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Final Report Attitudes, Knowledge, and Expectations about Radiation Risk from Exposure to Radiation Emitting Devices

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Attitudes, Knowledge, and Expectations about Radiation Risk from Exposure to Radiation Emitting Devices Final Report

Prepared for: Health Canada Supplier Name: The Strategic Counsel

This public opinion research report presents the results of an online survey conducted by The Strategic Counsel on behalf of Health Canada. The research study was conducted with 5,000 Canadians, aged 16 and older, in February 2022.

Cette publication est aussi disponible en français sous le titre: Attitudes, connaissances et attentes relatives aux risques radiologiques associées à l'exposition aux dispositifs émettant des radiations.

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I. Executive Summary

Executive Summary

A. Background and Objectives

Technological advances have led to an increase in the number and type of radiation emitting devices with applications across all sectors. A global marketplace, with e-commerce and direct-to-consumer sales, has resulted in a growing number of radiation emitting devices becoming more readily available to consumers and industry in Canada.

The emergence of these new radiation emitting technologies (e.g., 5G networks) has led to increased requests for information on human exposures, potential health risks, and regulatory oversight and guidance. It has also increased the dissemination of misinformation and disinformation regarding the health risks posed by these technologies.

Radiation emitting devices include any devices that emit radiation in the form of X-rays, ultraviolet (UV) light, visible light, infrared (IR), and radiofrequency (RF) waves or acoustical waves (audible sound, infrasound, ultrasound). Radiation emitting devices have a wide range of applications, including:

- Consumer products (e.g. microwaves, laser pointers, cell phones, lighting products, noisy toys, power tools)
- Medical devices (e.g. CT scanners, X-ray imaging, ultrasound, MRI)
- Pest management products (e.g. UV sterilizers, lasers, sound cannons, ultrasound)
- Industrial, commercial, security, and research devices (e.g. cell phone towers, wind turbines, full body security scanners, analytical X-ray devices)

The health effects from exposure to radiation depend on the type of radiation, intensity of radiation, duration of exposure, and where on the body a person is exposed.

For the purpose of this study, radiation emitting devices do not include devices that emit nuclear radiation or devices that contain radioactive materials.

The primary objective of this research study is to establish baseline data on Canadians' attitudes, beliefs, knowledge, and expectations about the radiation risks from exposure to radiation emitting devices. This information helps inform the development and implementation of effective knowledge mobilization plans and activities that can be adapted to specific target audiences.

Specifically, the survey was designed to:

- Understand how and when Canadians use radiation emitting devices;
- Explore Canadians' perceived risks related to exposure to radiation emitting devices, including which devices concern them the most;
- Evaluate Canadians' knowledge on the topic of radiation emitting devices and understand where gaps exist;

- Identify how and where Canadians would like to receive information on radiation emitting devices, including which sources they trust most; and
- Find out what level of knowledge Canadians have regarding the federal legislation that applies to radiation emitting devices, including the *Radiation Emitting Devices Act*.

Insights from this study, along with other related information gathered by Health Canada, will inform the Department in areas related to:

- Protecting the health and safety of Canadians;
- Providing accurate information to intermediaries and stakeholders which can be incorporated into policy, practice and programs at the community level; and
- Offering information to Canadians which will help enhance their understanding of risks and inform their decisions on how they use radiation emitting devices and their level of exposure.

B. Methodology

This research was undertaken between February 3rd and 14th, 2022 among 5,000 Canadians, aged 16 and older. Respondents were profiled, selected, and screened through the use of a nationally representative online panel. Due to the opt-in nature of online polls, a margin of error cannot be calculated. As such, conclusions from these results are not generalizable to the population of Canadians, aged 16 and older. However, the robust sample sizes achieved for each age cohort, across genders and by region do permit sub-level analysis which yields valid and useful insights on key demographic and regional variations.

The survey employed a non-probability sampling procedure utilizing quota sampling. In order to obtain a final sample which was nationally representative, interlocking quotas for region, gender, and age were established as part of the sample design, based on the latest Statistics Canada Census data. This means that a target size for each combination of variables was defined at the outset of the project (e.g., young men, young women, older men, and older women in each province or region). The target quotas for each of these cells were closely monitored throughout the survey period. Due to simultaneous completions and the relatively short duration in field, some cells were not filled while others had too many completions. As such, a series of light weights were applied, again interlocking the three variables noted above (region, gender and age), to make final corrections to the data and ensure the final sample reflected the original distribution according to Census data. The weighting scheme is provided in Section IX – Detailed Methodology.

More information about the respondents to this survey, in terms of standard demographics such as gender, age, educational attainment, household income, employment status and type of work, ethnicity, language, region or province, and community size can be found in Section IX - Respondent Profile.

The tables shown throughout this report include both the totals for each question, as well as break-outs by gender and age:

- Gender: Male or female (for reporting purposes, the terms "male" and "female" refer to participants' gender identity, unless otherwise noted). As the 'other' category contained very few respondents (<1%, n=14), this data is not shown in the tables; and
- Age: 16-34, 35-54, and 55 or over. The data tables include a further break-out for those 16-17, 18-24, 25-34, 35-44, 45-54, 55-64 and 65 or older. As relevant, the more precise age breaks are referred to in the analysis where statistically significant differences were evident and provide additional insight into age-related variations.

Other statistically significant regional and demographic variations are also described in the narrative, as relevant. The pertinent data can be found in the data tables which accompany this report.

Conducting the survey online was deemed to be the most appropriate approach for a range of reasons, including:

- The large sample size (n=5,000);
- A desire to include a component of Canadians aged 16 and 17 within the sample;
- The somewhat technical nature of the topic which would not lend itself particularly well to a telephone survey; and
- The need to include detailed explanations and descriptions within the survey to enhance clarity and respondent understanding, as well as to avoid any misinterpretation, which could then adversely affect the validity of the data.

Online surveys also provide respondents with more time to consider their responses, which improves the integrity of the data. The average length of this survey was 15 minutes, although some respondents completed the survey in less/more time, depending on their use of radiation emitting devices and their perspective on the issues explored.

All sub-group differences noted in the report are considered significant based on T-Test for Means and Z-Test for percentages.

More information about the survey methodology can be found in Section VIII – Detailed Methodology.

C. Key Findings

Respondents to the survey were shown a list of 12 radiation emitting devices and asked whether or not they had used them in the last 12 months. The proportion of those who reported having used each device varied quite widely, depending on the device. For example, very few (2%) reported having used a tanning bed in the past year, while many (86%) have used wireless communications products such as Wi-Fi, Bluetooth, or cell phones within this timeframe (Table 1 in the Detailed Report).

Although usage of these devices was largely dependent on age, and to some extent socio-economic status (educational attainment, household income, and employment status), a relatively high proportion of the population reported having frequently used a variety of products. Daily use, among those who reported using the device within the past year (Table 2), was highest for:

- Wireless communications products (89%);
- 5G enabled products (87%);
- LED light bulbs (81%);
- Wearable technologies (76%); and
- Microwave ovens (58%).

Frequent usage (meaning use on either a daily or weekly basis) of other devices was also high. Of those who reported having used headphones or ear buds in the past 12 months (61% of respondents), many reported using them frequently (40% daily; 42% weekly). This is also the case for UV disinfection products (33% daily; 33% weekly), and noisy products (11% daily; 47% weekly), although very few respondents reported using these types of devices in the last year (9% and 11%, respectively).

A small proportion reported using tanning beds (2%), head mounted displays (6%), or handheld or other portable laser devices (11%) within the last year. Of these, one-third or more reported using them on a frequent basis – tanning beds (4% daily; 42% weekly), head mounted displays (8% daily; 29% weekly) and handheld or other portable lasers (10% daily; 25% weekly).

For those who have used a cell phone or smart phone within the past 12 months, talking in 'hands-free' mode or using headphones was not reported as a common practice (Table 4). Most reported holding the cell phone to text or to use apps (54% all of the time; 29% most of the time) and directly to their ear when talking (20% all of the time; 31% most of the time). Fewer respondents reported talking on 'hands-free' mode on a frequent basis (9% all of the time; 25% most of the time) or using headphones to talk, listen to music or podcasts, or to watch videos/play games (15% all of the time; 19% most of the time).

Among the few respondents (11%) who had used noisy products in the last year, defined as products which are so loud that you need to shout to communicate with someone next to you, use of hearing protection devices such as ear muffs and ear plugs was not particularly common (Table 5). About one-third of those who have used noisy products in the past 12 months reported using hearing protection either all of the time (12%) or most of the time (23%).

Overall, most survey respondents were not particularly concerned about daily or regular use of products discussed in the survey that emit various forms of radiation (Table 6) – two-thirds were either 'not too concerned' (42%) or 'not concerned at all' (24%).

When asked, however, to rate the level of harm associated with each of the 12 different types of products examined in this survey (Table 9), a majority of respondents rated two as 'extremely/very harmful' to health – tanning beds and noisy products (59% for each device). Most also indicated they would be 'very/somewhat concerned' about their own personal health and safety (Table 11) if using a tanning bed (74%) or noisy products (70%). The level of concern related to the use of all other product was considerably lower by comparison (ranging from 15% for LED light bulbs to 36% for the whole-body scanners used at airport security).

Many were uncertain regarding what forms of radiation are associated with each of the devices tested – those who indicated they 'don't know' ranged from about one-quarter (23%) for microwave ovens to two-thirds (65%) for virtual reality goggles (Table 7). Notably, among those devices that are used more frequently, large proportions were uncertain as to what types of radiation are emitted by each, including: LED light bulbs (46% responded 'don't know'), Wi-Fi or Bluetooth devices (47%), computer monitors (46%), and cell phones (41%). Many were also unsure of the type of radiation emitted from smart watches (58%), although these were used with less regularity over the last 12 months, compared to the other products or devices. In addition, about half of the respondents acknowledged being unfamiliar with the type of radiation emitted from standard diagnostic or medical procedures, including CT scanners (52%) and MRIs (47%).

Respondents were generally aware of key facts and myths associated with the various devices, based on their responses to a series of statements which they were asked to evaluate as either true or false (Table 8):

- Medical doctors can reverse hearing damage caused by exposure to loud noises (89% correctly believed this to be false).
- Getting a base tan using a tanning bed <u>does not</u> protect against skin cancer from future exposure (82% correctly claimed this was true).
- Laser pointers are safe if the spot of light they make on a wall is not very bright (75% responded correctly that this is false).
- There is no convincing scientific evidence to date proving a link between cell phone use and cancer (62% correctly believed this to be true).
- The amount of radiation from an X-ray of the wrist is the same as for a chest X-ray (53% incorrectly reported this is true).
- You should receive an X-ray at least once every two years when visiting the dentist whether or not there is a dental concern (50% correctly believed this to be false).
- With respect to UV disinfecting products, just one in five (20%) incorrectly believe they are effective at killing 100% of germs.

Respondents reported learning about product safety from a wide range of sources (Table 14), including Google-based online searches (39%), various news sources (29%), health care providers (28%), the Health Canada website (26%) and manufacturers' websites (25%). Internet messaging platforms and social media were less commonly referenced for this purpose (anywhere from 1% to 7% of respondents cited these as sources).

Official sources, responsible for public health and safety or with scientific expertise, were among the most trusted (Table 15). Asked to identify their three most trusted sources, respondents selected the Health Canada website (42%), scientists (30%), and health care providers (29%). The Government of Canada website followed these at 28%. Findings also suggest that Canadian sources were seen as far more trustworthy relative to U.S. or international sources (e.g., the U.S. Food and Drug Administration (FDA) and the World Health Organization (WHO)).

There were modest to low levels of awareness of the laws in place to protect the health and safety of Canadians (Table 16). Awareness of the Food and Drugs Act (49%) and the Canada Consumer Product Safety Act (39%) was higher relative to familiarity with other legislation such as the Pest Control Products Act (21%), the Radiocommunication Act (20%), and the Radiation Emitting Devices Act (15%).

Overwhelmingly, most respondents (90%) expected the federal government to continue to protect Canadians from radiation risk from products available in Canada (Table 18). Most were confident that the Government of Canada is effectively carrying out this function. A majority were of the view that the laws regulating radiation emitting devices in Canada are adequate (73%) and that the Government of Canada provides sufficient information on the safety of radiation emitting devices (60%).

Many believed the radiation emitting devices available to Canadians are safe (70%), although there was more doubt about products purchased online versus in-store. While almost half (47%) said they 'fully trust' that products purchased in-store or in-person meet Canadian safety laws, this number dropped to onequarter (23%) for those purchasing products online (Table 17).

About one in five of those surveyed (21%, or n=1072 respondents) reported experiencing a safety issue with any of the devices discussed in the survey (Table 19). About equal numbers said they had:

- Encountered a defective product (6%);
- An issue with product labelling or instruction (4%); or
- Experienced an injury (4%).

Four device types appear to be linked to a higher number of the issues reported by respondents, including noisy, loud products (28%), tanning beds (28%), head mounted displays such as virtual reality goggles/smart glasses (22%) and UV disinfection products (19%).

Some respondents (16%) were aware of Health Canada's online reporting system (Table 20), which allows Canadians to report problems related to a product such as injury, death, product defects, or labelling concerns. Very few respondents (2% overall) recall having used it (Table 21).

D. Conclusions

The use of radiation emitting devices by respondents within the last 12 months varied markedly depending on the type of device and age group. Wireless communications products, headphones or ear buds, and microwave ovens were used with a high degree of regularity.

In general, respondents expressed low to modest levels of concern about the regular use of these types of products and devices. While most were generally knowledgeable of select facts and myths associated with the use of certain radiation emitting devices, many acknowledged there was a lot they did not know about these products. In particular, many were unaware of the types of radiation emitted by these products.

Most believed that information related to product safety tends to be readily available and adequate. The results, however, also suggest that there are opportunities to raise levels of public awareness in regards to:

- The risks associated with radiation emitting products and devices;
- Safety tips and best practices for their use,
- The current regulatory framework to protect the health and safety of Canadians; and
- The Health Canada online reporting system for those who do experience an issue with these types of products.

Note to Reader

The results reported herein reflect the behaviours, attitudes, and perceptions of a sample of Canadians with respect to radiation emitting devices. Unless otherwise noted, results shown in this report are expressed as percentages and may not add up to 100% due to rounding and/or multiple responses to a given question.

MORE INFORMATION	
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Statement of Political Neutrality

I hereby certify as a Senior Officer of The Strategic Counsel that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the *Communications Policy* of the Government of Canada and Procedures for Planning and Contracting Public Opinion Research. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate or ratings of the performance of a political party or its leaders.

Signed:

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II. Use of Radiation Emitting Devices

A. Use within the Last 12 Months, by Device Type

Respondents to the survey were presented with a list of various radiation emitting devices and asked which ones they have used within the last 12 months. The results indicate that use varies considerably across types of radiation emitting devices and among sub-groups of the population.

Of the 12 devices listed, four were cited as having been used in the last 12 months by a majority of respondents:

- Wireless communications products such as Wi-Fi, Bluetooth, or cell phones (86%);
- A microwave oven (85%);
- LED light bulbs (64%); and
- Headphones or ear buds connected to a cell phone, radio, television, tablet, or MP3 player (61%).

The extent to which respondents reported having used the remaining devices within the last year falls off dramatically. Two of the devices have been used by about one-third of respondents:

- Wearable technology (34%); and
- 5G enabled products, such as 5G enabled smartphones (31%).

The remainder had limited reported usage in the previous 12 months:

- Whole body airport scanners (16%) note that this percentage may under-represent the typical usage patterns within an average year given that the COVID-19 pandemic and accompanying travel restrictions implemented by the federal government have suppressed domestic and international travel, particularly for non-essential purposes;
- Noisy products, that are loud enough to require the user to shout to communicate with someone next to them (11%);
- Handheld or other portable laser products, such as laser pointers, levelling, and distance measurement products (11%);
- Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer (9%);
- Head mounted goggles, such as virtual reality (VR) goggles or smart glasses (6%); and
- Tanning beds (2%).

TABLE 1:	REPORTED	USE IN LA	AST 12 I	MONTHS,	BY DEVICE TYPE	:
				,		

	τοται	MALE	ΕΕΜΛΙΕ	AGE	AGE	AGE
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Wireless communication products such as Wi-Fi, Bluetooth or cell phones	86	85	86	82	85	88
Microwave oven	85	83	87	75	86	92
LED light bulb	64	68	61	54	64	72
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player	61	64	59	75	65	47
Wearable technology such as a smart watch, smart jewelry or fitness trackers	34	32	35	41	35	27
5G enabled products such as 5G enabled smartphone	31	32	29	41	33	20
Airport whole-body scanner, used at airport security	16	18	14	19	16	14
Noisy products that are so loud you need to shout to communicate with someone next to you	11	13	8	15	11	7
Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products	11	14	7	13	12	7
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects	9	10	8	11	9	7
Head mounted displays such as virtual reality goggles or smart glasses	6	8	5	12	6	1
Tanning bed	2	2	2	3	2	1
Other radiation emitting devices	1	1	<1	<1	1	1
I don't use any of these products	3	3	3	4	3	2

Q6. Please indicate whether you have used each of the following radiation emitting devices within the last 12 months. Check all that apply. Base: Total sample

Across demographic groups, there were no major gender differences. However, there were significant differences by age, household income, education, and employment status:

- Those 16 to 34 years of age were much more likely to cite usage of headphones (75%), wearable technology (41%), and 5G enabled products (41%), while reporting less usage of microwave ovens (75%) and LED light bulbs (54%) than older respondents.
- By contrast, those aged 55 years or older were more likely to cite usage of microwave ovens (92%) and LED light bulbs (72%) within the last 12 months, and less likely to have mentioned usage of headphones (47%), wearable technology (27%) and 5G enabled technology (20%).
- Differences in usage by education and household income generally inferred that as education and household income increase so does reported usage within the last year of most devices. Similarly, those who were employed, either full-time or part-time, reported greater use of the various devices than those who were not employed.

