Final Report

Effectiveness of Health Warning Messages on Cigarette Packages in Informing Less-literate Smokers

Prepared for
Communication Canada

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1. SUMMARY OF RESULTS

1.1 A CASE STUDY

- The need to know how to communicate effectively, particularly with less-literate Canadians who comprise close to half the population, led Communication Canada to call on a team of experts.

- The results of these consultations led to the development of "*For Successful Communication: Literacy and You*," a tool kit which includes the various factors of successful communication and some case studies.

- In partnership with Communication Canada, as part of its Tobacco Control Programme, Health Canada has shown interest in better understanding and documenting the effectiveness of health warning messages on cigarette packages, as less-literate smokers make up a large segment of the population in which smoking is the most widespread and persistent.

- In this context, this qualitative study is actually a "case study" on the informational value of health warning messages, in general, among this group. These printed communications, which include both images and text, are aimed at a mass market and thus constitute a prime analysis. The purpose of this study was not to evaluate the effectiveness of particular messages but to learn how to improve their intelligibility for less-literate people. Although some of the hypotheses generated by this study could also apply to more literate people, this generalization is left to the judgement of the reader.

- The theory behind this study is that, as intent to read is low or non-existent among less-literate individuals (they do not feel capable), their reflex is to avoid making the effort to read, understand and even use the information transmitted in the health warning messages. This results in somewhat of a delay in learning the messages compared to more literate smokers, hence the need to understand how they decode the health warning messages and, based on these results, to determine what improvements could be made to eliminate this ~~delay in~~ learning gap.

Note to the reader

- *While public opinion surveys can tap the Canadian public's views as a whole, qualitative research canvasses individual opinions by posing questions and listening, and having participants answering freely. The aim of this study was to discover, derive meaning and understanding from listening to and observing low-literate participants.*

- *As in all qualitative research, and in accordance with the Code of Ethics and Standards of the Professional Marketing Research Society (PMRS), findings from this study may or may not be regarded as statistically representative of the target population at large. However, this research may be further pursued by other instruments to contribute to our knowledge base; for example, if statistically valid results are desired, a separate follow-up quantitative survey is an option.*

1.2 STUDY OBJECTIVES AND LIMITATIONS

- The goal of current health warning messages is to inform about the health risks of smoking for oneself and for others. For messages to be informative, they must be read and understood in the desired manner, and their meaning must be relevant and sufficiently hard-hitting to have an effect at the cognitive level.

- Prior work by experts on the understanding of current health warning messages and their accessibility for less-literate smokers clearly indicates weaknesses and possible improvements to the intelligibility of the health warning messages. However, the process of understanding and the resulting informational value remained to be identified.

- Thus, there was a need to reinforce and complement the results of that work by means of concrete observations among less-literate smokers who might provide information to facilitate development of new health warning messages.

- The purpose of this qualitative study was to observe and understand how less-literate smokers read the health warning messages, determine the meaning of the message, react to the message and, in a general manner, take possession of ~~appropriate~~ what the health warning messages are intended to communicate.

- It is important to note that the empirical nature of this study is based on strict observation of a sampling of 43 less-literate individuals from various regions of the country. The individuals interviewed are level 2 on a five-level literacy scale developed during the International Adult Literacy Survey (IALS).

- We must mention that these are overall findings, with no distinction as to the individual's employment, gender, language, family situation or economic situation. In light of the study's objective, the observations and interpretations contained in this report must be viewed as working hypotheses to fuel reflection on current communication practices.

- Another limitation of the study is the difficulty of isolating specific factors related to "level 2" less-literate individuals and more general factors related to the addiction of smokers to cigarettes. In fact, whether or not individuals are less-literate, the physiological addiction to cigarettes and the perceived difficulty of quitting is applicable to all smokers and can be a source of cognitive effects (e.g., selective perception) or attitudinal effects (e.g., denial) specific to addictive behaviour and which may be confused with a low level of literacy.

- The health warning messages on cigarette packages are familiar material to smokers, as they see them on a daily basis on their cigarette packages. Therefore~~Furthermore~~, it is not possible to control the impact of familiarity and new information on motivation and the level at which the health warning messages are learned by less-literate smokers.

1.3 METHODOLOGY

- A series of in-depth personal or dyadic interviews was conducted in Vancouver, Toronto, Montréal and Moncton with less-literate, less-educated and lower-income smokers. For the purposes of the study, there was a requirement that half of the participants seriously intend to quit smoking within six months, while the other half had no such intention.

- Most participants were recruited with the co-operation of the Fédération canadienne pour l'alphabétisation en français (FCAF) networks, either organizations or schools, in the four cities in which the interviews were held.

  As recruiting took place during school holidays and most schools were closed, many participants had to be recruited through other channels. It must be noted that, of 43 people interviewed, some four or five had a higher level of literacy.

- Both individual and dyadic interviews were conducted in the same order and in the same manner everywhere and lasted an average of one and one half hours. Participants were informed that they would be participating in discussions regarding cigarette packaging as they may see it every day and not be subjected to any kind of testing.

- Five of the sixteen health warning messages were selected for this study: three that somewhat comply with successful communication criteria (Nos. 3, 8 and 12), one that complies very little (No. 7) and one that best complies (No. 13).

- Participants were exposed to four of the five health warning messages on actual cigarette packages, in their language. Exposure was in two stages.

  → Each cigarette package with the selected health warning messages was first presented very briefly (approximately 5 seconds).

  → In a second exposure, each health warning message was permanently displayed, in the same order as the first brief exposure, then discussed in depth.

- To ensure that participants were able to take in all the words in a health warning message, we read through them with them. Thus, we were able to verify words that were not understood, difficulties in understanding, resonance of messages for participants and text-image coherence.

1.4 CHARACTERISTICS OF PREVIOUS KNOWLEDGE OF SMOKERS INTERVIEWED

- Of the 43 individuals interviewed, whose ages varied from 18 to 65, slightly more than half indicated that they had no intention of quitting. Most of these smokers began smoking at a young age, in adolescence, and became heavy smokers (a pack a day).

- The majority have already tried quitting at least once and, in general, for very short periods. In most cases, they quit smoking due to illness or during pregnancy.

- They admit that it is difficult to quit smoking and that it requires a lot of determination. In the end, all smokers interviewed admitted to being highly addicted to cigarettes.

- Smokers indicated they value the "relaxing" effect of cigarettes, which provides them with relief from everyday stress, far more than they value taste; for many smokers, a simple lack of nicotine can be a source of considerable stress.

- In terms of daily "distress" or difficulties, this segment does not see the health risks of cigarettes as a major concern. For some, the absence of cigarettes is much worse.

- They feel that they are sufficiently informed of the health risks of cigarettes and few wanted more information.

- Almost all smokers interviewed admitted "*smoking was bad for them.*" In fact, cigarettes are seen as a bad habit that produces various disadvantages, such as:

  → Yellow teeth, odour, loss of taste, bad breath, ashen appearance

  → Health problems: cough, complications from colds, shortness of breath, asthma, dizziness

  → Addiction, in particular

- However, although several participants seem aware that they could experience health problems or even die if they continue smoking, most would only quit smoking if told that they had a serious illness or if their health was seriously threatened by smoking. In fact, the majority of respondents who wanted to quit smoking were in this situation. In other words, the intention to quit smoking was not the result of a "cognitive process," but most often a choice imposed by reality.

- We observed the belief that "*cigarettes alone cannot cause illness. They only worsen an already poor condition*." The statements of several smokers illustrate a type of "magical thinking." While they feel that "smoking is bad for your health," they consider it an exaggeration to say "smoking is dangerous."

- In their opinion, Health Canada distributes these health warning messages so that people will quit smoking, thus for the welfare of the population on one hand and, on the other, to reduce excessive health-care costs. They feel that the health warning messages from Health Canada always communicate the same generic message: "*Smoking is hazardous to your health*."

- Finally, it would seem that most participants tend to see certain health warning messages as exaggerated, in order to "scare people." These participants agree with the statement that cigarettes are hazardous to your health, but also feel that the warnings exaggerate, as though cigarettes are less hazardous than indicated.

1.5 OBSTACLES TO UNDERSTANDING

- Based on all the observations from our interviews, we find that less-literate individuals do not adequately decode the meaning of the health warning messages and do not take possession of~~appropriate~~ the information contained in them, even when it is explained in lay terms.

- Following are our findings and the main hypotheses regarding mechanisms that explain this lack of understanding of Health Canada's health warning messages among less-literate audiences, and why this communication does not and cannot have the desired informational value and credibility.

1. Hasty Cognitive Coherence: A Surface Understanding

→ Starting with the image, they visually "scan," but do not read. Some will complement this by reading one or more words from the title.

→ They do not read the text and have no intent to read.

→ The image conveys or fails to convey the meaning, not ~~of~~ the text.

→ When a meaning is evoked by the image, that meaning persists, no matter what instruction or explanation is provided to the less-literate smoker.

→ If the image does not evoke meaning, the message loses all value and is ignored.

→ Whether or not the image evokes meaning, less-literate individuals will attempt to assign meaning to the content, even if they do not understand it. This phenomenon of hasty cognitive coherence leads them to a first-level understanding or surface interpretation (e.g., "Cigarettes are not good for your lungs."

→ If neither the image nor the words are understood, they rely on a very generic, non-specific meaning that they attribute to all health warning messages: "*Cigarettes are hazardous to your health*."

→ The message conveyed by a particular health warning message lacks relevance because an already known generic, first-level meaning is assigned to it ("*Smoking is hazardous to your health*") that is not likely to motivate a change of opinion regarding the "dangerousness" of cigarettes to health.

→ Finally, individuals are more ready~~apt~~ to reject the messages rather than make an effort to understand them.

2. *Beyond Words, the Cognitive Barrier*

- The reaction of less-literate individuals to health warning messages clearly illustrates the linguistic barriers, and most of all the~~particularly~~ cognitive barriers, raised by the choice of images, words and concepts. Even when the linguistic barriers can be resolved (e.g., with accompanied reading), the cognitive barrier remains difficult to overcome.

  → Many words are too complex and abstract to be understood by less-literate individuals, words such as disability, oral cancer and infant illnesses.

  → Most images are difficult to decode because they are unfamiliar and are from the field of medicine (lungs, brain, mouth disease, man on respirator).

  → The medical or scientific concepts are difficult for less-literate smokers to understand. They find it difficult to conceptualize the effects of cigarettes on the body, even after these effects have been explained.

  → The relationship between present and future is abstract and thus difficult. For less-literate individuals, probability and the gradual effects of smoking are subtle concepts that escape them. They need "proof," to be believable~~which is not easy~~.

- Because of the extremely basic medical knowledge of less-literate smokers and their inability to conceptualize abstract concepts, it is difficult for the image alone to be the message or ~~take~~ replace ~~the place of~~ the text. In short, some risks just cannot be simplified or summarized in an image.

3. *Learning the Text Message Does Not Succeed in Changing Their Understanding of the Dangers of Smoking*

- There is another side to hasty cognitive coherence: once individuals assign a meaning, a surface interpretation, to a communication, they no longer feel the need to seek further understanding, as they believe that they have already understood the message.

- Thus, even after being assisted in learning the text of the health warning message, less-literate individuals do not feel that they have learned anything new, whether or not the image has evoked a meaning for them. Some almost "moved up" to a higher level of understanding, but because they were too insecure, too disconcerted or not confident enough in their understanding, they held to their initial beliefs. Their previous knowledge is not updated to reflect the new information learned. Nor is their initial surface understanding put to the test. Their perception of the seriousness of the health risk of cigarettes thus remains unchanged.

4. *Inability to Establish the Necessary Relationships, Even With Assistance*

- Unlike literate individuals who are able to grasp the message at first glance and learn at both surface and in-depth levels, information processing is a cognitive process that is too difficult and complex for less-literate individuals.

- It seems that less-literate individuals have not been able to establish the relationship between new knowledge and prior knowledge so as to arrive at a meaning and integrate the new knowledge by reframing it, or reject it. Even after instruction, the relationship to prior knowledge remains primary, one-directional.

- What we find is an absence of the necessary back and forth~~give and take~~ (iterative relationship) between new information and prior knowledge or that it is one-directional: rejection of the communication in favour of prior knowledge. Less-literate smokers:

  → Rely on what they believe they know.

  → Compare their own risk scale to the degree of seriousness that is being communicated.

  → If there is dissonance, there is distortion and the gravity (importance/relevance) of the risk illustrated by the health warning message decreases dramatically.

  → They do not appropriate the message.

5. *Non-Appropriation of the Message*

- Hasty cognitive coherence and the difficulty in establishing an iterative relationship explain a ~~the delay in~~ permanent learning gap among less-literate smokers, hindering them from modifying their belief systems regarding the dangers of smoking.

- The message of the communication is not appropriated because successful information processing – which would result in a change in attitude and prior knowledge in less-literate smokers, particularly on their personal scale of seriousness of risk – is too complex an operation and is beyond their grasp.

- Even when the message is accessible, there is little or no informational value (impact on prior knowledge), because the health warning messages:

  → Do not provide any new information (not accessible, surface interpretation, inability to establish the relationship, no learning);

  → Are in conflict with their perception of the degree of risk associated with smoking (prior knowledge);

  → Are not credible (not verified in their experience, exaggerated); or

  → Reinforce their readiness~~instinct~~ to reject the communication (inherent defence mechanism in addicted smokers, which results in denial and distortion of the message to make it comply with their beliefs and values).

- Our observations also confirm that a large number of less-literate smokers lend little credence to these health warning messages, which they deem to be exaggerated because they are not necessarily verifiable in their lives or the lives of those around them. There are many who think that:

  → *"Cigarettes are bad for your health, but no more than anything else, for example: pollution, alcohol, disease, daily problems or stress."*

  → *"Cigarettes are bad for your health, but not as bad as they say."*

1.6 SURFACE UNDERSTANDING

- According to the authors of "~~*For*~~ *Successful Communication* - a Tool Kit", communication is successful when the message appropriated by the recipient is understood in the manner desired by its sender~~author~~. Such is not the case here, as a surface understanding of the health warning messages does not challenge their under-estimation of the hazards of smoking and has no cognitive, affective or persuasive effects.

- One of the main findings of this exploratory study is that none of the health warning messages - images or/and text - was understood by most less-literate participants in the way desired by Health Canada. It could be added that these health warning messages do not parallel a less-literate audience's ability to understand.

- It can also be asked if it is possible to make current health warning messages more accessible by improving them according to recognized principles of plain language. In fact, the cognitive barrier seems to make it impossible to communicate health risks to a level-two less-literate audience using health warning messages that are based solely on the ability to reason and establish a relationship between pieces of information.

  → **Relevance:** Not addressed to them; the tone is not personal enough.

  → **Understanding:** Generic surface understanding not differentiated for each health warning message.

  → **Persuasion:** Does not challenge their tendency to under-estimate the degree of risk.

  → **Accessibility:** Overly complex images, words and concepts; beyond the grasp of their knowledge and ability to process information.

  → **Clarity:** Well-organized information, although the font is somewhat small; the image is appropriately placed.

  → **Credibility:** The message is exaggerated: they do not believe that cigarettes are as hazardous as is stated. The predictions in the messages are not borne out in their own lives or the lives of those around them.

1.7 THE RELEVANCE OF THE HEALTH RISK IS NOT ESTABLISHED

- Thus, their difficulty in learning by means of cognitive operations which requires iteration, hindersing less-literate smokers from progressing from stage 1 of the hierarchy of effects model, i.e. simple knowledge of risk, to stage 2, knowledge of the gravity of risk, recognition of the seriousness of the health risks of smoking.

