Data collection & the impact, challenges and opportunities of the COVID-19 pandemic

FedCASIC Virtual Conference –
April 13th, 2021

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Statistics Canada   Statistique Canada

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Background - COVID-19 in Canada

- In Canada, the first COVID-19 cases started to appear in January and February

- In March, international travel was ban and state of emergency measures were put in place in all provinces/territories.
  - School closed all on-site activities focussing more on on line classes
  - Businesses not deemed essential closed (e.g. bar, restaurants, cinemas)
  - Aids programs for individuals and businesses were put i place.

- We are now at the beginning of the third waves. Vaccinations has started since January 2021.

The count of active cases of
COVID-19 in **Canada**

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Impact of COVID-19 on StatCan Collection

For health and security reasons during the pandemic, the following actions were taken:

Collection staff

- All five call centers were closed
- For CAPI staff, no personal interviews are conducted only telephone or EQ. At the beginning of the pandemic (March to May), CAPI interviewers were refrained from travelling.
- All CATI and CAPI interviews are completed by phone from the interviewers' house.

Collection workload

- From March to May, collection activities were restraint to mission-critical surveys and COVID-19 related surveys. Regular survey collection activities resumed starting in June.

➢ **Impact on Response Rates**

Substantial Drop in CAPI Response Rates due to:

- Lower number of completed questionnaires, specially for cases without a valid phone number
- Not able to validate the out-of-scope cases, therefore increasing the number of valid cases and *decreasing collection response rates*
- Not able to perform listing activities to improve the quality of the frame

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Collection Opportunities

- Maximizing collection workforce
    - Transfer of physical call centre resources to at-home call center agents
    - Introduction of a CAPI Lite/CAPI Lite Plus methodology

- Testing new flexible and agile collection vehicles
    - Crowdsourcing
    - Panel Surveys

Collection Opportunities – Transfer of centralized call centre interviewers to at-home call center interviewers

➢ Provided all CATI interviewers access to required equipment (laptop and phone), access to documents, network and required resources

• Provided all CAPI interviewers access to required equipment (laptop and phone), documents, network **and resource to access CATI workload**

• Use of video conferencing (meetings, training, coaching)

• One StatCan infrastructure for telephony, replacing multiple old ones

Collection Opportunities – Introduction of CAPI Lite/CAPI Lite Plus

➢ **Health and Safety FIRST - Since June 2020, travelling by CAPI interviewers is allowed in areas where the number of COVID-19 active cases is null or low and where the interviewer has agreed to travel.**

• Interviewers are knocking at respondent's door and making contact at distance. They are:
  • obtaining up-to-date contact information from respondent and/or planning an appointment OR
  • If there is no response at the door, dropping-off a personal reminder letters asking respondent to call back the interviewer and to provide them with updated contact information and/or complete the interview.

Some Results of CAPI Initiatives – LFS

Letter Asking Respondents to Call Back	CAPI Lite	CAPI Lite Plus	Regular CAPI
• 5% Response Rate	• 35% Response Rate	• 65% Response Rate	• 85% Response Rate

• Ability to partly validate the out-of-scope cases (visual listing) therefore decreasing the number of valid cases and increasing response rates

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Collection Issues– Introduction of CAPI Lite/CAPI Lite Plus

Coverage Issue

- For sanitary health and safety reasons, CAPI Lite Plus collection is being conducted only in areas that are identified as green (e.g. low incidence of COVID cases/adequate health system capacity)

- In the March 2021, LFS collection, CAPI Lite Plus collection was done for 10% of cases only.

- Overall LFS CAPI results – March 2021 - 41%

- Upon reopening of regions, this approach will contribute to optimizing responses on CAPI cases.

Note: CAPI LFS sample includes birth cases, cases with no phone number, cases with non responses for two month in CATI.

