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**PUBLIC OPINION RESEARCH FINDINGS
ON BIOTECHNOLOGY**

March 31, 2004

Report Prepared for
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Health Canada

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I. Introduction

Pollara is pleased to present this report on a public opinion research program conducted in March of 2004 for Health Canada.

This research was comprised of a telephone survey of a random sample of 1430 Canadians. A core sample of 1200 was completed, yielding 794 general public respondents and 406 respondents from the Involved Canadians segmentation of the population. The core sample yields a margin of error of 2.6%, 19 times out of 20. In addition, there was an over-sample of 230 Involved Canadians, bringing the total sample of Involved Canadians to 636. *rapportant*

The research was designed to accomplish several major objectives:

- 1 o To obtain insights into the awareness levels of biotechnology among Canadians
- 2 o To explore the knowledge-level of Canadians in regards to Health Canada's activities and achievements in biotechnology
- 3 o To explore areas of communications
- 4 o To understand which channels Canadians use to get their information about biotechnology.

The data collection work began on March 20, 2004, and ended on March 31, 2004.

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II. Survey Highlights

The major thrust of this survey focused on Canadians and biotechnology information. Examined were the extent to which Canadians have looked for biotechnology information in the past, the extent to which they expect to do so in the future, and which sources suit them best. Interests in particular topics and expectations from information suppliers were also explored, specifically interest and expectations Canadians have when it comes to information from Health Canada.

The survey however started off with a series of questions regarding core impressions, perceptions, and attitudes toward the technology.

Impressions – Key Terms

The first issue that was investigated revolved around nomenclature, specifically of the terms biotechnology and genetic modification. The data indicate that these two terms have different connotations to Canadians. Biotechnology tends to have a more positive connotation, while genetic modification tends to be looked upon more negatively. A third of those interviewed had a favourable reaction to the term biotechnology, while only 12% had a negative reaction. Conversely, genetic modification evokes a negative reaction from half of the sample, while 13% had a positive connotation.

This variance was similarly evident among Involved Canadians, although Involved Canadians were shown to have slightly more favourable reaction to both terms than the general public.

Applications

Respondents were asked to indicate whether they supported or opposed the introduction of a series of biotechnology applications in health, agriculture, and the environment. Support for many biotechnology applications is strong, in particular applications that involve health and the environment. Applications in the area of agriculture were shown to evoke more uncertainty from respondents.

Concerns about Biotechnology Applications

Although there is broad support for biotechnology applications, concerns nonetheless remain. The greatest concerns are experienced in the area of long-term impacts to human health and the environment. In this survey, ethical concerns appeared to be of lesser concern. The hierarchy of concerns was similar among both Involved Canadians and the general public.

Health Canada's Roles and Responsibilities

Canadians for the most part are unaware of Health Canada's roles and activities related to biotechnology. Even among Involved Canadians awareness is low. Half of this group was unable to name a role, rising to six in ten among the general population. But even the information revealed by those who show awareness of Health Canada's roles in this field is vague - the area most cited is "conducting research".

Nonetheless, Canadians are quite confident in Health Canada's abilities to regulate these technologies. More than two thirds of respondents, among both Involved Canadians and the general public, indicate that they are very or somewhat confident in Health Canada's ability to regulate these technologies, whereas fewer than one in five say they are not at all confident.

Even though the majority of Canadians is confident in Health Canada, most would like to see it place a higher priority on three areas:

- More stringent approval processes
- Long term research into impacts
- More funding for health research

This is true for both Involved Canadians and the general public.

Information Seeking on Biotechnology

Canadians have been only modestly engaged in seeking information on biotechnology. While among Involved Canadians nearly half of the sample says they have sought out information at some juncture in the past, only slightly more than one third have sought out information on biotechnology from any source.

One in ten Canadians have sought out information from Health Canada in particular about biotechnology. Among Involved Canadians that number rises to 17%.

Cross tabular analysis reveals that those who express the strongest concerns about biotechnology are more likely to have sought out information in general from any source, as well as from Health Canada specifically.

Among those who have not sought out information, most either say they just never had a specific reason to do so, or they state a lack of time as a reason. The data do not suggest that there are inherent barriers to seeking information, other than that people generally do not feel a pressing need to seek information on biotechnology. The same rings true when it comes to reasons why people have not in the past sought information from Health Canada: only a few (6%) say there are barriers that prevent them from seeking information on biotechnology from Health Canada.

Four in ten Canadians say they are very interested in getting information about biotechnology in the future, and a third is interested in getting information from Health Canada. The Internet is the preferred method of getting information.

Moreover, those who express the strongest concerns about biotechnology are more likely than average to indicate they will seek out information going forward.

Canadians are interested in many topics associated with biotechnology, but the ones they are most interested in focus on two areas: first of all information related to specific applications that have more of a personal impact such as in health treatments, and secondly information about some of the key issues associated with controversial applications, such as GM food. Among the top issues are:

- Genetic tests for cancer (72%).
- Summaries of GM foods (69%).
- How biotechnology contributes to the health of Canadians (68%).
- Summaries of health treatments derived from biotechnology (67%).

In the survey, Canadians also strongly expressed an interest in getting balanced information on the subject. They very clearly indicated an interest in hearing about both the risks and benefits of biotechnology. This is especially true of the group that expressed concern about the technology - it is clear from the data overall that this segment is very focused on finding and using balanced information on the topic.

Although the most interests lies in the areas of health and food applications. These are not the only topics of interest to Canadians. Other topics like the elements and structure of the regulatory system were of

secondary importance. Levels of interest were almost identical among Involved Canadians as among the general public.

III. Main Findings

A. Opinions and Attitudes Towards Biotechnology

The first issue that was investigated revolved around nomenclature, specifically biotechnology and genetic modification. The data indicate that these two terms have different connotations to Canadians. Biotechnology tends to have a more positive connotation, while genetic modification tends to be looked upon more negatively. A third (33%) of respondents have a negative reaction while only 12% have a positive reaction upon hearing the term biotechnology. A plurality of 50% however indicates a neutral reaction. Conversely, the term genetic modification evokes a positive reaction from only 13% of Canadians, a neutral reaction from a third (32%) and a negative reaction from half (50%) the population.

This variance is similarly evident among Involved Canadians, although this segment of the population was shown to have slightly more favourable reactions to both biotechnology and genetic modification than the general public: 38% of Involved Canadians have a positive reaction to biotechnology and 17% have the same reaction to genetic modification. Still, half (51%) have negative reactions to the term genetic modification and 12% to biotechnology.

As well, those who assign positive rating to biotechnology tend to be residents of Quebec (39%), men (39%), those aged 55 year and over (38%), and university educated Canadians (41%). To a lesser degree, these groups are also more likely to have a positive reaction to the term genetic modification.

B. Applications of Biotechnology

Respondents were asked to indicate whether they supported or opposed the introduction of a series of biotechnology applications in health, agriculture, and the environment.

Support for many biotechnology applications is strong, in particular applications that involve health and the environment. Three quarters (73%) of Canadians believe that new types of health treatments such as genetic testing for inherited diseases and diagnostic tests for infectious diseases will bring major benefits. Six in ten (60%) Canadians see major benefits from new types of health treatments such as gene therapies or new types of medicines that are developed using biotechnology. A majority of 68%

among Canadians sees major benefits coming from new types of methods to protect the health of our environment.

Applications in the area of agriculture were shown to evoke more uncertainty from respondents. When asked to what extent the benefits would be from new types of agricultural products, such as genetically modified foods like corn to resist pests, only a quarter (24%) indicate they see major benefits. A third (32%) believes this application of biotechnology will bring modest benefits. The group that believes it will bring drawbacks (39%) is quite significant, especially since only about 5% of respondents say the same about the other applications tested. This could be as a result of the above-mentioned negative connotation of the term genetic modification.

Involved Canadians are generally slightly more likely to be supportive of all these applications than members of the general public.

C. Concerns about Biotechnology

While Canadians support many biotechnology applications, they still have concerns about them. The concerns about both food products and health products have to do in large part with perceived long-term risks to human health and to the environment.

More specifically, looking at concerns with GM food products, almost all Canadians (92%) indicate some level of concern with the long-term risks these products might cause for human health. This includes 69% who indicate it is a very significant concern to them. Nine in ten are concerned with the potential environmental impacts – 61% indicate a very significant concern.

The stringency of the government's safety approval processes for these products raises some level of concern for 88% of Canadians, (55% very significant). Three quarters raise ethical concerns and concerns that "there is something unnatural about these products". Four in ten say they have very significant concerns about both these issues.

A similar story can be seen for health products: about nine in ten Canadians express concerns with risks to human health and to the environment and with the stringency of approval processes, while a quarter has ethical concerns and seven in ten are concerned with the "unnaturalness" of the products.

Involved Canadians and Canadians in general share the same concerns.

D. Health Canada's Role in Biotechnology

For the most part, Canadians are unaware of the role Health Canada plays with regard to biotechnology: 62% of Canadians and 52% of Involved Canadians are unaware. Of those who indicated they knew about Health Canada's role, most gave vague answers when asked to specify that role. Most did not get any further than saying it "conducts research."

When prompted about specific activities performed by Health Canada, awareness was still quite low - around 40% for most activities, - although on average Involved Canadians were about 6% more aware. It must also be noted that not very many Canadians - less than 10% - consider themselves very aware of any of Health Canada's activities.

Awareness was highest in the area of ensuring Canadians are informed about the benefits and risks of emerging areas of biotechnology like stem cell research (52% indicating they are aware that Health Canada does this) and safety testing processes for genetically modified food products (44%).

Only 31% are aware of Health Canada's work on long-term monitoring of approved applications and international co-operation. In past research, Canadians have clearly indicated that long-term monitoring and international co-operation are important issues they would like to see Canada dealing with when it comes to biotechnology.

Even though awareness of Health Canada's role in biotechnology is low, confidence in Health Canada's ability to regulate biotechnology is quite high. Seven in ten Canadians indicate they are confident, of whom 14% very confident in Health Canada to regulate biotechnology. Confidence is highest among residents of Ontario and those with positive reactions to biotechnology.

E. Health Canada's Roles and Responsibilities

After explaining the three roles Health Canada currently plays on the biotechnology file (safety assessment and approvals, research, and long-term monitoring), Canadians believe that Health Canada assigns high priority to all three, and they also believe this should continue in the future.

More specifically, 86% believes research that contributes to the health of Canadians is a high priority (39% very high), 84% thinks the same about safety assessment and approval (37% very high priority) and 81% about long-term monitoring for potential health and environmental impacts of already approved products (41% very high priority).

In the future, almost all Canadians, between 94% and 97% for all three roles, believe Health Canada should give high priorities to its responsibilities on the biotechnology file. About six in ten Canadians would like to see very high levels of priority allotted.

F. Information Seeking on Biotechnology

Less than half (37%) of Canadians have sought out information on biotechnology. Involved Canadians (52%), those with a university education (52%), those aged between 18 and 34 (43%), and residents of Ontario (40%) and Quebec (39%) are more likely to have looked for information in the past. Also, those who have a negative reaction to biotechnology are more likely to have sought information (49%).

For those who did seek out information in the last couple of years, the most popular way of getting information was by far through the Internet. When asked for their source of biotechnology information, 36% mentioned websites. The media were also mentioned by a significant number of respondents, with 17% saying their source was the media in general, 9% saying newspapers and another 8% saying magazines.

Among the two thirds who have not sought information, only 6% said it was due to specific barriers. The main reason they had not looked for information was because they did not have a good enough reason (64%), followed by lack of time (13%).

Health Canada and the government were only mentioned as a source by 2% each. When asked however whether they had sought out information specifically from Health Canada, 11% indicated they had. This number increases to 17% among Involved Canadians. Again, the Internet is the most preferred source for information from Health Canada (53%). Of those who did not seek out information from Health Canada, 90% say it was either because they did not have a good enough reason to go look for it, or they didn't have time to do so. Again, there was very little indication of specific barriers. This is true for both Involved Canadians and Canadians in general.

G. Information Seeking in the Future

Almost four in ten respondents say they would be very interested in seeking out more information about biotechnology in the future while another third indicated interest as well. Involved Canadians tend to be more interested in seeking information (47% very interested, 39% interested.)

The source of information that most people indicate as one of the best ways to communicate with them on biotechnology issues is a website promoted in the media (43%), followed closely by television advertising (42%). One of the least effective ways to reach Canadians is through radio advertising (21% see it as one of the best ways) and pamphlets in the grocery store (15%).

Involved Canadians (50%) are more likely to say a website is one of the best ways to communicate with them, while this number drops to 37% for the general public. The latter would prefer television advertising, with 44% indicating that would be one of the best ways to communicate with them.

When it comes to content of the information, all groups of Canadians alike would like to have balanced information, communicating both the risk and the benefits, rather than just the risks or just the benefits.

H. Interest in Topics on Biotechnology

Canadians are interested in many topics associated with biotechnology. Information they are most interested in tends to be related to specific applications that have more of a personal impact such as in health and food applications.

The top areas they are interested in are information on genetic tests for cancer (72% indicating interest), summaries of GM foods (69%), information on how biotechnology contributes to the health of Canadians (68%) and summaries of health treatments derived from biotechnology (67%). The topics that less Canadians are interested in hearing about in are the elements of Health Canada's regulatory process (55% indicating interest), summaries of biotechnology initiatives Health Canada was involved in (55%), the ethical guidelines and legal standard in place for carrying out research in Canada (55%) and areas of international collaboration on safety and regulation (47%).

IV. Conclusions

While most Canadians generally have not been active seekers of information on biotechnology issues in the past, there is evidence in these survey findings that they may be more likely to do so in the future.

While Health Canada is currently not the major source of information there are indications that there potentially is a larger role for Health Canada in the future in disseminating information on biotechnology. Many Canadians indicate interest in biotechnology-related topics, and although generally not very highly aware of Health Canada's role in this field, they do indicate confidence in Health Canada to fulfill its mandates on the file. It is generally believed that its activities are important. This suggests that Health Canada is by and large viewed as a well-respected player in the biotechnology field.

Canadians do however expect balanced information, relevant to them and their personal lives. The main topics people want to know about relate to health, both in terms of applications as well as stewardship. There is therefore a natural fit between Health Canada's mandate and the information-wishes of Canadians about biotechnology.

V. Appendix 1: Interview Schedule

1. When you hear the word biotechnology, do you have a positive reaction, a neutral reaction, or a negative reaction?

	Total	Involved
Positive reaction.....	33	38
Neutral reaction.....	50	46
Negative reaction.....	12	12
Don't Know/Refused.....	6	4

2. What about genetic modification. When you hear that phrase, do you have a positive reaction, a neutral reaction, or a negative reaction?

Positive reaction.....	13	17
Neutral reaction.....	32	28
Negative reaction.....	50	51
Don't Know/Refused.....	4	4

3. In your opinion, will biotechnology bring major benefits, modest benefits, modest drawbacks, or major drawbacks in each of the following areas. How about:

a) New types of health treatments, such as gene therapies or new types of medicines that are developed using biotechnology.

Major benefits.....	60	63
Modest benefits.....	29	27
Modest drawbacks.....	4	4
Major drawbacks.....	3	2
Don't Know/Refused.....	4	3

b) New types of health tests, such as genetic testing for certain inherited diseases and diagnostic tests for infectious diseases like SARS and West Nile virus.

Major benefits.....	73	74
Modest benefits.....	20	19
Modest drawbacks.....	3	2
Major drawbacks.....	2	2
Don't Know/Refused.....	2	2

c) New types of agricultural products, such as genetically modified foods like corn modified to resist pests.

Major benefits.....	24	26
Modest benefits.....	32	30
Modest drawbacks.....	17	15
Major drawbacks.....	22	25

Don't Know/Refused	5	4
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d) New types of methods to protect the health of our environment, like replacing chemicals used for bleaching agents with less harmful alternatives, or to clean up pollution like oil spills.

Major benefits.....	68	68
Modest benefits.....	24	25
Modest drawbacks	3	3
Major drawbacks.....	2	2
Don't Know/Refused	3	3

4. In general, would you say you strongly support, somewhat support, somewhat oppose or strongly oppose research and the use of products and processes that involve biotechnology?

Strongly support	33	38
Somewhat support	53	48
Somewhat oppose	6	7
Strongly oppose	3	3
Don't Know/Refused	5	4

5. Can you cite any examples of the roles and activities of Health Canada regarding biotechnology?

6. Can you cite any examples of recent Health Canada initiatives/achievements in the area of biotechnology that you recall?

7. How confident would you say you are in Health Canada's ability to responsibly regulate products of biotechnology (very, somewhat, not very, not at all)?

Very confident	14	16
Somewhat confident.....	57	54
Not very confident	20	22
Not at all confident	6	6
Don't Know/Refused	2	2

8. I would like to ask you how aware you are with some of Health Canada's activities in regard to biotechnology. Please indicate whether you are very aware, somewhat aware, somewhat unaware, very unaware of the following:

a) The safety testing process for health biotechnology products, like genetically engineered vaccines.

Very aware	5	8
Somewhat aware	36	42
Somewhat unaware	27	24
Very unaware	30	24
Don't Know/Refused	2	1

b) The safety testing process for genetically modified food products, like soybeans modified to resist pests.

Very aware	9	11
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Somewhat aware	35	39
Somewhat unaware	26	23
Very unaware	28	26
Don't Know/Refused	1	1

c) The funding of biotechnology research into new testing processes and treatments for diseases

Very aware	5	7
Somewhat aware	34	35
Somewhat unaware	30	29
Very unaware	30	28
Don't Know/Refused	1	1

d) Information sharing activities with Canadians about the roles and activities of Health Canada in the area of biotechnology

Very aware	2	3
Somewhat aware	32	36
Somewhat unaware	34	31
Very unaware	30	28
Don't Know/Refused	2	2

e) Ensuring that Canadians are informed about the benefits and risks of emerging areas of biotechnology, like stem cell research

Very aware	9	12
Somewhat aware	43	47
Somewhat unaware	26	24
Very unaware	21	15
Don't Know/Refused	2	2

f) Longer term oversight measures to monitor long term impacts of genetically modified food products, after they are approved for use

Very aware	5	8
Somewhat aware	31	35
Somewhat unaware	31	28
Very unaware	31	28
Don't Know/Refused	2	1

g) Longer oversight measures to monitor long term impacts of health tests or treatments that involve biotechnology, after they are approved for use

Very aware	4	6
Somewhat aware	27	28
Somewhat unaware	34	33
Very unaware	33	32
Don't Know/Refused	2	2

h) Ethical standards or guidelines for those that work in the field of biotechnology research

Very aware	6	10
Somewhat aware	28	32
Somewhat unaware	31	28
Very unaware	32	29
Don't Know/Refused	2	1

i) Privacy protections that are in place for the use of genetic information in medicine and health research

Very aware	7	10
Somewhat aware	32	35
Somewhat unaware	30	30
Very unaware	29	22
Don't Know/Refused	2	2

j) Work Health Canada has done with other countries like those in Europe and the US to evaluate the safety of biotechnology products

Very aware	3	5
Somewhat aware	28	33
Somewhat unaware	30	28
Very unaware	37	33
Don't Know/Refused	2	2

9. In the field of biotechnology, Health Canada has three primary roles: one is to assess the safety of the products that are being developed, and approve them for use in Canada if safety criteria are met; another role is do research that contributes to the health of Canadians; and the third role is to monitor products over the longer term for potential impacts on human health and the environment. For each of these three roles, please indicate whether you feel that it is CURRENTLY a very high priority, a high priority, or a lower priority for Health Canada?

a) To assess the safety of the products that are being developed, and approve them for use in Canada if safety criteria are met.

Very high priority	37	38
High priority	47	47
Lower priority	12	12
Don't Know/Refused	3	3

b) Do research that contributes to the health of Canadians

Very high priority	39	35
High priority	47	50
Lower priority	12	13
Don't Know/Refused	2	2

c) To monitor products over the longer term for potential impacts on human health and the environment

Very high priority	40	36
High priority	41	41
Lower priority	17	21
Don't Know/Refused	2	2

10. And for each of these three roles, please indicate whether you feel that it IN FUTURE it should be a very high priority, a high priority, or a lower priority for Health Canada?

a) To assess the safety of the products that are being developed, and approve them for use in Canada if safety criteria are met.

Very high priority	59	63
High priority	37	35
Lower priority	3	2
Don't Know/Refused	1	0

b) To do research that contributes to the health of Canadians.