- Current health warning messages, adapted to a "cognitive" learning style, fail to communicate to less-literate smokers either the nature or the seriousness of the risks associated with smoking and fail to motivate them to make the cognitive effort to question their prior knowledge.

- All indications are that, even by making known changes in plain language, these health warning messages will not be successful among this segment of less-literate smokers. Their delay in learning gap cannot be overcome by means of a "cognitive" communication strategy.

- To some extent, their personal scale of risks and negative consequences related to cigarettes does not seem to encourage them to consider quitting smoking unless they have no choice (cigarettes are taken off the market) or their backs are against the wall (a serious life-threatening health problem). The relevance of the risk is not established because they are not convinced of the reality or the seriousness of the risk.

- This finding also applies to less-literate smokers who were considering quitting. It was often because they did not have the choice (the risk had become real or serious) that many participants planned to quit smoking.

- It would thus seem that, unless they are directly or seriously affected, less-literate smokers are not convinced of the reality or seriousness of the risk. They see smoking as only causing health "inconveniences" such as shortness of breath, asthma, coughing, and complications from colds, not necessarily exclusive to cigarettes or worsened by them.

- In short, the results of this study lead us to question the poor potential of the current health warning messages for explaining healththe risks to level two less-literate individuals with cognitive barriers.

  → Do health warning messages on cigarette packages need to be combined with or complemented by another means of communication?

  → Would messages with an affective/emotional impact, whether health warning messages or another means of communication, be more likely to resonate? In other words, must the risks be felt rather than explained? Or must the risks be felt before the explanations can be understood?

  → It could beis said that it is through experience and emotion, the typical learning mode of less-literate individuals, that they are most likely to understand the realities of things.

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2. INTRODUCTION

2.1 OBJECTIVES

- Communication Canada has undertaken a wide-ranging project designed to assist communicators and managers within the Government of Canada in better communicating policies, programs and services to the general public.

- Motivated by the need to know how to communicate effectively, especially with less-literate Canadians who comprise close to half the population, Communication Canada consulted a team of experts. The results of these consultations led to the development of a toolkit: *Successful Communication: A Tool Kit, Literacy and you,* which provides various elements of successful communication and several case studies.

- In partnership with Communication Canada, Health Canada has become interested in better understanding and documenting the effectiveness of certain printed communications material among less-literate smokers; this is a segment of the population among which tobacco use is the most widespread and persistent.

- This qualitative study therefore falls within the context of a "case study" of the informational value and the relevance of health warning messages on cigarette packages as part of Health Canada's Tobacco Control Programme. These printed communication materials use both text and images and are intended for mass markets and thus constitute a prime case for analysis.

- The goal of current health warning messages is to provide information on risks to the health of consumers and others. In order to be informative, they must be read and understood in the desired manner, and their meaning must be relevant and sufficiently hard-hitting to have an effect at the cognitive level.

- However, prior research by experts on the understanding of current health warning messages and their accessibility for less-literate smokers has fully addressed their weaknesses and the opportunities for improvement to the intelligibility of the health warning messages (message form, tone, words and vocabulary, text density, organization and presentation of information, consistency and coherence, role of the images), but the mechanisms of understanding and the resulting informational value remained to be identified.

- In addition, the work of the experts, and their involvement specifically with respect to the presentation and organization of the information in the health warning messages, although logical and supported by well-developed analyses, fall within a theoretical framework in which hypotheses replace direct observation and consultation with less-literate smokers.

- There was thus a need to reinforce and complete the results of their work through concrete observation of less-literate smokers. These observations could eventually provide references to facilitate the development of new health warning messages.

- In this context and as a function of the expressed needs, the purpose of this qualitative study was to observe and understand how less-literate smokers read the health warning messages, determine and react to the meaning of the message, and in a general manner, take possession of what the health warning messages are intended to communicate.

- More specifically, the results should make it possible to:

  → identify a general conceptual framework to understand how health warning messages are read and decoded by less-literate smokers;

  → identify the critical elements that have an effect on the informational value of the health warning messages, beyond the already well-known principle of using plain language;

  → verify the usefulness of certain principles advanced in the May 2003 *Successful Communication: A Tool Kit, Literacy and You*, developed by Communication Canada;

  → explore the role of the illustrations in reading and understanding health warning messages.

- The purpose of the study was not to develop new psychological theories or new theories of the cognitive processes of less-literate individuals but to try to understand how less-literate smokers decode and take possession of the Health Canada warning messages that appear on cigarette packages.

2.2 Scope and Limitations of the Study

- It should be noted that any qualitative study conducted among individuals with low literacy levels has several limitations:

  → The limited ability of respondents who have difficulty reading and writing to perform certain tasks that are considered a standard or simple part of an interview (e.g., reading a questionnaire, writing an answer) or even expressing their feelings or thoughts;

  → Difficulty recruiting respondents that meet the target group criteria.

  → Difficulty isolating factors that are specific to individuals with "level 2" literacy and those more generally related to smokers' dependence on cigarettes. In fact, whether or not individuals are less literate, physiological dependence on cigarettes and the perceived difficulty of quitting applies to all regular smokers and may be the source of cognitive effects (e.g., selective perception) or attitudes (e.g., denial) that transcend but may be confused with a low level of literacy.

→ Health warning messages on cigarette packages are familiar material to smokers since they see them on a daily basis on their cigarette packages. Therefore, it is not possible to control the impact of familiarity and new information on motivation and level at which health warning messages are learned by less-literate smokers.

→ Finally, it is important to be clear about the empirical nature of this study based on rigorous observation of a sample of 43 less-literate individuals from different regions of the country. It cannot be considered scientific in the representative and statistical meaning of the term. The observations are general, with no distinction made for the gender, language, family or economic status of the individuals interviewed.

- In light of the intended goal, the observations and interpretations contained in this report should be considered as working hypotheses to inform the consideration of current communication practices.

2.3 METHODOLOGY

1. Target Population

- Health Canada research has demonstrated that tobacco use is more widespread and persistent among individuals with low levels of education.

- Although the principles of successful written communication apply to all smokers, they are all the more critical when considering less-literate smokers since, in comparison with more literate smokers:

  → Their intention of reading is low to non-existent, their reaction is to avoid making the effort to read, understand or even use information given to them.

  If the message does not quickly establish its relevance and get directly to the point, less-literate smokers will simply not read it, will not try to understand it and especially will not try to use it.

  → They are more fatalistic, resigned, more discouraged by failure, less often have goals, are less likely to feel that they can control their lives, and have lower self-esteem/self-confidence.

  Less-literate smokers have a greater need to be convinced of their ability to use information, to be strengthened and supported.

- It must be recalled that of the entire Canadian population, 22% of adults have serious problems understanding the most basic communication encountered in daily life. Another 26% fall into "level 2" on the literacy scale used by Statistics Canada. This is the target group for the research to be conducted. They can only read, understand and use simple texts that are clearly presented in a familiar context.

- All participants in this study are at level 2 of Statistics Canada's five-level International Adult Literacy Survey, with level 1 being the lowest. Level 1 was not included in the target group because that would have required a specialized approach and presented specific difficulties that go beyond the considerations related to communicating with the "general public."

- For the purposes of this study, the target population was defined by the following other criteria:

  → They do not necessarily take courses that develop or improve their reading and writing skills.

  → In all cases, they have low levels of education (partially completed secondary school, at the most)

  → They usually smoke cigarettes on a daily basis (at least 10).

  → They are at least 18 years of age.

  → Half the participants should not seriously intend to quit smoking within six months; the other half should be committed to quitting within six months.

  → Not considered in this study: individuals with obvious learning disabilities and individuals with difficulty expressing themselves in either official languages.

2. Sample

- In total, 28 individual or paired in-depth interviews were conducted, totalling 43 less-literate smokers, of whom 21 were men and 22 were women. It should be noted that slightly more smokers did not seriously intend to quit smoking (six out of ten participants).

Distribution of individual or paired interviews* with less-literate smokers

Type of smoker	Total	Toronto	Montréal**	Moncton***	Vancouver
1. No intention of quitting	**14**	4	5	3	2
2. Serious intention of quitting	**14**	4	5	3	2
Total	**28**	**8**	**10***	**6**	**4**

* *Two participants recruited and confirmed per session. When two participants presented themselves, the moderator conducted a paired interview.*

** *All francophones.*

*** *Two of the interviews were with francophones.*

- The majority of participants were recruited with the co-operation of the Fédération canadienne pour l'alphabétisation en français (FCAF) networks—either organizations or schools—in the four cities in which the interviews took place.

- However, as recruiting took place during school holidays and most schools were closed, many participants had to be recruited through other channels. Various criteria (such as the last grade completed and questions on their reading habits) made it possible to ensure, as much as possible, that these individuals were on level 2 of the literacy scale. Overall, only a few respondents (4 or 5) had higher educational levels than anticipated.

- During recruitment, participants were informed that their cooperation was required to discuss cigarette packaging as they may see it every day, and not to be subjected to any kind of testing.

- Each participant received $45 for their participation. In several cases, we also contributed to the cost of childcare.

3. Conducting the Interviews

- Whether the interviews were conducted individually or dyadically, they were all conducted according to the same sequence and procedures every time and lasted an average of one and a half hours.

- An interview guide (see Appendix 1) was developed in both languages and included, in this order, the following sections:

  → Smoker's profile and motivation to quit smoking

  → Spontaneous recall of Health Canada warning messages on cigarette packages, relevance and credibility of these messages

  → Perception of the health risks posed by cigarettes

  → Based on four different health warning messages, observation of the method of decoding the meaning, relevance and informational value of these messages for less-literate participants:

    – Perceived message
    – Easy/difficult to understand
    – Factors that facilitate comprehension
    – Role of the image compared to the text
    – Informative value / importance of the message
    – Message relevance and credibility
    – Selection of words / images
    – Suggested improvements

  → Based on moderator-accompanied reading, observation of the effects of in-depth understanding of the text on perception, meaning, importance, credibility, informational value and relevance of the message.

  → Reactions to changes in the current health warning messages.

- The participants were exposed to the health warning messages on two occasions:

  → First, each package of cigarettes with the selected health warning messages was presented briefly (approximately 5 seconds). Then, after the package was removed from view, the participant was asked to mention everything that he noticed or retained from the health warning message and to give his opinion of the message, and its basis. There was a systematic rotation of the order of discussion for the health warning messages.

  → For the second exposure, each health warning message was permanently displayed, in the same order as the first brief exposure, and discussed in depth. In order to ensure that the participants were able to take in all the words in the text of the health warning message, and identify what was illustrated by the image, we read it with them. This accompanied reading process made it possible to verify words that were not understood, and in addition to the words, difficulties in understanding, and resonance of messages for participants, and text-image coherence.

- The interview guide received approval from Communication Canada and Health Canada. The moderators were directed to use simple and familiar language, to adopt a gentle, supportive and non-judgmental approach, to demonstrate empathy and listen carefully.

- All interviews were conducted in discussion rooms with two-way mirrors. These interviews were recorded on audio cassette and most were observed.

4. Health Warning Messages Used

- Currently, there are 16 different health warning messages, all including the word "warning", a title, some text, an illustration and the Health Canada signature.

- An in-depth analysis of these health warning messages from the perspective of plain language, conducted in both French and English by a committee of experts, made it possible to expose a series of weaknesses encountered by less-literate readers. Among other things, these weaknesses dealt with the accessibility of these warnings (with respect to both form and content). This analysis also identified the most successful and weakest health warning messages.

- Five of the sixteen health warning messages were selected for this study: three that somewhat comply with successful communication criteria (Nos. 3, 12 and 8), one that complies very little (No. 7) and one that best complies with these criteria (No. 13). (*See Appendix 2 for a complete illustration of the health warning messages used.*) It should be noted that the goal of the exercise was not to compare the effectiveness of the individual health warning messages, but to learn from the reactions of less-literate smokers to all of these health warning messages.

- All participants were exposed to four of the five health warning messages. Message 13 (very successful) and 12 (somewhat successful) had the same title (Cigarettes cause lung cancer) but the images and the text were different. Of the eight interviews conducted in Toronto, six used No. 12. All the other participants were exposed to No. 13.

3. GENERAL CONTEXT

3.1 THE PHENOMENON OF LITERACY IN CANADA

- For many years, literacy has been synonymous with the comprehension of words. But since the International Adult Literacy Survey (IALS), conducted by Statistics Canada in 1994, this definition has been considerably enlarged and now goes beyond simply reading, writing or calculating.

  Literacy is also the ability to locate the source, find, understand and use information in order to function well. A person is not literate or illiterate; literacy implies a whole continuum of cognitive abilities.

- Literacy assumes comprehension, of both written and spoken language. Specifically, it constitutes a key element in the ability to understand and follow verbal instructions.

- Thus, fundamentally, literacy refers to all the cognitive processes involved in reading, writing, language and listening. This concept of literacy includes the ability to understand and interpret:

  → printed matter, written texts:

  → cultural, social and ideological values that shape our reading of these texts;

  → visual elements, images, signs, photos and non-verbal language;

  → and to assess the content and processes appropriate to each medium such as films, television and advertising;

  → information in a general manner, to find, assess and use it;

  → mathematical symbols including charts and timetables.

- The importance of literacy is well-documented. Thus, 22% of Canadian adults have very serious problems understanding the most basic communication encountered in daily life (level 1). Another 26% fall into the second of five levels and their understanding of simple texts presented clearly and in familiar contexts is often insufficient.

  Therefore 48% of Canadians over the age of 16 have difficulty:

  → understanding and using the information contained in narrative texts such as editorials, news stories, or directions, such as the use of medication, for example;

  → finding and using the information presented schematically, such as job application forms, bus timetables, road maps, tables or graphics;

→ using arithmetical operations based on a quantitative text, for example, calculation of a percentage tip.

- This phenomenon is not very well known or accepted by society, and even by less-literate individuals. In fact, only a small percentage (estimated at between 6 and 10%) of Canadians with low literacy levels recognize that they have difficulty reading and writing or take part in adult literacy or development programs.

- The international adult literacy survey also made it possible to establish that certain social groups were more affected by low literacy than others:

  → Seniors
  → Chronically unemployed
  → Individuals with low incomes
  → Immigrants
  → Seasonal workers
  → Aboriginal peoples
  → Individuals with handicaps
  → Delinquents
  → Residents of the Atlantic region
  → Francophone communities outside Quebec

3.2 Tobacco Use and Literacy

- According to Health Canada, tobacco use is the main cause of preventable death in Canada. Each year, more than 45,000 Canadians die prematurely from tobacco-related illnesses, and less than 1,000 of them are non-smokers.

- Although the prevalence of tobacco use is decreasing, Health Canada has observed an increasing concentration of less-literate individuals among the remaining smokers.

- Less-literate individuals are more fatalistic, more resigned, more easily discouraged by failure and are less often likely to have life goals and to feel that they can control their lives, and are more likely to have lower self-esteem/self-confidence.

  With lower self-confidence/self-esteem, less-literate smokers have a greater need to be convinced of their ability to use information, to be strengthened and supported.

- The hypothesis of this study is that, given little or no intention of reading among less-literate individuals, their reaction will be to avoid making the effort to read, understand and even use the information given to them.

  Thus, if the message does not quickly establish its relevance and does not get directly to the point, less-literate smokers will simply not read it, will not attempt to understand it and, especially, will not attempt to use it.

  → The result would be that less-literate smokers would experience some delay in learning the messages, compared to smokers who are more literate.