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Collection Opportunities - Testing new flexible and agile collection vehicles

- Crowdsourcing
- Panel Surveys

➤ Low cost
➤Fast turnaround time
➤Short content - simple flow
➤National and provincial estimates

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Crowdsourcing Data on the Social Impacts of COVID-19

From April to August completed eight (8) Crowdsourcing projects

- Impacts of COVID-19 on Canadians
- Impacts of COVID-19 on Postsecondary students
- Impacts of COVID-19 on Canadians - Mental Health
- Impacts of COVID-19 on Canadians - Perception Safety
- Impacts of COVID-19 on Canadians - Trust in Others Crowdsourcing
- Impacts of COVID-19 - Parenting During the Pandemic
- Impact of COVID-19 on Canadians – Living with a Long-Term Condition or Disability
- Impact of COVID-19 on Canadians – Experiences in Discrimination

Three (3) completed crowdsourcing projects
– Targeted Population

- Impacts of COVID-19 on Canadians - Statistics Canada Employees
- Impacts of COVID-19 on Canadians - CIRNA/IRC Employees
- Impacts of COVID-19 on Canadians - Statistics Canada Employees - Wave 2

More than 525,000 participants in the general population crowdsourcing collection initiatives

Impacts of COVID-19 on Canadians – Your mental health   37%

Behaviours and health impacts   Cancel

6. How concerned are you about each of the following impacts of COVID-19?

		Not at all	Somewhat	Very	Extremely
a.	My own health	○	○	○	○
b.	Member of the household's health	○	○	○	○
c.	Vulnerable people's health **e.g.,** elderly family members	○	○	○	○
d.	Canadian population's health	○	○	○	○
e.	World population's health	○	○	○	○
f.	Overloading the health system	○	○	○	○
g.	Civil disorder	○	○	○	○
h.	Maintaining social ties	○	○	○	○
i.	Ability to cooperate and support one another **during** the crisis	○	○	○	○
j.	Ability to cooperate and support one another **after** the crisis	○	○	○	○
k.	Family stress from confinement	○	○	○	○
l.	Violence in your home	○	○	○	○

Benefits of Crowdsourcing

Crowdsourcing has enabled Statistics Canada to collect impactful data on the COVID-19 crisis in a timely way:

Results are generally available within 17 to 20 days, including 14 days of collection.

Participation has been high, with large sample sizes allowing regional-level analysis for each project, and some breakdown of the data by age and gender.

We used the opportunity of the first crowdsource to ask for participants' email addresses, which has allowed us to sustain our crowdsourcing efforts. Email addresses from crowdsource 1 have been the main source of response for subsequent crowdsource projects.

Many students reported experiencing labour market disruptions.

Participants with **jobs** or **job prospects** at the beginning of March who reported employment changes:

Lost job or temporarily laid off	Worked reduced hours	Lost job prospects
48%	26%	49%
participants with a job		participants with job prospects

Proportion of crowd-sourcing participants who were very or extremely worried about certain COVID-19 related issues, by age group
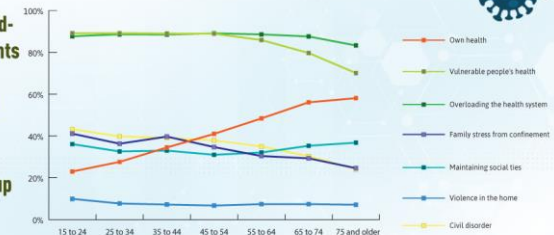
Source: Statistics Canada, Crowdsourcing: Impacts of COVID-19 on Canadians, April 2020

Role of Collection

Developing collection strategy for this new mode of collection

Developing, testing the collection application.

Coordinating outreach and communication efforts with partners

Operationalizing collection

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Completed four cycles (4) of collection related to COVID-19 with with a new Web Panel

Web Panel: Canadian Perspectives Survey Series

A pool of respondents was created from a sub-sample of respondents to the Labour Force Survey (LFS), who agreed to participate in monthly surveys for a specified period.

First web panel is composed of approximately 7,200 people.

Topics have included:
1) Impacts of COVID-19
2) Monitoring the Effects of COVID-19
3) Resuming economic and social activities during COVID-19
4) Information sources consulted during the pandemic

CORONAVIRUS DISEASE (COVID-19)

This is the second survey in the Canadian Perspectives Survey Series. You will recall that this project involves conducting a series of surveys using electronic questionnaires with the same group of respondents, including you, over a one-year period.

