



NUCLEAR WASTE  
MANAGEMENT  
ORGANIZATION

SOCIÉTÉ DE GESTION  
DES DÉCHETS  
NUCLÉAIRES

June 2003

Survey Report

---

# **Phase One: Public Attitudes to Nuclear Waste and the NWMO Project**

Navigator

# Public Attitudes to Nuclear Waste and the NWMO Project

---

Nuclear Waste Management Organization  
June 2003



# NWMO's mandate

- By law, submit a study for federal Cabinet approval by 2005.
- In that study, recommend a waste management approach that is:
  - economically viable;
  - environmentally responsible;
  - technically sound; and
  - socially acceptable.

# Navigator's role

- Serve as an independent public opinion specialist to investigate public attitudes towards nuclear waste and its management, including:
  - Identify and explore the range of opinions held by Canadians;
  - Gauge awareness, understanding, interest and potential for participation;
  - Explore the best means for communicating with Canadians.

# Methodology

- Poll conducted across Canada among 1901 adults 18 years-of-age and older, from April 22<sup>th</sup> to May 9<sup>th</sup>, 2003.
- Margin of error +/- 2.25%, 19 times out of 20.
- 64 questions, including 3 open-ended questions and 9 demographic questions.
- The data has been weighted to the 2001 Stats Canada Census to reflect actual age and gender distribution by Region, then nationally across Canada.
- Note: Graphs may not always total 100% due to rounding values rather than any error in data.

# Summary of Findings

# Summary of findings

- Nuclear power and the management of nuclear waste do not register as issues for Canadians
- When prompted, Canadians feel used nuclear fuel is an important issue
- Public demonstrates and acknowledges limited knowledge of used nuclear fuel and how it is managed
- Prior knowledge of the NWMO is low, but when prompted on its mandate, support for NWMO is high
- Public wants the issue of used nuclear fuel addressed

# Summary of findings

- Majority want public involvement but not their own personal involvement in the NWMO project
- The public is generally interested in more information on all topics related to used nuclear fuel
- There is a preference for more passive sources of obtaining information
- Scientists and engineers are viewed as important groups to involve in the process of examining options



# Summary of findings

- There is high public interest in the topic, but moderate to low likelihood they will seek out information
- Public says project should prioritize scientists over public, but both should play a role
- Public is only somewhat willing to take an active role in the development of the NWMO's plan

# The Relative Importance of Nuclear Waste

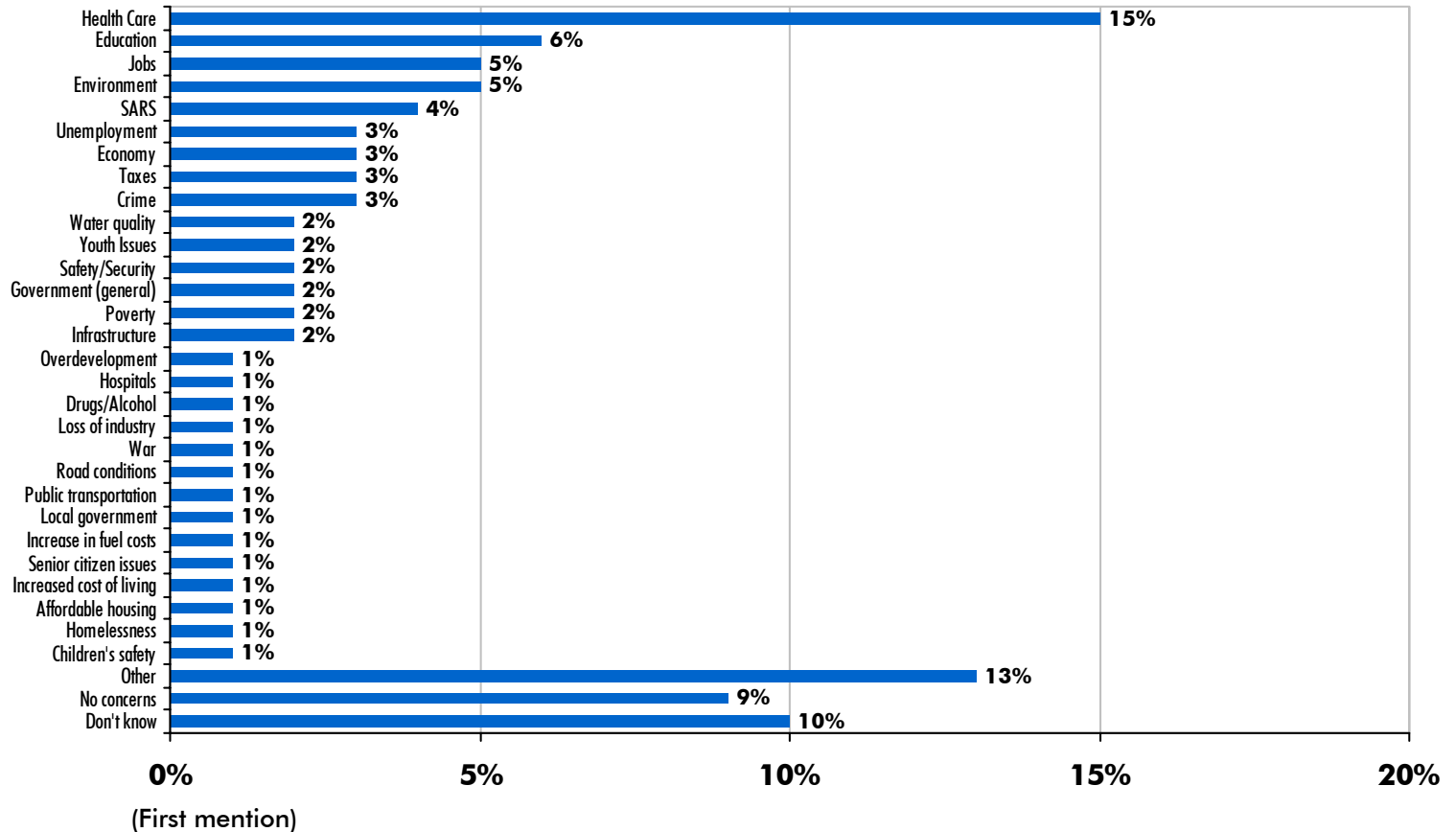
In order to understand the relative importance of the issue of nuclear waste to Canadians we asked a series of questions to test unprompted and prompted ratings of the importance of the issue.

Key findings include:

- Unprompted, nuclear waste management does not register as a top-of-mind issue;
- When prompted, nuclear waste is rated as important, relative to many other issues; and
- Many Canadians rate nuclear waste as an extremely important issue.

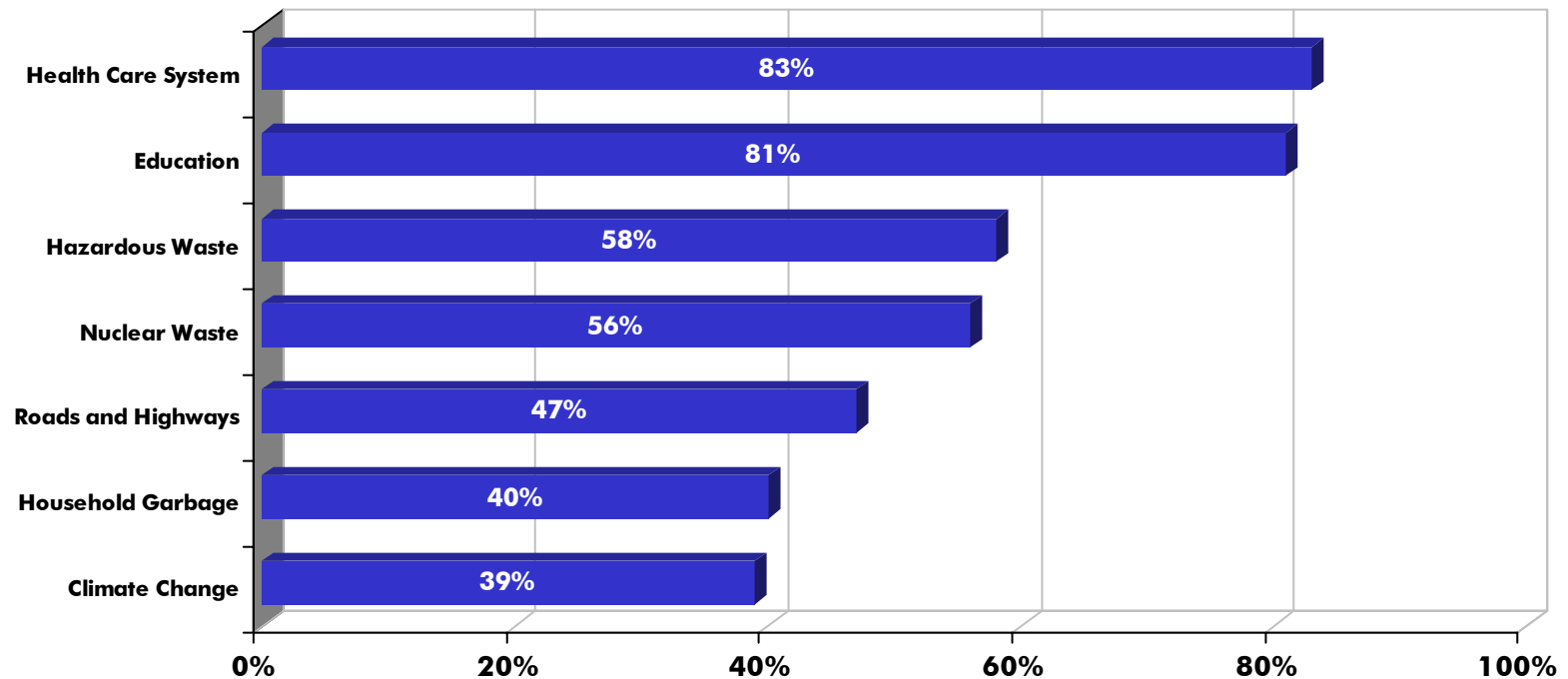
# Nuclear waste management does not register as a top-of-mind issue

What is the most important issue facing your local community today, in other words, the one that concerns you personally the most?



# Nuclear waste is important, relative to other issues

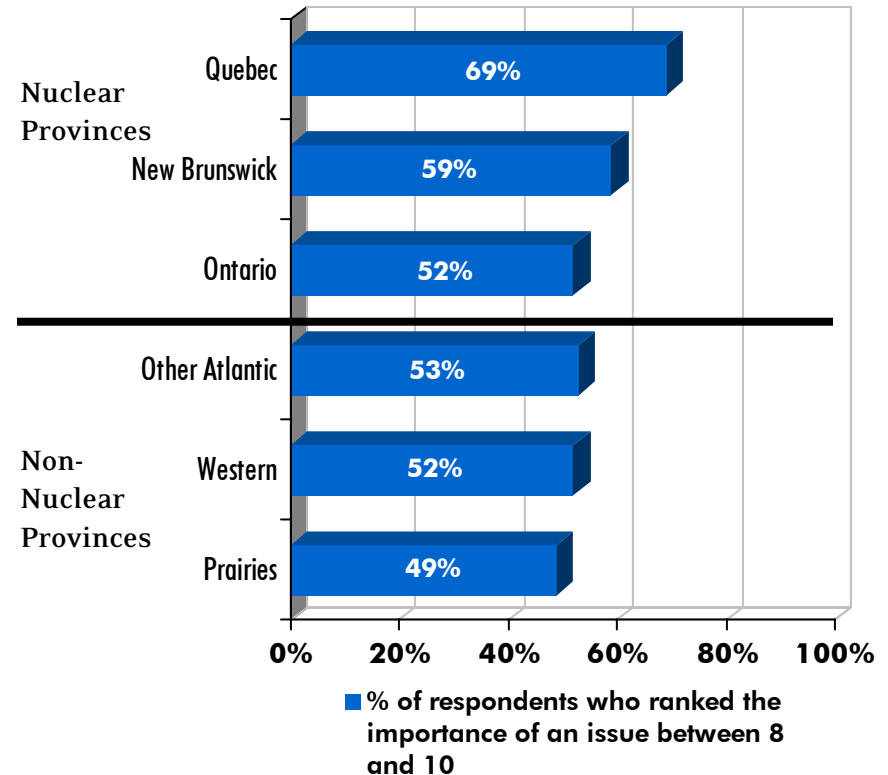
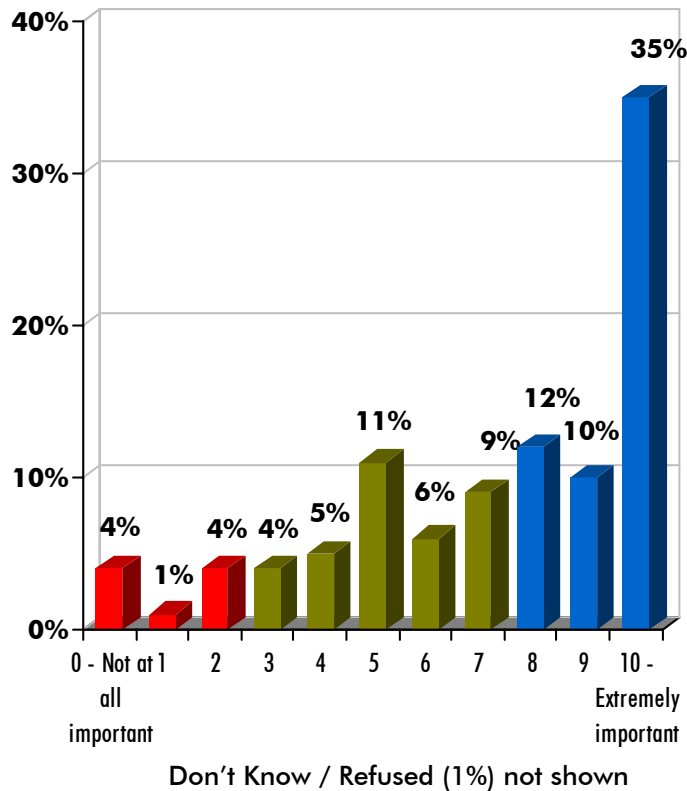
I would like to begin by reading you a list of issues that some people in Canada have said concern them. Please tell me how important each of these issues is to you personally by using a scale from 0 to 10, where 0 means "not at all important" and 10 means it is "extremely important".



