

**FINAL  
REPORT**

**Quantitative Research on  
Indoor Air Quality and Mould  
in First Nations Households**

August 2, 2007

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

HC POR 06-91  
200 Eglantine Driveway  
Jeanne Mance Building, Tunney's Pasture  
Ottawa, Ontario K1A 0K9 PL 1910A

Ce rapport est aussi disponible en français sur demande

Contract number: H1011-060088/001/CY  
Contract awarded: 2007-03-13



**ENVIRONICS**  
RESEARCH GROUP

336 MacLaren Street  
Ottawa, ON K2P 0M6

pn6090



## EXECUTIVE SUMMARY

---

### Research purpose and objectives

Health Canada commissioned Environics Research Group to conduct public opinion research with First Nations residents living on-reserve to obtain insights into their awareness, attitudes and behaviours regarding indoor air quality and mould in their households. The overall objective is to establish baseline data against which Health Canada can develop and implement a public health campaign on mould, and also against which education campaigns and social marketing results can be measured. More specifically, this research is intended to:

- Establish benchmark awareness, attitude and behaviour levels, specifically related to poor indoor air quality, including mould, in the home;
  - Establish knowledge levels of First Nations on-reserve people in terms of how to identify mould, the factors that most contribute to its development, health risks associated with mould in the home, and what should be done when mould is identified in the home;
  - Identify gaps in existing knowledge with First Nations people about indoor air quality and mould;
  - Establish the reported incidence of poor indoor air quality and mould in First Nations households;
  - Determine what actions, if any, are currently taken when mould is identified in the home, and what actions, if any, would be taken if mould should occur in the home;
  - Provide insights into potential messaging to be directed at members of the target audience; and
- Explore the views of the target audience about the types of information they would like to have about mould and preferences for how they would like to receive this information.

### Methodology

The research consisted of telephone interviews conducted between May 11 and 29, 2007 with a representative sample of 700 First Nations people living on a reserve, aged 18 years and older. The sample was stratified across the 10 provinces to ensure adequate subsamples for analysis by region. A national sample of this size will provide results accurate to within plus or minus 3.7 percentage points in 19 out of 20 samples. A more detailed description of the methodology used to conduct this study is presented at the end of the report, along with a copy of the questionnaire (Appendix).

### Key findings

The results of this research reveal that mould, and by extension, indoor air quality, is considered by First Nations people living on-reserve to be a significant health issue. Half of the population reports having mould present – either currently or previously – in their home; for many, this is a recurring problem that has extended over several years. On a positive note, there is a relatively good level of existing knowledge about the issue, in terms of what contributes to mould, how it can be identified, and the associated health risks. However, individuals are less certain about how to prevent mould, or how to address it once it has occurred. While a majority of those experiencing mould have made efforts to remove it, there remains a substantial proportion (one-third) of this group who

say they continue to have mould in their home. The strong degree of expressed interest in learning more about how to identify, prevent and get rid of mould indicates there is a demand for further information, and Health Canada is well-positioned with First Nations people living on-reserve as a trustworthy source of this information.

The following summarizes the key findings from the research:

### Perceptions of indoor air quality

- In the broad context of environmental and health risks, indoor air quality is not a particularly salient issue for First Nations people living on-reserve. When asked to identify those environmental problems that pose the greatest risk to their health (unprompted), water quality problems top the list (identified by 26%), compared with 11 percent who mention indoor air quality issues (including mould and second-hand smoke). However, specific indoor air quality issues, such as mould and second-hand smoke, do generate considerable levels of concern on an aided basis (68% and 61% say they are a high health risk, respectively).
  - The concrete nature of these problems for the on-reserve population is likely a factor in the significant proportion (62%) who report having had concerns about their home's indoor air quality, now or at some point in the past. Furthermore, six in ten (62%) rate their indoor air quality as good or excellent, which is well below the proportion of the general population (87%) who say the same about their home. It likely also contributes to the relatively strong perception among First Nations people living on-reserve that poor indoor air quality has at least some impact on the health of people in their communities.
  - Public perceptions of the health risks posed by indoor air quality are due in some part to the way in which First Nations people living on-reserve assess the quality of the air they are breathing. They rely primarily on experiencing health symptoms (e.g., trouble breathing, aggravation of allergies or asthma) and, to a somewhat lesser extent, smell and visual cues, to know when indoor air quality is a problem.
- Although mould in itself is considered a greater health risk than indoor air quality, First Nations people living on a reserve acknowledge a close connection between the two when specifically asked. Six in ten (61%) say that mould is a definite cause of poor indoor air quality, which is higher than the proportion that link indoor air quality to any other cause, including second-hand smoke (57% say it is a definite cause).

### Awareness and knowledge of mould

- More than half (57%) of First Nations people living on a reserve say they know at least something about mould, and this is demonstrated by their reasonably good understanding of what causes mould, how it can be identified and the associated health risks. The on-reserve population identifies moisture as the primary contributor to mould in the home, and accordingly identify bathrooms and basements as the most common locations for mould. A majority say they would know there is mould in their home when they see it and smell it. Finally, First Nations people living on-reserve readily associate mould with respiratory illnesses – such as asthma – and with allergies, although fewer appear to have considered links between mould and skin rashes, cancer, fibromyalgia or heart disease.
- Despite their relatively good sense of what contributes to mould, First Nations people living on a reserve demonstrate a somewhat limited understanding of how mould can be prevented, as well as how it can be addressed should it occur in their home. Without prompting, no more than one in five can correctly identify any of the established methods for preventing mould (e.g., reducing moisture, increasing ventilation), and no more than one in three of those who have never had experience trying to remove mould could suggest any established strategy for doing so. Furthermore, substantial minorities cannot identify any way to prevent mould from growing in the home (19%) or to get rid of mould should it occur (35%).

## Experience with mould

- One in two First Nations on-reserve households report the presence of mould in their current home (25%), or say they have had it in their current home in the past (27%). When combined with those who say they had mould in their previous residence (18%), this means that seven in ten First Nations people living on a reserve report having lived in a home with mould at one time or another.
- In a majority of cases, the mould problem is a recurring one rather than a one-time event. This is more common among those who currently have mould, half of whom report having had this problem for five years or more. Those who previously had a mould problem are more likely to say they had it for less than a year. There is no typical size or shape to the mould patches found in First Nations households, but by far the most common locations in which mould occurs are the basement and bathrooms, followed by bedrooms.
- Three-quarters of First Nations on-reserve households who have experienced mould in their current home have identified the cause of the problem, which in most cases is related to excess moisture from leaks, flooding or daily activities. Most (67%) report taking steps to get rid of the mould, primarily by trying to clean up the patch themselves. Two factors that appear to have contributed to people's success in getting rid of mould are identifying the cause of the mould, and involving an outside source (e.g., contractor, Band Council, environmental health officer) to help address the problem. Those who have not taken action say they are waiting for outside help, or that they lack money to invest in clean-up efforts.
- A noticeable proportion (50%) of those reporting mould in their home believe that their own health or that of someone else in their household has been affected as a result. They report mostly respiratory system-related problems such as asthma, shortness of breath and bronchitis, as well as allergies. Most say they linked their health problems to the mould in their home based on information provided by their doctor, or from symptoms that disappeared when the mould was removed.

## Mould information

- A significant minority (38%) of First Nations people living on a reserve report having specifically taken steps in the past to learn about mould. Their primary source of information has been the Internet, which is also the source people who have not yet looked for information are most likely to consider using should they want to know more about mould in the future. Various other actual and potential sources are mentioned, including their Chief or Band Council, their community health centre, Health Canada or the Canada Mortgage and Housing Corporation (CMHC), although none stand out from the others as primary sources of mould information.
- Apart from the relatively limited proportion who have actively sought out mould information to date, First Nations people living on a reserve express a keen interest in learning more about this topic. Two in three people each say they are very interested in learning about the causes and health risks of mould, and how to identify, prevent and get rid of mould in the home, and this level of interest is even stronger among those who currently have mould. This population considers brochures and information kits sent directly to homes as the most useful way to distribute this information, and the perceived usefulness of all six potential sources asked about is remarkably consistent across regions and demographic segments of the population.
- Health Canada possesses a strong degree of credibility when it comes to providing mould information to this audience. Half (49%) say they would have a lot of confidence in this source of information, which is comparable to the degree of trust placed in medical doctors (53%) and environmental health officers (52%). Less than half as many would place the same degree of confidence in the news media, provincial governments, or their Chief and Band Council.

## How results vary across the population

At a broad level, the major findings from this study are applicable to the First Nations on-reserve population across the country, as defined by demographic and household characteristics. Results on some questions and issues do vary noticeably by population segment, and these are outlined in the following paragraphs.

**Demographics.** With regard to demographic differences, awareness, attitudes and behaviours regarding mould and indoor air quality vary primarily by socio-economic status (as defined by education and income levels). Those with lower incomes and no high school diploma are more apt to rate their indoor air quality as poor, and yet it is those in the middle income bracket and those with a post-secondary education who express more concern about their home's air quality. One reason for this discrepancy is that those in lower socio-economic brackets are less apt to believe that indoor air quality affects health.

Higher levels of education and income are related to better self-rated knowledge of mould, a greater understanding that moisture contributes to its development, and a greater likelihood to take action both in terms of removing mould (when it exists) and looking for information about the issue. Of concern, however, is that the incidence of mould is higher among those with lower incomes, and that those with lower socio-economic status are less knowledgeable about how to prevent mould and where to turn for more information. While the credibility of various sources of information about mould is generally similar, people with lower levels of education tend to place greater trust in their Chief and Band Council.

By comparison to socio-economic status, age and gender have a limited influence on how First Nations people living on-reserve view these topics. Awareness and opinions about mould and indoor air quality and their impacts on health tend to be greater among women and people over 30 years of age.

**Household composition.** The composition of First Nations on-reserve households makes a relatively limited difference, primarily in terms of people's experience with mould. Households with children under 16 are more apt than others to currently have mould, and to report household health problems associated with

mould, particularly asthma. The likelihood to currently have mould and to have experienced related health effects increases with the number of people living in the household.

**Household characteristics.** Better indoor air quality and a lower incidence of mould is more likely to be reported by First Nations people living in newer homes (under 10 years) and those who have equipment such as bathroom fans, stove fans, air exchangers and dehumidifiers. Few significant differences exist between households with basements, wall-to-wall carpeting or other characteristics that can be associated with the occurrence of mould, and those without these characteristics.

## How results vary by region

Although the survey findings are generally applicable to all regions of the country, some differences are apparent.

**British Columbia.** B.C. residents, along with residents of Quebec and the Atlantic provinces, are most likely to rate their indoor air quality as excellent. It is therefore interesting that they are more apt than others to identify mould as a cause of poor indoor air quality. Moreover, those who have experienced mould have a greater likelihood to report a physical or health problem in their household attributable to the mould.

**Alberta.** Together with residents of Saskatchewan, Albertans are more likely to rate their indoor air quality as poor, and to cite poor housing construction as a major cause of mould. However, residents demonstrate a somewhat more limited understanding of mould (e.g., are more likely to say that simply keeping one's house clean is sufficient to prevent mould, and less likely to associate mould with respiratory illness), and perhaps as a result, are among those most interested in receiving information about the issue.

**Saskatchewan/Manitoba.** Residents of Saskatchewan and Manitoba are very similar in terms of their attitudes and perceptions related to mould and indoor air quality. They are among those most likely to say their indoor air quality is poor, and to have greater concerns about their indoor air quality as a result. They are more apt to cite mould as a major health risk for on-reserve

communities, to identify mould as a cause of poor indoor air quality, and to report greater knowledge of mould in general. Manitoba residents are most likely of all regions to currently have mould in their home (38%), and yet, together with residents of Saskatchewan, are least likely to have done anything to get rid of the mould.

**Ontario.** In most cases, Ontarians are similar to average in terms of their attitudes towards and experiences with mould and indoor air quality. However, they are among those least likely to say they know a lot about mould and, among those who have experienced mould in their home, are least likely to report having household health problems as a result.

**Quebec.** Residents of Quebec are among the most satisfied with the quality of their indoor air: less than half report that they are, or have previously been, concerned about it. At least in part, this is due to the considerably lower incidence of mould relative to other provinces (42% have ever had a mould problem vs. 70%+ in other provinces; only 10% currently have mould). This province is among those least likely to say they know a lot about mould, to identify mould as a cause of poor indoor air quality, and to consider mould to be a health risk. Nonetheless, those who have experienced mould are more likely to report household health effects as a result, and to say they have taken action to remove the problem.

**Atlantic provinces.** Although residents of these provinces are among those most likely to rate their indoor air quality as excellent (together with residents of B.C. and Quebec), and are no more likely than others to have experience with mould, they appear among the more knowledgeable about the topic. They are more likely to rate mould as a high health risk, to associate respiratory illness and allergies with mould, to identify excess moisture as a cause of mould, and to say that mould can be prevented by increasing ventilation in the household.

## Recommendations

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

1. Beyond reinforcing the better-known aspects of mould (e.g., its health effects, what causes it, and how to identify it), the focus of communications should be on strategies to prevent and eliminate mould. In addition, it would also be valuable to emphasize messages that this problem *can* be solved, to combat the perception among some that nothing can be done, and to address a sense of powerlessness that may exist. Involvement from community leaders and other professionals should be widely encouraged, since people are more likely to report success in having addressed their mould problem when they have had access to outside support.
2. Health Canada should initially focus its communications efforts on reserves in Manitoba and Saskatchewan, since households in these provinces express the most concern about their indoor air quality and the health risks from mould, and yet are least likely to have taken steps to address this problem. However, reserves in other regions should not be overlooked, since people in these regions tend to report being less knowledgeable about the issue.
3. The findings of this survey suggest that the Internet, and brochures and information kits sent directly to people's homes are among the most preferred ways to share information about mould. It may also be worthwhile to explore alternate methods of communicating this information, such as establishing partnerships with people and organizations directly involved in on-reserve communities who also have an interest in addressing mould problems (e.g., health care providers, contractors and other tradespeople). It will be important to evaluate such initiatives early on in the process (e.g., pilot testing) to determine their effectiveness and make necessary adjustments before employing them more widely.

---

Environics Research Group

Contract number: H1011-060088/001/CY    Contract awarded: 2007-03-13

For more information on this study, contact Health Canada at [por-rop@hc-sc.gc.ca](mailto:por-rop@hc-sc.gc.ca)





## RÉSUMÉ DU RAPPORT

---

### But et objectifs de la recherche

Santé Canada a retenu les services d'Environics Research Group pour la réalisation d'une recherche sur l'opinion publique auprès des résidents des Premières nations vivant dans une réserve, afin de mieux comprendre leur niveau de sensibilisation, leurs attitudes et leurs comportements à l'égard de la qualité de l'air intérieur et de la présence de moisissure dans leurs habitations. L'objectif général est d'établir des données de référence à partir desquelles Santé Canada peut élaborer et mettre en œuvre une campagne de santé publique se rapportant à la moisissure, des données qui permettront également de mesurer les résultats des campagnes d'éducation du public et de marketing social. Plus spécifiquement, cette recherche vise à :

- Établir les niveaux de référence en termes de sensibilisation, d'attitudes et de comportements se rapportant spécifiquement à une mauvaise qualité de l'air intérieur, y compris la présence de moisissure, dans une habitation;
- Déterminer les niveaux de connaissances des membres des Premières nations vivant dans une réserve, en termes d'identification de la moisissure, des facteurs qui contribuent le plus à son développement, des risques pour la santé associés à la présence de moisissure dans l'habitation, ainsi que ce qui peut être fait lorsque la présence de moisissure est décelée dans une habitation;
- Identifier les lacunes dans les connaissances des membres des Premières nations vivant dans une réserve au sujet de la mauvaise qualité de l'air intérieur et de la moisissure;
- Établir quelle est l'incidence rapportée de mauvaise qualité de l'air intérieur et de moisissure dans les habitations des membres des Premières nations;
- Déterminer, s'il y a lieu, quelles mesures sont prises une fois que la présence de moisissure a été identifiée dans une habitation et, s'il y a lieu, quelles mesures seraient prises si la présence de moisissure était décelée dans l'habitation;
- Apporter un éclairage sur les messages possibles à diriger aux membres du groupe cible; et
- Explorer les points de vue du public cible à propos des types de renseignements qu'ils aimeraient recevoir au sujet de la moisissure, ainsi que ses préférences sur la façon de recevoir ces renseignements.

### Méthodologie

La recherche s'est effectuée à partir d'entrevues téléphoniques réalisées entre le 11 et le 29 mai 2007, auprès d'un échantillon représentatif de 700 membres des Premières nations vivant dans une réserve, âgés de 18 ans et plus. L'échantillon a été stratifié en 10 provinces afin de veiller à ce que les sous-échantillons soient de taille suffisante pour permettre une analyse par région. Un échantillon national de cette taille donnera des résultats exacts à plus ou moins 3,7 points de pourcentage, dans 19 échantillons sur 20. Une description plus détaillée de la méthodologie de sondage est présentée à la fin du rapport, de même qu'un exemplaire du questionnaire (Annexe).

### Résultats clés

Les résultats de cette recherche révèlent que la moisissure et, par extension la qualité de l'air intérieur, est considérée comme un problème de santé grave par les membres des Premières nations vivant dans une réserve. La moitié des membres de cette population rapportent la présence de moisissure – soit présentement ou par le

passé – dans leur habitation et, pour un grand nombre d'entre eux, il s'agit d'un problème récurrent qui dure depuis plusieurs années. Sur une note positive, il existe présentement un bon niveau de connaissances au sujet de ce problème, en termes des facteurs qui contribuent à la présence de moisissure, de la façon de l'identifier et des risques que cela pose pour la santé. Cependant, les individus sont moins certains des façons de prévenir la moisissure ou de régler ce problème une fois qu'il se manifeste. Alors qu'une majorité de ceux qui ont un problème de moisissure ont fait des efforts pour y remédier, il y a une proportion importante (le tiers) de ce groupe qui affirme que la moisissure est toujours présente dans leur habitation. Le fort degré d'intérêt à en savoir davantage sur la façon d'identifier, de prévenir et de se débarrasser de la moisissure indique qu'il existe un besoin pour ce genre d'information et que Santé Canada est bien positionné auprès des membres des Premières nations vivant dans une réserve en tant que source d'information fiable à ce sujet.

Les points suivants résument les résultats clés de cette recherche :

#### Perceptions relatives à la qualité de l'air intérieur

- Dans le contexte plus général des risques pour la santé liés à l'environnement, la qualité de l'air intérieur n'est pas une question de premier plan pour les membres des Premières nations vivant dans une réserve. Lorsqu'on leur demande d'identifier les problèmes environnementaux qui posent le plus grand risque pour leur santé (sans suggestion), les problèmes de qualité de l'eau se classent en tête de liste (identifiés par 26 %), comparativement à 11 p. 100 qui mentionnent les problèmes de qualité de l'air intérieur (y compris la moisissure et la fumée secondaire). Cependant, des problèmes *spécifiques* en matière de qualité de l'air intérieur, notamment la moisissure et la fumée secondaire, suscitent des niveaux considérablement élevés de préoccupation en réponse à une question assistée (offrant des choix de réponse) (68 % et 61 % affirment qu'elles posent un risque élevé pour la santé, respectivement).
- La nature bien concrète de ces problèmes pour la population vivant dans une réserve est probablement un facteur expliquant la forte proportion (62 %) de ceux qui rapportent être préoccupés par la qualité

de l'air intérieur de leur habitation ou l'avoir déjà été. En outre, six sur dix (62 %) évaluent la qualité de l'air intérieur dans leur habitation comme étant bonne ou excellente, une proportion très inférieure à la proportion observée au sein de la population générale (87 %) qui disent de même à propos de la qualité de l'air intérieur dans leur habitation. Cela contribue probablement aussi à la perception relativement forte des membres des Premières nations vivant dans une réserve qui pensent que la qualité de l'air intérieur affecte au moins quelque peu la santé des membres de leur collectivité.

- Les perceptions du public à l'égard des risques que pose la qualité de l'air intérieur pour la santé sont en partie attribuables à la façon dont les membres des Premières nations vivant dans une réserve évaluent la qualité de l'air qu'ils respirent. Ils se fient surtout au fait de ressentir des symptômes (p.ex., difficulté à respirer, aggravation des allergies ou asthme) et, dans une moindre mesure, à des indices sensoriels – odeurs et visuels – pour dire à quel moment la qualité de l'air intérieur fait problème.
- Même si la moisissure est considérée comme posant un risque plus élevé pour la santé que la qualité de l'air intérieur, les membres des Premières nations vivant dans une réserve reconnaissent le lien étroit qui existe entre les deux, quand on leur pose directement la question. Six sur dix (61 %) affirment que la moisissure est certainement une cause de la mauvaise qualité de l'air intérieur, ce qui est plus élevé que la proportion établissant un lien entre la qualité de l'air intérieur et toute autre cause, y compris la fumée secondaire (57 % affirment qu'il s'agit certainement d'une cause).

#### Sensibilisation et connaissances à propos de la moisissure

- Plus de la moitié (57 %) des membres des Premières nations vivant dans une réserve affirment savoir au moins certaines choses à propos de la moisissure; cela est démontré en outre par une compréhension raisonnablement bonne de ce qui peut causer la moisissure, de la façon de l'identifier et des risques pour la santé qui y sont associés. La population vivant dans une réserve identifie l'humidité comme étant le facteur principal qui contribue à la présence de

moisissure dans une habitation et, par conséquent, elle identifie les salles de bain et les sous-sols comme les endroits où l'on retrouve le plus souvent la moisissure. Une majorité d'entre eux affirment qu'ils sauraient qu'il y a de la moisissure chez eux s'ils pouvaient la voir et la sentir. Enfin, les membres des Premières nations vivant dans une réserve associent facilement la moisissure aux maladies respiratoires – telles que l'asthme – et aux allergies, alors que des proportions moindres semblent établir un lien entre la moisissure et les irritations cutanées, le cancer, la fibromyalgie ou les maladies du cœur.

- Malgré le fait qu'ils savent généralement bien ce qui contribue à la présence de moisissure, les membres des Premières nations vivant dans une réserve affichent toutefois une compréhension assez limitée de la façon de prévenir la moisissure, ainsi que des façons de régler ce problème s'il était présent dans leur habitation. Sans suggestion, pas plus d'un sur cinq d'entre eux sont capables d'identifier une ou l'autre des méthodes éprouvées pour prévenir la formation de moisissure (p.ex., réduire l'humidité, accroître la ventilation) et pas plus d'un sur trois de ceux qui n'ont jamais tenté de se débarrasser de la moisissure ont été capables de suggérer une stratégie éprouvée pour y parvenir. De surcroît, d'importantes minorités ne peuvent pas identifier une ou l'autre façon de prévenir la formation de moisissure dans une habitation (19 %) ou de s'en débarrasser si elle se forme (35 %).