Regionally, residents in Quebec were generally less likely to report use of most of the devices over the previous 12 month period.

B. Frequency of Use within the Last 12 Months, by Device Type

Table 2 presents the reported frequency of use of each type of device among those respondents who have used the device within the last 12 months (see Table 1 above). For reference, the base sample is shown as the first column.

There are a few notable observations:

- Reported <u>daily usage</u> (e.g., at least once a day or several times daily) was highest for wireless communications products (89%), 5G enabled products (87%), and LED light bulbs (81%). Three-quarters (76%) of those having used the device within the last 12 months said they use wearable technology on a daily basis, while just over half reported using microwave ovens on a daily basis (58%).
- Devices which were reported as being used regularly, if not frequently (<u>e.g.</u>, <u>on a monthly or</u> weekly basis, <u>but not daily</u>), include noisy products (75%), tanning beds (71%), handheld or other portable laser products (57%), headphones or earbuds (55%), UV disinfection products (54%), and head mounted displays (53%).
- Reported frequency of usage of whole body scanners was limited to <u>use yearly or several times a</u> <u>year, but not monthly</u> by the vast majority (84%) of those having used this device over the last year.

	Base Sample (n)	Daily	Once a week or more, but not daily	Once a month or more, but not weekly	Once a year or more, but not monthly
		%	%	%	%
Wireless communication products such as Wi-Fi, Bluetooth or cell phones	4275	89	9	1	1
5G enabled products such as 5G enabled smartphone	1537	87	9	3	1
LED light bulb	3214	81	14	3	2
Wearable technology such as a smart watch, smart jewelry or fitness trackers	1687	76	17	5	3
Microwave oven	4253	58	38	3	1
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player	3068	40	42	13	5
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects	443	33	33	21	13
Noisy products that are so loud you need to shout to communicate with someone next to you	528	11	47	28	15

TABLE 2: REPORTED FREQUENCY OF USE IN LAST 12 MONTHS, BY DEVICE TYPE

Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products	527	10	25	32	34
Head mounted displays such as virtual reality goggles or smart glasses	304	8	29	24	39
Tanning Bed	96	4	42	29	25
Airport whole-body scanner, used at airport security	806	2	4	10	84
Other	29	27	10	13	50

Q7. Thinking back over the past 12 months, about how often have you used each of these products, on average? Base: Those who indicated using each device at Q6. Base sizes vary and are shown in the first column.

It is useful to examine the proportion of respondents who reported using each device on either a daily or weekly basis, as this reflects fairly frequent use of the device. Table 3 shows these results, which are based only on those who indicated having used the device within the last 12 months. Frequent usage (e.g., those reporting daily or weekly use) is highest for wireless communication (98%), microwave ovens (96%), 5G enabled products (96%), LED light bulbs (94%), and wearable technology (92%). A high proportion used headphones/ear buds with similar frequency (82%). Two-thirds (66%) of the 9% of those who reported using UV disinfection products used them on a daily or weekly basis as did over half (57%) of the 11% of respondents who used noisy products. While very few reported using tanning beds within the last 12 months (2%, or n=96 respondents), those who did indicated using them on a weekly (42%) or daily (4%) basis. About one-third or slightly more used head mounted displays (37%) or handheld or other portable laser products (34%) on at least a weekly basis. A very small fraction of respondents (6%) used whole-body scanners on a weekly basis or more often.

% Use daily/weekly	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
Base sizes vary						
	%	%	%	%	%	%
Wireless communication products such as Wi-Fi, Bluetooth or cell phones (n=4275)	98	98	98	98	99	98
Microwave oven (n=4253)	96	96	96	93	96	98
5G enabled products such as 5G enabled smartphone (n=1537)	96	95	97	95	97	97
LED light bulb (n=3214)	94	94	95	91	95	96
Wearable technology such as a smart watch, smart jewelry or fitness trackers (n=1687)	92	92	93	89	93	95
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player (n=3068)	82	84	79	90	81	72
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects (n=443)	66	65	67	61	67	72
Noisy products that are so loud you need to shout to communicate with someone next to you (n=528)	57	55	60	58	55	56
Tanning Bed (n=96)	46	45	46	49	45	38

TABLE 3: REPORTED USE ON A FREQUENT BASIS (DAILY/WEEKLY) IN THE LAST 12 MONTHS, BY DEVICE TYPE

Head mounted displays such as virtual reality goggles or smart glasses (n=304)	37	43	28	37	40	23
Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products (n=527)	34	33	37	38	35	26
Airport whole-body scanner, used at airport security (n=806)	6	8	4	10	6	2
Other (n=29)	37	56	16	67	22	39

Q7. Thinking back over the past 12 months, about how often have you used each of these products, on average? Base: Those who indicated using at least one device at Q6 – Base sizes vary

Demographically, few differences were apparent by gender or age. The exceptions were as follows:

- Men (43%) were more likely to report having used head mounted displays on a daily/weekly basis, relative to women (28%); and
- Those 16 to 34 years of age (90%) were more likely to report regular use of headphones or ear buds, compared to those 55 years of age and above (72%).

C. Nature and Frequency of Cell Phone Usage

Respondents who had used wireless communications devices or 5G enabled devices in the last year (88%, or 4404 respondents) were asked about their cell phone usage patterns (Table 4). Common behaviours included holding the phone to text or use apps (54% all of the time; 29% most of the time) and holding the phone directly to the ear (20% all of the time; 31% most of the time). About one-third (34%) of those having used a cell phone within the last 12 months used the "hands-free" mode all (9%) or most (25%) of the time. A similar proportion (34%) used headphones for a variety of activities, including listening to music, playing games, or watching TV all (15%) or most (19%) of the time, while slightly more (38%) said they rarely or never do this.

TABLE 4: REPORTED CELL PHONE USAGE PATTERNS, AMONG THOSE WHO REPORTED USING A CELL PHONE IN THE LAST 12 MONTHS

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	4404	2126	2266	1265	1464	1675
	%	%	%	%	%	%
Holding the cell phone to text or use apps						
All of the time	54	50	58	67	57	42
Most of the time	29	32	27	23	31	32
Some of the time	11	13	9	9	9	14
Rarely	3	3	3	1	2	6
Never	2	2	2	<1	1	6
Holding the phone directly to your ear to talk						
All of the time	20	22	19	20	20	21
Most of the time	31	33	29	30	30	31

Some of the time	32	31	32	37	34	26
Rarely	15	13	17	12	15	18
Never	2	2	3	1	2	4
Talking with the phone in 'hands-free' mode						
All of the time	9	10	9	12	10	7
Most of the time	25	24	25	26	26	23
Some of the time	40	42	39	40	42	39
Rarely	18	17	18	17	16	19
Never	8	7	9	6	6	12
Using headphones to either talk, listen to music or podcasts, or to watch videos or play games						
All of the time	15	18	13	30	15	5
Most of the time	19	21	16	28	20	11
Some of the time	28	29	27	29	33	24
Rarely	21	19	22	11	21	28
Never	17	13	21	3	12	33

Q10. How often, if at all, do you use your cell phone in the following ways? Base: Those who have used a cell phone or 5G enabled smartphone in the last 12 months

Key demographic variations related to cell phone usage patterns were as follows:

- Men were more likely than women to say they have the phone to their ear all or most of the time (55% vs 48%, respectively) and to use headphones/ear buds all or most of the time (39% to 29%);
- By age, those 16 to 34 years of age were more likely than those aged 55 or older to text or use apps all or most of the time (90% vs. 74%, respectively) and to use headphones/ear buds (58% vs. 16%) all or most of the time. Those aged 35 to 54 years were situated between these two age groups in terms of their usage patterns.

D. Use of Hearing Protection

Among those who reported using loud, noisy products at least once within the last year (11%, or n=528 respondents), about one-third (34%) reported making use of hearing protection either all (12%) or most (23%) of the time (Table 5).

TABLE 5: REPORTED USE OF HEARING PROTECTION, AMONG THOSE WHO REPORTED USING NOISY PRODUCTS IN THE LAST 12 MONTHS

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	528	320	203	224	174	130
	%	%	%	%	%	%
TOTAL ALL/MOST OF THE TIME	34	42	22	37	29	37
All of the time	12	14	7	10	12	13
Most of the time	23	28	14	27	16	24
Some of the time	26	27	23	29	29	16
Rarely	24	22	29	20	27	29
Never	16	9	26	14	16	18
TOTAL RARELY/NEVER	40	31	55	34	43	47

Q11. When you use noisy products, how often, if at all, do you use hearing protection? Noisy products would be things that, when you are using them, you need to shout to communicate with someone next to you, such as power tools. Base: Those who have used 'noisy products' (Q6) in the last 12 months.

There were a number of variations by gender, age and education regarding reported use of hearing protection devices. Those more likely to report having used hearing protection all or most of the time include:

- Men (42%), compared to women (22%);
- Respondents with a college education (41%), compared to those with a high school level of education (28%) and those with a university education (32%) (data not shown); and
- Older and younger respondents (37% respectively among those aged 55 and older and those 16 to 34 years of age), compared to respondents aged 35 to 54 (29%).

III. Perception of Risk Associated with Radiation Emitting Devices

Perception of Risk Associated with Radiation Emitting Devices

All respondents, regardless of whether they had used the various types of devices within the last year, were asked a series of questions to gauge their concerns about various radiation emitting devices. They were also asked about the degree of risk they associated with each device under normal or regular use.

A. Concern about Daily/Regular Usage

As shown in Table 6, most respondents (66%) were not concerned about daily or regular use of products that emit various forms of radiation (24% were not concerned at all, 42% were not too concerned). Just under one-third (31%) expressed some concern about daily or regular usage of radiation emitting devices, although relatively few (6%) were very concerned.

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
VERY/SOMEWHAT CONCERNED	31	29	32	33	33	27
Very concerned	6	6	7	6	8	5
Somewhat concerned	24	23	25	27	25	21
Not too concerned	42	41	42	41	38	45
Not concerned at all	24	27	21	23	25	24
NOT TOO/NOT AT ALL CONCERNED	66	68	63	64	63	69
Don't know/not sure	4	3	5	4	3	4

TABLE 6: CONCERN ABOUT DAILY/REGULAR USAGE OF PRODUCTS THAT EMIT RADIATION

Q8. In general, how concerned are you about daily or regular usage of products like these that emit various forms of radiation? Are you Base: Total sample

Across demographic groups:

- Respondents younger than 55 years of age were more likely than those 55 or older to be very or somewhat concerned about daily or regular usage of radiation emitting devices (33% versus 27%).
- Those working full-time or part-time were more likely than those not working to say they were very or somewhat concerned (34% versus 25%) (data not shown).

By region, respondents living in B.C. (36%) or Ontario (34%) were more likely than those living in Alberta (27%), Quebec (26%), or the Atlantic provinces (26%) to be concerned (data not shown).

B. Understanding of Radiation Emitted by Device Type

Respondents were asked to indicate what type of radiation they believed is emitted from 14 different types of devices (Table 7). The proportion who responded 'don't know' was relatively high across all devices and in many cases was the most common response (ranging from a low of 23% who did not know the type of radiation emitted by microwave ovens, to a high of 65% who did not know what types of radiation are associated with virtual reality goggles).

* Indicates the top response for each device type, apart from those who responded 'don't know'.	Radio waves	Micro waves	Ultra- violet light	Visible light	Infra- red light	X-ray	Gamma ray	Don't know
	%	%	%	%	%	%	%	%
Cell phone	42*	12	4	9	4	2	4	41
5G enabled smart phone	34*	10	3	6	3	2	5	51
Wi-Fi or Bluetooth	40*	9	3	2	3	2	4	47
Laser pointers	3	2	8	21	29*	3	4	44
CT scanner	8	5	4	2	4	27*	12	52
LED light bulb	3	2	11	40*	6	2	2	46
Ultraviolet (UV) disinfection device	3	3	55*	5	5	2	3	34
Dental X-ray	3	3	4	2	3	65*	6	25
Computer monitor	11	5	12	30*	6	3	5	46
MRI machine	11	6	4	2	4	27*	16	47
Microwave oven	6	67*	2	3	3	3	4	23
Tanning bed	2	3	47*	10	13	3	5	37
Smart watch	24*	6	4	10	5	2	3	58
Virtual reality goggles	12	4	5	15*	6	2	3	65

TABLE 7: PERCEPTIONS REGARDING RADIATION EMITTED ASSOCIATED WITH EACH DEVICE

Q9. Each of these products emits a certain type of radiation. For each one, please indicate the type(s) of radiation you believe is/are associated with it. Select all that apply to each product. Base: Total sample

Across demographic groups:

- Women were generally more likely than men to say they did not know the type(s) of radiation associated with each of the 14 devices.
- People aged 35 or older were more likely than those 16 to 34 years of age to indicate they did not know the type(s) of radiation emitted by most devices. There were no notable differences by age related to perceptions of dental X-rays, CT scanners, and microwave ovens.

C. General Perceptions of Risk

As a means of further assessing awareness of risks associated with radiation emitting devices and exposure to loud noises, respondents were presented with seven statements and asked to indicate whether each was true or false. The results are shown in Table 8 and the correct response (true or false) is included at the end of each statement.

Most had an accurate understanding of whether a statement was true or false:

- Medical doctors can reverse hearing damage caused by loud noise exposure (89% correctly claimed this statement was false);
- Using a tanning bed to get a base tan does not protect against skin cancer from future sun exposure (82% correctly indicated this to be a true statement);
- All UV disinfecting products are effective at killing 100% of germs and viruses (80% correctly said this was false);
- You know a laser pointer is safe if the spot of light it makes on a wall is not very bright (75% correctly said this was false);
- Science has not proven that cell phone use causes cancer (62% correctly said this was true);
- You get the same amount of radiation from a wrist X-ray as from a chest X-ray (47% incorrectly claimed this was true); and
- People should receive dental X-rays at 2-year intervals, whether or not there is a dental health concern (50% incorrectly said this was true).

% Believing the Statement to be True	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Using a tanning bed to get a base tan does not protect against skin cancer from future sun exposure (True)	82	79	84	79	81	85
Science has not proven that cell phone use causes cancer (True)	62	64	61	58	61	67
I should receive an X-ray at least once within a two year period when I visit the dentist whether or not there is a dental health concern (False)	50	52	49	54	53	46
You get the same amount of radiation from an X-ray of your wrist as you do with a chest X-ray (False)	47	43	51	46	47	48
You know a laser pointer is safe if the spot of light it makes on a wall, for example, isn't very bright (False)	25	27	23	31	26	19
All UV disinfecting products are effective at killing 100% of germs and viruses (False)	20	22	18	22	20	18
A medical doctor can reverse hearing damage caused by loud noise exposure (False)	11	13	9	18	11	5

TABLE 8: TRUE/FALSE STATEMENTS REGARDING RADIATION EMITTING DEVICES

Q12. Please indicate whether you believe each of the following statements are true or false. Base: Total sample

Findings on this question varied by the age of the respondent:

- Older adults (55+) were more likely than others to correctly respond that use of a tanning bed does not protect against skin cancer (85% versus 81% of 35 to 54 year olds and 79% of those under 35). Older adults (55+) were also more likely to correctly respond that science has not proven that cell phone use causes cancer (67%, versus 61% of 35 to 54 year olds and 58% of those under 35).
- Conversely, younger adults were more likely to incorrectly respond that hearing damage is
 reversible (18% of those under 35, compared to 11% of 35 to 54 year olds and 5% of those 55 and
 older). They were also more likely to incorrectly respond that a laser pointer is safe if the spot it
 makes is not very bright (31% of those under 35, compared to 26% of 35 to 54 year olds and 19%
 of those 55 or over).

While there were relatively few differences in assessments by educational attainment, respondents with a university degree (43%) were less likely than those with either a high school (54%) or college diploma (49%) to incorrectly respond that people get the same amount of radiation from wrist and chest X-rays.

D. Perceived Level of Harm, by Device Type

Asked to rate the level of harm they believed to be associated with 12 different types of products, more than one-half of respondents rated two of the 12 products as 'extremely' or 'very harmful' to health: tanning beds (59%) and noisy products that require shouting to communicate over (59%). The other 10 products were much less likely to be viewed as highly harmful, as shown in Table 9.

