



# COVID-19 data integration and visualization

Theme Management Committee and COVID-19 web working groups

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Government  
of Canada

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du Canada

Canada



# COVID-19 data integration and visualization

Since the outbreak of the COVID-19 pandemic there has been a need for visual tools that;

- help decision makers interpret and report on the data
- help the public understand the data and how decisions are being made
- useful for researchers and health professionals

Accurate, consistent and timely information, collected from a number of sources (PHAC, National Microbiology Lab, StatsCan, Provinces and Territories)

## Problem

- Multiple data source
- Difficult to understand in raw form leaving room for misinterpretation
- Need to provide context
- Multiple audiences with different needs (public, media, health professionals, researchers, senior officials)
- Accessibility and usability across digital platforms
- Keeping data consistent across the websites and tools (manual updates)

## Goal

To ensure that data is usable by different audiences, that is organized in a logical way and findable, that it's understandable, leaving as little room as possible for misinterpretation and that the data is consistent across all government channels. (reduce risk of human error and provide a reliable source of information to Canadians and senior officials)

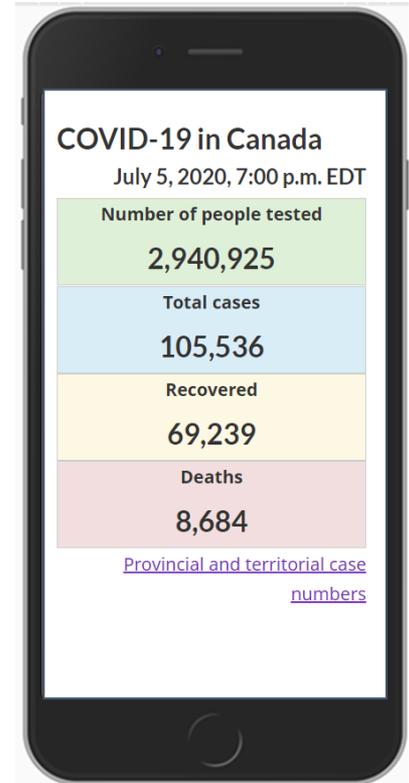
## Strategy

- to develop and implement visual solutions such as dashboards to meet the needs of senior officials;
- to share raw data through StatsCan and OpenGov portals for researchers and other stakeholders and;
- create accessible HTML pages for the public with web written context pieces that draw data from the same sources.

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## Approach

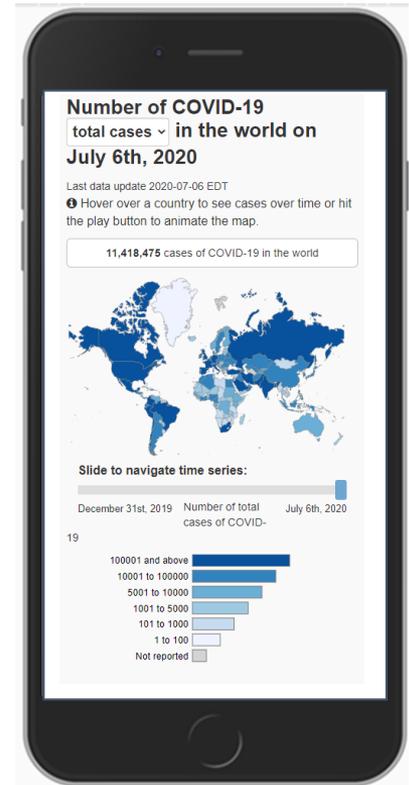
- Requests from senior officials
- Create data visualization dashboards using ArcGIS platform
- Point to tabular data sources (PTs, StatsCan and OpenGov portals)
- Leverage Digital Comms team web writers to adapt information from data specialists and write for web audience
- Build accessible and mobile friendly web pages that automatically update from the same data sources as the dashboards
- Collaboration between colleagues, experts, institutional and interdepartmental partners (PTs, NRCan, StatsCan, HC, PHAC etc)
- Depending on audience, Social Media promotion is scheduled
- Performance is evaluated both through analytics and Social Media engagement