### Expérience de la moisissure

- Un sur deux des ménages des Premières nations vivant dans une réserve rapportent la présence de moisissure dans la maison qu'ils habitent en ce moment (25 %) ou affirment qu'il y en a déjà eu dans cette habitation dans le passé (27 %). Lorsqu'on combine ces proportions avec celles qui rapportent la présence de moisissure dans leur résidence antérieure (18 %), cela signifie que sept sur dix membres des Premières nations vivant dans une réserve ont déjà habité une résidence où la moisissure était présente à un moment ou l'autre.
- Dans la majorité des cas, le problème de moisissure en est un qui se reproduit souvent plutôt qu'un événement isolé. Cela s'observe plus souvent chez ceux qui ont présentement un problème de moisissure, dont la moitié rapporte être aux prises à ce problème depuis cinq ans ou plus. Ceux qui ont déjà eu un problème de moisissure ont plus tendance à dire qu'ils ont eu de la moisissure pendant moins d'un an. Il n'y a pas de dimensions ou de formes typiques décrivant la moisissure présente dans les habitations des Premières nations, mais les endroits où l'on retrouve le plus souvent la moisissure sont, de loin, les sous-sols et les salles de bain, suivis des chambres à coucher.
- Les trois quarts des ménages des Premières nations vivant dans une réserve qui ont eu de la moisissure dans leur résidence actuelle ont identifié la cause du problème qui, dans la plupart des cas, est liée à un excès d'humidité provenant de fuites, d'inondations ou des activités quotidiennes. La plupart (67 %) rapportent avoir fait quelque chose pour se débarrasser de la moisissure, surtout en nettoyant par eux-mêmes la surface atteinte. Deux facteurs qui semblent avoir contribué au succès des gens à se débarrasser de la moisissure sont le fait d'avoir su identifier ce qui causait la moisissure et de demander à une source externe (p.ex., entrepreneur, Conseil de bande, agent d'hygiène du milieu) de les aider à régler le problème. Ceux qui n'ont rien fait affirment qu'ils attendent une source d'aide externe ou disent qu'ils n'ont pas les moyens d'investir dans le nettoyage.
- Une proportion notable (50 %) de ceux qui rapportent la présence de moisissure dans leur habitation croient que leur propre santé ou celle d'un autre membre de leur ménage a été affectée par cela. Ils rapportent surtout des problèmes respiratoires tels que l'asthme, le souffle court et les bronchites, de même que des allergies. La plupart affirment avoir établi un lien entre leurs troubles de santé et la présence de moisissure dans leur habitation, en se fondant sur les renseignements donnés par leur médecin ou sur la disparition des symptômes après l'enlèvement de la moisissure.

## Information à propos de la moisissure

- Une importante minorité (38 %) de membres des Premières nations vivant dans une réserve rapportent avoir déjà posé des gestes pour se renseigner au sujet de la moisissure. Leur principale source d'information a été Internet, c'est aussi la source mentionnée le plus souvent par les gens qui n'ont pas encore cherché d'information s'ils voulaient en savoir davantage au sujet de la moisissure dans l'avenir. Diverses autres sources réelles et possibles sont mentionnées, y compris le Chef ou le Conseil de bande, leur centre de santé communautaire, Santé Canada ou la Société canadienne d'hypothèques et de logement (SCHL), mais aucune ne se démarque des autres en tant que principale source d'information à propos de la moisissure.
- Exception faite de la proportion relativement faible qui a cherché activement de l'information à propos de la moisissure jusqu'à présent, les membres des Premières nations vivant dans une réserve manifestent beaucoup d'intérêt à en apprendre davantage à ce sujet. Deux personnes sur trois, dans chaque cas, se disent très intéressées à en savoir davantage sur ce qui cause la moisissure et sur les risques pour la santé, ainsi que sur la façon d'identifier, de prévenir et de se débarrasser de la moisissure dans une habitation; ce niveau d'intérêt est encore plus fort chez ceux qui ont un problème de moisissure. Cette population juge que l'envoi de brochures et de trousseaux d'information directement à la résidence constitue le moyen le plus utile pour distribuer cette information, en outre, l'utilité perçue des six moyens possibles qui sont suggérés est remarquablement constante d'une région à l'autre et au sein des divers segments démographiques de la population.
- Santé Canada bénéficie d'un niveau élevé de crédibilité auprès de ce public en ce qui a trait à donner de l'information sur la moisissure. La moitié (49 %) des répondants affirment qu'ils feraient beaucoup confiance à cette source d'information, ce qui est comparable au niveau de confiance accordé aux médecins (53 %) et aux agents d'hygiène du milieu (52 %). Une proportion plus que moitié moindre d'entre eux accorderaient ce même niveau de confiance aux médias d'information, aux gouvernements provinciaux ou à leur Chef et à leur Conseil de bande.

## Variation des résultats au sein de la population

Au niveau général, les grands résultats de cette étude sont applicables aux membres des Premières nations répartis au pays qui vivent dans une réserve, tel que définis par les caractéristiques démographiques et par celles du ménage. Les résultats à certaines questions et à certains problèmes varient visiblement en fonction du segment de population, ces variations sont mentionnées dans les paragraphes suivants.

**Caractéristiques démographiques.** En ce qui a trait aux différences liées à des facteurs démographiques, le niveau de sensibilisation, les attitudes et les comportements se rapportant à la moisissure et à la qualité de l'air intérieur varient surtout en fonction du statut socioéconomique (qui se définit par les niveaux de scolarité et de revenu). Ceux dont le revenu est plus faible et qui n'ont pas de diplôme d'études secondaires sont plus enclins à évaluer la qualité de l'air intérieur de leur résidence comme étant mauvaise, mais ce sont toutefois ceux qui se situent dans le niveau de revenu moyen et ceux qui ont fait des études postsecondaires qui se disent davantage préoccupés par la qualité de l'air dans leur habitation. Une raison expliquant cette divergence est le fait que ceux dont le statut socioéconomique est plus faible ont moins tendance à croire que la qualité de l'air intérieur a une incidence sur la santé.

Les niveaux de scolarité et de revenu plus élevés sont assortis d'une meilleure autoévaluation des connaissances au sujet de la moisissure, d'une meilleure compréhension du fait que l'humidité contribue à son développement, ainsi qu'à une plus forte probabilité de faire quelque chose, à la fois en termes d'enlèvement de la moisissure (lorsqu'elle est présente) et de recherche d'information à ce sujet. Fait préoccupant cependant, l'incidence de moisissure est plus grande chez ceux dont les revenus sont plus faibles, alors que ce sont précisément ceux de statut socioéconomique plus faible qui sont moins bien informés sur les façons de prévenir la moisissure et sur les sources à consulter pour obtenir plus d'information. Alors que la crédibilité des diverses sources d'information au sujet de la moisissure est généralement semblable, les personnes dont les niveaux de scolarité sont plus faibles ont tendance à faire davantage confiance à leur Chef ou à leur Conseil de bande.

Par comparaison avec le statut socioéconomique, l'âge et le sexe ont peu d'influence sur les points de vue des membres des Premières nations vivant dans une réserve à ce sujet. La sensibilisation et les opinions à l'égard de la moisissure et de la qualité de l'air intérieur, ainsi que leur incidence sur la santé, ont tendance à être plus fortes chez les femmes et les personnes âgées de plus de 30 ans.

**Composition du ménage.** La composition des ménages des Premières nations vivant dans une réserve a une faible influence, surtout en termes d'expérience d'un problème de moisissure. Les ménages avec des enfants âgés de moins de 16 ans ont plus tendance que d'autres à avoir présentement un problème de moisissure et à rapporter des problèmes de santé liés à la présence de moisissure, en particulier l'asthme. La probabilité d'avoir présentement un problème de moisissure et d'en avoir subi des effets sur la santé augmente avec le nombre de personnes qui vivent dans un ménage.

**Caractéristiques du ménage.** Une meilleure qualité de l'air intérieur et une plus faible incidence de moisissure ont plus tendance à être rapportées par les membres des Premières nations vivant dans une réserve qui habitent une résidence plus récente (moins de 10 ans) et par ceux qui possèdent des équipements tels que des ventilateurs de salle de bain, une hotte au-dessus de la cuisinière, un échangeur d'air et un déshumidificateur. Il y a peu de différences significatives entre les habitations qui comptent un sous-sol, du tapis mur à mur ou d'autres caractéristiques pouvant être associées à la présence de moisissure et celles qui ne présentent pas ces caractéristiques.

### Variation des résultats par région

Alors que les résultats du sondage s'appliquent habituellement à toutes les régions du pays, certaines différences sont apparentes.

**Colombie-Britannique.** Les résidents de la C.-B., de même que les résidents du Québec et des provinces atlantiques sont ceux ayant le plus tendance à faire une excellente évaluation de la qualité de leur air intérieur. Il est donc intéressant de constater qu'ils sont plus enclins que d'autres à identifier la moisissure en tant qu'une cause de mauvaise qualité de l'air intérieur. En outre, ceux qui ont déjà connu un problème de moisissure ont plus

tendance à rapporter un trouble physique ou de santé attribuable à la présence de moisissure.

**Alberta.** Avec les résidents de la Saskatchewan, les Albertains ont plus tendance à évaluer la qualité de leur air intérieur comme étant mauvaise, ainsi qu'à citer la mauvaise construction de l'habitation comme une importante cause de moisissure. Cependant, ces résidents affichent une compréhension quelque peu plus limitée de la moisissure (p.ex., ils ont plus tendance à dire que le fait de maintenir sa maison propre suffit pour prévenir la moisissure et ils ont moins tendance à associer la moisissure à des maladies respiratoires) et, résultat peut-être, ils comptent parmi ceux qui sont les plus intéressés à recevoir de l'information sur cette question.

**Saskatchewan/Manitoba.** Les résidents de la Saskatchewan et du Manitoba sont fort semblables en termes d'attitudes et de perceptions relatives à la moisissure et à la qualité de l'air intérieur. Ils comptent parmi ceux qui ont le plus tendance à évaluer que la qualité de leur air intérieur est mauvaise et, résultat, à être davantage préoccupés par la qualité de l'air intérieur. Ils ont plus tendance à dire que la moisissure représente un risque élevé pour les collectivités vivant dans une réserve, à identifier la moisissure comme étant une cause de mauvaise qualité de l'air intérieur, ainsi qu'à rapporter plus de connaissances au sujet de la moisissure en général. Les résidents du Manitoba sont ceux qui, dans toutes les régions, ont le plus tendance à connaître présentement un problème de moisissure dans leur habitation (38 %) et, pourtant, avec les résidents de la Saskatchewan, ils sont ceux qui ont le moins tendance à avoir fait quelque chose pour se débarrasser de la moisissure.

**Ontario.** Dans la plupart des cas, les Ontariens se comparent à la moyenne, en termes d'attitudes et d'expériences relatives à la moisissure et à la qualité de l'air intérieur. Cependant, ils comptent parmi ceux qui ont le moins tendance à dire qu'ils savent beaucoup de choses au sujet de la moisissure et, parmi ceux qui ont connu un problème de moisissure dans leur habitation, ils sont ceux qui ont le moins tendance à rapporter éprouver des problèmes de santé pour cette raison.

**Québec.** Les résidents du Québec sont parmi ceux qui se disent les plus satisfaits de la qualité de leur air intérieur : moins de la moitié rapportent être ou avoir déjà



été préoccupés à ce sujet. Au moins en partie, cela est attribuable à l'incidence considérablement plus faible de moisissure comparativement aux autres provinces (42 % ont déjà eu un problème de moisissure contre 70 %+ dans d'autres provinces; seulement 10 % ont ce problème présentement). Cette province se range parmi celles où l'on a le moins tendance à dire savoir beaucoup de choses à propos de la moisissure, à identifier la moisissure comme une cause de mauvaise qualité de l'air intérieur et à juger que la moisissure pose un risque pour la santé. Néanmoins, ceux qui ont déjà connu un problème de moisissure ont plus tendance à rapporter une incidence sur la santé du ménage et à dire qu'ils ont fait quelque chose pour régler le problème.

**Provinces atlantiques.** Alors que les résidents de ces provinces comptent parmi ceux qui ont le plus tendance à faire une excellente évaluation de la qualité de leur air intérieur (avec les résidents de la Colombie-Britannique et du Québec) et qu'ils n'ont pas plus tendance que d'autres à avoir connu un problème de moisissure, ils semblent être parmi ceux qui sont les mieux informés à ce sujet. Ils ont plus tendance à dire que la moisissure pose un risque élevé pour la santé, à associer la moisissure aux maladies respiratoires et aux allergies, à identifier qu'un excès d'humidité peut être une cause de moisissure, ainsi qu'à dire que l'on peut prévenir la moisissure en augmentant la ventilation dans une habitation.

## Recommandations

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

1. Outre le renforcement des aspects les mieux connus au sujet de la moisissure (p.ex., ses effets sur la santé, ce qui cause sa formation et la façon de l'identifier), les communications devraient être centrées sur des stratégies pour prévenir et pour se débarrasser de

la moisissure. De surcroît, il vaudrait sans doute la peine d'insister sur des messages à l'effet que ce problème *peut* se régler, de combattre la perception répandue chez certains qu'on ne peut rien faire à ce sujet et de contrer tout sentiment possible d'impuissance à ce sujet. Il faudrait encourager beaucoup la participation des leaders communautaires et d'autres professionnels, puisque les gens ont plus tendance à rapporter qu'ils ont réussi à régler leur problème de moisissure quand ils ont eu accès à une forme de soutien externe.

2. Santé Canada devrait initialement centrer ses efforts de communication sur les réserves du Manitoba et de la Saskatchewan, puisque les ménages de ces provinces se disent les plus préoccupés par la qualité de leur air intérieur et par les risques pour la santé associés à la moisissure, alors qu'ils sont ceux qui ont le moins tendance à dire qu'ils ont fait quelque chose pour régler ce problème. Cependant, les réserves des autres régions ne doivent pas être ignorées, puisque les résidents de ces régions ont tendance à rapporter qu'ils sont moins bien informés sur cette question.
3. Les résultats de ce sondage suggèrent qu'Internet, ainsi que l'envoi de brochures et de trousseaux d'information directement à la résidence, comptent parmi les moyens préférés pour recevoir de l'information sur la moisissure. Il pourrait s'avérer fructueux d'explorer d'autres méthodes pour communiquer cette information, notamment en établissant des partenariats avec des individus et des organismes qui sont directement engagés dans les collectivités vivant dans une réserve et qui manifestent aussi un intérêt à régler les problèmes de moisissure (p.ex., des professionnels de la santé, des entrepreneurs et d'autres commerçants). Il sera important d'évaluer ces initiatives tôt au cours du processus (p.ex., testage pilote) afin de déterminer leur efficacité et d'apporter les ajustements nécessaires avant d'étendre leur utilisation.

---

Environics Research Group

Numéro du contrat : H1011-060088/001/CY

Date du contrat : 2007-03-13

Pour obtenir plus de renseignements sur cette étude, communiquer avec Santé Canada à l'adresse [por-rop@hc-sc.gc.ca](mailto:por-rop@hc-sc.gc.ca)

## CONTENTS

EXECUTIVE SUMMARY .....	i
RÉSUMÉ DU RAPPORT .....	vii
INTRODUCTION .....	1
PERCEPTIONS OF INDOOR AIR QUALITY .....	3
MOULD AWARENESS AND KNOWLEDGE .....	11
EXPERIENCE WITH MOULD .....	21
INFORMATION ABOUT MOULD.....	31
IMPACT OF HOUSEHOLD CHARACTERISTICS.....	37
CONCLUSIONS AND RECOMMENDATIONS .....	39
SURVEY METHODOLOGY.....	41
APPENDICES	
A. Questionnaire (English and French)	
B. Detailed banner tables (under separate cover)	





## INTRODUCTION

---

Linkages between housing and health, including dampness and mould, are a current emphasis of the World Health Organization.<sup>1</sup> The quality of indoor air depends on various parameters such as ventilation, temperature and humidity, and the general cleanliness of the house, which is influenced by material and chemical emissions, and by the lifestyles of the occupants. Weather, climatic humidity, overcrowding, substandard construction, inadequate ventilation, lack of care, inadequate maintenance and exposure to tobacco smoke are all contributing factors to poor quality of indoor air. For example, dampness in buildings creates a favourable environment for the proliferation of moulds. Exposure to damp and mouldy indoor environments has been consistently associated with an increased prevalence of asthma-related symptoms (e.g., chronic wheezing and cough), respiratory tract irritation and other non-specific symptoms.

The question of indoor air quality has become even more relevant with the current trends towards energy-saving homes, which are based on very tight building structures and often result in insufficient air exchange rates. The effects of this could be an accumulation of indoor air pollutants, and an increased risk of mould growth.

First Nations people, as the owners of many homes in their communities, have an important role to play in providing oversight within their communities, including ensuring that houses are built to at the very least the current national building code, and that their citizens and residents are educated on housing issues that may negatively impact on the health of the community members. Occupant responsibility for general home maintenance is also a critical component of managing potential health problems related to the indoor environment. A focus on creating 'healthy homes'

and providing tools and incentives for action at the owner/occupant level is key to reducing any negative health consequences.

Further to the recommendation of the Standing Committee on Public Accounts, the Government of Canada has drafted a Strategy to address mould in First Nations housing. According to this Strategy, Health Canada is to develop and lead a health promotion campaign, and monitor the impacts of its implementation. To effectively develop such a campaign, Health Canada has identified the need to understand the current level of awareness and knowledge that First Nations people possess about (a) activities within the home that can influence indoor air quality; and (b) indoor air quality and its effect on their health.

To address this need, Health Canada commissioned Environics Research Group to conduct public opinion research with First Nations residents living in on-reserve housing, including those owning homes on a reserve. This research builds on previous research conducted among the general population on the subject of indoor air quality. The purpose of the research is to obtain insights into the awareness, attitudes and behaviours of First Nations people living on a reserve regarding indoor air quality and mould in their households. More specifically, this research is intended to:

- Establish benchmark awareness, attitude and behaviour levels, specifically related to poor indoor air quality, including mould, in the home;
- Establish knowledge levels of First Nations on-reserve people in terms of how to identify mould, the factors that most contribute to its development, health risks associated with mould in the home, and what should be done when mould is identified in the home;

---

1 [http://www.euro.who.int/Document/HOH/LARES\\_results.pdf](http://www.euro.who.int/Document/HOH/LARES_results.pdf)

- Identify gaps in existing knowledge with First Nations people about indoor air quality and mould;
- Establish the reported incidence of poor indoor air quality and mould in First Nations households;
- Determine what actions, if any, are currently taken when mould is identified in the home, and what actions, if any, would be taken if mould should occur in the home;
- Provide insights into potential messaging to be directed at members of the target audience; and
- Explore the views of the target audience about the types of information they would like to have about mould and preferences for how they would like to receive this information.

This report presents the results of the research with the First Nations on-reserve population, with comparisons to previous research where relevant. The report begins with an executive summary that outlines the key findings, followed by a detailed analysis of the survey data, and conclusions and recommendations. Provided under separate cover is a detailed set of “banner tables” presenting the results for all questions by population segments as defined by region and demographics. These tables are referenced by survey question in the detailed analysis. *All results are expressed as a percentage unless otherwise noted.*

## PERCEPTIONS OF INDOOR AIR QUALITY

---

Understanding of mould as a health hazard among First Nations people living on a reserve is best considered in the more general context of their understanding of indoor air quality and other environmental issues affecting health. Therefore, this survey began with some broad-ranging questions about environmental health risks and then probed awareness of, and concern about, indoor air quality more specifically.

### General concerns about environmental health risks

*Water concerns are the primary top-of-mind environmental health risk for First Nations people living on reserve. However when probed, mould is identified as the highest risk to health, with only second-hand smoke posing a similar level of risk.*

The survey began by asking people to identify (without prompting) the environmental problems or hazards that they believe pose the greatest risk to the health of First Nations people living on reserves, in order to place mould in a broader context. This question is intended to measure “top-of-mind” awareness (what comes first to people’s minds, with multiple responses permitted) rather than assessing specific hazards (which are probed in a subsequent question).

First Nations people living on a reserve identify a wide range of environmental health risks, although no one hazard is mentioned at particularly high levels. The most commonly cited health risks are water concerns, including water pollution and drinking water contamination, mentioned by one in four (26%) First Nations people living on a reserve.

One in ten (11%) identify indoor air quality issues such as mould (8%) or second-hand smoke (2%). A number of other environmental health hazards are mentioned, each by one in ten people or less, includ-

ing various diseases (10%), air pollution (9%), poor housing construction (5%) and municipal landfills (5%). One-quarter (25%) could not identify any such environmental health hazard.

The likelihood to mention mould as an environmental health risk for First Nations people living on reserves is highest in the Atlantic provinces (14%), Manitoba (14%) and Saskatchewan (12%), and lowest in Alberta (3%), Quebec (3%) and Ontario (2%, where mentions

### Environmental problems that pose the greatest health risk to First Nations people living on-reserve

May 2007    Top mentions

	%
<b>Net – Water concerns</b>	<b>26</b>
Water pollution	16
Drinking water contamination	8
Water issues (unspecified)	4
<b>Net – Indoor air quality issues</b>	<b>11</b>
Mould	8
Smoking/second-hand smoke	2
Indoor air quality	1
Diseases/spread of disease (various mentions)	10
Air pollution/smog	9
Alcohol/substance abuse	7
Housing/poor construction	5
Municipal garbage/landfills	5
Industrial pollution	3
Poor eating habits/diet/fast food/obesity	3

#### Q.1

*In your view, what environmental problem or hazard would you say poses the greatest risk to the health of First Nations people living on reserves? What other environmental problems or hazards pose a significant risk to their health?*

of water problems are most prevalent at 41%). Mould is also more commonly mentioned by women (12%) than men (4%).

First Nations people living on a reserve were then asked to rate the risk of each of 10 specific potential hazards to their health. A majority believe that almost all of these hazards are at least a moderate health risk. The one exception is radon, which many are uncertain how to rate, presumably due to a lack of familiarity with the issue.

The greatest degree of risk is judged to be from mould, with almost seven in ten (68%) saying it is a high risk and a further two in ten (18%) who say it is a moderate risk. Only 14 percent say mould poses little or no risk to the health of on-reserve communities. The next most risky hazard is considered to be second-hand smoke from tobacco (61% say it presents a high risk). Indoor air quality is considered to be far less of a risk, with one-quarter (24%) who say it is a high risk. This discrepancy between the risk associated with mould and that associated with indoor air quality likely reflects that mould is a concrete issue for the on-reserve population (demonstrated by the relatively high incidence of mould in these households, discussed later in this report), while the concept of indoor air quality is more vague.

Despite the fact that water concerns were cited as the number one environmental health risk on an unaided basis, considerably fewer people say that tap water presents a high risk (38%) in comparison to mould. Between one-quarter and one-third of First Nations people living on-reserve associate a high level of risk with climate change (34%), pesticides in food (33%), sun tanning (29%) and asbestos (26%), while two in ten (19%) say that outdoor air quality presents a high risk to their health. The least degree of risk is associated with radon (9% say it is a high risk), although this is primarily due to a lack of knowledge of the issue (47% could not provide a rating).

This question is similar to one asked of the general Canadian population in a 2007 survey conducted for Health Canada on indoor air quality (the national survey asked about health risks to Canadians in general).<sup>2</sup> Compared to the general population, First Nations people living on-reserve consider tap water (+22 points) and indoor air quality (+9) to be of greater risk, and pesticides in food (-19), sun tanning (-16), asbestos (-24), outdoor air quality (-14) and radon (-6) to be of less risk. The health risk from second-hand tobacco smoke and climate change are similarly perceived by both populations. (Mould was not included in the 2007 national survey.)

## Level of risk to health May 2007

	HIGH %	MODERATE %	SLIGHT/ NONE %	DEPENDS/ DK/NA %
Mould that can grow on walls, ceilings or window sills	68	18	14	1
Second-hand smoke from tobacco	61	25	14	1
Tap water	38	29	32	2
Climate change	34	33	29	4
Pesticides in food	33	30	32	6
Sun tanning	29	30	36	4
Asbestos	26	21	38	15
Indoor air quality	24	38	34	3
Outdoor air quality	19	34	46	1
Radon	9	17	28	47

### Q.2

*I will now read you a list of potential hazards to the health of First Nations people living on reserves. In each case, please tell me whether you think the risk from this hazard is high, moderate, slight, or almost no risk ...*

2 2007 National Radon and Indoor Air Quality Survey, conducted for Health Canada by Environics Research Group.

Mould is currently perceived to be the biggest health risk across all segments of the First Nations on-reserve population, with the exception of those without a high school diploma, who rate mould and second-hand smoke as similarly hazardous. Mould is most apt to be rated as a major health risk by residents of Manitoba (80%), Saskatchewan (73%) and the Atlantic provinces (72%), especially when compared to residents of Quebec (54%).

