



**Summary Report of Four Focus Groups  
in Toronto & Montreal  
On Awareness and Understanding on  
Toxic Emissions Information on Tobacco Packaging**

FINAL REPORT

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## 1.0 INTRODUCTION

In February 2003, Environics Research Group Ltd. was retained by Health Canada to conduct focus group research on the awareness and understanding of toxic emissions information on tobacco packaging.

Since 2001, additional toxic emissions information has been present on tobacco packaging and new research is now required to examine in more detail the effectiveness of this information.

The primary objectives of this research were to address:

- ◆ Awareness of toxics information on tobacco packages
- ◆ Readability of the information
- ◆ Awareness of changes (i.e. more information) on the 2001 packs from the pre-2001 packs
- ◆ Understanding of the toxic emissions information, including the range and metric information
- ◆ Awareness of specific toxics in smokers preferred brand and their impact on health
- ◆ Impact of the information on purchase or other decisions
- ◆ Suggestions for changing the toxics information

The focus group research consisted of four sessions: two each in Toronto and Montreal. One session in Toronto consisted of smokers aged 18-34 years; the other session consisted of smokers aged 35 and over. Both sessions in Montreal consisted of smokers aged 18 years and older. As well, all groups, with the exception of one group in Montreal, were potential quitters.

	<b>Date, Time and Place</b>	<b>Characteristics</b>
<b>Group 1</b>	February 17, 6:00 pm - Montreal	18+ years & potential quitters
<b>Group 2</b>	February 17, 8:00 pm – Montreal	18+ years & not potential quitters
<b>Group 3</b>	February 24, 6:00 pm – Toronto	18-34 years & potential quitters
<b>Group 4</b>	February 24, 8:00 pm – Toronto	35+ years & potential quitters

This report summarizes the findings of the research. Appended to this report is a copy of the English and French versions of the Discussion Agenda.

This research project uses qualitative research methodology. Qualitative research is, by its design and nature, exploratory. The findings of this research may be viewed as indicative, but should not be viewed as projectable.

## 2.0 AWARENESS OF CURRENT SUBSTANCE INFORMATION

For all groups, a written exercise was given asking all participants to record any information they could remember about cigarettes that is currently on the package. In response, virtually all participants recalled health warnings, particularly the “ghastly”, “dramatic” pictures depicting the long-term effects of smoking on lungs and teeth. So “horrible” are the images on cigarette packages, that some participants deliberately avoid looking at the picture. The most resonant messages included the harmful effects of smoking during pregnancy, potential impotency in male smokers, and the risk of heart disease and cancer. Some participants took notice of package features like brand name, package colour of preferred brand, and number of cigarettes in a package. In Toronto, only a couple of participants mentioned seeing the nicotine count and content listing of cigarettes. However, in Montreal most participants mentioned that ingredients information could be found on a cigarette pack.

A second written exercise was performed with all groups. This exercise involved having the participants remember anything about the ingredients or substances in cigarettes on the cigarette pack. With the exception of formaldehyde, participants mentioned all ingredients currently on cigarette packages at least once, with nicotine and tar being the most frequently named. Carbon dioxide was mentioned by some participants, as was hydrogen cyanide, which was characterized by one participant as “pretty scary”. Benzene, an ingredient that most participants have never heard, was mentioned a couple of times by older (35-54 year olds) participants only. Interestingly, some participants recalled dosage numbers associated with the above ingredients, while a couple participants admitted to intentionally avoiding the dosage numbers.

Asked to recall where on the cigarette package that ingredient information could be found, most participants were able to recall the side of a cigarette package. Some participants, particularly in the older group, recalled seeing ingredient information on the inside of the cigarette package, sometimes in the form of an insert that comes with smaller packs of cigarettes. A salient comment about the location of ingredient information that summed up the general feeling was:

“It’s tucked away on the side of the pack and unless you go looking for it, you won’t see it.”