■ % of respondents who ranked the importance of an issue as 8, 9 or 10 on a 10 point scale

# Many rate nuclear waste as extremely important

I would like to begin by reading you a list of issues that some people in Canada have said concern them. Please tell me how important each of these issues is to you personally by using a scale from 0 to 10, where 0 means "not at all important" and 10 means it is "extremely important".



# Familiarity with Nuclear Waste

As part of the research, the NWMO wanted to understand what level of knowledge Canadians have about used nuclear fuel, both in terms of what they claim to know, and what level of knowledge they can demonstrate. Overall, it is clear that most Canadians possess low familiarity and knowledge about used nuclear fuel.

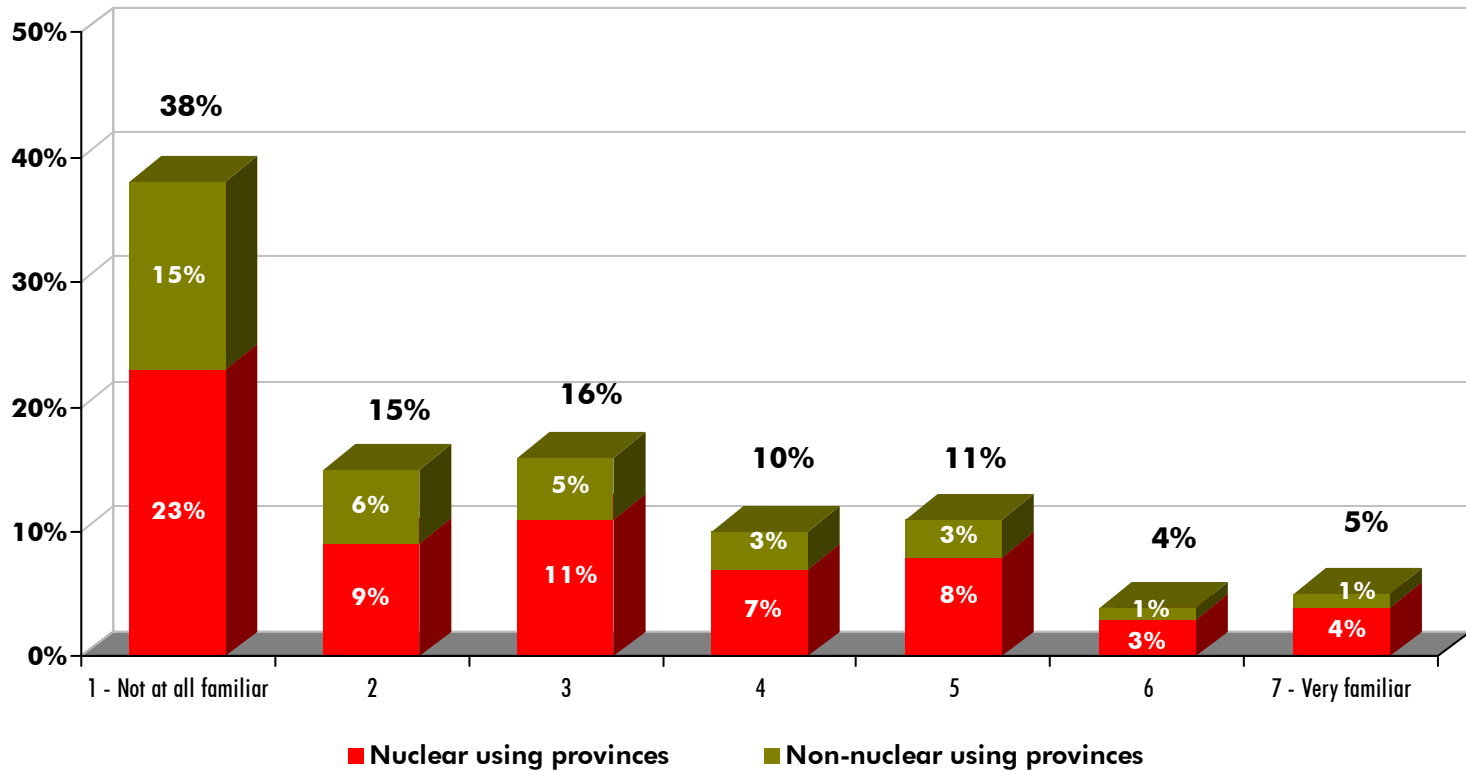
Key findings include:

- The public claims low familiarity with nuclear waste and how it is managed in Canada;
- Nuclear-using provinces claim slightly higher familiarity with nuclear waste than non-nuclear provinces;
- There is low public awareness on how long nuclear waste must be managed; and
- Few Canadians are familiar with U.S. plans to store/bury used nuclear fuel.



# Public claims low familiarity with nuclear waste

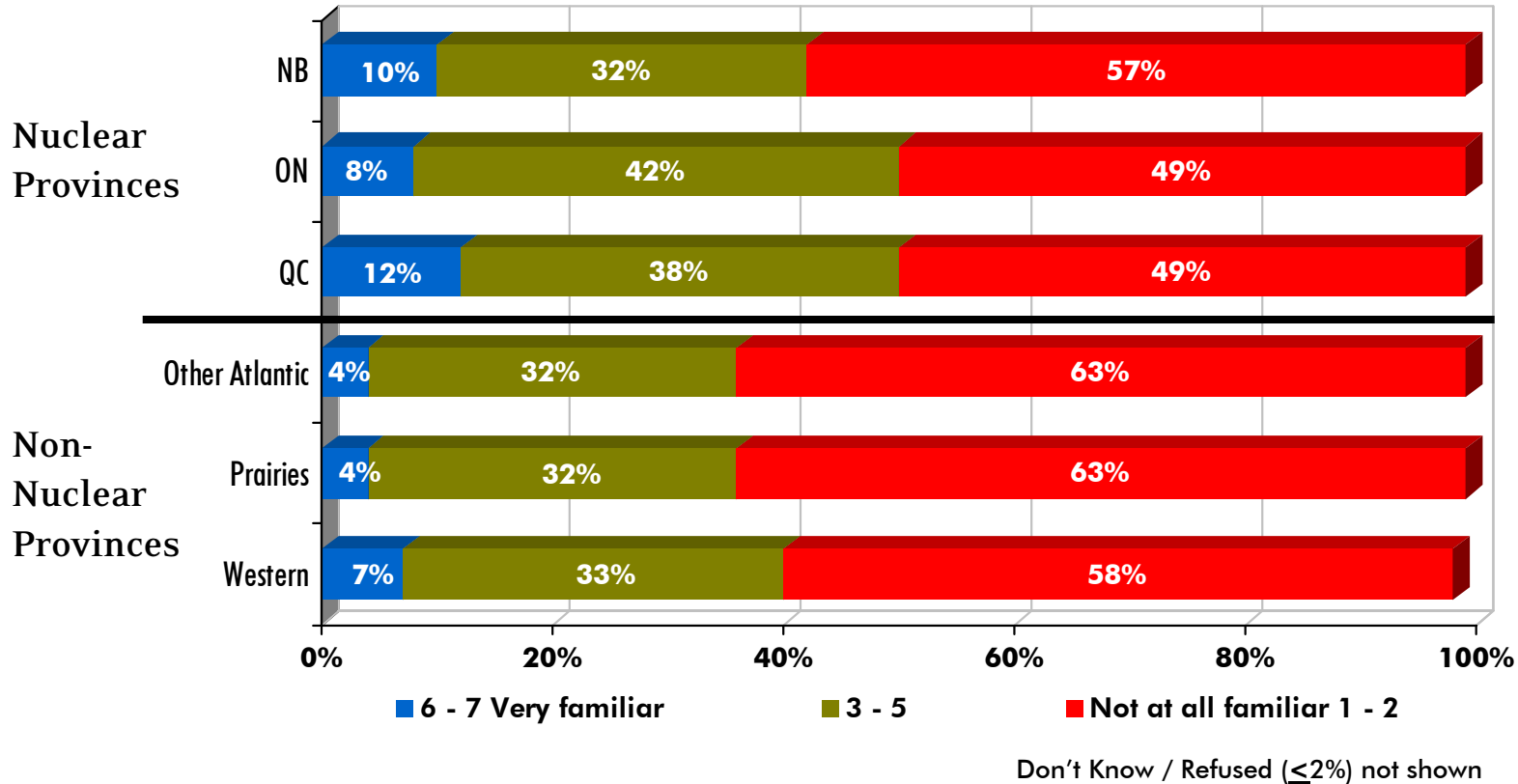
Using a scale between one and seven where one means you are not at all familiar and seven means you are very familiar, overall how familiar would you say you are with nuclear waste and how it is managed in Canada?



Don't Know / Refused (1%) not shown

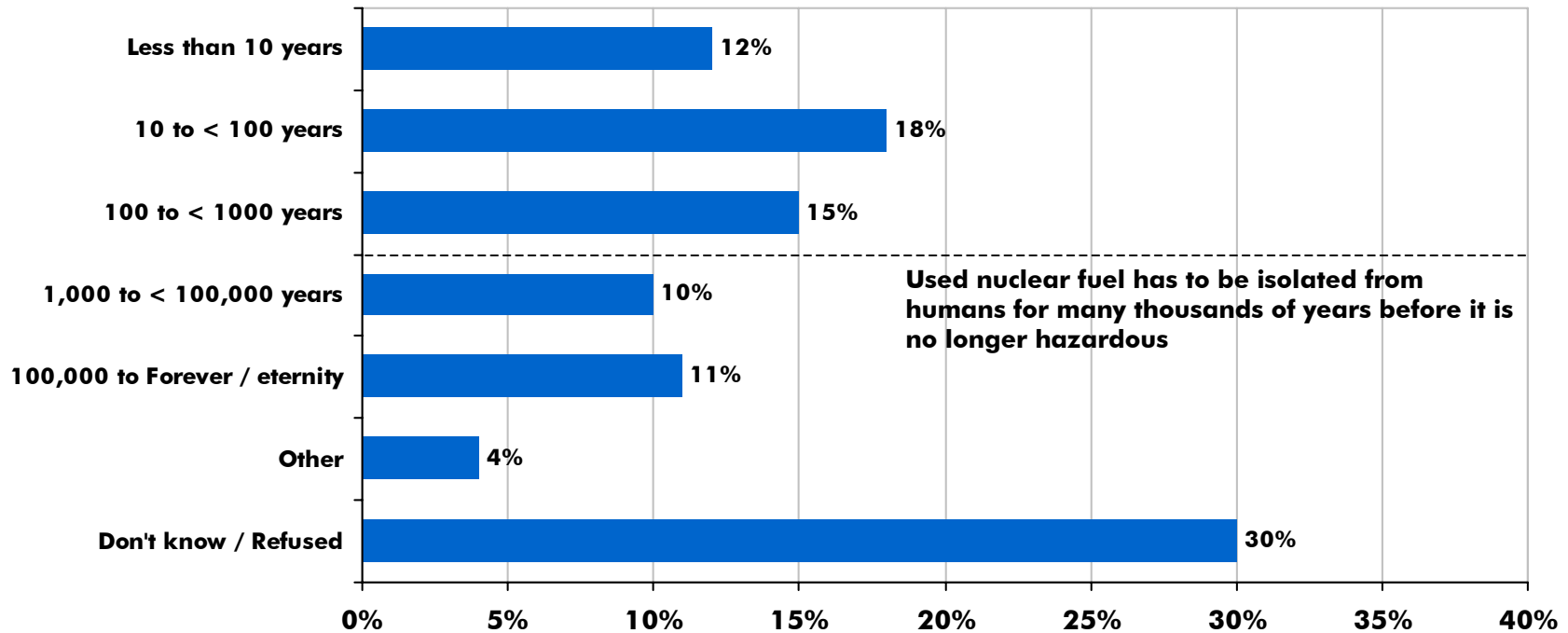
# Nuclear-using provinces claim slightly higher familiarity with nuclear waste

Using a scale between one and seven where one means you are not at all familiar and seven means you are very familiar, overall how familiar would you say you are with nuclear waste and how it is managed in Canada?