3.3 HEALTH WARNING MESSAGES AND THE COGNITIVE AND LANGUAGE BARRIERS

- A group of experts specializing in communicating in plain language conducted a rigorous analysis of all the Health Canada warning messages.[1] In light of the logical-linguistic barriers these messages present to less-literate individuals, they analyzed the texts, illustrations and visual presentation of these messages, specifically with a view to the following aspects:

  → Organization and presentation of information: location and size of the information, message format, structure, words, sentences, concepts

  → Message cohesion and consistency

  → Selection of graphics, colours, font

  → Illustrations, quality, cohesion and consistency with the text and message promoted

  → Relationship to psycho-cognitive abilities: mental processes, attitudes, behaviour

  → Proximity to reader: relevance to the reader's world

- This analysis raised questions with respect to the accessibility to (of both form and content) and effectiveness of current health warning messages on the large group of less-literate smokers. As a result of their work, these experts brought to light a series of weaknesses, some of which can be applied to all smokers, independent of their literacy levels.

  → The overall message (health warning and information) communicated by the packages lacks unity and coherence. In fact, there is no explicit connection between the health warning message (warning on package exterior) and the health information (inside the package);

  → The message sent by certain health warning messages lacks relevance because it is given a primary meaning (for example, "smoking is not good," "die of this or something else," etc.) that is unlikely to motivate behavioural change or an effort to get information about how to quit smoking;

  → Cohesion between the elements of the warning (visual, title, sub-title, text) is not always sufficient;

  → Certain words used (health warning and information) are not always easily accessible or clear;

  → Presentation and organization of the ideas and information;

[1] "*Rapport d'analyse sur les mises en garde et information de santé pour les produits du tabac*" [report of an analysis of the health warning messages and health information on tobacco products], prepared by the Fédération canadienne pour l'alphabétisation du français, March 2003.

"*Health Canada Tobacco Warnings & Health Messages, Logical-Linguistic Analysis Working Paper," Joanne Ward-Jerrett, March 2003.*

→ Some images are difficult to understand or lack coherence with the text.

- Based on principles of plain language, specific and practical improvements were suggested in order to make the messages more accessible and understandable.

  → Prioritize common, everyday expressions and words, and illustrations
  → Avoid multiple synonyms and limit their use to a single reality
  → Write simply
  → Use a direct, personal tone and keep to the facts (use language of proximity)
  → Present the information in a logical order
  → Facilitate reading and a global perspective
  → Facilitate finding information
  → Use white space in the presentation
  → Use typographical effects sparingly

3.4 Principles of Successful Communication with Less-literate Individuals

- Last May, Communication Canada published *Successful Communication: A Tool Kit, Literacy and You*, intended for the use of Government of Canada communicators and managers.

- Developed as a result of consultations with various organizations and research specialists, this kit gives advice on effective communication, as well as practical examples and case studies that help clarify and simplify verbal, written, televised and Internet communication.

- **According to the authors of this kit, communication is successful when the message appropriated by the recipient is understood as the sender intended it to be.** For successful communication, the message must be:

  → **Relevant**: Adopt the recipient's point of view and take into account his ability to understand.

  → **Understood**: Compose and organize the information plainly.

  → **Persuasive**: Focus on action and concrete results.

  Relevance is related to the value of the message to the receiver, or the interest he has in it. The more relevant the communication, the more the receiver will be prepared to make the effort to understand. Communication is successful when the receiver takes possession of the message and changes his opinion, attitude or behaviour.

- In order for the message to be understood and persuasive, the receiver must also be able to grasp it:

  → **Accessibility:** within the scope of the individual's experience and cognitive skills for handling information.

  → **Clarity:** organized and presented logically and simply.

  → **Credibility:** the message must take into consideration the relationship between the communicator and the subject at hand, and the perception thereof.

4. REVIEW OF THE THEORY

4.1 COGNITIVE ABILITIES

- The psycho-cognitive abilities of individuals with low literacy levels were summarized in a document produced by the committee of experts brought together by Communication Canada.

  → *Motivation*

  – One of the main determinants of motivation to engage in a learning activity (in other words, to understand and use the transmitted information) is directly related to its value (importance and relevance). In fact, recognition of the value of a message is what motivates a reader's use of intellectual skills and cognitive operations in order to understand the meaning and put it into practice.

  – Less-literate individuals (level two or lower) are generally not highly motivated to engage in learning activities of any kind, including understanding a message and using the information communicated in it, because they do not have enough confidence to be able to use it, even with minimum effectiveness.

  – This feeling of powerlessness is the result of the repeated failures and serious difficulties experienced by less-literate individuals on a regular basis in their daily lives. In the end, this contributes to a feeling of personal incompetence. This feeling is magnified by cognitive and language barriers that limit learning and performance.

  – With respect to the issue of less-literate smokers' dependence on cigarettes, quitting smoking appears to be simply beyond their ability or perhaps even undesirable, not only because willpower is important, but also because quitting would compound their daily difficulties that they believe are mitigated by smoking.

  → *Intellectual skills*

  – Literacy is not a simple issue of knowledge or ignorance, but rather is related to the acquisition of various levels of cognitive skills. The less-literate individual is recognized as having cognitive abilities which limit them to surface (or primary) meanings and simple (concrete) concepts.

- Créatec's research on televised communication also revealed that the primary (surface or literal) meaning was quite satisfactory for less-literate individuals, who stop making an effort to understand (hasty cognitive coherence) as soon as the primary meaning is identified. It can be reasonably assumed that because less-literate individuals permanently retain the surface level of meaning, their learning is always delayed in comparison to the more literate segment of the audience.

- This is why, in this study, the moderator-accompanied reading of the health warning messages made it possible to verify the effects of more in-depth comprehension of the text and the meaning of the image on the overall meaning of the message, and attitudes toward the message, specifically its credibility.

- This exercise made it possible to partially explore to what degree improvements to the current health warning messages (more accessible, clearer) would translate into increased informational value.

- The interviews during this study facilitated the observation that clearer and more accessible health warning messages do not necessarily translate into better informational value.

→ *Learning style*

- Individuals use different learning styles to take possession of and handle information: visual or auditory, intellectual or practical. For obvious reasons, the intellectual learning style (words, reading/writing) is not the preferred method for less-literate individuals. Rather, they tend to deal primarily or exclusively with visual or auditory information or even experience.

- If the style for transmitting the message is appropriate to the learning style of the intended reader, the comfort level and the degree of intention to learn (to decode the message) will be higher and will encourage more suitable and effective decoding of the message.

- The interviews conducted during this study made it possible to observe the predominant role of the image in the learning style of less-literate smokers, or in their understanding of health warning messages.

→ *Learning strategies*

- Learning strategies are the methods an individual uses to process, memorize and use information, in sum, to facilitate knowledge acquisition. A person who uses a group of appropriate strategies in order to learn will be able to accomplish both surface and in-depth learning. Less-literate individuals usually have significant difficulties recognizing and choosing the most appropriate strategies for processing information contained in a message.

- In the cognitive view of learning and its model for processing information, learning may be understood as either simple memorization or as a more complex process of relating new knowledge to knowledge already acquired (previous knowledge) in order to give meaning to this new material.

- As well, we were able to observe that memorization is very often the comprehension strategy used by less-literate individuals. We also noted limited ability, even resistance to challenging previous knowledge when relating information, thereby limiting access to a more in-depth understanding and integration of the message.

4.2 ROLE OF THE IMAGE

- Albert Boulet, the author of "*Déterminants psycho-cognitifs d'une communication efficace adressée aux personnes faiblement alphabétisées*" [psycho-cognitive determinants of effective communication with less-literate individuals], via another communication,[1] gave a special attention to the specific role of the image in relation to text in a message such as health warning messages on cigarette packages.

- The message carried by these health warning messages on cigarette packages uses two kinds of language, verbal (text) and visual (image). Given that less-literate individuals are naturally more at ease with visual language, the author analyzed the specific nature and function of the image in the message.

- A visual representation in a message may be used for a variety of both affective and cognitive functions (intentions). However, when it accompanies a verbal representation (text), it has two specific functions:

  → A complementary function to the text in order to encourage better understanding of the message content;

  → An alternative function, visual in relationship to the verbal, which would better meet the reader's learning style.

- The visual representation may also be literal (resemble what it is supposed to represent as closely as possible) or symbolic (abstractly or symbolically present what it is supposed to represent).

- In addition, codification of information into memory may be accomplished in two ways: as part of a verbal system or as part of a system of images. Material presented in verbal form is encoded solely in the verbal system, whereas visually-presented material is encoded in both systems (verbal and image).

- It therefore follows that recall of verbal-visual information is much easier than recall of information that is solely verbal or visual.

[1] "*Pour une communication efficace avec la personne faiblement alphabétisée : Le texte et l'image*", Albert Boulet, June 2003.

- When a visual message plays a role in a representational method that is complementary to the verbal and is addressed to less-literate individuals, it is important to ensure that:

  → the visual message (image) does not create a cognitive conflict with (suggest a different meaning from) the verbal message;

  → the verbal and visual messages are laid out according to a pre-established model in order to encourage the desired reading order (visual on left and text on right encourages the intention to read);

  → the verbal-visual message must convey a limited number of ideas (themes).

- When a visual message is an alternative method of representation, it is preferable to use the most exact realistic visual representation possible, rather than a symbolic representation, easier to process.

- We have even observed that among less-literate individuals the image not only is an alternative representation of the text, but also that it predominates. For example, in the case of a cognitive conflict, the image plays the predominant role.

4.3 HIERARCHY OF EFFECTS THEORY

- For close to a century, the hierarchy of effects theory has been used in communications strategies. It is a practical tool to summarize the communications problems in concrete terms.

- The goal of all communication activity is persuasion (motivate attention or learning, change or reinforce attitudes, change or reinforce behaviour, act on or use what is said).

- The idea of a hierarchy of effects in the context of health warning messages on cigarette packages implies that the message must encourage smokers who receive them to move closer to the ultimate action, which is to quit smoking.

  → A message that has been read and understood (accessible) is ineffective if it does not lead to movement on the ladder of effects.

  → The impact of the message depends entirely on its relevance, value, which motivates the individual to read it and take action.

  → At each rung of the ladder, there is a unique group of strategic considerations and tactics.

- The following figure illustrates a simple and intuitive model of a hierarchy of effects in five main steps through which smokers pass, from simple awareness of the risks of smoking to the behaviour of no longer smoking.

  → It should be noted that steps one and two are those to which current messages are addressed and that their content is informative - negative (disturbs the comfort of smoking). These steps fall into the cognitive domain (knowledge/awareness).

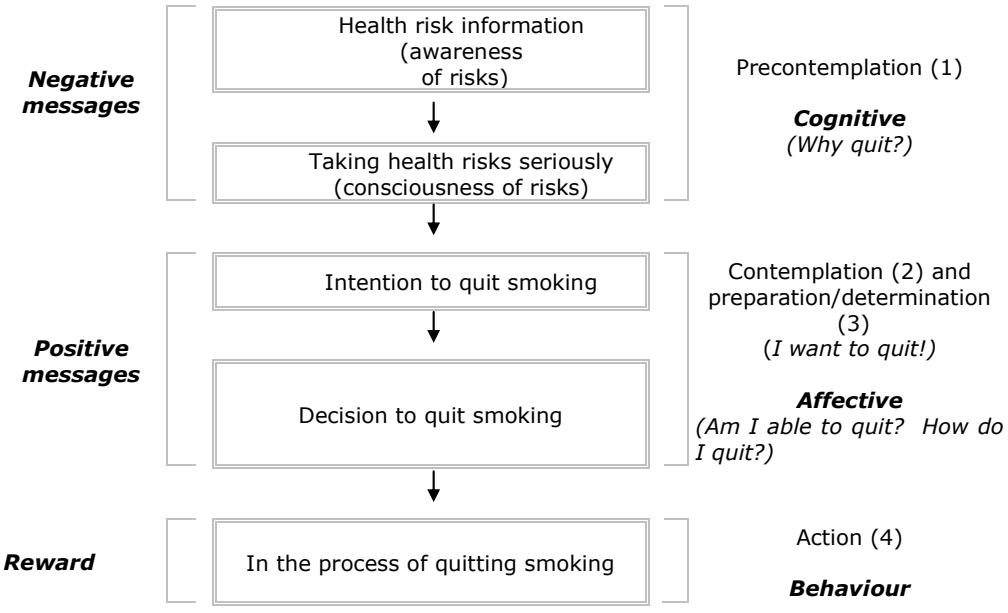
→ It should be noted that steps 3 and 4 address the affective domain (attitudes), the pre-action step. In these steps, previous messages are integrated into the overall knowledge and experiences of smokers. The findings of the committee of experts indicates that messages for these steps should probably be positive, in order to motivate action (e.g., you can), especially for less-literate smokers.

→ For individuals at step 1 (awareness of the dangers), it is unclear whether the messages required to move to step 2 (consciousness of the dangers) must be different from current messages or if the current messages simply need to be improved in order that they be better understood. It could be that less-literate smokers are still at step 1 because the current messages are just not accessible to them (learning gap).

- This type of model has been validated by many studies since Prochaska and Goldstein advanced the application of the hierarchy of effects model as a conceptual framework to be used in the campaign against tobacco use.[1] Their research also revealed that for each step of a person's "smoking career," there is a specific intervention.

- The interviews conducted during this study reinforce the hypothesis that less-literate smokers were still at the first step of the hierarchy of effects model, including the individuals who intended to quit smoking, despite the fact that they had been exposed, for several years, to health warning messages intended to inform them of the dangers of tobacco.

HIERARCHY OF EFFECTS LADDER
FOR MESSAGES ON CIGARETTE PACKAGES



[1] *Prochaska and Goldstein – Process of Smoking Cessation – Clinics in Chest Medicine. 1991, step (1) Precontemplation (2) Contemplation (3) Preparation (4) Action (5) Maintenance.*

Smoker's Level of Commitment

- Marketers have added the idea of audience involvement or commitment to the hierarchy of effects model.
  - → The greater the level of commitment required by the message, the more slowly the audience will move to a higher rung, closer to the desired action (thoughtful action).
  - → On the other hand, if the level of commitment is not very serious or demanding, there can be immediate or instant movement (impulsive action), or an intermediate step leading to the desired action may be jumped.
    - The level of commitment required by steps one and two may be considered quite reasonable or minimal, at least by literate smokers, which may contribute to "fatigue" from current messages.
    - Inversely, expectations at steps three and four are considerable, having no common ground with previous steps (some individuals prefer death to giving up their habit); this necessitates a more long-term presence of messages related to these steps.
- This model assumes that before smokers commit to the process of quitting smoking, they must take possession (be informed) of information on the dangers of smoking and, above all, be convinced that they have a reasonable chance of success.
  - → Failed attempts to quit smoking affect confidence related to success and may increase the level of commitment required or slow movement from rung to rung (many smokers get discouraged and become resigned to their dependence).
  - → However, studies have shown that previous failed attempts are the best predictors of success in cessation, which well illustrates the importance of reinforcing the smoker's confidence in his ability to quit, and of restarting those who have resumed their bad habit.

4.4 HASTY COGNITIVE COHERENCE

- In a previous study[1], the concept of hasty cognitive coherence was used to explain the primary (surface or literal) interpretation of less-literate individuals: these individuals, who very often grasp communication (whether written or visual) at the primary level, stop the process of understanding since they believe they have understood the message.
- Hasty cognitive coherence or urgency in attributing meaning to stimuli is one of the important concepts in understanding the comprehension processes of a less-literate audience.