“On the side, you don’t really see that.”

On the issue of clarity of ingredient information, the groups were divided in their opinion. Older participants generally thought that ingredient information on cigarette packages was readable. However, younger (19-34 year olds) participants commented that the ingredient information was written in very small print. It was felt that this “extremely small” print made it “much easier to skip” and contributed to the theory that tobacco companies provide ingredient information “only because they have to – they don’t really want you to read it”. Furthermore, it was felt that “just like contracts, the most important information is in small print”.

The majority of participants noticed the changes to ingredient information on cigarette packages over the past couple of years. The most common change cited was the volume and detail of ingredient information available now compared to old cigarette packages. Most participants recalled that, in the past, only nicotine and tar were detailed as being ingredients in cigarettes. Nowadays, most participants noticed that there is “a lot more information about ingredients”. Interestingly, the older participants noted the inclusion of ingredients like benzene and carbon monoxide, while the younger participants noted the inclusion of dosage numbers.

### **3.0 NUMBERS INFORMATION AND ITS IMPACT**

Participants were asked to look at their cigarette packages and comment on what the numbers beside the ingredients list meant to them. The most prevalent comment was that they “have no idea” or “don’t really know” what the numbers mean. Some participants, drawing upon their experience in smoking a number of brands, felt that the numbers possibly provided an indication of the strength of the cigarette. However, a strong theme to emerge was confusion of whether the dosage was per cigarette or per pack and questions about the accuracy of the large range of measurements. This ultimately led to the conclusion among some participants that the numbers “do not really mean anything”.

“It says 13-31, what does that mean? I have no idea”

“13-31 mg...that’s not really accurate”

“No, I haven’t a clue”

“You have to be a chemist to really understand that information”

“It depends on how many puffs someone takes from the same cigarette”

The majority of participants said that they had not used the dosage information to make changes to their smoking habits. This was particularly the case with the younger participants since no participant mentioned altering their smoking habits or switching brands because of dosage information. In the older participants group, a couple participants switched to a lighter cigarette because of the dosage information. In addition, a couple other older participants said that they have looked at the dosage information and given it some thought insofar as cutting back or quitting, but had yet to make changes to their smoking habits. Interestingly, the issue of brand loyalty was mentioned by older participants as being the primary reason why they had not made changes, despite the presence of dosage information. More than any other reason, participants have used the dosage information as a way to gauge and compare the strength of various cigarettes for mainly interest purposes.

Also, since many smokers are now looking for cheaper brands, some have checked the information on ingredients to find a brand that is “close” to their usual one in terms of percentages. In other words, it seems that the information on ingredients is considered as the best way (better than the labels “light”, “regular”...) to inform some smokers who are in the process of changing brands. It is not really considered as a health warning information, especially among heavy smokers, but rather as an information they use to insure that a certain brand will meet their expectations in terms of satisfaction (taste, sufficient amount of nicotine...).

“When I compare brands with someone, I can see that mine is stronger because I have more nicotine and his has more tar”

“Some people refuse my cigarettes because they are not strong enough for their taste”

#### **4.0 HEALTH EFFECTS AWARENESS**

Participants were asked to look at their cigarette packages and instructed to offer what knowledge they had about each listed ingredient and how it can affect one’s health. Overall, there was a higher awareness of tar, nicotine, and , to some extent, carbon monoxide than the three other ingredients. There was a slight gap in awareness between the younger and older participants when it came to ingredient information. Not only were younger participants marginally more aware than their older counterparts, they were also more detailed in their descriptions as to how each ingredient could affect one’s health.

##### **Tar**

While there was a high awareness of tar among the younger participants, the majority of older participants did not know what tar was. Older participants aware of tar characterized it as the “residue of burnt tobacco” that sticks to your lungs. Younger participants described tar as “sticky stuff” that “blackens the lungs” and perhaps acts as an agent to stick other assorted cigarette chemicals to the lungs.

