

## Background

The COVID-19 pandemic has impacted all forms of healthcare, and oncology care was no exception. From diagnostics, to screening, to treatment, to follow-up monitoring, all stages of a patient's cancer care journey have been impacted. In this review, the effect of the pandemic on various stages of cancer care, and implications for current and future care will be discussed.

## Methods

- Utilization of screening and diagnostic data of Ontario patients between January 1, 2019 to December 31st, 2020<sup>1</sup>
- Quantification of change in care delivery in individuals who received 1 or more cancer service in Ontario between January 1, 2019, to March 31, 2021<sup>2</sup>
- Literature review and modified Delphi consensus process through development of consensus-based statements to guide the optimal provision of virtual cancer care for clinicians<sup>3</sup>
- Systematic review of current available evidence on the use of virtual care in cancer patients<sup>4</sup>

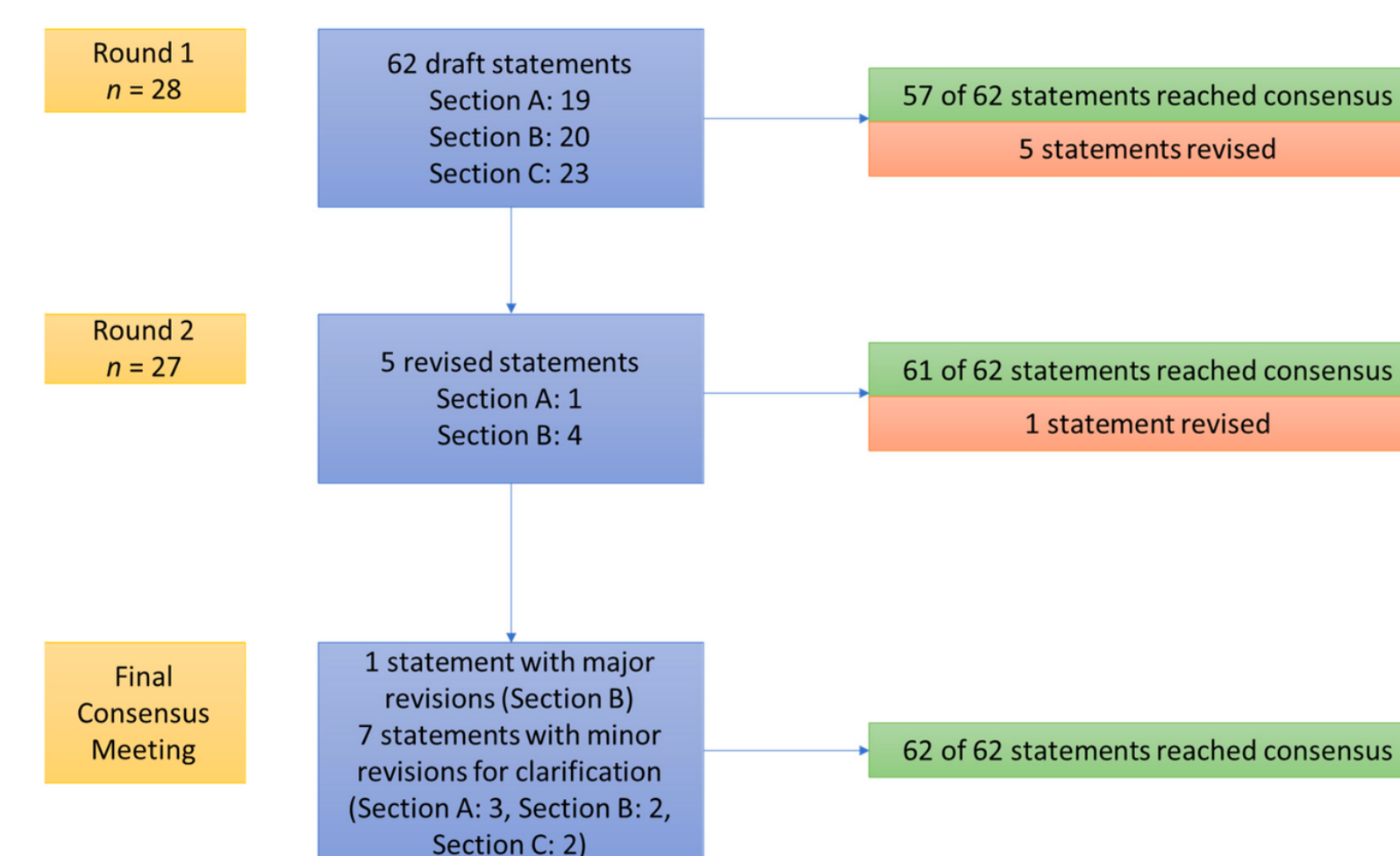


Figure 1. Overview of Consensus Process.

## Results

### (1) Diagnostic and Screening<sup>1</sup>

- Ontario's screening programs delivered 951,000 (-41%) fewer screening tests in 2020 compared to 2019; volumes for most programs remained more than 20% below historical levels by the end of 2020
- Individuals in the oldest age band for each cancer screening program were significantly more likely to experience diagnostic delay than those in the youngest band. As a result, the pandemic created an accumulation of screening backlogs that may take several years to recover in the absence of increased capacity
- The pandemic has worsened social determinants of health such as income and housing, impacting mailing correspondences for Ontario's cancer screening programs. More than 20% of women eligible for cervical screening were not reachable due to address relocation
- While there were screening volume reductions, it requires few years of follow-up to determine whether this translates to clinically meaningful changes in cancer incidences, diagnosis staging, and poorer outcomes