[1] *"Caractéristiques des annonces télévisées grand public qui informent une audience peu alphabétisée"*, July 2002, Créatec +.

- After a first exposure to an informative announcement, less-literate individuals will try to attribute meaning to the content even though they do not understand it, completing the message in their own way.

- If they understand only one or a few of the elements in a message, if there is ambiguity or cognitive conflict, they tend to summarize or reduce the message to these elements, satisfy themselves with that and stop the process of learning. They do not feel the need to look for deeper understanding during subsequent exposure because they believe they have sufficiently understood the message.

- This method of learning has significant consequences for the success or failure of communication. Thus, due to overly hasty cognitive coherence, successive exposures no longer play their role in learning the message.

5. KEY OBSERVATIONS

5.1 PARTICIPANT CO-OPERATION

- The individuals interviewed in the four Canadian cities in which the interviews took place all had low levels of education (early high school) and had varying degrees of difficulty in reading and understanding. Although the sampling of individuals interviewed included a few participants who had no apparent literacy problems, the overall sampling observed can be considered level 2 on the literacy scale.

- The reasons behind their difficulty in reading, writing and understanding were many and varied. In fact, we met with individuals from social groups recognized to be more affected than others by low literacy (e.g., seniors, poor, undereducated).

- We can say that all participants co-operated with much kindness, sincerity and determination during interviews that lasted one and one half hours.

  They did not seem to be embarrassed by the questions. It should be noted that moderators were advised to use simple, familiar language, to adopt a soft, supportive and non-judgemental approach, to show empathy and to listen attentively.

5.2 PARTICIPANT SMOKER PROFILES

- Of the 43 individuals interviewed, aged 18 to 65 years, slightly more than half indicated that they had no intention of quitting smoking. Most of these began smoking at a young age, in adolescence, and became heavy smokers (a pack a day).

- Most have already tried to stop smoking on at least one occasion, generally for very short periods. In most cases, they stopped smoking due to illness or during pregnancy.

- They admitted that quitting smoking is difficult and requires considerable determination. In the end, almost all smokers interviewed admitted that they were highly addicted to cigarettes.

- Several participants have personally had or now have illnesses/diseases that may be caused by smoking: shortness of breath, breathing problems such as asthma, bronchitis or pneumonia, heart problems, strokes, etc. Several others reported similar cases among friends and acquaintances.

5.3 General Attitude of Participants Regarding Smoking

5.3.1 General Perception

- The participants acknowledged that they hear much more talk today of cigarettes and smokers than before and, in most cases, in negative, never positive terms. The main things mentioned by participants can be grouped in order of importance under the following categories:

  Risks of Smoking

  → Health risks for smokers and non-smokers

  → Cigarette addiction

  Social Pressure

  → Less tolerance toward smokers and an increasingly negative image of them

  → Negative reactions from those around smokers

  → The inconveniences of smoke and odours for non-smokers

  Regulations

  → Increasing government severity toward tobacco and its desire to see people stop smoking

  → The reduced number of public places that allow smoking

  → The ban on tobacco sponsorship

  → The constant increase in cigarette prices

- Participants indicated that they are aware of the impact of cigarettes on their environment and the stress placed by society on eliminating tobacco smoke. At the same time, however, many felt that the respect that they show to non-smokers is not being reciprocated.

  Some even used the term "harassment" to describe this "exaggerated" war on them. Finally, they resented the major emphasis placed on cigarettes when alcohol and pollution are also health risks.

  → *"The cost. It is like buying drugs. I feel centered out."*

  → *"Doctors say they won't treat people who smoke – made my father quit before a bypass. Don't like this – Big Brother image."*

  → *"Toutes les maladies sont causées par la cigarette mais on ne parle jamais de la drogue et de l'alcool." [Every disease is caused by cigarettes, but we never hear talk of drugs or alcohol.]*

→ *"C'est fatigant, ils harcèlent le monde, en parlent trop, les gens sont achalants et intolérants." [It's annoying. They harass people and talk about it too much. People give me a hard time and are intolerant.]*

- Much more than the taste, many smokers indicated they most appreciate the "relaxing" effect of cigarettes (seen as a sedative), providing them with a type of relief from everyday stress. Moreover, many smokers find the lack of nicotine can itself be a source of considerable stress.

  - *"It calms my nerves, I get shaky if I'm out of them."*

  Others saw the habit of smoking as synonymous with passing time, relaxation and fun times amidst daily pressures. Some openly admitted that they did not like cigarettes, that it was a bad habit to which they are addicted.

  → *"I do not like anything about cigarettes. Nothing, but it is addictive."*

- Free association with the word cigarette often had negative connotations among participants.

  → Bad habit: odours, yellow teeth
  → Health risks, but without great belief in such
  → Addiction and regret of having started
  → Related to various emotions: depression, stress, joy, sadness, boredom
  → Expensive

- Finally, a large number of smokers interviewed saw cigarettes as a bad habit with drawbacks, including:

  → Yellow teeth, odours, loss of taste, bad breath, ashen appearance;

  → Health drawbacks: coughing, complications from colds, shortness of breath, asthma, dizziness; and

  → Particularly addiction

- Paradoxically, however, participants indicated that they were addicted to nicotine and aware of the health consequences, but few were motivated to quit smoking, essentially because they like the relaxation that cigarettes provide.

5.3.2 General Relevance

- In terms of their daily "distress" or difficulties, the negative consequences of cigarettes or the "possible" health risks do not seem to carry any weight.

  → To some extent, the risks and negative consequences of cigarettes are not real or serious enough to motivate them to quit smoking unless they have no choice (cigarettes are taken off the market) or their backs are against the wall (a serious life-threatening health problem). They do not believe that the dangers of smoking are serious enough to justify sacrificing the relaxation or satisfaction of their addiction.

- *"If I had a pre-frontal lobotomy to remove cravings."*
- *"If doctor told me I'd die in certain time… I have a daughter to consider."*
- *"J'arrêterais de fumer si on me redonnait la garde de mes enfants." [I would quit if they gave me back custody of my children.]*
- *"J'arrêterais peut-être si on m'apprenait que j'ai le cancer. Puis encore, je ne suis pas certaine car de toute façon je vais mourir." [I might quit if I was told that I had cancer. Even then I'm not sure because I would die anyway.]*
- *"Non, ça me ferait beaucoup trop souffrir de vouloir arrêter." [No, it would be too hard on me to want to quit.]*
- *"Je ne veux pas engraisser." [I don't want to gain weight.]*

5.4 Relevance of Health Risks

- Generally, participants in the four cities felt that they were already sufficiently informed of the health risks of smoking and few wanted more information.

  → *"Need 100% proof it causes cancer."*
  → *"On devrait nous laisser en paix. Il devrait plutôt utiliser des phrases d'encouragement plutôt que de nous décourager." [They should leave us alone. They should use encouragement rather than discourage us.]*
  → *"Je ne veux pas en savoir plus. Je veux qu'on me laisse tranquille." [I don't want to know anymore. I want to be left alone.]*
  → *"On en parle beaucoup à la télé. Les médecins nous renseignent beaucoup." [They talk about it a lot on TV. Doctors tell us a lot.]*
  → *"On en sait assez; ils en parlent tellement." [We know enough, they talk about it so much.]*

- The main health risk of smoking mentioned was cancer, particularly lung cancer. Others include:

  → Heart problems
  → Respiratory problems: shortness of breath, asthma, bronchitis
  → Mouth disease: teeth, throat cancer
  → Arrested growth in fetuses
  → Second-hand smoke for children

- Almost all smokers interviewed acknowledged "smoking is bad for them." Generally, they were of the opinion that there is no safer way of smoking and no safer cigarettes. However, less-frequent smokers would be at lower risk than heavy smokers.

  → *"I worry – will probably get lung cancer."*
  → *"I don't inhale deeply... less risky."*
  → *"Je suis d'accord. Je tousse le matin et je perds la voix." [I agree. I cough in the morning and lose my voice.]*
  → *"C'est mauvais pour le système mais on ne peut vraiment le voir." [It's bad for the system, but you can't really see it.]*
  → *"Je suis d'accord mais ce n'est aussi grave qu'ils le disent." [I agree, but it's not as bad as they say.]*

→ *"On sait que c'est dangereux mais on fume quand même. Tu peux mourir d'un cancer même si tu ne fumes pas." [You know it's dangerous, but you smoke anyway. You can die of cancer even if you don't smoke.]*

- However, while some participants seemed aware that continuing to smoke could lead to health problems--serious illness such as cancer, a heart attack or respiratory problems, or even death--most would only quit if they learned that they were seriously ill or their health was in grave danger from smoking.

- Other respondents saw cigarettes as not causing illness of themselves; they simply aggravate a pre-existing condition. Some smokers hope or believe that they will be the exception and will avoid the health risks of smoking.

→ *"I don't – It won't happen to me, I'm young, I can still run, I'm healthy."*
→ *"Ça ne peut rien te faire si ton système est assez fort." [It can't hurt you if your system is strong enough.]*
→ *"Ça dépend de ta santé; il y a des risques de problèmes du cœur, cancer du poumon, souffle court." [It depends on your health. There is the risk of heart problems, lung cancer, shortness of breath.]*

- They thus chose to continue smoking even knowing the risks, as cigarettes give them pleasure or are a major release from daily stress. This paradox was expressed as follows by the smokers:

→ *"People do things that are stupid."*

→ *"Ça dépend de la santé de chacun. Moi je fume depuis deux ans et je suis en santé." [It depends on the health of the person. I've been smoking for two years and I am healthy.]*

→ *"C'est mauvais pour le système mais on ne peut pas vraiment le voir." [It's bad for the system, but you can't really see it.]*

→ *"Il y a pire, l'alcool par exemple. Si c'était si mauvais, ils arrêteraient d'en vendre." [There are worse things, alcohol, for example. If it was that bad, they'd stop selling it.]*

→ *"On sait que c'est dangereux mais on fume pareil. Tu peux mourir d'un cancer même si tu ne fumes pas." [You know it's dangerous, but you smoke anyway. You can die of cancer even if you don't smoke.]*

→ *"Mourir de ça ou d'autres choses." [Die of that or something else.]*

Statements by several smokers illustrate a type of "magical thinking": although they felt that "smoking is bad for your health" and "would rather not die instead of quitting smoking," they felt it was an exaggeration to say "smoking is dangerous."

→ *"On exagère énormément en mettant toutes les maladies sur le dos du tabac." [They exaggerate a lot by blaming all diseases on tobacco.]*

→ *"La cigarette ne peut pas causer toutes ces maladies. J'y crois pas parce qu'on ne le voit pas." [Cigarettes can't cause all those illnesses. I don't believe it because I can't see it.]*

→ *"Il y a des gens qui fument depuis très longtemps et qui ne sont pas malades; ça dépend des personnes." [Some people have smoked for a very long time and aren't sick. It depends on the person.]*

→ *"Ça ne cause pas plus de maladies qu'autre chose. Si on fume peu, c'est pas dangereux." [It doesn't cause any more illness than anything else. If you don't smoke much, it's not dangerous.]*

→ *"Non, fumer, c'est pas si grave qu'ils le disent." [No, smoking, isn't as bad as they say.]*

Some respondents indicated that cigarettes played such a compensatory or sedative role in their lives, a release from daily troubles and difficulties, that they were ready to accept the risk of dying.

→ *"Some days are so hard I don't want to live."*
→ *"I'm miserable without cigarettes, and hurt my friends."*
→ *"Des fois oui, pas tous les jours, mais des fois c'est à ce point." [Sometimes, yes, not every day, but sometimes it's at that point.]*

- Finally, we should note that many participants, without too much difficulty, recognized and accepted their addiction (physical and psychological) to cigarettes: they did not want to stop smoking, even if they felt that they could not say, "I can stop smoking when I want!"

5.5 Unaided Recall of Health Warning Messages

- Before recalling the health warning messages as such, we asked that the participants describe, from memory, everything that appears on a cigarette package. Most respondents first indicated the health warning messages.

→ First, the disturbing images that are difficult to look at, "extreme" according to some:

– Disgusting mouth, rotted or decayed teeth, pregnant woman, blackened lungs, scarred heart, person on a respirator, baby in a crib, clot on the brain, ashtray overflowing with cigarettes, woman with children, cigarette representing impotence.

→ The text or words most often associated with these images: Cancer

→ The messages associated with these images:

– Cigarettes can be hazardous to your health
– Cigarettes cause cancer
– Cigarettes can kill you

→ The purpose of these messages: "To make people quit smoking."

→ There was almost no spontaneous mention of Health Canada's sponsorship.

- Thus, the spontaneous description of elements found on cigarette packages demonstrates first and foremost the visual impact of the health warning messages, the striking effect of the illustrations (some more than others) and the same generic message associated with all images: "Cigarettes are hazardous to your health, cause cancer and can kill you."

- The following recall based on the health warning messages confirmed the spontaneous description of the cigarette packages by participants and provided information on the following aspects:

  → Participants spontaneously remembered a dozen different health warning messages. It was essentially the images or illustrations that were remembered first.

    – The mouth, lungs, pregnant woman, heart, brain, man on the respirator, children, statistics, ashtray, baby in incubator, cigarette and impotence, mother and daughter.

  → Memories of words or messages associated with the images were more generic:

    – Oral, lung and brain cancer
    – Danger, damage, side effects of cigarettes
    – Cigarettes can kill you, are hazardous to your health and can harm babies
    – Harmful to children

  → Participants noted that the health warning messages were different, but felt that the same message always surfaces: "*Cigarettes are hazardous to your health*."

  → We noticed a broad range of reactions to the health warning messages from smokers:

    – Avoiding certain packages because of the image (mouth, for example)

      - *"My teeth are like those teeth and I feel uncomfortable, I always hide the picture, it's no deterrent to smoking."*
      - *"C'est laid, je change de paquet pour ne pas les voir." [It's ugly. I change packs so I won't see it.]*

    – Can discourage youth from starting to smoke.

      - *"A pile of intestines, like worms, arrow point to area where cigarettes caused the stroke. The stroke worries me most because I've had a stroke."*
      - *"No help to long-term smokers like us. It's insulting. More to scare off young smokers."*
      - *"A deterrent to new smoker."*
      - *"Ça sert à faire réfléchir, à se poser des questions." [It makes you think, ask questions.]*
      - *"Ils veulent nous dire d'arrêter de fumer." [The want to tell us to quit smoking.]*

- Blame smokers
  - *"It's my fault that people are dying."*
  - *"Not fair to blame smokers for strain on health care."*
  - *"C'est dégueulasse, stressant et culpabilisant." [It's disgusting, stressful and a guilt trip.]*
  - *"Ils essaient de nous punir." [They're trying to punish us.]*
- Will not stop those addicted to smoking
  - *"It's too late for me, I have been smoking for 40 years."*
  - *"No picture will stop an addicted smoker."*
  - *"Ça n'encourage pas un vieux fumeur d'arrêter parce que ça prend de la volonté." [It won't encourage a long-time smoker to quit because it takes willpower.]*
  - *"Même si c'était écrit partout, ça ne fera pas arrêter les gens de fumer." [Even if it were written everywhere, it wouldn't make people quit smoking.]*
- Many deny or refuse to believe the information or even the images, which they call "over-exaggerated or extreme."
  - *"Cigarettes don't hurt me; my fingers get yellow and smell, but they don't hurt me."*
  - *"I don't believe it's just smoking that does this."*
  - *"Je n'y crois pas. Je fume depuis très longtemps et je ne suis pas malade." [I don't believe it. I've been smoking for a long time and I'm not sick.]*
  - *"Ça peut donner le cancer mais ils exagèrent." [It can cause cancer, but they are exaggerating.]*

→ Most respondents stated that they paid attention to the messages in the beginning but no longer read them.

