weather alerts in your local area?

Is this done:

READ

01 – Regularly

02 – Occasionally

03 – Rarely

04 – Never

VOLUNTEERED

99 – DK/NA

24. Do you think it is very, somewhat, not very or not at all likely that a disaster caused by extreme weather will occur and affect you or your community:

READ IN SEQUENCE – SKIP TO Q.25 AFTER FIRST “VERY LIKELY” RESPONSE

a. Within the next two years

b. Within the next 10 years

c. Within your lifetime

01 – Very likely

02 – Somewhat likely

03 – Not very likely

04 – Not at all likely

VOLUNTEERED

05 – Depends

99 – DK/NA

25. Where are you most likely to look for information about extreme weather that might affect your community?

DO NOT READ - CODE FIRST AND OTHER MENTIONS; PROBE: Anything else?

01 - TV

02 - Radio

03 - Newspaper

04 - Internet/website - PROBE FOR SPECIFIC SITE _____

05 - Health Canada website

06 - Environment Canada website

07 - Weather Network (TV)

08 - Weather Network (website)

09 - Friend/family member

10 - Media billboard/outdoor electronic sign

11 - Phoning local weather office

12 - WEATHERADIO/WEATHERCOPY

13 - Environment Canada (SPECIFY MEDIUM _____)

98 - Other (SPECIFY _____)

99 - DK/NA

D. Health Status

Now I'd like to ask you a few questions about your health. . .

26. Compared to other people your age, would you say your health is generally:
READ

01 – Excellent
02 – Very good
03 – Good
04 – Only fair
05 – Poor
VOLUNTEERED
99 – REFUSE/NA

27. Has a doctor ever diagnosed you, or another member of your household, with any of the following conditions:
READ IN RANDOMIZED ORDER; IF YES, CLARIFY IF SELF OR FAMILY MEMBER, OR BOTH

- a. Coronary heart disease
- b. Obesity
- c. Diabetes
- d. Cancer
- e. Respiratory illness
- f. A physical or mental disability

01 – Yes, Yourself
02 – Yes, Another household member
03 - No
VOLUNTEERED
04 - Self-diagnosed
05 – Yes, yourself and another household member
99 - DK/NA

28. (IF YES TO Q.27a-f FOR SELF OR SELF AND ANOTHER HOUSEHOLD MEMBER) To what extent [does this condition/do these conditions] currently impair your everyday living? Does it affect you:

01 - A great deal
02 - Somewhat
03 - Not very much
04 - Not at all
VOLUNTEERED
99 - DK/NA

29. (IF YES TO Q.27a-f FOR OTHER) To what extent [does this condition/do these conditions] currently impair others in your household in their everyday living? Does it affect them?
IF RESPONDENT IDENTIFIED MORE THAN ONE IN HOUSEHOLD, ASK FOR ONE WITH GREATEST IMPAIRMENT

01 - A great deal
02 - Somewhat
03 - Not very much
04 - Not at all
VOLUNTEERED
99 - DK/NA

30. Would you or others in your household find it very, somewhat, not very, or not at all difficult to protect yourself at home in the event of:

READ IN RANDOMIZED ORDER

- a. A heat wave
- b. Severe flooding in your neighborhood
- c. An extended power outage

01 – Very difficult

02 – Somewhat difficult

03 – Not very difficult

04 – Not at all difficult

VOLUNTEERED

05 – Depends

06 – NOT APPLICABLE (e.g. to own community)

99 – DK/NA

E. Respondent Characteristics

Finally, I'd like to ask you a few questions about yourself and your household that will help us analyze the results of this survey. . .

31. Which one of the following categories best describes your home?

READ – CODE ONE ONLY – STOP AS SOON AS CATEGORY IS IDENTIFIED

01 – A single-family house detached from any other house

02 – A single-family house attached to one or more houses, for example a townhouse or duplex

03 – An apartment building or condominium no more than four stories

04 – An apartment building or condominium five or more stories, or

05 – A mobile home or trailer

VOLUNTEERED

98 – Other (SPECIFY _____)

99 – DK/NA

32. Does your home have air conditioning?

01 - Yes

02 – No

99 – DK/NA

33. What is the highest level of education you have completed?

READ IF NECESSARY – CODE ONE ONLY

01 – Elementary school

02 – Some high school

03 – Completed high school

04 – Some community college/technical college/CEGEP

05 – Completed community college/technical college/CEGEP

06 – Some university

07 – Completed university

08 – Post-graduate degree

09 – No schooling

97 – No Response/Refused

34. In what year were you born?

_____ Year born
9999 – REFUSE/NA

35. How many individuals, including yourself, currently live in your household?

99 – NA/REFUSE

36 (IF Q.35 > 1) Does your household currently include any children under 16 years of age?