## Causes of poor indoor air quality

*On a top-of-mind basis, First Nations people living on a reserve identify lack of ventilation as the primary cause of poor indoor air quality. However when further probed, mould and second-hand smoke are most likely to be considered definite causes.*

First Nations people living on a reserve were asked about their knowledge of the major causes of poor indoor air quality (multiple responses were permitted). The cause most commonly identified (without prompting) is a lack of ventilation (40%). About half this number identify mould and moisture (18%), and second-hand smoke (17%) as causes. Approximately one in ten or fewer cite other causes, such as building materials (10%), dust mites (7%), a dirty house (3%) and gas furnaces/appliances (3%). A number of other causes of poor indoor air quality are identified, although no one individual cause is mentioned by more than two percent of respondents. Seventeen percent are unable to identify any cause of poor indoor air quality.

In the 2007 national survey, the general Canadian population was most likely to identify lack of ventilation (34%) and second-hand smoke (23%) as the primary causes of poor indoor air quality. A proportion comparable to the First Nations on-reserve population specifically mentioned mould and moisture (a total 14%).

The primary cause of poor air quality is identified as a lack of ventilation in all regions of the country except Quebec, where there is greater focus on second-hand smoke (33%). B.C. residents are significantly more likely than others to cite mould and moisture (27%), on par with mentions of lack of ventilation (30%).

Lack of ventilation as a cause of poor indoor air quality is more likely to be mentioned by those with at least a high school diploma (46% vs. 31% of those without), and by 30- to 39-year-olds (52%) compared to younger (29%) or older (41%) First Nations people living on a reserve. The likelihood to mention mould and moisture is generally similar across demographic segments of the population, with the exception that mentions of this cause are higher among those with a post-secondary education (22% vs. 14% of those without a high school diploma).

## Major causes of poor indoor air quality May 2007

	%
<b>Net – Lack of ventilation/air circulation</b>	<b>40</b>
Lack of ventilation	31
Poor air circulation/filtration	11
<b>Net – Mould/moisture</b>	<b>18</b>
Mould	15
Moisture/dampness/mildew	4
Second-hand smoke/tobacco	17
Building materials	10
Dust/dust mites	7
Bad housekeeping/dirty house/building	3
Gas furnaces/appliances	3
Other sources	20
dk/na	17

Q.3

*As far as you know, what are the major causes of poor indoor air quality?*

In addition to this unprompted measure, this population was also asked to rate how likely they believe each of eight specific sources are to cause poor indoor air quality in First Nations homes on-reserve today. A majority believe that most of these sources are a definite or likely cause, with two exceptions. For woodstoves and air fresheners, half or fewer in each case (48% for woodstoves and 45% for air fresheners) consider them to be definite or likely causes of poor indoor air quality.

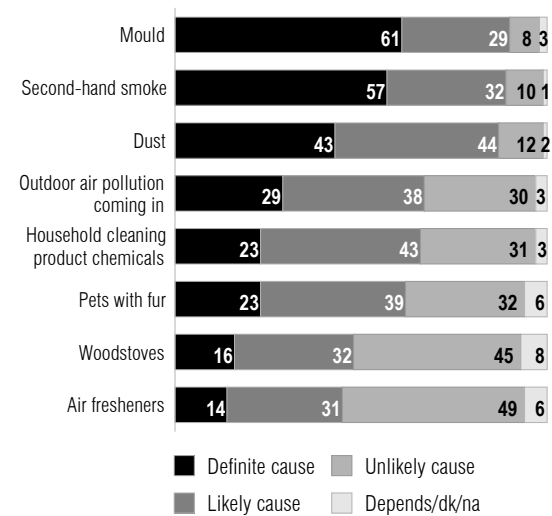
First Nations people living on a reserve are most likely to say that mould (61%) is a definite cause of poor indoor air quality, with only slightly fewer who say the same of second-hand smoke (57%). More than four in ten (43%) consider dust to be a definite cause, while considerably fewer say the same of outdoor air pollutants (29%), household cleaning products (23%) and furry pets (23%).

These ratings are generally comparable to the results of a 2005 national survey on indoor air quality conducted for Health Canada among the general population.<sup>3</sup> By comparison, First Nations people living on a reserve are somewhat more likely to cite mould (+5 points) and dust (+6) as definite causes of poor indoor air quality, and less likely to cite second-hand smoke (-10), household cleaning chemicals (-13) and wood stoves (-5).

Mould is most likely to be considered a definite cause of poor indoor air quality by residents of Manitoba (70%) and Saskatchewan (69%) than by residents of Quebec (55%), Ontario (54%) and B.C. (54%). In Ontario, second-hand smoke is more apt than mould to be identified as a definite cause (60% vs. 54% for mould), while residents of Quebec are equally likely to identify both these two sources as definite causes of poor indoor air quality (57% for second-hand smoke and 55% for mould). Mould is also more likely to be considered a definite cause by women (67% vs. 55% of men) and 40- to 49-year-olds (69%).

## Causes of poor indoor air quality

May 2007



Results are expressed as a percentage

### Q.4

*Would you say that the following are definite, likely or unlikely causes of poor indoor air quality in First Nations homes on-reserve today ...?*

<sup>3</sup> *Canadians' Views on Indoor Air Quality: 2005 National Survey*, conducted for Health Canada by Environics Research Group.

## Assessment of air quality in home

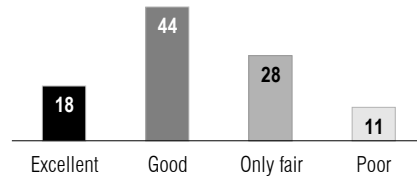
*Six in ten of the on-reserve population rate their indoor air quality as good or excellent, which is well below the proportion of the general population who say the same about their own home. Moreover, six in ten also report current or past concerns about their indoor air quality.*

Rating of air quality in home. First Nations people living on a reserve were asked to rate the quality of the air in their home, as defined by the absence or presence of pollutants. They are moderately positive in their assessment, with six in ten saying the quality of the air in their home is excellent (18%) or good (44%), and four in ten who rate it to be only fair (28%) or poor (11%). This is a less positive assessment than the general Canadian population gave of their homes in 2007, when close to nine in ten said their indoor air quality was excellent (26%) or good (61%).

Among First Nations people living on a reserve, perceptions of indoor air quality at home are most positive in B.C. (26% say it is excellent), Quebec (26%) and the Atlantic provinces (24%). Residents of Saskatchewan (17%), Alberta (15%) and Manitoba (14%) are more likely than others (7%) to say their indoor air quality is poor.

Those most likely to say that the air quality in their home is excellent are men (21% vs. 14% of women) and those with household incomes over \$50,000 (23% vs. 14% of those earning \$20,000 to \$30,000 and 12% of those earning \$30,000 to \$50,000). Perceptions that indoor air quality at home is poor increase as household income declines (16% of those earning less than \$20,000) and are most common among those without a high school diploma (16% vs. 8% of those with a college education and 6% of university graduates).

## Perception of indoor air quality May 2007



Results are expressed as a percentage

### Q.5

*How would you rate the quality of the air in your home generally? By air quality I mean the absence and presence of pollutants. Would you say the quality of the air you are breathing in your home currently is excellent, good, only fair or poor?*



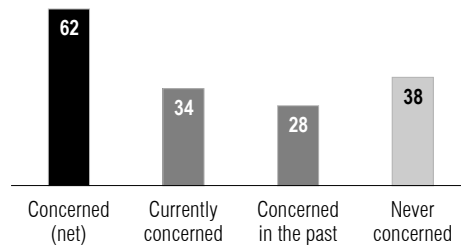
Concern about indoor air quality. First Nations people living on a reserve were asked if they have been concerned about the indoor air quality in their home, currently or at some point in the past. Six in ten (62%) say they are currently (34%) or were previously (28%) concerned about their home's indoor air quality, while four in ten (38%) have never been concerned. This level of concern is considerably higher than that of the general Canadian population. In the 2007 national survey, four in ten (38%) Canadians had concerns about their indoor air quality either currently (13%) or in the past (25%).

On reserves across Canada, overall concern about indoor air quality is highest in Manitoba (73%) and lowest in Quebec (42%). However, residents of Saskatchewan are most likely to be currently concerned about their indoor air quality (48% vs. 33% in Ontario, 30% in B.C., and 11% in Quebec).

Overall concern about home air quality (either past or present) is higher among those with a post-secondary education (70% vs. 54% of those without), and those in the middle income brackets (72% of those earning \$20,000 to \$50,000) compared to those earning more (60%) or less (54%). Concern is also higher among First Nations people living on a reserve who are 30 years of age and older (65%) compared to younger people (52%).

Indoor air quality concern is strongly associated with people's actual rating of the air quality in their home. The likelihood to have a current concern about indoor air quality is significantly higher among those who rate their indoor air quality as fair or poor (58%) compared to those who say it is good (25%) or excellent (4%).

### Concern about indoor air quality at home May 2007



Results are expressed as a percentage

#### Q.6

*Currently, or at some point in the past, have you been concerned about the indoor air quality in your home?*



## Basis for identifying poor indoor air quality

*First Nations people living on a reserve rely primarily on the presence of health symptoms as the basis on which to detect poor indoor air quality.*

Despite their relatively high concern about the indoor air quality in their homes, First Nations people living on a reserve are not entirely certain about how to identify the presence of poor indoor air quality. When asked (unprompted, without providing response categories) how they would know when there is poor indoor air quality where they live, First Nations people on-reserve are most likely to say they would know when they experience negative health effects, mentioned by a net total of one in three (32%). This includes health effects such as breathing problems (15%), and aggravation of allergies or asthma (11%), or other health symptoms (7%).

About one in four (23%) say they would rely on their sense of smell, and 17 percent would use visual cues. Small proportions think they would “feel” the poor air quality (6%), that the air would be stale or stuffy (5%), or that they would experience a dry throat (3%) or sneezing (3%). Only three percent mention an air quality monitor. A total of sixteen percent say that they cannot tell when there is poor indoor air quality where they live.

Overall, the cues that First Nations people living on reserve use as their basis for detecting poor indoor air quality are quite similar to those mentioned by the general Canadian population in the 2005 national survey.

The reported basis for identifying poor indoor air quality is very consistent across the country and across demographic segments, with just a few variations. Residents of the Atlantic provinces (46%) are more apt than residents of B.C. (31%), Saskatchewan (29%), Alberta (27%) and Quebec (25%) to identify poor indoor air quality by the negative health effects experienced. Identification from negative health effects is also more likely to be reported by women (36% vs. 28% of men) and those with at least a high school diploma (37% vs. 22% of those without). Those who rate their indoor

## How you know when there is poor indoor air quality where you live

May 2007

	%
<b>Net – Negative health effects</b>	<b>32</b>
Affects lungs/breathing/short of breath	15
Aggravates allergies/asthma	11
Health symptoms are aggravated	7
Get sick/don't feel well/colds	4
Children get ill	3
Can smell it	23
Can see problems	17
Can feel it	6
Stale/dry/stuffy/stagnant air	5
Air quality monitor	3
Sore/dry throat/mouth/coughing	3
Sneezing/stuffed up/itchy/stuffy nose	3
Other	19
Cannot tell/dk/na	16

### Q.7

*How would you know when there is poor indoor air quality where you live? Anything else?*

air quality as less than excellent are more apt to say they can tell poor indoor air quality from breathing problems (16% vs. 9% of those giving a rating of excellent) or by stale or stuffy air in the home (6% vs. 1%). Finally, the likelihood to acknowledge that they do not know when there is poor indoor air quality is higher among those in the lowest income bracket (17% of those earning under \$20,000 vs. 9% of others) and those without a high school diploma (20% vs. 9% of those with more education).

## General effect of poor indoor air quality on health

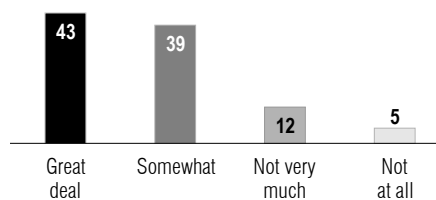
*Most First Nations people living on a reserve believe that poor indoor air quality has at least some impact on the health of people in their communities.*

While the First Nations on-reserve population does not consider indoor air quality to be a particularly high health risk (as reported previously), they nonetheless acknowledge a connection between poor indoor air quality and human health. More than four in ten (43%) say that poor indoor air quality affects the health of people in on-reserve communities “a great deal,” and a similar proportion (39%) believe it “somewhat” affects health. A minority (17%) say it has little or no impact at all.

By comparison, in 2005, the general Canadian population was less likely to hold the view that poor indoor air quality affects health a great deal (6 points lower), but more likely to make an overall association between the two (88% said a great deal or somewhat). It is notable that perceptions of First Nations people living on-reserve about health impacts are relatively similar to the general population, despite the fact that their level of concern about their personal indoor air quality is considerably higher. This may be due to a broader understanding on the part of Canadians about how their health is affected by external factors.

The view that indoor air quality affects health a great deal is significantly higher in Manitoba (54% vs. 40% in other regions). Residents of Saskatchewan are most likely to say that it has little impact (19% vs. 11% in other regions), despite the fact that they are most apt to be currently concerned about their home’s indoor air quality, although it is unclear why this is the case.

## Perceived effect of poor indoor air quality on health of First Nations people on-reserve May 2007



Results are expressed as a percentage

### Q.8

*To what extent do you believe poor indoor air quality affects the health of First Nations people living on reserves? Does it affect them ...?*

The perception that indoor air quality is strongly associated with health effects increases with level of education, from three in ten (30%) of those without a high school diploma to six in ten (58%) of those with a university education. It is also more common among those with incomes over \$20,000 (48% vs. 36% of those earning less than \$20,000) and those aged 30 years or older (48% vs. 25% of younger people).

The belief in a strong link between indoor air quality and health is also higher among those who rate their home’s indoor air quality as fair or poor (52%) rather than good (38%) or excellent (34%), and among those expressing current concern about their indoor air quality (61% vs. 24% of those who have never had concerns).

## MOULD AWARENESS AND KNOWLEDGE

To develop effective policies and communications messages around mould, it is important to assess the current level of knowledge (or lack of it) among First Nations people living on a reserve. Survey respondents were asked to rate their level of knowledge, followed by questions probing actual knowledge in terms of major causes of mould, where in a home mould can be found, how to detect mould, and the types of health problems associated with mould. For clarity, mould was described as a type of fungi that can sometimes grow in homes that can cause poor indoor air quality, and it was specified that the questions were not referring to the type of mould that can grow on food or in refrigerators.

### Rating of personal knowledge level

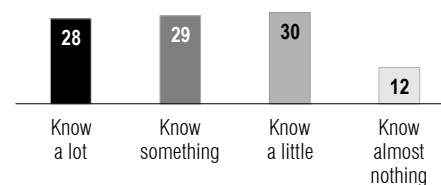
*More than half say that they know at least something about mould, compared to four in ten who know little or nothing about the topic.*

Self-rated level of knowledge about mould varies across the First Nations on-reserve population. About three in ten each say they know a lot (28%), something (29%) or a little (30%) about mould, while 12 percent acknowledge that they know almost nothing about the topic.

Across Canada, residents of Saskatchewan (35%), B.C. (33%) and Manitoba (32%) are most likely to say they know a lot about mould, and residents of Ontario (19%) and Quebec (16%) are least likely to do so. Self-rated knowledge is highest among those with a post-secondary education (33% vs. 23% of those without). Those with household incomes under \$20,000 are most likely to say they know a little or almost nothing about mould (55% vs. 37% of those in higher income brackets).

Finally, self-rated knowledge about mould increases with concern about poor indoor air quality in the home. Four in ten (38%) of those who are currently concerned about their indoor air quality say they know a lot about mould, compared to 27 percent of those who have been concerned in the past, and only 19 percent of those who have never been concerned.

### Rating of personal knowledge of mould May 2007



Results are expressed as a percentage

#### Q.9

*I now have some questions about mould. Mould is a type of fungi that can sometimes grow in homes that can cause poor air indoor quality. I do not mean the type of mould that can grow on food or in refrigerators. Would you say you know a lot, know something, know a little, or know almost nothing at all about this kind of mould?*

## Major causes of mould

*First Nations people living on a reserve identify moisture as the primary cause of mould in the home.*

First Nations people living on a reserve were asked about their knowledge of the major causes of mould in the home (multiple responses were permitted). Most people understand that moisture is the main contributor to mould (67%), whether it comes from daily activities, or from specific problems like foundation or plumbing leaks. In addition, some people mention that mould can be caused by poor ventilation (26%) and poor home construction (18%). Other causes of mould are identified by fewer than five percent of respondents, including poor air circulation, poor insulation or building materials, poor cleaning habits or temperature changes. Only six percent could not identify any cause of mould in the home.

Excess moisture is identified as the primary cause of mould in all regions, although most commonly by residents of the Atlantic provinces (82%) and least often by Manitoba residents (54%). Albertans (24%), together with residents of Saskatchewan (23%) and Manitoba (21%), are more likely than those living in Ontario (13%), Quebec (12%) and the Atlantic provinces (6%) to focus on poor housing construction.

Excess moisture is more likely to be mentioned as a cause of mould by those with incomes over \$20,000 (72% vs. 61% of those earning less) and those with at least a high school diploma (72% vs. 57% of those without). Those who report greater self-knowledge of mould are no more likely to identify moisture as a cause (67% of those who say they know a lot about mould), but are more apt to mention poor ventilation (30%) and poor housing construction (27%).

## What causes mould in the home May 2007

	%
<b>NET – Moisture</b>	<b>67</b>
Too much moisture/dampness/humidity	47
Water leaking in through foundation/walls/roof	21
Plumbing leaks	6
Moisture produced through daily activities	5
Moisture that collects in stored items	2
Poor ventilation in home	26
Poor construction	18
Poor circulation/air quality	4
Poor insulation/building materials	4
Poor cleaning/housekeeping	3
Temperature changes	3
Other	15
Cannot tell/dk/na	6

### Q.10

*As far as you know, what are the major causes of mould in the home? Anything else?*

## Mould in homes

*First Nations people living on a reserve identify basements and bathrooms as the most common locations for mould, and rely on seeing a problem to know that mould exists.*

Where mould is found in homes. First Nations people living on-reserve have a fairly good idea about where in the home mould would most likely be found. The two areas most commonly mentioned are the basement (36%) and bathrooms (31%). Somewhat fewer identify walls, ceilings and floors (20%), and around windows (17%) as common locations for mould. One in ten or fewer cite other locations, such as room corners (11%), attics or storage areas (9%), kitchens (8%), bedrooms (7%), under floors or inside walls (6%), near plumbing leaks (3%) or on the roof (3%). A wide range of other possible locations are mentioned, but none by more than two percent of the population.

Awareness of probable locations for mould varies across the country. Residents of Quebec (59%) are most likely to say mould would be found in basements, while residents of Manitoba (21%) and B.C. (15%) are least likely to do so. Manitoba residents are also less likely than others to mention bathrooms as a location for mould (20%), and more apt to mention walls, ceilings and floors (30%), and room corners (25%).

Other than regional variations, there are few differences across the population in terms of people's awareness of where mould could be found. Women (35% vs. 27% of men) and those 50 years of age and older (41% vs. 28% of those under 50) are more likely than others to mention bathrooms.

## Where mould is found in homes

May 2007

---

	%
Basement	36
Bathrooms	31
On ceilings/walls/floors	20
Around windows	17
Corners	11
Attics/storage areas	9
Kitchen	8
Bedrooms	7
Under/inside floor/walls	6
Plumbing/leaks	3
On roof	3
Other	16
dk/na	2

---

### Q.11

*From what you may know or have heard, where in the home would mould most likely be found?*

How mould can be detected. First Nations people living on a reserve were asked (unprompted) how they would know when there is mould in the home. There is much more certainty about how they would detect mould compared to how they would detect poor indoor air quality generally. The most commonly mentioned cues by far are visual, with three-quarters (77%) of the population indicating that they would see signs of mould. Four in ten (40%) say they would be able to smell it. A few other ways to detect mould are mentioned, such as being able to feel the moisture (6%), and suffering health effects such as breathing problems (5%) or aggravated allergies (5%).

The sight of mould is cited as the primary basis for identifying a problem across the country and across demographic segments, but is somewhat less common among those without a high school diploma (69% vs. 81% with more education) and those with household incomes under \$20,000 (72% vs. 81% of those in higher income brackets). It is also lower among those with little or no knowledge of mould (74%) compared to those with a lot or some knowledge (81%).

### How you know when there is mould in your home

May 2007

	%
Can see it	77
Can smell it	40
Can feel it/feel moisture	6
Affects lungs/breathing/short of breath	5
Aggravates allergies	5
Other health problems/headaches	3
Other	10
Cannot tell/dk/na	4

#### Q.12

*How would you know when there is mould in your home? Anything else?*

### Health effects of mould

*A majority of First Nations people living on a reserve readily associate mould with asthma and other respiratory illnesses, and consider the young and the old to be most at risk.*

First Nations people living on a reserve were asked to identify the specific types of health problems that are most likely to occur as a result of mould in the home (asked unprompted, without providing response options). A wide range of potential health problems are identified, although by far the most common are respiratory or breathing problems, which are mentioned by seven in ten (72%) of the population. This includes references to specific ailments such as asthma or bronchitis, as well as to respiratory problems in general.

Aside from respiratory problems, few other health problems are associated with mould. Eleven percent mention allergies, while small percentages mention health issues such as headaches (6%), skin rashes (5%)

### Specific health problems resulting from mould in the home

May 2007

	%
<b>NET – Respiratory illness/problems</b>	<b>72</b>
Asthma	30
Breathing problems	26
Respiratory problems (non-specific)	20
Other respiratory/lung problems	16
Bronchitis	6
Allergies	11
Headaches	6
Skin rashes/irritation	5
Cancer	5
General health problems (non-specific)	5
Colds/flu/fever	4
Sinus problems	3
Other	20
None/dk/na	15

#### Q.13

*What, if any, specific types of health problems do you think are most likely to result from mould in the home? Anything else?*

and cancer (5%). Fifteen percent are unable to suggest any type of health problem that might occur as a result of mould in the home.

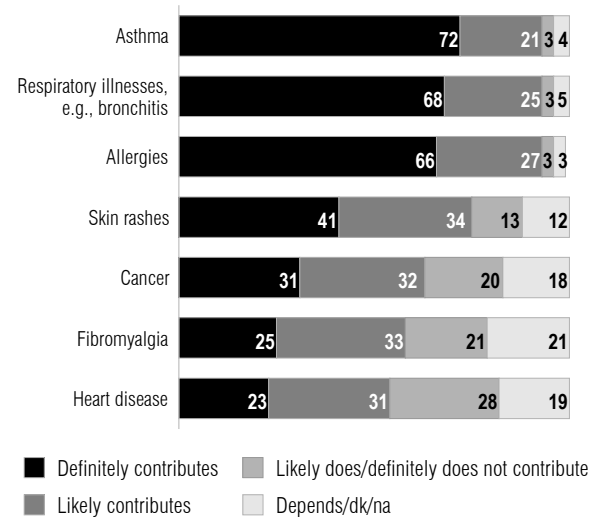
The types of health problems associated with mould are generally similar across the population, with a few variations. Residents of the Atlantic provinces (84%), Ontario (77%), Manitoba (76%) and Quebec (75%) are more likely to identify respiratory illness, while Albertans (62%) are least likely to do so. Respiratory illness and allergies are both more apt to be mentioned by those with higher socio-economic status (income and education), women and older First Nations people. By comparison, those with less education and lower incomes, and younger First Nations people, are more likely than others to be unable to identify any health problems related to mould. Notably, those with children under 16 years of age in their household are no more likely than others to identify any health effects of mould.

In addition to the types of health problems that they can identify unaided, the survey examined the extent to which First Nations people living on a reserve believe that mould can contribute to each of seven types of illnesses when specifically prompted. The purpose of this was to go beyond evaluating awareness and knowledge, by measuring the strength of opinions about the associations between mould and health.