“It’s an adhesive that sticks in my lungs”

“It goes with your blood when you smoke it”

“It blocks your arteries. I saw it on television”

## **Nicotine**

The majority of participants expressed some awareness about nicotine. Many participants perceived nicotine as naturally occurring in tobacco and cited it as the addictive ingredient in cigarettes. Others thought, however, that tobacco companies added it to cigarettes. Some mentioned that nicotine raises blood pressure and causes headaches. Interestingly, some older participants, despite their long relationship with cigarettes, said that they did not know what nicotine was.

“Nicotine is like morphine, it’s got an addictive kick to it”

“Nicotine, when in your blood, creates a craving for more nicotine”

## **Carbon Monoxide**

Awareness of carbon monoxide was fairly high. Relating carbon monoxide most closely with the exhaust emissions from cars, most participants recognized the fact that carbon monoxide can kill you. It was also recognized, perhaps due to the prevalence of carbon monoxide detectors, that carbon monoxide is a colourless, silent killer. The common understanding of carbon monoxide’s effects was that it shuts down the respiratory system through the impediment of oxygen transportation in blood cells.

“Carbon monoxide intoxication is one of the most effective suicide methods”

## **Formaldehyde**

Although a couple younger participants had never heard of formaldehyde, the younger participants expressed more awareness of formaldehyde than their older counterparts. Most older participants did not know what formaldehyde was or how it affected health and wondered, “What is it doing to the cigarette”? Those who had heard of it said it was a preservative, associating it with high school biology class or the embalming of a corpse. Younger participants felt that formaldehyde caused a “funny smell”, created “different tastes”, and was perhaps used to prolong the life of a cigarette.

## **Hydrogen Cyanide**

Awareness of hydrogen cyanide was mixed. Approximately half of participants had never heard of hydrogen cyanide. This lack of awareness of hydrogen cyanide was greater amongst older participants. Those aware of hydrogen cyanide described it as a poison and associated it with rat poison. Although acknowledged as “scary”, some participants felt that a “small dose probably doesn’t hurt”.

## **Benzene**

Most participants had never heard of benzene and opinion on what it was and its effect on health was varied. Only a couple of participants were able to offer that benzene can destroy the respiratory system. Some participants recognized benzene to be “extremely toxic” and mentioned its use as an industrial cleaner. Furthermore, it was pointed out that benzene’s “easy to burn” properties make the chemical ideal for cigarettes. Oddly, one participant said that benzene “sounds like cough syrup”.

## **5.0 CHANGES TO SUBSTANCES INFORMATION**

With the exception of a couple of participants, who appeared predisposed to rejecting any government regulation of tobacco companies, participants were overwhelmingly in favour of providing substance and ingredient information on cigarette packages. There was a general feeling that such information is a “good thing” and that with some modifications, ingredient information could be very useful.

### **Young People Beginning to Smoke**

Older participants were at a loss to suggest ways which ingredient information could be made more useful and effective for young smokers. There was a general feeling that with young people knowing so much nowadays, it is very difficult to use ingredient information to scare them away from cigarettes.

For their part, younger participants suggested that, despite the apparent social acceptance of smoking in North American culture, ingredient information on the composition of cigarettes should be made part of health education. Younger participants suggested that information on death rates be placed on cigarette packages and that more vigilant checking of photo identification be enforced in order to prevent a young smoker from obtaining cigarettes.

“Information on death rates...per year, per month...cold hard evidence.”

### **Those Who Want to Quit**

Virtually all older participants, perhaps drawing on their lengthy smoking history and failed attempts to quit, were unable to offer ideas on how to make ingredient information more useful and effective for smokers wanting to quit. The lone suggestion by an older participant was that, compared to 15 years ago, the information available today is “pretty major” and that continuing to offer more information on the ingredients in cigarettes is an initiative that should be pursued.