01 – Yes
02 – No
99 – DK/NA

37. (IF Q.34 IS 1948 OR LATER) Does your household currently include anyone over the age of 60?

01 – Yes
02 – No
99 – DK/NA

38 Which language do you, yourself, usually speak at home? (If you speak more than one language, which one do you speak most often?)

CODE ONE ONLY

01 - English
02 - French
03 - OTHER (SPECIFY)
99 – REFUSAL

39. For statistical purposes only, we need information about your household income. Please tell me which of the following categories applies to your total household income for the year 2007?

READ – CODE ONE ONLY – STOP AS SOON AS CATEGORY IS IDENTIFIED

01 – Less than \$40,000
02 – \$40,000 up to \$75,000
03 – \$75,000 up to \$100,000
04 – \$100,000 up to \$150,000
05 – \$150,000 and over
VOLUNTEERED
99 – DK/NA

40. And finally, to better understand how results vary by region, may I have your 6-digit postal code?
ACCEPT FIRST THREE DIGITS IF THAT IS ALL RESPONDENT IS WILLING TO GIVE

999999 – DK/NA

This completes the survey. In case my supervisor would like to verify that I conducted this interview, may I have your first name?

First Name: _____

This survey was conducted on behalf of Health Canada, and is registered under the Federal Access to Information Act. Thank you very much for your participation.

IF ASKED WHERE TO OBTAIN MORE INFORMATION ABOUT HEALTH AND CLIMATE CHANGE:

Visit the health canada website www.hc-sc.gc.ca and either search on climate change or pick climate change from the A to Z index. Or "Google "Health Canada and Climate Change" and the appropriate Health Canada climate change main page is the top/first choice.

RECORD:

41. Gender

- 01 Male
- 02 Female

42. Language of interview

- 01 English
- 02 French

43. Province/Territory

- 01 – Alberta
- 02 – British Columbia
- 03 – Manitoba
- 04 – Newfoundland
- 05 – New Brunswick
- 06 – Nova Scotia
- 07 – Ontario
- 08 – Prince Edward Island
- 09 – Quebec
- 10 – Saskatchewan
- 11 – Nunavut
- 12 – Northwest Territories
- 13 - Yukon

44. Community size

- 01 – 1 million plus
- 02 – 100,000 to 1 million
- 03 – 25,000 to 100,000
- 04 – 10,000 to 25,000
- 05 – 5,000 to 10,000
- 06 – Less than 5,000

Santé Canada
Sondage de 2008 sur les risques pour la santé
associés aux changements climatiques

Questionnaire définitif

Introduction

Bonjour/Bonsoir. Je m'appelle _____ et je travaille pour Environics Research Group, une société de recherche sur l'opinion publique. Aujourd'hui, nous réalisons une étude pour le compte de Santé Canada. Veuillez avoir l'assurance que nous ne voulons rien vous vendre et que nous ne sollicitons rien. Ce sondage est enregistré auprès du système national d'enregistrement des sondages.

SI DEMANDÉ : le sondage durera environ 20 minutes

SI DEMANDÉ : le système d'inscription a été mis sur pied par l'industrie canadienne de la recherche par sondage, afin de permettre au public de vérifier la légitimité d'un sondage, d'obtenir de l'information à propos du secteur des sondages ou de déposer une plainte. Le numéro de téléphone sans frais du système d'enregistrement est le suivant : 1-800-554-9996.

Nous choisissons des numéros de téléphone au hasard, ensuite nous choisissons une personne du foyer pour l'interviewer. Puis-je parler à la personne de votre ménage qui est âgée de 18 ans ou plus et qui a célébré son anniversaire de naissance le plus récemment ? Est-ce-vous ?

SI LA PERSONNE CHOISIE N'EST PAS DISPONIBLE, PRENDRE DES ARRANGEMENTS POUR UN RAPPEL.

SI LA PERSONNE CHOISIE N'EST PAS DISPONIBLE PENDANT LA PÉRIODE ALLOUÉE POUR LES ENTREVUES, DEMANDER À PARLER À LA PERSONNE SUIVANTE QUI A CÉLÉBRÉ SON ANNIVERSAIRE DE NAISSANCE LE PLUS RÉCEMMENT.