Consistent with their unaided responses, First Nations people living on a reserve are most certain about the impact of mould on asthma and other respiratory illnesses. More than nine in ten say that mould definitely (72%) or likely contributes (21%) to asthma, while an identical proportion associate it with respiratory illnesses, although in this case slightly fewer say it “definitely contributes” (68%). Although very few mentioned allergies on an unaided basis, when specifically asked, more than nine in ten also say that mould definitely (66%) or likely (27%) contributes to this health problem.

There is less consensus when considering other types of health problems. Four in ten (41%) believe that mould definitely contributes to skin rashes, while three in ten (31%) say the same of cancer. About one-quarter say mould definitely contributes to fibromyalgia (25%) and heart disease (23%). In each case, the remainder are

## Health impacts of mould May 2007



Results are expressed as a percentage

### Q.14

*What about the impact that mould can have on different types of health problems? Do you think mould definitely, likely, likely does not or definitely does not contribute to each of the following ...?*

more likely to say mould is a likely contributor than to say it is not a contributor, or that they are unsure.

Perceptions of the link between mould and the health effects listed previously are generally consistent across the population. The connection with asthma and respiratory illness is most likely to be identified by residents of the Atlantic provinces, while the association with heart disease and skin rashes is most likely to be identified by residents of Saskatchewan. The likelihood to cite respiratory illness is lower among residents of Alberta and B.C. Asthma, allergies and respiratory illness are more likely to be identified by those with a post-secondary education than by those without. For several of the health problems presented, the link to mould increases with people’s self-reported knowledge about the issue.



People most at risk from health effects. Consistent with their general awareness that mould can cause health problems, most First Nations people living on a reserve can also identify (without prompting) at least one or two groups that they believe are particularly vulnerable to such problems, primarily the elderly/seniors (62%), and children and infants (58%). The next most commonly mentioned group is people with pre-existing health conditions (25%), while two in ten (19%) say that everyone is equally at risk from mould in the home.

All segments of the First Nations on-reserve population identify the same two primary at-risk groups. The elderly are more likely to be emphasized by residents of Ontario (70%), those with at least a high school diploma (68% vs. 51% of those without), those with household incomes over \$50,000 (74% vs. 61% of those with lower incomes), and those between the ages of 30 and 49 (68% vs. 60% who are younger and 56% who are older). Children are most apt to be seen as vulnerable by women (65% vs. 51% of men), those with a post-secondary education (63% vs. 53% of those with less education), and those under 50 years of age (63% vs. 49% of those over 50). First Nations people on-reserve who report a greater level of knowledge of mould are more likely to mention the elderly (69% of those with a lot or some knowledge), children (63% of those with a lot or some knowledge), and people with health problems (32% of those with a lot of knowledge) as being at risk from mould.

## Types of people most at risk from mould May 2007

	%
Elderly/seniors	62
<b>NET – Children/infants</b>	<b>58</b>
Children	43
Infants	26
<b>NET – People with health problems</b>	<b>25</b>
People with pre-existing health problems	8
People with asthma	8
People with low/weak immune systems	7
People with lung disease/conditions	5
People with allergies	5
Everyone equally	19
Young people/adolescents	9
Aboriginal people/those on reserves	2
Other	9
None/dk/na	7

### Q.15

*What types of people do you believe are most likely to experience health effects from mould in the home? Anyone else?*



## How to prevent mould

*No more than one in five can identify any established strategy for preventing mould in the home, such as reducing excess moisture, increasing ventilation or keeping the home clean.*

Despite their relatively good understanding that excess moisture causes mould, First Nations people living on a reserve are less certain about how mould can be prevented. The most commonly mentioned methods are to reduce moisture (21%) by fixing leaks or using a dehumidifier, increase ventilation in the home (21%) and keep the home clean (19%). Twelve percent say that problem areas should be renovated or repaired, while fewer than one in ten mention other solutions such as calling in an inspector (7%), removing existing mould (5%), cleaning drains in basement floors or bathrooms (4%), and replacing insulation (4%). Two in ten (19%) cannot identify any strategies for preventing mould from growing in the home.

Across the country, residents of the Atlantic provinces are most likely to mention increasing ventilation to prevent mould (40%), while residents of Alberta (9%) are least likely to do so. Those living in the Atlantic provinces (30%), Quebec (25%) and Alberta (24%) are more likely than others to mention keeping the house clean.

Using increased ventilation to prevent mould is more apt to be mentioned by those with a post-secondary education (26% vs. 18% of those with less education), those with household incomes over \$20,000 (27% vs. 14% of those earning less), people 30 years of age and older (24% vs. 13% of younger respondents), and those with a lot or some mould knowledge (25% vs. 17% with less knowledge). Those with a high school degree or less (25%), those earning under \$20,000 a year (23%), 18- to 29-year-olds (28%) and those with little or no mould knowledge (27%) are most apt to say they do not know how to prevent mould from occurring in the home.

## What can be done to prevent mould in the home May 2007

	%
<b>NET – Reduce moisture</b>	<b>21</b>
Reduce moisture/dampness/humidity	9
Fix leaks in foundation/floor/walls/roof	8
Fix plumbing leaks	3
Use a dehumidifier	3
Use bathroom/kitchen fan	3
Increase ventilation/use HRV ventilator/exchanger	21
Keep home clean/vacuum regularly	19
Renovate/repair home (general)	12
Request inspection/call professional	7
Remove/clean existing mould	5
Regularly clean drains in basement floor/bathroom	4
Use bleach	4
Fix/replace insulation	4
Other	25
Nothing/dk/na	19

### Q.16

*Do you know what, if anything, people can do to prevent mould in the home? Anything else?*

## Steps to address mould in the home

*Aside from one in three who would clean up mould themselves, few First Nations people living on-reserve can identify strategies for removing mould once it occurs.*

While First Nations people living on a reserve demonstrate relatively limited understanding of how to prevent mould, how knowledgeable are they about actions they can take to remove the mould in their homes should it appear? Those who have (or had) a mould problem but took no efforts to remove it, and those who have never had mould in their current home, were asked how they would go about getting rid of mould.

(Clean-up efforts by those who have experienced mould are addressed in a later section of this report.)

The most common strategy identified is to try to clean it up (32%), mostly by using a strong detergent or bleach. Smaller proportions say they would remove either the mould or the source of the mould (15%), renovate the contaminated area (13%), or request help from outside sources such as a professional or an environmental health officer (12%). However, more than one-third (35%) of this group say there is nothing that can be done to clean up mould, or don't know how to go about doing so.

## How to get rid of mould

May 2007

	TOTAL (n=455) %	HAVE MOULD BUT NO EFFORTS TO REMOVE (n=121) %	NEVER HAD MOULD IN CURRENT HOME (n=334) %
<b>Net – Clean</b>	<b>32</b>	<b>44</b>	<b>28</b>
Clean with strong detergent	20	25	17
Clean with bleach	8	15	6
Scrape/wipe off	4	5	3
Clean with baking soda	1	–	1
Clean (unspecified)	1	–	1
<b>Net – Remove mould/source</b>	<b>15</b>	<b>8</b>	<b>17</b>
Cut out and replace drywall	10	6	11
Remove source of moisture/humidity	5	1	6
Throw out contaminated objects	2	1	3
<b>Net – Request/employ help</b>	<b>12</b>	<b>4</b>	<b>16</b>
Call/hire a professional	5	1	7
Call in environmental health officer	4	–	6
Request help from Band Office	2	3	2
Bring to attention of Housing Manager	2	–	3
Renovate contaminated area	13	13	13
Increase ventilation	7	6	7
Paint over it	2	2	2
Other	4	5	6
Something can be done but not sure what	2	2	2
Nothing can be done/dk/na	35	34	35

### Q.33.1 & Q.33.2

*And if mould were to grow in your home, do you know what, if anything, you can do to get rid of it? Anything else?*

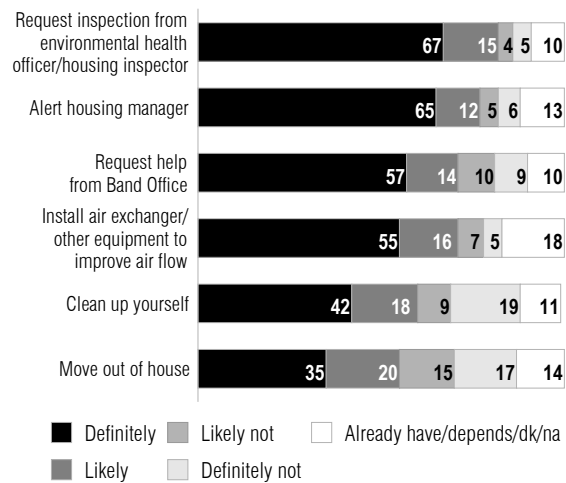
*Subsample: Those who have mould but have done nothing to get rid of it, and those who have never had mould in their current home*

It is notable that those who have not taken steps to address the mould in their homes are more apt to say they would clean the mould up (44%), since hesitation to do so may be contributing to their ongoing mould problem. Those who have never had mould in their current home are more likely to say they would remove the mould or the source itself (17%), or approach an outside source for help (16%). However, in both cases, a similar proportion do not know of any specific way to go about addressing a mould problem.

The survey also explored the likelihood with which First Nations people living on a reserve who have never had mould in their current home would take each of six steps if they suspected they had a mould problem. This group is most likely to say they would request an inspection from an environmental health officer and/or the housing inspectors (67% definitely would) or bring the problem to the attention of the Housing Manager (65%). A majority also say they would request help from the Band Office (57%), or install a mechanical air exchanger or other equipment designed to improve air flow (55%). Fewer people are as likely to clean up the mould themselves (42%), or to move out of their home, either to a family member's house or off-reserve (35%).

The likelihood of taking these steps is very consistent across regions and population segments. Residents of Alberta (88%) are more likely than others (64%) to say they would request an inspection from the environmental health officer or housing inspector, while those living in Saskatchewan (50%) or Alberta (56%) are more apt to say they would move out of their homes.

## Likelihood of taking action if suspected mould in the home May 2007



Results are expressed as a percentage

### Q.34

*If you suspected that you had mould in your home, would you definitely, likely, likely not or definitely not ... Install a mechanical air exchanger or other equipment designed to improve the air flow in your home ... Request help from the Band Office ... Bring the problem to the attention of the Housing Manager ... Clean up the mould yourself ... Request an inspection from the environmental health officer and/or the housing inspector ... Move out of the house, either to a family member's house or off-reserve?*

*Subsample: Those who have never had mould in their current home (n=334)*



## EXPERIENCE WITH MOULD

An important aspect of this survey is to identify the extent to which First Nations people living on a reserve have had experience with mould, what health effects they have suffered as a result, and what steps, if any, have been taken to remove the mould.

### Incidence of mould

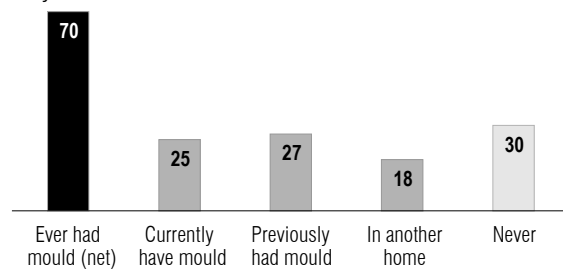
*Seven in ten First Nations people living on a reserve have had mould where they live, and one in four say mould is currently present in their home.*

A majority (70%) of First Nations people living on a reserve report having lived in a home with mould at one time or another. Of this group, one in two say there is mould currently present in their home (25%) or that they have had it at some point since they have been living there (27%), and another two in ten (18%) say they had mould in the home they lived in previously. Only three in ten (30%) of the population say they have never had mould in either their current or previous home.

Across the country, seven in ten or more residents in each region report having any experience with mould, with the exception of Quebec, where only four in ten (42%) say they currently have or have previously had such a problem. The likelihood to report ever having had a mould problem is higher among women (75% vs. 65% of men), 18- to 49-year-olds (73% vs. 64% of those 50 years and older), and those with household incomes under \$50,000 (74% vs. 64% of those earning more).

The likelihood to *currently* have mould is highest in Manitoba (38%), and lowest in Quebec (10%). It is also higher among people with household incomes under \$30,000 (31% vs. 20% of those with higher incomes), women (31% vs. 20% of men) and those

### Personal experiences with mould in the home May 2007



Results are expressed as a percentage

#### Q.18

*Is mould currently present in your home, or have you ever had mould in your home since you have been living there?*

#### Q.19

*Did you ever have mould in the house you lived in before your current house?*

*Subsample: Never had mould in the home*

with children under 16 in their household (28% vs. 22% of others).

As might be predicted, those who have ever experienced mould in their home, and particularly those who currently have mould, differ from those who have never had mould in a variety of ways. They are more likely to identify mould as a health risk for First Nations people living on-reserve, and to identify it as a cause of poor indoor air quality. They are more apt to rate their own indoor air quality as only fair or poor, and to say they know when indoor air quality is poor due to negative health effects. They give a higher rating for their level of knowledge of mould than those who have never had mould, although they are no more likely to be knowledgeable about the causes of mould or where

to find it in the home (these levels are relatively high among most people). In terms of health effects, they are more likely to believe that mould causes problems such as respiratory illness, asthma and allergies, and to identify the elderly and children as most vulnerable to mould. Finally, those who have never had mould are more likely to say they do not know how to prevent it from occurring.

## Frequency and duration of mould

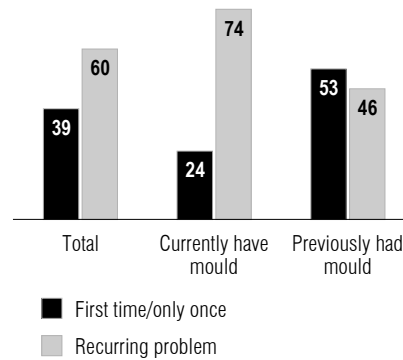
*Six in ten say their mould problem is a recurring one. This is more common among those who currently have mould, most of whom have had this problem for five years or more.*

First Nations people living on a reserve who currently have, or have previously had, mould in their current home were asked whether it was recurring problem or if it had only occurred one time. Six in ten (60%) say it is a recurring problem, although this is much more likely among those who currently have a problem (74%) than among those who previously did (46%). Manitoba residents (who are most likely to have a current mould problem) are more apt than others to say that their mould problem is a recurring one (74%). Perhaps not surprisingly, having a recurring mould problem is associated with having a greater reported knowledge of mould (65% of those with at least some knowledge vs. 51% of those who have little or none).

Those with mould experience in their current home were also asked about the length of time they had the problem. The reported duration varies significantly depending on whether mould currently exists or had previously occurred. Half (52%) of those who *currently* have a problem say they have had mould for five or more years, while more than one-third (37%) have had mould between one and four years. Only ten percent (10%) of this group report that the mould problem they currently have has lasted less than one year.

Those who *previously* had mould in their current home are most likely to say they had it for less than six months (45%), with an additional eight percent who had it between six months to less than one year. One-quarter (24%) say they had mould between one to four years, while 16 percent say it lasted for five or more years.

## Recurring versus one-time-only problem May 2007



Results are expressed as a percentage

### Q.20

*Is this the first time you have had mould, or is it a recurring problem?*

*Did you have mould only one time, or was it a recurring problem?*

*Subsample: Currently have or previously had mould in their current home (n=366)*

## Duration of mould problem May 2007

	TOTAL (n=366) %	CURRENTLY HAVE MOULD (n=176) %	PREVIOUSLY HAD MOULD (n=190) %
Less than six months	26	7	45
Six months to less than one year	5	3	8
1-2 years	17	19	16
3-4 years	13	18	8
5-6 years	9	13	5
7-8 years	7	12	2
9-10 years	9	13	6
11 years or more	9	14	3
dk/na	5	1	8

### Q.21

*For how long have you had mould in your home?*

*For how long did you have mould in your home?*

*I'd like to ask you about the most recent time you had mould in your home. For how long did you have it?*

*Subsample: Currently have or previously had mould in their current home*

## Location and size of mould

*First Nations households have encountered mould patches in various sizes from small to large, and are most likely to have them in their bathrooms or basement.*

Those who have experienced mould in their current home are most likely to report that the mould appeared in bathrooms (35%) or the basement (35%), followed by bedrooms (27%). Other locations in which people report having mould are the living room (11%), kitchen (11%), around windows (10%), and in attics and storage areas (4%). Three percent report that they had mould everywhere throughout their home. Those who currently have mould are more likely to say it is in the bathrooms (41%) than are those who had a problem in the past (30%).

First Nations households are faced with mould patches in various sizes and numbers. When asked to characterize the mould patch, First Nations people living on a reserve who have experienced a problem are most apt to describe it as small patches, either here or there (26%), or growing in lots of different places (16%). One in four (23%) say they have (or had) a medium-sized patch in just one or two places, and three in ten (30%) say they have (or had) a large patch growing in one or more places. Those who currently have a mould problem are more likely to describe it as a large patch (36% vs. 25% of those who previously experienced mould).

## Location of mould problem May 2007

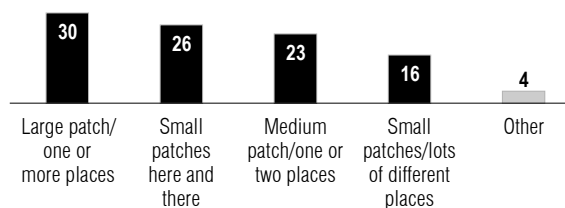
	TOTAL (n=366) %	CURRENTLY HAVE MOULD (n=176) %	PREVIOUSLY HAD MOULD (n=190) %
Bathrooms	35	41	30
Basement	35	34	36
Bedrooms	27	22	31
Living room	11	14	8
Kitchen	11	16	6
Around windows	10	13	7
Attics/storage areas	4	3	5
Everywhere	3	5	2
On walls/ceilings/floors	3	3	3
Corners	3	4	3
Other	15	20	10

### Q.22

*In what rooms or locations (does/did) the mould appear?*

*Subsample: Currently have or have previously had mould in their current home*

## Description of mould problem May 2007



Results are expressed as a percentage

### Q.23

*Which of the following best describes the size of the mould ...?*

*Subsample: Currently have or have previously had mould in their current home (n=366)*

## Cause of mould problem

*Three in four households have identified the cause of the mould in their home, which is most likely to be associated with excess moisture from leaks, flooding or daily activities.*

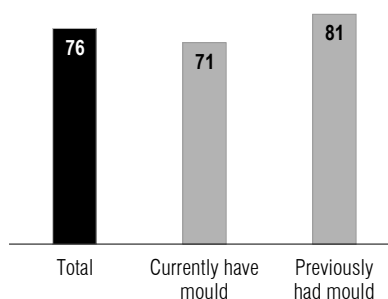
Most (76%) of those who have experienced mould in their home have figured out what is or was causing the problem. This proportion is higher among those who previously had mould (81%), compared to those who currently have it (71%). (Presumably the former group no longer has mould because they are more likely to have identified the cause and subsequently addressed the issue.)

The likelihood to have identified the problem is also higher among those with a university education (85% vs. 70% of those without a high school diploma), those 50 years of age and older (83% vs. 66% of those under 30), and those who say they have a lot of knowledge about the topic of mould (85% vs. 72% of those with some, little or no knowledge).

Seven in ten (72%) of those who have identified the cause of the mould cite a moisture-related problem, such as too much moisture generally, water leaking through the foundation, plumbing leaks, flooding or sewer back-ups, or moisture produced by daily activities. Other causes include poor ventilation (16%), poor insulation (10%) and poor construction (9%). These causes do not differ significantly between those who currently have mould and those who previously had it.

## Identified cause of mould

May 2007



Results are expressed as a percentage

Q.24

*Have you figured out what is causing the mould?*

*Did you figure out what was causing the mould?*

*Subsample: Currently have or have previously had mould in their current home (n = 366)*

## Cause of mould problem

May 2007

	TOTAL (n=278) %	CURRENTLY HAVE MOULD (n=124) %	PREVIOUSLY HAD MOULD (n=154) %
<b>NET – Moisture</b>	<b>72</b>	<b>76</b>	<b>69</b>
Too much moisture/ dampness/humidity	25	30	21
Water leaking in through foundation, etc.	24	26	23
Plumbing leak	15	18	12
Flooding/sewer back-up	7	5	8
Moisture produced by daily activities	6	5	7
Condensation on windows	3	3	2
Poor ventilation in home	16	15	16
Poor insulation/ construction materials	10	12	9
Poor construction	9	10	7
Poor air quality/circulation	3	2	5
Other	4	5	5
dk/na	1	–	1

Q.25

*What (is/was) it?*

*Subsample: Have figured out what is causing/caused mould in their current home*



## Health effects of mould problem

*One in two First Nations on-reserve households report experiencing some type of health effects from the mould in their home. These are primarily in the form of asthma, and are most likely to have been associated with mould, based on a doctor's diagnosis.*

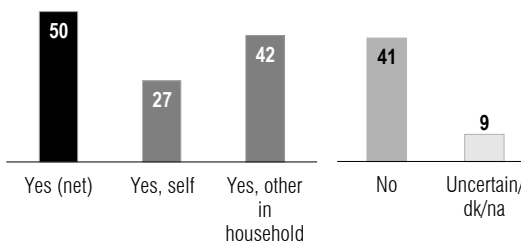
To what extent have First Nations people living on a reserve experienced health effects that can be attributed to mould in their home? Of those who have experienced mould (either currently or previously), a net total of one in two (50%) report that they themselves (27%) or someone else in their household (42%) has experienced some type of physical or health problems that might be attributed to mould in the home. Among those who currently have mould, the proportion of households where someone is experiencing any health effects increases to six in ten (60% vs. 42% of those who previously had mould).

Across the country, residents of B.C. (63%) and Quebec (67%) are most likely to report a health problem associated with mould in their household, while residents of Ontario (40%), Alberta (37%) and the Atlantic provinces (37%) are least likely to do so. The proportion reporting such health problems is higher among those with a post-secondary education (61% vs. 39% of those with less education), those with household incomes between \$20,000 and \$30,000 (64% vs. 46% of those earning more or less), women (56% vs. 44% of men), and those with children under 16 in the household (55% vs. 44% of those without).

First Nations people living on a reserve who report some type of household health effect from mould were asked specifically what types of health problems they or others in their household had encountered. This group is most likely to mention asthma (37%). Smaller proportions mention shortness of breath (16%), allergies (12%), bronchitis (12%), other respiratory problems (12%) or skin rashes (11%). A wide variety of other health problems are identified, but none by more than eight percent of this group.

## Personally experienced health effects from mould

May 2007



Results are expressed as a percentage

### Q.26

*Have you or someone else in your household experienced any type of physical or health problems that might be attributed to mould in the home?*

*Subsample: Currently have or have previously had mould in their current home (n=366)*

## Household health problems attributed to mould

May 2007

	%
Asthma	37
Shortness of breath	16
Allergies	12
Bronchitis	12
Other respiratory/lung problems	12
Skin rashes/irritation	11
Allergic reactions	8
Ears/nose/throat infection	7
Swelling	7
Arthritis/muscle/bone ache	7
Headaches	6
Runny eyes/nose	4
Sinus problems	4
Other	20
None/dk/na	4

### Q.27

*What type of health problem(s) did {you and/or this other household member} experience?*

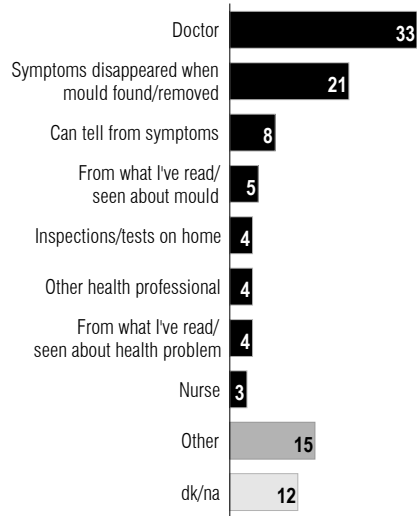
*Subsample: Those who say they or someone else in their household has experienced health problems associated with mould in the home (n=181)*

The types of health problems suffered are generally similar across the population, with a few exceptions. Residents of Saskatchewan who report health problems associated with mould are more likely than others to report shortness of breath (37% vs. 12% in other regions). Asthma is a more common problem among 18- to 29-year-olds (50%) and 40- to 49-year-olds (46%) reporting health problems, and among those with children under 16 in their household (44% vs. 24% of others).