% Saying the Device is Extremely/Very Harmful	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Tanning bed	59	52	67	55	56	65
Noisy products that are so loud you need to shout to communicate with someone next to you	59	57	61	46	58	71
Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products	13	14	12	17	12	10
Airport whole-body scanner, used at airport security	11	11	12	14	13	8
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects	11	13	10	14	12	8
5G enabled products such as 5G enabled smartphone	11	11	11	13	12	10
Head mounted displays such as virtual reality goggles or smart glasses	11	11	11	12	10	10
Microwave oven	10	10	10	14	12	6
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player	9	10	9	11	9	8
Wireless communication products such as Wi-Fi, Bluetooth or cell phones	7	7	7	11	7	4

TABLE 9: PERCEIVED LEVEL OF HARM, BY DEVICE TYPE (% RATING THE DEVICE AS EXTREMELY/VERY HARMFUL)

Wearable technology such as a smart watch, smart jewelry or fitness trackers	6	6	6	9	6	4
LED light bulb	4	4	4	7	4	2

Q13. For each of the following, please indicate the extent to which you believe this product could be harmful to your health with regular/average use. Base: Total sample

Notably, when the proportion that rated each product as at least 'moderately harmful' is taken into consideration, perceptions of risk were notably higher (Table 10). At least two in five or more rated 10 of the 12 products as moderately harmful or worse. The exceptions were wearable technology and LED light bulbs.

TABLE 10: PERCEIVED LEVEL OF HARM, BY DEVICE TYPE (% RATING THE DEVICE AS EXTREMELY/VERY/MODERATELY HARMFUL)

% Extremely/Very/Moderately Harmful	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Tanning bed	91	88	94	87	89	95
Noisy products that are so loud you need to shout to communicate with someone next to you	88	87	89	82	87	94
Airport whole-body scanner, used at airport security	51	50	52	52	54	48
Head mounted displays such as virtual reality goggles or smart glasses	50	47	52	46	50	53
Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products	48	49	47	49	47	47
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects	47	47	48	52	47	44
5G enabled products such as 5G enabled smartphone	46	43	49	45	48	44
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player	45	43	47	43	47	45
Microwave oven	45	42	47	48	48	39
Wireless communication products such as Wi-Fi, Bluetooth or cell phones	39	36	43	41	43	35
Wearable technology such as a smart watch, smart jewelry or fitness trackers	33	30	35	36	34	28
LED light bulb	23	22	24	26	24	20

Q13. For each of the following, please indicate the extent to which you believe this product could be harmful to your health with regular/average use. Base: Total sample

Across demographic groups:

- Women were generally more likely than men to rate a number of products as at least moderately harmful, including: tanning beds, head mounted displays, 5G enabled products, headphones or ear buds, microwave ovens, wireless communication products, and wearable technology.
- Older adults (55+) were less likely than younger respondents to rate most products as at least moderately harmful, the exceptions being tanning beds and noisy products which they were more likely to rate as harmful compared to those under age 55.

By region (data not shown):

• Residents of Quebec were more likely than those in other provinces to rate several products as at least moderately harmful, including: handheld or other portable laser products (57%), UV disinfection products (56%), and 5G enabled products (51%).

E. Level of Concern Regarding Personal Health and Safety by Device Type

Respondents were also asked about their level of concern for their own personal health and safety if or when using each of the 12 different devices (Table 11). Most were 'very' or 'somewhat concerned' about tanning beds (74%) and noisy products (70%).

There was far less concern about the other 10 products, although about one-third or more of respondents expressed at least some concern regarding the use of airport body scanners (36%), head mounted displays (31%), 5G enabled products (31%) and UV disinfection products (30%).

% Very/Somewhat Concerned	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Tanning bed	74	70	77	69	68	83
Noisy products that are so loud you need to shout to communicate with someone next to you	70	68	73	60	66	82
Airport whole-body scanner, used at airport security	36	36	36	35	35	37
Head mounted displays such as virtual reality goggles or smart glasses	31	29	34	29	30	34
5G enabled products such as 5G enabled smartphone	31	29	33	30	33	30
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects	30	30	30	32	29	30
Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products	28	28	27	29	25	29
Microwave oven	28	26	30	31	30	22
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player	27	25	29	28	27	27
Wireless communication products such as Wi-Fi, Bluetooth or cell phones	24	23	26	27	27	20

TABLE 11: LEVEL OF CONCERN REGARDING PERSONAL HEALTH AND SAFETY WHEN USING EACH DEVICE (% VERY/SOMEWHAT CONCERNED)

Wearable technology such as a smart watch, smart jewelry or fitness trackers	22	21	23	24	23	19
LED light bulb	15	14	15	17	16	12

Q14. In general, how concerned are you about your personal health and safety if or when using each of the following products? Base: Total sample

As noted above, tanning beds and noisy products stand out as those which generated the highest levels of concern in terms of personal health and safety (Table 12). Two in five respondents (41%) were 'very concerned' about tanning beds, while just under one-third (31%) said the same about noisy products.

TABLE 12: LEVEL OF CONCERN REGARDING PERSONAL HEALTH AND SAFETY WHEN USING EACH DEVICE (% VERY CONCERNED)

% Very Concerned	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Tanning bed	41	36	47	34	38	51
Noisy products that are so loud you need to shout to communicate with someone next to you	31	28	35	20	29	42
Airport whole-body scanner, used at airport security	8	8	7	7	8	8
5G enabled products such as 5G enabled smartphone	8	7	8	8	8	7
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects	6	6	6	7	6	5
Head mounted displays such as virtual reality goggles or smart glasses	6	5	6	7	5	6
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player	6	6	6	7	5	5
Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products	6	6	6	7	6	5
Microwave oven	5	6	5	7	6	4
Wireless communication products such as Wi-Fi, Bluetooth or cell phones	5	5	5	6	5	3
Wearable technology such as a smart watch, smart jewelry or fitness trackers	4	4	5	6	4	3
LED light bulb	3	3	3	5	3	2

Q14. In general, how concerned are you about your personal health and safety if or when using each of the following products? Base: Total sample

Across demographic groups:

- Women were more likely than men to express at least some concern about many of the products, especially tanning beds (77% versus 70%).
- Older adults (55+) were more likely than their younger peers to express at least some concern about tanning beds, noisy products, and head mounted displays. Conversely, those under age 55 were more likely than those older than 55 to express concern about microwave ovens and wireless communication products.

By region (data not shown):

Levels of concern about 5G enabled products were higher among residents of Ontario (33% were very/somewhat concerned) and those in B.C. (33% were very/somewhat concerned) relative to respondents living in other regions. The same pattern also exists for wireless communication products (Ontario – 27% are very/somewhat concerned; B.C./North – 28% are very/somewhat concerned).

F. Device Types of Most Concern

Respondents provided additional information regarding which product(s) concerned them the most (Table 13). Responses to this open-ended question are shown below and, in some cases, include an explanation regarding the reason for their concern. Among respondents, tanning beds were identified most frequently as the product of greatest concern. All other products were mentioned with far less frequency.

When asked to explain what they were most concerned about in regards to tanning beds, a range of issues were mentioned::

- 22% mentioned tanning beds as being a health risk and harmful, specifically with respect to skin damage and cancer or that they emit UV rays; and
- A small percentage (5%) mentioned being concerned about tanning beds more generally.

Mentions of 2% and above are shown	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Tanning bed – harmful/health risk/should be banned/UV rays/causes wrinkles/burns/skin cancer/it's big/covers full body	22	19	24	25	17	23
Wireless communication products such as Wi-Fi, Bluetooth or cell phones – emit radiation/harmful/I use everyday	5	4	7	6	6	5
Noisy products/Loud devices – harmful/can lead to hearing loss/deafness/tinnitus/can damage eardrums	5	6	4	4	5	6
Tanning bed/Tanning (general)	5	4	6	4	5	6
Radiation emission/harmful/may cause irreversible damage to our health/too many unknowns/long term health consequences	4	5	3	4	4	4

TABLE 13: DEVICE TYPES IDENTIFIED AS BEING OF GREATEST CONCERN, AND REASONS WHY

Microwave – emits radiation/harmful/could leak/I use every day/use it to reheat food/I eat the food/stand in front of it	4	3	5	4	4	4
5G enabled products such as 5G enabled smartphones/5G Technology/5G – emit radiation/harmful/I use everyday	3	3	3	2	5	3
Microwave oven (general)	3	2	4	2	3	3
Wireless communication products such as Wi-Fi, Bluetooth or cell phones (general)	3	2	3	2	4	2
Airport body scanner/Airport scanner (general)	2	3	2	2	2	3
X-ray/X-ray machine/CT scan/Ex-ray at hospital, dentist (general)	2	2	2	2	2	3
5G enabled products such as 5G enabled smartphones/5G Technology/5G (general)	2	2	2	1	3	2

Q15. In one or two sentences, please indicate which one of these products concerns you the most and why? Base: Total sample

IV. Sources of Information on Product Safety

Sources of Information on Product Safety

The survey included a number of questions to ascertain how and where respondents get information about product safety and whom or what sources they trust the most.

A. Sources Used to Learn About Product Safety

Respondents indicated relying on a range of sources to learn about a product's safety (Table 14). The top mention was 'Google search' (39%), followed by news (29%), health care providers (28%), the Health Canada website (26%), and manufacturers' websites (25%).

About one in five mentioned the general Government of Canada website (22%), scientists (21%), friends and family (21%), customer reviews of products (19%), and organizations that specialize in consumer product testing and reports, such as Consumer Reports and Wirecutter (19%).

Fewer cited research publications (16%), non-government health organizations such as the World Health Organization (WHO) (13%), the Food and Drug Administration (FDA) in the U.S. (13%) and the top pages of a search engine result (11%).

Other sources were mentioned less frequently, by less than one-in-ten respondents. These included information at the point of sale as well as on various social media platforms.

	τοται	MALE	FEMALE	AGE	AGE	AGE
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Google search	39	40	37	43	39	35
News (online, radio, television)	29	30	29	24	25	37
Health care providers such as doctors, dentists, therapists, etc.	28	27	29	28	24	31
Health Canada website	26	25	26	25	25	27
Manufacturer's website or written material included with the product, including product labels	25	27	23	24	24	27
Government of Canada website (Canada.ca)	22	23	21	22	22	22
Scientists	21	24	19	25	20	20
Friends or family	21	19	22	23	19	21
Customer reviews of products	19	19	19	19	18	20
Organizations that specialize in consumer product testing and reporting such as Consumer Reports, Wirecutter (New York Times), etc.	19	21	17	15	17	23
Research publications	16	17	16	18	16	15
Non-government health organizations such as the World Health Organization (WHO)	13	13	14	17	12	11
The Food and Drug Administration (FDA)	13	13	12	15	12	12
Top pages of a search engine result	11	11	10	16	9	8
Information found at retail stores	8	10	7	11	7	8

TABLE 14: SOURCES USED TO LEARN ABOUT PRODUCT SAFETY

Internet message platforms such as Reddit or Quora	7	8	5	14	6	2
Facebook	6	6	6	8	6	4
USA Government website (USA.gov)	5	7	3	6	5	4
Instagram	4	4	3	9	3	<1
Twitter	2	3	1	4	2	<1
Other social media platform	1	1	1	1	1	1
Other	1	1	1	1	1	1
I haven't used any of these to learn about product safety	26	23	28	23	27	27

Q16. Which of the following have you used to learn more about a product's safety? Check all that apply. Base: Total sample

Across demographic groups:

• Older respondents (55+) were more likely than those under age 55 to rely upon the news (37% versus 25%).

By region (data not shown):

• People living in the Atlantic region were more likely than those from other regions to utilize government sources for information, including the Health Canada website (34%) and the main Government of Canada website (29%).

B. Top Three Trusted Information Sources

Asked which three sources they trust most when it comes to providing information about product safety, the Health Canada website (42%) topped the list by a relatively wide margin (Table 15). Other sources selected by more than one-quarter included: scientists (30%), health care providers (29%), and the Government of Canada website (28%).

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Health Canada website	42	39	44	34	42	47
Scientists	30	29	30	29	29	31
Health care providers such as doctors, dentists, therapists, etc.	29	26	31	26	25	33
Government of Canada website (Canada.ca)	28	27	29	26	25	32
Organizations that specialize in consumer product testing and reporting such as Consumer Reports, Wirecutter (New York Times), etc.	21	22	20	13	19	29
Research publications	20	20	19	21	19	18
Non-government health organizations such as the World Health Organization (WHO)	17	15	20	22	16	15
The Food and Drug Administration (FDA)	13	13	14	13	12	14
Google search	12	14	11	15	14	9

TABLE 15: TOP THREE TRUSTED INFORMATION SOURCES

Manufacturer's website or written material included with the product, including product labels	12	12	12	13	13	11
News (online, radio, television)	9	10	9	8	9	11
Customer reviews of products	7	8	7	7	8	7
Friends or family	7	7	7	9	7	6
USA Government website (USA.gov)	4	5	2	4	4	3
Top pages of a search engine result	2	3	2	4	2	1
Facebook	2	2	2	3	2	1
Internet message platforms such as Reddit or Quora	2	3	1	4	2	<1
Information found at retail stores	2	1	2	2	2	1
Instagram	2	2	1	3	2	<1
Twitter	1	1	1	1	1	<1
Other social media platform	<1	<1	<1	<1	<1	<1
Other	1	1	1	<1	1	1
I don't trust any of these when it comes to providing information about product safety	8	8	7	8	10	6

Q17. From the list below, please indicate which three you trust the most when it comes to providing information about product safety. Base: Total sample

Across demographic groups, those more likely to select the Health Canada website included:

- Women (44% versus 39% of men);
- Respondents 55+ (47%, versus 42% of 35 to 54 year olds and 34% of those aged 16-34); and
- Those with a university degree (45% versus 40% of college/trades graduates and 39% of those with a high school diploma or less) (data not shown).

V. Familiarity with Health and Safety Laws and Information

A. Familiarity with Relevant Canadian Laws

The Canadian Parliament has enacted a number of laws intended to protect the health and safety of Canadians, as referred to in Table 16. While almost half (49%) of respondents indicated knowing either 'a lot' or 'a little' about the Food and Drug Act, fewer were familiar with the Canada Consumer Product Safety Act (39%), the Pest Control Products Act (21%), the Radiocommunication Act (20%), and the Radiation Emitting Devices Act (15%).

% "I know a lot about this"/ "I know a little about this" (Top 2 Box)	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Food and Drug Act	49	47	50	44	46	55
Canada Consumer Product Safety Act	39	40	38	35	38	43
Pest Control Products Act	21	22	20	19	19	24
Radiocommunication Act	20	26	14	19	20	20
Radiation Emitting Devices Act	15	19	11	17	16	13

TABLE 16: FAMILIARITY WITH RELEVANT CANADIAN HEALTH AND SAFETY LAWS

Q18. How familiar are you with each of the following laws that exist to protect the health and safety of Canadians? Base: Total sample

Familiarity with these laws varied across demographic groups. In general, men were more familiar with a number of the laws, as were older respondents (aged 55 and over), those who reported they were working, and those with higher levels of education.

Those who were more likely to express familiarity with the Food and Drug Act included:

- Women (50%) relative to men (47%);
- Older survey respondents, age 55 and over (55%), compared to those aged 35 to 54 (46%) and those aged 34 or younger (44%);
- Survey respondents with a university education (50%) versus those who have some or have completed a high school education (45%) (data not shown); and
- Anglophones (50%), compared to Francophones (45%) (data not shown).

Familiarity with the Canada Consumer Product Safety Act was higher among:

- Those aged 55 and older (43%); and
- People with a college degree or trades certification (42%) (data not shown).
Higher levels of familiarity with the <u>Pest Control Products Act</u> were indicated by:

- Older survey respondents, aged 55 and above (24%);
- Those with a college degree or trades certification (22%), compared to those who are university educated (19%) (data not shown); and
- Anglophones (22%), compared to Francophones (16%) (data not shown).

Those who were more familiar with the <u>Radiocommunication Act</u> included:

- Men (26%), compared to women (14%);
- Those who are working (21%), compared to those who are not (17%). In particular, those working in the farming or fishing sectors (38%) and general labourers (29%) are more familiar (data not shown);
- Francophones (28%), relative to Anglophones or those who speak a language other than English or French (17% among each of these two groups) (data not shown); and
- Residents of Quebec (28%) (data not shown).

Finally, familiarity with the <u>Radiation Emitting Devices Act</u> was higher among:

- Men (19%) relative to women (11%);
- Younger respondents between the ages of 16 and 34 (17%) as well as those aged 35 to 54 (16%), compared to those 55 and older (13%);
- Those who reported they were working (17%) versus those who are not (12%) (data not shown). In particular, those working as farmers or fishermen (55%), in the military (45%), business owners (26%), skilled tradespeople (24%) and general labourers (23%) exhibit higher levels of familiarity relative to those in other professions or vocations (data not shown);
- Francophones (17%) versus Anglophones (14%) (data not shown); and
- Residents of Quebec (17%) (data not shown).