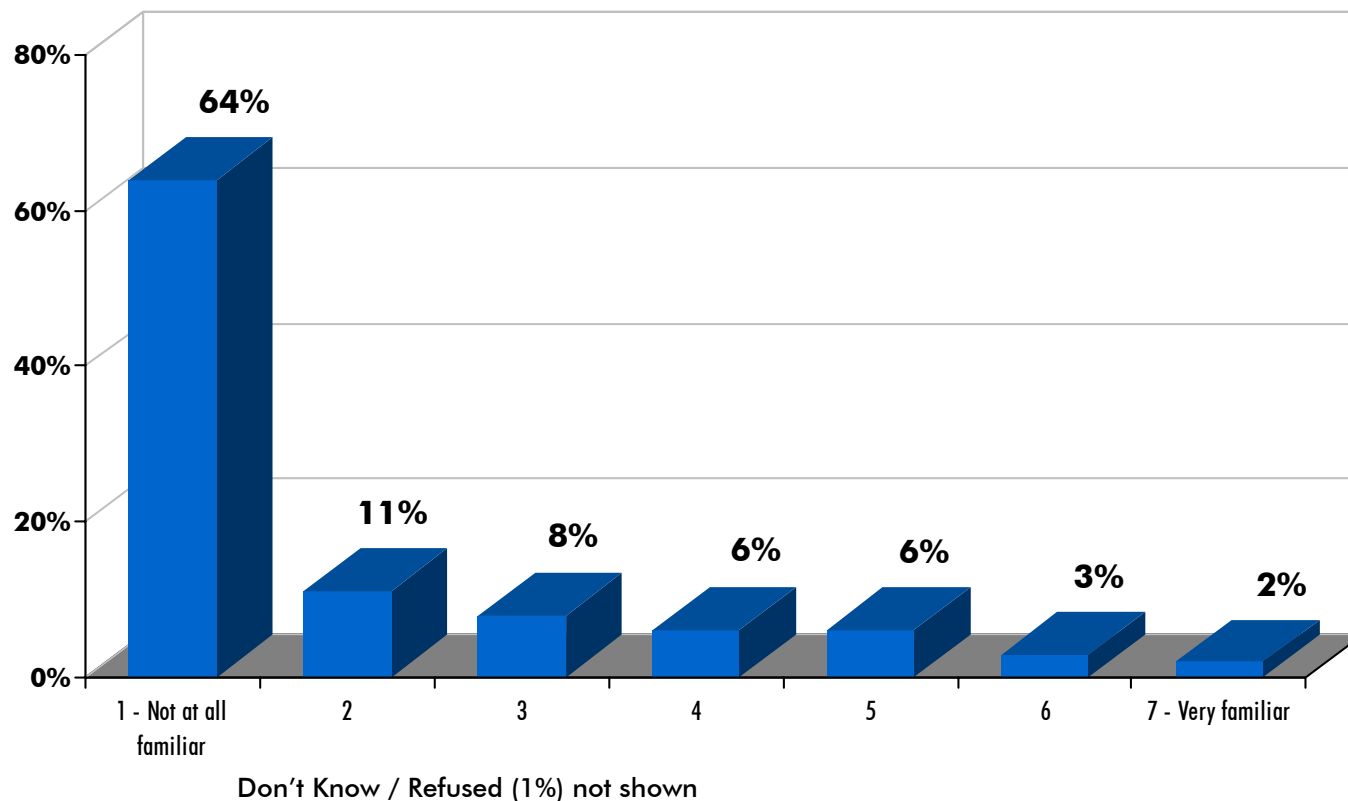
# Low public awareness on how long nuclear waste must be managed

Whenever nuclear power is used to generate electricity, some used nuclear fuel is leftover. To the best of your knowledge, or if you had to guess, for how long does this used nuclear fuel have to be managed before it is no longer hazardous?



# Few Canadians familiar with U.S. plans to store/bury used nuclear fuel

Using a scale between one and seven, where one means you are not at all familiar and seven means you are very familiar, how familiar would you say you are with the United States' plans to store or bury used nuclear fuel in Yucca Mountain?



# Awareness of and Attitudes towards NWMO

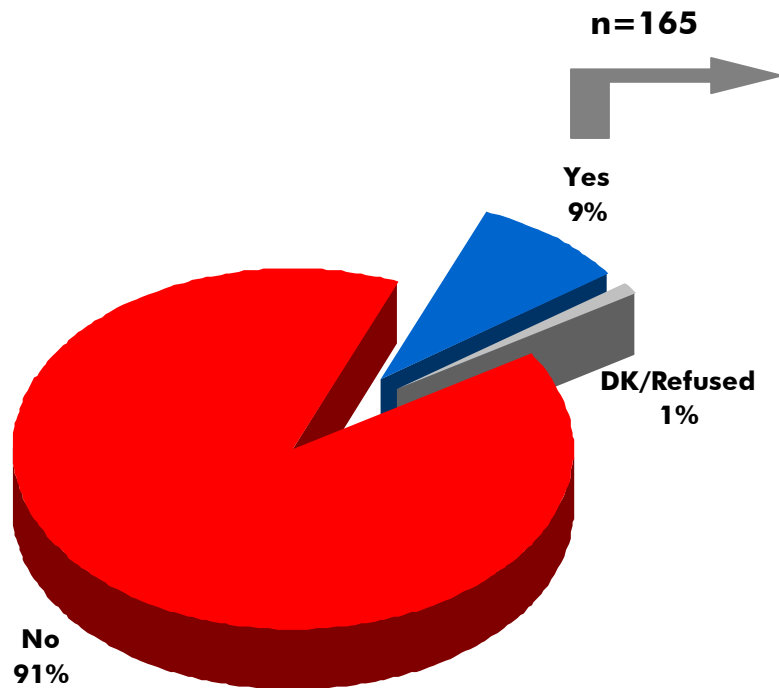
In order to understand what the NWMO would encounter as it sought to engage Canadians in a dialogue about permanent management solutions for used nuclear fuel, we asked Canadians whether they have heard of the NWMO and whether they supported the mandate of the organization. Overall, the NWMO can proceed with confidence that Canadians support the objective of its project.

Key findings include:

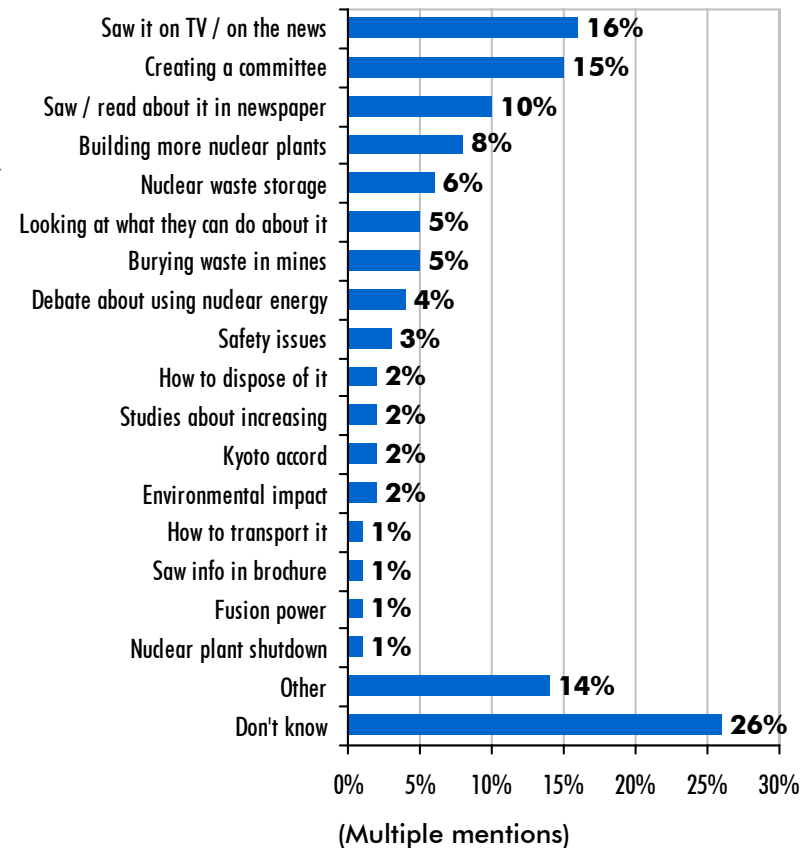
- Canadians are unaware of the NWMO; but
- When the NWMO mandate is explained, the public expresses strong support, most frequently because used nuclear fuel is an issue that Canadians feel needs to be addressed.

# Canadians unaware of NWMO

Have you read, seen or heard anything recently about a new organization created by the federal government to examine the used nuclear fuel issue and make recommendations on how to manage this nuclear waste in the future?

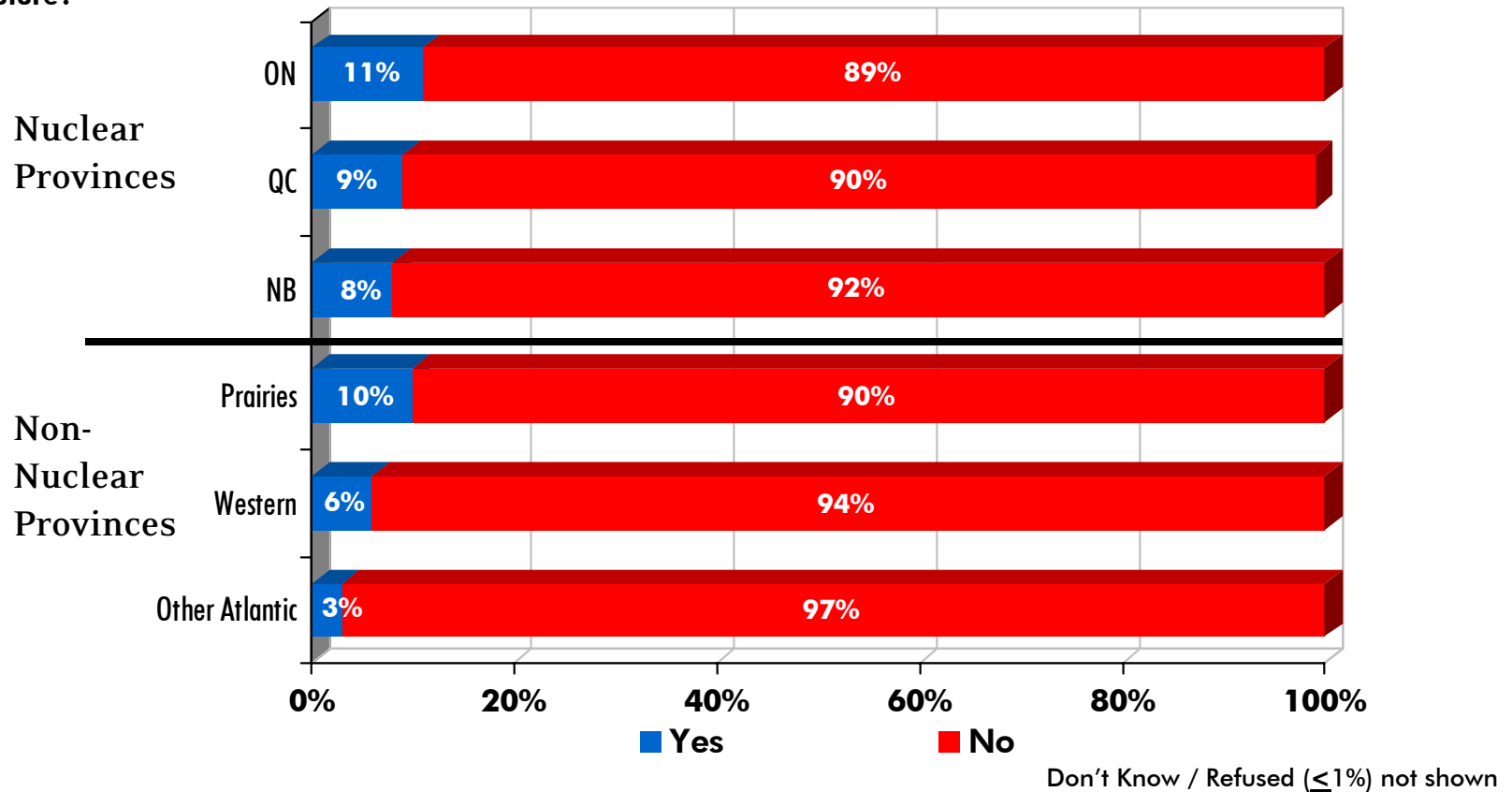


And what have you read, seen or heard?



# Canadians unaware of NWMO

Have you read, seen or heard anything recently about a new organization created by the federal government to examine the used nuclear fuel issue and make recommendations on how to manage this nuclear waste in the future?