- *"You know what is going on; you don't have to read about it."*
- *"I never really looked at the pack. Have never read the label."*
- *"I thought, who wants to look at that!"*
- *"Don't read them anymore."*
- *"Je les lisais au début; maintenant, ça ne me fait plus rien." [I read them in the beginning. Now they don't bother me anymore.]*
- *"Je les lisais par curiosité au début, maintenant je ne les vois plus." [I read them out of curiosity in the beginning. Now I don't even notice them anymore.]*

→ Some participants spontaneously admitted that certain health warning messages were difficult to understand because of the use of complex words and small fonts. In some cases, they asked for help from those around them to read and explain the text.

In this regard, having an illustration facilitates understanding; some do not read more than the title of the message. One would think that people with difficulties reading would not make the effort to read the entire message, being satisfied with only understanding the generic message portrayed in the image.

- *"After reading it more than once, it is finally sinking in."*
- *"If you can't read, the picture tells you to stop."*
- *"They put too many big words in the warnings, which makes them difficult to read."*
- *"J'ai demandé à une amie de m'expliquer le texte de la femme avec l'enfant." [I asked a friend to explain the text about the woman with the child.]*
- *"Ce sont de trop grands mots, pas des mots du quotidien. Je ne lis pas ce qu'il y a à côté de la photo, je n'accroche pas au texte, je vais préférer laisser tomber." [The words are too big, not everyday words. I don't read what is beside the picture. The words don't get my attention. I prefer to let it go.]*
- *"Le texte ne sert à rien, seulement les photos qui ont un impact." [The text doesn't serve any purpose. Only the pictures have an impact.]*
- *"Je ne lis pas parce que les caractères sont trop petits. C'est plus facile à comprendre parce qu'il y a des images." [I don't read because the letters are too small. It's easier to understand with images.]*

→ Very few respondents indicated that they had learned something new from the health warning messages, probably because they do not read the text of the messages and are limited to a generic interpretation: "Smoking is hazardous to your health."

- *"It is just a theory. But if it is the main cause of cancer, why aren't more smokers dying?"*
- *"Personne ne va s'arrêter pour les images et le message, mais ça fait réfléchir. Le cerveau et les poumons sont plus percutants." [Nobody is going to look at the image and message, but it makes you think. The brain and the lungs are the most striking.]*

→ In the same way, very few people questioned were able to accurately identify the author of the health warning messages. Generally, they attributed the messages to the government, without feeling the need to specify the department.

- *"It is from the Surgeon General, or the Government of Canada."*

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- *"On est au courant assez bien que c'est le gouvernement." [We're pretty well aware that it's the government.]*

Most people felt Health Canada publishes these health warning messages because they want people to quit smoking for the public good and to reduce very high health-care costs.

Some participants decried the hypocrisy of the government, which continues to collect revenue from tobacco taxes. In their eyes, this behaviour reduces the credibility of the health warning messages.

- *"Based on political pressure from anti-smoking groups."*
- *"The warnings were mandated to protect the tax dollars resulting from tobacco sales."*
- *"C'est hypocrite. Ils disent que c'est dangereux et ils en vendent quand même." [It's hypocritical. They say it's dangerous, but they sell it anyway.]*
- *"Si la cigarette était si dangereuse que ça pour la santé, il n'y en aurait plus sur le marché." [If cigarettes were that dangerous to our health, they'd take them off the market.]*

→ Finally, it seems that most participants tend to view certain health warning messages as exaggerated, somewhat a question of "scaring people." These participants agreed with the statement that cigarettes are hazardous to the health, but also felt that the signatory is exaggerating the risks, as though cigarettes were really less harmful than is stated.

- *"I could die from something else anyway; the warnings are exaggerated."*
- *"It only affects some people, not all people."*
- *"Make it seem like there is more health problems related to smoking than there really is."*
- *"(Risks) no longer really real after 50 years!"*
- *"Messages are exaggerated to make it seem like there is more health problems related to smoking than there really is".*
- *"Les dents jaunes, c'est pas à cause de la cigarette. Brosse tes dents et ça n'arrivera pas." [Yellow teeth aren't caused by smoking. Brush your teeth and it won't happen.]*
- *"L'impuissance, c'est pas vrai." [Impotence, that's not true.]*
- *"Le cancer du cerveau, c'est irréaliste. Je n'ai jamais vu quelqu'un mourir d'un cancer de cerveau parce qu'il fumait." [Brain cancer is unrealistic. I've never seen anyone die from brain cancer from smoking.]*

5.6 DECODING HEALTH WARNING MESSAGES

- It must be remembered that the objective of this qualitative study was not to evaluate the reading performance of less-literate smokers, but to understand how they read Health Canada's health warning messages, determine their meaning, react and take possession of the intended message.

- For the purposes of the study, five health warning messages were used with varying results as regards linguistic and cognitive barriers, following analysis by plain language experts. The same health warning messages were used in French and English with both language groups interviewed. (See Appendix 2 for the full reproductions of the health message warnings, and the methodology section.)

    1. PREGNANT WOMAN
       Cigarettes hurt babies / La cigarette nuit au bébé

    2. BRAIN
       Cigarettes cause strokes / La cigarette cause des accidents cérébrovasculaires

    3. MOUTH
       Cigarettes cause mouth diseases / La cigarette cause des maladies de la bouche

    4. LUNGS or MAN ON RESPIRATOR
       Cigarettes cause lung cancer / La cigarette cause le cancer du poumon

- The health warning messages were systematically rotated. Each participant was twice shown four health warning messages:[1]

    → They were first displayed briefly for five seconds, after which we withdrew the cigarette package. We then asked participants to indicate everything that had struck them, its importance and the perceived message.

    → In a second permanent exposure, first without accompanied reading, the health message warnings were presented one at a time, in the same order, and then discussed in more depth.

    → There was then accompanied reading. To ensure that participants could understand the text of the health warning messages and to eliminate any ambiguity surrounding certain images, we read with them. This allowed us to verify a) words that were not understood and, apart from words, difficulties in understanding and the resonance of messages for participants; and b) whether or not learning the textual message and a better text-image coherence changed the smoker's view of the importance of the message, its credibility, its relevance and its informational value.

- The findings presented later in this report were based on all participant reactions and comments about the health message warnings and on observations by moderators and observers.

[1] *All respondents reacted to the first three and to one of the "Lungs" variations.*

- In the following analysis, we sometimes refer to certain health warning messages presented to participants. We do so only by way of example, to better illustrate certain statements, with the understanding that the objective was not to individually evaluate the effectiveness of each health warning message.

- Our observations lead us to the following findings on how less-literate smokers decode the health warning messages on cigarette packages.

5.6.1 The Image Creates the Initial Meaning

- Less-literate smokers do not read the health warning messages, but "scan" them.

- For all less-literate individuals interviewed, the image is the first thing scanned in order to decode the message. Many went no further and pushed the package back, stating that they had understood "simply by seeing the picture."

- After having scanned the image, some also scanned, in whole or in part, the title to the right of the image, identifying one or more key words in order to complement or confirm their initial interpretation of the image (e.g., baby, cancer, lung). Thus, the information provided by the title is complementary to the image and is not essential.

- As with the words, less-literate individuals tend to interpret the image and attribute a generic, literal meaning to it, or to arrive at a surface understanding.

  → *"Picture tells you, you could die."*
  → *"Can get heart disease from cigarettes."*
  → *"Smoking equals lung cancer."*
  → *"Telling you not to smoke."*
  → *"If you smoke, you get cancer."*
  → *"Quit smoking or you will get lung cancer."*
  → *"Cigarette smoking causes strokes."*
  → *" La fumée endommage les poumons." [Smoke damages your lungs.]*
  → *"La cigarette, c'est mauvais pour les poumons." [Cigarettes are bad for your lungs.]*
  → *"Si tu fumes, tu peux faire mal à ton bébé." [If you smoke, you can harm your baby.]*
  → *"Arrêter de fumer pendant la grossesse." [Quit smoking while you're pregnant.]*
  → *"Ça donne le cancer du cerveau." [It causes brain cancer.]*
  → *"C'est mauvais pour les artères." [It's bad for your arteries.]*
  → *"C'est un problème de dents, c'est pas à cause de la cigarette." [It's a tooth problem; it's not because of cigarettes.]*
  → *"Ça donne mauvaise haleine, ça fait jaunir les dents." [It causes bad breath and yellow teeth.]*

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- It must be mentioned that the images tested, and their meaning, are not necessarily easy for less-literate smokers to understand. In fact, we find that all illustrations of phenomenon that are not visible, despite their realism, are totally abstract for less-literate smokers. For example, illustrations such as those of lungs and a brain are far from familiar and created considerable ambiguity and raised questions. This type of image has little or no effect and makes the whole message irrelevant and inaccessible. In other cases, where visible phenomena are illustrated, the absence of a relationship between the image and text automatically leads to an incorrect interpretation, as is the case with the health warning message on mouth diseases.

5.6.2 Only the Image and Title Create the Meaning

- Participants indicated that they never read the small text in the health warning messages. Only a few individuals read it once or asked for help in reading it.

- We found that there was no intention of reading the text, Furthermore, people indicated that they felt no need to do so, as they were satisfied with the meaning drawn from the image and title and had the clear impression that they had understood the message. To some degree, they assume what is written without reading it. If the image evokes no meaning, then the text (including the title) serves no purpose and is not worth their attention.

5.6.3 Impression of Having Correctly Understood

- Thus, based on the image and title, less-literate individuals attribute meaning to the content based on the elements that they scan, even if they have not read or understood the text.

- They simplify their understanding and interpretation of the image and, if they do not understand it, they attribute the generic meaning of all health warning messages: "*Cigarettes are hazardous to your health*."

- This means of decoding is easily observable among less-literate individuals. They feel that they have correctly understood the message without having read the text and do not feel the need to pursue it any further. They are of the opinion that they have correctly understood the message, but when we probe it, we see that most individuals take a generic interpretation of most health warning messages, with little distinction between one health warning message and another.

5.6.4 Learning the Text Does Not Change the Initial Meaning Created by the Image

- When we ask them to read the text of the health message warning and assist them in doing so, they show no real surprise and, generally, indicate no sense of having learned anything new, whether or not the image had evoked any meaning for them.

- We instead see that, even after accompanied reading, less-literate smokers do not change or question their initial understanding of the message. They prefer to rely on their initial interpretation of the meaning, and their perception of the degree of health risk remains unchanged.

→ *"Reading did not add additional meaning, a lot of people die of lung cancer anyway." (lung)*

→ *"I don't see how cigarettes can cause a stroke." (brain)*

→ *"Don't believe that. 80% of people die of lung cancer, but no just smoke." (lung)*

→ *"I agree with less than 20% of it." (pregnant women)*

→ *"Cigarettes cause strokes, but so can fats and lack of exercise. (brain)*

→ *"Smoking has nothing to do with oral cancer, which is inside the mouth." (mouth)*

→ *"Je le crois, mais ça n'arrive pas à tout le monde. Ça ne change rien de le savoir, tu meurs anyway." [I believe it, but it doesn't happen to everyone. Knowing it doesn't change anything; you're going to die anyway.] (lungs)*

→ *"Je ne le savais pas. J'apprends quelque chose, mais je n'y crois pas." [I didn't know that. I've learned something, but I don't believe it.] (lungs)*

→ *"Facile à comprendre mais sans les mots, l'image ne veut rien dire." [Easy to understand, but without the words, the image means nothing." (lungs)*

→ *"C'est difficile à lire. Peut-être que ça nuit à la santé mais pas à la croissance du bébé. L'image est plus importante que les mots." [It's hard to read. It might be bad for your health, but not for the baby's growth. The image is more important than the words.] (pregnant woman)*

→ *"Ce ne sont pas des mots qu'on voit souvent. Ça ajoute de l'information mais je n'y crois pas. La fumée ne monte pas au cerveau." [They're not words that we see a lot. It adds information, but I don't believe it. Smoke doesn't reach the brain.] (brain)*

→ *"La photo dit tout. Je ne crois pas ce qui est dit. Ils exagèrent avec le cancer de la bouche." [The picture says it all. I don't believe what it says. They're exaggerating with oral cancer.] (mouth)*

5.6.5 Health Warning Messages are Beyond Linguistic and Cognitive Reach

- Furthermore, observations from interviews conducted in the four cities confirm the findings of the group of plain language communication experts regarding Health Canada's health warning messages, as well as certain limitations in the cognitive skills of less-literate individuals. At both the cognitive and linguistic levels, we find that:

  → The message conveyed lacks relevance because people attribute a generic, first-level meaning to it before even seeing the health warning messages ("*Smoking is hazardous to your health*"), with little likelihood of changing views of the health risks of cigarettes.

→ Many words are too complex and abstract to be understood, such as disability, oral cancer and infant.

→ Many images are difficult to understand because they are from the medical field (lungs, brain, mouth disease, man on respirator).

→ Medical or scientific concepts are hard for less-literate smokers to understand. It is difficult for them to conceptualize the effects of cigarettes on the body, even after explanations in common terms.

→ In addition, we find that it is difficult for less-literate individuals to establish a relationship between the present and the future. The notions of probability and the gradual effects of smoking are subtle concepts beyond their grasp. They require "proof" that "it is or is not."

5.6.6 Communication is not Successful

- We found that the health warning messages on cigarette packages were not successful in communicating the nature or gravity of risks to less-literate smokers.
- Furthermore, the health warning messages do not seem to succeed in leading less-literate smokers to see the "generic" risk of smoking (not good for your health) as sufficiently serious to gain their attention and have them make an effort to understand what the messages are saying.
- According to the authors of the *Successful Communication: A Tool Kit*, communication is successful when the message appropriated by the recipient is understood in the manner desired by its sender. Such is not the case here, as a first-level surface understanding of the health warning messages does not challenge their under-estimation of the hazards of smoking and has no cognitive, affective or persuasive effects.
- One of the main findings of this exploratory study is that none of the health warning messages—images and/or text—was understood by most less-literate participants in the desired manner.

  → Although the individuals indicate that they easily understand the message of these warnings, their understanding is generic and non-specific: "Cigarettes are bad for you." Sometimes the message understood has no relationship to the actual content and individuals feel no need to read.

- Moreover, we find that the communication is unsuccessful for this group of smokers in the main effectiveness criteria:

  → **Relevance**: Not addressed to them; the tone is not sufficiently personal.

  → **Understanding**: Generic surface understanding not differentiated for each health warning message.

  → **Persuasion**: Does not challenge their tendency to under-estimate the degree of risk.

→ **Accessibility:** Images, words, and concepts are overly complex or not sufficiently concrete.

→ **Clarity:** Well-organized information, even though the font is somewhat small. The image is appropriately placed.

→ **Credibility:** The message is exaggerated: individuals do not believe that cigarettes are as hazardous as is stated. The warnings in the messages are not borne out in their own lives or the lives of those around them.

- Finally, we clearly see that participants are not taking possession of the message, even in the forced but favourable context of interviews; instead, they tend to reject it, most often for one of the following three reasons:

→ The message provides no new information (generic, non-specific, surface interpretation).

→ The message conflicts with their view of the risk associated with smoking (cigarettes are hazardous, but not as dangerous as they say).

