Public Opinion on Wireless Technology and Health

Citizens for Safe Technology

FINAL Submission • Project 2012-311


## Methodology

- Citizens for Safe Technology retained Nanos Research to conduct public opinion research on issues related to wireless technology and possible health effects.
- Between October $4^{\text {th }}$ and $11^{\text {th }}, 2012$, Nanos conducted a random national telephone survey of 1,000 Canadians aged 18 and over. A random national telephone survey of 1,000 Canadians is accurate to within 3.1 percentage points, plus or minus, 19 times out of 20.


## Executive Summary

- Awareness of Possible Health Effects - Nearly seven in ten Canadians (68.5\%) said they were aware of possible health effects of electromagnetic frequencies from wireless technologies. About three in ten (29.7\%) said they were unaware of possible health effects, while a handful (1.8\%) were unsure.
- Concern About Possible Health Effects - Three in five Canadians (60.2\%) said they were concerned (26.9\%) or somewhat concerned (33.3\%) about possible health effects of electromagnetic frequencies from wireless technologies. More than one in three (36.7\%) said they were unconcerned (24.2\%) or somewhat unconcerned (12.5\%), while a further 3.0 per cent were unsure.
- Sources of Concern - Asked to rank their top two possible sources of electromagnetic frequencies in terms of possible health concerns, Canadians were most likely to pick cellular phones (46.5\%) as their first ranked choice. A further one in five (20.1\%) cited cellular phone towers as their first response.


## Executive Summary (cont'd)

- Health Risks and Groups of Concern - Over one in three Canadians (35.6\%) said that, in terms of possible health risks, they were most concerned about heavy users of wireless technology such as cell phones. Nearly one in four (23.0\%) said they were most concerned about people who lived near cellular phone towers, while one in seven ( $14.3 \%$ ) were most concerned about children in schools with wireless internet. Of note, nearly one in four Canadians ( $24.7 \%$ ) said they were not concerned about any of these groups. A handful (2.3\%) were unsure.
- Personal Experience of Health Effects - The overwhelming majority of Canadians (94.0\%) said that no member of their household had ever experienced any health effects that they believed may have been the result of electromagnetic frequencies from wireless technologies. Less than one in twenty (4.3\%) said that a member of their household had experienced such effects, while a further 1.7 per cent were unsure.


## Awareness of Possible Health Effects

Question - Are you aware or unaware of possible health effects of electromagnetic frequencies from wireless technologies?

$$
(n=1,000)
$$



- Responses were generally consistent across regional, gender and age groups.


## Concern About <br> Possible Health Effects

Question - Are you concerned, somewhat concerned, somewhat unconcerned or unconcerned about possible health effects of
electromagnetic frequencies from wireless technologies?

$$
(n=1,000)
$$



- Female respondents were more likely than male respondents to say they were concerned or somewhat concerned about possible health effects ( $68.5 \%$ vs. $51.5 \%$ ).


## Sources of Concern

Question - Please rank the following possible sources of electromagnetic frequencies in terms of possible health concerns, where 1 is the source you are most concerned about and 2 is the source that you are the second most concerned about. [RANDOMIZE]

$$
(n=1,000)
$$

FIRST RANKED RESPONSE


- There was overall consistency in numbers across regional, gender and age groups.


## Health Risks and Groups of Concern

Question - Which one of the following groups, if any, are you most concerned about in terms of possible health risks? [RANDOMIZE]

$$
(n=1,000)
$$



- While at the national level, there was a 13-point gap between the two groups respondents were most concerned about, in Quebec there was a statistical tie between respondents most concerned about people who live near cellular phone towers (31.7\%) and those most concerned about heavy users of wireless technology such as cell phones (29.9\%).


## Experience of Health Effects

Question - Has a member of your household ever experienced any health effects that you believe may be the result of electromagnetic frequencies from wireless technologies?

$$
(n=1,000)
$$



- Responses were broadly consistent across regional, gender and age groups.