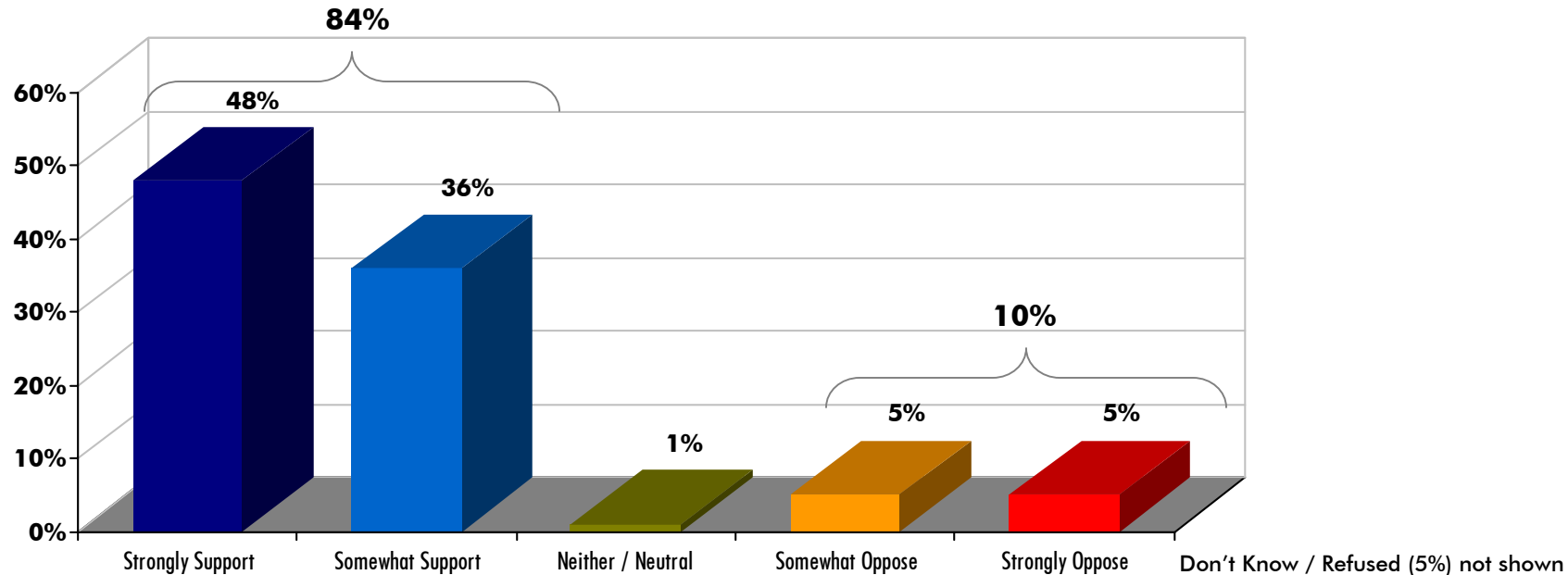




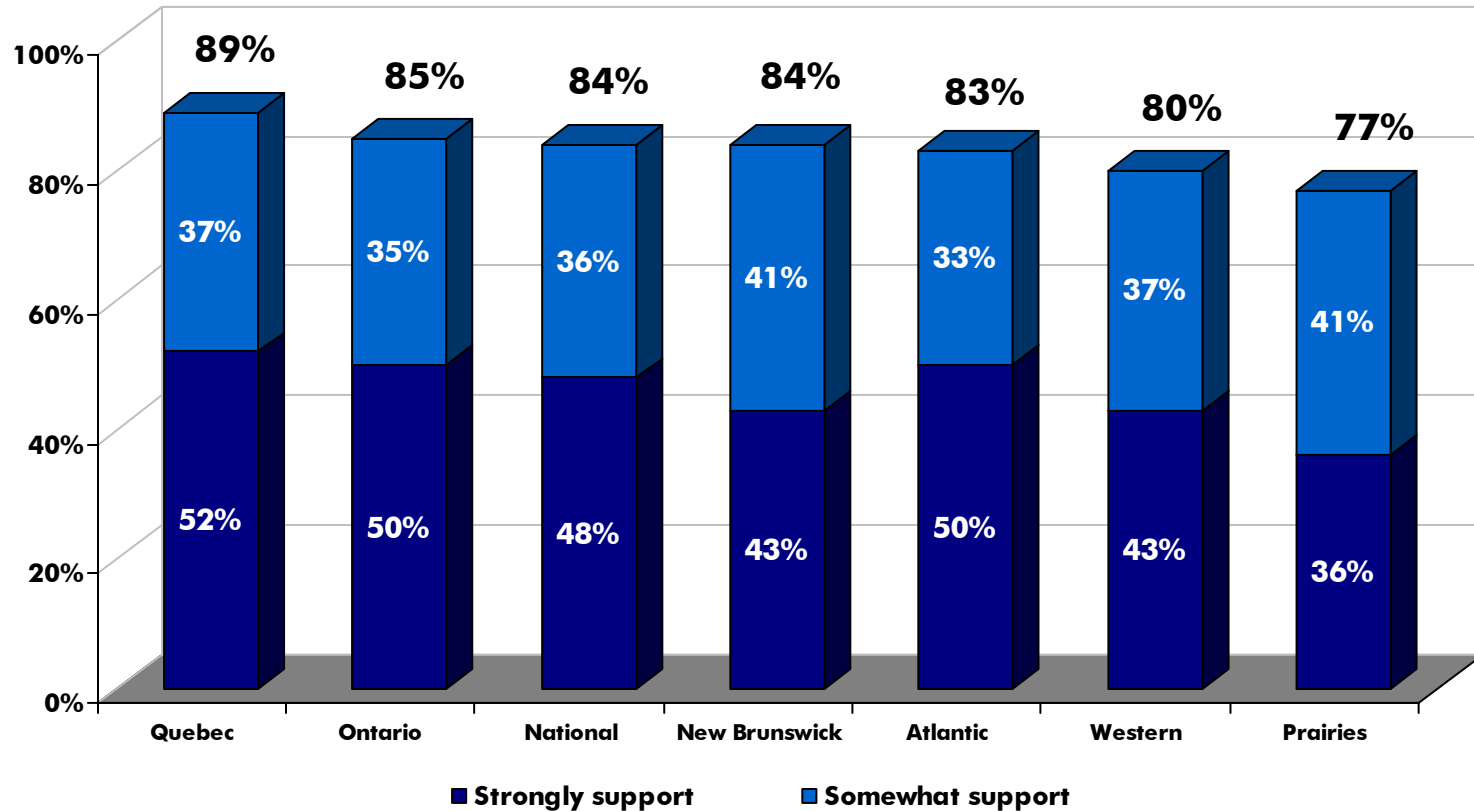
# Support for NWMO mandate high in all provinces

The NWMO is a new organization created in the fall of 2002 to recommend a long-term approach for managing used nuclear fuel produced by Canada's electricity generators. While nuclear waste in Canada is currently being safely managed, no permanent long-term management solution has been adopted. The first job of the NWMO is to recommend a plan to the government of Canada for the management of this used nuclear fuel. The legislation requires that the NWMO complete that plan within 3 years. In developing this plan, the NWMO is required to consult stakeholders, experts and the general public as it develops a comprehensive, integrated and economically sound approach for Canada.

Do you strongly support, somewhat support, somewhat oppose or strongly oppose the mandate of the Nuclear Waste Management Organization?

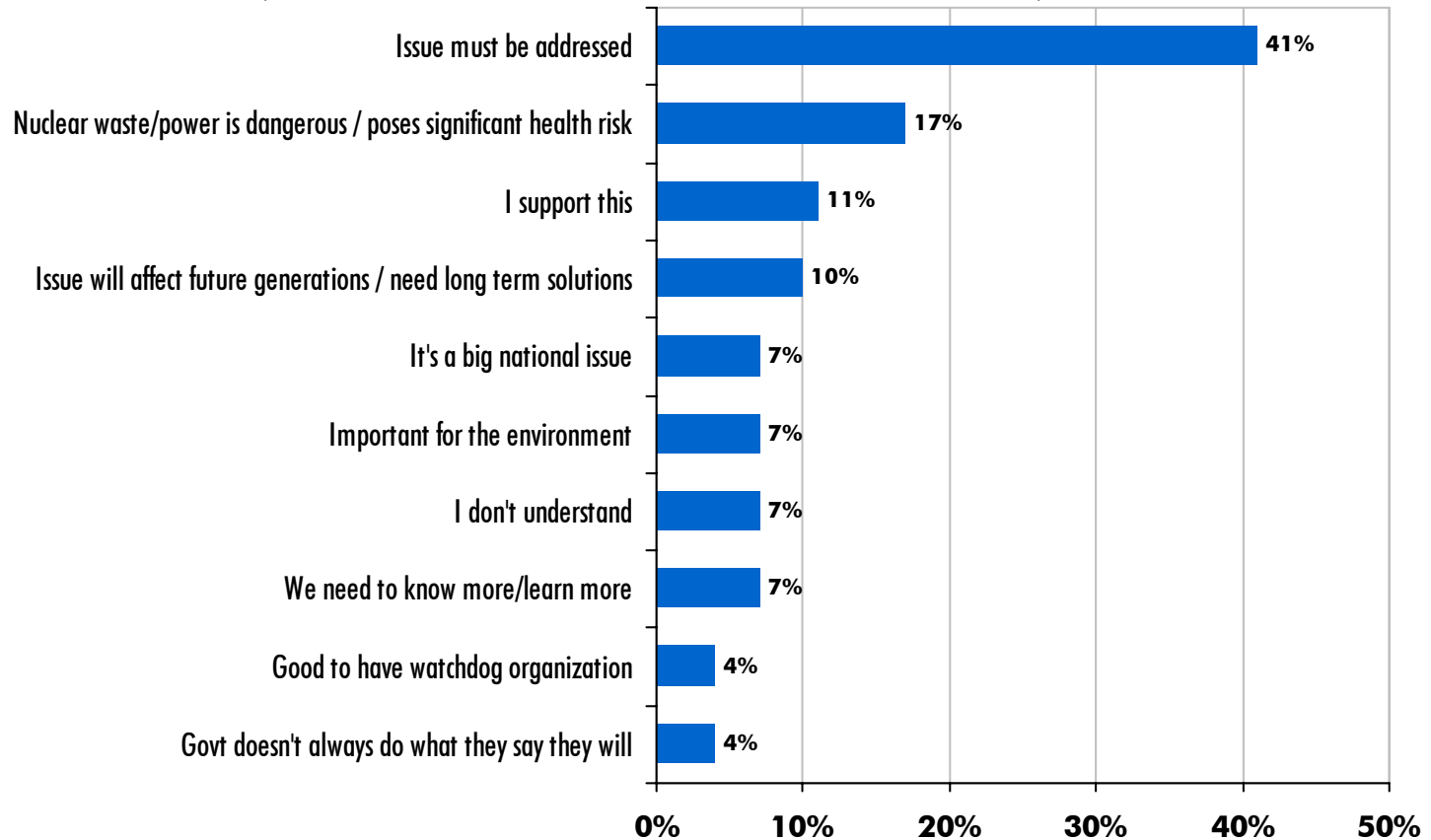


# Support for NWMO mandate high across Canada



# NWMO supporters want to see nuclear waste issue addressed

And why do you say that? (% among those who expressed support for the NWMO mandate)

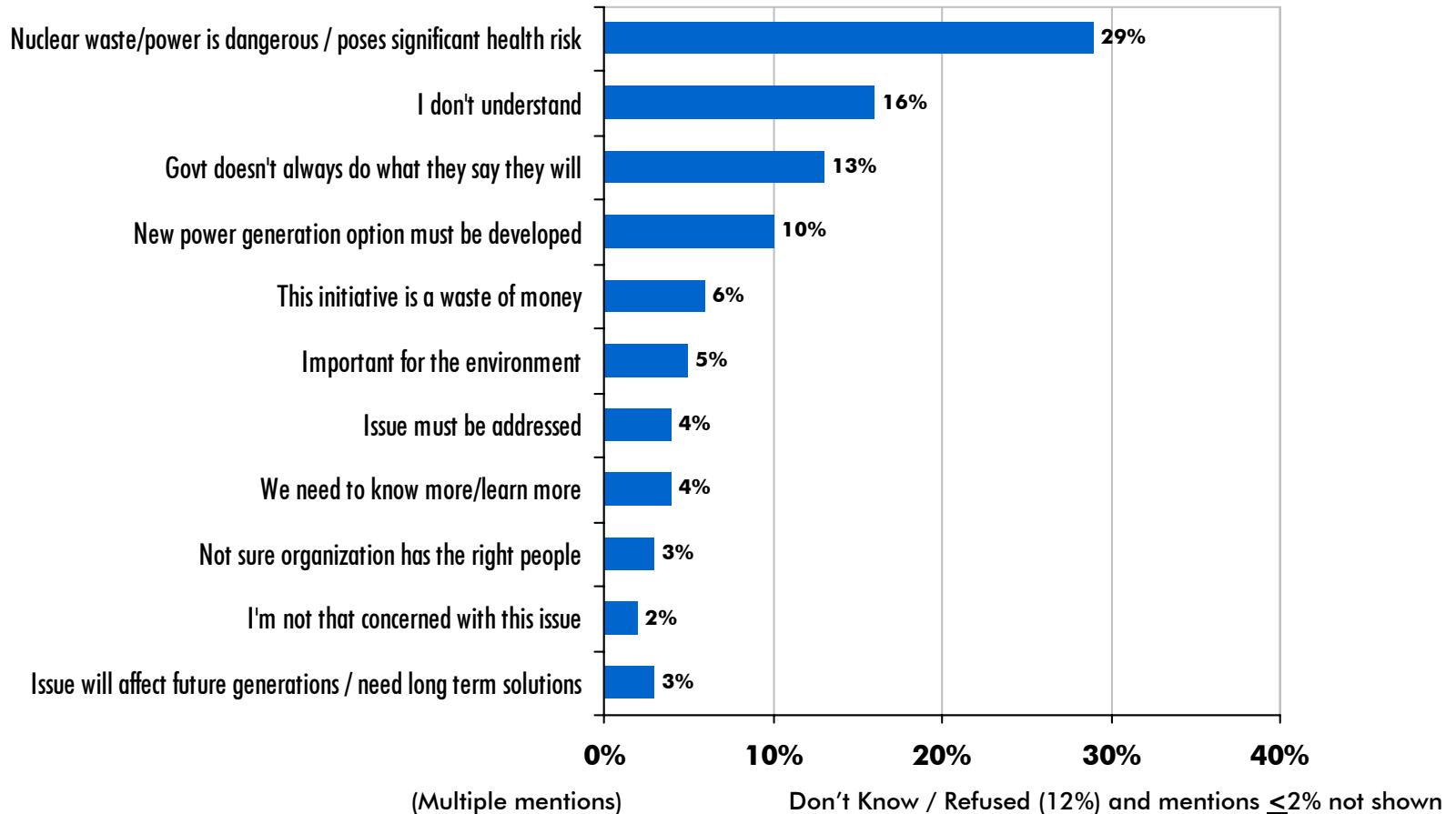


(Multiple mentions)

Don't Know / Refused (7%) and mentions  $\leq 2\%$  not shown

# Various reasons cited by NWMO non-supporters

And why do you say that? (% among those who expressed opposition to the NWMO mandate)



# Interest In Information



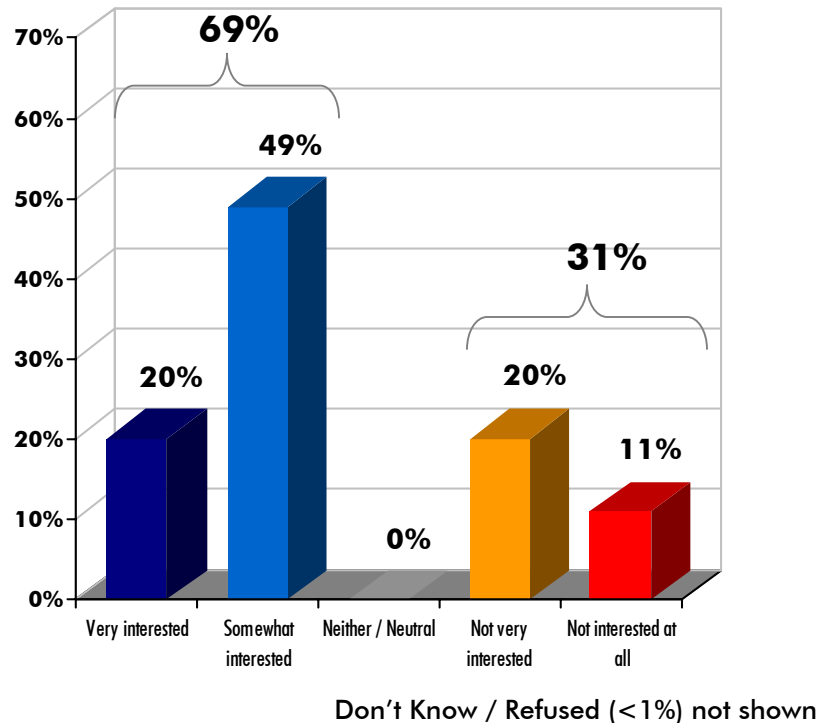
As part of this research NWMO wanted to understand how Canadians would react to information on nuclear waste management sent from the NWMO or other sources, how they would like to receive information, and what particular topics they would be interested in. In order to do this, we asked a series of questions that probe general interest in information along with levels of interest in specific topics and modes of communication.