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## Considerations

- [Crisis communications content design checklist](#)
- Who is the audience? (internal officials and employees, public, health professionals, researchers, media)
- Ensure that senior officials are informed and able to answer questions
- If internal do we risk being seen as withholding information from the public
- If external do we risk data overload making it difficult for the public to understand
- Can the data be misinterpreted
- Much of the data is collected by Provinces and Territories and by reporting on it is the Fed Gov overstepping - responsibilities?
- PT's report at different times can cause inconsistencies in the data
- Privacy concerns depending on granularity of data
- Urgency to release the data (difficult to meet all accessibility and web writing requirements)
- Base release of data on advice and recommendations from senior officials, analytics and environmental scans (what are people looking for)



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## Ensuring consistency across digital tools

- Automated updates from central data source (import PHAC data automatically every 5 minutes as opposed to manually updated twice a day)
- Leverage capacity of Service Canada's MWS system (AEM) which is built to support high volumes of incoming information.
- Linking to authoritative sources (Provincial and territorial information, Stats Can, PHAC)



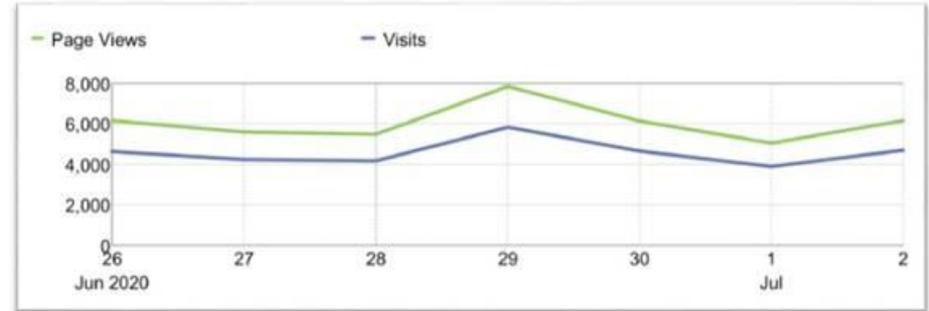
# COVID-19 data integration and visualization



## Impact

- Consistent data across GoC platforms
- An informed public
- Tools available to help decision makers
- Release of more data to meet senior official, stakeholder and public demand
- Data available to stakeholders in format that best meets their needs

[Epidemiological and economic research data](#): we've received **32K visits** last week, for a total of **152K visits** since launch.

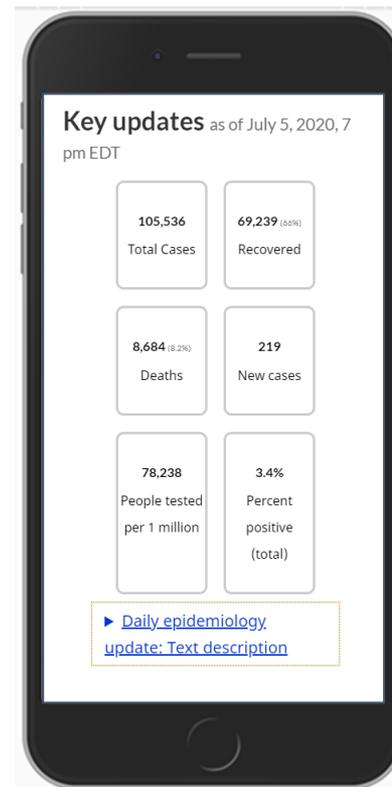


Language	Page consulted between 2020-06-26 and 2020-07-02	Page views (external)
Eng	/covid-19/visual-data-gallery/	17623
Eng	/covid-19/international/	13362
Fr	/covid-19/galerie-donnees-visuelles/	1912
Fr	/covid-19/international/	2



# Key Takeaways

- This solution is **repeatable** and can be leveraged for future similar needs for other departments.
- The **collaborative nature** of the approach allows for data to be delivered in a timely manner and ensure that it meets the needs of all Canadians and stakeholders.





# Related content and tools

- [Crisis communications content design checklist](#)

## Topic list page with collection:

- [Epidemiological and economic research data](#)
- [Visual data gallery](#)
  - Interactive data visualization of COVID-19 in Canada
  - Interactive data visualization of COVID-19 in the world
  - Situational Awareness Dashboard
  - Epidemic curve
  - Demographics
  - Canadian Economic Dashboard
  - Data and modelling

## To come:

- Second version of the Situational Awareness Dashboard
- Vulnerability Dashboard
- Disease outcome and government response dashboard

## On Hold:

- Mobility trend Dashboard