CONFIRMER SI LE/LA RÉPONDANT(E) PRÉFÈRE QUE L'ENTREVUE SE DÉROULE EN ANGLAIS OU EN FRANÇAIS.

[LE SONDAGE SERA MODIFIÉ POUR LE RECRUTEMENT DU SURÉCHANTILLON DES AÎNÉS ET DES RÉPONDANTS ATTEINTS DE MALADIES CHRONIQUES, UNE FOIS QUE LES ENTREVUES AURONT ÉTÉ COMPLÉTÉES AVEC L'ÉCHANTILLON PRINCIPAL.]

A. Risques pour la santé en général

J'aimerais commencer par quelques questions se rapportant à des dossiers de santé...

2005 IAQ/Q1; 2007 Radon/Q1

1. Selon vous, quel est le problème ou le danger environnemental qui pose le plus grand risque pour la santé des Canadiens ? Quels sont d'autres problèmes ou dangers environnementaux qui posent un grand risque pour la santé des gens ?

NE PAS LIRE – INSCRIRE LA PREMIÈRE ET LES AUTRES MENTIONS DE FAÇON DISTINCTE, JUSQU'À TROIS

01 – Pollution de l'air /smog

02 – Qualité de l'air intérieur/Pollution de l'air intérieur

03 – Pollution de l'eau

04 – Réchauffement planétaire/changements climatiques

05 – Épuisement de la couche d'ozone/rayonnement ultraviolet

06 – Pollution industrielle

07 – Produits chimiques toxiques

08 – Contamination de l'eau potable

09 – Aliments génétiquement modifiés (OGM)

10 – Déchets municipaux/sites d'enfouissement

11 – Énergie nucléaire/déchets nucléaires

12 – Radon

13 – Utilisation du téléphone cellulaire

14 – Salubrité des aliments/aliments contaminés

15 – Pollution – en général SONDER POUR PRÉCISER POLLUTION DE L'AIR OU POLLUTION DE L'EAU

Cont...

16 – Moisissures
17 – Formaldéhyde
18 – Monoxyde de carbone
98 – Autre (PRÉCISER _____)
99 – NSP/PR

2. Je vais maintenant vous lire une liste de dangers possibles pour la santé des Canadiens. Dans chaque cas, veuillez me dire si vous pensez que ce danger pose un risque élevé, un risque modéré, un léger risque ou aucun risque pour la santé des Canadiens.

LECTURE EN ORDRE ALÉATOIRE – LIRE UNE LISTE RANDOMISÉE DE 8 RISQUES À CHAQUE RÉPONDANT(E)

- a. La fumée secondaire du tabac
- b. Les polluants chimiques
- c. Les changements climatiques
- d. La pollution de l'air
- e. Les vagues de chaleur intense
- f. Les pesticides dans les aliments
- g. L'obésité
- h. L'eau du robinet
- i. Les pandémies de grippe
- j. Le virus du Nil occidental
- k. Froid extrême
- l. Maladies du cœur

01 – Risque élevé
02 – Risque modéré
03 – Risque léger
04 – Aucun risque
NON SUGGÉRÉ
05 – Cela dépend
99 – NSP/PR

3. Pour chacun de ces risques possibles pour la santé, diriez-vous que les risques posés pour les Canadiens ont généralement augmenté, ont généralement diminué ou sont demeurés semblables au cours des dix dernières années environ ?

LIRE LA MÊME LISTE DE 8 RISQUES DANS LE MÊME ORDRE QU'À LA Q.2

- a. La fumée secondaire du tabac
- b. Les polluants chimiques
- c. Les changements climatiques
- d. La pollution de l'air
- e. Les vagues de chaleur intense
- f. Les pesticides dans les aliments
- g. L'obésité
- h. L'eau du robinet
- i. Les pandémies de grippe
- j. Le virus du Nil occidental

- 01 – Les risques ont augmenté
02 – Les risques ont diminué
03 – Les risques sont demeurés semblables
NON SUGGÉRÉ
05 – Cela dépend
99 – NSP/PR

- 01 – Certainement le résultat des changements climatiques/du réchauffement planétaire
02 – Probablement le résultat des changements climatiques/du réchauffement planétaire
03 – Peut-être le résultat des changements climatiques/du réchauffement planétaire
04 – N'a remarqué aucun changement
NON SUGGÉRÉ
05 – Cela dépend/difficile à dire
99 – NSP/PR

6. Et, êtes-vous au courant de changements qui se sont produits ailleurs au Canada qui, selon vous, seraient certainement, probablement ou peut-être le résultat des changements climatiques ou du réchauffement planétaire ?