Opinion was mixed among younger participants on how to make ingredient information more useful and effective for smokers wanting to quit. Like their older counterparts, some younger participants drew on their attempts to quit or family deaths caused by smoking that had no effect on smoking relatives, as reasons to reject proposed ideas for helping smokers quit. However, younger participants did suggest that perhaps emphasizing the positives of quitting smoking as opposed to reinforcing the negatives of continuing to smoke could help convince a smoker to quit. It was also suggested that making the ingredient information list bolder and more detailed could have an effect on a smoker wanting to quit.

### **Smokers Themselves**

In thinking about how to make ingredient information more useful and effective for themselves, virtually all participants wanted to know more about the health effects of the ingredients. In the words of one participant: “we know cigarettes are bad for us, but how bad”?

“Tell me if benzene will stop my kidneys or destroy my liver”

“If a specific ingredient causes me to pant after taking the stairs, they should tell me”

As for the location of ingredient information and its health effects, several participants felt a location on the front of the pack would have a better impact and allow more room for health effects information than the side of the cigarette pack. Some in Montreal went so far as to suggest that current health warnings and pictures be replaced by detailed ingredient information and associated health effects.

“Instead of writing a big “cigarettes kill” on the packs, they should put the ingredients”

## 6.0 INGREDIENT INFORMATION DESCRIPTION PREFERENCES

A final written exercise was given to participants asking them to assess eight different ingredient information descriptions. For each description, the participants provided a rating between 1 (very poor) and 7 (very good). The following are the average scores for each scenario for both the Toronto and Montreal groups.

**Average Scores for All Groups**

Scenario	Toronto Group 1	Toronto Group 2	Montreal Group 1	Montreal Group 2	Overall Average
1	3.4	4.6	3.1	4.1	3.8
2	2.3	2.1	1.9	2.9	2.3
3	1.9	1.6	1.8	3.4	2.2
4	2.9	1.9	2.1	3	2.5
5	5.1	5.4	4	4.6	4.8
6	5.4	5.9	6	4.3	5.4
7	5	4.7	5.5	3.4	4.7
8	4.9	4.9	3.1	3	4.0

Overall, participants preferred scenarios 5 through 8. The primary reason for showing a preference for these four scenarios was the fact that information about the health effects of cigarette ingredients was provided in these cases. When asked to state a firm preference among the four scenarios, the sixth scenario describing the health effects of hydrogen cyanide received the highest score.

### Description #1

**Tar (8-29 mg)**

**Nicotine (1-2.6 mg)**

**Carbon Monoxide (9-27 mg)**

**Formaldehyde (0.035-0.13 mg)**

**Hydrogen Cyanide (0.073-0.25 mg)**

**Benzene (0.034-0.08 mg)**

Most participants felt this was a poor description because it is both the “legal minimum of information required” and “exactly what we have now”. In addition, participants cited the numbers provided as being “not very believable” because of the wide range given for each ingredient.

A couple participants said they liked this ingredient information format because it “listed everything straight out” and seemed to offer the “most correct information” due to the presence of milligram measurements.

## **Description #2**

**Tar**  
**Nicotine**  
**Carbon Monoxide**  
**Formaldehyde**  
**Hydrogen Cyanide**  
**Benzene**

Virtually all participants soundly rejected this ingredient information format. The primary reason cited for rejecting this format was that it offered no information. In the minds of the participants, this simple listing of ingredients meant nothing to them and, as a result, would have no impact on encouraging smokers to alter their smoking habits or discouraging young people not to smoke.

## **Description #3**

**Nicotine**  
**Carbon Monoxide**  
**Formaldehyde**  
**Hydrogen Cyanide**  
**Benzene**

Virtually all participants gave this ingredient information format an even poorer review than the previous format. Astutely noticing the absence of tar from the list, participants rejected this “shorter list” and the possibility that it could be helpful or useful for any purpose.