# Contact Details 

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# Appendix - Statistical Tables 

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|  |  | Question - Are you aware or unaware of possible health effects of electromagnetic frequencies from wireless technologies? |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Aware | Unaware | Unsure [Unprompted] |
|  |  | Responses | Percentage | Percentage | Percentage |
| Region | Canada 2012-10 | 1000 | 68.5 | 29.7 | 1.8 |
|  | Atlantic | 100 | 60.0 | 38.4 | 1.6 |
|  | Quebec | 250 | 64.9 | 35.1 | . 0 |
|  | Ontario | 300 | 75.1 | 23.2 | 1.7 |
|  | Prairies | 200 | 63.0 | 32.4 | 4.6 |
|  | British Columbia | 150 | 74.5 | 24.1 | 1.4 |
| Gender | Male | 485 | 70.6 | 28.0 | 1.4 |
|  | Female | 515 | 66.6 | 31.3 | 2.2 |
| Age | 18 to 29 | 205 | 67.3 | 30.3 | 2.5 |
|  | 30 to 39 | 169 | 76.0 | 24.0 | . 0 |
|  | 40 to 49 | 208 | 68.4 | 29.9 | 1.7 |
|  | 50 to 59 | 178 | 72.4 | 27.2 | . 4 |
|  | 60 plus | 239 | 61.5 | 34.9 | 3.6 |
| Vote <br> Profile | Liberal | 247 | 67.8 | 31.1 | 1.1 |
|  | Conservative | 274 | 73.8 | 24.4 | 1.7 |
|  | NDP | 229 | 69.7 | 27.4 | 2.9 |
|  | Bloc | 38 | 76.4 | 23.6 | . 0 |
|  | Green | 23 | 76.7 | 23.3 | . 0 |
|  | Other | 10 | 84.0 | 16.0 | . 0 |
|  | Undecided | 178 | 56.2 | 41.6 | 2.2 |

Accurate $\pm 3.1$ percentage points, 19 times out of 20 .
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|  |  | Question - Are you concerned, somewhat concerned, somewhat unconcerned or unconcerned about possible health effects of electromagnetic frequencies from wireless technologies? |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Concerned | Somewhat concerned | Somewhat unconcerned | Unconcerned | Unsure [Unprompted] |
|  |  | Responses | Percentage | Percentage | Percentage | Percentage | Percentage |
| Region | Canada 2012-10 | 1000 | 26.9 | 33.3 | 12.5 | 24.2 | 3.0 |
|  | Atlantic | 100 | 23.0 | 37.5 | 8.4 | 26.8 | 4.2 |
|  | Quebec | 250 | 24.1 | 31.6 | 19.3 | 22.1 | 2.9 |
|  | Ontario | 300 | 28.4 | 34.7 | 11.7 | 24.0 | 1.2 |
|  | Prairies | 200 | 28.1 | 32.9 | 8.5 | 25.5 | 5.1 |
|  | British Columbia | 150 | 30.0 | 31.3 | 10.7 | 24.7 | 3.3 |
| Gender | Male | 485 | 22.8 | 28.7 | 15.0 | 30.9 | 2.5 |
|  | Female | 515 | 30.8 | 37.7 | 10.0 | 17.9 | 3.5 |
| Age | 18 to 29 | 205 | 22.2 | 37.7 | 12.2 | 26.8 | 1.2 |
|  | 30 to 39 | 169 | 21.8 | 36.2 | 17.2 | 24.2 | . 6 |
|  | 40 to 49 | 208 | 27.6 | 33.9 | 15.5 | 22.1 | . 9 |
|  | 50 to 59 | 178 | 35.2 | 31.7 | 9.9 | 21.5 | 1.7 |
|  | 60 plus | 239 | 27.9 | 28.3 | 8.7 | 25.9 | 9.2 |
| Vote Profile | Liberal | 247 | 28.7 | 35.5 | 11.0 | 22.2 | 2.6 |
|  | Conservative | 274 | 25.0 | 33.3 | 11.0 | 27.8 | 2.9 |
|  | NDP | 229 | 26.1 | 35.1 | 17.2 | 20.1 | 1.6 |
|  | Bloc | 38 | 20.5 | 41.9 | 24.4 | 11.6 | 1.6 |
|  | Green | 23 | 23.2 | 35.4 | 11.0 | 27.8 | 2.7 |
|  | Other | 10 | 35.8 | 41.6 | 12.4 | 10.2 | . 0 |
|  | Undecided | 178 | 30.0 | 25.7 | 8.3 | 29.7 | 6.3 |