01 – Certainement le résultat des changements climatiques/du réchauffement planétaire

02 – Probablement le résultat des changements climatiques/du réchauffement planétaire

03 – Peut-être le résultat des changements climatiques/du réchauffement planétaire

04 – N'a remarqué aucun changement

NON SUGGÉRÉ

05 – Cela dépend/difficile à dire

99 – NSP/PR

7. (SI CERTAINEMENT/PROBABLEMENT/PEUT-ÊTRE À LA Q.5 OU LA Q.6) Quels types de changements avez-vous remarqués ?

NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER : Est-ce qu'il y a autre chose ?

01 – Températures plus élevées/il fait plus chaud

02 – Températures plus froides/Il fait plus froid

03 – Conditions météorologiques plus imprévisibles

04 – Les phénomènes météorologiques sont plus extrêmes

05 – Plus de tempêtes

06 – Des vents plus forts

07 – Accroissement de la pollution de l'air/plus mauvaise qualité de l'air

08 – Les niveaux de l'eau ont baissé

09 – Les niveaux de l'eau ont monté

10 – Plus d'inondations/plus de graves inondations

11 – Moins de glace/de neige

12 – Moins de pluie

13 – Plus de glace/de neige

14 – Plus de pluie

15 – Incidence sur la toundra/le pergélisol

98 – Autre (PRÉCISER _____)

99 – NSP/PR

8. Diriez-vous que les changements climatiques causent certainement, causent probablement, ne causent probablement pas ou ne causent certainement pas chacun des types d'impacts environnementaux suivants au Canada ?

LECTURE EN ORDRE ALÉATOIRE – LIRE UN ENSEMBLE RANDOMISÉ DE 6 ITEMS À CHAQUE RÉPONDANT(E)

RÉPÉTER L'ÉCHELLE DES RÉPONSES SEULEMENT AU BESOIN

- a. La fonte de pergélisol dans les régions de l'Arctique
- b. L'érosion côtière/du littoral
- c. Des feux de forêts
- d. Des vagues de chaleur
- e. Des conditions de froid extrême
- f. La fréquence accrue des tempêtes, y compris les ouragans
- g. La perte de l'habitat faunique
- h. Des conditions de sécheresse
- i. Des inondations aux abords des rivières et dans les zones côtières

01 – Causent certainement

02 – Causent probablement

03 – Ne causent probablement pas

04 – Ne causent certainement pas

NON SUGGÉRÉ

05 – Cela dépend

99 – NSP/PR

9. J'aimerais maintenant vous poser des questions sur la façon dont les changements climatiques pourraient avoir une incidence sur la santé des Canadiens. S'il y a lieu, de quelles façons pensez-vous que les changements climatiques posent un risque pour la santé des Canadiens ?

NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER : Est-ce qu'il y a autre chose ?

01 – Incidence sur la qualité de l'air (SONDER POUR OBTENIR DES PRÉCISIONS)

02 – Problèmes respiratoires/difficulté à respirer

03 – Maladies infectieuses/Nil occidental/pandémie de grippe

04 – Incidence sur la qualité de l'eau (SONDER POUR OBTENIR DES PRÉCISIONS)

05 – Maladies d'origine hydrique

06 – Coups de chaleur

07 – Coups de soleil

08 – Cancer

09 – Engelures/peau gelée

10 – Stress/angoisse

98 – Autre (PRÉCISER _____)

97 – Aucune

99 – NSP/PR

- 10 Je vais maintenant vous lire une liste de risques pour la santé qui touchent un grand nombre de Canadiens. Diriez-vous que les changements climatiques accroissent certainement, probablement, probablement pas ou certainement pas le risque :

LECTURE EN ORDRE ALÉATOIRE – RÉPÉTER L'ÉCHELLE DES RÉPONSES AU BESOIN SEULEMENT

- a. De problèmes respiratoires et de difficultés à respirer
- c. De maladies infectieuses telles que le virus du Nil occidental et d'une pandémie de grippe
- d. De coups de chaleur
- e. De blessures subies lors des tempêtes ou d'autres phénomènes météorologiques extrêmes
- f. De coups de soleil
- g. De cancer

01 – Les changements climatiques accroissent certainement le risque
02 – Les changements climatiques accroissent probablement le risque
03 – Les changements climatiques n'accroissent probablement pas le risque
04 – Les changements climatiques n'accroissent certainement pas le risque
NON SUGGÉRÉ
05 – Cela dépend
99 – NSP/PR

11. Pensez-vous que les changements climatiques posent déjà un risque pour la santé des Canadiens aujourd'hui ou pensez-vous que c'est quelque chose qui se produira dans l'avenir ?

