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# Attitudes Toward Environmental Noise in Rural and Non-Rural Canada

## Executive Summary

Prepared for Health Canada

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For more information on this report, please contact Health Canada at:

[hc.cpab.por-rop.dgcap.sc@canada.ca](mailto:hc.cpab.por-rop.dgcap.sc@canada.ca)

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## Background

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Health Canada's provision of advice on noise and health for impact assessments (IA) under the Impact Assessment Act (IAA) is formulated from a global science base that is derived from social surveys conducted in developed urban/sub-urban areas. The department has very little information on attitudes and expectations toward noise in rural or remote communities, and no data that is specific to Indigenous Canadians. This has been identified as a knowledge gap for several years insofar as Health Canada's current guidelines (Health Canada, 2017) include a significant decibel adjustment (i.e., +10dB) based on an assumed greater expectation of peace and quiet in so-called "quiet rural areas".

Indeed, many of the communities impacted by project-related noise would qualify as rural/remote. For this reason, any additional insights the department may gain through conducting this survey in rural (when compared to non-rural) areas would support the provision of advice on IA. As well, information with regards to Indigenous Canadians will be helpful in informing this advice. Therefore, Health Canada would like to evaluate the community response to noise among Canadians (Indigenous/non-Indigenous) living in rural and non-rural communities across Canada.

### ***Manner in which research supports government or departmental priorities:***

Health Canada's Safe Environment Directorate (SED) provides the Canadian Impact Assessment Agency (CIAA) with advice on IA under IAA, which extends to noise impacts on human health. Environmental assessment coordinators at SED depend on subject matter experts (SME) from Consumer and Clinical Radiation Protection Bureau (CCRPB) to provide, upon request, science-based advice on noise and health. They also rely on CCRPB SMEs to develop, review and update Health Canada guidance on noise and health and to defend the Department's advice at formal panel hearings. To fulfill these obligations and support the development's legal obligation under IAA, CCRPB conducts research to address knowledge gaps that aim to improve the department's provision of advice.

### ***Manner in which research findings will benefit Canadians:***

Results will provide new information on noise annoyance, sleep, attitudes and expectations, which will inform future updates to Health Canada's guidelines. Health Canada considers both annoyance and sleep disturbance to be potential risk factors for adverse health outcomes and, for this reason, insights that can be gleaned through this survey will form the development of a knowledge base that can be relied upon to provide expert advice regarding noise-related health impacts.

### ***Risks associated with failure to secure information:***

There is a concern that existing data may not fully reflect Indigenous Peoples attitudes and expectations toward environmental noise. Scientists within Health Canada are pursuing other

surveys to address this knowledge gap, however, to date, there has been no indication that any of these surveys will include any/sufficient noise content.

There are no risks associated with undertaking this project. Not undertaking this project would mean that the advice the Department provides on Impact Assessment remains status quo. This is associated with a level of uncertainty that may undermine the value of the advice provided.

## Objectives of the Survey

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The primary objective of the research was to gather information on attitudes and expectations regarding noise annoyance and sleep.

Specific research objectives included:

- Gain an understanding of noise levels in communities across Canada, including noise from road traffic, air traffic and machinery
- Determine how outdoor noise may affect attitudes and behaviours in one's home/community
- Assess outdoor noise as a potential contributor to sleep disturbances
- Identify correlations between outdoor noise disturbances and mental/physical health
- As some of the sampling regions will overlap with areas that have undergone a federal IA, this may allow us to take advantage of public noise modelling data through the Canadian Impact Assessment Registry

## Methodology

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Health Canada sought a probability-based sample of 5,000 Canadians aged 18 and older, drawn from the general population. One of the goals was to reach 1,000 Indigenous residents of rural and urban areas across Canada (with minimum of 500 coming from remote areas). Respondents self-classified in the survey into geographic areas (remote, rural, suburban, urban), as well as provided their Indigenous status.

The probability-based study was conducted using a two-step approach where respondents were recruited by telephone to participate in an online web survey. Respondents were recruited to the online study by either email or SMS (text message), based on their preference at the time of recruitment. After the initial invitation, if respondents had not yet completed the survey, they were sent a reminder message. Reminder messages were sent 3 and 6 days after the initial recruit.

Overall, 11,492 respondents were recruited to participate in the study. In total, 24,133 phone numbers were called between April 12<sup>th</sup> and May 19<sup>th</sup>, 2021, and 11,492 people were recruited to the survey, for a response rate on the recruit of 50.6%.

Of the 11,492 recruited participants, 6,647 completed the online survey, for a response rate among those recruited of 57.8%. The margin of error for the study was +/-1.2%, at a 95% confidence interval (i.e., 19 times out of 20).

The average length of time to complete the online survey was just under 10 minutes.

## Total Expenditure

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The total cost of this research was \$48,166.25 including HST.

## Political Neutrality Certification

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I hereby certify as Senior Officer of Advanis 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: 

Nicolas Toutant, Vice-President, Research and Evaluation