Accurate $\pm 3.1$ percentage points, 19 times out of 20 .
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|  |  | Question (first ranked response) - Please rank the following possible sources of electromagnetic frequencies in terms of possible health concerns, where 1 is the source you are most concerned about and 2 is the source that you are the second most concerned about. [RANDOMIZE] |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Cellular phone towers | Cellular phones | Wireless internet (wi-fi) | Radios | Wireless water or gas meters | Baby monitors | Other (please specify) | None <br> [Unprompted | Unsure <br> [Unprompted] |
|  |  | Responses | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage |
| Region | $\begin{aligned} & \text { Canada 2012- } \\ & 10 \end{aligned}$ | 1000 | 20.1 | 46.5 | 6.4 | . 5 | 5.7 | 2.6 | 2.0 | 9.2 | 6.9 |
|  | Atlantic | 100 | 14.6 | 54.4 | 5.0 | . 0 | 4.6 | 3.1 | 3.3 | 3.2 | 11.8 |
|  | Quebec | 250 | 21.6 | 39.2 | 5.4 | . 5 | 12.0 | 4.0 | 2.9 | 12.2 | 2.1 |
|  | Ontario | 300 | 19.0 | 49.4 | 9.1 | . 8 | 3.0 | 1.7 | 1.5 | 9.1 | 6.5 |
|  | Prairies | 200 | 21.1 | 47.8 | 5.2 | . 3 | 2.3 | 2.3 | 1.3 | 10.6 | 9.2 |
|  | British Columbia | 150 | 22.5 | 46.2 | 5.0 | . 5 | 5.8 | 2.1 | 1.4 | 6.8 | 9.8 |
| Gender | Male | 485 | 21.6 | 42.7 | 6.2 | . 8 | 5.1 | 3.1 | 2.6 | 11.6 | 6.3 |
|  | Female | 515 | 18.8 | 50.1 | 6.6 | . 2 | 6.3 | 2.1 | 1.3 | 7.0 | 7.5 |
| Age | 18 to 29 | 205 | 20.6 | 48.4 | 5.5 | . 0 | 9.3 | 1.6 | . 0 | 5.2 | 9.5 |
|  | 30 to 39 | 169 | 27.2 | 47.8 | 8.1 | . 0 | 4.0 | 1.9 | 2.7 | 6.5 | 1.9 |
|  | 40 to 49 | 208 | 17.6 | 49.7 | 8.5 | . 0 | 7.0 | 2.1 | . 6 | 10.7 | 3.9 |
|  | 50 to 59 | 178 | 22.1 | 47.0 | 5.1 | . 4 | 5.0 | 3.5 | 3.4 | 8.9 | 4.5 |
|  | 60 plus | 239 | 15.5 | 40.9 | 5.2 | 1.8 | 3.2 | 3.7 | 3.3 | 13.6 | 12.8 |
| Vote Profile | Liberal | 247 | 21.4 | 46.0 | 8.5 | . 5 | 7.0 | 1.3 | 1.2 | 7.6 | 6.5 |
|  | Conservative | 274 | 18.7 | 46.8 | 5.2 | . 7 | 3.0 | 3.2 | 2.7 | 12.6 | 7.1 |
|  | NDP | 229 | 23.7 | 44.5 | 7.1 | . 8 | 4.4 | 2.3 | 1.6 | 9.4 | 6.2 |
|  | Bloc | 38 | 24.0 | 32.1 | 4.7 | . 0 | 12.8 | 11.9 | . 0 | 12.3 | 2.3 |
|  | Green | 23 | 15.8 | 50.2 | 6.0 | . 0 | 3.8 | 4.1 | 5.2 | 9.7 | 5.1 |
|  | Other | 10 | . 0 | 51.8 | 18.9 | . 0 | 12.4 | . 0 | 10.2 | . 0 | 6.6 |
|  | Undecided | 178 | 16.9 | 51.8 | 4.1 | . 0 | 8.1 | 1.7 | 2.0 | 6.0 | 9.5 |