→ The messages are not credible (exaggerated or not verified by their experience).

5.6.7 Typical Reactions to Health Warning Messages

- To properly illustrate our findings regarding how less-literate individuals decode health warning messages, their failure or difficulty in understanding and the resonance and credibility of the messages for them, we have gathered the typical reactions to each health warning message used in this exploratory study.

PREGNANT WOMAN

→ *"If pregnant, don't smoke."*

→ *"Smoking can hurt a baby."*

→ *"I don't believe that babies will be smaller and not be able to catch up."*

→ *"Je ne crois pas que ça empêche l'enfant de grandir. C'est difficile à lire. Dire que ça nuit à la santé je suis d'accord mais pas que ça nuit à la croissance." [I don't believe it can hurt the baby's growth. It's hard to read. Saying that it is bad for your health, I agree, but not that it hurts growth.]*

→ *"Le bébé respire la cigarette dans le ventre. Ça semble vrai et ça peut rendre l'enfant dépendant aussi." [The baby breathes the smoke inside you. It seems true and it can make the baby addicted, too.]*

→ *"C'est comme la fumée secondaire. J'ai fumé pendant mes grossesses et mes enfants sont en santé." [It's like second-hand smoke. I smoked when I was pregnant and my children are healthy.]*

→ *"Les mots sont difficiles à comprendre. L'image est plus importante que les mots." [The words are hard to understand. The image is more important than the words.]*

→ *"Le bébé fume en même temps que sa mère. C'est aussi mauvais pour le bébé." [The baby smokes at the same time as the mother. It's just as bad for the baby.]*

BRAIN

→ *"It just shows a brain clot, it just says it causes disability and death but looking at the picture you wouldn't know."*

→ *"I don't see how cigarettes can cause a stroke."*

→ *"Believable only to a degree, because so many non-smokers had strokes."*

→ *"Don't know how smoke can clog arteries – are they making this up?"*

→ *"En regardant la photo, ils doivent dire que c'est mauvais pour les poumons." [Looking at the picture, they must be saying it's bad for your lungs.]*

→ *"Je ne crois pas qu'il y ait un lien entre la cigarette et le cerveau." [I don't think there's any relationship between smoking and the brain.]*

→ *"Au niveau du cerveau, ça brûle les cellules à force de fumer." [For the brain, smoking burns cells.]*

→ *"Je ne comprends pas. Je ne vois pas le lien. Comment la fumée peut-elle aller au cerveau ? C'est très difficile à comprendre." [I don't see the relationship. How can smoking affect the brain? It's very hard to understand.]*

→ *"En lisant, cela ajoute de l'information mais je n'y crois pas. La fumée ne monte pas au cerveau." [Reading adds information, but I don't believe it. Smoke doesn't go to the brain.]*

→ *"C'est difficile à comprendre avec les grands mots. Même en anglais, c'est quoi stroke, une maladie du cœur. Pour moi le message c'est : la cigarette n'est pas bonne pour toi." [It's hard to understand with the big words. Even in English, it's what? Stroke? A heart disease. For me, the message is "Smoking is bad for you."]*

MOUTH

→ *"Don't believe it. Lost teeth due to smoking? I've never heard of this. If you brush them, you'll keep them."*

→ *"It will affect your teeth if you continue smoking."*

→ *"Exaggerated. Smoking has nothing to do with oral cancer, which is inside the mouth."*

→ *"Ça ne fait pas réfléchir, je n'y crois pas, la personne a seulement à se brosser les dents." [It doesn't make you think. I don't believe it. You just need to brush your teeth.]*

→ *"J'ai de la misère à croire que ça puisse donner un cancer de la bouche. C'est possible, mais ça dépend du monde, de leur système immunitaire." [I have trouble believing that it can cause mouth cancer. It's possible, but it depends on the person, on the immune system.]*

→ *"La photo dit tout. Je ne crois pas ce qui est dit. Ils exagèrent avec le cancer buccal." [The picture says it all. I don't believe what it says. They exaggerate with oral cancer.]*

→ *"Cancer de la bouche, problèmes de gencives, je ne savais pas ça. Ça fait peur mais j'y crois plus ou moins. Faut fumer beaucoup pour ça." [Oral cancer, gum problems, I didn't know that. It's scary, but I don't totally believe it. You'd have to smoke a lot.]*

→ *"C'est moins sérieux parce que ça ne tue pas; c'est seulement les dents." [It's not as bad because it doesn't kill you; it's only the teeth.]*

LUNGS (MAN ON RESPIRATOR)

→ *"Don't smoke; you'll get lung cancer."*

→ *"Cigarettes cause emphysema."*

→ *"There's a difference between getting lung cancer and having lung cancer."*

→ *"Can be on breathing machine for things other than lung cancer, car accident, a fall, shooting, stabbing."*

→ *"If you smoke, you get cancer – says it."*

→ *"Words are more important than picture."*

LUNGS (LUNGS)

→ *"Tells people what your lungs will look like."*

→ *"I didn't know it was a lung, looks like tonsils."*

→ *"Not sure what it is. Couldn't be alone without words."*

→ *"Don't believe that – 80% of people die of lung cancer, but not just smoke."*

→ *"Je ne comprends pas pourquoi c'est mauvais pour les poumons." [I don't understand why it's bad for your lungs.]*

→ *"Je ne comprends pas les statistiques? Même la photo, ça ressemble à des amygdales, on n'est pas sûr que ce soit des poumons, lequel est malade?" [I don't understand the statistics. Even the picture, it looks like tonsils. It's not clear that it's lungs. Which one is sick?]*

→ *"On a besoin du texte pour comprendre c'est quoi l'image." [You need text to understand the picture.]*

→ *"Sans tout comprendre, je comprends que la fumée n'est pas bonne pour les poumons." [I don't understand everything, but I understand that smoking is not good for your lungs.]*

→ *"On n'a jamais vu ça des poumons avant, comment on peut être certains qu'il s'agit bien des poumons?" "[I've never seen lungs before. How can we be sure it's lungs?"*

→ *"Le message : Fumer, c'est pas bon pour toi. Je le crois mais ça n'arrive pas à tout le monde." [The message: Smoking is bad for you. I believe it, but it doesn't happen to everyone.]*

→ *"Je ne comprends pas tous les mots. Les statistiques, c'est pas vrai, c'est juste pour faire peur au monde. Ils exagèrent. C'est facile à comprendre, mais sans les mots, l'image ne veut rien dire." [I don't understand all the words. The statistics are not true, it's just to scare people. They exaggerate. It's easy to understand, but without the words, the image means nothing.]*

→ *"Ça change rien de le savoir, tu meurs anyway." [Knowing it doesn't change anything. You die anyway.]*

5.7 Reactions to Ideas of Change

- With less-literate smokers, we examined various hypothetical changes that could be made to the health warning messages to make them more effective, i.e., make them think more about the risks of smoking. We had a list of 11 changes (see Appendix 1 at the end of the Discussion Guide). These changes all dealt with the design of health warning messages.
- According to respondents, changing the size of the font or images, changing the words or images or replacing the images with a symbol would not improve the effectiveness of the message.
- Although no single change really stands out, three were indicated most often.

→ Keep the same images, but improve the text to make it simpler, shorter and clearer.

→ Use a black font on a white background, but retain the colour images.

→ The warning could be prepared by an association of physicians or include testimonies from people affected (among Francophone participants) to give more weight to the message.

- As for Health Canada sponsorship, some participants suggested that it be indicated in larger font in order to be easier to read, while others felt that it was fine as is.

→ *"Add 'Addictive' with a symbol; that would be more effective."*

→ *"Need a 'Beware' sign."*

→ *"Devote one whole side to these warnings."*

→ *"Écrire simplement « pensez-y! », sans photo, sans texte." [Simply write "Think about it!" without a photo, without text.]*

→ *"Les médecins, ce serait mieux. Ils travaillent là-dedans, connaissent plus cela que Santé Canada." [Doctors would be better. It's their field of work and they know more than Health Canada.]*

→ *"Ça prend des preuves, des gens vivants souffrant." [It takes proof, actual people who are suffering.]*

→ *"On y croirait peut-être plus si c'était moins associé au gouvernement. Les témoignages seraient plus crédibles." [You might believe it more if it were less associated with the government. Testimonies would be more believable.]*

→ *"Oui, des textes plus simples, plus humains, pas des mots trop compliqués ou super évolués comme tabagisme, cardiovasculaire." [Yes, simpler, more human text, not really complicated, technical words like "tabagisme" or "cardiovasculaire"]*

→ *"Des témoignages réels, peut-être que ça nous aiderait." [Actual testimonies might help.]*

→ *"Santé Canada, ça se voit, mais c'est écrit petit." [You can see that it's Health Canada, but the letters are small.]*

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6. EXPLANATORY MODEL

- Based on all the observations reported in the previous section, we have concluded that less-literate individuals do not adequately decode the meaning of warnings and do not take possession of the information contained in these messages, even when the warnings are explained to them.

- This section outlines our main hypotheses on the mechanisms that explain this lack of understanding of Health Canada's warning messages among less-literate audiences and why communications do not and cannot have the desired informational value and credibility.

6.1 THE HASTY COGNITIVE COHERENCE BARRIER

- This study has made it possible to identify how less-literate smokers decode health warning messages and determine the meaning, essentially:

  → Starting with the image, they visually scan, but do not read. Some will complement this by reading one or more words from the title;

  → They do not read the text and have no intention of reading it;

  → The image conveys or fails to convey the meaning of the text.

  → When a meaning is evoked by an image, this meaning persists, no matter what level of learning is provided to the less-literate smoker.

- Thus after exposure to the informative warnings, less-literate smokers will try to give meaning to the content even if they do not understand it, to complete it rapidly and in their own way. This is called cognitive coherence.

  If they do not understand one or more of the message elements, or if there is ambiguity (the message can be understood in many ways), they tend to summarize the message by what the image has implied, to select the message they understood first (primary level or generic), to be satisfied with that and to stop the process of learning, instead of pursuing more in-depth understanding (trying to understand better). If the ambiguity or misunderstanding persists, or there is a conflict between the meanings, they will simply reject the communication because it makes no sense to them.

  → When the image does not evoke meaning, the message loses all its value and is ignored.

This hasty cognitive coherence that cannot be challenged by accompanied understanding is one of the comprehension mechanisms that limits the ability to learn the message and delays a less-literate audience in comparison with a literate audience.

Less-literate individuals will often be satisfied with the primary interpretation, or a surface understanding, and stop the process of understanding, since they believe they have understood the message. In fact, their lack of intention to read, their visual learning style, and the inaccessibility of the health warning message texts only permit a generic, undifferentiated interpretation of the messages, which is not sufficient to change their attitudes and perceptions with respect to the risks of tobacco use.

6.2 The Limits to the Ability of an Image to Convey a Message

- The observations are clear: the image is what conveys or fails to convey the meaning of the health warning messages. However, the image is the most accessible element (and often the only such element) for less-literate smokers; it should be an alternative to the text, but is not always sufficient to convey the information on its own.

- As with words, the informational value, credibility and comprehension of the image are hindered by a primary interpretation of the image, a lack of meaning, or its inaccessibility (complex). Such is the case with the health warning messages evaluated, with its images that are not all easily identifiable (lungs, brain).

- Given the significance of images in the visual learning style of less-literate audiences, the image should be the most literal message possible, as an alternative to the text.

- However, less-literate smokers' rudimentary medical knowledge, and their inability to conceptualize abstract concepts such as probability and gradual effects, mean that some images cannot be the sole message, nor can they be a substitute for the text. Certain risks just cannot be simplified, nor can they be summarized in an image.

6.3 Difficulties Making Connections

- Unlike literate individuals who are able to grasp a message the first time and absorb both surface and in-depth learning, it takes more effort for less-literate individuals to process information, and they do so on a more limited level.

- This is the case for the more complex cognitive operation of relating new knowledge to knowledge that has been already acquired (previous knowledge) in order to give it meaning and reframe it in light of what is already known.

- We have noted that less-literate smokers do not challenge their previous knowledge after learning the message (reading with accompaniment during the second exposure to the health warning messages). The fact that they do not challenge their previous knowledge limits access to in-depth understanding and integration of the message. How can this phenomenon be explained?

- When a health warning message creates a meaning, the person should relate this information to their previous knowledge. Yet, we note that the back and forth flow that results from relating external information to that which has already been acquired does not occur or only flows in one direction: rejection of the communication in favour of previous knowledge. Less-literate smokers:

  1. Rely on what they believe they know;

  2. Compare their own risk scale to the degree of seriousness that is being communicated;

  3. There is therefore distortion and the gravity of the risk illustrated by the health warning message decreases drastically;

  4. They do not take possession of the message.

- A change in the previous knowledge in unlikely, because, on the one hand, this cognitive operation is too difficult (at least level three) and so requires accompaniment or professional supervision, and on the other hand, because challenging what we already know suddenly becomes too much of a threat and too destabilising.

- We were thus able to observe that in cases of cognitive conflict between the meaning of the message and the individual's beliefs (previous knowledge), such as might occur during accompanied understanding, respondents relied on their stored knowledge and their own risk scale.

  → Faced with the doubt that a health warning message can create, they cling to their convictions, to their previous knowledge, especially when they feel that other health warning messages do not make any sense.

- When there was cognitive conflict between the text and the image[1], this conflict was also reconciled in favour of the previous knowledge, and they rejected the message they believed to lack credibility, while reinforcing their own risk scale (not that dangerous).

- Even with in-depth reading (after accompanied learning of the message), the relationship of information to previous knowledge remained one-way (non-iterative).

  → We were able to observe that in cases of dissonance, it is very unlikely that the meaning of the text will change the meaning of the image and, as a result, it is unlikely that it will change the initial meaning of the communication.

  → It is as if confidence in what the images say largely negates their confidence in what the words are saying.

  → A conflict of confidence between the meaning of an image and the meaning of words ends the potential to form iterative relationships between the new information and the previous knowledge (complex cognitive skills).

[1] *For example, in the "Mouth" health warning message, the image most often implied poor dental hygiene and the text dealt with mouth diseases caused by cigarettes.*

6.4 NON-APPROPRIATION OF THE MESSAGE

- Thus, even with messages that are made complete and accessible, there is little or no informational value to health warning messages (affect on the stored knowledge), because only a relationship with the primary meaning is initiated in favour of what is already known (rejection of the communication in favour of previous knowledge). Hasty cognitive coherence and low motivation (and ability) to relate the image to the text or to previous knowledge is all the more automatic when supported by the perceptual defence mechanisms inherent in physiological dependence.

- It is also this difficulty in relating that explains the permanent learning gap of less-literate smokers, preventing them from moving from step 1 to step 2 of the hierarchy of effects model, from simple awareness to knowledge of risks (taking the severity of the risks seriously).

- Even the image alone, when it creates a meaning, cannot change smokers' attitudes, because this meaning remains at a surface or primary level.

- Conveyed messages are therefore not integrated, since successful processing of the information, in other words, processing which would lead to changes in attitude or in previous knowledge, and specifically changes in the position of tobacco use on their personal scale of risks, represents a cognitive operation that is too complex. The mechanism of hasty cognitive coherence creates a distortion in the message so that it matches their current values and beliefs.

- Currently, in their personal risk scale, less-literate individuals give cigarettes a surface risk, insufficient to be taken seriously, as with the interpretation they give to the health warning messages:

  → *"Cigarettes are no worse for your health than other things, such as pollution, alcohol, illness, daily difficulties, stress."*

- For a very high proportion of less-literate individuals, cigarettes are a response to daily hardships. On their risk scale, the absence of cigarettes seems much worse than the risk of smoking.

