

# COVID-19 Snapshot Monitoring in Canada (COSMO Canada): Monitoring Citizens' Perceptions, Knowledge, and Behaviours relating to the Pandemic (Part II)

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## I. Project Background

From April 2020 to December 2021, Privy Council Office (PCO) led the implementation of the COVID-19 Snapshot Monitoring (COSMO) Study Phase 1 which longitudinally captured respondents' perceptions, knowledge, and behaviours in response to the pandemic. The COSMO Study Phase 1 was founded on a comprehensive survey developed by the World Health Organization (WHO)<sup>1</sup>, released to assist countries in quickly establishing a data collection mechanism to track the evolving response context related to COVID-19 at the citizen-level. It has enabled PCO to contribute evidence-based, behaviourally-informed insights and recommendations to public communication materials, policy and programmatic considerations, and whole-of-government decision-making related to the Government of Canada's broader response effort. The first phase of the study collected data across sixteen waves spanning April 2020 to November 2021.

The present project is the COSMO Study's second Phase, which will continue to monitor the evolving pandemic response context with a new sample of Canadians (including a flexible oversample of diverse sub-segments of the population) and a restructured survey body exploring new thematic areas related to reintegration and recovery. More specifically, as the country gradually re-opens, this study will monitor Canadians' beliefs and behaviours on the road to re-integrating to workplaces, social circles, and the day-to-day activities they engaged in before the pandemic, and further explore the factors posing threat to collective recovery emerging from Phase 1 evidence (e.g., vaccine hesitancy, exposure to and spread of mis/disinformation).

## II. Aims and Objectives of the Study

The goal of this survey is to continue to provide research-based information on Canadians' attitudes and behaviours related to COVID-19, including information on the diverse experiences and barriers related to reintegration to society and pandemic recovery as Canada gradually re-opens. This includes:

- Return to activities engaged in before the pandemic;
- Adherence to and perceptions of new or ongoing public health measures and restrictions;
- Vaccination rates and vaccine acceptance/hesitancy;
- Exposure and susceptibility to misinformation/disinformation;
- Barriers/drivers to re-integrating to society (e.g., health, work, financial); and,
- Differential impacts of the pandemic on health and wellbeing.

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<sup>1</sup><https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/publications-and-technical-guidance/risk-communication-and-community-engagement/who-tool-for-behavioural-insights-on-covid-19>

Insights generated from this quantitative study will enable the Government of Canada to further develop and refine COVID-19 response efforts to meet the specific needs of Canadians. This survey will also seek to oversample from underrepresented populations (e.g., BIPOC Canadians) who may be disproportionately impacted by the pandemic, or face unique barriers/challenges. At present, there is a lack of existing robust public opinion research focused on understanding the needs, values, and motivations of these groups, which the current survey will strive to address.

### III. Research Questions

Overall, research questions relate to:

- Levels of and changes in risk perceptions, knowledge, used and trusted sources of information, confidence in crisis management, correct knowledge about and uptake of preparedness and protective behaviours, at each data collection point;
- How changes in risk perceptions relate to characteristics of the outbreak and other psychological variables such as knowledge and misinformation;
- Whether participants report that they are aware of specific outbreak response measures and whether being aware of them influences risk perceptions;
- Whether risk perceptions are positively related to preparedness and protective behaviours and which other factors are relevant correlates of preparedness and protective behaviours (e.g. knowledge, misinformation, trust);
- Knowledge and misinformation about preparedness and preventive measures and whether the level of knowledge is related to certain sources of information; and
- Reactions to announcements and programs from the Government of Canada to help combat the COVID-19 outbreak, and its associated effects.

### IV. Methodology

The study will be conducted with a General Population Sample (see below) using a longitudinal design (i.e. the same participants, where possible, will be completing the survey each wave), with an estimated attrition rate of 15-20%. The study will also include cross-sectional over samples of underrepresented populations and other specific populations of interest. The online survey will take about 20 minutes to complete.

Data collection will begin in February 2022 and will be collected every seven weeks thereafter for a total of eight waves. In case of unexpected developments, the time frame between the data collections may change.

#### Flexibility and Adaptation

As the COVID-19 pandemic evolves and the epidemiological and response situation changes, the questionnaire will be continuously updated, so that the questions asked reflect the situation and provide necessary information to shape effective policy and communication responses.