Very high priority	58	58
High priority	37	37
Lower priority	5	5
Don't Know/Refused	1	0

c) To monitor products over the longer term for potential impacts on human health and the environment.

Very high priority	62	62
High priority	34	34
Lower priority	3	3
Don't Know/Refused	0	1

11. People have suggested a number of different concerns about genetically modified food products. For each of the following, please indicate whether this is a very significant concern, a significant concern, not a very significant concern or not at all significant concern.

a) The stringency of the government's safety approval processes for these products

Very significant concern	55	55
Significant concern	33	34
Not a very significant concern	8	9
Not at all significant concern	1	2
Don't Know/Refused	2	2

b) The long term risks these products might cause for the environment

Very significant concern	61	61
Significant concern	29	29
Not a very significant concern	7	6

Not at all significant concern	2	3
Don't Know/Refused	1	1

c) The long term risks these products might cause for human health

Very significant concern	69	65
Significant concern	23	26
Not a very significant concern	6	6
Not at all significant concern	2	3
Don't Know/Refused	0	0

d) That there is something unnatural about these products

Very significant concern	41	38
Significant concern	32	30
Not a very significant concern	17	19
Not at all significant concern	8	12
Don't Know/Refused	2	2

e) That the processes involved raise ethical concerns

Very significant concern	40	42
Significant concern	34	32
Not a very significant concern	17	16
Not at all significant concern	6	7
Don't Know/Refused	3	2

12. People have suggested a number of different concerns about genetically modified health products (like therapeutic drug treatments that contain genetically modified enzymes). For each of the following, please indicate whether this is a very significant concern, a significant concern, not a very significant concern or not at all significant concern.

a) The stringency of the government's safety approval processes for these products

Very significant concern	56	58
Significant concern	33	30
Not a very significant concern	6	7
Not at all significant concern	2	2
Don't Know/Refused	3	3

b) The long term risks these products might cause for the environment

Very significant concern	56	53
Significant concern	32	34
Not a very significant concern	8	9
Not at all significant concern	3	3
Don't Know/Refused	1	1

c) The long term risks these products might cause for human health

Very significant concern	65	62
Significant concern	26	28

Not a very significant concern	6	8
Not at all significant concern	2	2
Don't Know/Refused	1	1

d) That there is something unnatural about these products

Very significant concern	37	34
Significant concern	31	30
Not a very significant concern	20	21
Not at all significant concern	10	14
Don't Know/Refused	2	2

e) That the processes involved raise ethical concerns

Very significant concern	39	38
Significant concern	37	35
Not a very significant concern	14	17
Not at all significant concern	7	7
Don't Know/Refused	3	3

13. Over the past couple of years, have you ever sought out information about biotechnology related issues or topics?

Yes	37	52
No	63	48

14. (If yes to Q13) Would that be frequently, occasionally, or once or twice?

Frequently	22	26
Occasionally	49	44
Once or twice	30	30

15. (if yes to Q13) Where did you look for this information? (open-ended, please pre code media, web sites, grocery store, doctor, pharmaceutical companies, Health Canada, government (general))

Web sites	36	35
Media	17	15
Grocery store	2	1
Pharmaceutical companies	1	1
Health Canada	2	2
Government (general)	2	2
Books/Library	7	8
Newspaper	5	5
Magazines	8	9
Friends/family	3	3
Doctor	3	3
Other	14	18
Don't Know/Refused	1	1

16. (If no to Q13) I am going to list for you a series of potential reasons why you have not sought out information on biotechnology. Please indicate which of these is the main reason you have not done so.

I do not know where to find information on this subject	6	6
I have looked for information, and couldn't find what I was looking for	1	2
I don't have access to the internet, so I don't have ability to find information.....	10	7
I have not had the have time to seek out information on this subject.....	13	12
I have not had a good reason to seek out information on this subject	64	67
No need/receiving information	1	1
Never heard of it/lack of Information	1	1
No interest.....	1	1
Don't Know/Refused	1	1

17. (If no to Q13) Overall, would you say that there were certain barriers or obstacles that got in the way of you seeking out more information on this topic, or was it just that you did not have time or it never occurred to you to find out more?

Barriers/obstacles	6	10
No time	20	23
Never occurred to you to find out more.....	71	64
Don't Know/Refused	3	4

18. (If barriers in Q17) What were those barriers or obstacles (open-ended)

Lack of information/availability	27	22
Don't know where to look	10	9
No time	20	25
No computer/Internet	14	13
Disabled/Blind/Illiterate.....	5	3
Material/Website too technical	8	13
Don't go out often/Only one vehicle	3	3
Not proficient on the internet.....	3	3
Don't Know/Refused	5	6

19. In future, what source would you use to get information on biotechnology (open-ended)

Internet/Computer	43	44
TV/News/Documentaries	6	5
Media	3	4
Newspaper	8	7
Library	10	10
Magazines/documentation	7	7
Health Canada	2	3
Friends/family/word of mouth	2	2
Government	2	2
Hospital/health professionals	2	3
No Interest.....	1	0
Reading Materials	1	1
School	1	1
Pamphlets/booklets.....	1	0
Experts/scientists/professionals.....	1	2
Other	2	2
Don't Know/Refused	6	5

20. Over the past couple of years, have you ever sought out information about these issues from Health Canada?

Yes	11	17
No	89	83

21. (If yes to Q20) Would that be frequently, occasionally, or once or twice?

Frequently	16	15
Occasionally	46	53
Once or twice	39	32

22. (If yes to Q20) Where did you seek out this information? (open-ended pre-code web site, 1-800 number)

Website	53	52
1-800 number	7	9
Contacts/Literature from Health Canada	5	3
Through Printed Information	4	4
Friends/family/word of mouth	4	3
Library	4	6
A family doctor/Medical Office	3	2
The media	7	7
Medical Newspapers/Revues	3	2
Public Health/Mental health/Nurse	1	2
Course Material/University Studies	1	1
The hospital	2	1
Through the mail	1	1
From insurance/Pharmaceutical Companies	1	2
Wrote to MP	1	2
Other	2	3
Don't Know/Refused	2	2

23. Have you ever tried to go to the Health Canada web site to seek out information on this subject?

Yes	33	34
No	65	66

24. (If no to Q20) I am going to list for you a series of potential reasons why you have not sought out information on biotechnology from Health Canada. Please indicate which of these is the main reason you have not done so:

I did not know Health Canada was involved in this area	12	15
I do not know where to find information on this subject from Health Canada	10	14
I have looked for information, and couldn't find what I was looking for	2	3
I don't have access to the internet, so I don't have ability to find information	5	2
I have not had the have time to seek out information on this subject	10	11
I have not had a good reason to seek out information on this subject	54	48
Don't trust/dislike Health Canada's information	2	2
Get information from other source	1	1
No interest/no need	1	1
Don't Know/Refused	2	2

25. (If no to Q20) Overall, would you say that there were certain barriers or obstacles that got in the way of you seeking out more information on this topic from Health Canada, or was it just that you did not have time or it never occurred to you to find out more?

Barriers/obstacles	6	9
No time	20	22
Never occurred to you to find out more.....	70	64
Don't Know/Refused	5	5

26. (If barriers in Q25) What were those barriers or obstacles (open-ended)?

Don't know where to find/look	13	13
I don't trust their Information	11	12
No access computer/Internet	9	6
Not interested/no time/not concerned	10	6
Unaware Health Canada was involved	5	6
Info not well publicized/unavailable.....	7	8
Poor website/not user friendly/poor links	11	15
Outdated/poor/not enough information	5	8
Isolated/no info where I live.....	3	2
Complicated topic.....	5	8
Don't Know/Refused	8	14

27. Assuming for the moment that you did not participate in this survey, thinking about the next year or two, how likely is it that you would seek out information about biotechnology, using a scale of 1-7 with 1 being not at all likely and 7 being extremely likely?

Not at all likely	17	12
2	12	9
3	14	12
4	17	20
5	21	22
6	6	7
Extremely likely	13	18
High likelihood (5-7)	40	47
Don't Know/Refused	1	0

28. And how likely is it that you would seek out information from Health Canada about biotechnology in the next year or two, using the same 1-7 scale with 1 being not at all likely and 7 being extremely likely?

Not at all likely	21	17
2	15	15
3	15	14
4	15	16
5	18	19
6	6	8
Extremely likely	9	12
High likelihood (5-7)	33	39
Don't Know/Refused	0	1

29. I'm going to list for you a series of topics/issues that could be included in a public education initiative about Health Canada's roles and activities in the area of biotechnology. For each, please indicate how interested you are in getting information about that subject, using a scale of 1-7 where 7 is that you are extremely interested in the topic and 1 is you are not at all interested in the topic.

a) Brief summaries of health treatments deriving from biotechnology like genetically engineered insulin for people with type 1 diabetes that are used in Canada, focusing on why they are produced and some of the potential benefits and risks associated with them.

Not at all interested	7	6
2	5	4
3	8	7
4	12	10
5	20	20
6	18	20
Extremely interested	29	33
High interest (5-7)	67	73
Don't Know/Refused	1	1

b) Brief summaries of genetic tests like tests for risk of breast or colorectal cancer that are used in Canada, focusing on why they are available to some people and some of the potential benefits and risks associated with them.

Not at all interested	6	5
2	4	6
3	7	5
4	11	10
5	21	21
6	19	18
Extremely interested	32	36
High interest (5-7)	72	75
Don't Know/Refused	1	1

c) Brief summaries of genetically modified food products produced in Canada, focusing on why they are produced and some of the potential benefits and risks associated with them.

Not at all interested	7	4
2	4	3
3	9	7
4	10	9
5	21	18
6	17	18
Extremely interested	31	39
High interest (5-7)	69	75
Don't Know/Refused	1	1

d) Brief summaries of some of the types of biotechnology research initiatives that Health Canada is involved in

Not at all interested	9	7
-----------------------------	---------	---

2	6.....	4
3	13.....	11
4	16.....	16
5	22.....	24
6	14.....	15
Extremely interested	19.....	21
High interest (5-7)	55.....	60
Don't Know/Refused	1.....	1

e) The elements of Health Canada's regulatory approval process for biotechnology products, and how they are applied in the different areas such as for food or health products

Not at all interested	10.....	8
2	7.....	8
3	11.....	10
4	16.....	15
5	19.....	21
6	15.....	16
Extremely interested	21.....	22
High interest (5-7)	55.....	59
Don't Know/Refused	1.....	1

f) How biotechnology derived products might help to contribute to maintain and improve the health of Canadians

Not at all interested	6.....	4
2	4.....	3
3	7.....	7
4	14.....	14
5	22.....	21
6	18.....	20
Extremely interested	28.....	30
High interest (5-7)	68.....	71
Don't Know/Refused	1.....	0

g) The list of biotechnology products have been approved for sale in Canada by Health Canada

Not at all interested	7.....	5
2	5.....	5
3	9.....	9
4	13.....	12
5	19.....	18
6	16.....	17
Extremely interested	30.....	34
High interest (5-7)	65.....	69
Don't Know/Refused	1.....	1

h) The actual scientific studies that were carried out on each of the biotechnology products that have been approved for sale in Canada

Not at all interested	12	10
2	7	9
3	12	10
4	13	11
5	21	22
6	12	11
Extremely interested	23	25
High interest (5-7)	56	58
Don't Know/Refused	1	1

i) The scientific practices that have been established to monitor potential long term impacts of biotechnology products on human health.

Not at all interested	7	5
2	5	5
3	9	7
4	14	13
5	20	21
6	16	17
Extremely interested	28	30
High interest (5-7)	64	68
Don't Know/Refused	1	1

j) The oversight measures that have been established to monitor potential long term impacts of biotechnology products on the environment.

Not at all interested	8	5
2	5	5
3	9	7
4	14	15
5	20	19
6	16	18
Extremely interested	26	30
High interest (5-7)	62	67
Don't Know/Refused	1	2

k) The areas of international collaboration between Health Canada and agencies of other countries occurs in the area of biotechnology safety and regulation.

Not at all interested	13	10
2	10	11
3	13	11
4	16	15
5	20	22
6	10	11
Extremely interested	17	18
High interest (5-7)	47	51
Don't Know/Refused	1	1

l) The ethical guidelines and legal standards that are in place for those carrying out research in the area of biotechnology in Canada.

Not at all interested	11	8
2	8	7
3	12	11
4	14	13
5	19	20
6	14	15
Extremely interested	22	25
High interest (5-7)	55	60
Don't Know/Refused	1	1

m) The privacy protections that are in place for the use of genetic information, in medicine and health research.

Not at all interested	11	80
2	8	10
3	10	8
4	12	13
5	20	20
6	13	13
Extremely interested	24	26
High interest (5-7)	57	59
Don't Know/Refused	2	2

30. And in terms of communicating with the public on these issues, would you like government to communicate with Canadians mostly about the risks of these technologies, mostly about the benefits, or a balance between benefits and risks?

Communicate with Canadians about the risks of these technologies.....	8	8
Communicate with Canadians mostly about the benefits	5	5
Balance between benefits and risks	86	86
Don't Know/Refused	1	1

31. Of the following potential information sources, (knowing that there are financial limitations for carrying out a public education effort like this), would you say each of the following would be one of the best ways of communicating with you, a good way but not one of the best, or not a very good way of communicating with you about these issues.

a) Television advertising		
Best way of communicating	42	40
Good way but not one of the best	40	39
Not a very good way of communicating	18	20
b) Newspaper advertising		
Best way of communicating	26	26
Good way but not one of the best	49	49
Not a very good way of communicating	25	24
c) Radio advertising		
Best way of communicating	21	21

Good way but not one of the best.....	46	43
Not a very good way of communicating	33	36
d) Pamphlet in the mail		
Best way of communicating	28	27
Good way but not one of the best.....	42	38
Not a very good way of communicating	29	34
e) Pamphlet at grocery store		
Best way of communicating	15	15
Good way but not one of the best.....	38	38
Not a very good way of communicating	46	47
f) Through a website that would be promoted in national media		
Best way of communicating	43	50
Good way but not one of the best.....	40	36
Not a very good way of communicating	17	13
g) Through a toll free number provided by Health Canada that would be promoted in national media		
Best way of communicating	26	27
Good way but not one of the best.....	41	36
Not a very good way of communicating	33	36
32. I'd like to ask you some questions about your level of involvement in current issues, if you don't mind. For each of the following, I'd like you to tell me, with a yes or no answer, whether you have done this in the last year.		
a) Spoken at a public meeting		
Yes	34	70
No	65	30
b) Written a letter to a newspaper editor		
Yes	17	41
No	83	59
c) Called a television or radio talk show that deals with public affairs issues		
Yes	12	30
No	87	70
d) Written an article for a publication		
Yes	16	34
No	84	66
e) Been a member of a community service organization		
Yes	40	71
No	60	29
f) Served as an officer of a non-governmental organization, that deals with public policy issues		
Yes	10	21
No	90	79

g) Written to an elected representative
 Yes 22 41
 No 78 59

h) Been a member of or worked for a political party
 Yes 11 20
 No 88 80

33. On average, how many days per week do you read the front (news) section of a national newspaper (like the globe and mail or national post)?

0 41 30
 1 12 13
 2 9 9
 3 7 7
 4 3 5
 5 5 6
 6 5 6
 7 16 21
 Don't Know/Refused 2 2

34. If your town/city has a daily newspaper, how many days per week do you typically read the front (news) section?

0 13 10
 1 18 15
 2 11 11
 3 9 9
 4 4 5
 5 8 8
 6 9 10
 7 24 26
 Don't Know/Refused 1 0

35. And if your town/local community has a community newspaper, would you say you read it every week, 2-3 weeks a month, once a month, or less than once a month?

Every week 60 67
 2-3 weeks a month 11 10
 Once a month 11 9
 Less than once a month 13 10
 Don't Know/Refused 4 4

36. On average, how many days per week do you watch the national news on CBC, CTV, or Global television?

0 9 7
 1 7 7
 2 7 8
 3 9 7
 4 7 8
 5 11 11

6	6.....	7
7	43.....	45

37. Do you have Internet access from your home?

Yes	72.....	81
No.....	28.....	19

38. (If yes) Is it high speed or dial-up?

High speed	64.....	64
Dial up	35.....	35
Don't Know/Refused	1.....	2

39. In general, would you say you personally are very comfortable, somewhat comfortable, somewhat uncomfortable, or very uncomfortable with the idea of buying foods that contain genetically modified ingredients?

Very comfortable	14.....	17
Somewhat comfortable	29.....	29
Somewhat uncomfortable	30.....	24
Very uncomfortable	26.....	28
Don't Know/Refused	2.....	2

VI. Appendix 2: Presentation

Report to: Nizam Siddiqui, Health Canada

Public Opinion Research on Biotechnology Issues

Research Findings
March 2004

Methodology

- National Survey of 1430 respondents
 - Margin of error 2.6%
 - Core sample of 1200: 794 general public, 406 involved Canadians
 - Oversample of 230 Involved Canadians (yielding a total of 636 involved Canadians)
- Content:
 - Broad opinions about biotechnology and its applications
 - Perceptions of Health Canada's roles and responsibilities with regard to biotechnology
 - Awareness of Health Canada communications with regard to biotechnology
 - Expectations of Health Canada communications with regard to biotechnology



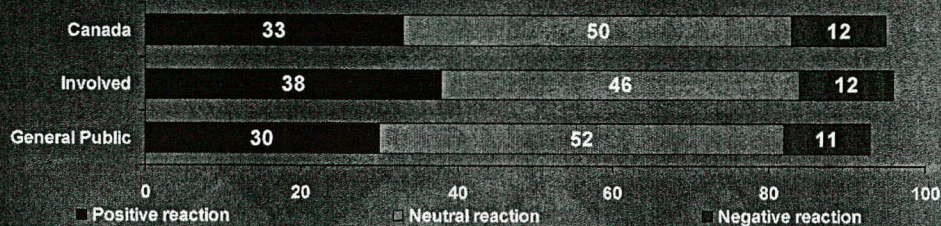
Opinions and Attitudes Towards Biotechnology

- Biotechnology and Genetic Modification have very different connotations to Canadians
 - Biotechnology tends to have positive connotations, genetic modification the opposite
 - Involved Canadians tend to assign more positive value to both than the rest of the population