National random telephone survey of 1,000 Canadians aged 18 and over
conducted between October $4^{\text {th }}$ and 11 ${ }^{\text {th }}, 2012$.
Accurate $\pm 3.1$ percentage points, 19 times out of 20 .
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|  |  | Question (second ranked response) - Please rank the following possible sources of electromagnetic frequencies in terms of possible health concerns, where 1 is the source you are most concerned about and 2 is the source that you are the second most concerned about. [RANDOMIZE] |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Cellular phone towers | Cellular phones | Wireless internet (wi-fi) | Radios | Wireless water or gas meters | $\begin{gathered} \text { Baby } \\ \text { monitors } \end{gathered}$ | Other (please specify) | None <br> [Unprompted] | Unsure <br> [Unprompted] |
|  |  | Responses | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage | Percentage |
| Region | $\begin{aligned} & \text { Canada 2012- } \\ & 10 \end{aligned}$ | 954 | 24.1 | 18.1 | 19.4 | 2.3 | 6.9 | 5.0 | 3.8 | 10.0 | 10.5 |
|  | Atlantic | 100 | 24.0 | 18.6 | 19.7 | 2.2 | 5.2 | 5.8 | 2.5 | 8.7 | 13.4 |
|  | Quebec | 250 | 26.2 | 23.3 | 12.1 | 2.5 | 8.8 | 5.6 | 2.7 | 15.9 | 2.9 |
|  | Ontario | 285 | 22.2 | 17.1 | 22.8 | 2.3 | 6.1 | 4.8 | 4.7 | 8.0 | 12.0 |
|  | Prairies | 179 | 25.6 | 15.6 | 23.2 | 1.5 | 4.7 | 4.3 | 3.5 | 8.3 | 13.4 |
|  | British Columbia | 141 | 22.5 | 13.9 | 20.2 | 2.6 | 9.2 | 4.4 | 5.2 | 6.8 | 15.2 |
| Gender | Male | 458 | 21.4 | 18.5 | 19.0 | 2.6 | 7.1 | 4.0 | 4.5 | 12.2 | 10.7 |
|  | Female | 496 | 26.6 | 17.8 | 19.7 | 2.0 | 6.7 | 5.8 | 3.1 | 8.0 | 10.3 |
| Age | 18 to 29 | 200 | 23.5 | 21.3 | 19.3 | . 9 | 4.7 | 8.5 | 1.7 | 5.8 | 14.3 |
|  | 30 to 39 | 166 | 27.7 | 19.9 | 18.6 | 4.3 | 7.5 | 1.6 | 2.7 | 10.4 | 7.4 |
|  | 40 to 49 | 197 | 30.2 | 19.9 | 19.7 | 3.3 | 6.8 | 3.5 | 3.2 | 9.2 | 4.1 |
|  | 50 to 59 | 167 | 21.8 | 18.8 | 22.2 | 1.8 | 7.0 | 5.5 | 7.3 | 9.6 | 5.9 |
|  | 60 plus | 224 | 18.3 | 11.9 | 17.6 | 1.4 | 8.4 | 5.2 | 4.2 | 14.6 | 18.4 |
| Vote Profile | Liberal | 241 | 21.7 | 15.8 | 20.0 | 2.4 | 7.8 | 7.0 | 5.0 | 9.2 | 11.1 |
|  | Conservative | 258 | 22.1 | 18.0 | 21.3 | 2.8 | 7.1 | 2.0 | 3.3 | 13.5 | 9.9 |
|  | NDP | 215 | 24.5 | 20.9 | 22.9 | 2.1 | 4.7 | 5.2 | 3.8 | 8.6 | 7.2 |
|  | Bloc | 38 | 26.0 | 33.9 | 7.3 | . 0 | 8.5 | 1.6 | 5.4 | 14.9 | 2.3 |
|  | Green | 21 | 32.1 | 17.6 | 19.3 | . 0 | 7.6 | 6.3 | . 0 | 4.6 | 12.6 |
|  | Other | 10 | 45.3 | 22.7 | 16.0 | . 0 | 9.5 | . 0 | . 0 | . 0 | 6.6 |
|  | Undecided | 172 | 27.4 | 14.4 | 14.1 | 2.5 | 7.3 | 7.0 | 2.9 | 8.0 | 16.5 |