How do people determine that their health problems are caused or aggravated by mould in their home? First Nations people living on a reserve who report health effects associated with mould are most likely to link the two based on a doctor's diagnosis (33%), or on the fact that the symptoms disappeared when the mould was found and removed (21%). Smaller percentages have made this association based simply on the symptoms themselves (8%), or from information they have heard or read about mould (5%) or the specific health problem (4%).

## Basis for linking household health effects to mould

May 2007



Results are expressed as a percentage

Q.28

*And how did {you and/or this other person} know that {this/these} health problem(s) {was/were} due to mould in the home?  
Subsample: Those who say they or someone else in their household has experienced health problems associated with mould in the home (n=179)*

## Efforts to remove mould

*Most First Nations on-reserve households report doing something to get rid of the mould, primarily by trying to clean up the mould patch themselves. Those who have not taken action say they are waiting for outside help, or that they lack money to do so.*

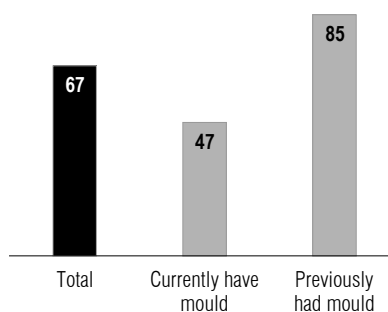
To what extent have First Nations people living on a reserve taken steps to reduce their exposure to mould in the home? Two-thirds (67%) of those who have experienced a mould problem in their current home say that something was done to get rid of the mould. Among those who currently have mould, just under half (47%) have made efforts to remove it. (This proportion is higher among those who previously had mould in their current home – 85% – presumably a key reason why they no longer have mould). However, one-third (34%) of those who did something to get rid of the mould still report having mould currently despite their efforts (77% of those who did not take action also still have mould).

Across the country, residents of Quebec (88%) are most likely to report taking action to remove mould, while residents of Manitoba (57%) and Saskatchewan (56%) are least likely to do so. The likelihood to have taken steps to get rid of a mould problem is associated with socio-economic status; those with at least a high school diploma (73% vs. 55% of those without) and those with household incomes over \$30,000 (77% vs. 59% of those earning less) are more apt to have done something in this regard. The likelihood to have taken action is lower among those who report having a large mould patch (57% vs. 71% of others), although it is unclear whether the size of the patch discouraged people from doing something about it, or if the mould grew to this size due to a lack of effort to remove it.

Within both the group that currently has mould and the group that previously had mould, those reporting health effects from their mould problem are no more likely than others to have made efforts to get rid of it.

## Done something about mould

May 2007



Results are expressed as a percentage

Q.29

*{Has/was} anything {been} done to get rid of the mould?*

*Subsample: Currently have or have previously had mould in their current home (n=366)*

**Who took action.** Those who report that something was done to remove the mould were asked who specifically it was that took action. In most cases, it was the respondent himself or herself who did something to get rid of the mould (55%), while one in four (23%) indicate that it was someone else in the household. A net total of 36 percent employed an outside source, such as a contractor or other tradesperson, the Band Council, an environmental health officer or a Housing Manager. Those who previously had mould (40%) are more likely than those who currently have it (27%) to have used an outside source, suggesting that this may have contributed to the reason they no longer have a mould problem.

Those with a post-secondary education are more likely to say they, themselves, took steps to remove the mould (65% vs. 41% of those with less education). Younger First Nations people on-reserve are more apt to say someone else in the household did something about the mould problem (35% among 18- to 29-year-olds vs. 19% of those 30 years or older).

### Who did something to get rid of mould May 2007

	%
Self	55
Other person in household	23
<b>Net – Outside source</b>	<b>36</b>
Plumber/carpenter/contractor	18
Band Council	11
Environmental health officer	4
Housing Manager	4
Housing directory/office	2
Relatives/friends	6
Other	2
dk/na	3

#### Q.31

*Who was it that did something to get rid of the mould? Anyone else?*

*Subsample: Those who say something was done to get rid of the mould (n=245)*

**Efforts made to remove mould.** Those who say that they or someone else in their household did something to get rid of the mould were asked what specific actions they had taken. They are most likely to have tried to clean away the mould (60%), by using a strong detergent or bleach. One in four (25%) removed either the mould itself (e.g., by replacing the drywall or throwing out objects contaminated with mould) or the source of the moisture causing the mould. Smaller proportions say they renovated their home (11%), improved the ventilation system (9%), repaired or replaced the insulation (4%), or got help from an outside source (3%). Five percent indicated that they painted over the mould patch, which is not a recommended action for dealing with mould.

### What was done to get rid of mould by people in household May 2007

	%
<b>Net – Cleaned</b>	<b>60</b>
Cleaned with strong detergent	35
Cleaned with bleach	15
Cleaned (unspecified)	12
<b>Net – Removed mould/source</b>	<b>25</b>
Cut out and replaced drywall	16
Removed contaminated building materials	6
Removed source of moisture/humidity	4
Threw out contaminated objects	4
Renovated	11
Improved ventilation/humidity/HRV	9
Painted over it	5
Repaired/replaced insulation	4
Requested/employed help	3
Other	3
dk/na	4

#### Q.32

*What did {you/this other household member} do?*

*Subsample: Those who say they or someone else in their household did something to get rid of the mould (n=158)*

Use of protective wear. Two-thirds (65%) of those who say they themselves or someone else in their household took steps to remove the mould indicated that they had used protective wear such as safety glasses or goggles, household rubber gloves, or a dust mask. This proportion is higher among 30- to 49-year-olds (75% vs. 56% of those younger or older) and among those with the most knowledge about mould (82% vs. 56% of those with less knowledge). It is marginally lower among those who have (or had) only small patches of mould here and there (54%), compared to those who have (or had) a greater number of patches or patches larger in size (69%).

Reasons did nothing to remove mould. Those who say that nothing was done to remove the mould were asked the reasons why not. One in three (33%) say that they are waiting for help, either from the Band Council or the Housing Manager, or that they are waiting for renovations to take place. The next most common reason is a lack of money to make the necessary changes to the home (23%). A range of other reasons are provided, such as the perception that it is unnecessary to remove the mould (10%), a lack of knowledge of how to get rid of it (7%), frustration in dealing with a recurring problem (6%), the problem being too big to deal with on their own (5%) or the lack of success professionals had in getting rid of the problem (5%).

## Reasons why nothing was done to get rid of mould May 2007

	%
<b>Net – Waiting for help</b>	<b>33</b>
Waiting for help from Band Council	18
Waiting for renovation	7
Difficulty getting someone to look at it	6
Waiting for help from Housing Manager	3
Lack money	23
Don't need to/not necessary	10
Don't know how to get rid of it	7
Just keeps coming back anyway	6
Too much mould to remove on own	5
Professionals came but did little/nothing	5
Don't have time/too busy	3
Not my responsibility	2
Other	2
dk/na	11

Q.30

*Why not?*

*Subsample: Those who say nothing was done to get rid of the mould (n=120)*



## INFORMATION ABOUT MOULD

---

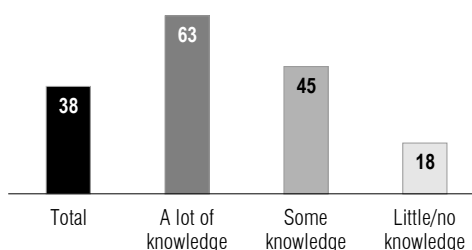
This section of the report looks at awareness of, perceived usefulness of, and confidence in, various sources of mould information among First Nations people living on-reserve. In addition, the survey asked about types of mould information the on-reserve population is most interested in knowing about.

### Previous use of information sources

*Four in ten First Nations people on-reserve report having taken steps to learn about mould, most commonly by consulting the Internet.*

When asked if they have ever taken steps to learn about mould, four in ten (38%) First Nations people living on a reserve say they have done so. The likelihood to have looked for mould information is associated with self-rated knowledge of mould; those who have a lot of knowledge (63%) are significantly more likely than those with little or no knowledge (18%) to say they have taken steps to learn about the topic. Those more likely to have taken steps to learn about mould include those with a post-secondary education (48% vs. 29% of those with less education) and those reporting household health effects from mould (48% vs. 30% of others). The likelihood to have looked for such information does not differ significantly between those who currently have mould (39%), those who previously had it (41%) and those who have never had it (33%).

### Have taken steps to learn about mould By knowledge of mould May 2007



Results are expressed as a percentage

#### Q.35

*Have you ever taken steps to learn about mould?*



Actual and potential information sources. Health Canada was interested in learning about the information sources that this population may have actually used to seek out information about mould, as well as potential sources that might be considered by those who have not looked for such information.

First Nations people living on a reserve who say they have taken steps to learn about mould are most likely to have used the Internet, mentioned by three in ten (28%). A wide range of other sources are named, each mentioned by one in ten or fewer, including the Chief or Band Council (12%), the media (10%), training courses (9%), the community or band health centre (9%), and various literature sources (7%). Six percent specifically say they used the CMHC as a source of information about mould, while four percent mention Health Canada.

The sources used are generally consistent across regions and population segments. The Internet is most likely to have been used by those with at least a high school diploma (35% vs. 9% of those without) and those with household incomes over \$20,000 (35% vs. 15% of those with lower incomes). Interestingly, although Internet use typically varies by age, it does not in this case. Those reporting household health effects from mould are more apt than others to have used the Internet (39% vs. 20%) and to have consulted the Chief and Band Council (17% vs. 6%).

Consistent with the sources actually used, those who have not sought out mould information say that, if they wanted such information, they would be most likely to look on the Internet (39%). Once again, a wide range of other source is mentioned, but none by more than one in ten. This group is more apt to say they would use their local health clinic (10%), and less likely to mention a number of sources including their Chief or Band Council (6%), and the media (1%), compared to those who have actually looked for mould information. The biggest difference between the two groups is that there is a sizeable proportion of those who have not yet looked for information (17%) who are not sure where they would look should the need arise.

Of those who have not looked for mould information, the likelihood to mention the Internet as a potential source is higher among those with at least a high school

## Sources of mould information May 2007

	SOURCES USED (n=264) %	POTENTIAL SOURCES (n=436) %
Internet	28	39
Chief/Band Council	12	6
Media	10	1
School/training courses	9	1
Community/band health centre	9	6
Literature (various)	7	1
Friends/family/colleagues	6	1
CMHC	6	1
Local health centre/clinic	5	10
Health Canada	4	4
Library	4	5
Housing department	3	2
Tradesperson	3	—
Family doctor/general practitioner	3	3
Community health nurse	3	6
Other	12	13
dk/na	3	17

### Q.36

*Where did you look for information about mould?*

*Subsample: Have taken steps to learn about mould*

### Q.38

*If you wanted to get information about mould, where would you be likely to look?*

*Subsample: Have not taken steps to learn about mould, or are unsure*

diploma (48% vs. 26% of those without), those with household incomes over \$20,000 (50% vs. 22% of those earning less), and declines with age (from 55% of 18- to 29-year-olds to 21% of those 50 years and older). In turn, those more apt to say they do not know where they would turn for mould information are those without a high school diploma (26%) and those with household incomes under \$20,000 (22%).

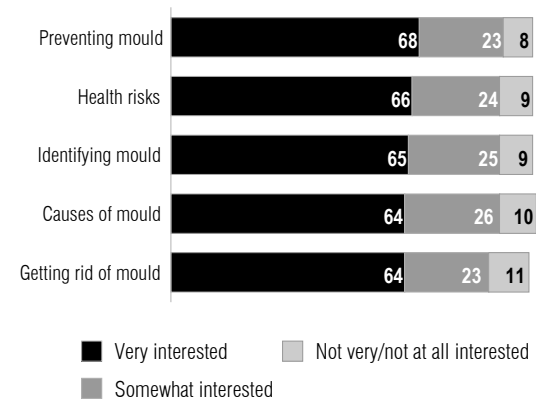
## Interest in information about mould

*First Nations people living on a reserve express a strong degree of interest in information about the causes and health risks of mould, and how to identify, prevent and get rid of mould in the home.*

The survey asked First Nations people living on a reserve about their level of interest in learning more about five different types of information about mould, including the causes of mould, associated health risks, how to identify mould, and how to prevent and get rid of mould in the home. As the graph on the following page indicates, all five aspects of mould generate a similarly strong degree of interest, with about two in three people indicating they are very interested in learning about each topic.

In general, the degree of interest in these types of information is highest in Saskatchewan and Alberta. Interest is more likely to be expressed by older people, those who rate their indoor air quality as fair or poor – and who have concerns about their indoor air quality – those who currently have mould in their home, and those reporting household health effects from mould. Interest is also significantly higher among those already reporting greater knowledge of mould, despite the fact that those with less knowledge of the topic are more likely to need such information.

## Interest in types of information about mould May 2007



Results are expressed as a percentage

### Q.37

*I would now like to ask you about different aspects of mould that some people might want to know more about. Would you personally be very, somewhat, not very or not at all interested in learning more about ... What causes mould in the home ... What can be done to get rid of mould in the home ... Health risks that can result from mould in the home ... How to prevent mould in the home ... How to identify if mould is growing in the home?*

## Perceived usefulness of information sources

*Brochures and information kits sent to homes are considered to be the most useful sources for providing information about mould and indoor air quality.*

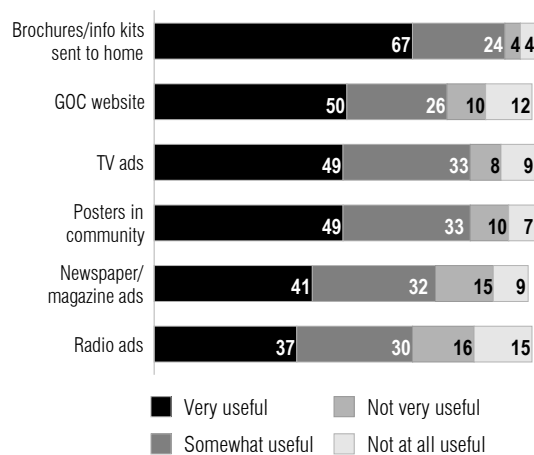
First Nations people living on a reserve were asked how useful they think six different sources would be in terms of providing them with information about mould and poor indoor air quality. A majority (ranging from 67% to 91%) rate each of these methods to be at least somewhat useful. The source perceived to be most useful is brochures and information kits sent directly to homes, with two-thirds (67%) who say this would be very useful to them personally. A second tier of usefulness is composed of a Government of Canada website (50% very useful), TV advertisements (49%) and posters placed around the community (49%). Fewer people say that newspaper and magazine advertisements (41%), and radio advertisements (37%) would be as useful to them.

While this is a valid measure of people's perceptions, it is also important to consider a variety of other factors when deciding between communication vehicles, such as objective data on effectiveness, the specific objectives of the communication campaign, the target audience for the message, and the cost involved. For instance, most of these sources are more apt to be perceived as useful by those who have a high self-rated level of knowledge of mould; however, this does not suggest that these methods will be less useful (or not useful) to those who have less knowledge (and thus have greater information requirements).

Perceived usefulness of the various information sources are remarkably consistent across regions and demographic segments of the population. Brochures, posters, and newspaper and magazine ads tend to be considered more useful by residents of the Prairie provinces, while B.C. residents are much less likely than others to say that radio ads would be very useful to them. Those without a high school diploma are more apt than others to consider television (56% vs. 45% of those with more education) and radio (45% vs. 33% of those with more education) advertising to be very useful.

## Perceived usefulness of information sources about mould

May 2007



Results are expressed as a percentage

### Q.39

*There are many ways to provide people with information about mould and poor indoor air quality. Would each of the following ways be very useful, somewhat useful, not very useful or not at all useful for you, personally ... A Government of Canada website ... Brochures and information kits sent to your home ... Television advertisements ... Radio advertisements ... Newspaper and magazine advertisements ... Posters placed around your community?*

## Credibility of information sources

*First Nations people living on-reserve have the most confidence in mould information provided by medical doctors, environmental health officers, Health Canada and community health nurses.*

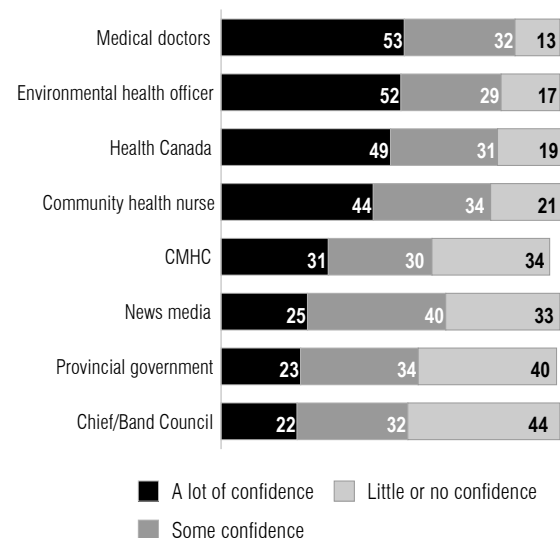
What sources of information do First Nations people living on a reserve consider most trustworthy to provide them with information about mould? The potential sources fall into two tiers according to public confidence.

More than eight in ten (85%) say they have a lot (53%) or some (32%) confidence in medical doctors as a source of information about mould. Environmental health officers (81%), Health Canada (80%), and community health nurses (78%) are also ranked highly in terms of credibility on this issue. The First Nations on-reserve population expresses comparatively less confidence in the Canada Mortgage and Housing Corporation (CMHC) (61% saying a lot or some confidence), the news media (65%), their provincial government (57%), and their Chief or Band Council (54%) as sources for this type of information.

Levels of confidence are relatively consistent across regions and demographic segments, with a few exceptions. Residents of Quebec and the Atlantic provinces are more likely than others to trust community health nurses and the CMHC, while residents of the Atlantic provinces are also more likely than others to trust doctors (66% saying a lot of confidence). B.C. residents are least likely to trust the media (13%) for mould information. Younger people under 40 years of age express greater confidence in Health Canada (55%) and their provincial government (28%), while those 50 years or older are more trusting of their Chief and Band Council (27%). Those without a high school diploma are also more apt to place trust in their Chief and Band Council (31% vs. 18% of those with more education) for this type of information. Finally, environmental health officers are more apt to be considered a credible source by those with household incomes over \$30,000 (60% vs. 44% of those with lower household incomes) and women (56% vs. 48% of men).

## Confidence in sources about mould

May 2007



Results are expressed as a percentage

### Q.40

*How much confidence would you have in each of the following organizations or people as a source of information about mould? Would you have a lot of, some, little or no confidence in ...?*



## IMPACT OF HOUSEHOLD CHARACTERISTICS

---

*Household characteristics such as age of the home and the presence of equipment designed to reduce moisture appear to be associated with people's perceptions of and experience with mould and poor indoor air quality.*

First Nations people living on a reserve were asked about a number of household characteristics, such as the age of their home, number of household members, and the presence of different factors that might affect indoor air quality and mould (e.g., humidifier, bathroom and kitchen exhaust fans, wall-to-wall carpeting and smokers). The objective was to better understand the household characteristics of the First Nations on-reserve population, as well as to assess whether any of these characteristics can be linked to people's attitudes and opinions about mould generally, or their experiences with health problems that they perceive to be associated with mould in their home.

**Age of home.** First Nations homes on-reserve are about 21 years of age on average. People with homes less than 10 years old are more likely than others to say that the indoor air quality in their home is excellent. When asked what people can do to prevent mould in their homes, this group is (perhaps understandably) less knowledgeable about any possible strategies. Those living in older homes not only express greater concern about their indoor air quality, but also report a greater incidence of mould (both currently and previously) and a greater likelihood of household health effects as a result.

**Size of household.** One-third (34%) of First Nations on-reserve households have five or more members currently living there, compared to 37 percent who have three to four members, and 30 percent who have just one or two members. Those with five or more members are more likely to identify lack of ventilation as a cause of poor indoor air quality (45% vs. 36% of those with 1-2 members), but rate their indoor air quality simi-

larly and are no more likely to express concerns about it. Households with five or more members (32%) and those with three to four members (27%) are as likely to report that they currently have mould, and more so than those with one or two members (18%). In addition, the likelihood to have never had mould in their current home is lowest among households with five or more members (36% vs. 49% of those with 3-4 members and 52% of those with 1-2 members). Among households with mould, those with five or more members (53%) and those with three to four members (55%) are more likely than those with only one or two members (38%) to report household health effects related to the mould problem.

**Presence of smoker in home.** More than four in ten (43%) First Nations people living on-reserve say that there is someone who smokes at least occasionally in their home. This group is less likely to rate their indoor air quality as excellent (13% vs. 21% of others), but are no more likely to express concern about their indoor air quality. They are less likely to say that respiratory problems can result from mould (65% of households where someone always or frequently smokes vs. 76% where no one does), and that mould can be prevented by increasing ventilation (16% of households where someone smokes at least occasionally vs. 26% where no one does). Smoking households are no more likely to report a mould problem, although those who do are less likely to report household health effects that they associate with the mould (40% vs. 58% of non-smoking households with mould).

**Moisture-reducing equipment.** Most First Nations households have a bathroom fan (74%) and a kitchen stove fan (68%) that are vented to the outside, while fewer report having an air exchanger (34%) or dehumidifier (24%). The likelihood of having one of these pieces of equipment is higher in newer homes, and increases with household income.

The presence of these types of equipment is associated with better indoor air quality and lower current incidence of mould. Concern about indoor air quality is higher among those who do not have a bathroom fan and a stove fan. People with moisture-reducing equipment are also more likely to say they did something to get rid of mould (for those who did experience a problem), although it is unclear the extent to which this equipment was installed in reaction to a mould problem.

Household characteristics associated with mould. First Nations people living in a house were asked about a number of other household characteristics that can be associated with the occurrence of mould. For instance, more than nine in ten households have either a basement (65%) or a crawlspace (34%), and four in ten say they have wall-to-wall carpeting in at least one room in their home. Those with only a basement are more likely to report never having experienced mould (33%) than are those with only a crawlspace (24%). Very few other significant differences exist among households with and without these characteristics.



## CONCLUSIONS AND RECOMMENDATIONS

---

The findings of this survey indicate that, while First Nations people living on a reserve do not tend to think of mould or indoor air quality as “environmental” issues affecting their communities (as they do for water contamination, for example), there is widespread awareness and concern about mould as a significant risk to the health of people on-reserve. Many report having concerns, now or in the past, about their indoor air quality, in terms of tangible problems they recognize as being linked to poor air quality (mould and second-hand smoke) and the health problems many have suffered as a result (at least in the case of mould).

A majority of First Nations people living on-reserve consider themselves to be relatively knowledgeable about mould, which is born out by their understanding of the causes of mould, how to identify it, and the associated health risks. This is presumably due at least in part to the fact that most have had direct experience with a mould problem: one in two currently have (26%) or have had (27%) mould in their current home, and an additional 18 percent report having had it in their previous home. The primary knowledge gap appears to be in understanding how to prevent mould, and how to get rid of it if it does occur. The research suggests several potential barriers to people’s efforts in this regard, including a lack of funding for the necessary changes, a perception that there is nothing that can be done to prevent or get rid of mould, and limited knowledge of where to find information about mould.

There is clearly an interest and demand among First Nations people to have more resources to address this problem. Information on a variety of topics related to mould is likely to be very well-received, and Health Canada is well-positioned as a credible authority on this topic.