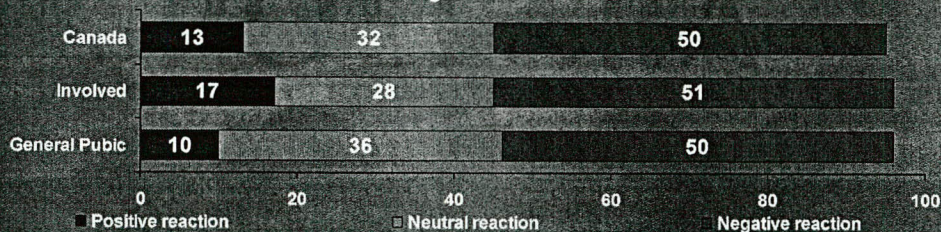


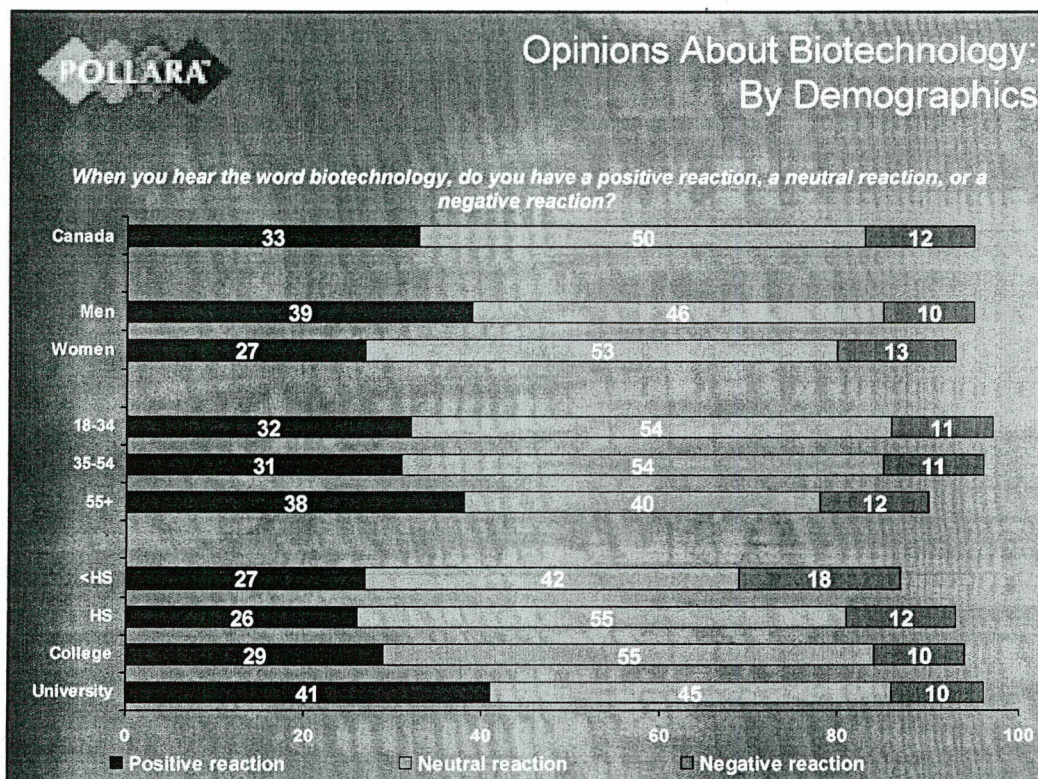
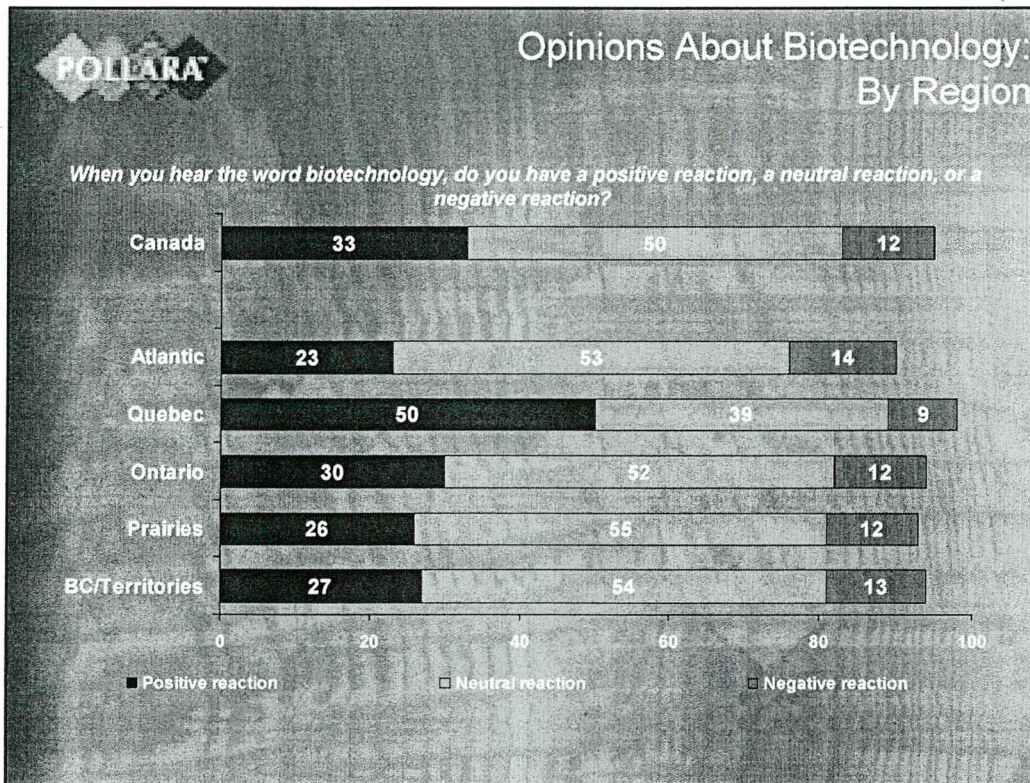
Opinions: Biotechnology and Genetic Modification

When you hear the word biotechnology, do you have a positive reaction, a neutral reaction, or a negative reaction?



What about genetic modification?

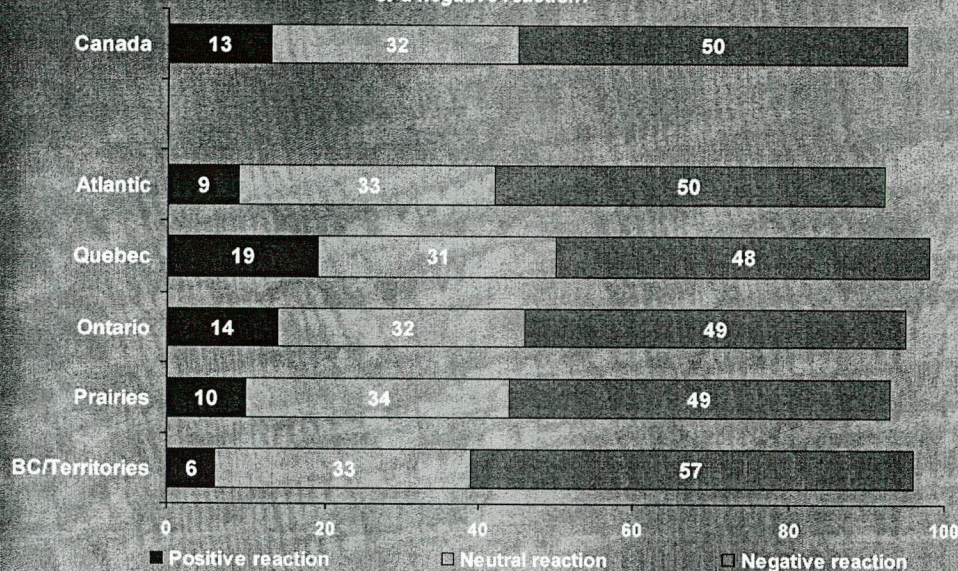




POLLARA

Opinions about Genetic Modification: By Region

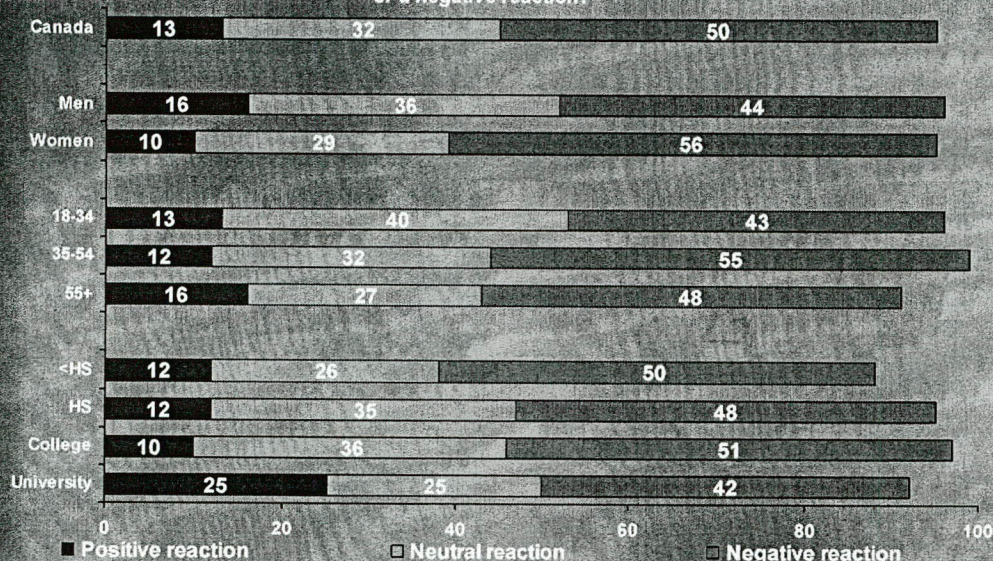
When you hear the word genetic modification, do you have a positive reaction, a neutral reaction, or a negative reaction?



POLLARA

Opinions about Genetic Modification: By Demographics

When you hear the word genetic modification, do you have a positive reaction, a neutral reaction, or a negative reaction?





Applications

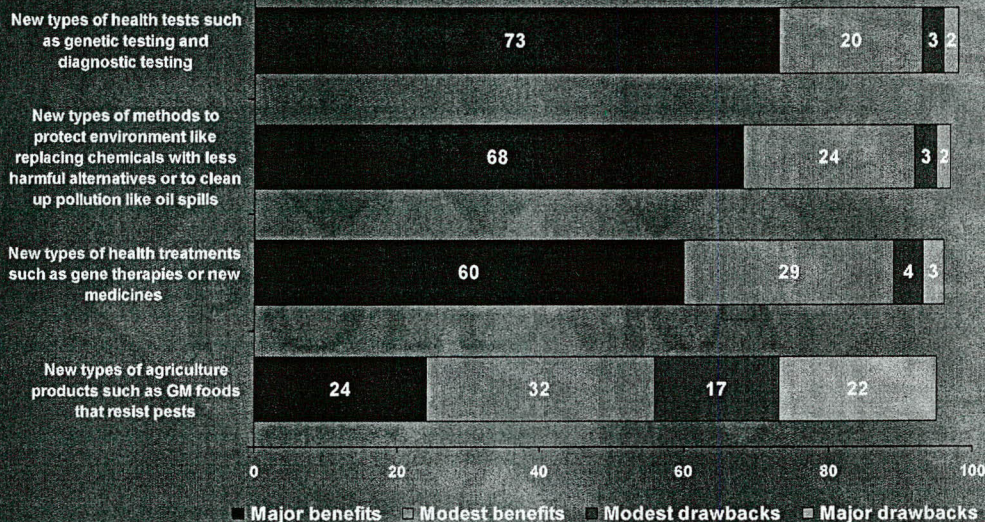
- There is widespread support for a number of biotechnology applications among Canadians
 - Some applications garner three quarters "strong support", 90% support overall
 - Involved Canadians again more likely to be supportive of these applications than members of the general public
- Applications that involve health or the environment are most widely supported
 - Applications in the realm of agriculture draw more uncertainty, more mixed opinion

9



Attitudes Towards Applications: Canada

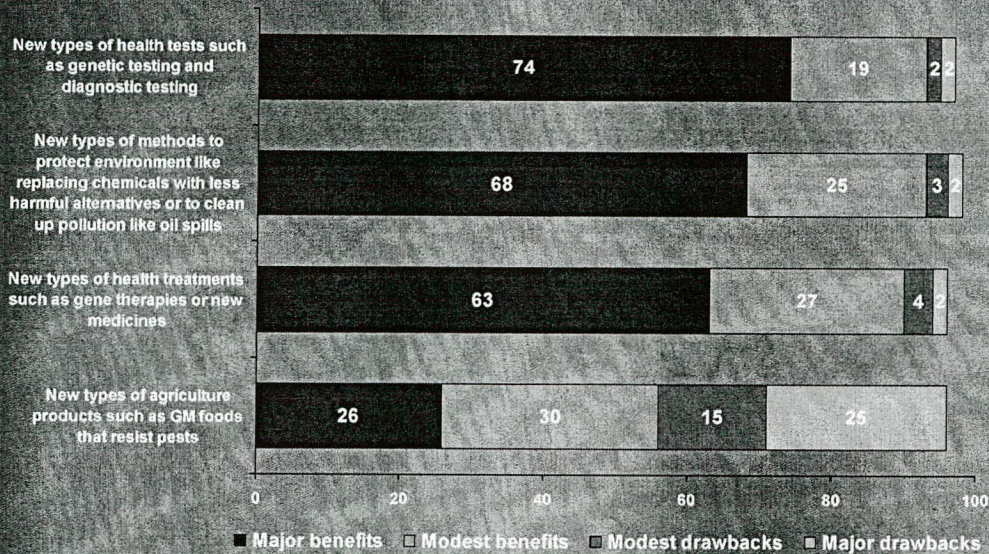
Will biotechnology bring benefits or drawbacks to?



POLLARA

Attitudes Towards Applications: Involved Canadians

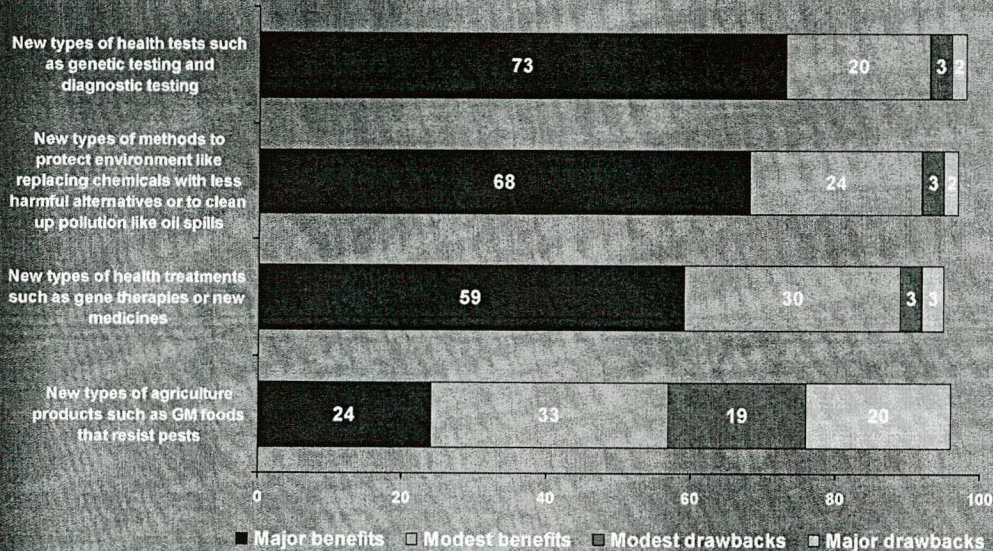
Will biotechnology bring benefits or drawbacks to?



POLLARA

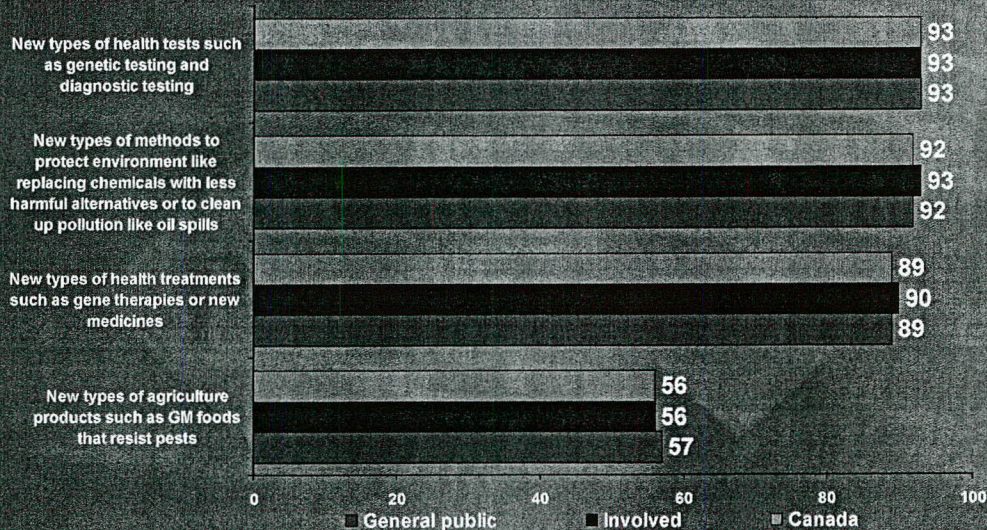
Attitudes Towards Applications: General Public

Will biotechnology bring benefits or drawbacks to?

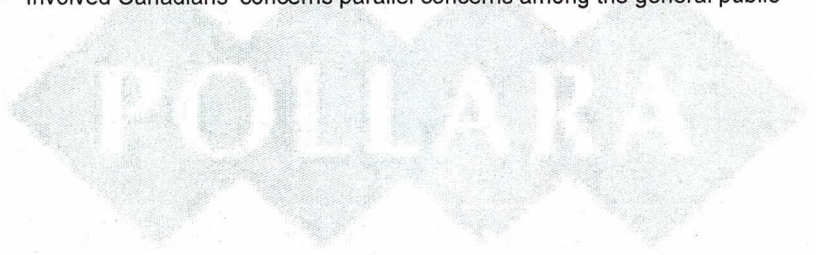


Will biotechnology bring benefits or drawbacks to?

% saying benefits



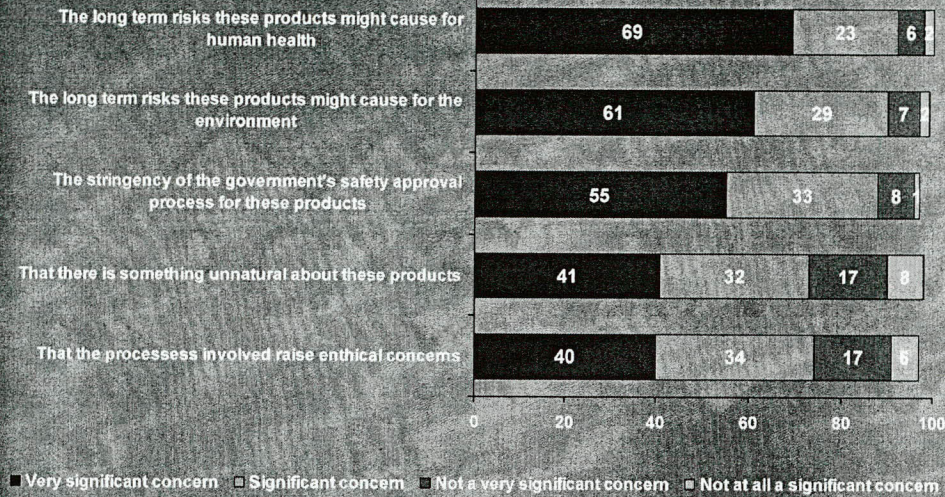
- While Canadians broadly support many biotech applications, that isn't to say they don't have concerns about them
 - The concerns that are most pronounced, in both food and health applications, have to do with long term impacts on human health and the environment
 - The stringency of the approval process is also a significant concern
 - Ethical issues tend to be of lesser concern than risk issues
 - **Other research we have done suggests that ethical issues are not all that pronounced for most applications, but are paramount for others (like human cloning)
 - Involved Canadians' concerns parallel concerns among the general public



POLLARA

Concerns about GM Foods: Canada

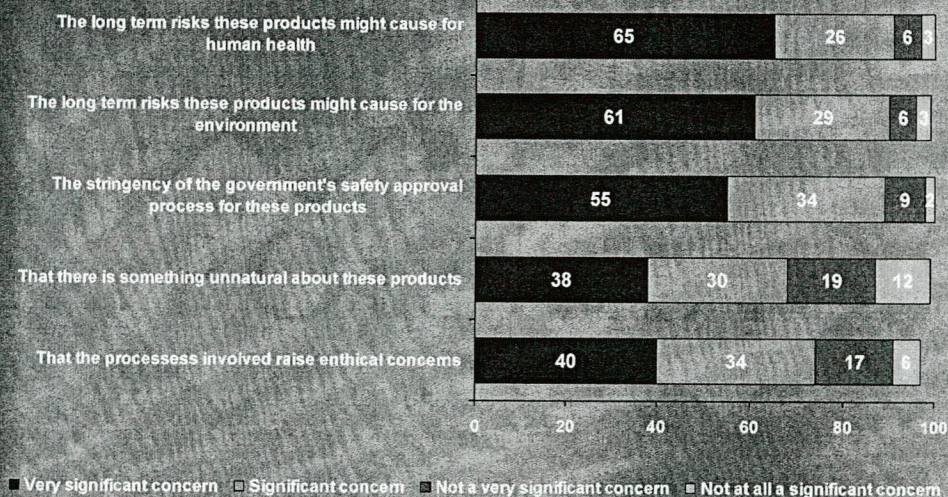
People have suggested a number of different concerns about genetically modified food products. For each of the following, please indicate whether this is a significant concern or not a significant concern



POLLARA

Concerns about GM Foods: Involved Canadians

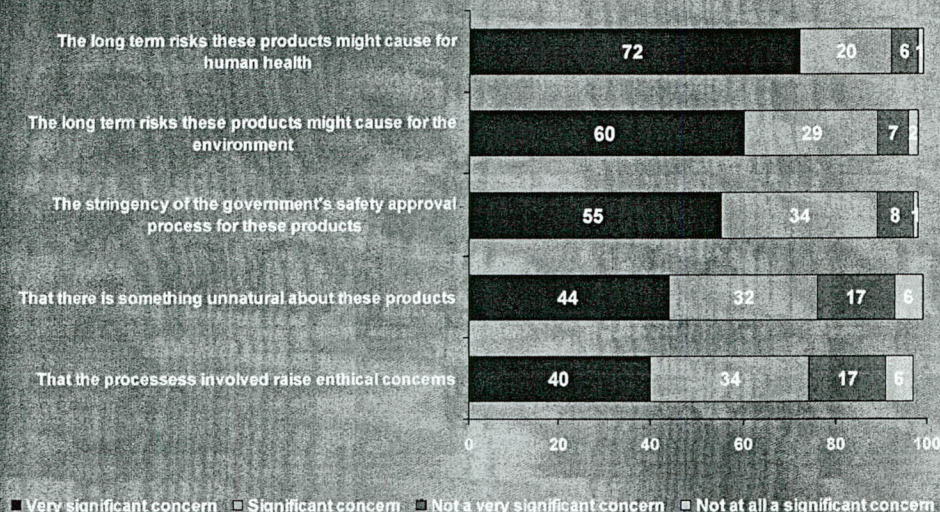
People have suggested a number of different concerns about genetically modified food products. For each of the following, please indicate whether this is a significant concern or not a significant concern