National random telephone survey of 1,000 Canadians aged 18 and over
conducted between October $4^{\text {th }}$ and 11 ${ }^{\text {th }}, 2012$.
Accurate $\pm 3.1$ percentage points, 19 times out of 20 .
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|  |  | Question - Which one of the following groups, if any, are you most concerned about in terms of possible health risks? [RANDOMIZE] |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Children in schools with wireless internet | People who live near cellular phone towers | Heavy users of wireless technology such as cell phones | Not concerned about any | Unsure [Unprompted] |
|  |  | Responses | Percentage | Percentage | Percentage | Percentage | Percentage |
| Region | Canada 2012-10 | 1000 | 14.3 | 23.0 | 35.6 | 24.7 | 2.3 |
|  | Atlantic | 100 | 13.6 | 19.6 | 38.1 | 25.3 | 3.4 |
|  | Quebec | 250 | 12.6 | 31.7 | 29.9 | 24.1 | 1.7 |
|  | Ontario | 300 | 12.7 | 21.8 | 35.7 | 27.7 | 2.1 |
|  | Prairies | 200 | 16.5 | 14.9 | 44.5 | 21.3 | 2.7 |
|  | British Columbia | 150 | 17.9 | 24.1 | 31.5 | 24.0 | 2.4 |
| Gender | Male | 485 | 12.4 | 23.2 | 33.7 | 28.8 | 1.9 |
|  | Female | 515 | 16.2 | 22.9 | 37.5 | 20.9 | 2.6 |
| Age | 18 to 29 | 205 | 12.9 | 25.8 | 40.1 | 21.2 | . 0 |
|  | 30 to 39 | 169 | 9.4 | 23.9 | 34.8 | 31.0 | . 9 |
|  | 40 to 49 | 208 | 16.0 | 26.4 | 31.1 | 25.3 | 1.1 |
|  | 50 to 59 | 178 | 18.8 | 19.3 | 40.6 | 20.5 | . 8 |
|  | 60 plus | 239 | 14.1 | 19.9 | 32.6 | 26.0 | 7.4 |
| Vote <br> Profile | Liberal | 247 | 17.1 | 26.3 | 31.4 | 22.6 | 2.7 |
|  | Conservative | 274 | 13.4 | 16.3 | 39.1 | 28.7 | 2.4 |
|  | NDP | 229 | 12.6 | 23.7 | 38.2 | 23.8 | 1.7 |
|  | Bloc | 38 | 12.6 | 51.5 | 19.6 | 16.3 | . 0 |
|  | Green | 23 | 2.5 | 26.5 | 36.8 | 28.5 | 5.7 |
|  | Other | 10 | 21.9 | 19.7 | 51.9 | 6.5 | . 0 |
|  | Undecided | 178 | 15.6 | 21.5 | 35.3 | 25.1 | 2.5 |


|  |  | Question - Has a member of your household ever experienced any health effects that you believe may be the result of electromagnetic frequencies from wireless technologies? |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Experienced | Not experienced | Unsure [Unprompted] |
|  |  | Responses | Percentage | Percentage | Percentage |
| Region | Canada 2012-10 | 1000 | 4.3 | 94.0 | 1.7 |
|  | Atlantic | 100 | . 0 | 99.2 | . 8 |
|  | Quebec | 250 | 6.0 | 93.5 | . 5 |
|  | Ontario | 300 | 4.7 | 94.2 | 1.1 |
|  | Prairies | 200 | 3.1 | 94.4 | 2.5 |
|  | British Columbia | 150 | 5.1 | 90.6 | 4.3 |
| Gender | Male | 485 | 2.7 | 96.0 | 1.3 |
|  | Female | 515 | 5.7 | 92.2 | 2.0 |
| Age | 18 to 29 | 205 | 8.9 | 89.5 | 1.6 |
|  | 30 to 39 | 169 | 4.1 | 95.9 | . 0 |
|  | 40 to 49 | 208 | 2.7 | 96.1 | 1.1 |
|  | 50 to 59 | 178 | 3.2 | 94.8 | 2.0 |
|  | 60 plus | 239 | 2.6 | 94.2 | 3.1 |
| Vote Profile | Liberal | 247 | 5.9 | 90.4 | 3.7 |
|  | Conservative | 274 | 2.3 | 97.1 | . 6 |
|  | NDP | 229 | 5.0 | 94.4 | . 6 |
|  | Bloc | 38 | 4.7 | 93.6 | 1.6 |
|  | Green | 23 | 3.0 | 92.9 | 4.1 |
|  | Other | 10 | 9.5 | 90.5 | . 0 |
|  | Undecided | 178 | 3.9 | 94.4 | 1.8 |

Accurate $\pm 3.1$ percentage points, 19 times out of 20 .
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