B. Trust in Canadian Safety Laws

Survey respondents indicated a general level of trust that these products meet Canadian legal standards for safety (Table 17). This being said, higher levels of trust were associated with in-store purchases – almost half (47%) indicated they 'fully trust' the product meets Canadian laws for safety, while about the same number said they 'somewhat trust' that the product does (48%). Relatively few indicated they 'don't trust' that this is the case.

By contrast, survey respondents were somewhat more doubtful when purchasing products online. While fewer than one-quarter (23%) said they 'fully trust' that the product meets Canadian safety laws, most at least 'somewhat trust' that it does. Just under one in five (17%) did not trust that products sold online meet safety standards as required by Canadian law.

TABLE 17: TRUST IN CANADIAN SAFETY LAWS

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
When purchasing a product online						
I fully trust the product meets Canadian laws for safety	23	24	22	25	23	21
I somewhat trust the product meets Canadian laws for safety	60	60	60	63	62	56
I don't trust that the product meets Canadian laws for safety	17	16	18	12	15	23
When purchasing a product in-store or in-person						
I fully trust the product meets Canadian laws for safety	47	48	46	46	46	49
I somewhat trust the product meets Canadian laws for safety	48	47	49	49	48	47
I don't trust that the product meets Canadian laws for safety	5	5	5	5	6	4

Q22. When you decide to purchase a product, to what extent do you trust that this product meets Canadian laws for safety? Base: Total sample

Demographic variations were as follows:

- Younger respondents, under the age of 35 (25%), specifically those aged 18 to 24 (27%) were more likely to say they fully trust that products meet Canadian laws for safety when they are purchased online. Trust levels were also higher among South Asians (33%) and Indigenous respondents (32%) (data not shown). This was also the case for Anglophones (25%) and those who speak a language other than English or French (25%), compared to Francophones (15%) (data not shown).
- Those with household incomes of \$150,000 and over (52%) were more likely to say they fully trust
 products purchased in-store or in-person to meet Canadian safety laws (data not shown). This
 was also true for those not working (49%), compared to those who are (46%), and for
 Anglophones and those who speak a language other than one of Canada's two official languages
 (50% in each case), compared to Francophones (36%) (data not shown).

Regionally (data not shown_:

• Residents from Quebec (21%) were more likely to express distrust regarding products purchased online. These respondents were also more likely to indicate they only 'somewhat' trust that products purchase in-store or in-person meet safety laws in Canada (60%), compared to the average (48%).

Respondents generally reported placing a significant degree of trust in the Government of Canada when it comes to ensuring product safety and the safety of Canadians and were generally confident that the laws

currently in place are effective in this regard (Table 18). Many expected the Government of Canada to continue to protect Canadians from the radiation risk from products available in Canada (90%) and believed that the laws currently regulating radiation emitting devices in Canada are adequate (73%), although as noted earlier few were aware of the relevant laws. A similar number (70%) were confident that any radiation emitting devices available to Canadians could be expected to be safe. Relatively few believed that the regulations governing the safety of products in Canada are too restrictive (23%).

When it comes to informing Canadians about the safety of radiation emitting devices, many respondents (60%) thought the Government of Canada typically provided sufficient information in this regard.

% Strongly/Somewhat Agree	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
I expect the Government of Canada to continue to protect Canadians from the radiation risk from products available in Canada	90	88	92	86	88	95
I think the laws that regulate radiation emitting devices in Canada are adequate	73	73	73	76	70	72
I am confident that any radiation emitting devices available to Canadians are safe	70	70	70	70	69	71
I think the Government of Canada provides sufficient information to Canadians on the safety of radiation emitting devices	60	62	57	61	60	58
I think regulations governing the safety of products in Canada are too restrictive	23	26	20	31	25	14

TABLE 18: TRUST IN CANADIAN SAFETY LAWS - AGREEMENT WITH STATEMENTS

Q23. Please indicate whether you agree or disagree with each of the following statements. Base: Total sample

Demographic variations on a number of these statements were evident:

- Younger respondents, between the ages of 16 and 34 (76%), were more likely to agree the laws currently regulating radiation emitting devices in Canada are adequate, compared to their older counterparts. This was also the case among those who speak a language other than English or French (90%), compared to Francophones (74%) and Anglophones (72%) (data not shown);
- Older respondents, aged 55 or above (95%) and women (92%), were more likely to expect the Government to protect Canadians from radiation risk. This was also true of Francophones (92%), relative to Anglophones (89%) (data not shown); and
- Men were more inclined to agree that the Government of Canada provides sufficient information about the safety of radiation emitting devices (62%) and that the relevant regulations were too restrictive (27%), compared to women (57% and 20%, respectively). Younger respondents, between the ages of 16 and 34 (31%) and those with a high school education (28%) (data not shown), were also more likely to view the current regulations as overly restrictive.

VI. Product Safety Issues and Reporting

A. Experience with Safety Issues by Device Type

Overall, most respondents (79%) have not experienced any safety issues with any of the device types discussed. Among those who did experience a safety issue with one or more of the devices (21%), it tended to be related to a defective product (6%), an issue with product labeling or instruction (4%), and/or an injury (4%).

Four device types appeared more likely to result in a safety issue, based on respondents' reporting of issues by device type (Table 19): noisy, loud products (28%), tanning beds (28%), head mounted displays such as virtual reality goggle/smart glasses (22%), and UV disinfection products (19%). In terms of suffering an injury resulting from device use, this was more likely to be experienced with noisy/loud products (17%), tanning beds (7%), or head mounted displays (5%).

A small percentage of respondents indicated they knew of someone who had died in association with the use of a product. This may be evidence of respondents misunderstanding the question and/or the response options. It could be that respondents knew someone who died while using a product, but their death was not directly caused by the product itself. Except in cases where tanning bed use was linked to skin cancer and subsequent death, radiation exposure levels from use of these devices is highly unlikely to cause death.

	Death of someone I know	Injury	Defective product	Damaged property	Issue with product labeling or instruction	I have not experienced a problem with this product
	%	%	%	%	%	%
Noisy products that are so loud you need to shout to communicate with someone next to you (n=528)	2	17	6	3	4	72
Tanning bed (n=96)	5	7	3	7	8	72
Head mounted displays such as virtual reality goggles or smart glasses (n=304)	5	5	8	5	6	78
Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects (n=443)	3	3	7	4	6	81
Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products (n=527)	2	5	6	3	3	85
Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player (n=3068)	1	2	8	3	2	86
Wearable technology such as a smart watch, smart jewelry or fitness trackers (n=1687)	1	3	7	3	3	86
Microwave oven (n=4253)	1	2	5	3	2	89
5G enabled products such as 5G enabled smartphone (n=1537)	2	1	4	3	4	89
Wireless communication products such as Wi-Fi, Bluetooth or cell phones (n=4275)	1	1	6	2	3	89
LED light bulb (n=3214)	<1	1	7	2	2	90
Airport whole-body scanner, used at airport security (n=806)	1	1	2	1	2	93
Other (n=29)	3	7	3	3	7	90

TABLE 19: EXPERIENCE WITH SAFETY ISSUES BY DEVICE TYPE

Average	2	4	6	3	4	85

Q19. Please indicate which, if any, issues or problems you or someone in your household has experienced with each of the following products. Check all that apply. Base: Have used device in past 12 months. Base sizes vary.

B. Familiarity With and Use of Health Canada Online Reporting System

Over eight in ten respondents overall (84%) were unfamiliar with Health Canada's online reporting system, while 16% percent reported at least some familiarity (Table 20).

TABLE 20: FAMILIARITY WITH HEALTH CANADA'S ONLINE REPORTING SYSTEM

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Yes	16	18	14	17	15	15
No	84	82	86	83	85	85

Q20. Are you familiar with Health Canada's online reporting system that allows you to report problems with a product? Problems include injury, death, product defects, or labeling concerns. Base: Total sample

Across demographic groups, a number indicated being more familiar with the Health Canada reporting system:

- African/West Indian (28%), South Asian (28%), and Indigenous (27%) respondents (data not shown);
- Those who had experienced a problem with one or more of the device types (26%), compared to those who had not had any issues (13%) (data not shown);
- Men (18%), as compared to women (14%);
- Those aged 18 to 24 (21%);
- Respondents who reported an annual household income between \$80 and\$100k (18%) (data not shown);
- Respondents who reported they were working (17%) (data not shown); and
- Anglophones (17%) (data not shown).

Most respondents (80%), regardless of whether or not they had experienced an issue with one or more of the devices discussed in the survey, had never reported a problem with any product (Table 21). Among those who had reported a problem, very few used Health Canada's online reporting system (2%). Comparatively, more respondents had reported a problem to a manufacturer (11%) and/or to the retailer (10%).

TABLE 21: USE OF HEALTH CANADA'S ONLINE REPORTING SYSTEM

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Yes	2	2	2	3	2	1
No, but I have reported a problem to the manufacturer	11	13	9	11	12	9
No, but I have reported a problem to the retailer	10	11	9	11	10	9
No, I have never reported a problem with any product before	80	77	83	77	79	83

Q21. Have you ever reported a problem with a product to Health Canada? A report of a problem can include a phone call, e-mail, letter or official report through Health Canada's online reporting system. Base: Total sample

Those more likely to say they have <u>never reported any product issues</u> included:

- Respondents who indicated they had not experienced an issue or problem with any of the devices discussed (87%) (data not shown);
- Respondents who indicated they were not working (84%) or retired (83%) (data not shown);
- Women (83%);
- Those aged 55 or older (83%); and
- Respondents making less than \$20,000 (83%) annually (data not shown).

The groups which were more likely to indicate <u>having used Health Canada's online system</u> included:

- Respondents of African/West Indian (9%), Middle Eastern (5%), and South Asian (4%) ethnicity (data not shown); and
- Those who had experienced an issue or problem with one or more of the devices (5%) versus those who had not (1%) (data not shown).

Groups more likely to have <u>reported a problem to a retailer</u> included:

• Respondents who experienced a problem or issue with a device (22%), compared to those who had not (7%) (data not shown);

- Those who identified as being of African/West Indian (16%) or South Asian (15%) ethnicity (data not shown);
- Men (13%);
- Those between 16 and 34 years of age (11%);
- University educated respondents (11%) (data not shown);
- Those working full-time (11%) (data not shown); and
- English-speakers (11%) (data not shown).

Those more inclined to have <u>reported a product problem to the manufacturer</u> included:

- Respondents who experienced a problem or issue with a device (26%), compared to those who had not (7%) (data not shown);
- Middle Eastern (22%), African/West Indian (20%), South Asian (22%), Southeast Asian (16%), and Indigenous (16%) respondents (data not shown);
- Men (13%);
- Those between 16 and 34 years of age (12%) as well as those aged 35 to 54 (12%);
- Working men and women (12%) (data not shown); and
- English speakers (12%) (data not shown).

VII. Respondent Profile

Respondent Profile

The information below offers a snapshot of the Canadian general public, aged 16 and older, who participated in the survey. Interlocking quotas were set by region, gender, and age. As such, the distribution of the final sample by region, gender, and age generally conforms to Canadian Census data which is the basis on which these quotas were initially determined.

Residents from Ontario (38%) and Quebec (23%) comprised over half the final sample, while those from Western Canada made up about one-third (32% of all respondents and those residing in the Atlantic Provinces reflect under one in ten of the final sample (7%).

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
PROVINCE						
Newfoundland and Labrador	2	2	1	1	2	2
Nova Scotia	2	3	2	3	2	3
New Brunswick	2	1	3	2	2	3
Prince Edward Island	<1	1	<1	1	<1	<1
Quebec	23	23	23	22	23	25
Ontario	38	38	39	39	39	38
Manitoba	4	4	3	4	3	3
Saskatchewan	3	3	3	3	3	3
Alberta	11	11	11	13	12	9
British Columbia	14	13	14	13	13	14
Yukon/NWT/Nunavut	<1	<1	<1	<1	<1	<1
REGION						
Atlantic	7	7	7	6	7	8
QC	23	23	23	22	23	25
ON	38	38	39	39	39	38
MB/SK	7	7	6	7	6	6
AB	11	11	11	13	12	9
BC/North	14	14	14	13	13	14

TABLE 22: DISTRIBUTION OF RESPONDENTS BY REGION

Q4. In which province or territory do you currently reside? Base: Total sample

The vast majority of Canadians reside in urban, census metropolitan areas (CMAs) across the country. Statistics Canada data recorded that, as of July 1, 2021, over seven-in-ten (71.8%) Canadians were living in one of the thirty-five CMAs, which has been a consistent finding for many years.¹

¹ Annual Demographic Estimates: Subprovincial Areas, July 1, 2021, Statistics Canada (<u>https://www150.statcan.gc.ca/n1/pub/91-214-x/91-214-x2022001-eng.htm</u>)

Accordingly, almost six-in-ten respondents (59%) indicated that they reside in a mid-size or major center: 27% in communities with a population of 1,000,000 or more, 13% in communities of 500,000 to just under one million, and 19% in communities with 100,000 to just under 500,000 residents. Just over one-third (34%) live in smaller centers – 19% in communities with between 10,000 and 99,999 residents and 15% live in towns with fewer than 10,000 residents.

	TOTAL	MALF	FFMALF	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Under 5,000 people	9	8	11	7	8	13
5,000-9,999 people	5	5	6	5	5	6
10,000-49,999 people	11	11	10	9	10	13
50,000-99,999 people	8	8	9	8	9	9
100,000-499,999 people	19	20	18	18	20	19
500,000-999,999 people	13	14	11	14	12	12
1,000,000 or more people	27	30	23	28	28	24
Don't know/prefer not to answer	8	4	11	12	7	5
COLLAPSED						
< 10,000	15	12	17	12	13	18
10,000-99,999 people	19	19	19	16	19	22
100,000-499,999 people	19	20	18	18	20	19
500,000-999,999 people	13	14	11	14	12	12
1,000,000 or more people	27	30	23	28	28	24
Don't know/prefer not to answer	8	4	11	12	7	5

TABLE 23: DISTRIBUTION OF RESPONDENTS BY COMMUNITY SIZE

Q29. What is the size of the community in which you currently live? Base: Total sample

There were a few notable demographic differences:

- Female respondents were slightly overrepresented in communities of less than 10,000 people (17% vs 12%). Conversely, men were overrepresented in centres of over 1 million people (30% versus 23%); and
- Those over the age of 55 were most likely to live in centres comprised of fewer than 10,000 people (18%) and in centres between 10,000 and 100,000 people (22%) compared to those in other age categories.

Approximately one-in-ten (8%) respondents did not provide a response to this question, either because they were unsure how to classify their community by its population size or they preferred not to answer this question.

- Women (11%) more often than men (4%) did not respond to this question; and
- This was also true among younger respondents (12% among those under age 35) compared to their older peers (5% among respondents aged 55 or over).

Nearly half (47%) of respondents reported residing in an urban area and more than one-third (36%) said they live in a suburban community. Relatively few (15%) respondents were from rural or remote (1%) areas of Canada.

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Urban	47	50	43	48	49	44
Suburban	36	36	36	37	35	36
Rural	15	12	18	12	14	19
Remote	1	1	1	1	1	1
Don't know/prefer not to answer	1	1	1	3	1	<1

TABLE 24: DISTRIBUTION OF RESPONDENTS BY TYPE OF COMMUNITY

Q30. How would you best describe the area in which you reside? Is it ... Base: Total sample

There were a few demographic differences of note:

- Men were more likely to report living in urban communities (50% compared to 43% of women).
 Women, on the other hand, were more like than men to say they reside in a rural community (18% vs 12%); and
- Those over the age of 55 were more likely to say they live in a rural community (19%) than those under the age of 35 (12%).

The final sample comprised an approximately even split of male (49%) and female (51%) respondents as per the quotas that were set which aimed for a 50/50 gender split, overall. This is a standard practice in Government of Canada public opinion research studies sampling the general population, unless the topic or issue being studied necessitates that a different approach be taken.

TABLE 25: DISTRIBUTION OF REPSONDENTS BY GENDER

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Male gender	49	100	-	50	49	47
Female gender	51	-	100	49	51	53
Another gender	<1	-	-	1	<1	<1

Q1. What is your gender? Base: Total sample

This gender split was maintained across age groups, a result of interlocking quotas which were applied.

Quotas were set to ensure that the final sample generally reflected the age distribution of the Canadian population, 16 years of age and older. More than one-quarter (29%) of the final sample was under age 35 (1% were under 18, 12% between the ages of 18 and 24 and 16% between 25 and 34 years of age). One-third (33%) were between the ages of 35 and 54 (16% aged 35-44; 17% aged 45-54). Seniors, aged 55 and older comprised almost two in five of the final sample (38%), with about half of these being between the ages of 55 to 64 (17%) and the other half aged 65 years or older (21%).

TABLE 26: DISTRIBUTION OF RESPONDENTS BY AGE

	TOTAL	MALE	FEMALE	AGE <35	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
<35	29	30	28	100	-	-
35-54	33	33	33	-	100	-
55+	38	36	39	-	-	100

Q2. In what year were you born? Base: Total sample

The proportion of men and women within each of the age cohorts was roughly equal, and is reflective of the application of interlocking quotas by age and gender in the sample design.