Based on the findings and conclusions of this research, the following recommendations are provided to Health

Canada for consideration:

1. Beyond reinforcing the better-known aspects of mould (e.g., its health effects, what causes it, and how to identify it), the focus of communications should be on strategies to prevent and eliminate mould. In addition, it would also be valuable to emphasize messages that this problem *can* be solved, to combat the perception among some that nothing can be done, and to address a sense of powerlessness that may exist. Involvement from community leaders and other professionals should be widely encouraged, since people are more likely to report success in having addressed their mould problem when they have had access to outside support.
2. Health Canada should initially focus its communications efforts on reserves in Manitoba and Saskatchewan, since households in these provinces express the most concern about their indoor air quality and the health risks from mould, and yet are least likely to have taken steps to address this problem. However, reserves in other regions should not be overlooked, since people in these regions tend to report being less knowledgeable about the issue.
3. The findings of this survey suggest that the Internet, and brochures and information kits sent directly to people’s homes are among the most preferred ways to share information about mould. It may also be worthwhile to explore alternate methods of communicating this information, such as establishing partnerships with people and organizations directly involved in on-reserve communities who also have an interest in addressing mould problems (e.g., health care providers, contractors and other tradespeople). It will be important to evaluate such initiatives early on in the process (e.g., pilot testing) to determine their effectiveness and make necessary adjustments before employing them more widely.



## SURVEY METHODOLOGY

---

The results of the survey are based on telephone interviews conducted with 700 First Nations people living on a reserve during the period May 11 to 29, 2007. The margin of error for a sample of 700 is plus or minus 3.7 percentage points, 19 times in 20. The margin of error is greater for results pertaining to regional or socio-demographic subgroups of the total sample.

### Sample design

The sampling method was designed to complete interviews with a representative sample of 700 First Nations people living on a reserve, aged 18 and over.

The sample was generated by targeting postal codes for all known reserves in Canada and collecting available telephone numbers for the appropriate postal codes. Within this sample frame, households were randomly selected for inclusion in the study, and respondents were screened to ensure that they live on a reserve, are of First Nations ancestry and meet the age requirements. The final sample was stratified across the 10 provinces to provide for analysis within region, as follows:

### Final sample distribution by region

REGION	TOTAL UNWEIGHTED SAMPLE	MARGIN OF ERROR*
Atlantic Canada	50	±13.9
Quebec	100	±9.8
Ontario	125	±8.8
Manitoba	125	±8.8
Saskatchewan	100	±9.8
Alberta	100	±9.8
British Columbia	100	±9.8
<b>CANADA</b>	<b>700</b>	<b>±3.7</b>

\* Described in percentage points, 19 times in 20.

The final data were weighted by gender, province and age to ensure the results are fully proportionate to the actual distribution of the on-reserve population in Canada according to 2001 Census data.

### Questionnaire design and pre-testing

The questionnaire used for this survey was developed by Environics Research Group in consultation with Health Canada. It used questions from general population surveys on indoor air quality previously conducted for Health Canada in 2005 and 2007, and also included a number of new questions designed to address specific information requirements around the issue of mould.

Prior to finalizing the survey for field, Environics conducted a full pre-test with “live” respondents. This consisted of telephone interviews in the same manner as for the full survey, but with a small sample of respondents. The interviews were monitored by Environics’ senior research consultants and two representatives from Health Canada. Following the pre-test, a small number of revisions to the questionnaire were identified and implemented, and upon final approval from Health Canada, the questionnaire was translated into French using Environics’ professional translators. A pre-test of the French version of the questionnaire was also conducted, and Health Canada approved the French version prior to conducting any French interviews. A copy of both the English and French language versions of the questionnaire are attached as an appendix.

### Telephone interviewing

Interviewing was conducted from Environics’ central facilities in Toronto and Montreal, between May 11 and 29, 2007. 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 required to complete an interview was 26 minutes.

All surveys were conducted in respondents’ official language of choice. This survey was registered with the Marketing Research and Intelligence Association (MRIA)’s registration system, which permits the public to verify a survey call, inform themselves about the industry and/or register a complaint.

### Completion results

The effective response rate for the survey is 11 percent.<sup>4</sup> This is calculated as the number of responding participants (completed interviews, disqualifications and over-quota participants – 4,455), divided by unresolved numbers (busy, no answer – 12,514) plus non-responding households or individuals (refusals, language barrier, missed callbacks – 21,943) plus responding participants (4,455)  $\{R / (U + IS + R)\}$ . The following table presents the final disposition of all numbers dialled.

This response rate is lower than is typically achieved for public opinion research conducted with First Nations people on-reserve, and appears to be due to a greater proportion of household refusals. However, it is on par with industry norms for research conducted with the general Canadian population.

### Completion results

	n
Total sample dialled	47,862
<b>UNRESOLVED NUMBERS (U)</b>	<b>12,514</b>
Busy	208
No answer	6,625
Answering machine	5,681
<b>RESOLVED NUMBERS (Total minus Unresolved)</b>	<b>35,348</b>
OUT OF SCOPE (Invalid/non-eligible)	8,946
Non-residential	474
Not-in-service	7,539
Fax/modem	933
<b>IN SCOPE NON-RESPONDING (IS)</b>	<b>21,943</b>
Refusals – household	15,406
Refusals – respondent	1,589
Language barrier	428
Callback missed/respondent not available	4,444
Break-offs (interview not completed)	76
<b>IN SCOPE RESPONDING (R)</b>	<b>4,455</b>
Disqualified	3,562
Quota filled	193
Completed	700
<b>RESPONSE RATE <math>[R / (U + IS + R)]</math></b>	<b>11%</b>

<sup>4</sup> This response rate calculation is based on a formula developed by MRIA in consultation with the Government of Canada (Public Works and Government Services).

## Sample profile

The following table presents a profile of the final weighted sample, by province/region and demographic characteristics.

## Sample profile

---

<b>Province/region</b>	
Atlantic provinces	6
Quebec	13
Ontario	16
Manitoba	19
Saskatchewan	16
Alberta	13
British Columbia	19
<b>Age</b>	
18-24	13
25-44	42
45-54	24
55+	21
<b>Gender</b>	
Male	50
Female	50
<b>Education</b>	
Less than high school	34
Completed high school	17
Community college	28
University	22
<b>Household size</b>	
One	11
Two	19
Three	19
Four	17
Five or more	34
<b>Household income</b>	
Under \$20,000	30
\$20,000 to just under \$30,000	21
\$30,000 to just under \$50,000	20
\$50,000 and over	20
Refused/dk/na	10

---



APPENDIX A  
QUESTIONNAIRES (ENGLISH AND FRENCH)

---





**Health Canada**  
**2007 Survey on Indoor Air Quality and Mold in First Nations Households**

**LAUNCH VERSION (B) Questionnaire**

---

**Introduction**

Good morning/afternoon/evening. My name is \_\_\_\_\_ and I am calling from the Environics Research Group, a public opinion research company. Today we are conducting a survey about health issues among First Nations people living on a reserve, on behalf of the First Nations and Inuit Health Branch of Health Canada.

We are not selling or soliciting anything. Your opinion is important to us, and your answers will be kept strictly confidential and anonymous. This survey is registered with the national survey registration system.

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

IF ASKED: The survey is being sponsored by Health Canada

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 system's 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

---

**Respondent Selection**

*Before we begin . . .*

A. Would you identify yourself as a member of a First Nation?

- 01 - Yes
- 02 - No                   THANK AND TERMINATE
- 03 - DK/NA              THANK AND TERMINATE

B. Over the last twelve months, have you been living mostly on reserve or off reserve?

- 01 - On reserve
- 02 - Off reserve           THANK AND TERMINATE
- 03 - DK/NA               THANK AND TERMINATE

C. Who has responsibility for the care and maintenance of your house? Would you say that is you, someone else, or you and someone else equally?

- 01 - You
- 02 - Someone else
- 03 - You and someone else equally
- 03 - DK/NA

D. Since health concerns can sometimes be related to age, in what year were you born?

- \_\_\_\_\_ Year  
VOLUNTEERED  
97 - Refuse/NA

IF UNDER 18; ASK TO SPEAK TO SOMEONE IN HOUSEHOLD 18 AND OVER  
IF REACH ANOTHER INDIVIDUAL, REINTRODUCE SURVEY AND START WITH Q.A

## A. General Environmental Health

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

### 2005 IAQ-Q1

1. In your view, what environmental problem or hazard would you say poses the greatest risk to the health of First Nations people living on reserves? What other environmental problems or hazards pose a significant risk to their 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 - Mold
- 17 - Formaldehyde
- 18 – Carbon monoxide
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 – DK/NA

2005 IAQ-Q2 revised list

2. I will now read you a list of potential hazards to the health of First Nations people living on reserves. In each case please tell me whether you think the risk from this hazard is high, moderate, slight, or almost no risk.

READ AND ROTATE

- a. Second-hand smoke from tobacco
- b. Climate change
- c. Outdoor air quality
- d. Indoor air quality
- e. Pesticides in food
- f. Sun tanning
- g. Tap water
- h. Radon
- i. Asbestos
- j. Mold that can grow on walls, ceilings or window sills [\[new\]](#)

01 – High risk  
02 – Moderate risk  
03 – Slight risk  
04 – No risk  
VOLUNTEERED  
05 – Depends  
99 – DK/NA

## B. Indoor Air Quality

*I now have a few questions about indoor air quality...*

### 2005 IAQ-Q7

3. As far as you know, what are the major causes of poor indoor air quality?  
DO NOT READ – CODE ALL THAT APPLY

- 01 – Dust/dust mites
- 02 – Mold
- 03 – Toxic chemicals
- 04 – Cleaning products
- 05 – Second-hand smoke/tobacco
- 06 – Gas furnaces/appliances
- 07 – Wood stoves/fireplaces
- 08 – Candles/incense
- 09 – Lack of ventilation
- 10 – Outdoor air pollution
- 11 – Carbon monoxide
- 12 – Radon
- 13 – Pollen
- 14 – Scented products
- 15 – Air fresheners
- 16 – New carpeting/products/off-gassing
- 17 – New paint/varnishes/finishes
- 18 – Pets/pet dander
- 19 – Hobbies
- 20 – Live near high traffic area
- 21 – Formaldehyde
- 22 – Lead
- 23 – Asbestos
- 24 – Moisture/dampness/mildew (NOT MOLD)
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 – DK/NA

### 2005 IAQ-Q8 revised list

4. Would you say that the following are definite, likely, or unlikely causes of poor indoor air quality in First Nations homes on-reserve today?  
READ AND ROTATE – REPEAT SCALE AS NECESSARY

- a. Dust
- b. Mold
- c. Second-hand smoke
- d. Chemicals from household cleaning products
- e. Woodstoves
- f. Pets with fur
- g. Pollutants from outdoor air pollution coming indoors
- h. Air fresheners [IF ASKED: This includes air fresheners in a spray can or plugged into a wall]

- 01 – Definite cause
- 02 – Likely cause
- 03 – Unlikely cause
- VOLUNTEERED
- 04 – Depends
- 99 – DK/NA

2005 IAQ-Q4 variation

5. How would you rate the quality of the air in your home generally? By air quality I mean the absence and presence of pollutants. Would you say the quality of the air you are breathing in your home currently is excellent, good, only fair, or poor?

- 01 - Excellent
- 02 - Good
- 03 - Only fair
- 04 - Poor
- VOLUNTEERED
- 05 - Depends
- 99 - DK/NA

2007 Radon-Q.5

6. Currently or at some point in the past have you been concerned about the indoor air quality in your home?  
IF CONCERNED CONFIRM IF CURRENTLY OR IN PAST; IF BOTH CODE AS CURRENTLY

- 01 – Yes, concerned currently
- 02 – Yes, concerned in the past
- 03 – Never concerned
- VOLUNTEERED
- 99 – DK/NA

2005 IAQ-Q.9

7. How would you know when there is poor indoor air quality where you live?  
DO NOT READ - CODE FIRST AND OTHER MENTIONS; PROBE: Anything else?

- 01 – Can smell it
- 02 – Can feel it
- 03 – Can see problems (e.g. mold)
- 04 – Health symptoms are aggravated (PROBE FOR TYPE OF SYMPTOM)
- 05 – Affects lungs/breathing/short of breath/problem breathing
- 06 – Aggravates allergies/asthma
- 07 – Air quality monitor/Carbon Monoxide detector
- 98 - Other (SPECIFY \_\_\_\_\_)
- 97 - Cannot tell when air is poor
- 98 - Air quality never bad at home
- 99 - DK/NA

2005 IAQ-Q.10

8. To what extent do you believe poor indoor air quality affects the health of First Nations people living on reserves? Does it affect them:  
READ

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

### C. Mold awareness and knowledge

*I now have some questions about mold. Mold is a type of fungi that can sometimes grow in homes that can cause poor air indoor quality. I do not mean the type of mold that can grow on food or in refrigerators.*

#### 2007 Radon-Q13 variation

9. Would you say you know a lot, know something, know a little, or know almost nothing at all about this kind of mold?

- 01 – Know a lot
- 02 – Know something
- 03 – Know a little
- 04 – Know almost nothing
- VOLUNTEERED
- 99 – DK/NA

#### NEW

10. As far as you know, what are the major causes of mold in the home?  
DO NOT READ – CODE ALL THAT APPLY; PROBE: Anything else?

- 01 – Too much moisture/dampness/humidity
- 02 – Water leaking in through foundation/floor/walls/roof
- 03 – Plumbing leaks
- 04 – Poor ventilation in home
- 05 – Moisture produced by daily activities (cooking, bathing, washing clothes)
- 06 – Moisture that collects in stored items (wood, clothes, paper)
- 07 – Overcrowding
- 08 – Poor construction
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 – DK/NA

#### 2007 Radon-Q.15 variation

11. From what you may know or have heard, where in the home would mold most likely be found?  
DO NOT READ – CODE ALL THAT APPLY

- 01 – Basement
- 02 – Bathrooms
- 03 – Kitchen
- 04 – Bedrooms
- 05 – Around windows
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 – Don't know

#### 2005 IAQ-Q.9 variation

12. How would you know when there is mold in your home?  
DO NOT READ - CODE FIRST AND OTHER MENTIONS; PROBE: Anything else?

- 01 – Can smell it
- 02 – Can feel it/feel moisture
- 03 – Can see it
- 04 – Health symptoms are aggravated (PROBE FOR TYPE OF SYMPTOM)
- 05 – Affects lungs/breathing/short of breath/problem breathing
- 06 – Aggravates allergies/asthma
- 98 - Other (SPECIFY \_\_\_\_\_)
- 97 - Cannot tell when there is mold
- 98 – Don't have mold in my home
- 99 - DK/NA



2005 IAQ-Q.11 variation

13. What, if any, specific types of health problems do you think are most likely to result from mold in the home?  
DO NOT READ - CODE FIRST, SECOND AND OTHER MENTIONS; PROBE: Anything else?

- 01 - Allergies
- 02 - Asthma
- 03 - Bronchitis
- 04 - Cancer
- 05 - Death/shorter life span
- 06 - Fatigue/loss of concentration
- 07 - General health problems (non-specific)
- 08 - Heart disease
- 09 - High blood pressure
- 10 - Multiple Sclerosis
- 11 – Fibromyalgia
- 12 – Chronic fatigue syndrome
- 13 - Other respiratory/lung problems
- 14 - Skin rashes/irritation
- 15 - Immune suppression/
- 16 - Headaches
- 17 - Nausea
- 18 - Discomfort
- 19 - Breathing problems
- 20– Sinus problems
- 21 – Respiratory problems – non-specific
- 97 - No health effects
- 98 - Other (SPECIFY \_\_\_\_\_)
- 99 - DK/NA

2005 IAQ-Q.13 variation/revised list

14. What about the impact that mold can have on different types of health problems? Do you think mold definitely, likely, likely does not or definitely does not contribute to each of the following:  
READ AND RANDOMIZE

- a. Asthma
- b. Heart disease
- c. Cancer
- d. Allergies
- e. Respiratory illnesses, such as bronchitis
- f. Skin rashes
- g. Fibromyalgia, [PRONOUNCE: FY-BRO-MY-AL-JA) which is an illness involving chronic pain, stiffness and tenderness of muscles, tendons, and joints

- 01 - Definitely contributes
- 02 - Likely contributes
- 03 - Likely does not contribute
- 04 - Definitely does not contribute
- VOLUNTEERED
- 05 - Depends (e.g. on type of individual)
- 99 - DK/NA

2005 IAQ-Q.14 variation

15. What types of people do you believe are most likely to experience health effects from mold in the home?  
DO NOT READ - CODE FIRST AND OTHER MENTIONS; PROBE: Anyone else?

- 01 - People with preexisting health problems (PROBE FOR TYPE OF PROBLEM)
- 02 - Elderly/seniors
- 03 - Children
- 04 - Infants
- 05 - Young people/adolescents
- 06 - Women during pregnancy
- 07 - People working/exercising indoors
- 08 - People with heart disease/conditions
- 09 - People with lung disease/conditions
- 10 - People with asthma
- 11 - People with allergies
- 12 - People with multiple chemical sensitivities
- 13 - People with cancer
- 14 - Smokers
- 15 - Recent immigrants
- 16 - Migraine sufferers
- 17 - Drug users
- 18 - People in hospitals
- 19 - People with low/weak immune systems
- 20 - Everyone equally
- 98 - Other (SPECIFY \_\_\_\_\_)
- 97 - None
- 99 - DK/NA

NEW

16. Do you know what, if anything, people can do to prevent mold in the home?  
DO NOT READ – CODE ALL THAT APPLY; PROBE IN DETAIL: Anything else?

- 01 – Reduce moisture/dampness/humidity (PROBE FOR HOW WOULD REDUCE MOISTURE)
- 02 – Fix leaks in foundation/floor/walls/roof
- 03 – Fix plumbing leaks
- 04 – Use a dehumidifier
- 05 – Reduce stored materials (wood, clothes, paper)
- 06 – Use bathroom/kitchen fan
- 07 – Remove carpets from basement/bathrooms
- 08 – Vent dryer to outside
- 09 – Avoid hanging laundry indoors to dry
- 10 – Increase ventilation/use mechanical or heat recovery/HRV ventilator/exchanger
- 11 - Clean furnace/ventilation filters regularly
- 12 – Cover or seal sump pumps
- 13 – Regularly clean drains in basement floor/bathroom
- 14 – Keep home clean/vacuum regularly
- 15 – Something can be done but not sure what
- 97 – Other (SPECIFY \_\_\_\_\_)
- 98 – Nothing can be done
- 99 – DK/NA

17. MOVED TO Q.33.1 and Q.33.2

## D. Experience with mold

### 2007 Radon-Q.8 variation

18. Is mold currently present in your home, or have you ever had mold in your home since you have been living there?

PROBE IF CURRENTLY OR PREVIOUSLY PRESENT

- |                               |              |
|-------------------------------|--------------|
| 01 – Yes, currently have mold | SKIP TO Q.20 |
| 02 – Yes, previously had mold | SKIP TO Q.20 |
| 03 – No, never had mold       |              |
| VOLUNTEERED                   |              |
| 04 – Possibly – not confirmed |              |
| 99 – DK/NA                    |              |

### NEW

19. (IF CODE 3, 4 OR 99 AT Q.18) Did you ever have mold in the house you lived in before your current house?

- 01 – Yes
- 02 – No
- VOLUNTEERED
- 03 – Possibly – not confirmed
- 04 – Never lived anywhere else
- 99 – DK/NA

SKIP TO Q.33.2

### NEW

20. (IF CODE 1 AT Q.18) Is this the first time you have had mold, or is it a recurring problem?  
(IF CODE 2 AT Q.18) Did you have mold only one time, or was it a recurring problem?

- 01 – First time/only once
- 02 – Recurring problem
- 99 – DK/NA

### NEW

21. (IF CODE 1 AT Q.18) For how long have you had mold in your home?  
(IF CODE 1 AT Q.20) For how long did you have mold in your home?  
(IF CODE 2 AT Q.20) I'd like to ask you about the most recent time you had mold in your home. For how long did you have it?

\_\_\_\_\_ INDICATE IF WEEKS, MONTHS OR YEARS  
99 – DK/NA

### NEW

22. In what rooms or locations (does/did) the mold appear?  
DO NOT READ – CODE ALL THAT APPLY

- 01 – Basement
- 02 – Bathrooms
- 03 – Kitchen
- 04 – Bedrooms
- 05 – Around windows
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 – Don't know

NEW

23. Which of the following best describes the size of the mold?  
READ – CODE ONE ONLY

01 – Small patches here and there  
02 – Small patches growing in lots of different places  
03 – A medium-sized patch in just one or two places  
04 – A large patch growing in one or more places  
VOLUNTEERED  
98 – Other (SPECIFY \_\_\_\_\_)  
99 – DK/NA

NEW

24. (IF CODE 1 AT Q.18) Have you figured out what is causing the mold?  
(IF CODE 2 AT Q.18) Did you figure out what was causing the mold?

01 - Yes  
02 – No                   SKIP TO Q.26  
99 – DK/NA           SKIP TO Q.26

NEW

25. What (is/was) it?  
DO NOT READ – CODE ALL THAT APPLY

01 – Too much moisture/dampness/humidity (PROBE FOR SOURCE OF MOISTURE)  
02 – Water leaking in through foundation/floor/walls/roof  
03 – Plumbing leak  
04 – Poor ventilation in home  
05 – Moisture produced by daily activities (cooking, bathing, washing clothes)  
06 – Moisture collected in stored items (wood, clothes, paper)  
07 – Overcrowding  
08 – Poor construction  
98 – Other (SPECIFY \_\_\_\_\_)  
99 – DK/NA

2005 IAQ-Q.18 variation

26. Have you or someone else in your household experienced any type of physical or health problems that might be attributed to mold in the home?  
CLARIFY IF SELF, OTHER OR BOTH

01 - Yes, self  
02 - Yes, someone else in household  
03 - Both  
04 - No                                   SKIP TO Q.29  
03 - Uncertain                       SKIP TO Q.29  
99 - DK/NA                           SKIP TO Q.29

IF ONLY SELF OR OTHER, ASK Q.27-28 FOR THAT INDIVIDUAL ONLY.  
IF BOTH, ASK Q.27-28 ONLY ONCE BUT FOR BOTH SELF AND OTHER



NEW

30. [IF CODE 2 AT Q.29] Why not?  
DO NOT READ - CODE ALL THAT APPLY

- 01 – Don't need to/not necessary
- 02 – Don't know how to get rid of it
- 03 – Don't have time/too busy
- 04 – Just keeps coming back anyway
- 05 – Waiting for help from Band Council
- 06 – Waiting for help from Housing Manager
- 07 – Waiting for visit from Environmental Health Officer
- 08 – Is not affecting my health/health of others in house
- 09 – Not my responsibility
- 10 – Too much mold to remove on my own
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 – DK/NA

SKIP TO Q.33.1

NEW

31. Who was it that did something to get rid of the mold?  
DO NOT READ – CODE ALL THAT APPLY. PROBE: Anyone else?

- 01 – Self
- 02 – Other person(s) in household
- 03 – Band Council
- 04 – Housing Manager
- 05 – Environmental Health Officer
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 – DK/NA

NEW

32. [IF CODE 1 OR 2 AT Q.31] What did (you/this other household member) do?  
DO NOT READ - CODE ALL THAT APPLY

- 01 – Cleaned with a strong detergent
- 02 – Cleaned with baking soda
- 03 - Requested help from Band Office
- 04 – Brought to attention of Housing Manager
- 05 – Called in an Environmental Health Officer
- 06 – Cut out drywall where mold is and replace
- 07 – Threw out the contaminated objects (i.e. clothes, wood, etc.)
- 08 – Painted over it
- 09 – Removed source of moisture/humidity
- 97 – Other (SPECIFY \_\_\_\_\_)
- 99 – DK/NA

NEW

33. [IF CODE 1 OR 2 AT Q.31] Did [you/this other person] use any type of protective wear such as safety glasses or goggles, household rubber gloves, or a dust mask?

- 01 – Yes
- 02 – No
- 99 – DK/NA

2007 Radon-Q.18 variation – PREVIOUSLY Q.17

33.1 (IF NO/DK AT Q.29) And if mold were to grow in your home, do you know what, if anything, you can do to get rid of it?