POLLARA

Concerns about GM Foods: General Public

People have suggested a number of different concerns about genetically modified food products. For each of the following, please indicate whether this is a significant concern or not a significant concern

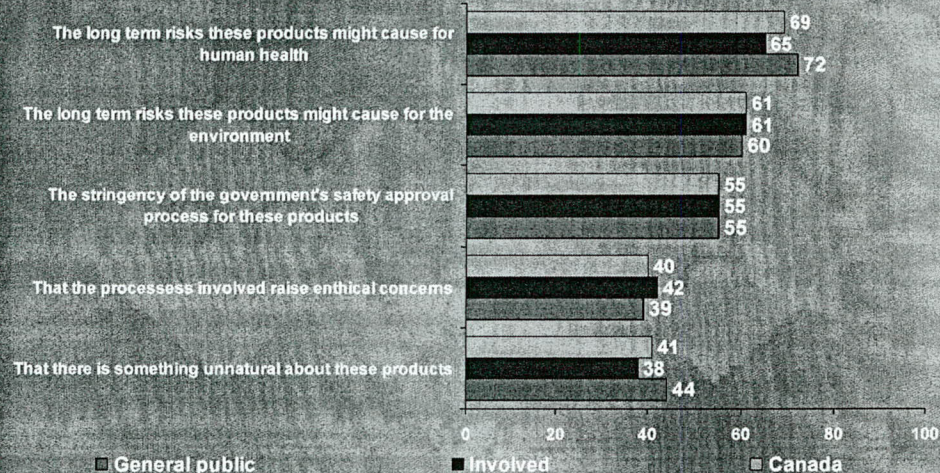


POLLARA

Comparing Concerns About GM Foods

People have suggested a number of different concerns about genetically modified food products. For each of the following, please indicate whether this is a significant concern or not a significant concern

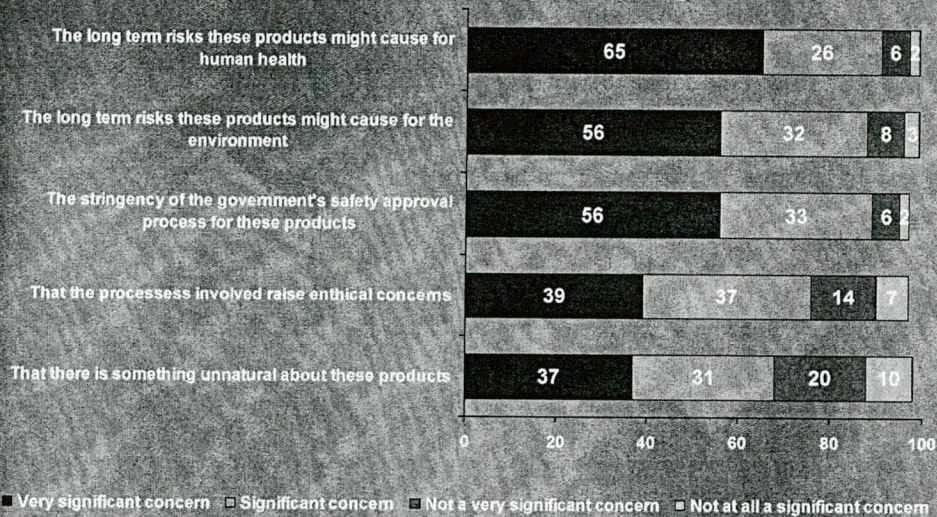
% saying very significant



POLLARA

Concerns About GM Health Products: Canada

People have suggested a number of different concerns about genetically modified health products like therapeutic drug treatments that contain GM enzymes. For each of the following, please indicate whether this is a significant concern or not a significant concern



POLLARA

Concerns About GM Health Products: Involved Canadians

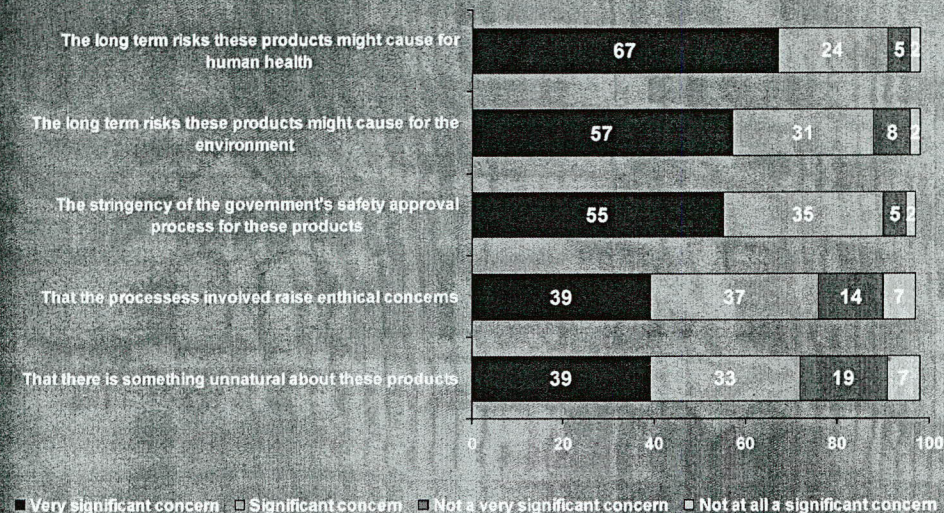
People have suggested a number of different concerns about genetically modified health products like therapeutic drug treatments that contain GM enzymes. For each of the following, please indicate whether this is a significant concern or not a significant concern



POLLARA

Concerns About GM Health Products: General Public

People have suggested a number of different concerns about genetically modified health products like therapeutic drug treatments that contain GM enzymes. For each of the following, please indicate whether this is a significant concern or not a significant concern

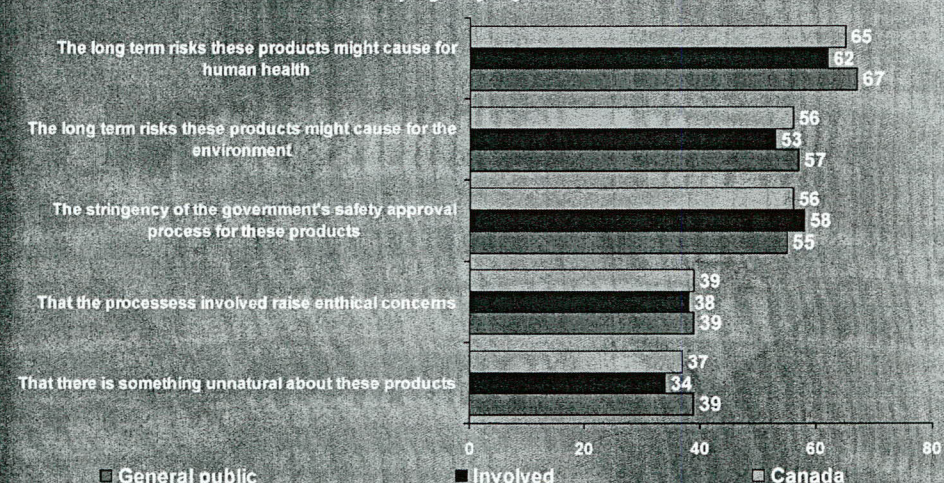


POLLARA

Comparing Concerns About GM Health Products

People have suggested a number of different concerns about genetically modified health products like therapeutic drug treatments that contain GM enzymes. For each of the following, please indicate whether this is a significant concern or not a significant concern

% saying very significant





Health Canada's role in Biotechnology

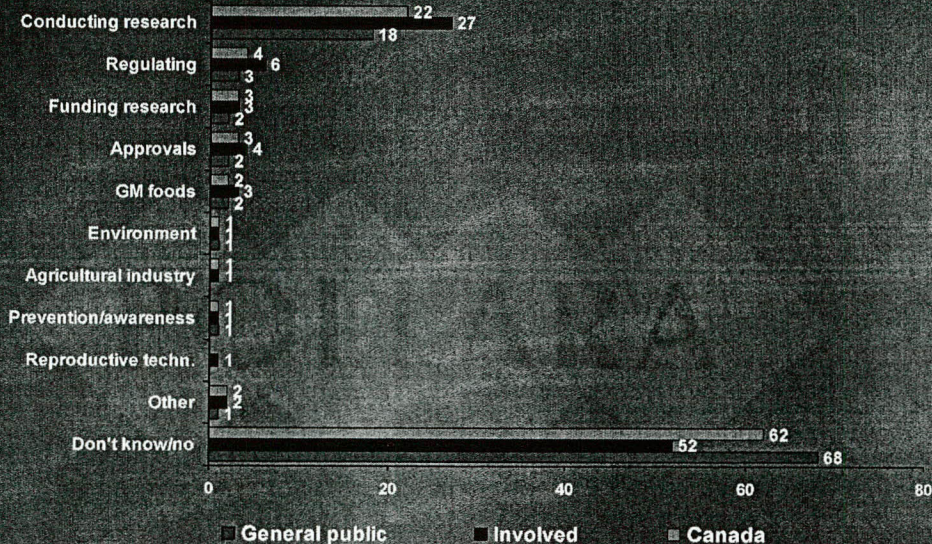
- Canadians are largely unaware of the role that Health Canada plays with regard to biotechnology
 - Half of involved Canadians unable to name a role HC plays
 - 60% among Canadians in general
 - By far the area most cited is "conducting research"
- Unaided, very few (under 10%) can name a HC achievement in this area
 - When prompted, there is more evidence of at least vague recall of some efforts, definitely higher among involved Canadians than the rest of the populace
 - But overall, recall is quite low
- Nevertheless, most express at least some confidence in Health Canada's ability to regulate these technologies
 - Seven in ten very or somewhat confident
 - Fewer than 10% not at all confident
 - **In our experience, this owes to perceptions of Health Canada's abilities in other areas, from which they draw analogies to this area

23



Awareness of HC Roles and Activities

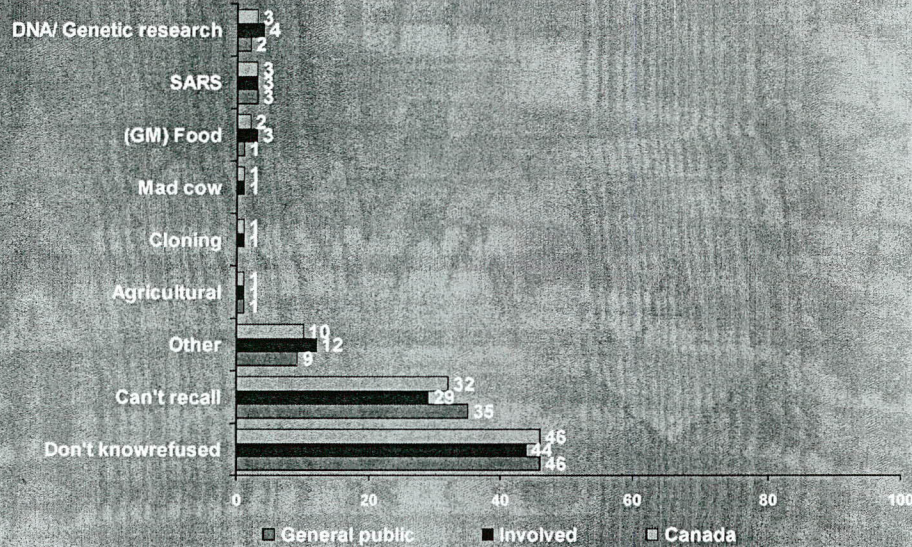
Can you cite any examples of the roles and activities of Health Canada regarding biotechnology?



POLLARA

Awareness of Initiatives and Achievements

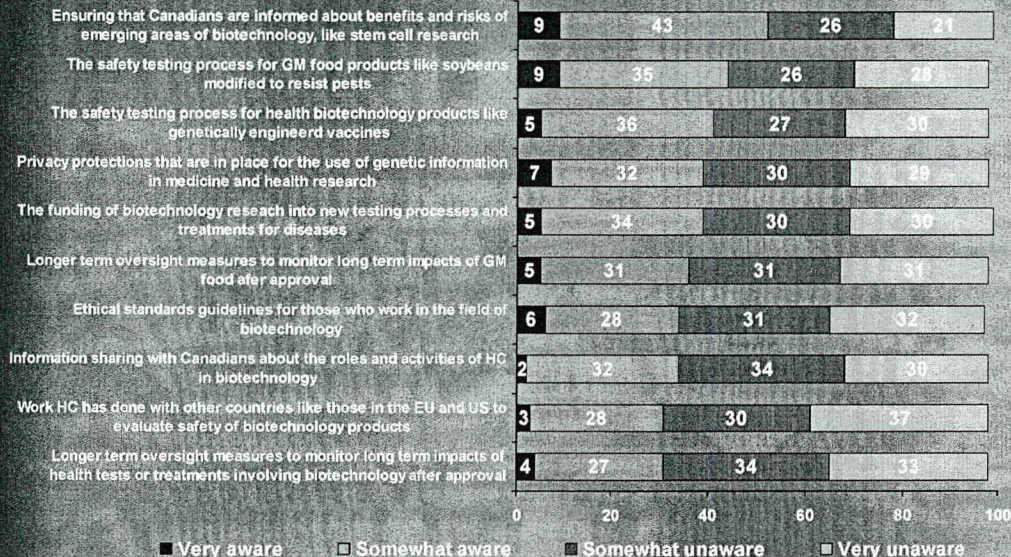
Can you cite any examples of recent Health Canada initiatives or achievements in the area of biotechnology that you recall?



POLLARA

Awareness of Health Canada's Activities: Canada

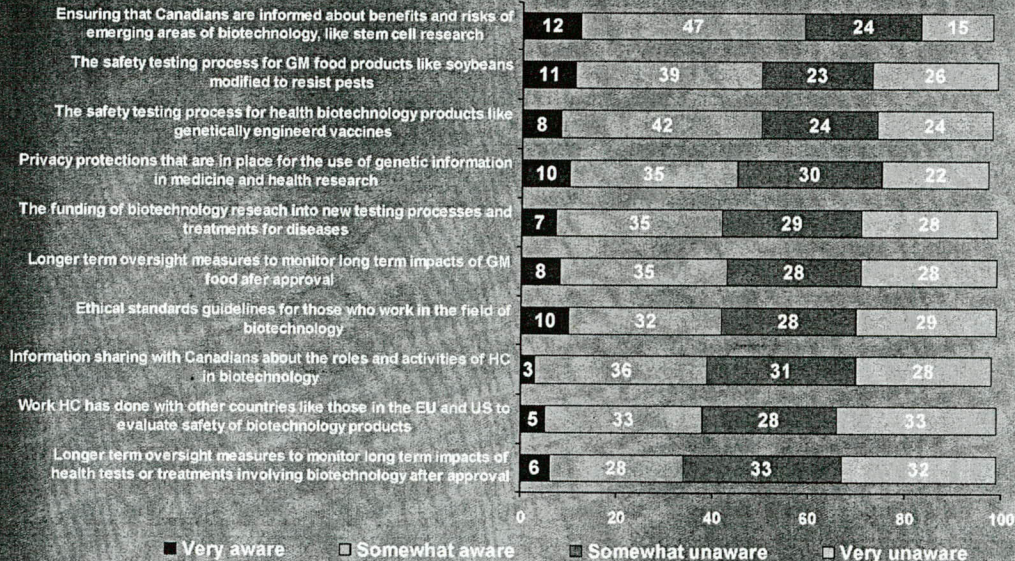
How aware are you of some of Health Canada's activities in regard to biotechnology?



POLLARA

Awareness of Health Canada's Activities: Involved Canadians

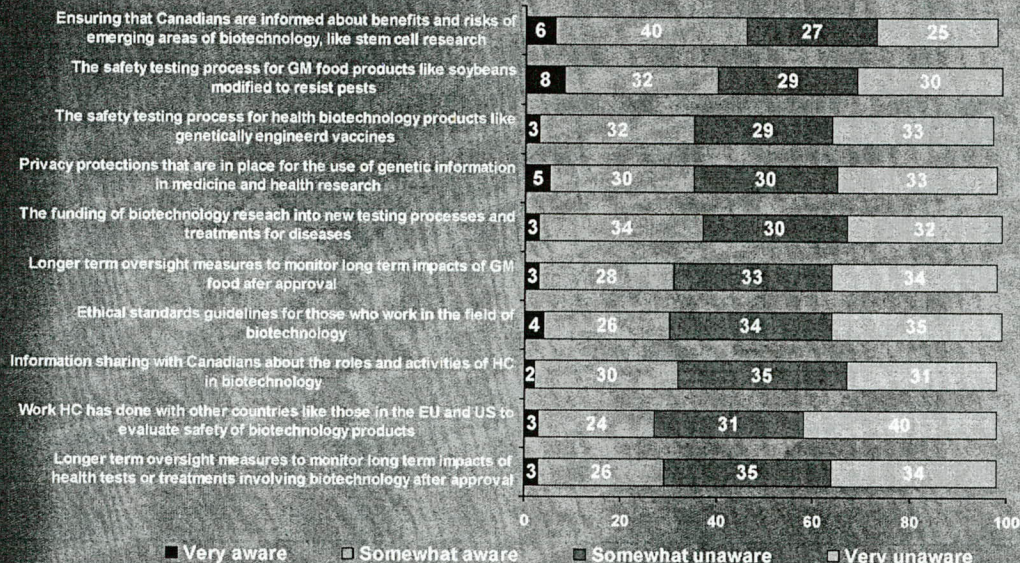
How aware are you of some of Health Canada's activities in regard to biotechnology?



POLLARA

Awareness of Health Canada's Activities: General Public

How aware are you of some of Health Canada's activities in regard to biotechnology?

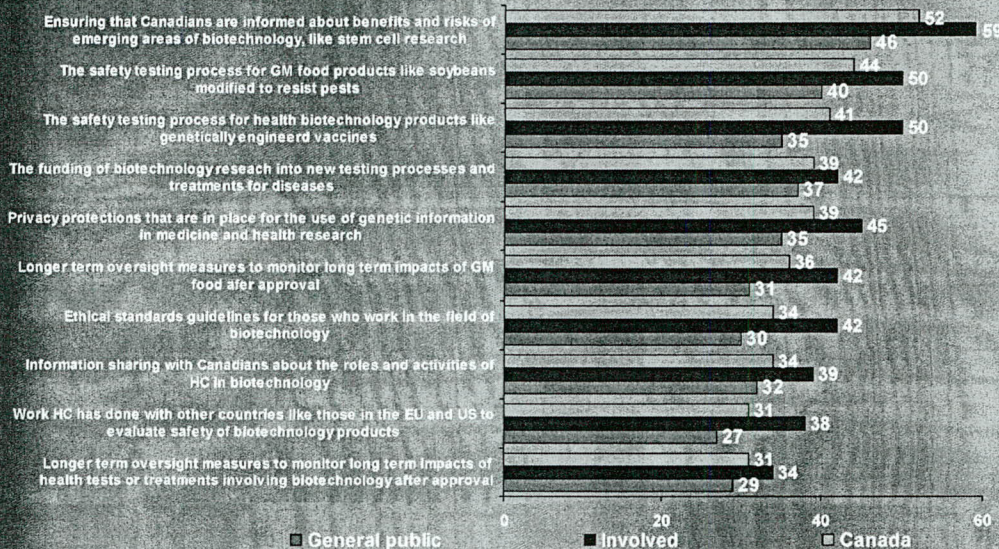


POLLARA

Comparing Awareness

How aware are you of some of Health Canada's activities in regard to biotechnology?