01 – Posent un risque pour la santé aujourd'hui	PASSER À LA Q.13
02 – Poseront un risque pour la santé dans l'avenir	
NON SUGGÉRÉ	
03 – Aucun risque pour la santé aujourd'hui ou dans l'avenir	PASSER À LA Q.18
04 – Cela dépend	
99 – NSP/PR	PASSER À LA Q.13

- 12 (SI RISQUE POUR LA SANTÉ DANS L'AVENIR/CELA DÉPEND À LA Q.11) Pensez-vous que les changements climatiques commenceront à avoir une incidence sur la santé des Canadiens :
- LIRE DANS L'ORDRE – INSCRIRE UN SEUL CHOIX

01 – Dans 5 ans	
02 – Dans les 6 à 10 prochaines années	
03 – Dans les 11 à 25 prochaines années ou	
04 – Dans au moins 25 ans	
05 – Aucun	PASSER À LA Q.18
NON SUGGÉRÉ	
05 – Cela dépend	
99 – NSP/PR	

13. Croyez-vous que les personnes qui vivent dans votre collectivité sont certainement vulnérables, probablement vulnérables, probablement pas vulnérables ou certainement pas vulnérables aux impacts potentiels sur la santé des changements climatiques ?

- 01 – Certainement vulnérables
- 02 – Probablement vulnérables
- 03 – Probablement pas vulnérables
- 04 – Certainement pas vulnérables
- NON SUGGÉRÉ
- 05 – Cela dépend
- 99 – NSP/PR

14. Qu'en est-il de votre propre santé ? Croyez-vous personnellement être certainement, probablement, probablement pas ou certainement pas vulnérable aux impacts potentiels sur la santé des changements climatiques ?

- 01 – Certainement vulnérable
- 02 – Probablement vulnérable
- 03 – Probablement pas vulnérable
- 04 – Certainement pas vulnérable
- NON SUGGÉRÉ
- 05 – Cela dépend
- 99 – NSP/PR

15. Est-ce qu'il y a d'autres membres de votre maisonnée immédiate qui, selon vous, seraient vulnérables aux impacts potentiels sur la santé des changements climatiques ?

- 01 – Oui
- 02 – Non
- 99 – NSP/PR

FC 73 – TRUDEAU FOUNDATION / Q.7

7. S'il y a lieu, quels sont les types de Canadiens qui pourraient avoir le plus tendance à subir les effets négatifs des changements climatiques ?
NE PAS LIRE – INSCRIRE LA PREMIÈRE ET LES AUTRES MENTIONS DE FAÇON DISTINCTE, JUSQU'À TROIS

- 01 – Les personnes pauvres
- 02 – Les aînés/les personnes âgées
- 03 – Les malades/les personnes malades
- 04 – Les enfants
- 05 – Nos petits-enfants/descendants
- 06 – Les gens qui vivent près des océans/des côtes
- 07 – Les gens qui vivent dans le Nord/l'Arctique
- 08 – Les gens qui vivent dans les grandes villes
- 09 – Les agriculteurs
- 10 – Tout le monde est également vulnérable
- 97 – Personne n'est vulnérable
- 98 – Autre (PRÉCISER _____)
- 99 – NSP/PR

17. Est-ce que vous avez personnellement adopté des mesures depuis un an, afin de vous protéger, ainsi que les membres de votre famille, des impacts potentiels sur la santé des changements climatiques ?

PRÉCISER JUSQU'À TROIS RÉPONSES

97 – Non/aucune

PASSER À LA Q.18

99 – NSP/PR

PASSER À LA Q.18

- 17.1 (POUR CHAQUE MESURE IDENTIFIÉE À LA Q.17) Avez-vous adopté cette mesure spécifiquement en raison de vos préoccupations relatives aux impacts potentiels sur la santé des changements climatiques ou pour une autre raison telle que réduire les effets de vos activités sur l'environnement ?

01 – Spécifiquement en raison de préoccupations relatives à la santé

02 – Pour d'autres raisons

03 – À la fois pour des raisons relatives à la santé et pour d'autres raisons

99 – NSP/PR

C. Phénomènes météorologiques extrêmes

J'aimerais à présent vous poser quelques questions se rapportant aux phénomènes météorologiques extrêmes tels que les ouragans, les vents violents, les vagues de chaleur, les inondations et les grosses tempêtes de neige...