With respect to respondents' highest level of educational attainment, almost half (47%) reported having some education at the university level (a university certificate or diploma (7%), a bachelor's degree (31%) or a post graduate degree (16%)), while just under a third (32%) had some training at the college level, CEGEP, or a non-university certificate or diploma. A very small proportion (5%) reported having completed a registered apprenticeship or other trades certificate/diploma. One-fifth of respondents (20%) indicated having some high school education or less (3%), or having graduated with a high school diploma or equivalent (17%).

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Grade 8 or less	<1	<1	<1	<1	<1	<1
Some high school	3	4	2	5	2	3
High school diploma or equivalent	17	16	19	21	11	19
Registered Apprenticeship or other trades certificate or diploma	5	6	4	4	5	6
College, CEGEP, or other non-university certificate or diploma	19	16	23	16	20	22
University certificate or diploma below bachelor's level	7	8	6	7	6	8
Bachelor's degree	31	32	30	33	36	25
Post graduate degree above bachelor's level	16	17	15	12	19	16
Prefer not to answer	1	1	1	1	1	1
HS or less	20	19	21	26	13	22
College/Trades	32	31	33	27	32	36
University	47	49	45	46	54	41

TABLE 27: DISTRIBUTION OF RESPONDENTS BY LEVEL OF EDUCATIONAL ATTAINMENT

Q24. What is the highest level of formal education that you have completed? Base: Total sample

Those who reported having a high school education or less as their highest level of educational attainment were more likely to be under the age of 35 (26%) or aged 55 or older (22%).

By contrast, those with university or higher education were more likely to be aged 35 to 54 (54%), compared to those aged 55 and older (41%) or those aged 18 to 24 (46%).

The final sample for this study comprised a cross-section of respondents by household income with roughly similar proportions having indicated an annual household income of under \$80,000 (41%) as reported an income of \$80,000 or higher (46%). Just over one in ten (13%) declined to respond to this question.

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Under \$20,000	5	4	5	9	3	3
\$20,000 to just under \$40,000	10	8	12	10	8	12
\$40,000 to just under \$60,000	13	12	14	14	10	15
\$60,000 to just under \$80,000	13	12	13	13	11	14
\$80,000 to just under \$100,000	13	15	12	14	13	14
\$100,000 to just under \$150,000	18	21	16	17	23	16
\$150,000 and above	15	17	12	12	22	10
Prefer not to answer	13	10	17	11	11	17

TABLE 28: DISTRIBUTION OF RESPONDENTS BY HOUSEHOLD INCOME

Q25. Which of the following categories best describes your total household income last year, before taxes, from all sources for all household members? Base: Total sample

Those sub-groups who reported an annual household income of \$150,000 or more were more likely to be:

- Men (17% vs 12% women); and
- 35 to 54 years of age (22%).

According to Statistics Canada, close to 20 million Canadians are of European descent.² As such, it is not unexpected that over half (55%) of respondents reported being of western or eastern European ethnicity. One in ten (10%) reported being of East Asian descent, while nearly one in five (19%) reported being of other ethno-cultural backgrounds.

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Western European (UK, Spain, Portugal, France, Germany, Austria, Switzerland, etc.)	45	46	43	35	41	55
Eastern European (Poland, Hungary, Romania, Ukraine, Russia, etc.)	10	9	10	10	10	9
African (Nigeria, Ethiopia, Tanzania, etc.)	2	2	1	3	2	<1
Middle Eastern (Israel, Syria, Jordan, Egypt, Iran, Iraq, etc.)	2	3	2	3	3	1
South Asian (India, Afghanistan, Pakistan, Sri Lanka, etc.)	4	6	3	8	5	1
Southeast Asian (Thailand, Vietnam, Singapore, the Philippines, Indonesia, Cambodia, etc.)	3	3	2	4	3	1
East Asian (China, Korea, Japan, Taiwan, etc.)	10	11	10	16	12	5
South/Central/Latin American (Argentina, Mexico, Brazil, etc.)	2	2	1	2	2	1
West Indian (Caribbean)	1	1	1	2	1	1
Indigenous (First Nations, Métis, Inuit (Inuk), etc.)	3	3	3	3	3	2
Other	19	15	22	15	16	24
Prefer not to answer	9	8	10	10	10	7

TABLE 29: DISTRIBUTION OF RESPONDENTS BY SELF-REPORTED ETHNICITY

Q26. Which of the following ethnicity(ies) do you identify as? Select all that apply. Base: Total sample

While gender and age were generally consistent across ethnic groups, those reporting European ethnicity tended to be over the age of 55 (62%).

² Ethnic and cultural origins of Canadians: Portrait of a rich heritage, 2016. (<u>https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016016/98-200-x2016016-eng.cfm</u>)

Almost half (46%) of respondents reported working full-time, while one-quarter (25%) were retired. Nearly one in ten were employed part-time, self-employed, or attending school full-time (7% in each group).

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
Working full-time, that is, 35 or more hours per week	46	51	42	52	73	18
Working part-time, that is, less than 35 hours per week	7	5	10	11	6	6
Self-employed	7	8	6	4	8	7
Unemployed, but looking for work	2	2	2	4	3	1
A student attending school full-time	7	8	7	25	<1	<1
Retired	25	23	27	-	3	64
Not in the workforce (full-time homemaker, unemployed, not looking for work)	3	1	5	3	5	2
Other (specify)	1	1	2	1	2	1
Prefer not to answer	1	<1	1	1	1	<1

TABLE 30: DISTRIBUTION OF RESPONDENTS BY EMPLOYMENT STATUS

Q27. Which of the following best describes your current employment status? Base: Total sample

A greater share of men indicated they worked full-time, compared to women (51% vs 42%).

The age distribution based on employment status also varied widely:

- Those aged 35-54 were most likely to be working full time (73%);
- Those over the age of 55 tended to be retired (64%); and
- One-quarter of those under the age of 35 were full-time students (25%).

A diversity of types of work were reported by respondents who indicated they were working. Just over one in five identified themselves as professionals, while just over one in ten described the type of work they do as service or clerical work (13%), or middle management (11%).

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	3021	1563	1453	988	1440	593
	%	%	%	%	%	%
General labourer	5	7	2	5	4	5
Service or clerical worker	13	8	19	14	12	13
Farmer or fisherman	1	1	1	1	1	1
Military or armed forces	1	2	<1	2	1	-
Skilled trades person	4	7	1	4	4	5
Skilled service worker	4	3	5	5	4	2
Technical worker	8	10	5	7	9	6
Sales	5	6	4	7	5	4
Artistic, literary, recreation	2	2	1	2	1	3
Middle management	11	10	12	8	14	9
Senior management/executive	5	6	3	2	6	6
Business owner	3	4	3	2	3	5
Consultant	4	4	4	3	3	9
Professional	22	19	24	24	21	18
Other	8	6	10	7	7	11
Prefer not to answer	5	5	6	7	4	4

TABLE 31: DISTRIBUTION OF RESPONDENTS WHO ARE WORKING BY EMPLOYMENT SECTOR

Q28. What type of work do you do? Please select the category from the list below that best describes your work? Base: Full-time, Part-time, or self-employed at Q.27

While there tended to be consistency across gender and age regardless of the nature of the work of respondents, a few differences were noteworthy:

- More women described their employment as 'service or clerical worker' compared to men (19% vs 9%);
- Women were also more likely to identify their position as 'professional' relative to men (24% vs 19%); and
- Those aged 35-54 were more likely to be in a 'middle management' position (14%) compared to both those over the age of 55 and those under the age of 35 (9% and 8%, respectively).

Just under three-quarters of respondents (72%) reported speaking English most often at home, while about one-quarter (23%) said they spoke French. A variety of other languages were reported by other respondents (about 4%) with no one particular language comprising more than one or two per cent of the sample.

	TOTAL	MALE	FEMALE	AGE 16-34	AGE 35-54	AGE 55+
n=	5000	2434	2552	1468	1654	1878
	%	%	%	%	%	%
English	72	72	72	72	71	72
French	23	23	24	22	23	25
Other	4	4	3	5	5	2
Prefer not to answer	1	1	1	1	1	<1

TABLE 32: DISTRIBUTION OF REPSONDENTS BY LANGUAGE SPOKEN AT HOME

Q31. Which language do you speak most often at home? Base: Total sample

VIII. Detailed Methodology

Detailed Methodology

A. Sample Design

A 15-minute survey of n=5000 Canadians (nationwide), aged 16 and older, was conducted online using a non-probability based sampling method with interlocking quotas. Respondents were profiled and selected to participate in the survey through the use of a nationally representative online panel. Although research conducted via online panels does not follow the protocols for a random, representative survey (and as such will not have a margin of error applied to the results), we monitored soft quotas by gender, region, and language to ensure a good representation in accordance with the overall 2016 Statistics Canada Census data.

Targets were set for region, gender and age and the final sample was distributed as shown in the following chart, with accompanying weights which were applied to ensure the final data set closely reflected the distribution of the population, aged 16 and above:

	ATL	QC	ON	MB	SK	AB	BC	TERR
M16-24	12	75	138	14	11	40	44	
M25-34	22	87	148	15	13	56	53	
M35-44	21	92	143	12	11	53	44	
M45-54	29	101	169	14	12	50	57	
M55-64	33	102	155	14	14	54	58	
M65+	39	123	179	15	13	43	75	
M18+								15

ACTUAL SURVEY COUNTS - MALES

WEIGHT FACTORS - MALES

ATL	QC	ON	MB	SK	AB	BC	TERR
1.741701	0.989625	0.996468	0.971262	1.003332	1.007444	1.004138	
1.001839	1.002347	1.001147	0.988565	1.035935	1.000989	1.000081	
1.122273	0.993409	0.992912	1.143943	1.075779	0.966111	1.119703	
1.01866	0.974684	0.992493	1.033617	0.99427	0.96131	0.992905	
0.949534	1.000464	0.991221	1.004354	0.889212	0.806742	0.976561	
0.938554	0.941082	0.980857	1.025847	1.027358	0.931509	0.911697	
							0.981593

ACTUAL SURVEY COUNTS - FEMALES

	ATL	QC		ON	MB	SK	AB	BC
F16-24	2	D	67	132	13	10	38	41
F25-34	1	2	88	160	15	13	54	55
F35-44	2	6	86	141	15	12	44	41
F45-54	3	2	99	179	15	12	43	60
F55-64	3	3	105	165	14	13	43	63
F65+	4	3	143	219	20	16	47	85
F18+								

WEIGHT FACTORS - FEMALES

ATL	QC	ON	MB	SK	AB	BC
1.007552	1.078802	0.99093	0.988796	1.045323	1.005855	1.020987
1.897713	0.994885	0.952888	0.992253	1.025895	1.023945	0.974746
0.982878	1.062043	1.094814	0.933594	0.980801	1.14137	1.280244
0.978586	0.994217	0.988385	0.985108	1.005794	1.106687	1.006514
1.00637	1.00232	0.991949	1.031395	0.958876	1.004032	0.964114
1.00361	0.998025	0.975645	0.95029	1.006623	0.987582	0.922161

The survey was offered in both official languages, French and English.

Respondents from all regions of the country were eligible to participate in the study, however, it should be noted that the results reflect the make-up of the panel and targeting of panellists by age and gender. Nevertheless, the large final sample size overall, and for each of the age cohorts, offers a robust data set for sub-level analysis.

As non-probabilistic online panels were used for this study, a margin of error does not apply. The results of the survey are only reflective of this target audience.

1. Additional Information on Online Panel

The panel partner used for this study has extensive experience managing panels for online research across Canada. Panellists are recruited though various online portals to ensure demographically balanced respondents. Our online panel partner manages all aspects of the panel, from recruitment, registration, and removal of those who would like to retire from the panel, to communicating regularly with panel members and administering surveys to them. They also enforce strict guidelines and ensures each panelist only participates in research surveys no more than twice a month. However, to be a respondent to this type of Government of Canada survey, panel members must not have participated in any Government of Canada survey as a member of this panel, or a survey on similar subject matter, within the past 30 days.

Panel Practices

This panel has been carefully built in order to ensure that it is responsive, reliable, and representative – the foundations for quality research.

The panel is:

Multi-sourced - Recruited by email marketing with over 100 diverse online partners (avoiding the bias associated with limited source recruitment).

Research only - No marketing of any sort (which can systematically bias sample). We only do online fieldwork.

Incentivized - At a low level for participation. This is respectful of a panelist's time spent; ensuring thoughtful, considered responses are coupled with healthy response rates.

Carefully managed – Panelists are not over contacted ensuring panel membership is a positive experience.

Frequently refreshed – Panelists are not over-used ensuring sufficient fresh sample for ongoing tracking work.

Panel Rules

In order to ensure a positive membership experience for panelists, coupled with panel integrity for researchers, our panel partners apply a series of survey participation "rules". They hold the entire participation history of every panelist. This, coupled with very flexible panel management software, enables them to also be able to apply rules for specific client surveys.

Panel rules include:

- Panelists can only be selected for one open survey at a time
- Restrictions on total number of surveys taken
- Panelists cannot complete a survey on the same subject within a 3-month period

Panel Recruitment/Refresh Practices

Recruiting campaigns are run across a broad range of recruiting sources to ensure an extensive reach across the online Canadian population. Media locations are continuously re-balanced to ensure key panel demographics are representative of the Canadian population. Importantly, the panel is over-weighted with younger panelists to compensate for the lower responsiveness of this demographic.

Panelists provide opt-in consent to participate in periodic research on a wide range of topics. When registering, panelists provide the following background information:

- Gender
- Education (highest level)
- Month and year of birth
- Current employment status

- Marital status
- Industry in which panelist works
- Parent or guardian
- Nearest major city
- # of people in the household
- Forward sortation area (FSA) first three characters of Canadian postal code
- Gender and year of birth of
- Annual household income before taxes
- Other members of household

Additional profiling information is collected from panelists over time to enhance the ability to precisely target low incidence groups. Using panelists' background information, samples for individual studies are drawn proportionately to census data for province, age, and gender to ensure representativeness. As a further measure, quotas are also set and enforced within the online survey program.

B. Pre-test

Following the Government of Canada's Standards for Public Opinion Research for Online Surveys, pretesting was undertaken on February 1st and 2nd, 2022 prior to launching the survey. The survey was pretested among n=23 respondents in a soft launch (11 in English and 12 in French) prior to running live.

In terms of survey length, the shortest interview was 7 minutes, while the longest was 50 minutes, with the average being about 15 minutes. Results from the pre-test were provided to Health Canada and did not result in any changes to the survey.

Pre-test respondents were asked to provide feedback on various aspects of the experience completing the questionnaire, including overall ease of completion, comprehension, length, and general interest in the topic. Overall, the feedback from respondents who completed the survey was quite positive. The vast majority respondents surveyed agreed, either somewhat or strongly, that:

- The survey was easy to complete (83%);
- The questions asked were straightforward and easy to understand (78%);
- The length of the survey was reasonable (87%); and
- The topic was interesting (83%).

C. Fieldwork and Length of Survey

Following the pre-test, the fieldwork for this survey was conducted from February 3rd to 14th, 2022. On average, the survey took 15 minutes to complete and ran anywhere between 2 and 44 minutes in length.

D. Incidence, Response and Completion Rates

In total 5,000 respondents completed the survey, with an incidence rate of 88%. The overall response rate was 16%. A total of 54,786 invitations were sent, of which 8,714 respondents started the survey. The overall completion rate achieved across all sample sources was 87 percent.

The following outlines the calculations:

Posponso Pato -	Interviews Started	Completion Pate -	Completes + Screen outs + Quota full		
Response Rate = ·	Respondents E-mailed		Total # of Click Ins		
16% =	8,714 54,786	87% =	7,558 8,714		

E. Study Limitations

Use of online panels in public opinion research is a cost-effective and reliable means of gauging attitudes and behaviours at a specific point in time among the general public and specific target audiences. However, there are certain limitations in this approach which could be a factor of the methodology and questionnaire design, or related to the target audience itself. While a number of steps have been taken to mitigate any deficiencies in the approach taken here, it is nevertheless important that the limitations of the current study be fully explained. Some limitations of the data exist which are outline below.

1. Online Methodology

Given the desire for very robust final sample and the limited timeframe for fielding, it was determined that an online rather than telephone methodology would be most appropriate. This also avoids any social desirability response bias which tends to occur more often in interviewer-led telephone surveys, although we do not anticipate this would have been a significant issue given the topic being explored in this survey. Moreover, given the complexity of some of the questions, and the need to provide further clarifying or explanatory information, it was felt that an online methodology would significantly reduce the potential for overall response bias. This decision was made based on existing evidence which shows that web-based or online surveys tend to provide more truthful results compared to telephone, particularly for questions related to behaviours which, although in this case the behaviours being assessed are not particularly sensitive or controversial. Nevertheless, it would be challenging to completely eliminate bias altogether. And, it is possible that some respondents may have over- or under-stated their usage of various radiation emitting devices.