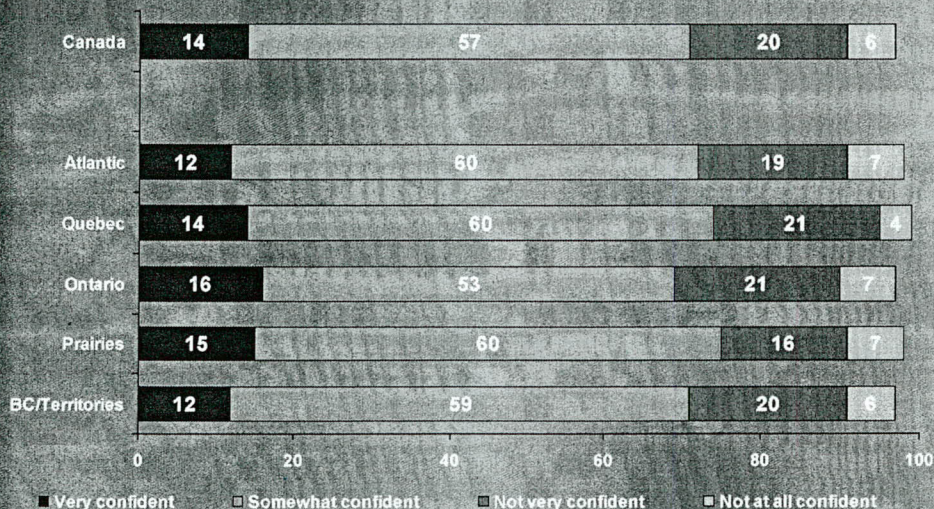
% saying very/somewhat aware



POLLARA

Confidence in Health Canada: By Region

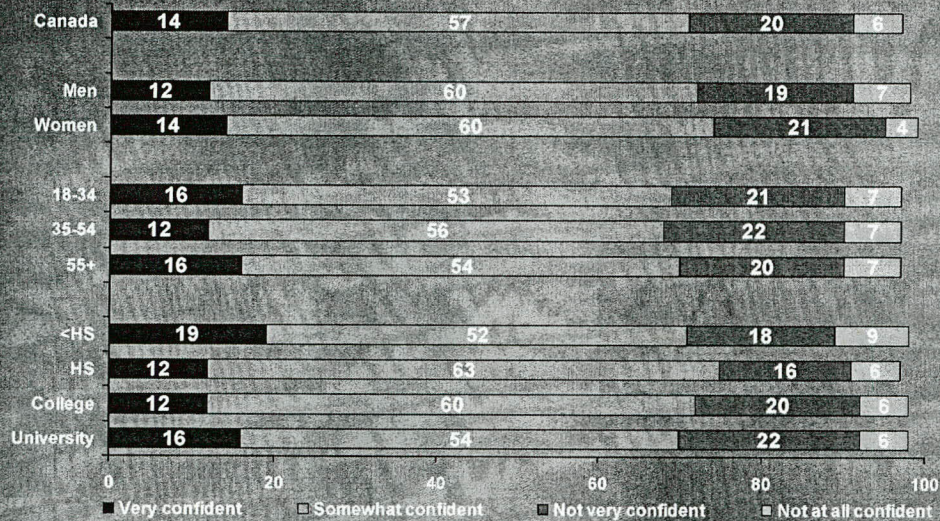
How confident would you say you are in Health Canada's ability to responsibly regulate products of biotechnology?



POLLARA

Confidence in Health Canada: By Demographics

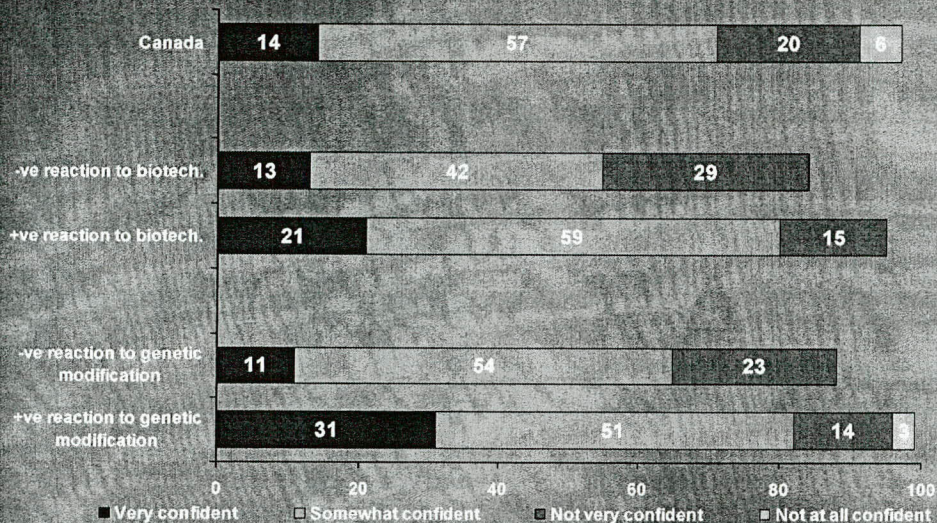
How confident would you say you are in Health Canada's ability to responsibly regulate products of biotechnology?



POLLARA

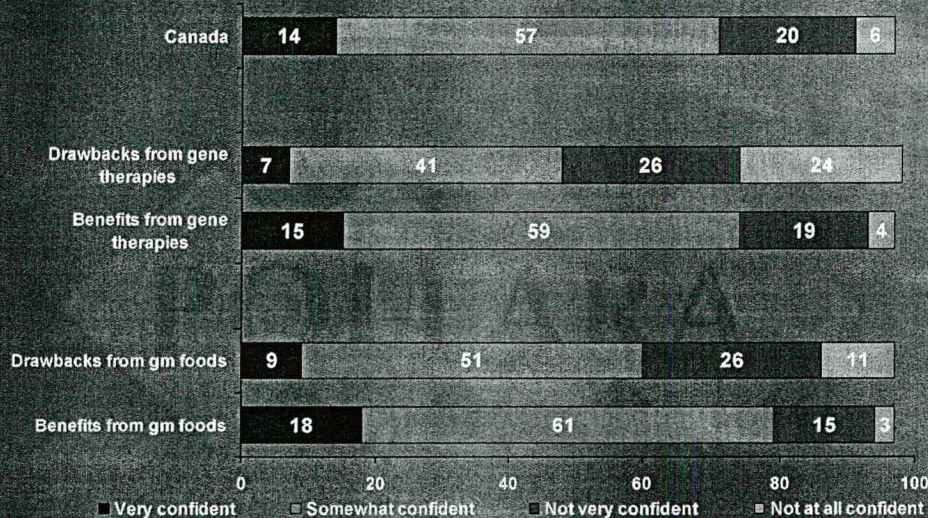
Confidence in Health Canada: By Attitudes

How confident would you say you are in Health Canada's ability to responsibly regulate products of biotechnology?



Confidence in Health Canada: By Attitudes

How confident would you say you are in Health Canada's ability to responsibly regulate products of biotechnology?



Specific HC Roles/Responsibilities

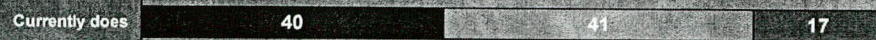
- Canadians would like Health Canada to play all three roles currently assigned to it
 - Stringent assessments/approval processes
 - Long term research into impacts
 - Funding health research
- Involved Canadians tend to be slightly less sure of how much of a priority these areas are to HC currently, than the general public is.
- But both Involved and the general public agree that they would like Health Canada to make all three a higher priority than they perceive them to be now



Perceived and Preferred Roles : Canada

In the field of biotechnology, Health Canada has three primary roles. How much of a priority do you feel Health Canada CURRENTLY DOES/ SHOULD IN THE FUTURE place on each of them?

To monitor products over the longer term for potential impacts on human health and the environment



To do research that contributes to the health of Canadians



To assess the safety of products being developed and approve for use if they meet the criteria



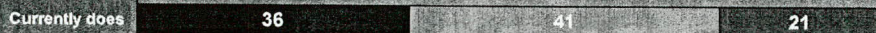
0 20 40 60 80 100
■ Very high priority □ High priority □ Lower priority



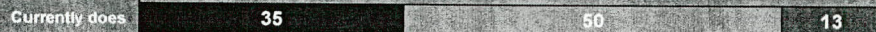
Perceived and Preferred roles: Involved Canadians

In the field of biotechnology, Health Canada has three primary roles. How much of a priority do you feel Health Canada CURRENTLY DOES/ SHOULD IN THE FUTURE place on each of them?

To monitor products over the longer term for potential impacts on human health and the environment



To do research that contributes to the health of Canadians



To assess the safety of products being developed and approve for use if they meet the criteria



0 20 40 60 80 100
■ Very high priority □ High priority □ Lower priority

Perceived and Preferred roles: General Public

In the field of biotechnology, Health Canada has three primary roles. How much of a priority do you feel Health Canada CURRENTLY DOES/ SHOULD IN THE FUTURE place on each of them?

To monitor products over the longer term for potential impacts on human health and the environment



To do research that contributes to the health of Canadians



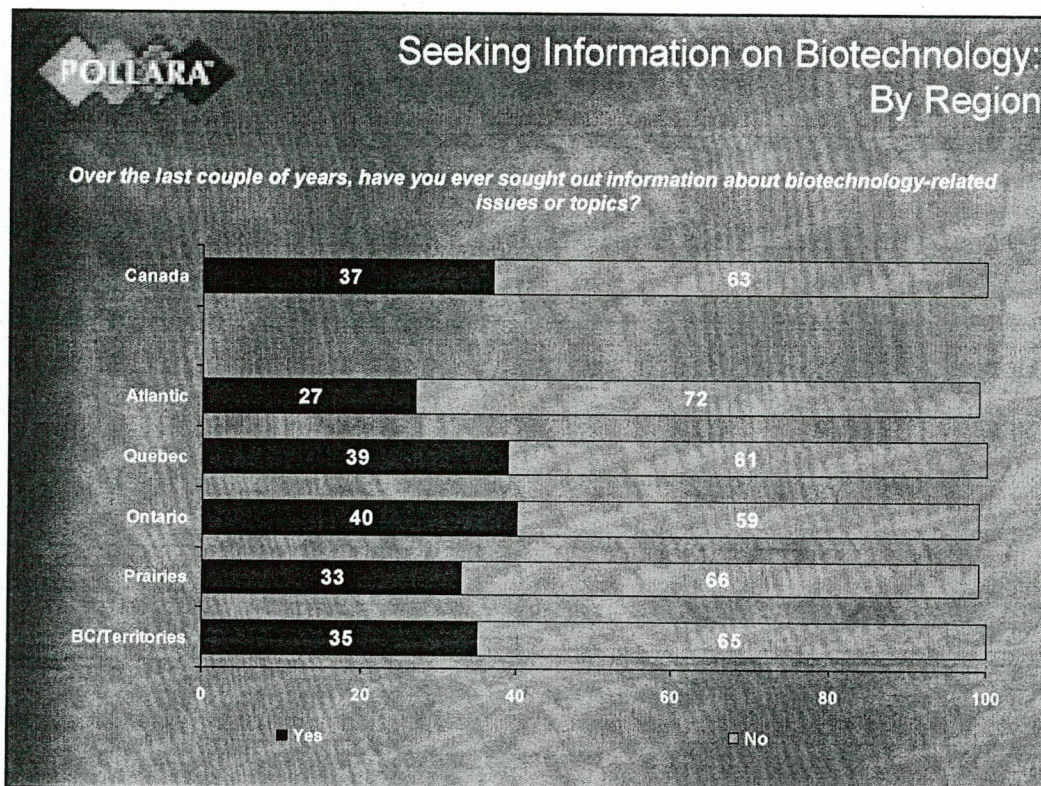
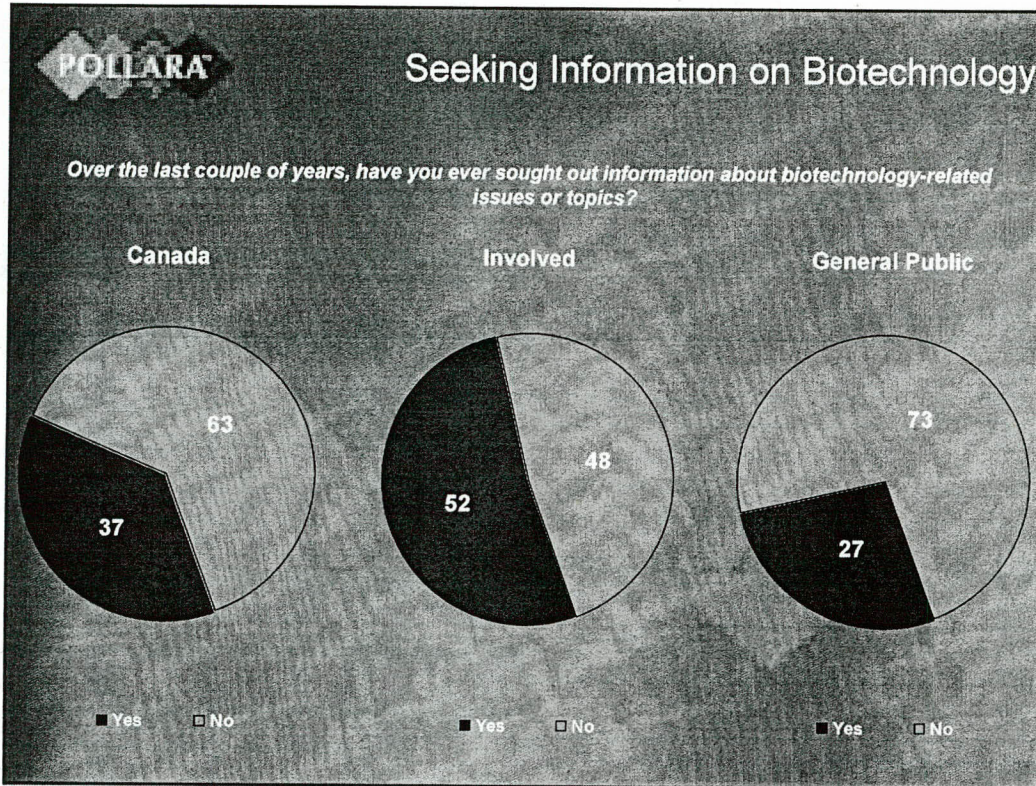
To assess the safety of products being developed and approve for use if they meet the criteria

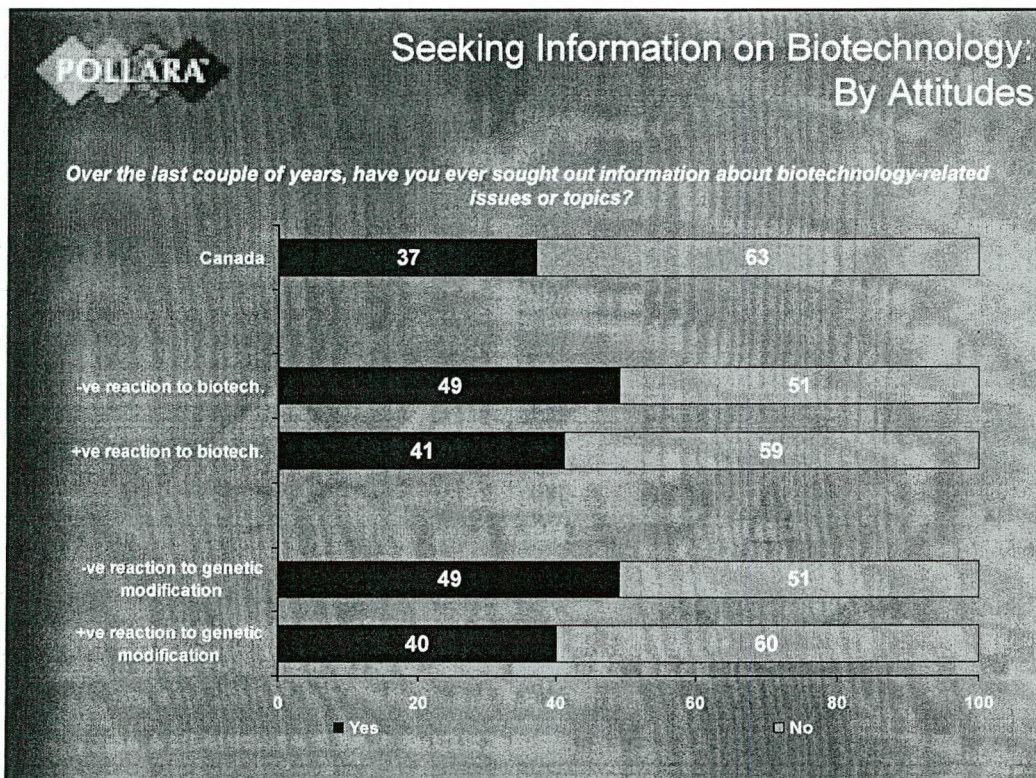
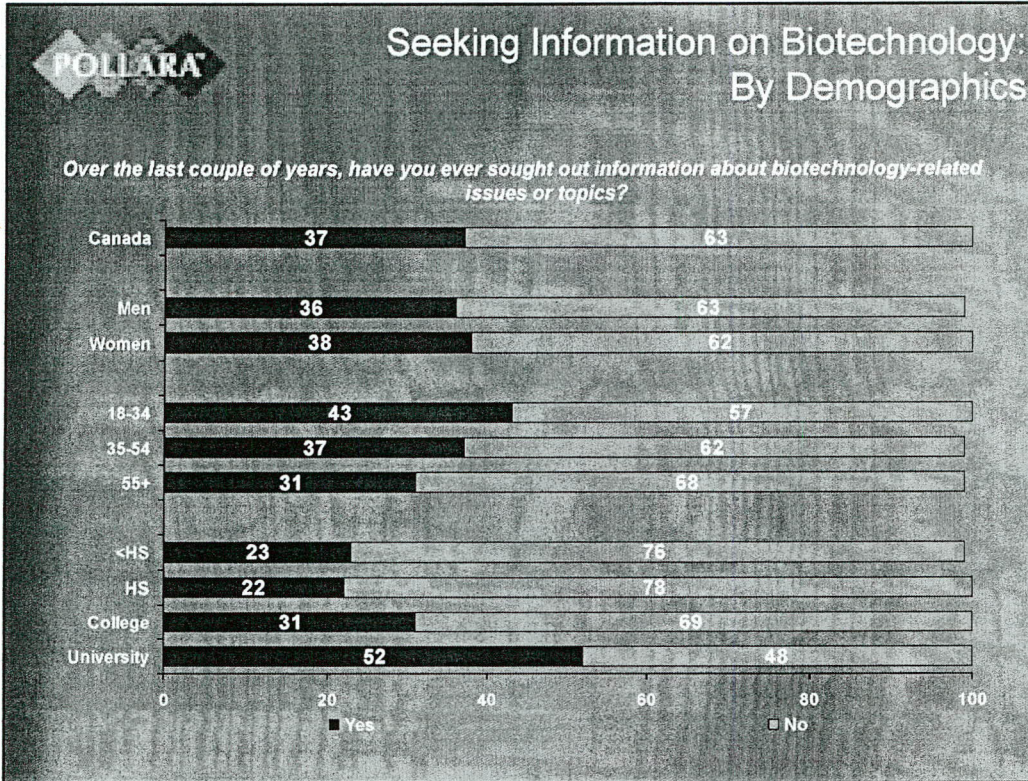


0 20 40 60 80 100
 ■ Very high priority ■ High priority ■ Lower priority

Information Seeking on Biotechnology

- Slightly more than one third say they have sought out information on biotechnology from any source
 - Half among involved Canadians
 - The main sources are similar for both groups, websites and the media
- Among those who have not sought out more information, the reason they most frequently gave was lack of available information and time
 - Little evidence of "barriers" to information
- Those who have sought out information in the past:
 - Tend to be younger
 - Have higher levels of education
 - Possess greater skepticism about the technology

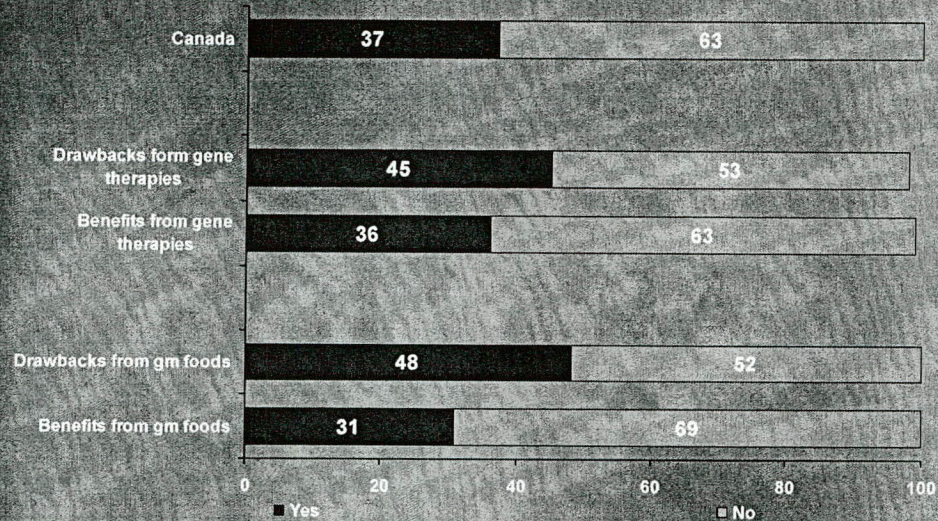




POLLARA

Seeking Information on Biotechnology: By Attitudes

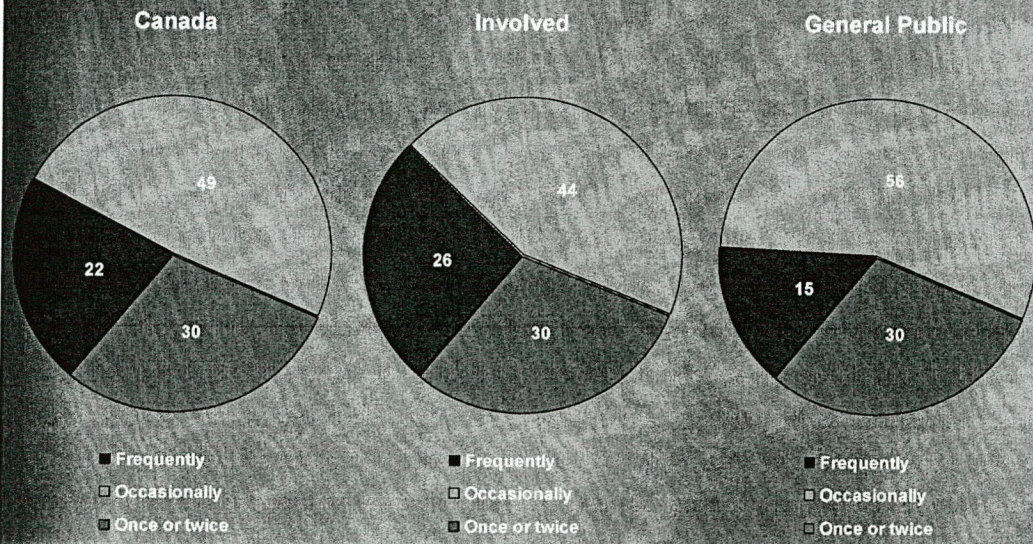
Over the last couple of years, have you ever sought out information about biotechnology-related issues or topics?