Key findings include:

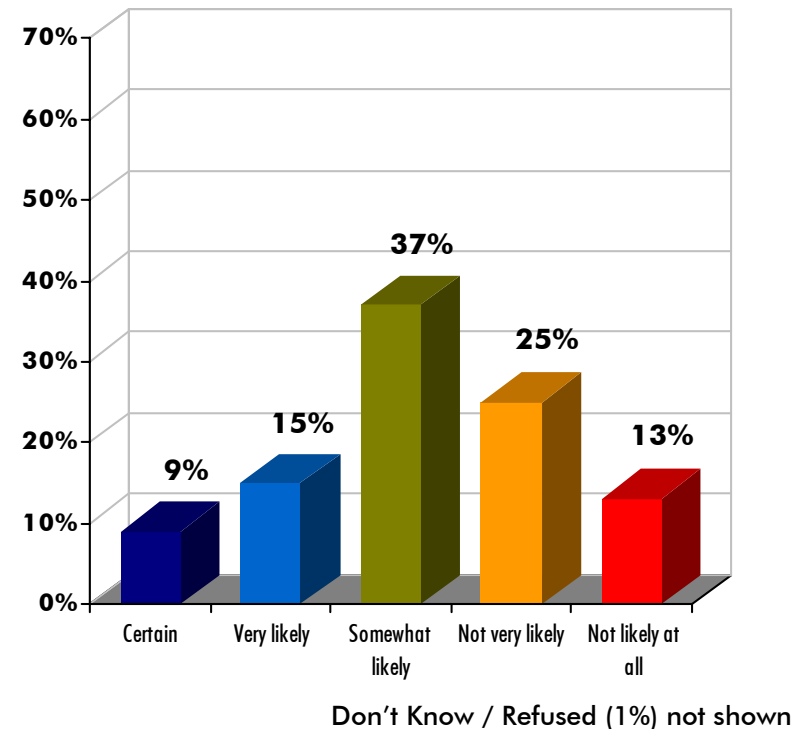
- There is a high level of interest in the management of nuclear waste, but moderate-low likelihood Canadians will search for information;
- The public expresses some interest in a variety of information on used nuclear fuel related issues

# High topic interest but moderate-low likelihood to search for information

Different people have different levels of interest in learning more about the management of used nuclear fuel. How about you? Would you say you are very interested in learning more about the management of used nuclear fuel, somewhat interested, not very interested or not at all interested?

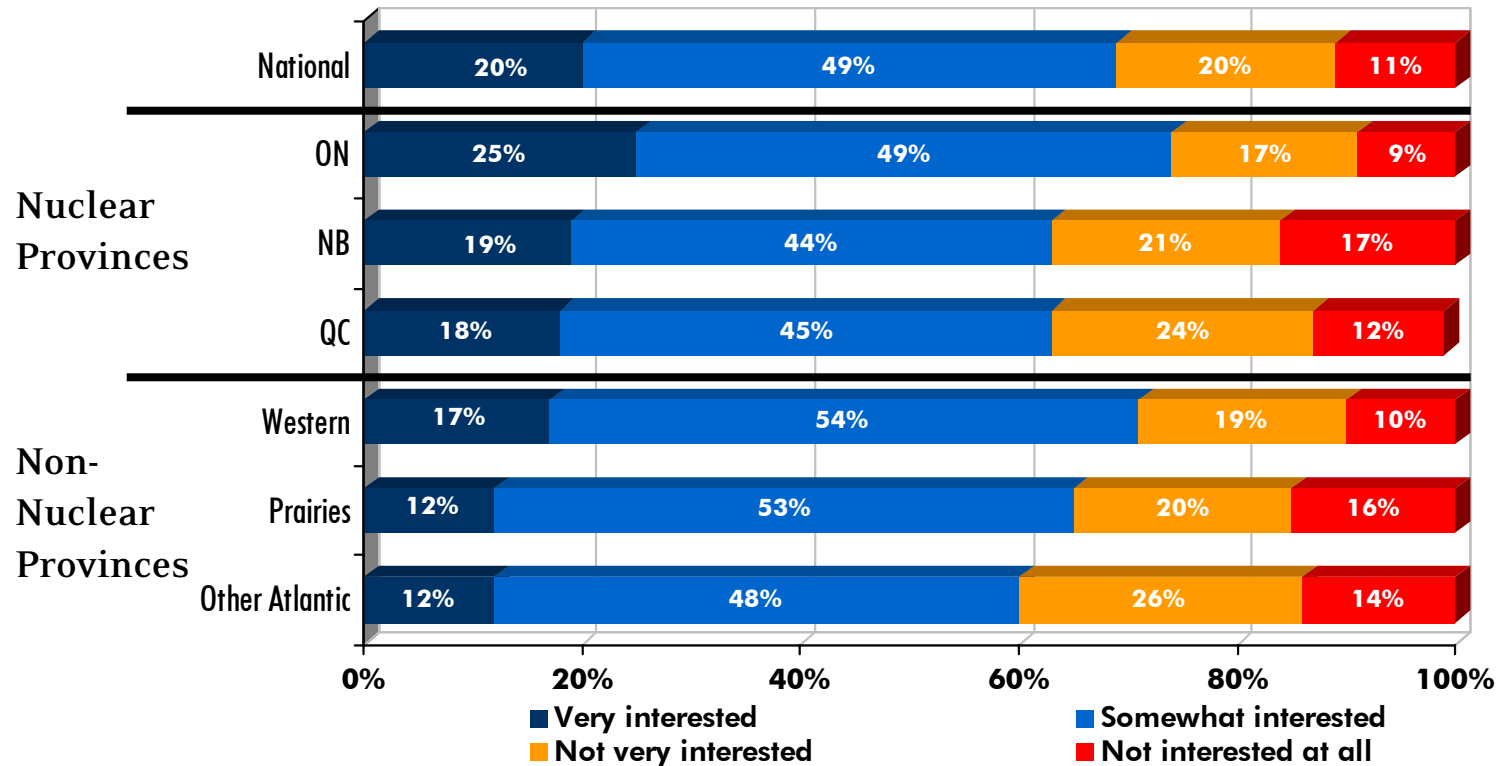


How likely do you think it is you will look for more information about the NWMO and its activities? Are you certain, very likely, somewhat likely, not very likely or not likely at all to look for more information?



# High topic interest...

Different people have different levels of interest in learning more about the management of used nuclear fuel. How about you? Would you say you are very interested in learning more about the management of used nuclear fuel, somewhat interested, not very interested or not at all interested?

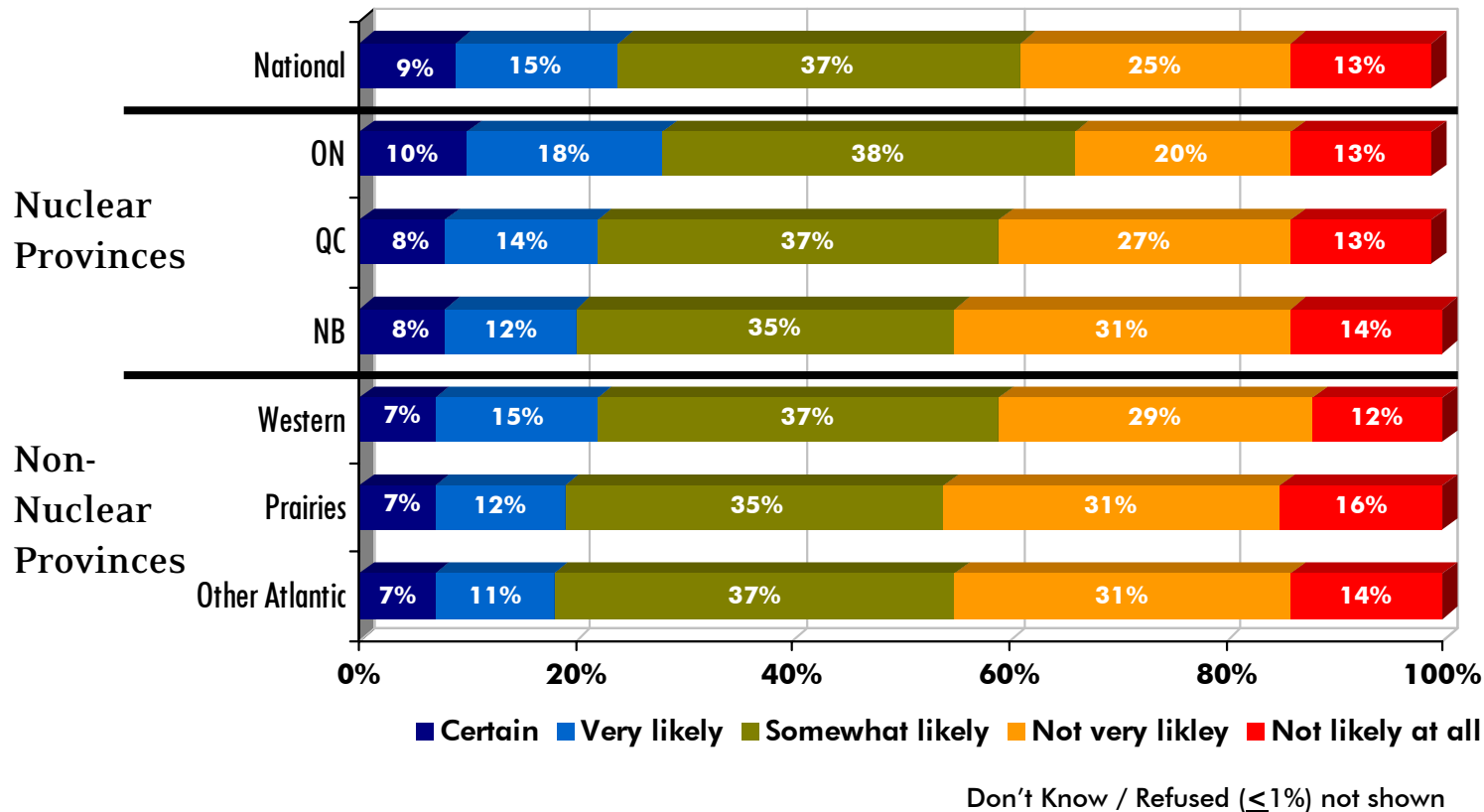


Neutral ( $\leq 1\%$ ) and Don't Know / Refused ( $\leq 1\%$ ) not shown



# ... but moderate-low likelihood to search<sup>32</sup> for information

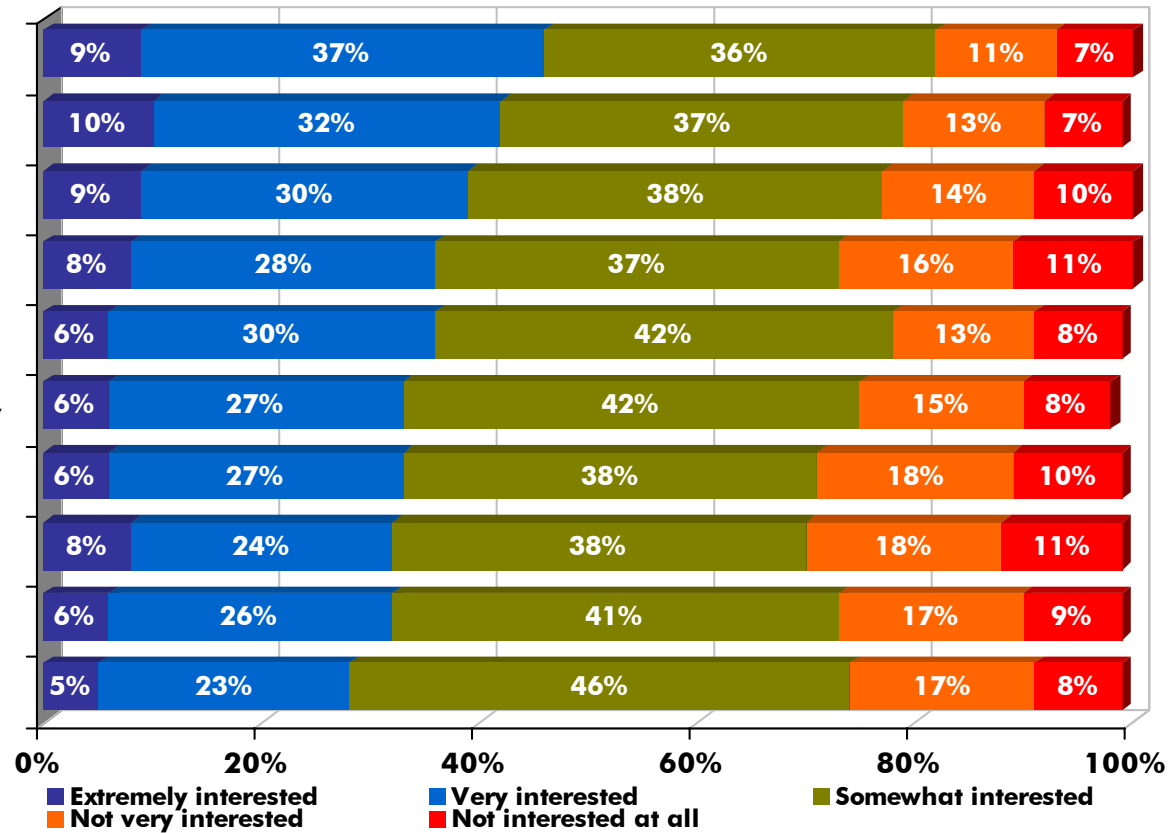
How likely do you think it is you will look for more information about the NWMO and its activities? Are you certain, very likely, somewhat likely, not very likely or not likely at all to look for more information?