Online surveys are by nature opt-in methodologies, meaning that the sampling method is non-probabilistic and has not been designed to be random nor representative of the target audience. Not all members of the target audience had the same chance of participating in this study. The sample draws only upon those who are registered as panelists and received an invitation to the survey. As such, it cannot be said that it reflects the actual distribution of Canadians aged 16 and older either by device-type usage or other demographic characteristics.

2. Composition of the Final Sample

The study aimed to achieve a final sample of n=5,000 among the general public aged 16 and older in order to be able to break out results into more precisely defined age cohorts. Although we applied interlocking quotas to better reflect the distribution of the population by gender and age across regions, the final dataset many not necessarily accurately reflect the views of this group if some respondents opted out or dropped out of the survey based on the topic itself and the somewhat technical nature of some questions. At the same time, we are confident that the robust samples achieved for each age cohort, across genders and by region do permit sub-level analysis which yields valid and useful insights on key demographic and regional variations, although some collinearity between age and gender may exist.

3. The Target Audience

Finally, all data were self-reported and therefore subject to related biases. Therefore, there may be some limitations of the data associated with the age of the target audience. It is possible that usage and frequency measures are conservative among some groups and possibly over-stated among others.

While all attempts were made to employ plain language and to provide clarifying examples, it is possible that some terms were unfamiliar to respondents. This would typically result in a high level of those responding 'don't know' at each question, which was generally not the case other than when asking a 'knowledge-related' question such as that pertaining to the type of radiation emitted by various device types.

IX. Appendix: Surveys (English and French)

A. English Survey

HEALTH CANADA RADIATION EMITTING DEVICES

INTRODUCTION

Thank you for agreeing to take this survey. It is being conducted by The Strategic Counsel on behalf of Health Canada to gauge your views on radiation emitting products. It should take you no more than 15-20 minutes to complete. Your help in responding to these questions is very important. All of your answers will be kept completely confidential and anonymous, and your participation is voluntary.

Click <u>here [POP-UP IN NEW BROWSER WINDOW*]</u> to verify its authenticity.

TEXT TO SHOW ONCE RESPONDENT CLICKS:

This research is sponsored by Health Canada. Note that your participation will remain completely confidential and it will not affect your dealings with the Government of Canada, including Health Canada, in any way.

You may contact Claire Emery, Associate, The Strategic Counsel at <u>cemery@thestrategiccounsel.com</u> to verify the legitimacy of this survey.

Click <u>here</u> **[POP-UP IN NEW BROWSER WINDOW*]** for more information about how any personal information collected in this survey is handled.

TEXT TO SHOW ONCE RESPONDENT CLICKS:

The personal information you provide to Health Canada is governed in accordance with the *Privacy Act* and is being collected under the authority of Section 4 of the *Department of Health Act* in accordance with the Treasury Board Directive on Privacy Practices. We only collect the information we need to conduct the research project.

Purpose of collection: We require your personal information such as demographic information to better understand the topic of the research. However, your responses are always combined with the responses of others for analysis and reporting; you will never be identified.

For more information: This personal information collection is described in the standard personal information bank Public Communications – PSU 914, in Info Source, available online at <u>www.infosource.gc.ca</u>.

Your rights under the *Privacy Act*: In addition to protecting your personal information, the *Privacy Act* gives you the right to request access to and correction of your personal information. For more information about these rights, or about our privacy practices, please contact Health Canada's Privacy Coordinator at 613-948-1219 or <u>hc.privacy-vie.privee.sc@canada.ca</u>. You also have the right to file a complaint with the Privacy Commissioner of Canada if you think your personal information has been handled improperly.

Click <u>here</u> [POP-UP IN NEW BROWSER WINDOW*] for more information about what happens after the survey is completed.

TEXT TO SHOW ONCE RESPONDENT CLICKS

The final report, written by The Strategic Counsel, will be available to the public from Library and Archives Canada <u>http://www.bac-lac.gc.ca/</u>.

SCREENING QUESTIONS

1. What is your gender? [PN: SOFT QUOTA – AIM FOR 50/50 GENDER SPLIT]

Male gender	
Female gender	
Another gender	
Prefer not to answer [PN: TERMINATE]	

2. In what year were you born?

(PN: RECORD YEAR – YYYY) RESPONDENT MUST HAVE BEEN BORN IN 2006 OR EARLIER TO BE ELIGIBLE

□ Prefer not to answer [PN: IF THE RESPONDENT PREFERS NOT TO PROVIDE A PRECISE BIRTH YEAR, ASK Q.3]

3. Would you be willing to indicate in which of the following age categories you belong?

Under 16 [PN: TERMINATE]	
16-17	
18-24	
25-34	
35-44	
45-54	
55-64	
65 or older	
Prefer not to answer [PN: TERMINATE]	

[PN: NOTE SOFT QUOTAS FOR ALL AGE CATEGORIES. ENSURE RESPONSES AT Q.2 AND Q.3 ALIGN WITH SOFT AGE QUOTAS]

4. In which province or territory do you currently reside? [PN: MANAGE SOFT QUOTAS FOR REGION]

Alberta	
British Columbia	
Manitoba	
New Brunswick	
Newfoundland and Labrador	
Northwest Territories	
Nova Scotia	
Nunavut	
Ontario	
Prince Edward Island	
Quebec	
Saskatchewan	
Yukon	
Outside of Canada [PN: TERMINATE]	

Prefer not to answer [PN: TERMINATE]	П
]

5. What are the first three digits of your postal code?

□ Prefer not to answer

_ ___

USAGE, RISK AND KNOWLEDGE OF RADIATION EMITTING DEVICES

 Please indicate whether you have used each of the following radiation emitting devices <u>within the last 12</u> <u>months</u>? Check all that apply. [RANDOMIZE LIST. IF RESPONDENT ANSWERS 'I DON'T USE ANY OF THESE PRODUCTS, SKIP TO Q.8]

Wireless communication products such as Wi-Fi,	
Bluetooth or cell phones	
5G enabled products such as 5G enabled smartphone	
Noisy products that are so loud you need to shout to	
communicate with someone next to you	
Handheld or other portable laser products such as a	
laser pointer, levelling and distance measurement	
products	
Airport whole-body scanner, used at airport security	
Microwave oven	
Headphones or ear buds used to listen to media with	
any device such as a cell phone, radio, television,	
tablet or MP3 player	
LED light bulb	
Ultraviolet (UV) disinfection products such as an air	
purifier or UV sanitizer case for small objects	
Wearable technology such as a smart watch, smart	
jewelry or fitness trackers	
Head mounted displays such as virtual reality goggles	
or smart glasses	
Tanning bed	
Other radiation emitting devices: Please specify	
I don't use any of these products [PN: EXCLUSIVE]	

7. T	Thinking back <u>over the past 12 months</u> ,	about how often have you used	l each of these products, on average?
------	--	-------------------------------	---------------------------------------

[PN: PIPE IN ONLY THOSE ITEMS CHECKED AT	Every day or more often	Two to six times per	Once a week	Two to six times per	Once a month	Two to six times a year	Once a year
Q.6]		week		month			
a. Wireless communication products such as Wi-Fi, Bluetooth or cell phones							
b. 5G enabled products such as 5G enabled smartphone							
c. Noisy products that are so loud you need to shout to communicate with someone next to you							
d. Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products							
e. Airport whole-body scanner, used at airport security							
f. Microwave oven							
g. Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player							

h. LED light bulb				
i. Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects				
j. Wearable technology such as a smart watch, smart jewelry or fitness trackers				
k. Head mounted displays such as virtual reality goggles or smart glasses				
l. Tanning bed				
m. Other: specify [PN: PIPE IN OTHER ITEMS ADDED AT Q.6]				

8. In general, how concerned are you about daily or regular usage of products like these that emit various forms of radiation? Are you ...

Very concerned	
Somewhat concerned	
Not too concerned	
Not concerned at all	
Don't know/not sure [PN: EXCLUSIVE]	

9. Each of these products emits a certain type of radiation. For each one, please indicate the type(s) of radiation you believe is/are associated with it. Select all that apply to each product.

[PN:	Radio	Micro-	Ultra-	Visible	Infra-	X-ray	Gamm	Don't
RANDOMIZE	waves	waves	violet	light	red		a ray	know/
LIST]			light		light			not
								sure
								[PN:
								EXCLU
								SIVE]

a. Cell phone				
b. 5G enabled				
c. Wi-Fi or Bluetooth				
d. Laser pointers				
e. CT Scanner				
f. LED light bulb				
g. Ultraviolet (UV) disinfection device				
h. Dental X-ray				
i. Computer monitor				
j. MRI machine				
k. Microwave oven				
I. Tanning bed				
m. Smart watch				
n. Virtual reality goggles				

10. **[PN: IF 'CELLPHONE' OR '5G ENABLED SMARTPHONE' CHECKED AT Q.8, ASK:]** How often, if at all, do you use your cell phone in the following ways?

[PN: RANDOMIZE	All of the	Most of	Some of	Rarely	Never
LIST]	time	the time	the time		
a. Holding the cell					
phone to text or use					
apps					
b. Holding the phone					
directly to your ear to					
talk					
c. Talking with the					
phone in 'hands-free'					
mode					
d. Using headphones					
to either talk, listen to					
music or podcasts, or					
to watch videos or					
play games					

11. **[PN: IF 'NOISY PRODUCTS' CHECKED AT Q.6, ASK:]** When you use noisy products, how often, if at all, do you use hearing protection? Noisy products would be things that, when you are using them, you need to shout to communicate with someone next to you, such as power tools.

All of the time	
Most of the time	
Some of the time	
Rarely	
Never	

12. Please indicate whether you believe each of the following statements are true or false.

[PN: RANDOMIZE STATEMENTS]	True	False
a. A medical doctor can reverse hearing damage		
caused by loud noise exposure.		
b. Science has not proven that cell phone use	_	_
causes cancer.		
c. Using a tanning bed to get a base tan does not		
protect against skin cancer from future sun		
exposure.		
d. I should receive an X-ray at least once within a		
two year period when I visit the dentist whether		
or not there is a dental health concern.		
e. All UV disinfecting products are effective at	_	_
killing 100% of germs and viruses.		
f. You know a laser pointer is safe if the spot of		
light it makes on a wall, for example, isn't very		
bright.		
g. You get the same amount of radiation from an		
X-ray of your wrist as you do with a chest X-ray.		

13. For each of the following, please indicate the extent to which you believe this product could be harmful to your health with regular/average use. **[PN: ONE RESPONSE ONLY]**

[PN: RANDOMIZE LIST]	Extremely harmful	Very harmful	Moderately harmful	Not that harmful	Not harmful at all
a. Wireless communication products such as Wi-Fi, Bluetooth or cell phones					
b. 5G enabled products, such as 5G enabled smartphones					

c. Noisy products that are so loud you need to shout to communicate with someone next to you					
d. Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products					
e. Airport whole- body scanner, used at airport security					
f. Microwave oven					
g. Headphones or ear buds used to listen to media with any device such as a cell phone, radio, television, tablet or MP3 player					
h. I FD light bulb	Π	Π	П	Π	Π
i. Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects					
j. Wearable technology such as a smart watch, smart jewelry or fitness trackers					
k. Head mounted displays such as virtual reality goggles or smart glasses					
I. Tanning bed					

[PN: RANDOMIZE LIST]	Very concerned	Somewhat concerned	Not too concerned	Not concerned at
				all
a. Wireless communication		_	_	
Plustooth or coll phonos				
b EC onabled products such				
as 5G enabled smarthhones				
c Noisy products that are so				
loud you need to shout to				
communicate with someone				
next to you				
d. Handheld or other				
portable laser products such				
as a laser pointer levelling				
and distance measurement				
products				
e. Airport whole-body				
scanner, used at airport				
security				
f. Microwave oven				
g. Headphones or ear buds				
used to listen to media with				
any device such as a cell				
phone, radio, television,				
tablet or MP3 player				
h. LED light bulb				
i. Ultraviolet (UV)				
disinfection products such as				
an air purifier or UV sanitizer				Ľ
case for small objects				
j. Wearable technology such				
as a smart watch, smart				
jewelry, fitness tracker				
k. Head mounted displays				
such as virtual reality goggles				
or smart glasses				
I. Tanning bed				
j. Other specify [PN: PIPE IN				

14. In general, how concerned are you about your personal health and safety if or when using each of the following products?

ITEMS ADDED AT Q.6]
15. In one or two sentences, please indicate which one of these products concerns you the most and why? [PN: OPEN-END]

 None of these products concern me

TRUST

16. Which of the following have you used to learn more about a product's safety? Check all that apply. [PN: RANDOMIZE LIST]

Government of Canada website (Canada.ca)	
USA Government website (USA.gov)	
Health Canada website	
News (online, radio, television)	
Non-government health organizations such as the	
World Health Organization (WHO)	
The Food and Drug Administration (FDA)	
Research publications	
Scientists	
Health care providers such as doctors, dentists,	
therapists, etc.	
Information found at retail stores	
Facebook	
Twitter	
Instagram	
Other social media platforms: Please specify	
Internet message platforms such as Reddit or Quora	
Top pages of a search engine result	
Google search	
Friends or family	
Customer reviews of products	
Manufacturer's website or written material included	[
with the product, including product labels	
Organizations that specialize in consumer product	
testing and reporting such as Consumer Reports,	
Wirecutter (New York Times), etc.	
Other: Please specify	
I haven't used any of these to learn about product	
safety [PN: EXCLUSIVE]	

17. From the list below, please indicate which <u>three</u> you trust the most when it comes to providing information about product safety? [PN: RANDOMIZE LIST. ACCEPT UP TO 3 RESPONSES.]

Government of Canada website (Canada.ca)	
USA Government website (USA.gov)	
Health Canada website	
News (online, radio, television)	
Non-government health organizations such as the	
World Health Organization (WHO)	
The Food and Drug Administration (FDA)	
Research publications	
Scientists	
Health care providers such as doctors, dentists,	
therapists, etc.	
Information found at retail stores	
Facebook	
Twitter	
Instagram	
Other social media platforms: Please specify	
Internet message platforms such as Reddit or Quora	
Top pages of a search engine result	
Google search	
Friends or family	
Customer reviews of products	
Manufacturer's website or written material included	
with the product, including product labels	
Organizations that specialize in consumer product	
testing and reporting such as Consumer Reports,	
Wirecutter (New York Times), etc.	
Other: Please specify	
I don't trust any of these when it comes to providing	
information about product safety [PN: EXCLUSIVE]	

18. How familiar are you with each of the following laws that exist to protect the health and safety of Canadians?

[PN: RANDOMIZE LIST]	l know a lot about this	l know a little about this	I have heard of this, but don't know much about it	I have never heard of this
a. Radiation Emitting				
Devices Act]]		
b. Canada Consumer			_	
Product Safety Act				
c. Food and Drug Act				
d. Radiocommunication Act				
e. Pest Control Products Act				

19. Please indicate which, if any, issues or problems you or someone in your household has experienced with each of the following products. Check all that apply.

[PN: PIPE IN ONLY THOSE ITEMS CHECKED AT Q.6]	Death of someone I know	Injury	Defective product	Damaged property	Issue with product Iabeling or instruc- tion	I have not exper- ienced a problem with this product
a. Wireless communication products such as Wi-Fi, Bluetooth or cell phones						
b. 5G enabled products such as 5G enabled smartphone						
c. Noisy products that are so loud you need to shout to communicate with someone next to you						
d. Handheld or other portable laser products such as a laser pointer, levelling and distance measurement products						
e. Airport whole-body scanner, used at airport security						
f. Microwave oven						
g. Headphones or ear buds used to listen to media with any device such as a cell phone, radio,						

television, tablet or MP3 player			
h. LED light bulb			
i. Ultraviolet (UV) disinfection products such as an air purifier or UV sanitizer case for small objects			
j. Wearable technology such as a smart watch, smart jewelry or fitness trackers			
k. Head mounted displays such as virtual reality goggles or smart glasses			
I. Tanning bed			
m. Other radiation emitting devices: Please specify [PN: PIPE IN OTHER ITEMS ADDED AT Q.6]			

20. Are you familiar with Health Canada's online reporting system that allows you to report problems with a product? Problems include injury, death, product defects, or labeling concerns.

Yes	
No	

21. Have you ever reported a problem with a product to Health Canada? A report of a problem can include a phone call, e-mail, letter or official report through Health Canada's online reporting system.

Yes	
No, but I have reported a problem to the	[
manufacturer	
No, but I have reported a problem to the retailer	
No, I have never reported a problem with any product	[
before	

22. When you decide to purchase a product, to what extent do you trust that this product meets Canadian laws for safety?

[PN: RANDOMIZE LIST]	l fully trust the product meets Canadian laws for safety	I somewhat trust the product meets Canadian laws for safety	I don't trust that the product meets Canadian laws for safety
a. When purchasing a product online			
b. When purchasing a product in-store or in- person			

23. Please indicate whether you agree or disagree with each of the following statements.

PN: RANDOMIZE ITEMS	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
a. I am confident that any radiation emitting devices available to Canadians are safe.				
 b. I think the laws that regulate radiation emitting devices in Canada are adequate. 				
c. I expect the Government of Canada to continue to protect Canadians from the radiation risk from products available in Canada.				
d. I think the Government of Canada provides sufficient information to Canadians on the safety of radiation emitting devices.				
e. I think regulations governing the safety of				

products in Canada are too		
restrictive		

DEMOGRAPHICS

This final set of questions will be used for statistical purposes only.