POLLARA

Frequency of Seeking Information

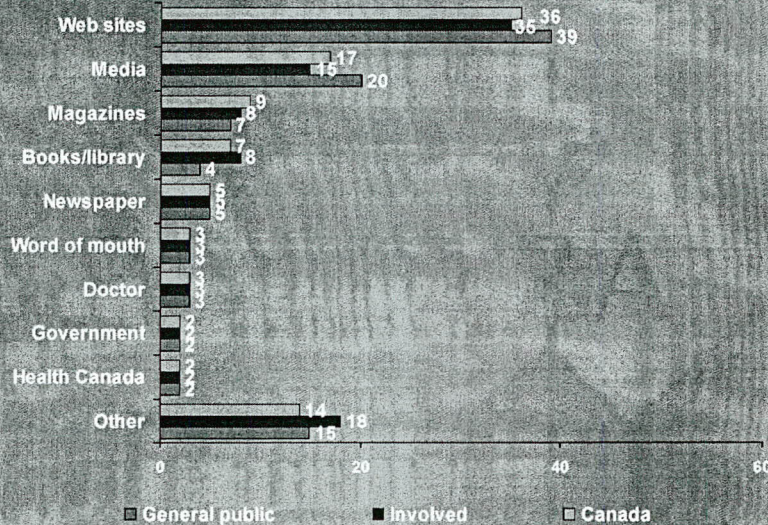
If yes:
Would that be frequently, occasionally or once or twice?





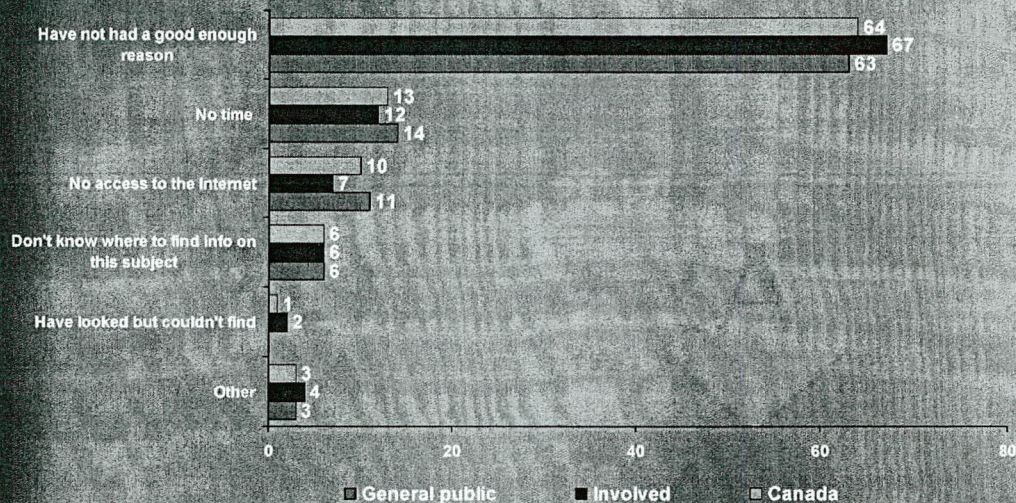
Sources of Information on Biotechnology

*If yes:
Where did you look for this information?*



Comparing Reasons for not Seeking Information

*If no:
Which of these is the main reason you have not done so?*





Barriers

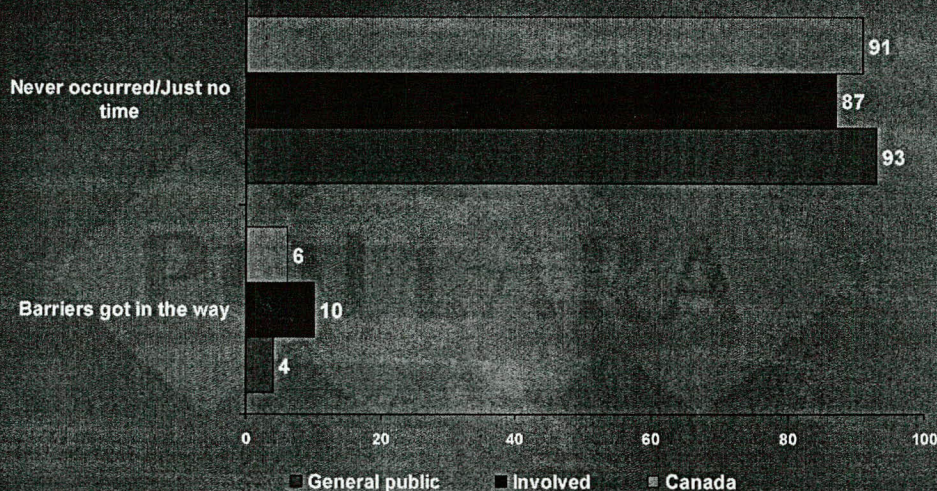
- Among the two thirds that have not sought information, respondents were asked directly whether they felt there were barriers to access or whether they had not had the inclination or interest in doing so
- The vast majority, more than 90%, said they had not had the time or inclination to do so
 - There was little to no evidence of "barriers" to information



Barriers to Information

If no (57% of the population):

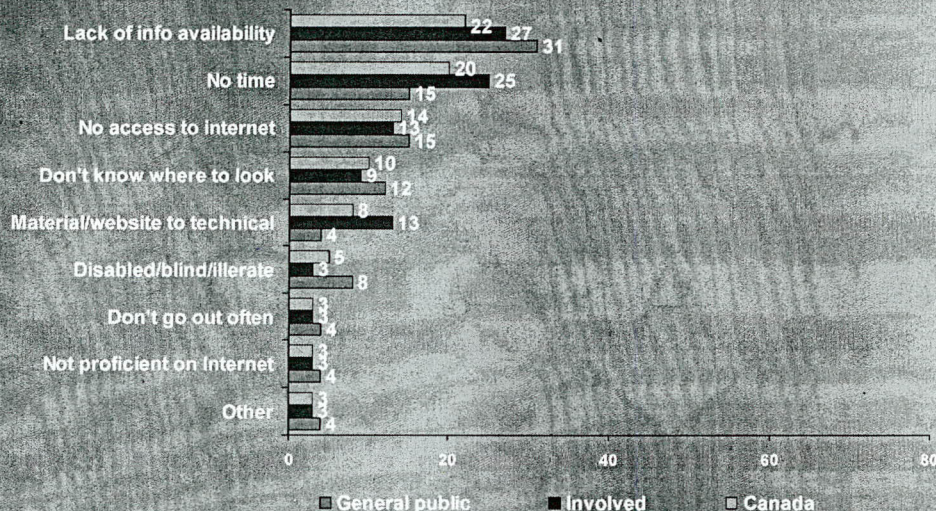
Overall, would you say that there were certain barriers or obstacles that got in the way of you seeking out more information on this topic, or was it just that you did not have time or it never occurred to you to find out more?



POLLARA

Comparing Barriers

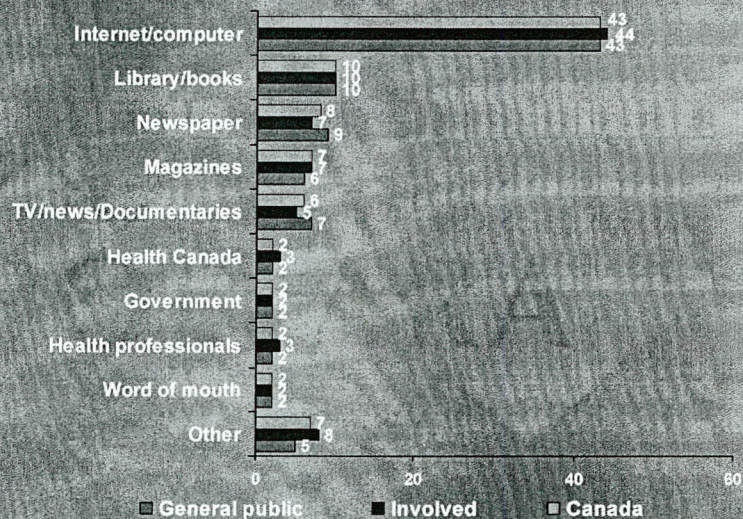
*If barriers (6% of the population):
What were those barriers or obstacles?*



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Future Information on Biotechnology

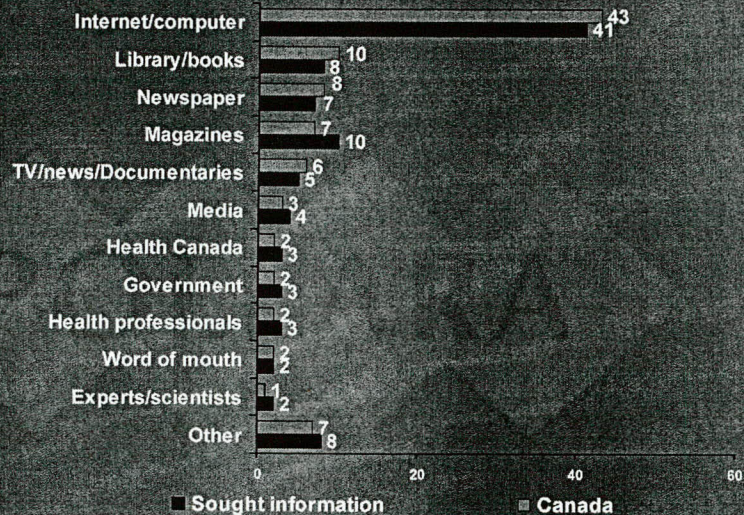
In the future, what source would you use to get information on biotechnology?





Future Information on Biotechnology: By Those Who Have Sought Information

In the future, what source would you use to get information on biotechnology?



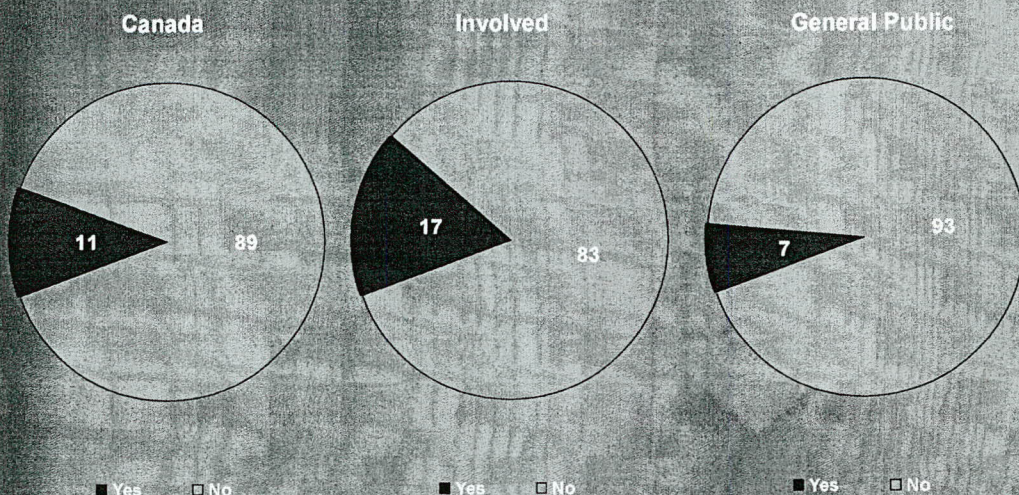
Information on Biotechnology from Health Canada

- One in ten say they have sought out information on biotechnology from Health Canada
 - 17% among involved Canadians
- The vast majority of these sought information using the Internet, through the Health Canada web site
 - Those who have sought information tend toward being younger, more educated, and express slightly higher levels of concern about the technology
 - But demographic/attitudinal differences not all that pronounced
- Among those who have not sought out more information, the reason they most frequently gave was lack of available information, and time
 - Only a handful (6%) suggested that there were barriers to them finding information



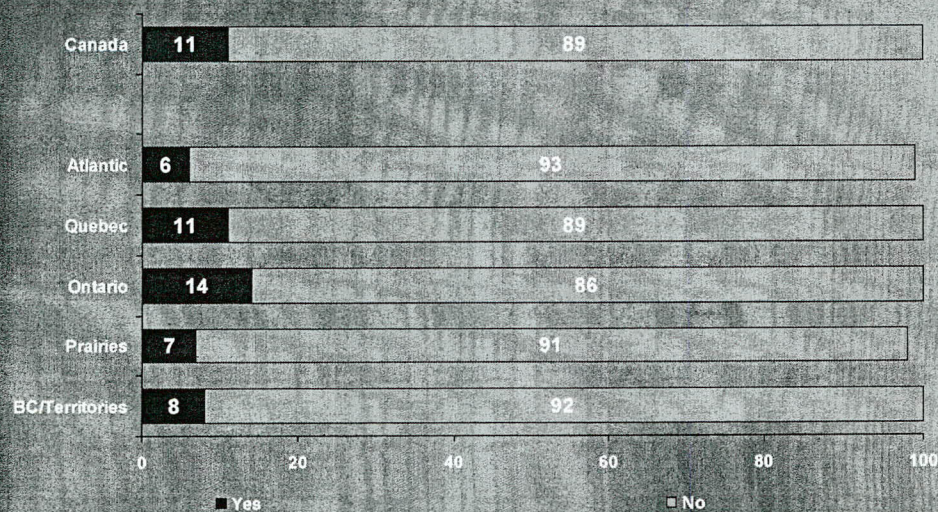
Seeking Information From HC

Over the last couple of years, have you ever sought out information about biotechnology-related issues from Health Canada?



Seeking Information From HC: By Region

Over the last couple of years, have you ever sought out information about biotechnology-related issues from Health Canada?



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Seeking Information From HC: By Demographics

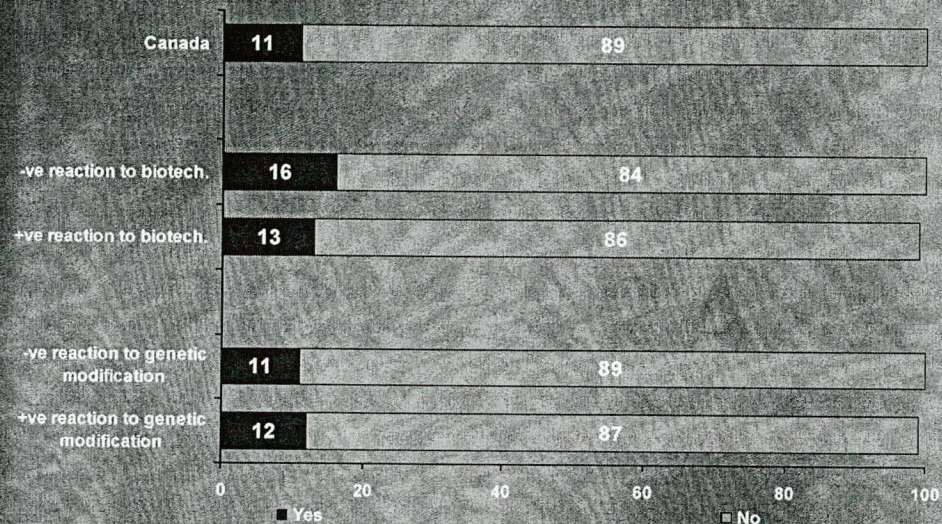
Over the last couple of years, have you ever sought out information about biotechnology-related issues from Health Canada?



POLLARA

Seeking Information From HC: By Attitudes

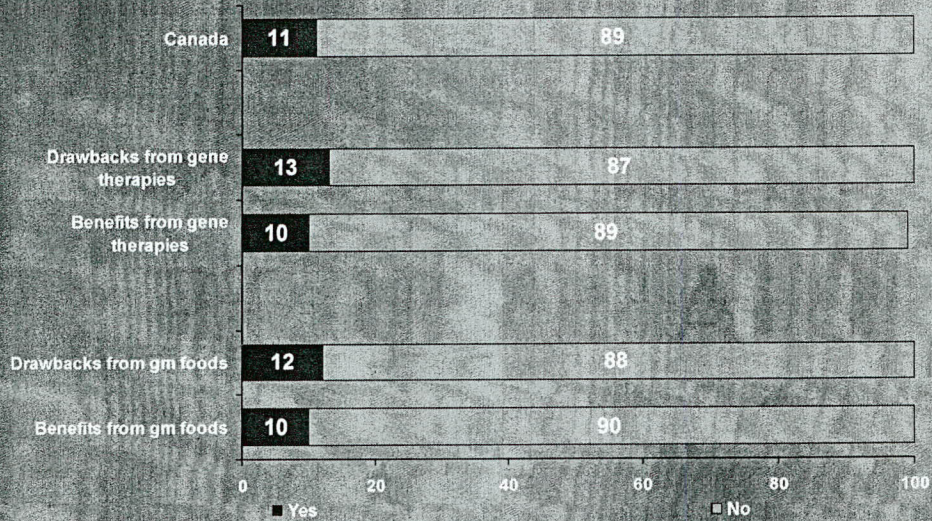
Over the last couple of years, have you ever sought out information about biotechnology-related issues from Health Canada?