18. Dans quelle mesure croyez-vous que les phénomènes météorologiques extrêmes posent un risque pour la santé des gens qui vivent dans votre collectivité ? Est-ce qu'ils posent :

01 – Un risque élevé pour la santé

02 – Un risque modéré pour la santé

03 – Un léger risque pour la santé ou

04 – Aucun risque pour la santé

NON SUGGÉRÉ

99 - NSP/PR

19. Certains ménages possèdent une trousse d'urgence qui comprend des choses telles qu'une trousse de premiers soins, une lampe de poche et des piles sèches, des aliments qui ne se gâtent pas, de l'eau et d'autres choses essentielles dont les gens ont besoin pour vivre pendant au moins trois jours, advenant une catastrophe ou une situation d'urgence. Votre foyer possède-t-il ce type de trousse d'urgence ?

01 – Oui

PASSER À LA Q.21

02 – Non

99 – NSP/PR

20. (SI NON/NSP À LA Q.19) Quelle est la principale raison pour laquelle vous diriez que vous ne possédez pas de trousse d'urgence ?

NE PAS LIRE – INSCRIRE PLUS D'UNE RÉPONSE SI ELLES SONT DONNÉES VOLONTAIREMENT

01 – N'y a jamais pensé

02 – Pas besoin d'en avoir une/ne prévoit pas en avoir besoin

03 – Pas certain(e) du genre d'aliments à entreposer

04 – La collectivité/le voisinage apportera son aide

05 – Prévoit toujours faire des stocks

06 – Possède habituellement la plupart de ces choses au foyer

07 – Trop cher d'acheter toutes ces choses

08 – N'a pas le temps d'acheter ces choses

09 – Pas d'endroit où entreposer la trousse d'urgence

10 – Ne m'attend pas à en avoir besoin/les situations d'urgence ne le préoccupent pas

98 – Autre (PRÉCISER _____)

99 – NSP/PR

21. Est-ce que votre ménage possède déjà un plan décrivant les choses à faire afin de vous protéger, ainsi que les membres de votre famille, en cas de catastrophe ou de situation d'urgence ? Un plan comme celui-ci pourrait comprendre des éléments tels que comment évacuer votre maison ou comment rester en contact avec d'autres membres de la famille.

01 – Oui

PASSER À LA Q.23

02 – Non

99 – NSP/PR

22. (SI NON/NSP À LA Q.21) Quelle est la principale raison pour laquelle vous diriez que vous ne possédez pas un plan d'urgence familial ?

NE PAS LIRE – INSCRIRE PLUS D'UNE RÉPONSE SI ELLES SONT DONNÉES VOLONTAIREMENT

01 – Ne l'a jamais envisagé ou n'y a jamais pensé

02 – N'a pas encore eu le temps de le préparer

03 – Pas besoin d'en avoir un/ne prévoit pas avoir besoin d'évacuer

04 – Pas certain(e) de savoir comment élaborer un plan d'évacuation

05 – La collectivité/le voisinage apportera son aide

06 – Prévoit toujours élaborer un plan

98 – Autre (PRÉCISER _____)

99 – NSP/PR

23. À quelle fréquence est-ce que vous ou d'autres membres de votre ménage écoutez ou surveillez la diffusion d'alertes en cas de phénomènes météorologiques extrêmes pour votre région immédiate ?

Cela est-il fait :

LIRE

01 – Régulièrement

02 – À l'occasion

03 – Rarement

04 – Jamais

NON SUGGÉRÉ

99 – NSP/PR

24. Pensez-vous qu'il est très, assez, pas très ou pas du tout probable qu'une catastrophe causée par un phénomène météorologique extrême se produira et aura des répercussions sur vous ou sur votre collectivité...?

LIRE DANS L'ORDRE – PASSER À LA Q.25 APRÈS LA PREMIÈRE RÉPONSE « TRÈS PROBABLE »

a. Au cours des deux prochaines années

b. Au cours des 10 prochaines années

c. Au cours de votre vie

01 – Très probable

02 – Assez probable

03 – Pas très probable

04 – Pas du tout probable

NON SUGGÉRÉ

05 – Cela dépend

99 – NSP/PR

25. Où est-il le plus probable que vous chercheriez à obtenir de l'information au sujet d'un phénomène météorologique extrême qui pourrait toucher votre collectivité ?

NE PAS LIRE - INSCRIRE LA PREMIÈRE, PUIS LES AUTRES MENTIONS; SONDER : Est-ce qu'il y a autre chose ?