24. What is the highest level of formal education that you have completed?

Grade 8 or less	
Some high school	
High school diploma or equivalent	
Registered Apprenticeship or other trades certificate	
or diploma	
College, CEGEP, or other non-university certificate or	
diploma	
University certificate or diploma below bachelor's level	
Bachelor's degree	
Post graduate degree above bachelor's level	
Prefer not to answer	

25. Which of the following categories best describes your total household income last year, before taxes, from all sources for all household members?

Under \$20,000	
\$20,000 to just under \$40,000	
\$40,000 to just under \$60,000	
\$60,000 to just under \$80,000	
\$80,000 to just under \$100,000	
\$100,000 to just under \$150,000	
\$150,000 and above	
Don't know/Prefer not to answer	

26. Which of the following ethnicity(ies) do you identify as? Select all that apply.

Western European (UK, Spain, Portugal, France, Germany Austria, Switzerland, etc.)	
Eastern European (Poland, Hungary, Romania, Ukraine,	
Russia, etc.)	
African (Nigeria, Ethiopia, Tanzania, etc.)	
Middle Eastern (Israel, Syria, Jordan, Egypt, Iran, Iraq,	
etc.)	
South Asian (India, Afghanistan, Pakistan, Sri Lanka,	_
etc.)	
Southeast Asian (Thailand, Vietnam, Singapore, the	_
Philippines, Indonesia, Cambodia, etc.)	
East Asian (China, Korea, Japan, Taiwan, etc.)	
South/Central/Latin American (Argentina, Mexico,	
Brazil, etc.)	

West Indian (Caribbean)	
Indigenous (First Nations, Métis, Inuit (Inuk), etc.)	
Other, please specify:	
Prefer not to answer	

27. Which of the following best describes your current employment status? [PN: ACCEPT ONE RESPONSE ONLY]

Working full-time, that is, 35 or more hours per week	
Working part-time, that is, less than 35 hours per week	
Self-employed	
Unemployed, but looking for work	
A student attending school full-time	
Retired	
Not in the workforce (full-time homemaker, unemployed, not looking for work)	
Other, please specify:	
Prefer not to answer	

28. **[PN: IF 'FULL-TIME,' 'PART-TIME,' OR 'SELF-EMPLOYED' AT Q.27, ASK:]** What type of work do you do? Please select the category from the list below that best describes your work. **[PN: ONE RESPONSE ONLY]**

General labourer (construction worker, taxi driver)	
Service or clerical worker (sales clerk, hair stylist, bank	
teller)	
Farmer or fisherman	
Military or armed forces	
Skilled trades person (carpenter, electrician, plumber)	
Skilled service worker (police officer, firefighter, child	
care)	
Technical worker (lab technician, surveyor, air traffic	
controller, software programmer)	
Sales (sales rep, wholesaler)	
Artistic, literary, recreation (actor, writer,	
photographer, musician)	
Middle management (restaurant, public service,	
office/retail)	
Senior management/executive (President, VP, CEO,	
Principal)	
Business owner (store owner, self-employed with	
employees)	
Consultant (self-employed with no employees)	
Professional (doctor, nurse, lawyer, teacher, engineer)	
Other, please specify:	
Prefer not to answer	

29. What is the size of the community in which you currently live?

1,000,000 or more people	
500,000-999,999 people	
100,000-499,999 people	
50,000-99,999 people	
10,000-49,999 people	
5,000-9,999 people	
Under 5,000 people	
Don't know/prefer not to answer	

30. How would you best describe the area in which you reside? Is it ...

Urban	
Suburban	
Rural	
Remote	
Don't know/prefer not to answer	

31. Which language do you speak most often at home? [PN: ACCEPT ONE RESPONSE ONLY]

English	
French	
Other, please specify:	
Prefer not to answer	

32. Language in which survey was completed [PN: CODE]

English	
French	

B. French Survey

SONDAGE DE SANTÉ CANADA SUR LES DISPOSITIFS ÉMETTANT DES RADIATIONS

INTRODUCTION

Merci d'avoir accepté de faire ce sondage. Le cabinet The Strategic Counsel s'occupe de le réaliser pour Santé Canada afin de connaître vos opinions sur les produits émettant des radiations. Le sondage devrait vous prendre 15 à 20 minutes tout au plus. Votre aide pour répondre à ces questions est très importante. Toutes vos réponses seront strictement confidentielles et anonymes, et votre participation est volontaire.

Cliquez ici [AFFICHER DANS UNE NOUVELLE FENÊTRE DU NAVIGATEUR*] si vous souhaitez vérifier l'authenticité de ce sondage.

TEXTE À AFFICHER LORSQU'UN RÉPONDANT CLIQUE :

Santé Canada est le commanditaire de la présente étude. Soulignons que votre participation est strictement confidentielle et qu'elle n'aura aucune incidence sur vos rapports avec le gouvernement du Canada, y compris avec Santé Canada.

Vous pouvez vérifier la légitimité de ce sondage auprès de Claire Emery, associée, The Strategic Counsel, à l'adresse suivante : <u>cemery@thestrategiccounsel.com</u>.

Cliquez <u>ici</u> [AFFICHER DANS UNE NOUVELLE FENÊTRE DU NAVIGATEUR*] pour en savoir plus sur le traitement de vos renseignements personnels recueillis durant ce sondage.

TEXTE À AFFICHER LORSQU'UN RÉPONDANT CLIQUE :

Les renseignements personnels que vous donnez à Santé Canada sont régis par la *Loi sur la protection des renseignements personnels* et sont recueillis en vertu de l'article 4 de la *Loi sur le ministère de la Santé*, conformément à la directive du Conseil du Trésor sur les pratiques relatives à la protection de la vie privée. La collecte porte uniquement sur les renseignements nécessaires à la réalisation de l'étude.

Objet de la collecte : Nous avons besoin de vos renseignements personnels, par exemple de données démographiques, pour mieux comprendre le sujet de recherche. Cependant, vos réponses seront toujours regroupées avec celles des autres répondants au moment de l'analyse et des rapports; vous ne serez jamais identifié(e).

Pour en savoir plus : Vous trouverez une description de la collecte de ces renseignements personnels dans le fichier de renseignements personnels ordinaires POU 914 — Communications publiques, dans Info Source, disponible en ligne au <u>www.infosource.gc.ca</u>.

Vos droits en vertu de la *Loi sur la protection des renseignements personnels* : En plus de protéger vos renseignements personnels, la *Loi sur la protection des renseignements personnels* vous donne le droit de demander l'accès à ces renseignements ainsi que leur correction. Pour plus d'information sur ces droits ou sur nos pratiques en matière de protection de la vie privée, veuillez appeler le coordonnateur de la protection des renseignements personnels de Santé Canada au 613-948-1219 ou lui écrire à <u>hc.privacy-vie.privee.sc@canada.ca</u>. Vous avez également le droit de déposer une plainte auprès du Commissariat à la protection de la vie privée du Canada si vous estimez que vos renseignements personnels ont été traités d'une manière inappropriée.

Cliquez ici [AFFICHER DANS UNE NOUVELLE FENÊTRE DU NAVIGATEUR*] pour savoir ce qui se passera à la suite du sondage.

TEXTE À AFFICHER LORSQU'UN RÉPONDANT CLIQUE :

Le rapport final, préparé par le cabinet The Strategic Counsel, sera accessible au public sur le site Web de Bibliothèque et Archives Canada : <u>http://www.bac-lac.gc.ca/</u>.

QUESTIONS DE SÉLECTION

1. Quel est votre genre? [NP : QUOTA SOUPLE – VISER LA PARITÉ DE GENRE]

Genre masculin	
Genre féminin	
Autre genre	
Je préfère ne pas répondre [NP : CONCLURE]	

2. Quelle est votre année de naissance?

(NP : NOTER L'ANNÉE – AAAA) SEULS LES RÉPONDANTS NÉS EN 2006 OU AVANT SONT ADMISSIBLES

□ Je préfère ne pas répondre [NP : SI LE RÉPONDANT PRÉFÈRE NE PAS DONNER DE DATE PRÉCISE, POSER LA Q.3]

strateptenez rous a marquer roue transne a age aans la liste salvante.	
Moins de 16 ans [NP : CONCLURE]	
16 à 17 ans	
18 à 24 ans	
25 à 34 ans	
35 à 44 ans	
45 à 54 ans	
55 à 64 ans	
65 ans ou plus	
Je préfère ne pas répondre [NP : CONCLURE]	

3. Accepteriez-vous d'indiquer votre tranche d'âge dans la liste suivante?

[NP : PRENDRE NOTE DES QUOTAS SOUPLES POUR TOUTES LES TRANCHES D'ÂGE. VÉRIFIER QUE LES RÉPONSES AUX Q.2 ET Q.3 CONCORDENT AVEC LES QUOTAS SOUPLES POUR L'ÂGE]

4. Dans quelle province ou quel territoire habitez-vous? [NP : GÉRER LES QUOTAS SOUPLES DES RÉGIONS]

Alberta	
Colombie-Britannique	
Manitoba	
Nouveau-Brunswick	
Terre-Neuve-et-Labrador	
Territoires du Nord-Ouest	
Nouvelle-Écosse	
Nunavut	
Ontario	
Île-du-Prince-Édouard	
Québec	
Saskatchewan	
Yukon	
À l'extérieur du Canada [NP : CONCLURE]	
Je préfère ne pas répondre [NP : CONCLURE]	

5. Quels sont les trois premiers caractères de votre code postal?

□ Je préfère ne pas répondre

UTILISATION, RISQUE ET CONNAISSANCE DES DISPOSITIFS ÉMETTANT DES RADIATIONS

6. Veuillez indiquer si vous avez utilisé les dispositifs émettant des radiations énumérés ci-dessous <u>au cours des douze</u> <u>derniers mois</u>. Cochez toutes les réponses pertinentes. [RANDOMISER LA LISTE. SI LA RÉPONSE CHOISIE EST « JE N'UTILISE AUCUN DE CES PRODUITS », PASSER À LA Q.8]

Appareils de communication sans fil, tels que Wi-Fi, Bluetooth ou téléphones cellulaires	
Produits compatibles avec la 5G, p. ex. un téléphone intelligent 5G	
Produits bruyants, qui vous obligent à crier pour vous faire entendre d'une personne à	
côté de vous	
Lasers portatifs ou autres produits laser portatifs tels que pointeurs, instruments de	
mesure de niveau et télémètre laser	
Scanners corporels utilisés aux points de contrôle des aéroports	
Four à micro-ondes	
Casque d'écoute ou mini-écouteurs utilisés avec des appareils tels que téléphone	
cellulaire, radio, télévision, tablette ou lecteur MP3	
Lampes à DEL	
Produits de désinfection par rayonnement ultraviolet (UV), p. ex. un purificateur d'air ou	
un étui de désinfection UV pour petits objets	
Technologie portable, p. ex. une montre intelligente, un bijou intelligent ou un moniteur	
d'activité physique	
Casques de visualisation, tels que casques de réalité virtuelle ou lunettes intelligentes	
Lit de bronzage	
Autre dispositif émettant des radiations; veuillez préciser :	
Je n'utilise aucun de ces produits [NP : EXCLUSIF]	

7. Si vous repensez <u>aux douze derniers mois</u>, à quelle fréquence environ avez-vous utilisé chacun de ces produits, en moyenne?

[NP : INSÉRER UNIQUEMENT LES RÉPONSES COCHÉES À LA Q.6]	Tous les jours, ou plus souvent	Deux à six fois par semaine	Une fois par semaine	Deux à six fois par mois	Une fois par mois	Deux à six fois par an	Une fois par an
a. Appareils de communication sans fil, tels que Wi-Fi, Bluetooth ou téléphones cellulaires							
b. Produits compatibles avec la 5G, p.							

ex. un téléphone intelligent 5G				
c. Produits bruyants, qui vous obligent à crier pour vous faire entendre d'une personne à côté de vous				
d. Lasers portatifs ou autres produits laser portatifs tels que pointeurs, instruments de mesure de niveau et télémètre laser				
e. Scanners corporels utilisés aux points de contrôle des aéroports				
f. Four à micro- ondes				
g. Casque d'écoute ou mini-écouteurs utilisés avec des appareils tels que téléphone cellulaire, radio, télévision, tablette ou lecteur MP3				
h. Lampes à DEL				
i. Produits de désinfection par rayonnement ultraviolet (UV), p. ex. un purificateur d'air ou un étui de désinfection UV pour petits objets				

j. Technologie portable, p. ex. une montre intelligente, un bijou intelligent ou un moniteur d'activité physique				
k. Casques de visualisation, tels que casques de réalité virtuelle ou lunettes intelligentes				
l. Lit de bronzage				
m. Autre dispositif; veuillez préciser : [NP : INSÉRER LES ÉLÉMENTS AJOUTÉS À LA Q.6]				

8. En général, à quel point être-vous préoccupé(e) au sujet de l'utilisation quotidienne ou régulière de produits comme ceux-là, qui émettent différentes formes de radiations?

Très préoccupé(e)	
Assez préoccupé(e)	
Peu préoccupé(e)	
Pas du tout préoccupé(e)	
Je ne sais pas/je ne suis pas sûr(e) [NP : EXCLUSIF]	

9. Chacun de ces produits émet un certain type de radiations. Pour chaque produit, veuillez indiquer le ou les types de radiations qui y sont associées, d'après vous. Cochez toutes les réponses pertinentes pour chaque produit.

[NP : RANDOMISER LA LISTE]	Ondes radio	Micro- ondes	Rayons ultravio lets	Lumière visible	Rayons infrarouges	Rayons X	Rayons Gamma	Je ne sais pas/je ne suis pas sûr(e) [NP : EXCLUSIF]
a. Téléphone cellulaire								
b. Téléphone intelligent 5G								

c. Wi-Fi ou Bluetooth				
d. Pointeurs laser				
e. Tomodensitomè tre				
f. Lampe DEL				
g. Dispositif de désinfection par rayonnement ultraviolet (UV)				
h. Radiographie dentaire				
i. Moniteur d'ordinateur				
j. Appareil d'IRM				
k. Four à micro- ondes				
l. Lit de bronzage				
m. Montre intelligente				
n. Casque de réalité virtuelle				

10. **[NP : SI « TÉLÉPHONE CELLULAIRE » OU « TÉLÉPHONE INTELLIGENT 5G » A ÉTÉ COCHÉ À LA Q.8, DEMANDER :]** Le cas échéant, à quelle fréquence utilisez-vous votre téléphone cellulaire selon les manières décrites ci-dessous?

[NP : RANDOMISER	Tout le	La plupart	Parfois	Rarement	Jamais
LA LISTE]	temps	du temps			
a. Je tiens le					
téléphone pour texter					
ou utiliser des					
applications					
b. Je mets le					
téléphone à l'oreille					
pour parler					
c. Je parle au					
téléphone en mode					
mains libres					
d. J'utilise des					
écouteurs soit pour					
parler, pour écouter					
de la musique ou des					
balados, pour					
regarder des vidéos					

ou pour jouer à des			
jeux			

11. [NP : SI « PRODUITS BRUYANTS » A ÉTÉ COCHÉ À LA Q.6, DEMANDER :] Lorsque vous utilisez des produits bruyants, à quelle fréquence recourez-vous à un dispositif de protection anti-bruit? On peut considérer comme « bruyants » des produits qui, lors de leur utilisation, vous obligent à crier pour communiquer avec une personne à proximité. Il peut s'agir, par exemple, d'outils électriques.

Tout le temps	
La plupart du temps	
Parfois	
Rarement	
Jamais	

12. Veuillez indiquer si vous croyez que les énoncés suivants sont vrais ou faux.

[NP : RANDOMISER LES ÉNONCÉS]	Vrai	Faux
a. Un médecin peut inverser les dommages		
auditifs causés par l'exposition à un bruit		
intense.		
b. La science n'a pas démontré que l'utilisation		
d'un téléphone cellulaire cause le cancer.		
c. Un bronzage de base obtenu au moyen d'un lit		
de bronzage ne protège pas contre le cancer de		
la peau lié à une future exposition au soleil.		
d. Je devrais passer une radiographie au moins		
une fois tous les deux ans lorsque je vais chez le		
dentiste, même en l'absence d'un problème de		
santé dentaire.		
e. Tous les produits de désinfection par		
rayonnement UV permettent d'éliminer 100 %		
des microbes et virus.		
f. On sait qu'un pointeur laser est sécuritaire		
lorsque la tache de lumière qu'il projette sur un		
mur, par exemple, n'est pas très brillante.		
g. On reçoit la même dose de radiations en		
passant une radiographie du poignet qu'en		
passant une radiographie de la poitrine.		