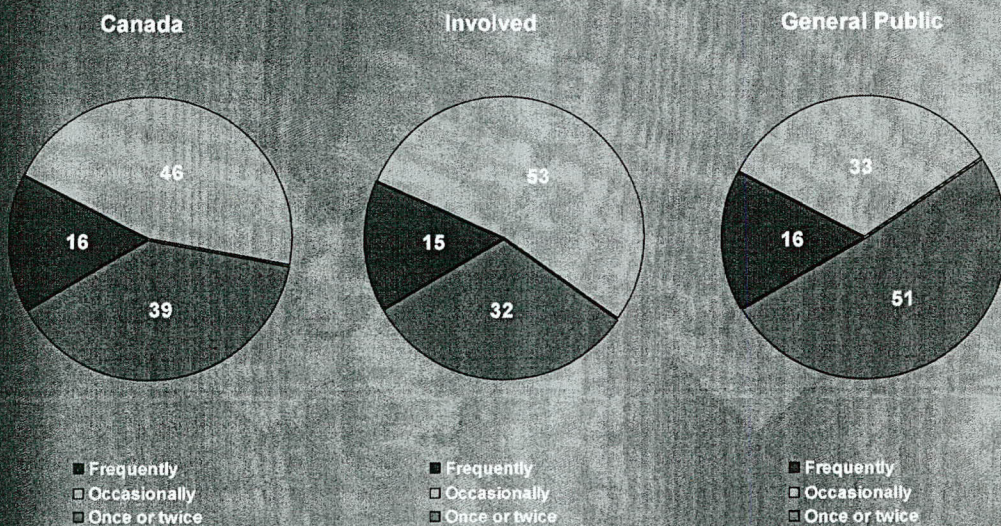
Seeking Information From HC: By Attitudes

Over the last couple of years, have you ever sought out information about biotechnology-related issues from Health Canada?



Frequency of Seeking information from Health Canada

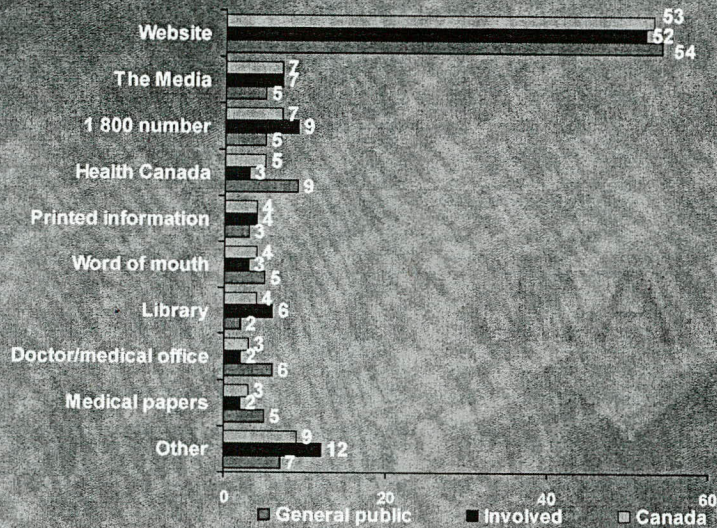
If yes:
Would that be frequently, occasionally or once or twice?



POLLARA

Seeking Information from HC: Sources

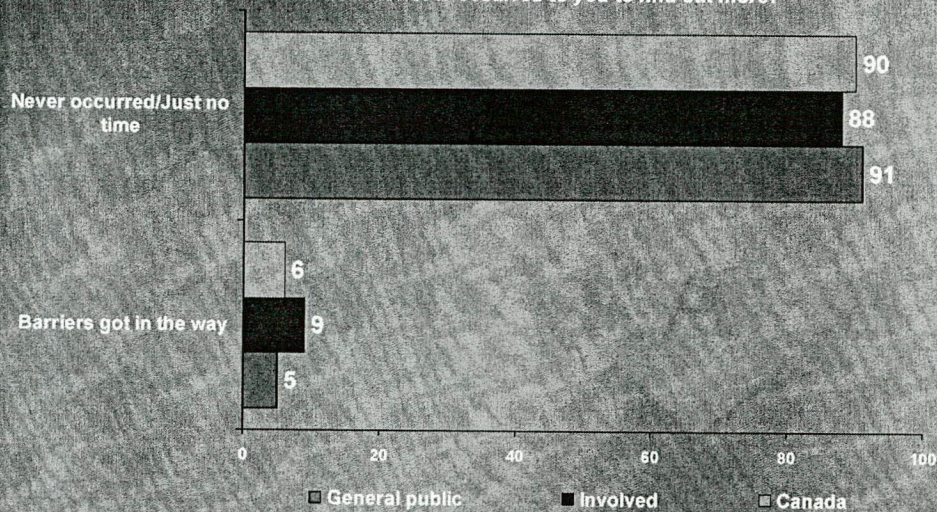
If yes:
Where did you look for this information?



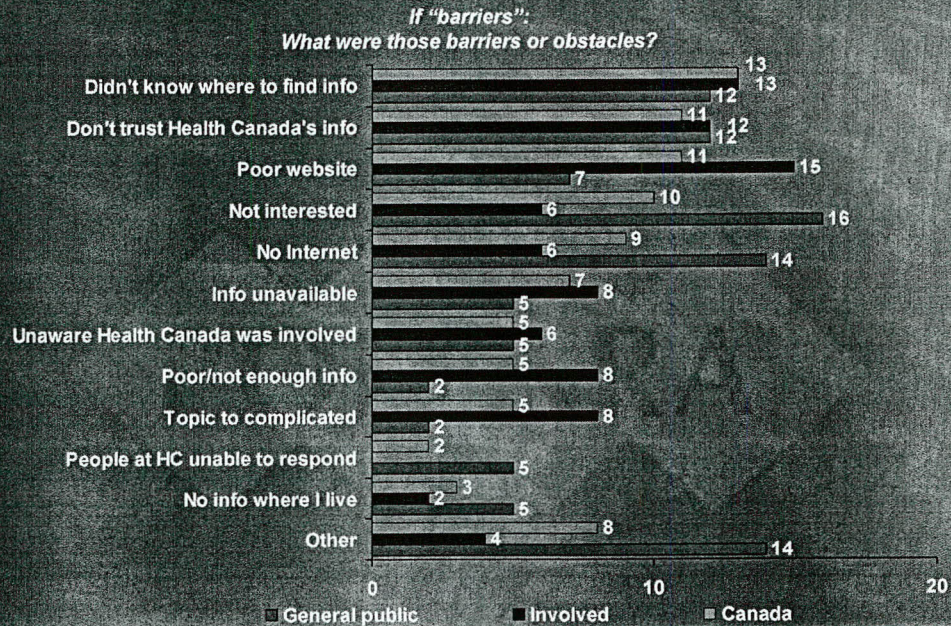
POLLARA

Barriers to Information

If no (89% of the population):
Overall, would you say that there were certain barriers or obstacles that got in the way of you seeking out more information FROM HEALTH CANADA on this topic, or was it just that you did not have time or it never occurred to you to find out more?



Comparing Barriers



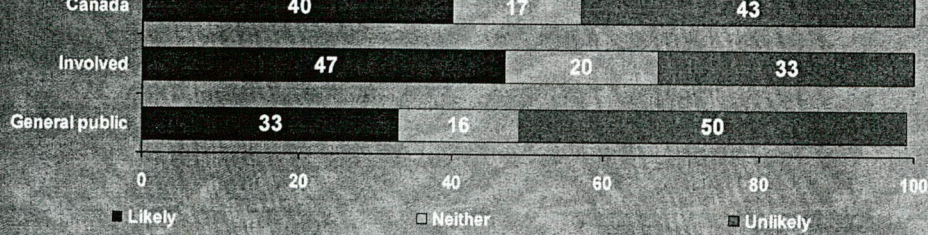
Interest in Information Going Forward

- More than four in ten say they would be "very" interested in seeking out more information about biotechnology in future
 - Rising to almost half among involved Canadians
 - Higher than average among women, higher educated, younger people
- Almost as many say they would seek information from Health Canada
 - Widely dispersed across the demographic and attitudinal spectrum
- The web is the preferred medium, particularly among Involved Canadians
 - Other than tv advertising (which is not financially feasible) the web is actually widely preferred over other mediums
- The data suggests that if interest piqued/triggered in some way, more might seek information, and use Health Canada as a major source
- Canadians also strongly expressed an interest in getting balanced information about the subject
 - With benefits, risks, and considerations associated with the subject
 - **Other research we have done strongly suggests that following principle of "balance" will have a significant affect on the credibility of the government on this file

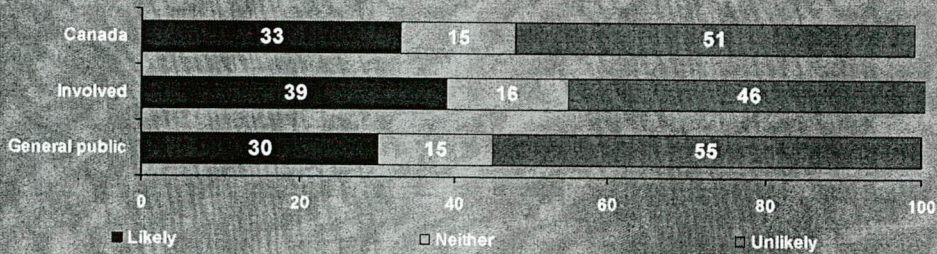
POLLARA

Seeking Information in the Future

Assuming for a moment that you did not participate in this study, thinking about the next year or two, how likely



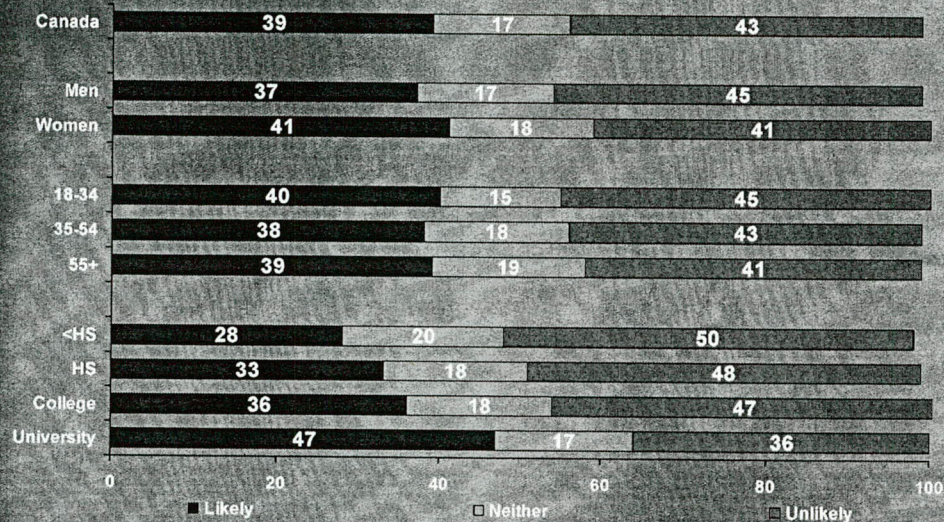
And how likely would it have been that you would seek out information on biotechnology from Health Canada?



POLLARA

Seeking Information in the Future: By Demographics

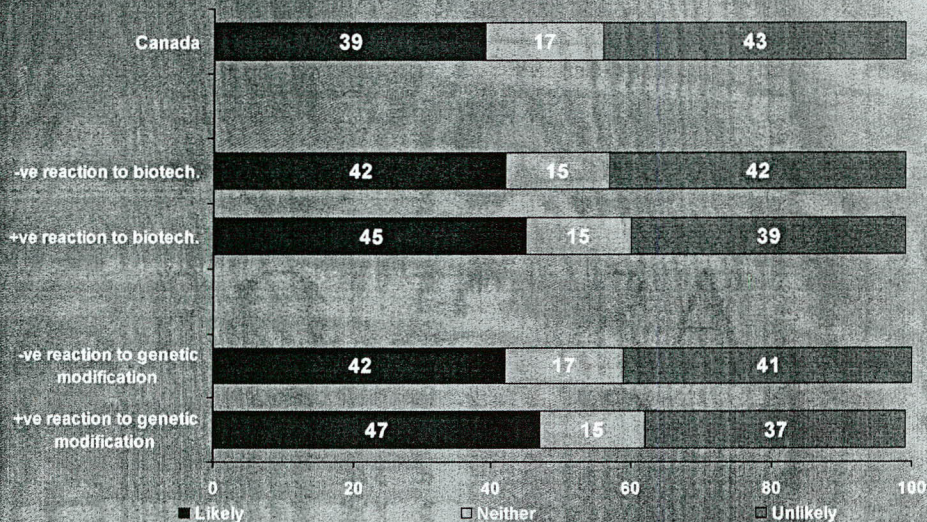
Assuming for a moment that you did not participate in this study, thinking about the next year or two, how likely would it have been that you would seek out information on biotechnology?



POLLARA

Seeking Information in the Future: By Attitudes

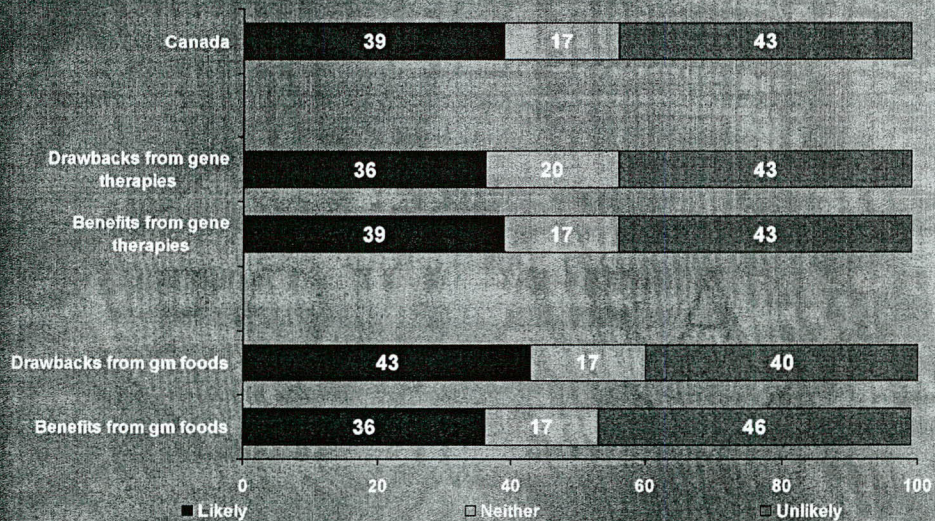
Assuming for a moment that you did not participate in this study, thinking about the next year or two, how likely would it have been that you would seek out information on biotechnology?



POLLARA

Seeking Information in the Future: By Attitudes

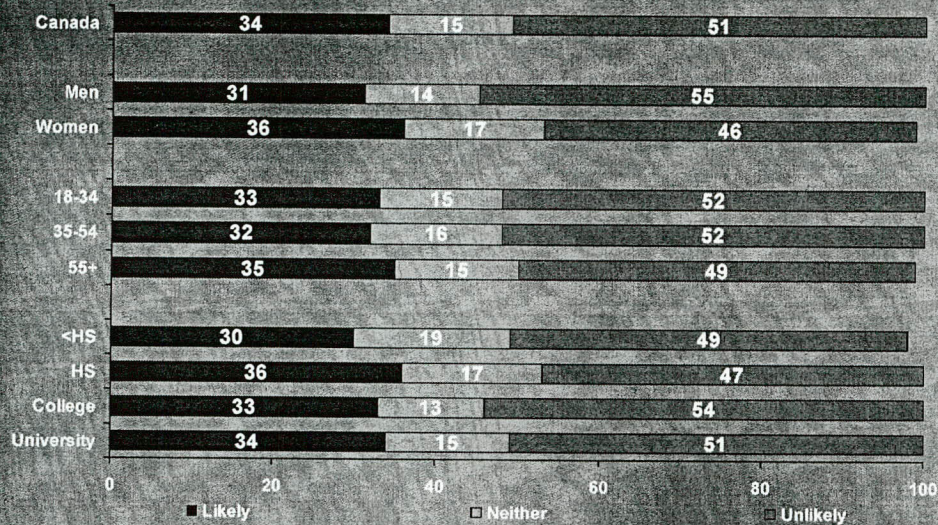
Assuming for a moment that you did not participate in this study, thinking about the next year or two, how likely would it have been that you would seek out information on biotechnology?



POLLARA

Seeking Information in the Future From Health Canada: By Demographics

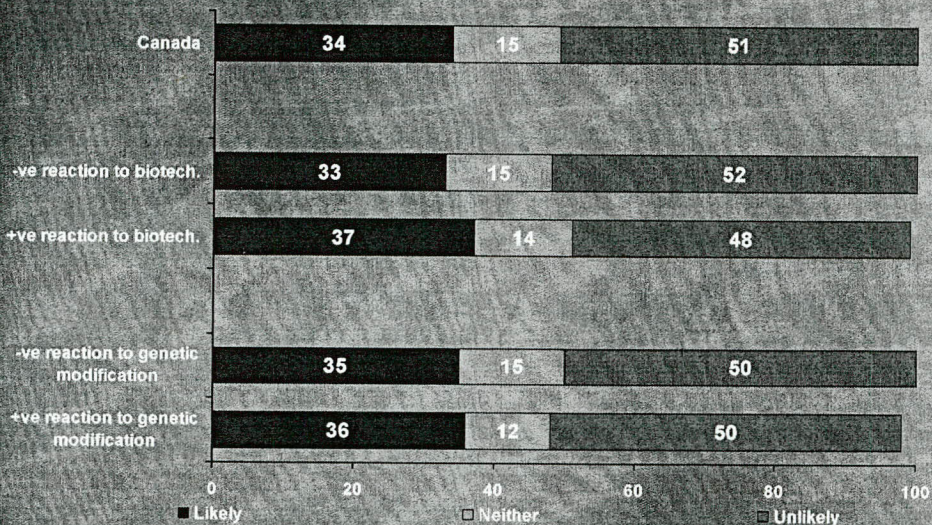
And how likely would it have been that you would seek out information on biotechnology from Health Canada?



POLLARA

Seeking Information in the Future From Health Canada: By Attitudes

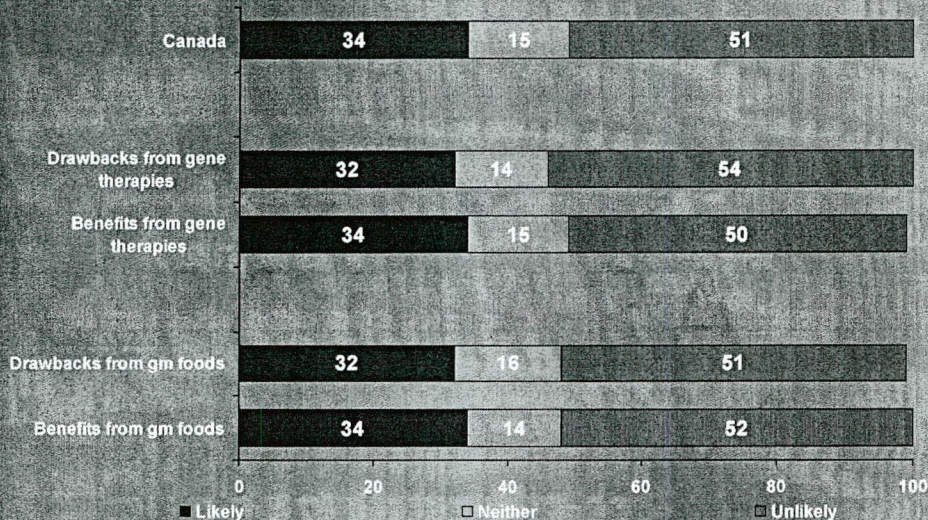
And how likely would it have been that you would seek out information on biotechnology from Health Canada?



POLLARA

Seeking Information in the Future From Health Canada : By Attitudes

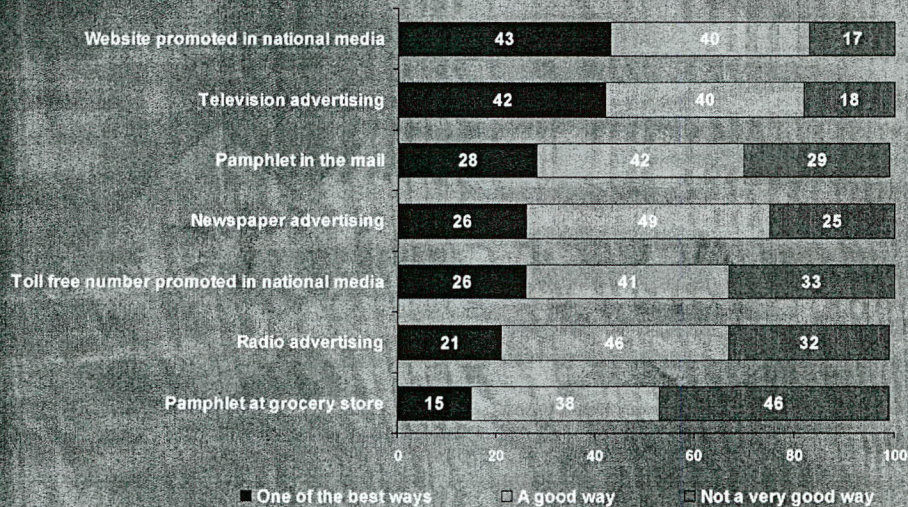
And how likely would it have been that you would seek out information on biotechnology from Health Canada ?