- This explanatory model also applies to less-literate smokers who are thinking about quitting smoking over the medium term. The main reason motivating individuals who intend to quit: they have no choice, their health is seriously threatened by cigarettes.

- It would thus seem that, unless they are directly and seriously affected, less-literate smokers are not convinced of the reality nor of the gravity of the risk. They see smoking as only causing health "inconveniences" such as shortness of breath, asthma, coughing, complications from colds. In summary, they perceive cigarettes as creating common place and non-specific risks, no more harmful than those that may be caused by other common phenomena (such as pollution).

7. CONCLUSIONS

- Observations arising from interviews with 43 smokers lead us to conclude that the less-literate individuals we interviewed were at the primary awareness stage relating to the health risks of cigarette smoking and that current health warning messages are inadequate to move them to consciousness of the serious nature of the risks.

- This qualitative study highlighted the following observations:

  → In-depth understanding of the health warning messages is not possible without accompaniment;

  → When an effort is made to understand in depth, relating new information to previous knowledge, previous knowledge is preferred over new.

  → The hasty cognitive coherence mechanism creates distortion of the message so that it conforms to their values and beliefs.

  → The intention is to reject the communication; their understanding of the health warning messages provides several reasons or clues for doing so. They do not take possession of the message.

  → Previous knowledge and the personal scale of the seriousness of the risks of cigarette smoking are not changed by the health warning messages, but are more often reinforced.

  → The degree of gravity associated with the health risks of cigarette smoking is not great enough to sustain greater attention, or greater motivation to understand. The absence of cigarettes seems far worse to them.

  → According to the hierarchy of effects model, less-literate smokers seem to remain at level 1 and experience a permanent learning gap.

- As the result of this study, one might ask if improvements to the current health warning messages on cigarette packages would be successful in producing progress among this segment of smokers, if their learning gap can be addressed by this method of communication. In general terms, might health risks be explained to a level 2 less-literate audience using only this method?

- In short, the results of this study lead us to question the poor potential of the current health warning messages for explaining health risks to level two less-literate individuals with cognitive barriers.

  → Do health warning messages on cigarette packages need to be combined with or complemented by another means of communication?

  → Would messages with an affective/emotional impact, whether health warning messages or another means of communication, be more likely to resonate? In other words, must the risks be felt rather than explained? Or must the risks be felt before the explanations can be understood?

  → It could be said that it is through experience and emotion, the typical learning mode of less-literate individuals, that they are most likely to understand the realities of things.

APPENDIX 1

DISCUSSION GUIDE

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DISCUSSION GUIDE
HWMs and the Less-literate Smoker

1. INTRODUCTION (10 minutes)

This initial stage of the discussion is to establish a level of confidence and a rapport between the moderator and the participants. The persons being interviewed are informed of the purpose of the discussion and what is expected of them.

GUIDELINES

- Use simple language that is familiar. Participants might have difficulty understanding what you want to say. Do not hesitate to repeat the question using different words, if necessary.
- Insist that they are not being tested – the materials are.
- Distance yourself from the material – welcome criticism.
- Let respondents know that many people have had difficulty understanding the ads that will be shown.
- Verify comprehension by finding out what is understood and what is not understood.
- Remember that participants may hold very different views than the general public about advertising in general, health warning messages on cigarette packs and smoking, etc.
- Use "people who have trouble reading or writing" if you need to indicate the target audience.
- Word of welcome and introduction of moderator.
- Objectives of the research: *"We are going to talk about smoking, cigarettes and cigarette packages. I'll ask you what you like. I'll ask you what you don't like.* ***We are not here to convince you to quit smoking.*** *Everything you say is fine. If you like it – that's fine. If you don't like it – that's fine too. Nobody else will know what you said – it's all confidential. We're talking to lots of people to find out what they think. We want to help to better inform the public.*
- Role of moderator / client observing discussion / recording

- Neutrality of moderator (*doesn't work for government, an association or a cigarette manufacturer. Did not work on the cigarette packaging being discussed, and is not here to judge anything or anyone but only to listen*).

- Role of participants / duration: 2 hours / Are there any questions?

ASK RESPONDENT(S)

- Given name / age
- Occupation
- Questions on reading habits:
  - How often do you read newspapers, magazines? What do you read?
  - Have you ever asked someone to explain things to you - to help you understand a text or something written by someone?

2. PREVIOUS KNOWLEDGE (15 minutes)

For the remainder of the discussion, we will talk about cigarettes and smoking.

1. What do we hear about cigarettes these days? (on TV, radio, newspapers)

- Who talks to us about cigarettes?
- Where (sources) do you hear things about cigarettes?
- To whom do they talk, mainly? Who do you think is targeted?
- What do people around you (friends, family) say about cigarettes?
- What do you think about what is said about cigarettes?
- Is there more talking about cigarettes today than there was five years ago? Why?
- Is there too much, enough or not enough talk about cigarettes?
- Why is there such talking about cigarettes?
- Does what you hear about cigarettes have any effect on you?
- Who/which sources do you trust most?

2. Has anything changed for smokers? What has changed?

3. I would like to talk about you and cigarettes:

- What do you smoke? Any particular reason why you have chosen that type of cigarette over another?
- How many cigarettes do you smoke per day? How long have you been smoking?
- What do you like about smoking?
- Do you see any drawbacks? What disturbs you the most about smoking?

4. Have you ever tried to quit smoking? Are you seriously considering quitting smoking?

- **(No):** What would make you quit?
- **(Yes):** Why would you quit smoking?

5. Do you feel addicted to (hooked on) cigarettes? How?

6. Think about the word "cigarettes" and tell me everything, anything that comes to your mind. Don't wait, be spontaneous.
Encourage quantity of words, images, feelings or emotions.

7. Can you describe what is displayed, shown <u>on</u> a pack of cigarettes? What would you find when you look at a pack of cigarettes (without actually looking at a pack)
Be attentive to how respondent talks about HWMs.

8. Can you describe all that is written <u>on</u> a cigarette pack?

3. UNAIDED RECALL OF HWMs (15 minutes)

Moderator: *Make sure respondent cannot see a cigarette pack.*

1. Can you recall seeing any warnings on cigarette packs, on the main face of the pack?

- What do they look like? *(Ask for all details)*
- Easy to notice? Why?
- What are they telling you?
- Do you pay attention to these warnings? When? Why?
- What do you think of these warnings?

2. What do you recall about these warnings? What strikes you, what catches your attention?
Encourage quantity of spontaneous mentions: all words, images, colours, symbols.
Pay attention to recalled images, words or other elements and note order of recall.

- Now, think only of the images you remember having seen. Describe <u>all the images</u> you can recall.

- Now, forget the images and think of only the words and what was written. <u>Name all the words</u> you can recall.

- For each image recalled, ask: can you recall the <u>words associated with this image</u>? *(Moderator: use respondent's words to describe the image).*

3. Can you recall the first time you saw these warnings?

- What was your reaction?
- Did you talk about them with someone else? What did you say?
- Have your first reactions to the warnings changed since the first time you saw them? Why?

4. Of the warnings you are able to recall, what are the messages?

- Are the messages the same from one pack to the other?
- Are there many messages? How many roughly? Do the messages say things which are very different or very similar?
- What are the differences between the warnings?
- Why are these warnings displayed on cigarette packs? What are they useful for?
- Does it change anything for you to have warnings displayed on cigarette packs?

5. Did you read them?

- Are they easy or difficult to read?
- Are they easy or difficult to understand?

6. Are there messages or part of messages that you avoid looking at or reading? Do you pick one pack out over another, because of the messages that are displayed?

7. Did you learn something while looking at these warnings? What?

- Are these warnings a good way to make you think? Why? Do they inform you?

- Do you take into account what is being said in the warnings?

8. Did you notice who made these warnings?

9. Why do you think Health Canada made these warnings? Who else should make these warnings?

10. What kind of person made these warnings?

11. Other types of products (such as products for cleaning your home, bleach) also display warnings. Why do they? How do these warnings compare with cigarette warnings?

- Do you pay attention to warnings that are displayed on these other products?

12. In your opinion, are warnings on cigarette packs saying things which are exaggerated or realistic?

4. HEALTH RISKS (15 minutes)

1. To what extent do you agree with the idea that "**Smoking is bad for you**"?

2. What are the health risks of smoking that you know of, starting with the most important? (*List*)

- Do you worry about the risks?
- Are these risks real or imaginary?

3. Do you feel that you are at risk because you smoke?

4. Is it exaggerated to say that smoking is dangerous?

5. Why are we told that smoking is dangerous to our health?

6. Are there ways of smoking that are less dangerous than others?

7. Are there cigarettes that are less dangerous than others?

8. Why smoke when we know that it is not good for our health?

9. Some sentences to complete by respondent:

- *"I continue to smoke because…"*
- *"I would quit smoking if…"*
- *"If I continue smoking, my risks are…"*

10. Brief comments : what is your opinion on the following statements:

- *"I prefer to die than quitting smoking."*
- *"I can quit smoking right away, if I wanted to."*

11. Do you feel well-enough informed about the health risks of smoking cigarettes?

- What would you like to know or to be told about the health risks of smoking?

12. Tell me if the following statements describe you well, reflect well what you feel:

- *"Smoking is not that dangerous and I can quit if I wanted to."*
- *"Smoking is not that dangerous but I am not sure I can quit if I wanted to."*
- *"Smoking is dangerous and I can quit if I wanted to."*
- *"Smoking is dangerous and I am not sure I can quit if I wanted to."*

5. DECODING OF HWMs (35 minutes)

Moderator: *I will show you four (4) warnings that are currently displayed on cigarette packs. I will show them quickly, one at a time, and then I will ask you for your opinion. I will be happy with any answer you give. If you like something, it is okay. If you don't like something, it is okay too. If you feel the time given to see them is too fast, you are right. If you don't understand something, you tell me.*

First brief exposure *(mentally count up to 5 seconds)*
Rotate exposure to the warnings.

For each warning:

1. What struck you? Which things can you recall? (Note if image or words and order)

2. In your own words, what is the warning trying to tell you? (message understood)

3. What things tell you that this is the message?

4. Is this warning important (or important looking)? What tells you that?

Second permanent exposure (*let respondent see the warning during all the discussion*)
Same order as previous series of exposure.

For each warning:

1. What are they trying to tell you with this warning? What tells you that?
Identify how respondent builds meaning: is it with or centred on the image, some words or both?

- What helps you to understand the message?

2. What are the most important **words** used in this warning that helps you to understand the message?

3. What do you think of the **picture, of the image**?

- Does it catch your attention
- Is it a good choice?
- What does it say?
- Does it add anything?
- Does it say the same thing as the words?
- Could it be alone, without any text and say the same thing?

4. Does this warning make you think (importance / relevance)?

- Does this warning speak to you? Why?

5. What do you feel (emotion) when looking at this message?

- What makes you feel that way?

6. Is this warning well done for speaking about serious health risks?

7. Is it worthwhile to pay attention to this warning? Why?

8. Is this warning easy to understand or does it require some effort to read and to understand? Because of what?

- Is it clear? Is it clear at first glance? Do you think this warning is one that could be understood by all?

9. Do you believe what is said?

10. Do you agree with what is said? Do you agree with the way it is said?

11. Who is making this warning? Is it easy to notice?

Overall

12. Overall, would you say that this warning is a good way to tell you about the health risks of smoking cigarettes? Why?

Note

- For the "Brain" and "Mouth" HWMs, explain to respondents the message (after Q12), using simple words and the written text (**Moderator:** helps respondents to understand what is written - correct meaning of image – ex. it's a brain, not a heart).
- Once meaning is understood, ask respondent if what is written/said adds to or helps to understand the image, if what was first understood changed.

6. SUGGESTIONS FOR IMPROVEMENT (15 minutes)

Moderator: *Show the 4 HWMs discussed previously.*

Now, I would like your ideas on how these warnings could be changed to make them more effective, that is, to make you think more about the risks of smoking.

Look at these warning as they currently exist.

1. I will show you some suggestions. For each of them, tell me what you think, whether this change would make warnings more effective, more noticeable (probe why).

Note*: The suggested changes are for research purpose only and may or may not be possible to implement, may or may not be desirable changes for more literate smokers.*

Moderator: *Record respondent's answer using the* ***questionnaire « Suggestions »*** *and probe why. At the end, ask which one would be the most efficient, if several were mentioned. Accept respondent's suggestions to improve efficiency of the proposed change.*

2. What changes would you suggest that would make you take them more seriously, for you to pay more attention to them, for you to think more seriously about smoking? How could warnings that talk about the serious health risks of smoking be changed to be more effective? *Probe respondent's suggestions.*

7. END OF THE DISCUSSION (5 minutes)

Do you have any other comments?

SUGGESTIONS

READ AND ROTATE	More effective	More noticeable	No, not more
1. As they are now, but with different images	( )	( )	( )
2. As they are now but with different words	( )	( )	( )
3. Having them printed in black and white, white background with black letters, black and white images	( )	( )	( )
4. Warnings signed by a medical association	( )	( )	( )
5. Everything larger, bigger on the cigarette pack	( )	( )	( )
6. Health Canada much larger	( )	( )	( )
7. A large symbol, such as a triangle or a circle with a mark of danger inside, always the same, to replace current images	( )	( )	( )
8. Always the same word or sentence (such as smoking kills or poison), without images	( )	( )	( )
9. Always the same word or sentence, with different images	( )	( )	( )
10. Shorter text but larger images	( )	( )	( )
11. Longer text but smaller images	( )	( )	( )

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GUIDE DE DISCUSSION

Les mises en garde sur les paquets de cigarette et les fumeurs faiblement alphabétisés

1. INTRODUCTION (10 minutes)

Cette première partie de l'entretien consiste à détendre l'atmosphère et créer un climat de confiance entre l'animateur et les participants. C'est à ce moment que l'animateur rassure les personnes interrogées sur ses intentions et précise ses attentes à leur égard.

CONSIGNES

- Utilisez un langage simple, qui est familier. Les participants peuvent avoir de la difficulté à comprendre ce que vous voulez dire. N'hésitez pas à répéter en utilisant différents mots, si cela est nécessaire.
- Insistez sur le fait que ce n'est pas eux qu'on teste, mais bien le matériel.
- Avoir une approche douce et soutenante, non jugeante.
- Laissez savoir aux répondants qu'il y a beaucoup de personnes qui ont de la difficulté à comprendre ce que nous allons leur montrer.
- Vérifiez la compréhension en découvrant ce qui est compris et ce qui ne l'est pas.
- Se rappeler que les participants peuvent avoir des opinions très différentes du public en général à propos de la cigarette, des mises en garde sur les paquets et du tabagisme, etc.
- Utilisez des termes comme ceux-ci *« les gens ayant de la difficulté à lire ou à écrire »* si vous avez besoin de préciser l'audience visée.
- Bienvenue et introduction de l'animateur
- Objectifs de l'étude : « *Nous allons parler du tabac, de la cigarette et de paquets de cigarette. Je vais vous demander ce que vous aimez dans le fait de fumer, ce que vous aimez moins.* ***On ne cherche pas à vous convaincre d'arrêter de fumer.*** *Tout ce que vous me dites est correct. Si vous aimez ça, c'est correct. Si vous n'aimez pas ça, c'est correct aussi. Personne ne saura ce que vous dites car tout est confidentiel. Nous allons parler à beaucoup de personnes afin de savoir ce qu'ils pensent. Nous voulons aider à faire de meilleures communications.*
- Rôle animateur / observation par le client / enregistrement

- Neutralité de l'animateur *: « Je ne travaille pas pour le gouvernement, une association ou une compagnie de tabac. Je n'ai pas travaillé sur les paquets de cigarettes et je ne suis pas ici pour juger quoi que ce soit ou qui que ce soit, mais seulement pour écouter ».*

- Rôle des participants / durée : 2 heures / Des questions?