# Public generally interested in information on used nuclear fuel

How interested would you be in learning more about each of the following issues related to the management of used nuclear fuel? How about...?

- What scientific experts have to say about how used nuclear fuel should be managed
- How much used nuclear fuel waste currently exists and is being produced in Canada
- What environmental groups have to say about how used nuclear fuel should be managed
- How other countries are managing used nuclear fuel
- How used nuclear fuel is currently managed
- The types of approaches for managing used nuclear fuel which might be considered in the NWMO's study
- What the NWMO organization looks like and who is leading this organization
- What people like you have to say about how used nuclear fuel should be managed
- How the NWMO will go about its study and deciding on a recommendation
- What is used nuclear fuel and why it needs to be managed

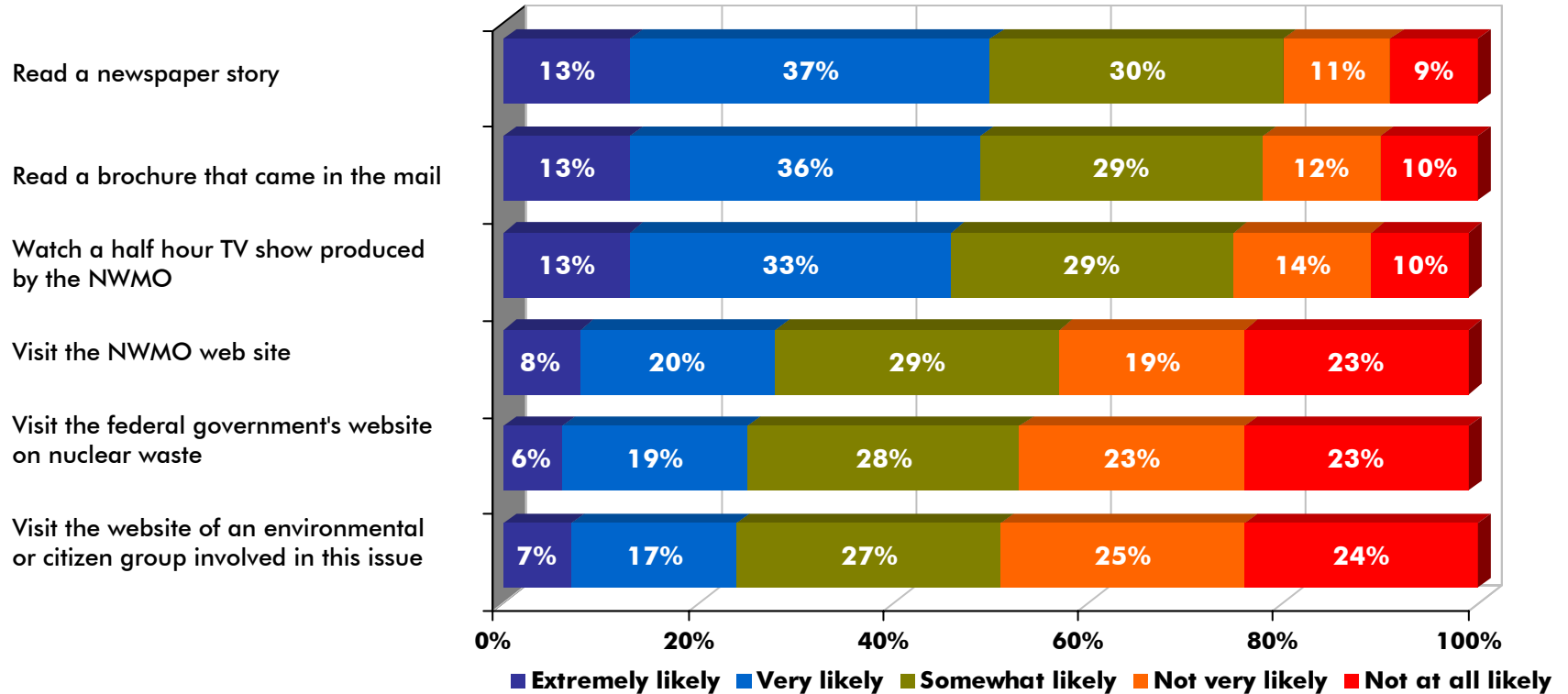


Don't Know / Refused (1-2%) not shown



# Respondents prefer print and television as sources of information

If you personally were to look for more information on the management of used nuclear fuel, how likely would you be to do each of the following. For each option, please indicate whether you would be extremely likely, very likely, somewhat likely, not very likely OR not at all likely to do that. How about...?



Don't Know / Refused ( $\leq 1\%$ ) not shown

# Public and Personal Involvement

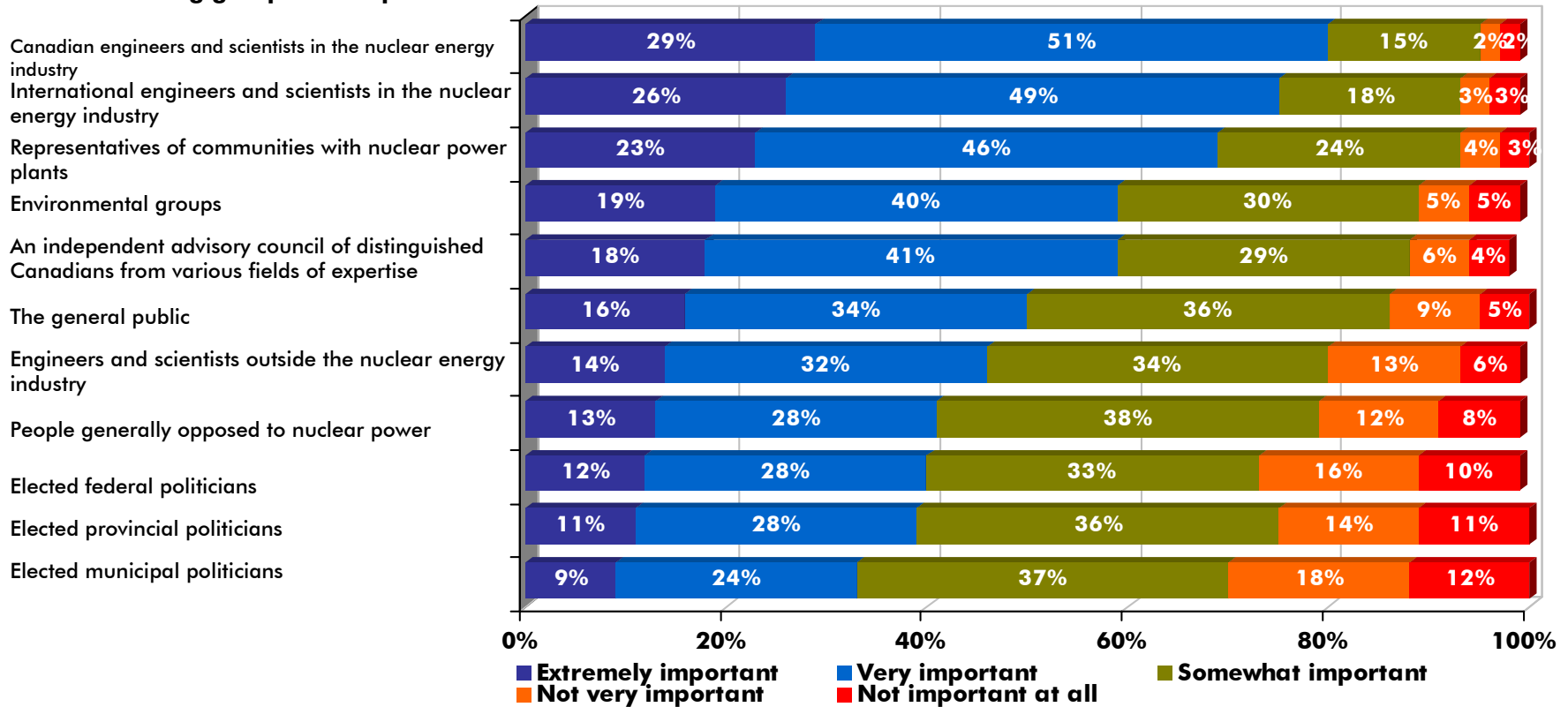
In order to understand who the public feels should be involved in the NWMO's process of developing recommendations and to what extent and in what form the public itself would like to participate, we asked a series of questions related to involvement. The responses allow us to draw a picture of the relative importance placed by the public on the role of various potential participants.

Key findings include:

- Professionals and experts rank highest in importance for involvement;
- The majority want public, but not their own, involvement in NWMO project;
- The public says project should prioritize scientists over public, but that both are important participants; and
- The public is somewhat open to participation in development of a plan

# Professionals and experts rank highest in importance of involvement

I am going to read you a short list of groups that the NWMO could involve as part of its process of examining various options for managing used nuclear fuel. Please tell me how important you feel it is to involve each of the following groups in this process. How about...?

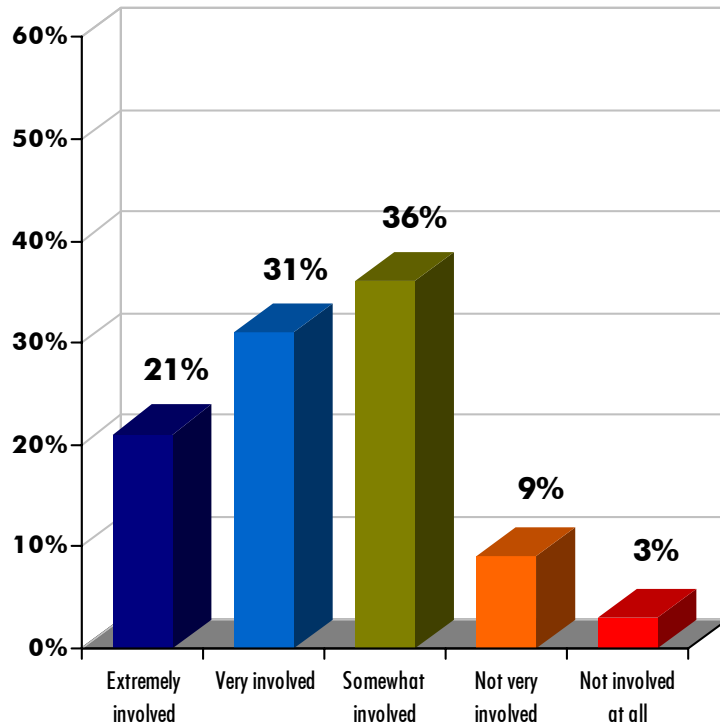


Don't Know / Refused (1-3%) not shown



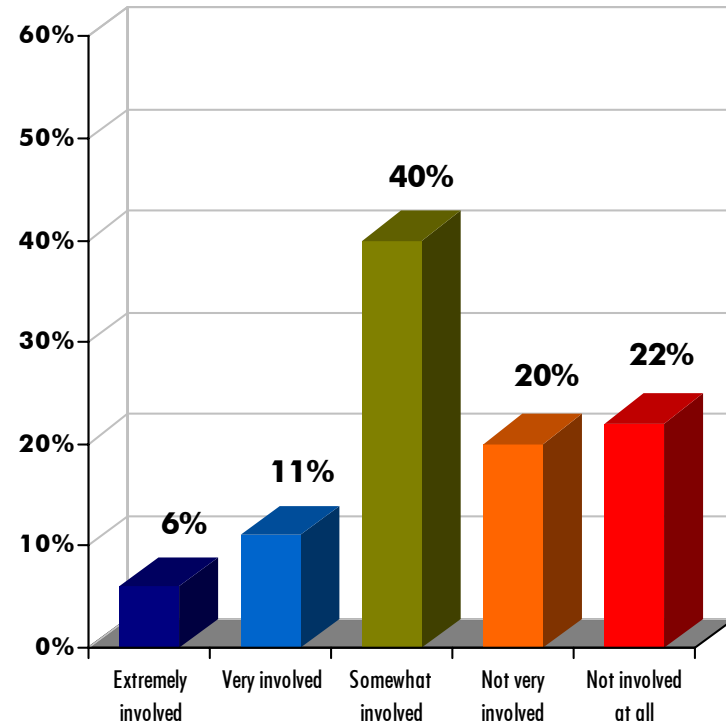
# Majority want public but not their own involvement in NWMO project

How much do you think that the general public should be involved in discussions and development of a plan for the management of used nuclear fuel? Should they be...?



Don't Know / Refused (1%) not shown

How much would you personally like to be involved in the discussion and development of a plan for the management of used nuclear fuel? Would you like to be...?