POLLARA

Preferred Sources of Information: Canada

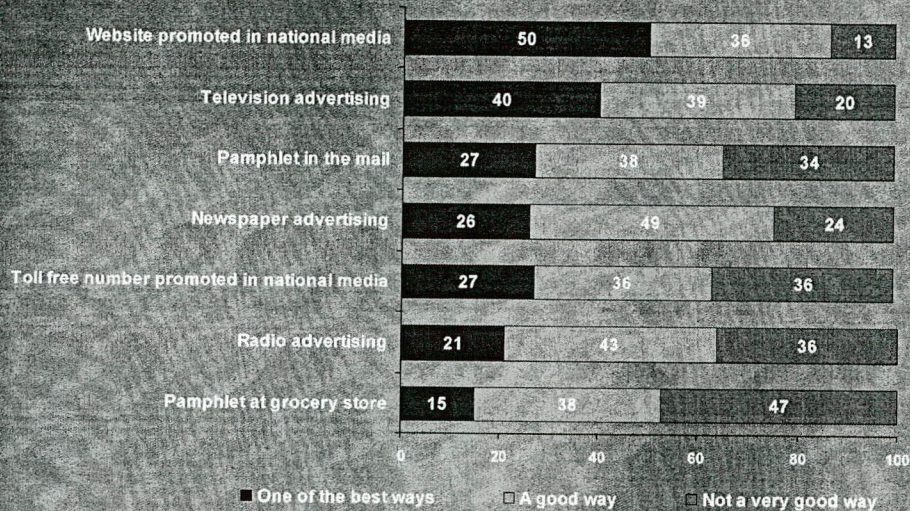
Of the following potential information sources on these issues, would you say each of the following would be one of the best ways of communicating with you, a good way but not one of the best, or not a very good way?



POLLARA

Preferred Sources of Information: Involved Canadians

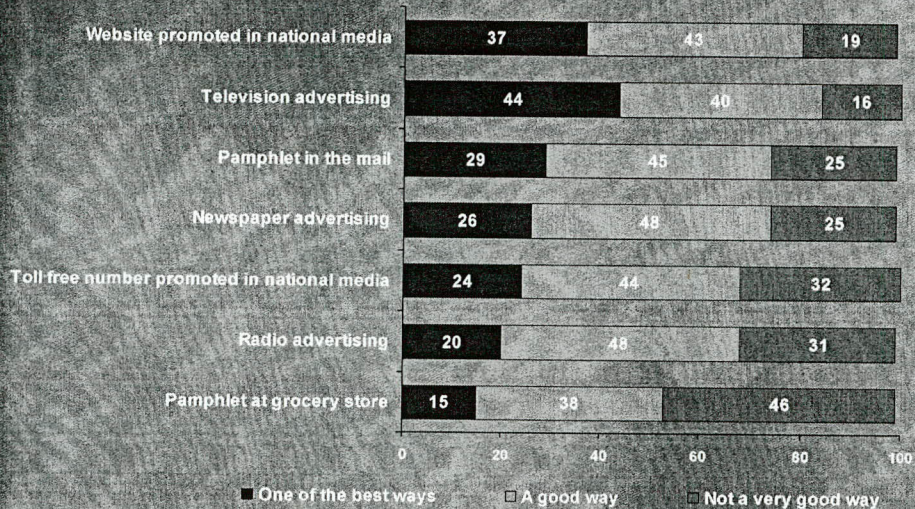
Of the following potential information sources on these issues, would you say each of the following would be one of the best ways of communicating with you, a good way but not one of the best, or not a very good way?



POLLARA

Preferred Sources of Information: General Public

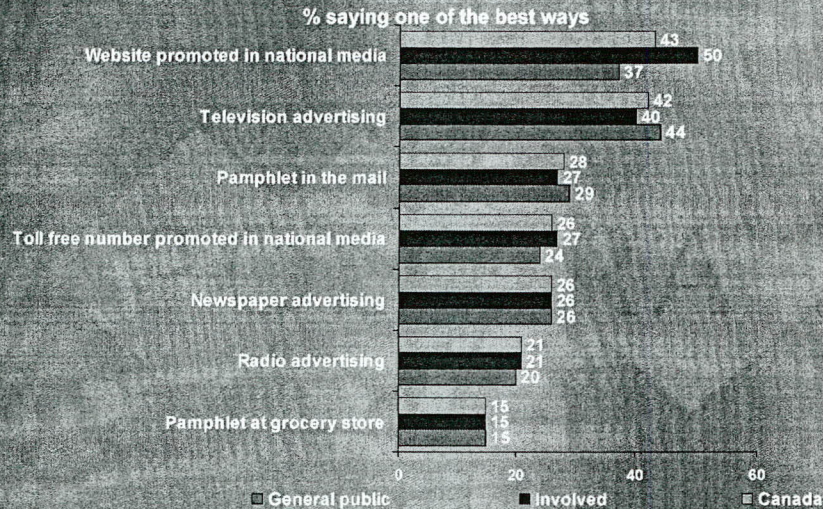
Of the following potential information sources on these issues, would you say each of the following would be one of the best ways of communicating with you, a good way but not one of the best, or not a very good way?



POLLARA

Comparing Preferred Sources

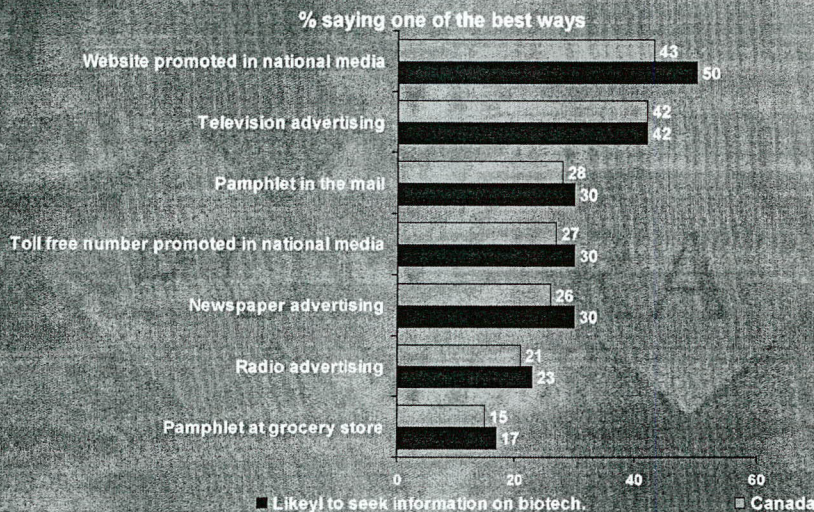
Of the following potential information sources on these issues, would you say each of the following would be one of the best ways of communicating with you, a good way but not one of the best, or not a very good way?



POLLARA

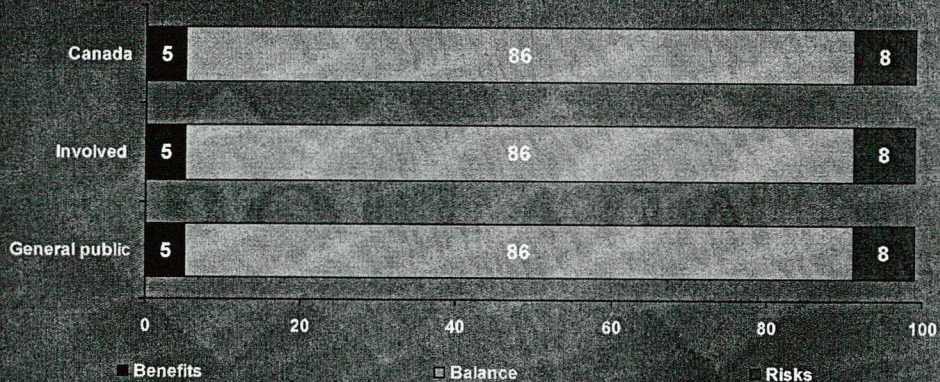
Preferred sources: By Those Who are Likely to Seek Out Information on Biotech.

Of the following potential information sources on these issues, would you say each of the following would be one of the best ways of communicating with you, a good way but not one of the best, or not a very good way?



Preferred Content of Information

And in terms of communicating with the public on these issues, would you like government to communicate with Canadians mostly about the risks of these technologies, mostly about the benefits, or a balance between benefits and risks?



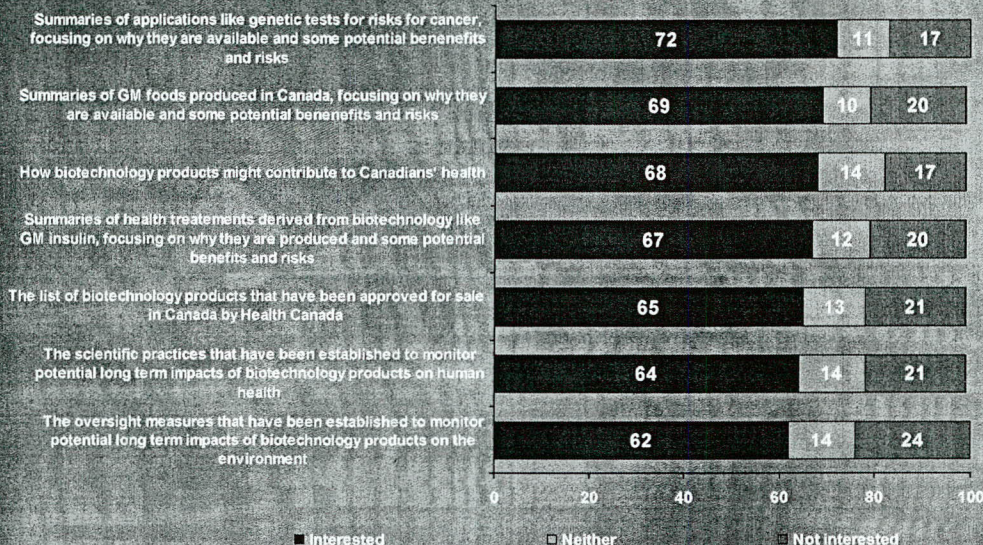
Information on Biotechnology

- Canadians expressed interest in a number of subjects associated with biotechnology
 - The information they were most interested in related to specific applications in health and food
 - Their interests were very practical:
 - What the products are
 - Why they were produced
 - What kinds of research was done to ensure they are safe
- Other topics, like the elements and structure of the regulatory system were of secondary importance
- The hierarchy of importance was almost exactly the same among Involved Canadians as among the general public
 - But involved Canadians expressed more interest in most topics than the general public

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Interest in Information: Canada (1)

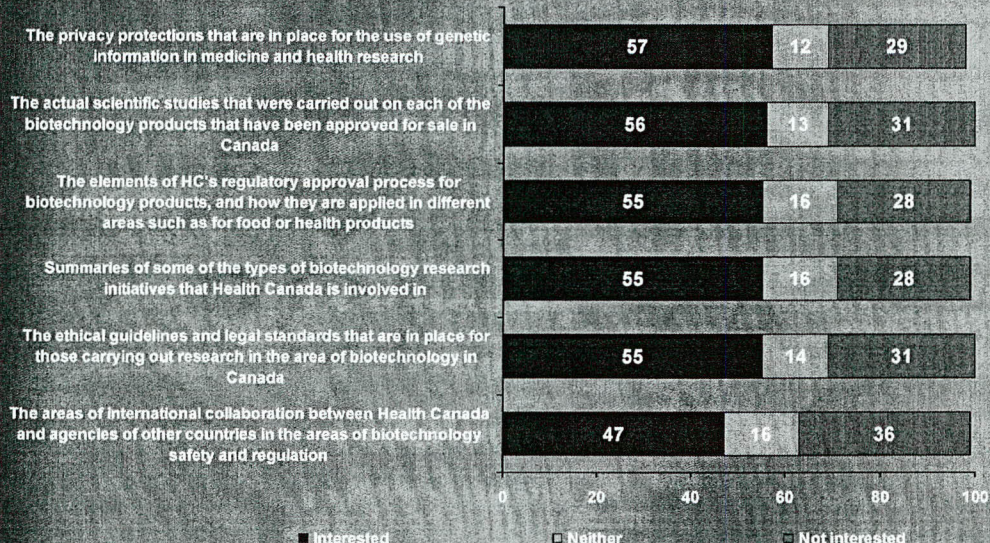
For each of the following, please indicate how interested you are in getting information about that subject



POLLARA

Interest in Information: Canada (2)

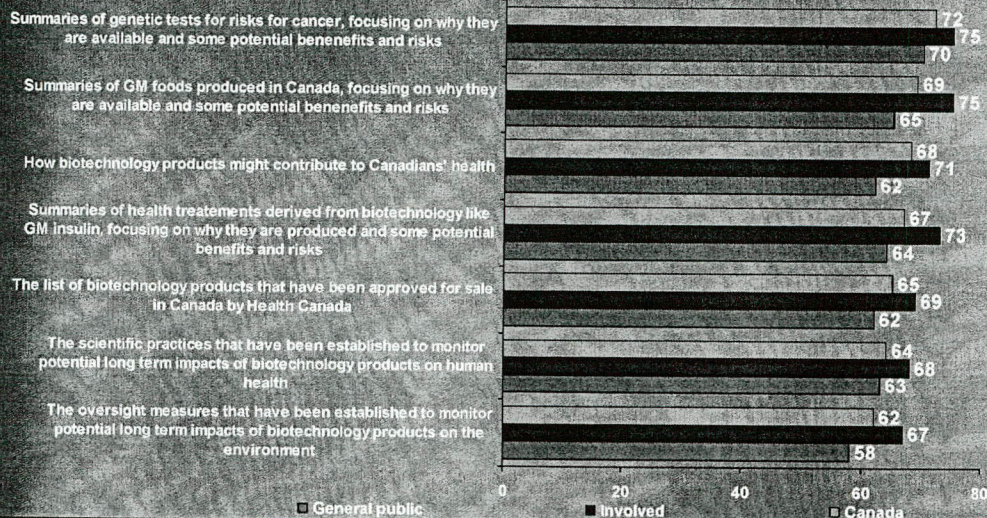
For each of the following, please indicate how interested you are in getting information about that subject



Comparing Interest in Information (1)

For each of the following, please indicate how interested you are in getting information about that subject

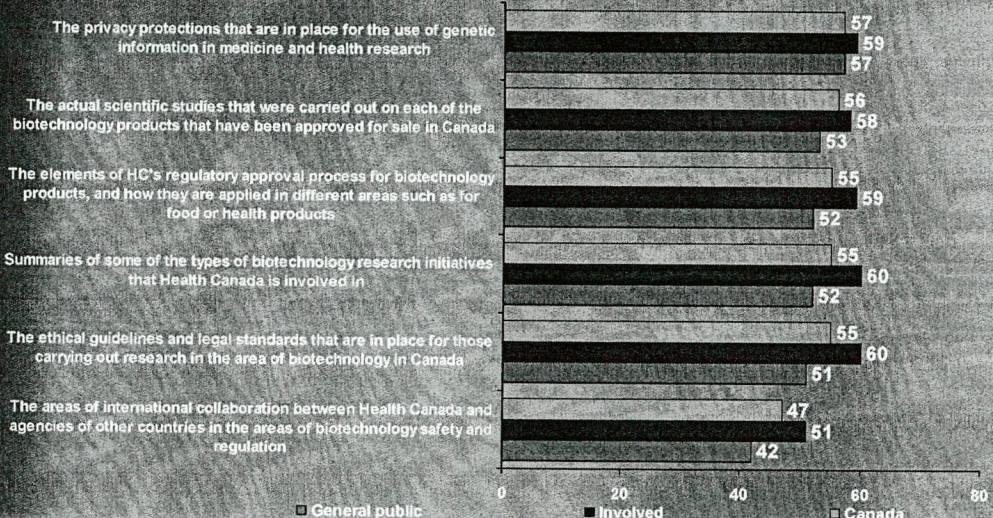
% saying interested



Comparing Interest in Information (2)

For each of the following, please indicate how interested you are in getting information about that subject

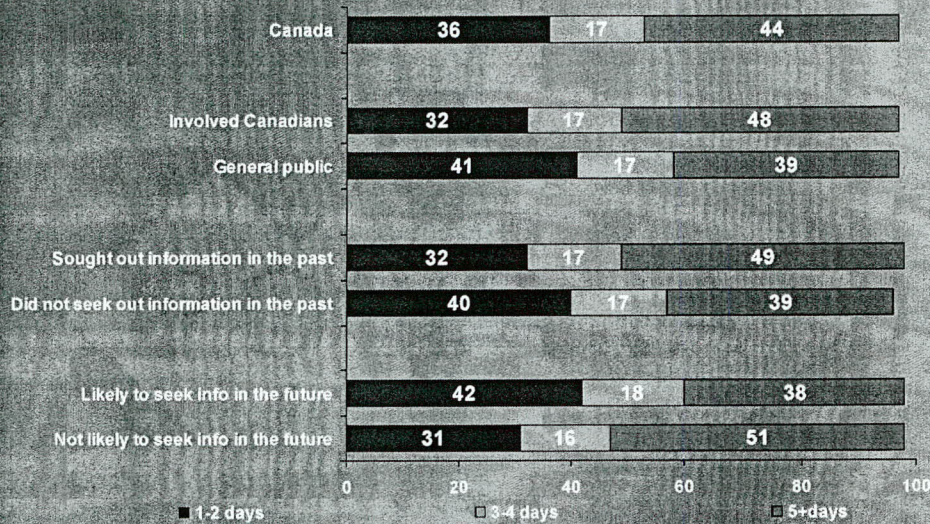
% saying interested



POLLARA

Media Consumption

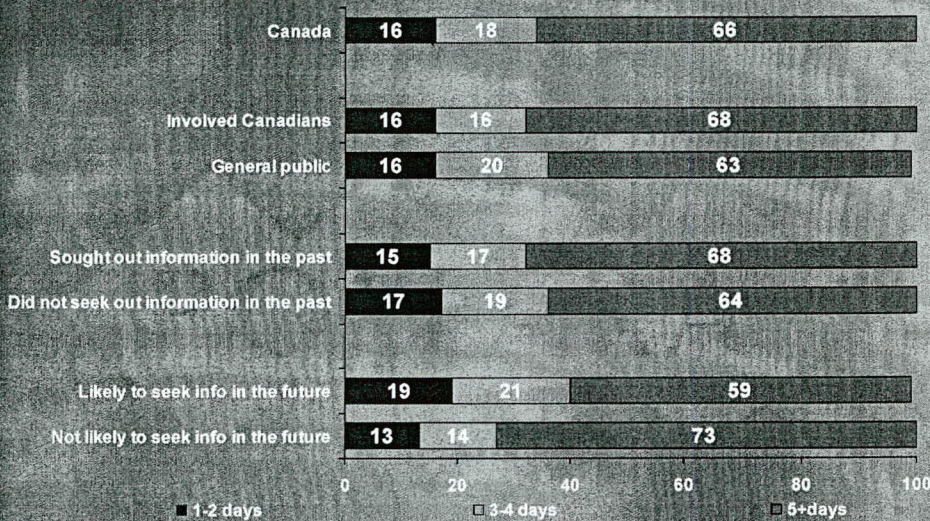
How many days per week do you read the front page of a national paper?



POLLARA

Media Consumption

How many days per week do you watch the national news?



- Canadians see much promise in many health and environmental applications of biotechnology, less so in agricultural applications
 - While they harbour concerns, particularly about long term risks and stewardship, they tend to be cautiously optimistic about the benefits of these technologies
- Most are unaware of Health Canada's roles and activities with regard to biotechnology, and the data suggests that HC doesn't appear to be a top of mind source for information now
- Nevertheless, there is a fairly high degree of confidence in Health Canada's ability to manage risks, among both the general public and involved Canadians
 - Owing largely to confidence born from other aspects of Health Canada's mandate

- Involved Canadians are much more likely to have sought out information on biotechnology
 - Overall and from Health Canada
- All Canadians express some interest in having access to more information from about biotechnology from Health Canada in future
 - Involved Canadians in particular
- Most would prefer to get this information from a website
 - They expect the information to cover a range of subjects, with particular emphasis on the various applications and how those applications might affect them
 - Most importantly, people seek balance in the information provided – providing balanced information is central to Health Canada's credibility on the topic