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

- 01 – Clean with a strong detergent
- 02 – Clean with baking soda
- 03 - Request help from Band Office
- 04 – Bring to attention of Housing Manager
- 05 – Call in an Environmental Health Officer
- 06 – Cut out drywall where mold is and replace
- 07 – Throw out the contaminated objects (i.e. clothes, wood, etc.)
- 08 – Paint over it
- 09 – Remove source of moisture/humidity
- 10 – Something can be done but not sure what
- 97 – Other (SPECIFY \_\_\_\_\_)
- 98 – Nothing can be done
- 99 – DK/NA

## E. Hypothetical experience with mold

IF DO NOT HAVE MOLD IN CURRENT HOME (Q.18 CODES 3, 4 OR 99) ASK Q.33.2 OTHERWISE SKIP TO NEXT SECTION

### 2007 Radon-Q.18 variation – PREVIOUSLY Q.17

33.2 And if mold were to grow in your home, do you know what, if anything, you can do to get rid of it?

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

- 01 – Clean with a strong detergent
- 02 – Clean with baking soda
- 03 - Request help from Band Office
- 04 – Bring to attention of Housing Manager
- 05 – Call in an Environmental Health Officer
- 06 – Cut out drywall where mold is and replace
- 07 – Throw out the contaminated objects (i.e. clothes, wood, etc.)
- 08 – Paint over it
- 09 – Remove source of moisture/humidity
- 10 – Something can be done but not sure what
- 97 – Other (SPECIFY \_\_\_\_\_)
- 98 – Nothing can be done
- 99 – DK/NA

### 2005 IAQ-Q.32 revised list

34. If you suspected that you had mold in your home, would you definitely, likely, likely not or definitely not...?  
READ AND ROTATE

- a. Install a mechanical air exchanger or other equipment designed to improve the air flow in your home,
- b. Request help from the Band Office [new]
- c. Bring the problem to the attention of the Housing Manager [new]
- d. Clean up the mold yourself [new]
- e. Request an inspection from the Environmental Health Officer and/or the housing inspector [new]
- f. Move out of the house, either to a family member's house or off-reserve [new]

- 01 – Definitely
- 02 – Likely
- 03 – Likely not
- 04 – Definitely not
- VOLUNTEERED
- 05 – Already have equipment installed
- 06 – Depends
- 99 – DK/NA



## F. Information About Mold

ASK ALL

### 2007 Radon – Q.47 variation

35. Have you ever taken steps to learn about mold?

- 01 – Yes
- 02 – No                      SKIP TO Q.37
- 99 – DK/NA                SKIP TO Q.37

### 2007 Radon – Q.48a variation

36. (IF YES TO Q.35) Where did you look for information about mold?  
DO NOT READ – CODE ALL THAT APPLY

- 01 – Family doctor/general practitioner
- 02 – Community health nurse
- 03 – Media (TV, newspaper, magazines)
- 04 – Internet
- 05 – Health Canada
- 06 – Provincial government/provincial ministry of health
- 07 – Canada Mortgage and Housing Corporation/CMHC
- 08 – Chief/Band Council
- 09 – Friends/family/colleagues
- 10 – Environmental Health Officer
- 11 – Home renovator
- 12 – Home inspector
- 13 – Library
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 –DK/NA

### 2005 IAQ-Q.35 variation

37. I would now like to ask you about different aspects of mold that some people might want to know more about. Would you personally be very, somewhat, not very or not at all interested in learning more about:  
READ AND ROTATE

- a. What causes mold in the home
- b. What can be done to get rid of mold in the home
- c. Health risks that can result from mold in the home
- d. How to prevent mold in the home
- e. How to identify if mold is growing in the home

- 01 – Very interested
- 02 – Somewhat interested
- 03 – Not very interested
- 04 – Not at all interested
- VOLUNTEERED
- 05 – Depends
- 98 – DK/NA

2007 Radon – Q.48b variation

38. (IF NO/DK TO Q.35) If you wanted to get information about mold, where would you be likely to look?  
DO NOT READ – CODE ALL THAT APPLY

- 01 – Family doctor/general practitioner
- 02 – Community health nurse
- 03 – Media (TV, newspaper, magazines)
- 04 – Internet
- 05 – Health Canada
- 06 – Provincial government/provincial ministry of health
- 07 – Canada Mortgage and Housing Corporation/CMHC
- 08 – Chief/Band Council
- 09 – Friends/family/colleagues
- 10 – Environmental Health Officer
- 11 – Home renovator
- 12 – Home inspector
- 13 – Library
- 98 – Other (SPECIFY \_\_\_\_\_)
- 99 –DK/NA

NEW

39. There are many ways to provide people with information about mold and poor indoor air quality. Would each of the following ways be very useful, somewhat useful, not very useful or not at all useful for you, personally?

READ AND ROTATE

- a. A Government of Canada website
- b. Brochures and information kits sent to your home
- c. Television advertisements
- d. Radio advertisements
- e. Newspaper and magazine advertisements
- f. Posters placed around your community

- 01 - Very useful
  - 02 - Somewhat useful
  - 03 - Not very useful
  - 04 - Not at all useful
- VOLUNTEERED
- 99 - DK/NA

2005 IAQ-Q.37 variation/revised list

40. How much confidence would you have in each of the following organizations or people as a source of information about mold? Would you have a lot of, some, little or no confidence in:

READ AND ROTATE

- a. The news media
- b. Medical doctors
- c. Health Canada
- d. Your provincial government
- e. The Canada Mortgage and Housing Corporation, or CMHC
- f. The Chief and Band Council [\[new\]](#)
- g. An Environmental Health Officer [\[new\]](#)
- h. The community health nurse [\[new\]](#)

01 – A lot of confidence

02 – Some confidence

03 – Little confidence

04 – No confidence

VOLUNTEERED

05 – Depends

99 – DK/NA

## G. Household Characteristics and Practices

*I now have a few questions about your home . . .*

### 2005 IAQ-Q38

41. Which one of the following categories best describes your home?  
READ – CODE ONE ONLY – STOP AS SOON AS CATEGORY IS IDENTIFIED

01 – A house detached from any other house  
02 – A house attached to one or more houses (e.g. townhouse, duplex)  
03 – An apartment building no more than four stories  
04 – An apartment building five or more stories, or  
05 – A mobile home or trailer  
VOLUNTEERED  
98 – Other (SPECIFY \_\_\_\_\_)  
99 – DK/NA

### NEW

42. How many bedrooms are there in your home?  
SPECIFY

\_\_\_\_\_ bedrooms  
99 – DK/NA

### 2007 Radon-Q.58 variation

43. Does your home have a basement or crawlspace?  
IF YES CONFIRM WHICH

01 – Basement only  
02 – Crawlspace only      SKIP TO Q.45  
03 – Both  
04 – Neither                SKIP TO Q.45  
VOLUNTEERED  
99 – DK/NA                SKIP TO Q.45

### NEW

44. Is the basement finished or unfinished?

01 – Finished  
02 – Unfinished  
99 – DK/NA

### 2005 IAQ-Q40

45. What is the approximate age of your building, in years?  
SPECIFY

\_\_\_\_\_  
999 – DK/NA

2007 Radon-Q.57

46. How long have you lived in this home?  
SPECIFY

\_\_\_ \_\_ YEARS OR

996 – Less than six months

997 – Between six months and one year

998 – My whole life

999 – DK/NA

2005 IAQ-Q43 revised list

47. Does your home currently have any of the following:  
READ AND ROTATE – [PROGRAMMER: MAKE SURE COMPLETE LIST IS READ]

a. An air exchanger

b. A humidifier

c. A dehumidifier

d. A fan in the bathroom that is vented to the outside

e. A clothes dryer

f. An exhaust fan over the kitchen stove that is vented to the outside

g. Wood stored in the house, such as in the basement or kitchen, but not counting in the garage

h. A wood stove or fireplace

01 – Yes

02 – No

99 – DK/NA

NEW

48. (ASK IF YES TO Q.47e) Is your dryer vented to the inside or the outside of the house?

01 – Inside

02 – Outside

99 – DK/NA

NEW

49. How often do you dry clothes by hanging them to dry inside the house?  
READ

01 – Frequently

02 – Occasionally

03 – Rarely

04 - Never

99 – DK/NA

NEW

50. In what rooms do you have carpeting? I mean wall-to-wall carpeting, not area rugs.  
DO NOT READ – CODE ALL THAT APPLY. PROBE: Anywhere else?

- 01 – Basement
- 02 – Bathrooms (NOTE: this does not include bath mats)
- 03 – Kitchen
- 04 – Bedrooms
- 05 – Living room
- 06 – Dining room
- 07 – Family room/TV room/den
- 97 – Other (SPECIFY \_\_\_\_\_)
- 98 – None/no carpeting anywhere
- 99 – Don't know

2005 IAQ-Q47

51. Please tell me how frequently you or somebody else in your household smokes in your home - this includes all indoor areas of your home including the garage - would that be always, frequently, sometimes or never?

- 01 - Always
- 02 - Frequently
- 03 - Sometimes
- 04 – Never
- VOLUNTEERED
- 99 - DK/NA

## H. Respondent Characteristics

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

### 2005 IAQ-Q.56

52. 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 [MUST HAVE COMPLETED HIGH SCHOOL]
- 05 Completed community college/technical college/CEGEP
- 06 Some university [MUST HAVE COMPLETED HIGH SCHOOL]
- 07 Completed university
- 08 Post-graduate degree [MUST HAVE COMPLETED UNIVERSITY]
- 09 No schooling
- 97 No Response/Refused

### 2005 IAQ-Q.58

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

\_\_\_\_\_  
99 – NA/REFUSE

IF "1" AT Q.53, SKIP TO Q.55

### 2005 IAQ-Q.59

54. Does your household currently include any children under 16 years of age?

- 01 - Yes
- 02 - No
- 99 - DK/NA

### NEW – Based on 2005 HC Multiprogram Baseline survey

55. For classification purposes only, we'd like to have a general idea of people's annual household income. Which of these options is closest to the total income of all the people living in your household for 2006?

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

- 01 - Under \$20,000
- 02 - \$20,000 to just under \$30,000
- 03 - \$30,000 to just under \$50,000
- 04 - \$50,000 and over
- VOLUNTEERED
- 97 - REFUSE

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 the First Nations and Inuit Health Branch of Health Canada, and is registered under the Federal Access to Information Act. Thank you very much for your participation.

RECORD:

2005 IAQ-Q.63

56. Gender

- 01 Male
- 02 Female

2005 IAQ-Q.65

57. Province

- 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



**Santé Canada**  
**Sondage de 2007 sur la qualité de l'air intérieur et la moisissure**  
**dans les habitations des Premières nations**

**VERSION DE LANCEMENT (B) Questionnaire**

---

**Introduction**

Bonjour/bonsoir. Je m'appelle \_\_\_\_\_ et je travaille pour Environics Research Group, une firme de recherche sur l'opinion publique. Aujourd'hui, nous réalisons un sondage sur des dossiers se rapportant à la santé des Autochtones qui vivent dans des réserves, pour le compte de la Direction générale de la santé des Premières nations et des Inuits de Santé Canada.

Soyez assuré que nous ne voulons rien vous vendre et que nous ne sollicitons rien. Votre opinion est importante à nos yeux et vos réponses demeureront strictement confidentielles et anonymes. Ce sondage est inscrit au système national d'inscription des sondages.

SI ON LE DEMANDE : Pour répondre à ce sondage, il vous faudra environ 20 minutes.

SI ON LE DEMANDE : Le sondage est commandité par Santé Canada.

SI ON LE DEMANDE : Le système d'inscription a été mis sur pied par l'industrie canadienne de la recherche par sondage pour permettre au public de vérifier si un sondage est légitime, d'obtenir des renseignements sur l'industrie des sondages ou de déposer une plainte. Le numéro de téléphone sans frais du système d'inscription des sondages est le 1-800-554-9996.

Nous choisissons au hasard les numéros de téléphone, puis nous sélectionnons une personne par foyer. Pour ce faire, nous aimerions parler à la personne de votre foyer, âgée de 18 ans ou plus, qui a été la dernière à fêter son anniversaire. Est-ce que ce serait 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 PRÉVUE POUR LES ENTREVUES, DEMANDER À PARLER À LA SECONDE PERSONNE QUI A FÊTÉ SON ANNIVERSAIRE LE PLUS RÉCEMMENT.

CONFIRMER SI LE/LA RÉPONDANT(E) PRÉFÈRE ÊTRE INTERVIEWÉ(E) EN FRANÇAIS OU EN ANGLAIS.

---

**Sélection du/de la répondant(e)**

*Avant de commencer . . .*

A. Est-ce que vous vous identifiez comme membre des Premières nations ?

- 01 - Oui
- 02 - Non                    REMERCIER ET TERMINER
- 03 - NSP/PR                REMERCIER ET TERMINER

B. Au cours des 12 derniers mois, est-ce que vous avez principalement vécu dans une réserve ou à l'extérieur d'une réserve ?

- 01 – Dans une réserve
- 02 – À l'extérieur d'une réserve        REMERCIER ET TERMINER
- 03 - NSP/PR                                REMERCIER ET TERMINER

C. Qui est responsable de l'entretien de votre maison ? Est-ce vous, quelqu'un d'autre ou vous et une autre personne également ?

- 01 – Vous
- 02 – Quelqu'un d'autre
- 03 – Vous et une autre personne également
- 03 - NSP/PR

D. Puisque les préoccupations en matière de santé se rapportent parfois à l'âge, en quelle année êtes-vous né(e) ?

- \_\_\_\_\_ Année  
NON SUGGÉRÉ  
97 - Refus/ND

SI ÂGÉ(E) DE MOINS DE 18 ANS; DEMANDER À PARLER À UN MEMBRE DU FOYER QUI EST ÂGÉ DE 18 ANS OU PLUS  
SI VA CHERCHER UN AUTRE INDIVIDU, REPRENDRE L'INTRODUCTION DU SONDAGE ET COMMENCER PAR LA Q.A

## A. Questions générales au sujet de la santé de l'environnement

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

### 2005 IAQ-Q1

1. Selon vous, quel est le problème ou le danger environnemental qui pose le plus grand risque pour la santé des membres des Premières nations qui vivent dans les réserves ? Quels sont d'autres problèmes ou dangers environnementaux qui posent un grand risque pour leur santé ?  
NE PAS LIRE – CODER LA PREMIÈRE ET LES AUTRES MENTIONS DE FAÇON DISTINCTE, JUSQU'À TROIS MENTIONS

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

2005 IAQ-Q2 revised list

2. Je vais maintenant vous lire une liste de dangers possibles pour la santé des membres des Premières nations qui vivent dans les réserves. Dans chaque cas, veuillez me dire si vous pensez que le risque posé par ce danger est élevé, modéré, léger ou presque nul.

LECTURE EN ROTATION

- a. La fumée secondaire du tabac
- b. Les changements climatiques
- c. La qualité de l'air extérieur
- d. La qualité de l'air intérieur
- e. Les pesticides dans les aliments
- f. L'exposition au soleil
- g. L'eau du robinet
- h. Le radon
- i. L'amiante
- j. La moisissure qui peut se développer sur les murs, les plafonds ou les rebords de fenêtre [\[nouveau\]](#)

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

## B. Qualité de l'air intérieur

À présent, j'ai quelques questions se rapportant à la qualité de l'air intérieur...

### 2005 IAQ-Q7

3. Au meilleur de votre connaissance, quelles sont les causes principales de la mauvaise qualité de l'air à l'intérieur ?

NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT

- 01 – La poussière/les acariens
- 02 – La moisissure
- 03 – Les produits chimiques toxiques
- 04 – Les produits de nettoyage
- 05 – La fumée secondaire/le tabac
- 06 – Les fournaies au gaz /les appareils ménagers au gaz
- 07 – Les poêles à bois/foyers
- 08 – Les chandelles/l'encens
- 09 – L'absence de ventilation
- 10 – La pollution de l'air extérieur
- 11 – Le monoxyde de carbone
- 12 – Le radon
- 13 – Le pollen
- 14 – Les produits parfumés
- 15 – Les assainisseurs d'air
- 16 – Émissions de polluants de nouveaux tapis/produits
- 17 – Peinture/vernis/finis nouveaux
- 18 – Les animaux domestiques/les poils et squames des animaux
- 19 – Les passe-temps
- 20 – Vivre à proximité d'endroit où la circulation est dense
- 21 – Le formaldéhyde
- 22 – Le plomb
- 23 – L'amiante
- 24 – Humidité/condensation/mildiou (PAS LA MOISSURE)
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – NSP/PR

### 2005 IAQ-Q8 revised list

4. D'après vous, est-ce que chacune des sources suivantes est une cause certaine, probable ou improbable de la mauvaise qualité de l'air intérieur dans les maisons des Premières nations dans les réserves aujourd'hui ?  
LECTURE EN ROTATION – RÉPÉTER L'ÉCHELLE SI NÉCESSAIRE

- a. La poussière
- b. La moisissure
- c. La fumée secondaire
- d. Les substances chimiques provenant des produits d'entretien ménager
- e. Les poêles à bois
- f. Les animaux domestiques à fourrure
- g. Les polluants provenant de la pollution de l'air extérieur pénétrant à l'intérieur
- h. Les rafraîchisseurs d'air [SI DEMANDÉ : ça comprend les rafraîchisseurs d'air en aérosol ou ceux qu'on branche dans le mur]

- 01 – Cause certaine
- 02 – Cause probable
- 03 – Cause improbable
- NON SUGGÉRÉ
- 04 – Ça dépend
- 99 – NSP/PR

#### 2005 IAQ-Q4 variation

5. Comment évalueriez-vous la qualité de l'air habituelle dans votre habitation ? Par qualité de l'air, je veux dire l'absence ou la présence de polluants. Diriez-vous que la qualité de l'air que vous respirez dans votre habitation présentement est excellente, bonne, acceptable ou mauvaise ?

- 01 – Excellente
- 02 – Bonne
- 03 – Acceptable
- 04 – Mauvaise
- NON SUGGÉRÉ
- 05 – Ça dépend
- 99 - NSP/PR

#### 2007 Radon-Q.5

6. À l'heure actuelle ou à un certain moment dans le passé, avez-vous été préoccupé(e) par la qualité de l'air intérieur dans votre habitation ?

SI PRÉOCCUPÉ(E), CONFIRMER SI À L'HEURE ACTUELLE OU DANS LE PASSÉ; SI LES DEUX INSCRIRE PRÉSENTEMENT

- 01 – Oui, préoccupé(e) à l'heure actuelle
- 02 – Oui, préoccupé(e) dans le passé
- 03 – Jamais été préoccupé(e)
- NON SUGGÉRÉ
- 99 – NSP/PR

#### 2005 IAQ-Q.9

7. Comment sauriez-vous que la qualité de l'air intérieur est mauvaise chez vous ?  
NE PAS LIRE – CODER LA PREMIÈRE MENTION ET LES AUTRES; SONDER : Est-ce qu'il y a autre chose ?

- 01 – Peut sentir l'odeur
- 02 – Peut le ressentir
- 03 – Peut voir des problèmes (p. ex. moisissure)
- 04 – Les symptômes de santé se sont aggravés (SONDER POUR SAVOIR QUEL TYPE DE SYMPTÔME)
- 05 – Effets sur les poumons/la respiration/souffle court/problèmes de respiration
- 06 – Aggrave les allergies/l'asthme
- 07 - Moniteur de qualité de l'air/détecteur de monoxyde de carbone
- 98 - Autre (PRÉCISER \_\_\_\_\_)
- 97 – Ne peut pas dire quand la qualité de l'air est mauvaise
- 98 – La qualité de l'air n'est jamais mauvaise à la maison
- 99 - NSP/PR

2005 IAQ-Q.10

8. À votre avis, dans quelle mesure la mauvaise qualité de l'air intérieur affecte-t-elle la santé des membres des Premières nations qui vivent dans les réserves ? Est-ce qu'elle les affecte :

LIRE

- 01 - Beaucoup
- 02 – Quelque peu
- 03 – Pas beaucoup
- 04 – Pas du tout
- NON SUGGÉRÉ
- 99 - NSP/PR

**C. Sensibilisation et connaissances à propos de la moisissure**

*J'ai à présent quelques questions sur la moisissure. La moisissure est un type de champignons microscopiques (microorganismes fongiques) qui peut parfois se développer dans les habitations et qui cause une mauvaise qualité de l'air intérieur. Je ne veux pas dire le type de moisissure qui peut se développer sur les aliments ou dans les réfrigérateurs.*

2007 Radon-Q13 variation

9. Diriez-vous que vous connaissez beaucoup de choses, certaines choses, peu de choses ou presque rien à propos de ce type de moisissure ?

- 01 – Connaît beaucoup de choses
- 02 – Connaît certaines choses
- 03 – Connaît peu de choses
- 04 – Connaît presque rien
- NON SUGGÉRÉ
- 99 – NSP/PR

NEW

10. Au meilleur de votre connaissance, quelles sont les principales causes de la présence de moisissure dans une habitation ?

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

- 01 – Trop d'humidité/de condensation
- 02 – Infiltration d'eau par les fondations/le plancher/les murs/le toit
- 03 – Fuites dans la plomberie
- 04 – Mauvaise ventilation dans la maison
- 05 – L'humidité produite par les activités quotidiennes (cuisson, bains, lessive)
- 06 – L'humidité qui s'accumule dans des choses entreposées (bois, vêtements, papier)
- 07 – Trop grand nombre de résidents
- 08 – Mauvaise construction
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – NSP/PR

2007 Radon-Q.15 variation

11. À partir de ce que vous savez ou avez entendu, à quel endroit dans une habitation pourrait-on retrouver le plus probablement de la moisissure ?

NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT

- 01 – Sous-sol
- 02 – Salles de bain
- 03 – Cuisine
- 04 – Chambres à coucher
- 05 – Autour des fenêtres

- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – Ne sait pas

#### 2005 IAQ-Q.9 variation

12. Comment sauriez-vous qu'il y a de la moisissure chez vous ?  
NE PAS LIRE - CODER LA PREMIÈRE MENTION ET LES AUTRES; SONDER : Est-ce qu'il y a autre chose ?

- 01 – Peut sentir l'odeur
- 02 – Peut le ressentir/toucher l'humidité
- 03 – Peut la voir
- 04 – Les symptômes de santé se sont aggravés (SONDER POUR SAVOIR QUEL TYPE DE SYMPTÔME)
- 05 – Effets sur les poumons/la respiration/souffle court/problèmes de respiration
- 06 – Aggrave les allergies/l'asthme
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 97 – Ne peut pas dire quand il y a de la moisissure
- 98 – Je n'ai pas de moisissure dans ma maison
- 99 – NSP/PR

#### 2005 IAQ-Q.11 variation

13. D'après vous, quels sont les types spécifiques de problèmes de santé les plus susceptibles d'être causés par la moisissure présente dans une habitation ?  
NE PAS LIRE - CODER LA PREMIÈRE ET LA DEUXIÈME MENTION ET LES AUTRES, SONDER : Est-ce qu'il y a autre chose ?

- 01 - Allergies
- 02 - Asthme
- 03 - Bronchite
- 04 - Cancer
- 05 – Mortalité/longévité écourtée
- 06 - Fatigue/manque de concentration
- 07 – Problèmes de santé généraux (non précisés)
- 08 – Maladies du cœur
- 09 – Hypertension (haute tension)
- 10 – Sclérose en plaques
- 11 – Fibromyalgie
- 12 – Syndrome de fatigue chronique
- 13 - Autres problèmes respiratoires/pulmonaires
- 14 – Éruptions cutanées/irritation
- 15 – Immunosuppression
- 16 – Maux de tête
- 17 - Nausées
- 18 - Inconfort
- 19 – Problèmes de respiration
- 20 – Problèmes de sinus
- 21 – Problèmes respiratoires – non précisés
- 97 – Aucun effet sur la santé
- 98 - Autre (PRÉCISER \_\_\_\_\_)
- 99 - NSP/PR

2005 IAQ-Q.13 variation/revised list

14. Et, en ce qui concerne l'impact que la moisissure peut avoir sur différents types de problèmes de santé...  
Croyez-vous que la moisissure contribue certainement, probablement, probablement pas ou certainement pas à chacun des problèmes suivants ?