Don't Know / Refused (1%) not shown

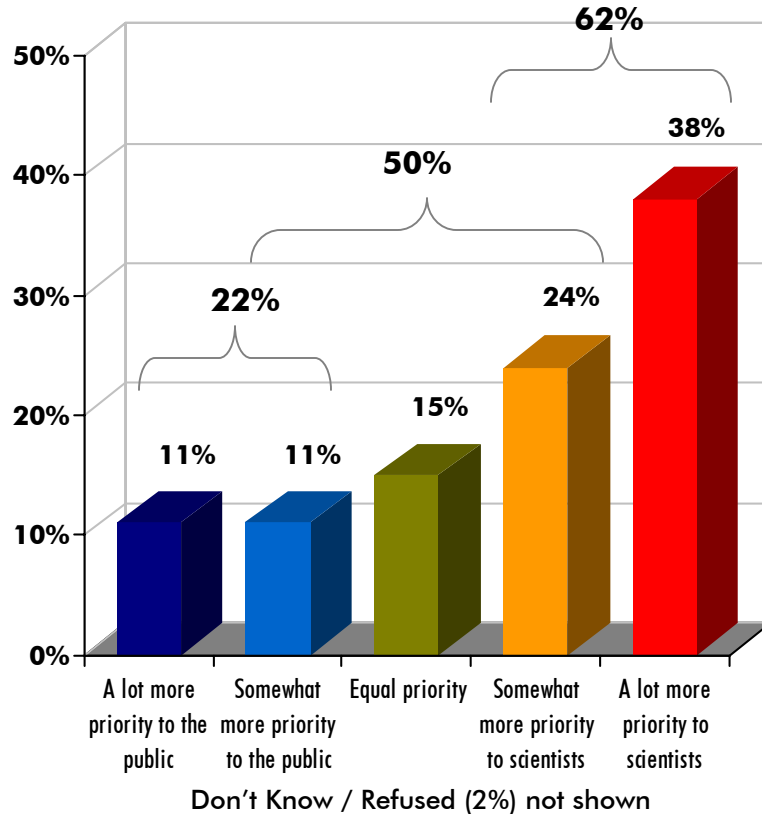
# Those most likely to participate represent a wide demographic mix

|  | Age   |       |       |     | Education           |         |                                 | Gender |        |
|--|-------|-------|-------|-----|---------------------|---------|---------------------------------|--------|--------|
|  | 18-34 | 35-44 | 45-54 | 55+ | High School or Less | College | Some University – Post Graduate | Male   | Female |
| <p>How interested are you in learning more about the management of used nuclear fuel? N=370</p> <p>(Percentages based on those who indicated they are Very Interested in learning more; e.g. 24% of those who said they are very interested are between 18 and 34 years of age.)</p> | 24%   | 28%   | 21%   | 34% | 32%                 | 24%     | 44%                             | 52%    | 48%    |
| <p>How much would you personally like to be involved in the discussion and development of a plan for the management of used nuclear fuel? N=328</p> <p>(Percentages are based on those who indicated they would like to be Extremely or Very Involved)</p>                           | 28%   | 21%   | 20%   | 30% | 38%                 | 26%     | 36%                             | 51%    | 49%    |



# Public says project should prioritize scientists over public

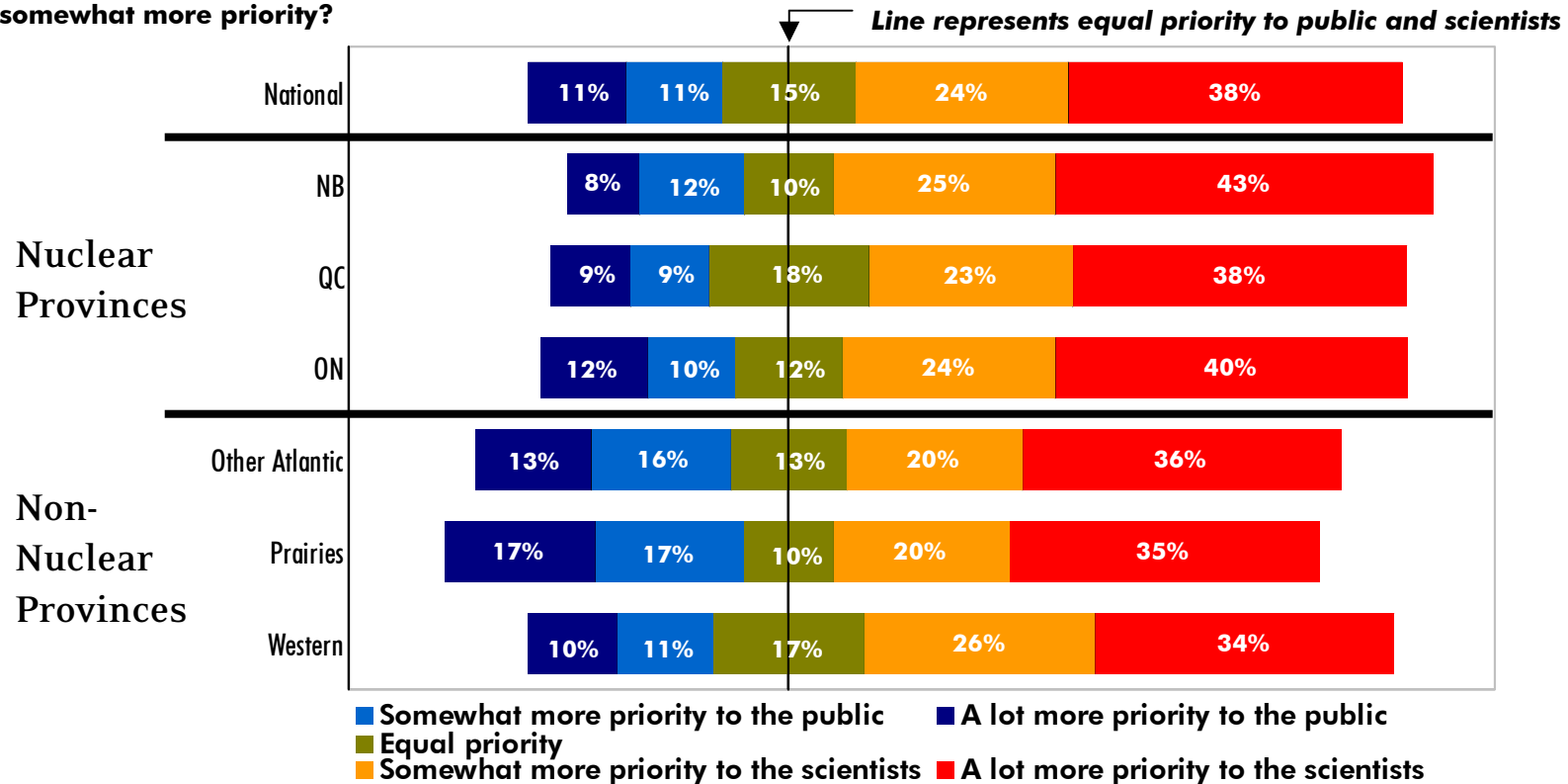
As the NWMO develops recommendations on how to manage used nuclear fuel, it will be hearing from both scientists and the public. Thinking about these two groups, which do you think the NWMO should give more priority to when developing its recommendations, the public or scientists? Is that a lot more priority or just somewhat more priority?



- 62% want priority to scientists, but 50% also want a mix of attention paid to public and scientists

# Public says project should prioritize scientists over public

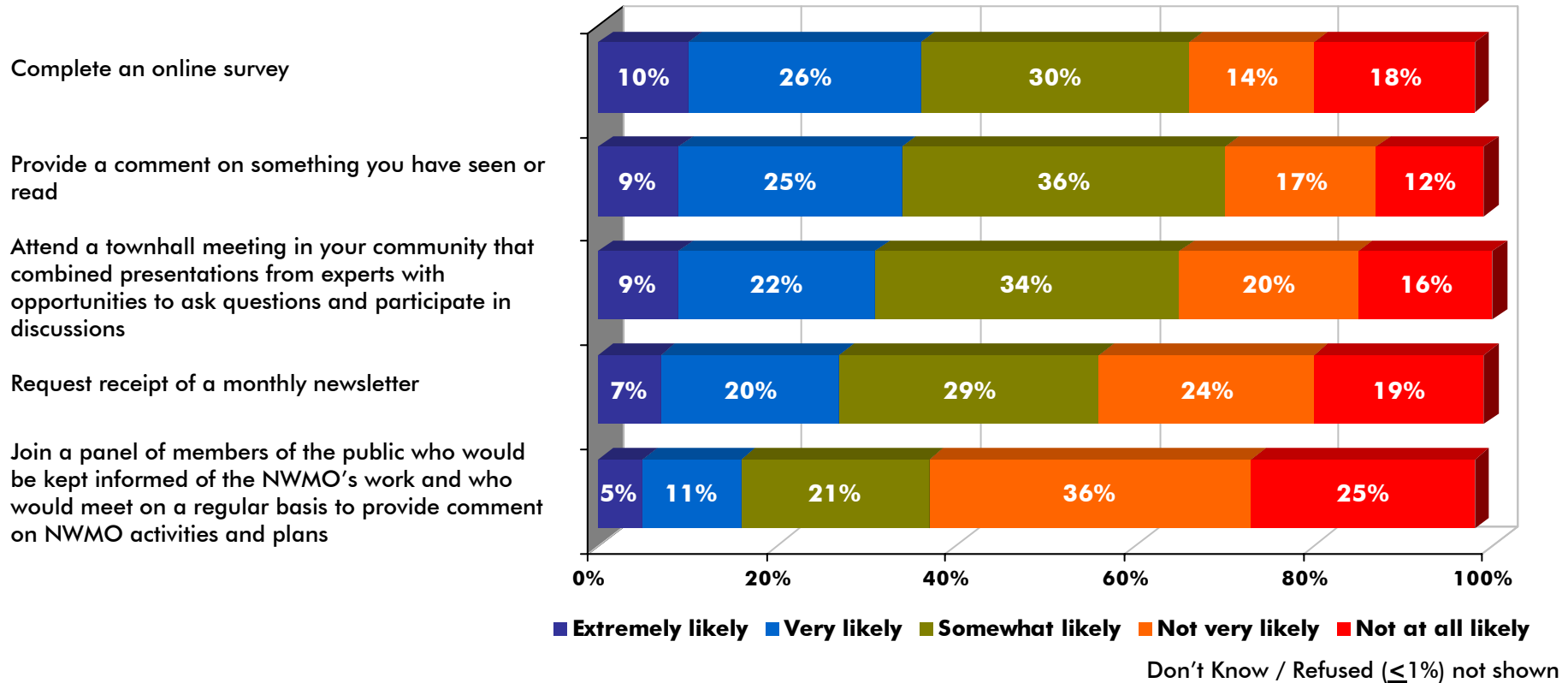
As the NWMO develops recommendations on how to manage used nuclear fuel, it will be hearing from both scientists and the public. Thinking about these two groups, which do you think the NWMO should give more priority to when developing its recommendations, the public or scientists? Is that a lot more priority or just somewhat more priority?



Don't Know / Refused ( $\leq 3\%$ ) not shown

# Public somewhat open to participation in development of a plan

As the NWMO develops a plan for the management of used nuclear fuel it will be seeking the participation of interested Canadians. If you personally were to participate in the discussion and development of this plan, how likely would you be to do each of the following? For each option please indicate whether you would be extremely likely, very likely, somewhat likely, not very likely to do that. How about...?



# Knowledge and Support for Nuclear Power

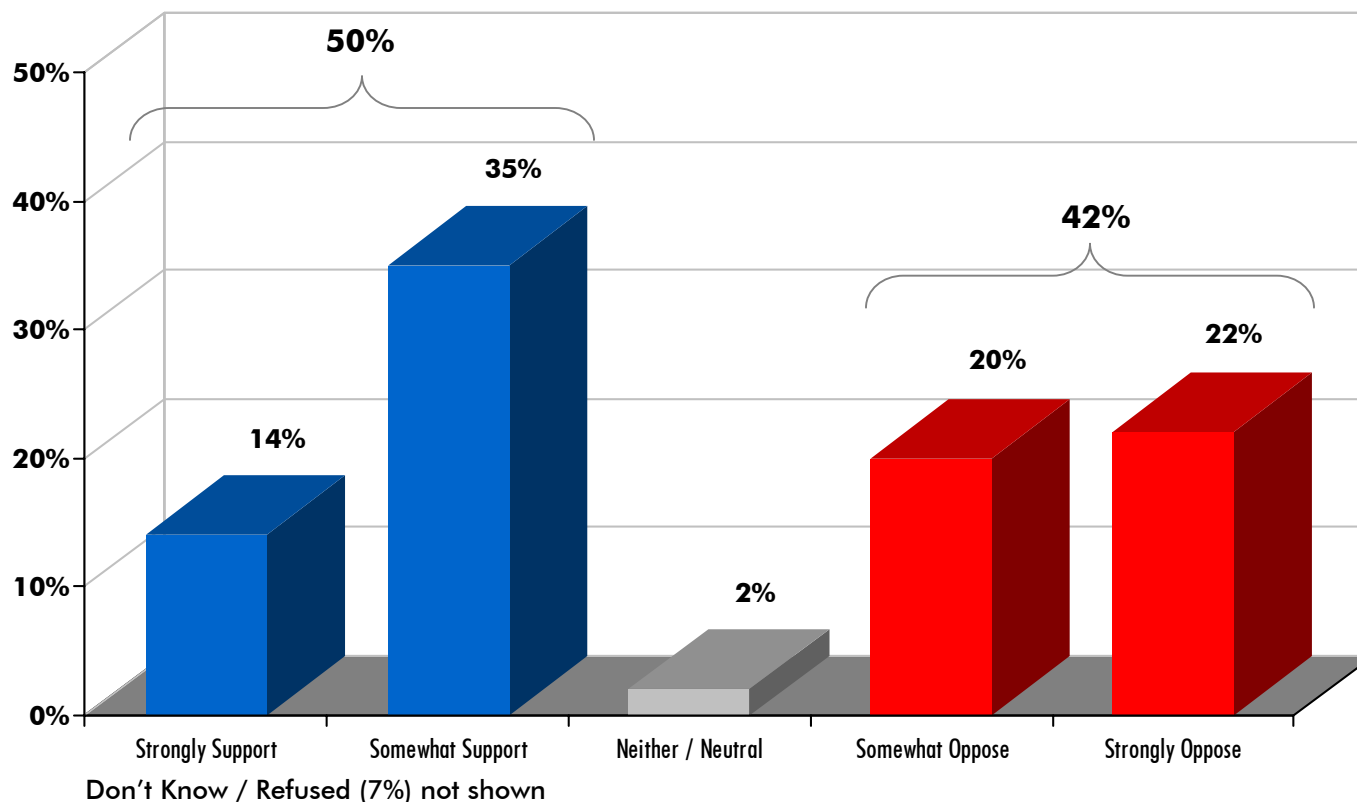
In addition to understanding Canadians' attitudes toward nuclear waste, we wanted to understand Canadians' orientation toward nuclear power more generally. This information provides the NWMO with some broader context as it engages Canadians in a dialogue about permanent management solutions for nuclear waste.