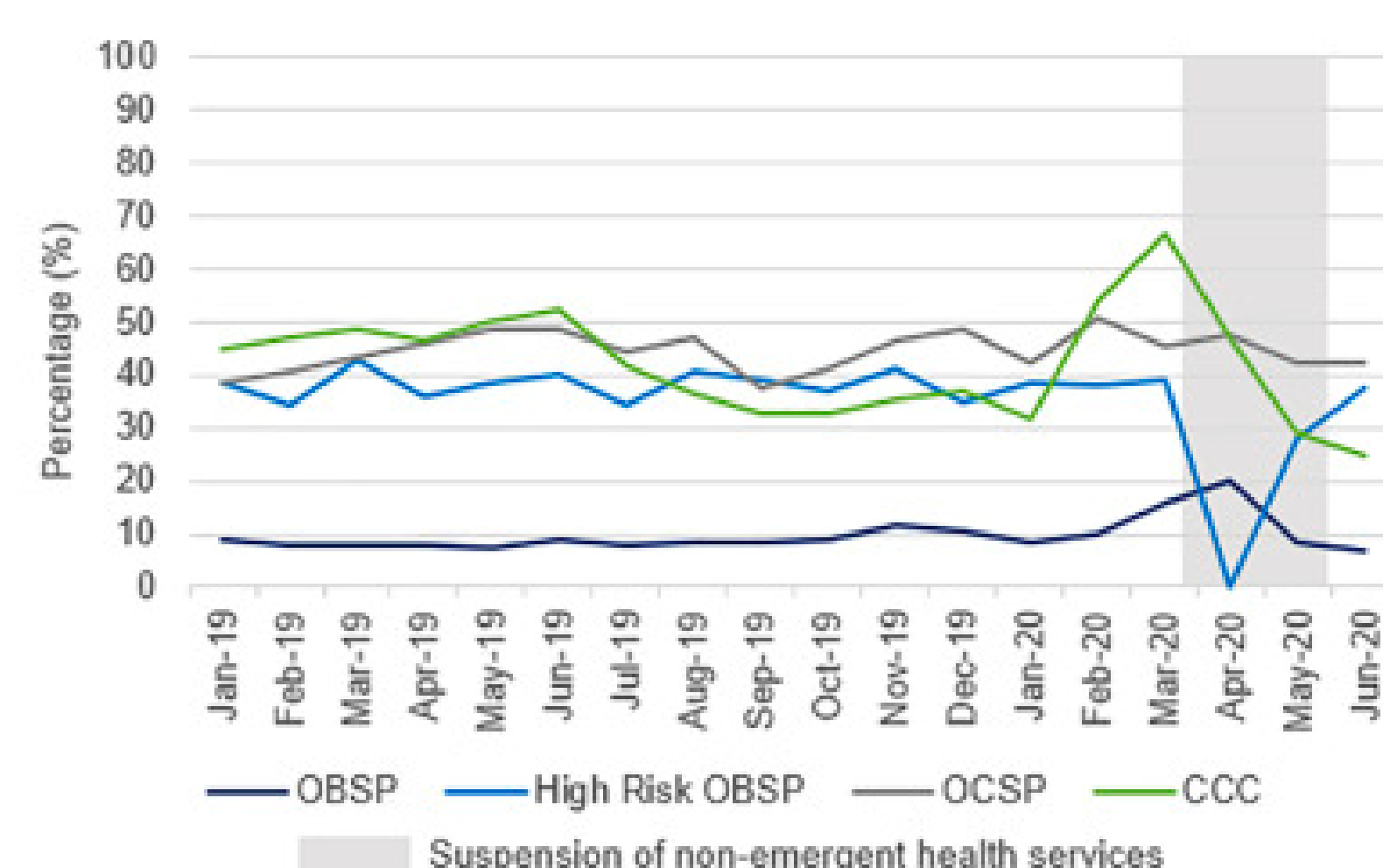


Figure 2: percentage of screening participants with abnormal screening results who experienced diagnostic delay

### (2) Treatment<sup>2</sup>

- Reduction of 20.7% of cancer care services
- Less pronounced changes in systemic treatments and emergency examinations and procedures
- Cancer screenings were reduced by 42.4%, cancer treatment surgical procedures by 14.1%, and radiation treatment visits by 21.0%
- Biopsies to confirm cancer decreased by up to 41.2% and surgical cancer resections by up to 27.8%
- The volume of urgent to non urgent surgical cancer treatments began to decrease in March 2020 after the government's decision to decrease non-emergency surgical procedures. The greatest reductions were observed in April and May (-34.7% to -37.0%) of 2020
- 8.2% fewer new consultations for systemic treatment in the first year of the pandemic
- 9.3% fewer new consultations for radiation treatment in the first year of the pandemic and 21.0% less radiation treatment visits
- Use of virtual cancer care increased for systemic treatment, radiation treatment and psychosocial care visits up to 78%