LIRE ET RANDOMISER

- a. Asthme
- b. Maladies du cœur
- c. Cancer
- d. Allergies
- e. Maladies respiratoires, comme la bronchite
- f. Éruptions cutanées
- g. Fibromyalgie, qui est une maladie dont les symptômes comprennent douleur chronique, raideur et sensibilité des muscles, des tendons et des articulations

- 01 – Contribue certainement
- 02 – Contribue probablement
- 03 – Ne contribue probablement pas
- 04 – Ne contribue certainement pas
- NON SUGGÉRÉ
- 05 – Ça dépend (p.ex. du type d'individu)
- 99 - NSP/PR

2005 IAQ-Q.14 variation

15. D'après vous, quels sont les types de personnes qui sont les plus susceptibles d'éprouver des problèmes de santé causés par la moisissure dans une habitation ?

NE PAS LIRE – CODER LA PREMIÈRE MENTION ET LES AUTRES; SONDER : Est-ce qu'il y en a d'autres ?

- 01 - Les gens ayant des problèmes de santé préexistants (SONDER POUR OBTENIR DES PRÉCISIONS)
- 02 - Les personnes âgées/les aînés
- 03 - Les enfants
- 04 – Les bébés
- 05 – Les jeunes/les adolescents
- 06 – Les femmes enceintes
- 07 - Les gens qui travaillent/qui font de l'exercice à l'intérieur
- 08 - Les gens atteints de maladies du cœur/de troubles cardiaques
- 09 - Les gens atteints de maladie pulmonaire/de troubles pulmonaires
- 10 - Les asthmatiques
- 11 – Les gens qui ont des allergies
- 12 – Les gens souffrant de sensibilité aux agresseurs chimiques
- 13 – Les cancéreux
- 14 - Les fumeurs
- 15 - Les immigrants récents
- 16 – Les migraineux
- 17 – Les consommateurs de drogue
- 18 – Les gens hospitalisés
- 19 - Les gens dont le système immunitaire est bas/affaibli
- 20 – Tous également
- 98 - Autre (PRÉCISER \_\_\_\_\_)
- 97 - Aucun
- 99 - NSP/PR



**NEW**

16. S'il y a lieu, savez-vous ce que les gens peuvent faire pour empêcher que la moisissure se développe dans leur domicile ?  
NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER EN DÉTAIL : Est-ce qu'il y a autre chose ?

- 01 – Réduire l'humidité (SONDER SUR LA FAÇON DONT ON RÉDUIRAIT L'HUMIDITÉ)
- 02 – Réparer les infiltrations d'eau dans les fondations/le plancher/les murs/le toit
- 03 – Réparer les fuites d'eau dans la plomberie
- 04 – Utiliser un déshumidificateur
- 05 – Réduire l'entreposage (bois, vêtements, papier)
- 06 – Utiliser le ventilateur de salle de bain/de cuisine
- 07 – Retirer les tapis du sous-sol/des salles de bain
- 08 – Évacuer l'humidité du séchoir à l'extérieur
- 09 – Éviter d'étendre le linge à l'intérieur pour le faire sécher
- 10 – Accroître la ventilation/utiliser récupérateur de chaleur/ventilateur-récupérateur de chaleur VRC
- 11 – Nettoyer souvent la fournaise/les filtres de ventilation
- 12 – Recouvrir ou sceller les pompes d'assèchement
- 13 – Nettoyer périodiquement le drain du sous-sol/de la salle de bain
- 14 – Maintenir la maison propre/passé l'aspirateur périodiquement
- 15 – On peut faire quelque chose, mais ne sait pas quoi
- 97 – Autre (PRÉCISER \_\_\_\_\_)
- 98 – On ne peut rien faire
- 99 – NSP/PR

**17. DÉPLACÉ À Q.33.1 et Q.33.2**

## D. Expérience de la moisissure

### 2007 Radon-Q.8 variation

18. Veuillez me dire si la moisissure est présente ou si elle a déjà été présente dans votre habitation depuis que vous y vivez ?

SONDER POUR SAVOIR SI CELA EST PRÉSENT À L'HEURE ACTUELLE OU SI CELA L'A DÉJÀ ÉTÉ

- 01 – Oui, la moisissure est présente à l'heure actuelle      PASSER À LA Q.20
- 02 – Oui, la moisissure a déjà été présente      PASSER À LA Q.20
- 03 – Non, n'a jamais été présente
- NON SUGGÉRÉ
- 04 – C'est possible – pas de confirmation
- 99 – NSP/PR

### NEW

19. (SI CODE 3, 4 OU 99 À LA Q.18) La moisissure a-t-elle déjà été présente dans la maison où vous viviez avant d'habiter dans votre présente maison ?

- 01 – Oui
- 02 – Non
- NON SUGGÉRÉ
- 03 – C'est possible – pas de confirmation
- 04 – N'a jamais habité ailleurs
- 99 – NSP/PR

PASSER À LA Q.33.2

### NEW

20. (SI CODE 1 À LA Q.18) Est-ce la première fois que la moisissure est présente ou est-ce un problème qui se reproduit souvent ?

(SI CODE 2 À LA Q.18) La moisissure a-t-elle seulement été présente une fois ou était-ce un problème qui se reproduisait souvent ?

- 01 – Première fois/une seule fois
- 02 – Problème qui se reproduit/reproduisait souvent
- 99 – NSP/PR

### NEW

21. (SI CODE 1 À LA Q.18) Depuis combien de temps avez-vous de la moisissure dans votre maison ?

(SI CODE 1 À LA Q.20) Pendant combien de temps avez-vous eu de la moisissure dans votre maison ?

(SI CODE 2 À LA Q.20) J'aimerais vous poser une question se rapportant au plus récent épisode où la moisissure a été présente dans votre maison. Pendant combien de temps en avez-vous eu ?

\_\_\_\_\_ INDIQUER S'IL S'AGIT DE SEMAINES, DE MOIS OU D'ANNÉES

99 – NSP/PR

### NEW

22. Quelles sont les pièces ou les endroits où la moisissure (est/était) présente ?

NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT

- 01 – Sous-sol
- 02 – Salles de bain
- 03 – Cuisine
- 04 – Chambres à coucher
- 05 – Autour des fenêtres
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – Ne sait pas





NEW

30. [SI CODE 2 À LA Q.29] Pourquoi pas ?  
NE PAS LIRE - INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT

- 01 – Pas besoin/pas nécessaire
- 02 – Ne sait pas comment s'en débarrasser
- 03 – N'a pas le temps/trop occupé(e)
- 04 – Cela revient toujours de toute façon
- 05 – Attendu de l'aide du Conseil de bande
- 06 – Attendu de l'aide du gestionnaire des logements
- 07 – Attendu la visite d'un agent d'hygiène du milieu
- 08 – N'a pas d'incidence sur ma santé/la santé des autres dans la maison
- 09 – Pas ma responsabilité
- 10 – Trop de moisissure pour l'enlever par moi-même
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – NSP/PR

PASSER À LA Q.33.1

NEW

31. Qui (a/avait) fait quelque chose pour se débarrasser de la moisissure ?  
NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT. SONDER : Quelqu'un d'autre ?

- 01 – Soi-même
- 02 – Autre(s) personne(s) dans la maison
- 03 – Conseil de bande
- 04 – Gestionnaire des logements
- 05 – Agent d'hygiène du milieu
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – NSP/PR

NEW

32. [SI CODE 1 OU 2 À LA Q.31] Qu'est-ce que (vous avez/cet autre membre du foyer a) fait ?  
NE PAS LIRE - INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT

- 01 – Nettoyé avec un détergent fort
- 02 – Nettoyé avec du bicarbonate de soude
- 03 – Demandé l'aide du bureau du conseil de bande
- 04 – Porté à l'attention du gestionnaire des logements
- 05 – Appelé un agent d'hygiène du milieu
- 06 – Découpé et remplacé la partie de la cloison sèche où la moisissure était présente
- 07 – S'est débarrassé des objets contaminés (c.-à-d. vêtements, bois, etc.)
- 08 – A peinturé par-dessus
- 09 – A enlevé la source de moisissure/d'humidité
- 97 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – NSP/PR

NEW

33. [SI CODE 1 OU 2 À LA Q.31] Est-ce que [vous portiez/cette autre personne portait] des vêtements de protection tels que des lunettes de sécurité ou des verres, des gants de caoutchouc ou un masque anti-poussière ?

- 01 – Oui
- 02 – Non
- 99 – NSP/PR

2007 Radon-Q.18 variation – PREVIOUSLY Q.17

33.1 (SI NON/NSP À LA Q.29) Et, si la moisissure se développait dans votre maison, sauriez-vous ce que vous pouvez faire pour vous en débarrasser ?  
NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER EN DÉTAIL : Autre chose ?

- 01 – Nettoyer avec un détergent fort
- 02 – Nettoyer avec du bicarbonate de soude
- 03 – Demander l'aide du bureau du conseil de bande
- 04 – Porter à l'attention du gestionnaire des logements
- 05 – Appeler un agent d'hygiène du milieu
- 06 – Découper et remplacer la partie de la cloison sèche où la moisissure est présente
- 07 – Se débarrasser des objets contaminés (c.-à-d. vêtements, bois, etc.)
- 08 – Peinturer par-dessus
- 09 – Enlever la source de moisissure/d'humidité
- 10 – On peut faire quelque chose, mais pas certain(e) quoi faire
- 97 – Autre (PRÉCISER \_\_\_\_\_)
- 98 – On ne peut rien faire
- 99 – NSP/PR

## E. Expérience hypothétique avec la moisissure

SI LA MOISSURE N'EST PAS PRÉSENTE DANS L'HABITATION ACTUELLE (Q.18 CODES 3, 4 OU 99)  
POSER LA Q.33.2 SINON PASSER À LA SECTION SUIVANTE

### 2007 Radon-Q.18 variation – PREVIOUSLY Q.17

33.2 Et, si la moisissure se développait dans votre maison, sauriez-vous ce que vous pouvez faire pour vous en débarrasser ?

NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER EN DÉTAIL : Autre chose ?

- 01 – Nettoyer avec un détergent fort
- 02 – Nettoyer avec du bicarbonate de soude
- 03 – Demander l'aide du bureau du conseil de bande
- 04 – Porter à l'attention du gestionnaire des logements
- 05 – Appeler un agent d'hygiène du milieu
- 06 – Découper et remplacer la partie de la cloison sèche où la moisissure est présente
- 07 – Se débarrasser des objets contaminés (c.-à-d. vêtements, bois, etc.)
- 08 – Peinturer par-dessus
- 09 – Enlever la source de moisissure/d'humidité
- 10 – On peut faire quelque chose, mais pas certain(e) quoi faire
- 97 – Autre (PRÉCISER \_\_\_\_\_)
- 98 – On ne peut rien faire
- 99 – NSP/PR

### 2005 IAQ-Q.32 revised list

34. Si vous deveniez préoccupé(e) par la présence possible de moisissure dans votre maison, est-ce qu'il est certain, probable, peu probable ou pas du tout probable que...?  
LECTURE EN ROTATION

- a. Vous installez un échangeur d'air ou un autre appareil pour améliorer la circulation de l'air dans votre domicile,
- b. Vous demandiez l'aide du bureau du conseil de bande [nouveau]
- c. Vous portiez le problème à l'attention du gestionnaire des logements [nouveau]
- d. Vous nettoyez la moisissure par vous-même [nouveau]
- e. Vous demandiez une inspection de l'agent d'hygiène du milieu et/ou de l'inspecteur du logement [nouveau]
- f. Vous déménagez, soit dans la maison d'un membre de la famille ou à l'extérieur de la réserve [nouveau]

- 01 – Certain
- 02 – Probable
- 03 – Peu probable
- 04 – Pas du tout probable
- NON SUGGÉRÉ
- 05 – A déjà installé l'équipement
- 06 – Ça dépend
- 99 – NSP/PR

## F. Information à propos de la moisissure

### POSER À TOUS

#### 2007 Radon – Q.47 variation

35. Avez-vous posé des gestes pour vous renseigner au sujet de la moisissure ?

- 01 – Oui
- 02 – Non                    PASSER À LA Q.37
- 99 – NSP/PR                PASSER À LA Q.37

#### 2007 Radon – Q.48a variation

36. (SI OUI À LA Q.35) Où vous êtes-vous tourné(e) pour obtenir de l'information sur la moisissure ?  
NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT

- 01 – Médecin de famille/omnipraticien
- 02 – Infirmière de la santé communautaire
- 03 – Médias (télévision, journaux, magazines)
- 04 – Internet
- 05 – Santé Canada
- 06 – Gouvernement provincial/ministère provincial de la Santé
- 07 – Société canadienne d'hypothèques et de logement /SCHL
- 08 – Chef/Conseil de bande
- 09 – Amis/famille/collègues
- 10 – Agent d'hygiène du milieu
- 11 – Rénovateur de résidences
- 12 – Inspecteur d'habitations
- 13 – Bibliothèque
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 –NSP/PR

#### 2005 IAQ-Q.35 variation

37. Je voudrais maintenant vous parler de différents aspects se rapportant à la moisissure au sujet desquels certaines personnes pourraient souhaiter en savoir plus. Est-ce que vous seriez personnellement très intéressé(e), assez intéressé(e), pas très intéressé(e) ou pas du tout intéressé(e) à en savoir davantage sur :  
LECTURE EN ROTATION

- a. Ce qui cause la moisissure dans une habitation
- b. Ce qu'on peut faire pour se débarrasser de la moisissure dans une habitation
- c. Les risques pour la santé pouvant résulter de la présence de la moisissure dans une habitation
- d. Comment empêcher la moisissure de se développer dans la maison
- e. Comment découvrir si la moisissure se développe à l'intérieur de votre domicile

- 01 – Très intéressé(e)
- 02 – Assez intéressé(e)
- 03 – Pas très intéressé(e)
- 04 – Pas du tout intéressé(e)
- NON SUGGÉRÉ
- 05 – Ça dépend
- 98 – NSP/PR



2007 Radon – Q.48b variation

38. (SI NON/NSP À LA Q.35) Si vous vouliez obtenir de l'information au sujet de la moisissure, où est-il probable que vous cherchiez à l'obtenir ?

NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT

- 01 – Médecin de famille/omnipraticien
- 02 – Infirmière en santé communautaire
- 03 – Médias (télévision, journaux, magazines)
- 04 – Internet
- 05 – Santé Canada
- 06 – Gouvernement provincial/ministère provincial de la Santé
- 07 – Société canadienne d'hypothèques et de logement/SCHL
- 08 – Chef/Conseil de bande
- 09 – Amis/famille/collègues
- 10 – Agent d'hygiène du milieu
- 11 – Rénovateur de résidences
- 12 – Inspecteur d'habitations
- 13 – Bibliothèque
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 –NSP/PR

NEW

39. Il existe plusieurs moyens de donner de l'information aux gens à propos de la moisissure et de la mauvaise qualité de l'air intérieur. Est-ce que chacun des moyens suivants vous serait personnellement très utile, assez utile, pas très utile ou pas du tout utile ?

LECTURE EN ROTATION

- a. Un site Web du gouvernement du Canada
- b. Des brochures et des trousseaux d'information envoyées à votre domicile
- c. Des annonces à la télévision
- d. Des annonces à la radio
- e. Des annonces dans des journaux et des magazines
- f. Des affiches posées dans la collectivité

- 01 – Très utile
- 02 – Assez utile
- 03 – Pas très utile
- 04 – Pas du tout utile
- NON SUGGÉRÉ
- 99 - NSP/PR

2005 IAQ-Q.37 variation/revised list

40. Dans quelle mesure feriez-vous confiance à chacun des groupes ou des organismes suivants en tant que source d'information sur la moisissure ? Feriez-vous beaucoup confiance, assez confiance, pas beaucoup confiance ou pas du tout confiance... :

LECTURE EN ROTATION

- a. Aux médias d'information
- b. Aux médecins
- c. À Santé Canada
- d. Au gouvernement de votre province
- e. À la Société canadienne d'hypothèque et de logement, la SCHL
- f. Au Chef et au Conseil de bande [nouveau]
- g. À un agent d'hygiène du milieu [nouveau]
- h. À l'infirmière en santé communautaire [nouveau]

01 – Beaucoup confiance  
02 – Assez confiance  
03 – Pas beaucoup confiance  
04 – Pas du tout confiance  
NON SUGGÉRÉ  
05 – Ça dépend  
99 – NSP/PR

## G. Caractéristiques et pratiques dans le foyer

Je vais maintenant vous poser quelques questions au sujet de votre domicile. . .

### 2005 IAQ-Q38

41. Laquelle des catégories suivantes décrit le mieux votre domicile ?  
LIRE – CODER UNE MENTION SEULEMENT – ARRÊTER DÈS QUE LA CATÉGORIE EST IDENTIFIÉE

- 01 – Une maison unifamiliale détachée
- 02 – Une maison unifamiliale jumelée à une ou plusieurs autres (p. ex. maison en rangée, duplex)
- 03 – Un immeuble d'appartements de quatre étages ou moins
- 04 – Un immeuble d'appartements de cinq étages ou plus
- 05 – Une maison mobile ou une maison-remorque
- NON SUGGÉRÉ
- 98 – Autre (PRÉCISER \_\_\_\_\_)
- 99 – NSP/PR

### NEW

42. Combien de chambres à coucher y a-t-il dans votre résidence ?  
PRÉCISER

\_\_\_\_\_ chambres à coucher  
99 – NSP/PR

### 2007 Radon-Q.58 variation

43. Votre maison a-t-elle un sous-sol ou un vide sanitaire ?  
SI OUI, CONFIRMER LEQUEL

- 01 – Sous-sol seulement
- 02 – Vide sanitaire seulement      PASSER À LA Q.45
- 03 – Les deux
- 04 – Ni un ni l'autre      PASSER À LA Q.45
- NON SUGGÉRÉ
- 99 – NSP/PR      PASSER À LA Q.45

### NEW

44. Le sous-sol est-il aménagé ou non aménagé ?

- 01 – Aménagé
- 02 – Non aménagé
- 99 – NSP/PR

### 2005 IAQ-Q40

45. Quel est l'âge approximatif du bâtiment où vous habitez, en années ?  
PRÉCISER

\_\_\_\_\_  
999 – NSP/PR

2007 Radon-Q.57

46. Depuis combien de temps vivez-vous dans cette habitation ?  
PRÉCISER

\_\_\_ ANNÉES OU

996 – Moins de six mois

997 – Entre six mois et un an

998 – Toute ma vie

999 – NSP/PR

2005 IAQ-Q43 revised list

47. Est-ce qu'il y a actuellement l'une ou l'autre des choses suivantes, dans votre domicile :  
LECTURE EN ROTATION – [PROGRAMMER: MAKE SURE COMPLETE LIST IS READ]

a. Un échangeur d'air

b. Un humidificateur

c. Un déshumidificateur

d. Un ventilateur de salle de bain qui évacue l'air à l'extérieur

e. Une sècheuse (pour le linge)

f. Une hotte disposée au-dessus de la cuisinière qui est raccordée directement à l'extérieur

g. Du bois entreposé dans la maison, notamment dans le sous-sol ou la cuisine, mais en ne comptant pas le bois qui est dans le garage

h. Un poêle à bois ou un foyer

01 – Oui

02 – Non

99 – NSP/PR

NEW

48. (POSER SI OUI À LA Q.47e) Le conduit d'évacuation de votre sècheuse évacue-t-il l'air à l'intérieur ou à l'extérieur de la maison ?

01 – À l'intérieur

02 – À l'extérieur

99 – NSP/PR

NEW

49. À quelle fréquence étendez-vous du linge à l'intérieur pour le faire sécher ?  
LIRE

01 – Souvent

02 – À l'occasion

03 – Rarement

04 – Jamais

99 – NSP/PR

NEW

50. Quelles sont les pièces où il y a du tapis ? Je veux dire du tapis mur à mur, non pas des petits tapis.  
NE PAS LIRE – INSCRIRE TOUTES LES RÉPONSES QUI S'APPLIQUENT. SONDER : Ailleurs ?

- 01 – Sous-sol
- 02 – Salles de bain (NOTA : cela n'inclut pas les tapis de bain)
- 03 – Cuisine
- 04 – Chambres à coucher
- 05 – Salon
- 06 – Salle à manger
- 07 – Salle familiale/salle de télévision/bureau
- 97 – Autre (PRÉCISER \_\_\_\_\_)
- 98 – Aucune/aucun tapis nulle part
- 99 – Ne sait pas

2005 IAQ-Q47

51. Veuillez me dire à quelle fréquence vous-même ou quelqu'un d'autre de votre ménage fumez dans votre domicile, comprenant tous les endroits fermés, y compris le garage. Est-ce que ce serait toujours, fréquemment, parfois ou jamais ?

- 01 - Toujours
- 02 - Fréquemment
- 03 - Parfois
- 04 - Jamais
- NON SUGGÉRÉ
- 99 - NSP/PR

## H. Caractéristiques du/de la répondant(e)

Enfin, je vais vous poser quelques questions à votre sujet, pour nous aider à analyser les résultats de ce sondage.

### 2005 IAQ-Q.56

52. Quel est le niveau de scolarité le plus élevé que vous avez atteint ?  
LIRE SI NÉCESSAIRE – CODER UNE MENTION SEULEMENT

- 01 Cours primaire
- 02 Une partie du cours secondaire
- 03 Diplôme d'études secondaires
- 04 Une partie du cours collégial/du cours technique/du cégep [DOIT AVOIR TERMINÉ SES ÉTUDES SECONDAIRES]
- 05 Diplôme d'études collégiales/d'études techniques/DEC
- 06 Une partie du premier cycle universitaire [DOIT AVOIR TERMINÉ SES ÉTUDES SECONDAIRES]
- 07 Baccalauréat
- 08 Diplôme d'études supérieures [DOIT AVOIR TERMINÉ LA FORMATION UNIVERSITAIRE]
- 09 Aucune scolarité
- 97 Pas de réponse/Refus

### 2005 IAQ-Q.58

53. Combien de personnes, y compris vous-même, habitent actuellement dans votre domicile ?

99 – PR/REFUS

SI « 1 » À LA Q.53, PASSER À LA Q.55

### 2005 IAQ-Q.59

54. 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

### NEW – Based on 2005 HC Multiprogram Baseline survey

55. À des fins de classification seulement, nous aimerions avoir une idée générale du revenu annuel du foyer des répondants. Laquelle de ces catégories correspond le mieux au total des revenus de tous les membres de votre foyer en 2006 ?

LIRE - CODER UNE SEULE RÉPONSE – STOPPER DÈS QUE LA CATÉGORIE EST IDENTIFIÉE

- 01 – Moins de 20 000 \$
- 02 - 20 000 \$ à moins de 30 000 \$
- 03 - 30 000 \$ à moins de 50 000 \$
- 04 - 50 000 \$ ou plus
- NON SUGGÉRÉ
- 97 - REFUS

Voici qui termine le sondage. Si mon superviseur veut vérifier que j'ai bien mené ce sondage, est-ce que je pourrais avoir votre prénom ?

Prénom : \_\_\_\_\_

Ce sondage a été mené pour le compte de la Direction générale de la santé des Premières nations et des Inuits de Santé Canada et il est enregistré en vertu de la Loi fédérale sur l'accès à l'information. Je vous remercie beaucoup d'avoir participé à cette étude.

INSCRIRE :

[2005 IAQ-Q.63](#)

56. Sexe

01 – Homme

02 – Femme

[2005 IAQ-Q.65](#)

57. Province

01 – Alberta

02 – Colombie-Britannique

03 – Manitoba

04 – Terre-Neuve

05 – Nouveau-Brunswick

06 – Nouvelle-Écosse

07 – Ontario

08 – Ile du Prince-Édouard

09 – Québec

10 – Saskatchewan