#### Sample

To ensure the sample is broadly representative of the Canadian population and to allow for analyses of and comparisons between subgroups of interests (e.g. regions, provinces, age groups, vulnerable groups), each wave will consist of 2,000 participants. The sample will include general population

respondents (n=1,500) weighted by region, age group, gender, and education using data from the 2016 Census, as well as an oversample of populations of specific interest (n=500) which will change from one wave to the next (i.e., cross sectional observation). It includes Canadian citizens as well as other individuals residing in Canada.

## Data Collection and Analysis

Data collection will be done through EKOS, a well-reputed Canadian market and social research firm with many years of experience in conducting research and public opinion surveys. Data will be collected through a 20-minute online survey from respondents randomly recruited from EKOS' online research panel called Probit. The Probit panel is designed to offer complete coverage of the Canadian population (i.e., Internet, phone, cell phone), random recruitment (in other words, participants are recruited randomly, they do not opt themselves into our panel), and equal probability sampling. All respondents to the panel are recruited by telephone using random digit dialling and are confirmed by live interviewers.

As indicated above, data will be collected through a rolling poll over eight waves. To the extent possible, data collection will be spread out evenly over the collection period. Given the longitudinal design, we aim for the same general population participants to be surveyed at each wave; new participants will only be recruited to participate if an existing participant drops out. In contrast, new participants will be recruited each wave for the 500-participant oversample.

The sample frame will consist of 50% women and 50% men for each age group (18 to 34; 35 to 54; 55+), and for each region:

- Atlantic Canada (Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick);
- Quebec;
- Ontario;
- Manitoba/Saskatchewan/Nunavut;
- Alberta/Northwest Territories;
- British Columbia/Yukon.

The following table details the expected distribution of the general population sample across the provinces and territories weekly. The sample will be distributed as follows:

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NU	NT	YT
30	60	16	45	300	465	94	79	195	210	2	2	2

As for any general population sample derived from a national survey, final results will be weighted by region, age groups, gender, and education.

The contracted firm, EKOS, is part of the Canadian Research Insights Council (CRIC), which adheres to the European Society for Opinion and Market Research (ESOMAR) standards of research. As such, they must abide by both the CRIC Public Opinion Research Standards, as well as the ESOMAR International Code on Market, Opinion, and Social Research and Data Analytics. Both organizations make clear the ethical standards that must be followed when collecting, analysing and reporting data.

All participants will be informed of their rights under the Privacy Act, Personal Information Protection and Electronic Documents Act and Access to Information Act and the firm will ensure that those rights are protected throughout the research process. This includes informing respondents of the purpose of the research; identifying the sponsoring department/agency or Government of Canada as a whole; making clear that their participation is voluntary and that the information provided will be administered according to the requirements of the Privacy Act, the Access to Information Act, and any other pertinent legislation. Additionally, any statements presented to participants deemed to be misinformation (e.g., when rating the accuracy of factual statements) will be corrected in the debrief following the survey.

## Analysis

All cleaning, coding and analysis of raw data files with observation-level data will be conducted in either R Notebook, Stata, or SPSS, three common statistical software packages for social science and behavioural science research. Both descriptive and inferential statistical analyses will be employed to describe and model the data, and test hypotheses. We expect the majority of analyses will be exploratory in nature and may shift from wave to wave, depending on requirements at the outset of each wave.

Only complete cases will be included in each analysis. Missing values will be treated as missing and will not be imputed.

## Scientific Review and Validation of Tools

The program of research is informed by a diverse Advisory Committee composed of subject matter experts in areas related to behavioural science, misinformation, epidemiology and public health. A draft of the survey instrument will be shared with the committee for review prior to the first wave of data collection and before each successive wave to ensure that (a) the constructs assessed are valid, high value, appropriate to the Canadian context, and follow current best practices in longitudinal monitoring, and (b) our analytical approach and interpretation of results are methodologically sound.

## Publication of the Study Protocol

Aggregate data (i.e., no individual participant's data) will be published regularly, in the form of tables and figures, on the [Impact Canada website](#) for Canadians to view. Data will also be made publically available through Library and Archives Canada at the conclusion of the study in 2023.

## V. Limitations

We are aware of the limitations of conducting research using online surveys. Online survey methods may limit the participation of certain population groups, including the elderly and disadvantaged population groups such as migrants, people experiencing homelessness and/or poverty, and other vulnerable groups who may lack access to the internet or have limited digital literacy.

In addition, our longitudinal study will rely on self-reports to a significant degree. Research has shown self-reports are not always reliable or valid, as they are subject to various response biases, including social desirability bias and challenges with introspection and recall. Careful instrument design can mitigate these risks, but cannot eliminate them.