The social and economic impacts of COVID-19 continue to be felt and are disrupting the lives and habits of all Canadians. Statistics Canada remains committed to collecting data in response to the urgent need for information and to help understand the impacts on the daily lives of people like you across Canada. This short survey will cover a number of important topics including: the impacts of COVID-19 on food security and mental health of individuals, and on their social and employment circumstances.

This information will be used by government organizations, such as Health Canada, the Public Health Agency of Canada and Employment and Social Development Canada, and other types of organizations, to evaluate the need for health and social services, as well as economic support during and after the pandemic.

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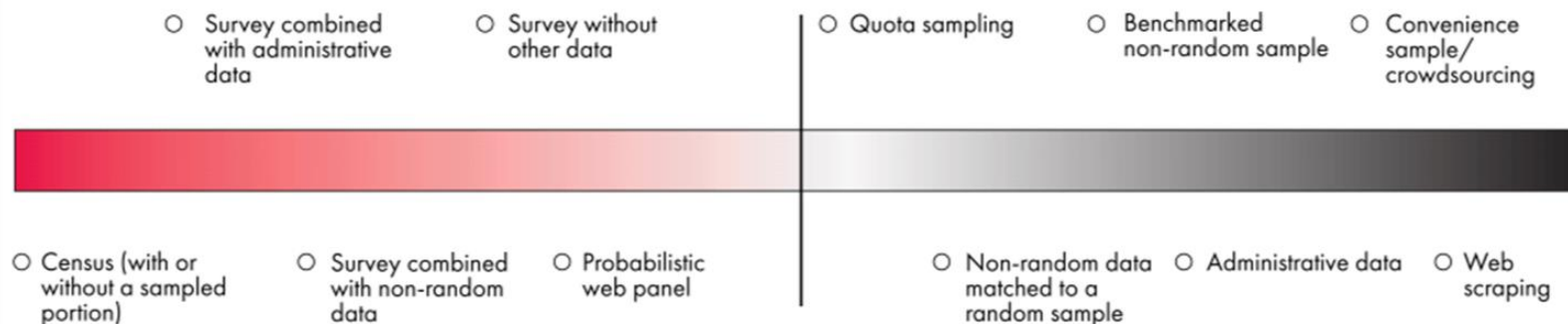# Developed and completed three COVID-19 business surveys

- Business:
  - Canadian Survey of Business Conditions (3 waves)
  - Survey of the Canadian Emergency Business Account (CEBA) – in development
  - Personal Protective Equipment Survey (PPES)

Data Quality – Expanding the tool kit

"NSOs have mainly focused on the use of probabilistic rather than non-probabilistic approaches. This choice is not a matter of preference; it has to do with their sound and proven theoretical framework, which enables statistical offices to not only produce statistics objectively but also to measure the precision of such statistics. The main difference between probabilistic and non-probabilistic approaches lies in their ability to lead to generalizations (inference) to the whole population of interest; probabilistic approaches enable their users to have control over the selection mechanism and thus have a smaller reliance on assumptions about this mechanism. There are situations in which the use of non-probabilistic methods is reasonable, and there are ways to combine them with probabilistic methods

Determining the users' needs is the starting point, by clearly stating what the goals are and which public benefits are sought. Given the appropriate conditions, one should select a method after carefully weighing its and others' benefits and limitations. In a data context in constant flux and with data needs emerging from all directions, NSOs have to be in the position to quickly respond to users' needs. As such, ongoing and continuous and active research is required in all steps of the data life cycle, starting with all types of collection approaches. The importance of innovating and adapting methods to listen and respond to user needs has been long acknowledged."

Continuum of Statistical Methods

Link: https://www.cigionline.org/articles/tradition-statistical-excellence-evolves-propelled-expanding-tool-kit

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Next steps

- Regular survey operation have resume in the new at-home context
- New operational context in being formalized with staff and in operation (adjustments to collection agreement, revaluating CATI/CAPI workload, adjusting the production plan model, training…)
- Continuous reviewing of strategic decision and planning in the uncertain context of COVID-19

Questions ?

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