Key findings include:

- Canadians are split on the use of nuclear power for generating electricity;
- All provinces demonstrate a reasonably sophisticated knowledge of the role of nuclear power within their province, with Ontario and New Brunswick residents recognizing nuclear power as an important source of electricity in their province; and
- Knowledge of the amount of generation from nuclear power in their province is moderate to high in all provinces.

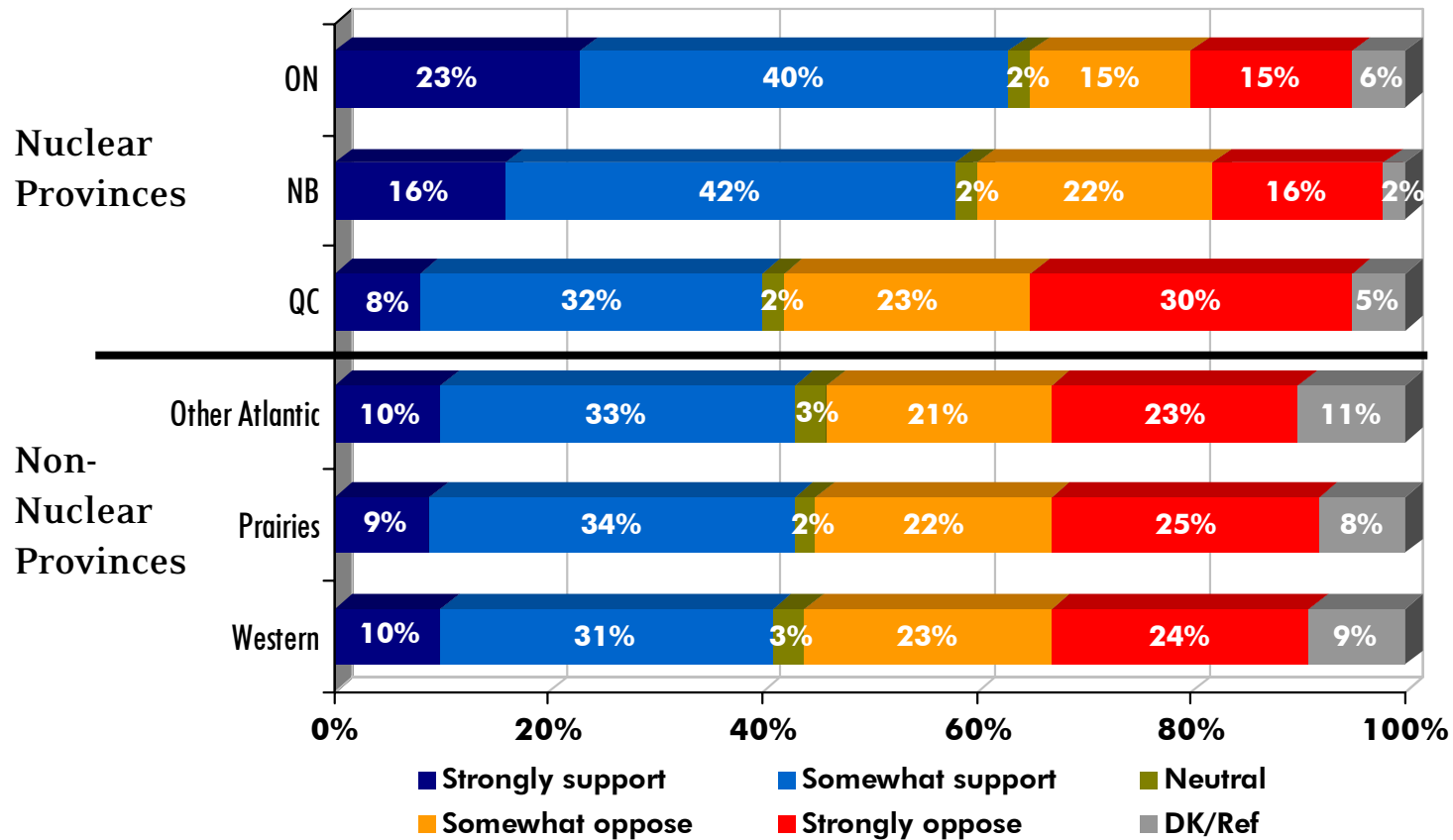
# Canadians are split on the use of nuclear<sup>45</sup> power for generating electricity

On balance, would you say you strongly support, somewhat support, somewhat oppose or strongly oppose the use of nuclear power for generating electricity?



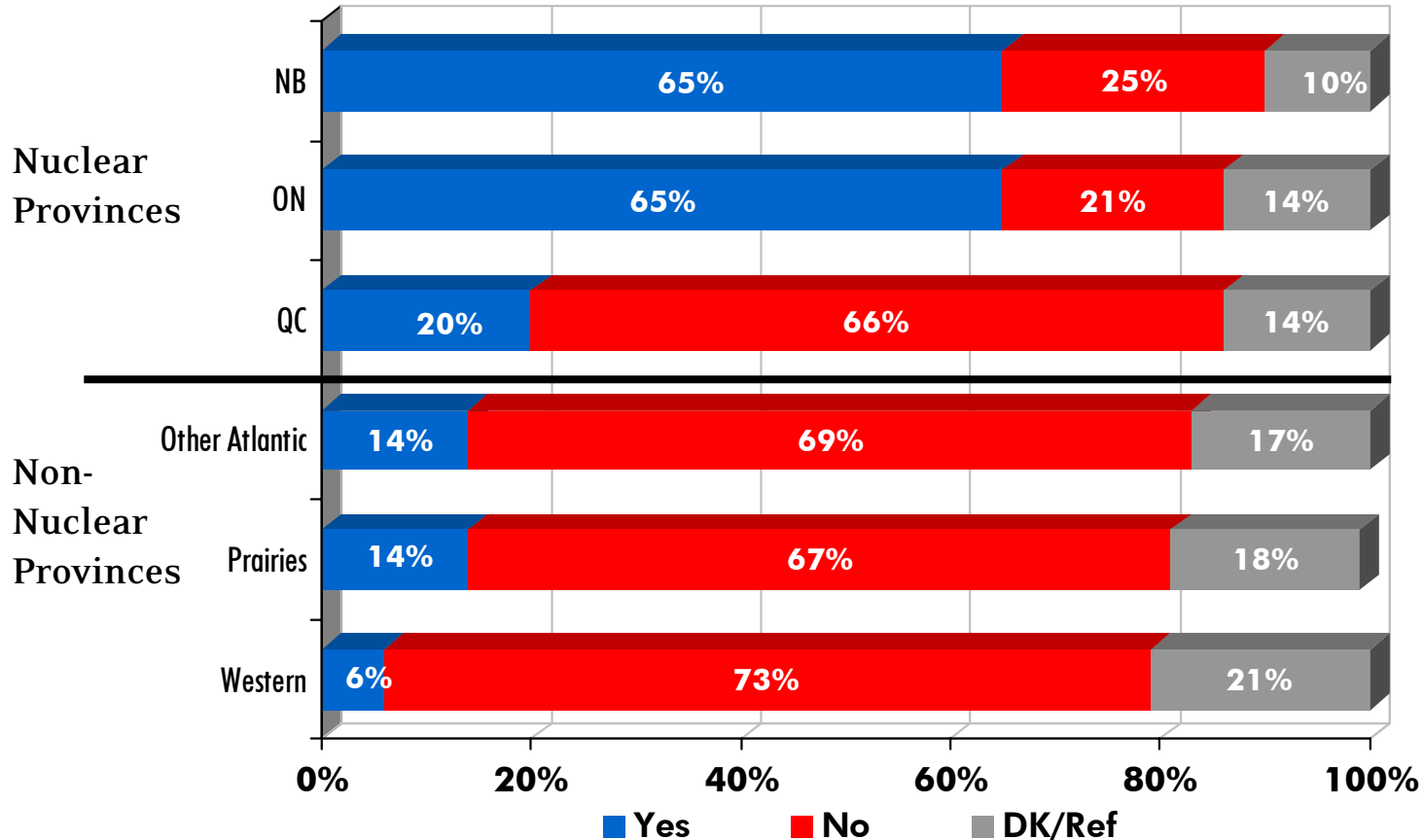
# Canadians are split on the use of nuclear<sup>46</sup> power for generating electricity

On balance, would you say you strongly support, somewhat support, somewhat oppose or strongly oppose the use of nuclear power for generating electricity?



# Ontario and New Brunswick see nuclear power as an important source of electricity

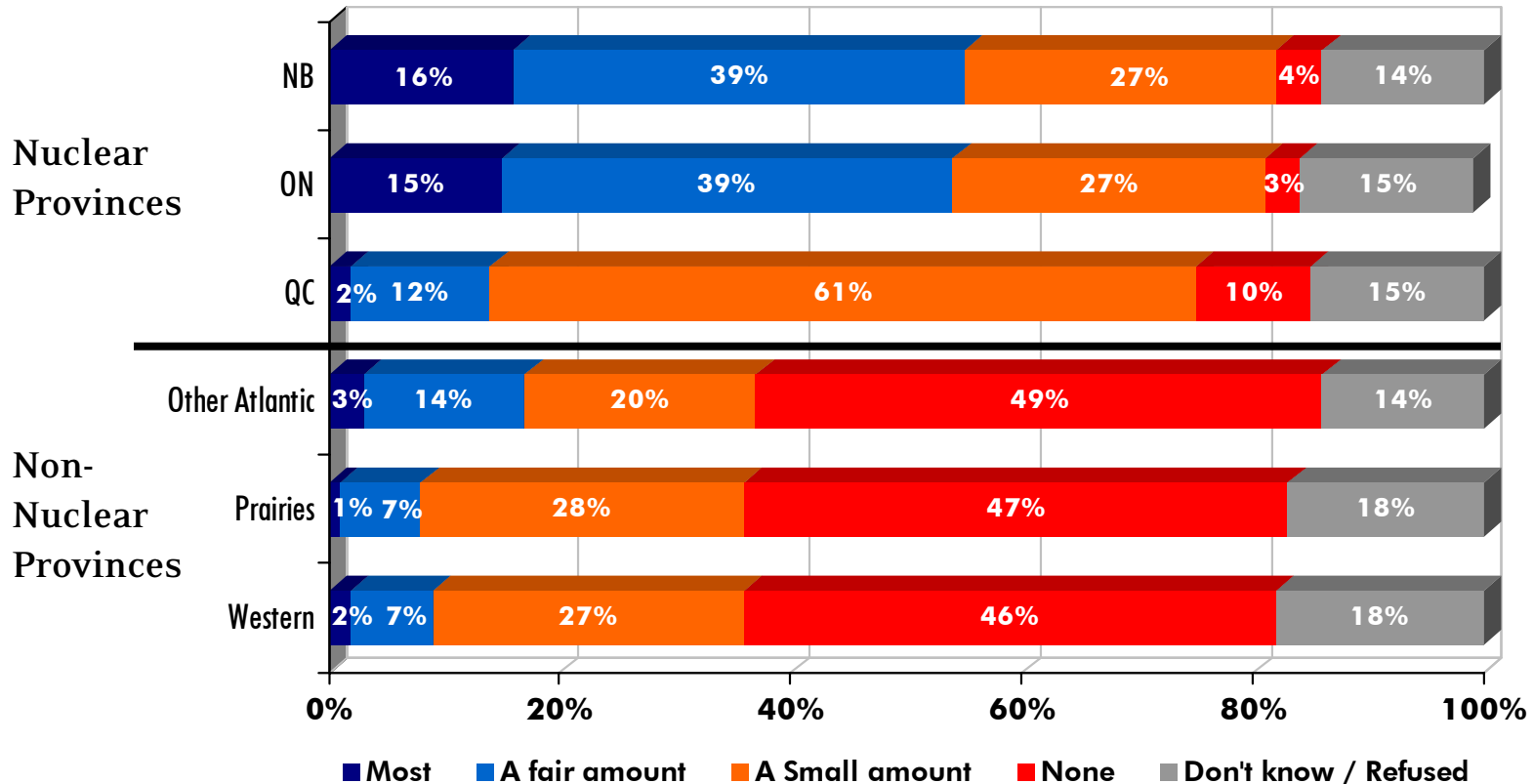
As far as you are aware, is nuclear power an important source of electricity in your province?





# Knowledge of amount of generation by nuclear power is moderate to high

What relative amount of the electricity used in your province would you say is generated by nuclear power?  
Would you say it is...?



# Nuclear Site Community Over-Sample

# Nuclear site community over-sample

- In addition to the 1901 Canadians surveyed as part of the national sample, an over sample was also taken from communities with nuclear power generating facilities
- This sample was comprised of 150 residents from each of the communities around Pickering, Bruce, Darlington, Gentilly-2 and Point Lepreau generating stations
- For the most part, the residents of these communities demonstrate the same attitudes and expectations as their fellow Canadians
- The small sample size and resulting high margin of error for the individual communities does not provide a sufficient level of confidence necessary to draw meaningful conclusions on an individual community basis