PRÉSENTATION DU (DES) RÉPONDANT(S)

- Prénom / âge
- Occupation
- Questions sur les habitudes de lecture :
  - Jusqu'à quel point lisez-vous des journaux, des revues? Que lisez-vous?
  - Vous arrive-t-il de vous faire aider par d'autres personnes pour comprendre un texte ou quelque chose d'écrit?

2. BAGAGE ANTÉRIEUR (15 minutes)

Tout au cours de cette discussion, nous allons parler de la cigarette et des fumeurs

1. Qu'est ce qui se dit sur la cigarette de nos jours? (à la télévision, radio, dans les journaux)

- Qui vous parle sur la cigarette?
- Où (sources) entendez-vous parler sur la cigarette?
- À qui parle-t-on surtout? D'après vous, quelles personnes sont visées?
- Qu'est-ce que les gens autour de vous (amis, famille) disent sur la cigarette?
- Que pensez-vous de ce qui se dit sur la cigarette?
- Est-ce qu'on en parle plus aujourd'hui qu'avant? Pourquoi?
- Est-ce qu'on en parle trop, assez ou pas assez?
- Pourquoi parler autant de la cigarette?
- Quel effet a sur vous ce que vous entendez sur la cigarette?
- À qui/quelles sources faites-vous le plus confiance?

2. Y a-t-il eu des changements pour les fumeurs? Qu'est-ce qui a changé?

3. Parlez-moi de vous et de la cigarette :

- Qu'est-ce que vous fumez? Une raison en particulier pour avoir choisi cette cigarette?
- Combien de cigarettes par jour? Depuis quand?
- Qu'est-ce que vous aimez dans le fait de fumer?
- Voyez-vous des inconvénients? Qu'est-ce qui vous dérange le plus?

4. Avez-vous déjà arrêté de fumer? Pensez-vous sérieusement à arrêter de fumer?

- **(Non) :** Qu'est-ce qui vous ferait arrêter de fumer?
- **(Oui) :** Pour quelles raisons voulez-vous arrêter de fumer?

5. Vous sentez-vous dépendant (accroché) à la cigarette? Comment?

6. Si je vous demandais spontanément de me dire tout ce qui vous vient en tête quand vous pensez à « cigarette »?
Encourager la production de mots, images, sentiments ou émotions.

7. Décrivez-moi tout ce qu'il y a sur un paquet de cigarette? Tout ce que l'on retrouve sur le dessus? (Sans regarder un paquet)
Porter attention à la façon dont ils parlent des mises en garde ou avertissements.

8. Décrivez-moi tout ce qu'il y a d'écrit sur un paquet de cigarettes.

3. RAPPEL SPONTANÉ DES MEG (15 minutes)

Animateur : *Assurez-vous qu'il n'y a pas de paquet de cigarette à la vue du participant.*

1. De mémoire, dites-moi si vous avez déjà remarqué des avertissements sur la face principale des paquets de cigarette?

- À quoi cela ressemble-t-il? *(Demander tous les détails)*
- Facile à remarquer? Pourquoi?
- On parle de quoi dans ces avertissements?
- Portez-vous attention à ces avertissements? Quand? Pourquoi?
- Que pensez-vous de ces avertissements?

2. À propos de ces avertissements, de quoi vous souvenez-vous? Quelles sont les choses qui vous ont frappé?

Encourager la quantité d'évocations spontanées : tous les mots, images, couleurs, symboles.
Porter attention s'il s'agit d'images, de mots ou autres et noter dans l'ordre.

- Maintenant, ne pensez qu'aux images et décrivez toutes les images que vous vous souvenez avoir déjà vues.vous vous souvenez?

- Oubliez les images maintenant et pensez seulement aux mots et à ce qu'il y a d'écrit dans les avertissements. Nommez tous les mots dont vous vous souvenez?

- Pour chaque image mentionnée demander : vous souvenez-vous des mots qui vont avec cette image? *(Animateur : utiliser les mots du répondant pour décrire l'image).*

3. Vous souvenez-vous de la première fois que vous avez vu ces avertissements?

- Quelles ont été vos réactions?
- En avez-vous parlé à d'autres?
- Vos premières réactions aux avertissements ont-elles changé depuis? Pourquoi?

4. Quels sont les messages sur les avertissements dont vous vous souvenez?

- Le message est-il toujours le même d'un paquet à un autre?
- Y a-t-il beaucoup de messages? Combien environ? Disent-ils des choses très différentes ou très semblables?
- Quelles sont les différences entre les avertissements?
- Pourquoi met-on ces avertissements sur les paquets de cigarettes? À quoi ça sert?
- Est-ce que ça change quelque chose pour vous qu'on mette ces avertissements sur les paquets?

5. Les avez-vous lus?

- Facile ou difficile à lire?
- Facile ou difficile à comprendre?

6. Y a-t-il des messages ou des parties de messages que vous évitez de regarder ou de lire? Choisissez vous de préférence un paquet plutôt qu'un autre, à cause des messages qui sont dessus?

~~6.~~7. Avez-vous appris des choses en regardant ces avertissements? Quoi? — **Formatted:** Bullets and Numbering

- Est-ce que ces avertissements sont une bonne façon de vous faire réfléchir? Pourquoi? Est-ce qu'ils vous informent?
- Tenez-vous compte de ce que disent les avertissements?

~~7.~~8. Avez-vous remarqué qui fait ces avertissements? — **Formatted:** Bullets and Numbering

~~8.~~9. Pourquoi Santé Canada fait-il ces avertissements? Qui d'autre devrait faire ces avertissements? — **Formatted:** Bullets and Numbering

~~9.~~10. Quel genre de personne a fait ces avertissements? — **Formatted:** Bullets and Numbering

~~10.~~11. D'autres types de produits (par exemple certains produits de nettoyage, eau de javel) ont aussi des avertissements. Pourquoi on fait ça au juste? Comment ça se compare avec les cigarettes? — **Formatted:** Bullets and Numbering

- Portez-vous attention aux avertissements qu'on retrouve dans d'autres produits?

~~11.~~12. À votre avis, est-ce que ces avertissements sur les paquets de cigarettes exagèrent ou sont réalistes? — **Formatted:** Bullets and Numbering

4. RISQUES POUR LA SANTÉ (15 minutes)

1. Jusqu'à quel point êtes-vous d'accord avec l'idée que « **fumer, c'est mauvais pour vous** »?

2. Quels sont les risques pour la santé que vous connaissez, en commençant par les plus importants? (*Lister*)

- Est-ce que ces risques vous préoccupent?
- Est-ce que ces risques sont réels ou imaginaires?

3. Sentez-vous que vous courez des risques parce que vous fumez?

4. Est-ce qu'on exagère quand on dit que fumer c'est dangereux?

5. Pourquoi on nous dit que fumer c'est dangereux pour la santé?

6. Y a-t-il des façons de fumer qui sont moins dangereuses que d'autres?

7. Y a-t-il des cigarettes qui sont moins dangereuses que d'autres?

8. Pourquoi fumer quand on sait que ce n'est pas bon pour la santé?

9. Quelques phrases à compléter par le répondant:

- *« Je continue à fumer parce que… »*
- *« J'arrêterais de fumer si… »*
- *« Si je continue de fumer, je risque de… »*

10. Commenter brièvement : Donner votre opinion sur les phrases suivantes :

- *« Je préfère mourir plutôt que d'arrêter de fumer »*
- *« Je peux arrêter de fumer quand je veux »*

11. Vous sentez-vous suffisamment informés sur les risques pour la santé de fumer la cigarette?

- Qu'est-ce que vous aimeriez qu'on vous dise sur les risques pour la santé de fumer?

12. Dites-moi si les affirmations suivantes vous décrivent bien, reflètent bien ce que vous ressentez:

- *« Fumer, ce n'est pas si dangereux que cela et je peux arrêter si je le voulais ».*
- *« Fumer, ce n'est pas si dangereux que cela et je ne suis pas certain(e) de pouvoir arrêter si je le voulais ».*
- *« Fumer, c'est dangereux et je peux arrêter si je le voulais ».*
- *« Fumer, c'est dangereux et je ne suis pas certain(e) de pouvoir arrêter si je le voulais ».*

5. DÉCODAGE DES MEG (35 minutes)

***Animateur* :** *Je vais vous montrer quatre (4) avertissements que l'on retrouve sur les paquets de cigarettes. Je vais vous les montrer rapidement, un à la fois, ensuite, je vais vous demander ce que vous en pensez. Je serai content avec toutes les réponses que vous me donnerez. Si vous aimez quelque chose, c'est bon. Si vous n'aimez pas quelque chose, c'est bon aussi. Si vous trouvez que c'est trop rapide, vous avez raison. Si vous ne comprenez pas quelque chose, vous le dites.*

Première exposition très brève (*en comptant mentalement jusqu'à 5 secondes)*
Exposer les avertissements en rotation.

Pour chacune des mises en garde :

1. Qu'est-ce qui vous a frappé? Éléments dont vous vous souvenez? (noter si image ou mots et l'ordre)

2. Dans vos mots, qu'est-ce que l'on essaie de nous dire avec cet avertissement? (message compris)

~~4.~~3. Qu'est-ce qui vous fait dire que c'est ça le message?

~~5.~~4. Est-ce que cet avertissement est important (ou a l'air important)? Qu'est-ce qui vous fait dire cela?

Deuxième exposition permanente (*laisser en permanence l'avertissement à la vue du répondant*)
Dans le même ordre que lors de la première exposition.

Pour chacune des mises en garde :

1. Qu'est-ce qu'on essaie de vous dire avec cet avertissement? Qu'est-ce qui vous fait dire ça?
Identifier comment le répondant bâtit un sens : est-ce avec ou centrer sur l'image, certains mots ou les deux?

- Qu'est-ce qui vous aide à comprendre le message?

2. Quels sont les **mots**, les **éléments** les plus importants pour comprendre?

3. Que pensez-vous de l'**image, de la photo**?

- Est-ce qu'elle attire l'attention?
- Est-ce un bon choix?
- Qu'est-ce qu'elle dit?
- Qu'est-ce qu'elle ajoute?
- Est-ce qu'elle dit la même chose que le texte?
- Est-ce qu'elle pourrait être toute seule, sans le texte et dire la même chose?

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~~2.~~4. Est-ce que ce message vous fait réfléchir (voir l'importance attribuée)?

- Est-ce que ça vous parle ce qu'on dit dans cet avertissement? Pourquoi?

5. Que ressentez-vous (émotion) lorsque vous regardez ce message?

- Qu'est-ce qui vous fait ressentir ça?

6. Est-ce que cet avertissement est bien fait pour parler de risques sérieux pour la santé?

~~4.~~7. Est-ce que ça vaut la peine qu'on porte attention à cet avertissement? Pourquoi? — **Formatted:** Bullets and Numbering

~~5.~~8. Est-ce que cet avertissement est facile à comprendre ou ça demande un effort à lire et à comprendre? À cause de quoi? — **Formatted:** Bullets and Numbering

- Est-ce clair? Est-ce clair du premier coup? Pensez-vous que cet avertissement sera compris par tout le monde?

~~8.~~9. Croyez-vous ce qui est dit? — **Formatted:** Bullets and Numbering

~~9.~~10. Êtes-vous d'accord avec ce qui est dit? Êtes-vous d'accord avec la façon dont on le dit? — **Formatted:** Bullets and Numbering

~~10.~~11. Qui fait cet avertissement? Est-ce facile à voir? — **Formatted:** Bullets and Numbering

Globalement

~~11.~~12. En gros, trouvez-vous que c'est une bonne façon de vous parler des risques de fumer la cigarette? Pourquoi? — **Formatted:** Bullets and Numbering

Note

- Pour les MEG « Cerveau » et « Bouche », expliquer (après Q12) aux répondants dans des mots plus simples le texte qui accompagne l'image (**Animatrice :** aider à comprendre ce qui est dit).
- Vérifier la compréhension (ex. bloque les artères et empêche le sang de nourrir le cerveau; ce n'est pas un cancer du cerveau mais ce qu'on appelle un accident cardiovasculaire).
- Demander si ce qui est dit ajoute ou aide à comprendre l'image, ce que ça change au premier sens donné à l'image.

6. SUGGESTIONS DE CHANGEMENT (15 minutes)

Animateur *: Laissez à la vue les quatre MEG de la section précédente.*

J'aimerais maintenant avoir vos idées sur des changements qui rendraient les avertissements plus efficaces, c'est-à-dire qui vous ferait plus réfléchir sur les risques de fumer.

Regardez les avertissements tels qu'ils sont en ce moment.

~~2.~~1. J'ai quelques suggestions. Pour chacune d'elles, dites-moi si ça rendrait les avertissements plus efficaces, plus faciles à remarquer. (Sonder pourquoi)

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Note *: Les changements suggérés sont utilisés seulement dans un but de recherche exploratoire et peuvent ou non être applicables, peuvent ou non être des changements souhaitables pour des fumeurs plus alphabétisés.*

Animateur *: Notez les réponses sur le* ***questionnaire « Suggestions »*** *et sondez le pourquoi de la réponse. À la fin, demander quel changement serait le plus efficace, s'il y en a plusieurs. Accepter les suggestions du répondant qui augmenterait l'efficacité du changement suggéré.*

2. Avez-vous des suggestions de changements qui vous amèneraient à les prendre encore plus au sérieux, à y porter plus attention, qui vous feraient sérieusement réfléchir? De quoi aurait l'air des avertissements qui parleraient de risques graves ou sérieux pour la santé causés par la cigarette*? Sonder ce que le répondant suggère.*

7. FIN DE LA DISCUSSION (5 minutes)

Avez-vous d'autres commentaires à formuler?

SUGGESTIONS

LIRE EN ROTATION	Plus efficace	Plus facile à remarquer	Non, pas plus
1. Comme en ce moment (garder les mots) mais changer les images	( )	( )	( )
2. Comme en ce moment (garder les images) mais changer les mots	( )	( )	( )
3. Imprimé en noir et blanc, des lettres noires sur un fond blanc, images en noir et blanc	( )	( )	( )
4. Avertissement signé par une association de médecins	( )	( )	( )
5. Tout en plus gros, plus grand sur le paquet	( )	( )	( )
6. Santé Canada en plus gros	( )	( )	( )
7. Un gros symbole en forme de triangle ou de cercle, avec une marque de danger à l'intérieur, toujours le même, qui remplacerait les images actuelles	( )	( )	( )
8. Toujours le même mot ou la même phrase (ex. : la cigarette cause le cancer ou poison), sans images	( )	( )	( )
9. Toujours le même mot ou la même phrase, avec des images différentes	( )	( )	( )
10. Texte plus court mais images plus grandes	( )	( )	( )
11. Texte plus long mais images plus petites	( )	( )	( )

APPENDIX 2

DESCRIPTION OF HEALTH WARNING MESSAGES

Informative and explanatory
Synonyms, advanced language, long text, relationship to visual

Informative and argumentative
Synonyms, organization

Informative
Synonyms

Affirmative

Informative
Synonyms, advanced language, visual clarity