## **Description #4**

**Nicotine**  
**Carbon Monoxide**  
**Formaldehyde**  
**Hydrogen Cyanide**  
**Benzene**  
**4-aminobiphenyl**  
**Nitrosamines**

Despite being perceived as better than the previous two descriptions because more ingredients were listed, this ingredient information format was ultimately rejected by a large majority of participants. Participants cited confusion caused by the addition of previously unheard chemicals 4-aminobiphenyl and nitrosamines.

## Description #5

Nicotine/(1-2.6 mg)

**Occurs naturally in tobacco plants and is responsible for causing the addiction to tobacco products. It harms your cardiovascular and endocrine systems. Nicotine has been detected in all tobacco products.**

This more descriptive ingredient information format found favour with a number of participants. Some participants found this description to be “very simple”, “clear”, “comprehensive”, and “believable”, and liked this format for its lack of confusing chemical information.

Others liked this format because it offered more description by listing both the content of the ingredient and its effects on the human body. In this view, this description informed the smoker about what they “are getting into” and could play a role in preventing young people from taking up smoking.

“This is exactly what I want to see”

“Tells you why you are hooked”

“...the most simple and comprehensive information”

## Description #6

**Hydrogen Cyanide Tobacco smoke contains hydrogen cyanide. It can cause headaches, dizziness, weakness, nausea, vertigo, and stomach aches in smokers and non-smokers. It damages tiny hairs that are part of your natural lung cleaning mechanism. As a result, toxic substances can build up in your lungs.**

Of the eight ingredient information formats presented, participants in both groups viewed this description most favourably. Participants liked it because the description provided specific information on exactly what the ingredient does to the human body. It provided a “clear danger description” and there were nods of agreement around the table that this type of description could help individuals quit or reconsider their decision to begin smoking. They also found it to be easy to understand and informative. It is interesting to note that the reference to the effect that the ingredient can have on non-smokers struck a nerve with older participants. Some participants expressed concern over the tangible effects of second-hand smoke and others downplayed the possibility that they may harm others through their smoking.

The only noted shortcomings of this description were the lack of amount information and its “wordy” language.

“Gives explanation of harmful reaction”

“...it explains a lot about what hydrogen cyanide does to you. I never realized all the damage tobacco can do”

“...this is completely new information to me and I think it makes the dangers of ingesting this substance absolutely clear”

### **Description #7**

**Benzene is believed to be harmful at any level of exposure. Benzene is known to cause cancer/leukemia in humans.**

Most participants found this description to be a “short but strong statement” that was “simple and effective”. Participants found it to be “believable”, “scary”, and descriptive of its health effects.

For some participants, this description was “a little vague” and in need of more “content and detail”. In addition, some participants, while not outright dismissing it, questioned what constitutes “any level of exposure”.

### **Description #8**

**Nitrosamines (0.1 g): the most active cancer causing agent in tobacco smoke**

Virtually all participants responded positively to this description. Older participants, despite not knowing what nitrosamine is, gave this ingredient information format high marks for its simplicity. Younger participants were even more enthusiastic about the description. Finding the description to be highly believable, they said that the format “makes you think about how many cigarettes you have smoked today” and, with its cancer causing message, could significantly impact the decision to quit smoking.

## **8.0 EFFECTIVE INFORMATION ABOUT CIGARETTE INGREDIENTS**

Participants offered an array of ways to more effectively communicate the ingredients in cigarettes, including advertising on television, radio, and print, using billboards, buses, subways, and the Internet. They also pointed out that cigarette ingredient information should be posted in stores where cigarettes are sold.

Education about the ingredients in cigarettes was also a theme. Younger participants felt that more education is needed about the effect that second-hand smoke can have on children and that information about the influence a parent can have on a child should be directed at parents who smoke in front of their children.

Older participants took a slightly different approach to the need for education. They felt that education about the ingredients in cigarettes is more important than “scaring” people and suggested that a portion of cigarette taxes should be devoted to educating young people about the health risks associated with smoking.

## APPENDICES