13. Pour chacun des produits suivants, veuillez indiquer dans quelle mesure vous croyez qu'il pourrait être dangereux pour votre santé, en supposant un usage régulier ou moyen. [NP : ACCEPTER UNE SEULE RÉPONSE]

[NP : RANDOMISER LA	Extrêmement	Très	Moyennement	Pas vraiment	Pas du tout
LISTE]	dangereux	dangereux	dangereux	dangereux	dangereux
a. Appareils de communication sans fil, tels					

que Wi-Fi, Bluetooth ou				
telephones cellulaires				
b. Produits compatibles avec				
la 5G, p. ex. un telephone				
Intelligent SG				
c. Produits bruyants, qui vous				
faire entendre d'une				
nersonne à côté de vous				
d Lasers portatifs ou autres				
produits laser portatifs tels				
que pointeurs instruments				
de mesure de niveau et]]]	
télémètre laser				
e. Scanners corporels utilisés				
aux points de contrôle des				
aéroports				
f. Four à micro-ondes				
g. Casque d'écoute ou mini-				
écouteurs utilisés avec des				
appareils tels que téléphone				
cellulaire, radio, télévision,				
tablette ou lecteur MP3				
h. Lampes a DEL				
I. Produits de desinfection				
par rayonnement ultraviolet				
(UV), p. ex. un purificateur				
d'air ou un etui de				
ohiets				
i. Technologie portable, p. ex.				
une montre intelligente. un				
bijou intelligent ou un				
moniteur d'activité physique				
k. Casques de visualisation,				
tels que casques de réalité			_	
virtuelle ou lunettes				
intelligentes				
l. Lit de bronzage				

14. En général, à quel point êtes-vous préoccupé(e) au sujet de votre santé et de votre sécurité personnelle
lorsque vous utilisez chacun des produits suivants ou envisagez de le faire?

[NP : RANDOMISER LA	Très	s Assez Peu		Pas du tout
LISTE]	préoccupé(e)	préoccupé(e)	préoccupé(e)	préoccupé(e)
a. Appareils de communication sans fil, tels que Wi-Fi, Bluetooth ou téléphones cellulaires				
b. Produits compatibles avec la 5G, p. ex. un téléphone intelligent 5G				
c. Produits bruyants, qui vous obligent à crier pour vous faire entendre d'une personne à côté de vous				
d. Lasers portatifs ou autres produits laser portatifs tels que pointeurs, instruments de mesure de niveau et télémètre laser				
e. Scanners corporels utilisés aux points de contrôle des aéroports				
f. Four à micro-ondes				
g. Casque d'écoute ou mini- écouteurs utilisés avec des appareils tels que téléphone cellulaire, radio, télévision, tablette ou lecteur MP3				
h. Lampes à DEL	Π	Π	Π	Π
i. Produits de désinfection par rayonnement ultraviolet (UV), p. ex. un purificateur d'air ou un étui de désinfection UV pour petits objets				
j. Technologie portable, p. ex. une montre intelligente, un bijou intelligent ou un moniteur d'activité physique				
k. Casques de visualisation, tels que casques de réalité virtuelle ou lunettes intelligentes				
l. Lit de bronzage				
m. Autre dispositif; veuillez préciser : [NP : INSÉRER LES ÉLÉMENTS AJOUTÉS À LA Q.6]				

15. Veuillez indiquer, en une ou deux phrases, lequel de ces produits vous préoccupe le plus et pourquoi? [NP : RÉPONSE OUVERTE]

 Aucun de ces produits ne me préoccupe

CONFIANCE

16. Lesquelles des sources suivantes avez-vous consultées pour vous renseigner sur la sécurité d'un produit? Cochez toutes les réponses pertinentes. **[NP : RANDOMISER LA LISTE]**

Site Web du gouvernement du Canada (Canada.ca)	
Site Web du gouvernement des États-Unis (USA.gov)	
Site Web de Santé Canada	
Nouvelles (en ligne, à la radio, à la télévision)	
Organisations non gouvernementales de la santé,	_
p. ex. l'Organisation mondiale de la Santé (OMS)	
Le Secrétariat américain aux produits alimentaires et	
pharmaceutiques (FDA)	
Publications de recherche	
Scientifiques	
Prestataires de services de santé, tels que médecins,	
dentistes, thérapeutes, etc.	
Informations obtenues dans des magasins de détail	
Facebook	
Twitter	
Instagram	
Autres plateformes de médias sociaux; veuillez	
préciser :	
Plateformes de discussion sur Internet comme Reddit	
ou Quora	
Premières pages de résultats d'un moteur de	
recherche	
Recherche sur Google	
Amis ou membres de la famille	
Avis des clients sur les produits	
Site Web du fabricant ou documentation fournie avec	
le produit, y compris les étiquettes	
Organisations spécialisées qui effectuent des tests sur	_
des produits de consommation et en publient les	

résultats, p. ex. Consumer Reports, Wirecutter (New	
York Times), etc.	
Autre source; veuillez préciser :	
Je n'ai consulté aucune de ces sources pour me	
renseigner sur la sécurité d'un produit [NP : EXCLUSIF]	

17. Dans la liste ci-dessous, veuillez indiquer les <u>trois</u> sources auxquelles vous faites le plus confiance pour ce qui est de vous renseigner sur la sécurité des produits. **[NP : RANDOMISER LA LISTE. ACCEPTER JUSQU'À 3 RÉPONSES.]**

Site Web du gouvernement du Canada (Canada.ca)	
Site Web du gouvernement des États-Unis (USA.gov)	
Site Web de Santé Canada	
Nouvelles (en ligne, à la radio, à la télévision)	
Organisations non gouvernementales de la santé,	
p. ex. l'Organisation mondiale de la Santé (OMS)	
Le Secrétariat américain aux produits alimentaires et	
pharmaceutiques (FDA)	
Publications de recherche	
Scientifiques	
Prestataires de services de santé, tels que médecins,	
dentistes, thérapeutes, etc.	
Informations obtenues dans des magasins de détail	
Facebook	
Twitter	
Instagram	
Autres plateformes de médias sociaux; veuillez	
préciser :	
Plateformes de discussion sur Internet comme Reddit	
ou Quora	
Premières pages de résultats d'un moteur de	
recherche	
Recherche sur Google	
Amis ou membres de la famille	
Avis des clients sur les produits	
Site Web du fabricant ou documentation fournie avec	
le produit, y compris les étiquettes	
Organisations spécialisées qui effectuent des tests sur	
des produits de consommation et en publient les	_
résultats, p. ex. Consumer Reports, Wirecutter (New	
York Times), etc.	
Autre source; veuillez préciser :	
Je ne fais confiance à aucune de ces sources pour ce	
qui est de me renseigner sur la sécurité des produits	
[NP : EXCLUSIF]	

18. À quel point connaissez-vous chacune des lois suivantes qui servent à protéger la santé et la sécurité des
Canadiens?

[NP : RANDOMISER LA LISTE]	J'en sais beaucoup à son sujet	J'en sais un peu à son sujet	J'en ai entendu parler, mais ne sais pas grand-chose à son sujet	Je n'en ai jamais entendu parler
a. Loi sur les dispositifs émettant des radiations				
b. Loi canadienne sur la sécurité des produits de consommation				
c. Loi sur les aliments et drogues				
d. Loi sur la radiocommunication				
e. Loi sur les produits antiparasitaires				

19. Le cas échéant, veuillez indiquer pour chacun des produits suivants les enjeux ou problèmes que vous ou un membre de votre ménage avez rencontrés. Cochez toutes les réponses pertinentes.

[NP : INSÉRER UNIQUEMENT LES RÉPONSES COCHÉES À LA Q.6]	Le décès d'une connaissa nce	Une blessure	Un produit défectue ux	Un dommag e matériel	Un problème relatif à l'étiqueta ge ou aux instructio ns	Je n'ai pas eu de problème lié à ce produit
a. Appareils de communication sans fil, tels que Wi-Fi, Bluetooth ou téléphones cellulaires						
b. Produits compatibles avec la 5G, p. ex. un téléphone intelligent 5G						
c. Produits bruyants, qui vous obligent à crier pour vous						

faire entendre d'une personne à côté de vous			
d. Lasers portatifs ou autres produits laser portatifs tels que pointeurs, instruments de mesure de niveau et télémètre laser			
e. Scanners corporels utilisés aux points de contrôle des aéroports			
f. Four à micro- ondes			
g. Casque d'écoute ou mini-écouteurs utilisés avec des appareils tels que téléphone cellulaire, radio, télévision, tablette ou lecteur MP3			
h. Lampes à DEL			
i. Produits de désinfection par rayonnement ultraviolet (UV), p. ex. un purificateur d'air ou un étui de désinfection UV pour petits objets			
j. Technologie portable, p. ex. une montre intelligente, un bijou intelligent ou un moniteur			

d'activité physique			
k. Casques de visualisation, tels que casques de réalité virtuelle ou lunettes intelligentes			
l. Lit de bronzage			
m. Autre dispositif émettant des radiations; veuillez préciser : [NP : INSÉRER LES ÉLÉMENTS AJOUTÉS À LA Q.6]			

20. Connaissez-vous le système de déclaration en ligne de Santé Canada à l'aide duquel vous pouvez signaler des problèmes liés à un produit? Par problème, on entend une blessure, un décès, un produit défectueux ou des préoccupations relatives à l'étiquetage.

Oui	
Non	

21. Avez-vous déjà signalé un problème lié à un produit à Santé Canada? Un problème peut être signalé par téléphone, par courriel, par lettre ou en faisant un signalement officiel au moyen du système de déclaration en ligne de Santé Canada.

Oui	
Non, mais j'ai signalé un problème au fabricant	
Non, mais j'ai signalé un problème au détaillant	
Non, je n'ai jamais signalé de problème lié à un	
produit auparavant	

22. Quand vous décidez d'acheter un produit, à quel point avez-vous confiance que ce produit respecte les exigences des lois canadiennes en matière de sécurité?

[NP : RANDOMISER LA LISTE]	J'ai entièrement confiance que le produit respecte les exigences des lois canadiennes en matière de sécurité	J'ai assez confiance que le produit respecte les exigences des lois canadiennes en matière de sécurité	Je n'ai pas confiance que le produit respecte les exigences des lois canadiennes en matière de sécurité
a. Lorsque j'achète un produit en ligne			
b. Lorsque j'achète un produit en magasin ou en personne			

23. Veuillez indiquer si vous êtes d'accord ou non avec chacun des énoncés suivants.

NP : RANDOMISER LES	Tout à fait	Plutôt d'accord	Plutôt en	Tout à fait en
a. Je suis certain(e) que tous les dispositifs émettant des radiations offerts aux Canadiens sont				
sécuritaires.				
 b. Je pense que les lois qui réglementent les dispositifs émettant des radiations au Canada sont adéquates. 				
c. Je m'attends à ce que le gouvernement du Canada continue de protéger les Canadiens des risques associés aux radiations des produits offerts au Canada.				
D. Je pense que le gouvernement du Canada fournit suffisamment d'informations sur la sécurité des dispositifs qui émettent des radiations.				
e. Je pense que la réglementation en matière de sécurité des produits au Canada est trop restrictive.				

DONNÉES DÉMOGRAPHIQUES

Cette dernière série de questions servira à des fins statistiques uniquement.

24. Quel est le mileau de seblante le plus cieve que vous ayez atteint:		
École primaire		
Études secondaires partielles		
Diplôme d'études secondaires ou l'équivalent		
Certificat ou diplôme d'apprenti inscrit ou d'une école		
de métiers		
Certificat ou diplôme d'un collège, d'un cégep ou d'un		
autre établissement non universitaire		
Certificat ou diplôme universitaire inférieur au		
baccalauréat		
Baccalauréat		
Diplôme universitaire supérieur au baccalauréat		
Je préfère ne pas répondre		

24. Quel est le niveau de scolarité le plus élevé que vous ayez atteint?

25. Laquelle des catégories suivantes décrit le mieux le revenu annuel total de votre ménage avant impôt? Veuillez tenir compte de toutes les sources de revenus des membres de votre ménage.

Moins de 20 000 \$	
20 000 \$ à moins de 40 000 \$	
40 000 \$ à moins de 60 000 \$	
60 000 \$ à moins de 80 000 \$	
80 000 \$ à moins de 100 000 \$	
100 000 \$ à moins de 150 000 \$	
150 000 \$ ou plus	
Je ne sais pas/je préfère ne pas répondre	

26. Auquel des groupes ethniques suivants vous identifiez-vous? Cochez toutes les réponses pertinentes.

France, Allemagne, Autriche, Suisse, etc.)	
Européen de l'Est (Pologne, Hongrie, Roumanie,	_
Ukraine, Russie, etc.)	
Africain (Nigéria, Éthiopie, Tanzanie, etc.)	
D'origine moyen-orientale (Israël, Syrie, Jordanie,	
Égypte, Iran, Irak, etc.)	
Sud-asiatique (Inde, Afghanistan, Pakistan, Sri Lanka,	
etc.)	
Asiatique du Sud-Est (Thaïlande, Vietnam, Singapour,	
Philippines, Indonésie, Cambodge, etc.)	
Asiatique de l'Est (Chine, Corée, Japon, Taïwan, etc.)	
Sud-américain, centraméricain, latino-américain	
(Argentine, Mexique, Brésil, etc.)	
Antillais (Caraïbes)	
Autochtone (Premières Nations, Métis, Inuits (Inuk),	
etc.)	
Autre groupe; veuillez préciser : 🛛	
Je préfère ne pas répondre	

27. Laquelle des situations suivantes décrit le mieux votre situation d'emploi actuelle? [NP : ACCEPTER UNE SEULE RÉPONSE]

Emploi à temps plein (35 heures ou plus par semaine)	
Emploi à temps partiel (moins de 35 heures par	
semaine)	
Travail autonome	
Sans emploi, mais à la recherche d'un emploi	
Aux études à temps plein	
À la retraite	
Pas sur le marché du travail (au foyer à temps plein,	
sans emploi et ne cherchant pas de travail)	
Autre situation; veuillez préciser :	
Je préfère ne pas répondre	

28. [NP : SI « EMPLOI À TEMPS PLEIN », « EMPLOI À TEMPS PARTIEL » OU « TRAVAIL AUTONOME » À LA Q.27, DEMANDER :] Quel type de travail exercez-vous? Veuillez choisir dans la liste ci-dessous la catégorie qui décrit le mieux votre travail. [NP : ACCEPTER UNE SEULE RÉPONSE]

Manœuvre (travailleur/travailleuse de la construction,	
chauffeur/chauffeuse de taxi)	
Travail de bureau ou dans le secteur des services	
(commis-vendeur/commis-vendeuse,	
coiffeur/coiffeuse, caissier/caissière de banque)	
Agriculteur/agricultrice ou pêcheur/pêcheuse	
Militaire ou membre des forces armées	
Métier spécialisé (charpentier/charpentière,	
électricien/électricienne, plombier/plombière)	
Travail spécialisé du secteur des services	
(policier/policière, pompier/pompière,	
éducateur/éducatrice en services de garde)	
Travail technique (technicien/technicienne de	
laboratoire, arpenteur-géomètre/arpenteuse-	
géomètre, contrôleur aérien/contrôleuse aérienne,	
programmeur/programmeuse de logiciels)	
Secteur de la vente (représentant/représentante,	
grossiste)	
Secteur des arts, de la littérature et des loisirs	
(acteur/actrice, écrivain/écrivaine, photographe,	
musicien/musicienne)	
Cadres intermédiaires (restauration, fonction publique,	
bureau/commerce de détail)	
Membre de la direction/haute direction	
(président/présidente, vice-président/vice-présidente,	
chef de la direction, directeur/directrice)	
Propriétaire d'entreprise (propriétaire de magasin,	
travailleur autonome/travailleuse autonome avec	
employés)	
Consultant/consultante (travailleur	
autonome/travailleuse autonome sans employé)	

Personnel professionnel (médecin,	
infirmier/infirmière, avocat/avocate,	
enseignant/enseignante, ingénieur/ingénieure)	
Autre travail; veuillez préciser :	
Je préfère ne pas répondre	

29. Quelle est la taille de la collectivité dans laquelle vous habitez actuellement?

Un million d'habitants ou plus	
500 000 à 999 999 habitants	
100 000 à 499 999 habitants	
50 000 à 99 999 habitants	
10 000 à 49 999 habitants	
5 000 à 9 999 habitants	
Moins de 5 000 habitants	
Je ne sais pas/je préfère ne pas répondre	

30. Comment décririez-vous la région où vous habitez? Est-ce...

Une ville	
Une banlieue	
Une région rurale	
Une région éloignée	
Je ne sais pas/je préfère ne pas répondre	

31. Quelle langue parlez-vous le plus souvent à la maison? [NP : ACCEPTER UNE SEULE RÉPONSE]

Anglais	
Français	
Autre langue; veuillez préciser :	
Je préfère ne pas répondre	

32. Langue du sondage [NP : CODE]

Anglais	
Français	