01 – Télévision

02 – Radio

03 – Journaux

04 – Internet/site Web – SONDER POUR SAVOIR QUEL SITE _____

05 – Site Web de Santé Canada

06 - Site Web d'Environnement Canada

07 - MétéoMédia (télévision)

08 - MétéoMédia (site Web)

09 – Ami/membre de la famille

10 – Panneau médiatique/affiche électronique extérieure

11 – Téléphoner au bureau météorologique local

12 - RADIOMÉTÉO/WEATHERCOPY

13 - Environnement Canada (PRÉCISER LE MÉDIUM _____)

98 - Autre (PRÉCISER _____)

99 - NSP/PR

D. État de santé

À présent, j'aimerais vous poser quelques questions au sujet de votre santé...

26. Comparativement à d'autres personnes de votre âge, comment qualifieriez-vous votre état de santé ? Diriez-vous qu'il est :

LIRE

01 – Excellent

02 – Très bon

03 – Bon

04 – Passable seulement

05 – Mauvais

NON SUGGÉRÉ

99 – REFUS/ND

27. Est-ce qu'un médecin vous a déjà dit ou a dit à un autre membre de votre ménage qu'il ou elle était atteint d'une des maladies ou états pathologiques suivants :
LECTURE EN ORDRE ALÉATOIRE; SI OUI, CONFIRMER SI SOI-MÊME, UNE AUTRE PERSONNE OU LES DEUX

- a. Maladies du cœur
- b. Obésité
- c. Diabète
- d. Cancer
- e. Maladie respiratoire
- f. Une déficience physique ou mentale

01 – Oui, vous-même

02 – Oui, quelqu'un d'autre dans le ménage

03 – Non

NON SUGGÉRÉ

04 – Autodiagnostic

05 – Les deux, vous-même et quelqu'un d'autre

99 - NSP/PR

28. (SI OUI À LA Q.27a-f POUR SOI-MÊME OU LES DEUX, VOUS-MÊME ET QUELQU'UN D'AUTRE) Dans quelle mesure est-ce que [cette maladie nuit/ces maladies nuisent] à votre vie de tous les jours ? Est-ce que cela vous nuit :

01 – Beaucoup

02 – Assez

03 – Pas beaucoup

04 – Pas du tout

NON SUGGÉRÉ

99 - NSP/PR

29. (SI OUI À LA Q.27a-f POUR D'AUTRES) Dans quelle mesure est-ce que [cette maladie nuit/ces maladies nuisent] à la vie de tous les jours de ces autres membres de votre ménage ? Est-ce que cela leur nuit ?
SI LE/LA RÉPONDANT(E) A IDENTIFIÉ PLUS D'UN DANS LE MÉNAGE, POSER LA QUESTION POUR CELUI OU CELLE QUI EST ATTEINT DE LA PIRE DÉFICIENCE

01 – Beaucoup

02 – Assez

03 – Pas beaucoup

04 – Pas du tout

NON SUGGÉRÉ

99 - NSP/PR

30. Est-ce que vous ou d'autres membres de votre ménage trouveriez très, assez, pas très ou pas du tout difficile de vous protéger au foyer advenant :

LECTURE EN ORDRE ALÉATOIRE

- a. Une vague de chaleur
- b. Une grave inondation dans votre quartier
- c. Une longue panne d'électricité

01 – Très difficile

02 – Assez difficile

03 – Pas très difficile

04 – Pas du tout difficile

NON SUGGÉRÉ

05 – Cela dépend

06 – NE S'APPLIQUE PAS (p.ex. à sa propre collectivité)

99 – NSP/PR

E. Caractéristiques des répondants

Enfin, J'aimerais vous poser quelques questions sur vous-même et sur votre ménage qui nous aideront à analyser les résultats de ce sondage. . .

31. Laquelle des catégories suivantes correspond le mieux à votre habitation ?

LIRE – INSCRIRE UNE SEULE RÉPONSE – ARRÊTER DÈS QUE LA CATÉGORIE EST IDENTIFIÉE

01 – Une maison unifamiliale détachée

02 – Une maison unifamiliale jumelée à une autre ou plusieurs autres, p.ex. maison en rangée ou duplex

03 – Un édifice à logements ou un condominium de quatre étages au maximum

04 – Un édifice à logements ou un condominium de cinq étages ou plus

05 – Une maison mobile ou une maison-remorque

NON SUGGÉRÉ

98 – Autre (PRÉCISER _____)

99 – NSP/PR

32. Votre habitation a-t-elle l'air climatisé ?

01 – Oui

02 – Non

99 – NSP/PR

33. Quel est le niveau de scolarité le plus élevé que vous avez complété ?

LIRE AU BESOIN – INSCRIRE UNE SEULE RÉPONSE

01 – Niveau primaire

02 – Partie du niveau secondaire

03 – Études secondaires complétées

04 – Partie des études collégiales/professionnelles/techniques//Cégep

05 – Diplôme d'études collégiales/d'études techniques/Cégep

06 – Partie du premier cycle universitaire

07 – Premier cycle universitaire complété

08 – Diplôme d'études supérieures

09 – Aucune scolarité

97 – Pas de réponse/Refus

34. En quelle année êtes-vous né(e) ?

_____ année de naissance
9999 – REFUS/ND

35. Combien de personnes, y compris vous-même, habitent dans votre domicile à l'heure actuelle ?

99 – ND/REFUS

36 (SI Q.35 > 1) Est-ce qu'il y a des enfants de moins de 16 ans qui vivent actuellement dans votre domicile ?

01 – Oui
02 – Non
99 – NSP/PR

37. (SI Q.34 EST 1948 OU SUPÉRIOR) Est-ce qu'il y a une ou des personnes âgées de plus de 60 ans qui vivent actuellement dans votre domicile ?

01 – Oui
02 – Non
99 – NSP/PR

38 Quelle langue est-ce que vous, personnellement, parlez habituellement à votre domicile ? (Si vous parlez plus d'une langue, quelle est celle que vous parlez le plus souvent ?)
INSCRIRE UNE SEULE RÉPONSE

01 – Anglais
02 – Français
03 – AUTRE (PRÉCISER)
99 – REFUS

39. À des fins statistiques seulement, nous avons besoin de renseignements au sujet du revenu de votre ménage. Veuillez me dire laquelle des catégories suivantes correspond au revenu total de votre ménage pour 2007 ?
LIRE – INSCRIRE UNE SEULE RÉPONSE – ARRÊTER DÈS QUE LA CATÉGORIE EST IDENTIFIÉE

01 – Moins de 40 000 \$
02 – De 40 000 \$ à 75 000 \$
03 – De 75 000 \$ à 100 000 \$
04 – De 100 000 \$ à 150 000 \$
05 – 150 000 \$ ou plus
NON SUGGÉRÉ
99 – NSP/PR

40. Pour terminer, afin de mieux comprendre comment les résultats varient d'une région à l'autre, puis-je avoir les six caractères de votre code postal ?
ACCEPTER LES TROIS PREMIERS CARACTÈRES SI C'EST TOUT CE QUE LE/LA RÉPONDANT(E) ACCEPTE DE DONNER

999999 – NSP/PR

Voilà qui complète le sondage. Si mon/ma superviseur(e) veut s'assurer que j'ai effectué cette entrevue, puis-je avoir votre prénom ?

Prénom : _____

Ce sondage a été réalisé pour le compte de Santé Canada et il est enregistré conformément à la *Loi canadienne sur l'accès à l'information*. Merci beaucoup de votre participation.

SI ON DEMANDE OÙ S'ADRESSER POUR OBTENIR DE PLUS AMPLES RENSEIGNEMENTS AU SUJET DE LA SANTÉ ET DES CHANGEMENTS CLIMATIQUES:

Visitez le site Web de Santé Canada www.hc-sc.gc.ca et effectuez une recherche sur l'expression « changements climatiques » ou choisissez « changements climatiques » dans l'index de A à Z. Ou faites une recherche sur Google avec l'expression « Santé Canada et changements climatiques » et la page Web appropriée de Santé Canada sur les changements climatiques sera le premier choix affiché.

INSCRIRE :

41. Sexe

- 01 Homme
- 02 Femme

42. Langue de l'interview

- 01 Anglais
- 02 Français

43. Province/Territoire

- 01 – Alberta
- 02 – Colombie-Britannique
- 03 – Manitoba
- 04 – Terre-Neuve
- 05 – Nouveau-Brunswick
- 06 – Nouvelle-Écosse
- 07 – Ontario
- 08 – Île-du-Prince-Édouard
- 09 – Québec
- 10 – Saskatchewan
- 11 – Nunavut
- 12 – Territoires du Nord-Ouest
- 13 – Yukon

44. Taille de la collectivité

- 01 – Plus de 1 million
- 02 – 100 000 à 1 million
- 03 – 25 000 à 100 000
- 04 – 10 000 à 25 000
- 05 – 5 000 à 10 000
- 06 – Moins de 5 000