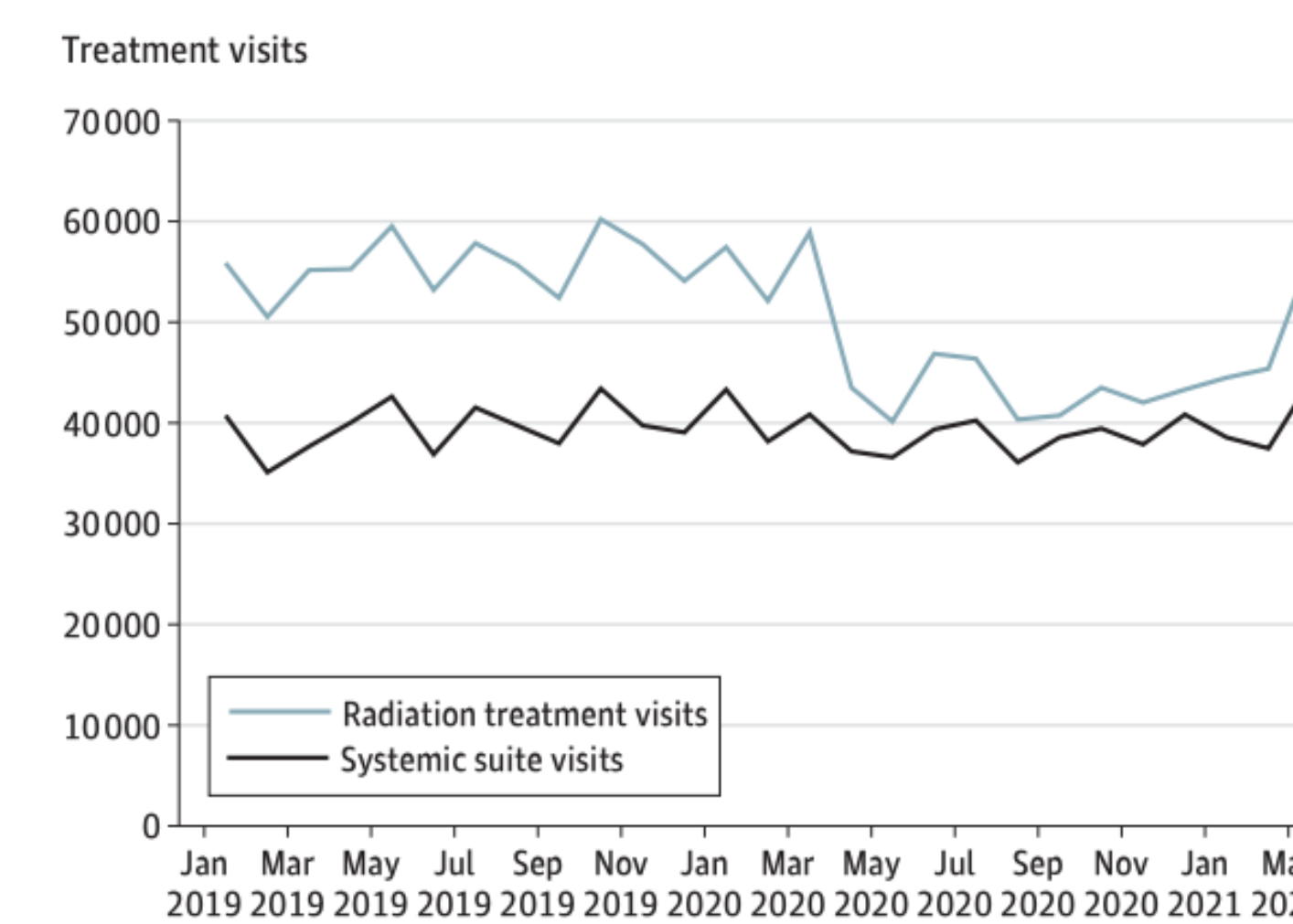


Figure 3: Cancer Treatment Visits in Ontario from January 1, 2019, to March 31, 2021.

### (3) Follow up<sup>3</sup>

- Clinical questions and resulting consensus statements were grouped into three sections: (A) demographics, logistics, and implementation, (B) diagnosis and prognosis, and (C) clinical characteristics, active management, and follow-up
- (A) - All cancer patients should be offered virtual care, with particular attention to overcoming accessibility issues. Documentation should be consistent with in-person care. Informed consent should be obtained for the virtual encounter. Collaborative and interdisciplinary care should remain standard of care
- (B) - Understand patient preferences regarding method of communication before diagnostic/prognostic information is conveyed. Optimize communication through virtual platforms and consider patient factors in decisions to utilize virtual care, including level of support available to the patient, symptom burden experienced by the patient, and the nature of the patient-provider relationship
- (C) - Patient and healthcare provider preferences, in addition to clinical appropriateness, are important considerations when deciding to provide virtual cancer care. There are situations where virtual care is not appropriate or feasible, such as physical examinations or in-person assessments of treatment efficacy

### 4) Virtual Care<sup>4</sup>

- There are limited high-quality oncology studies with direct comparison between virtual vs. in-person care, with the exception of RCTs on genetic counselling and endometrial cancer follow-up

- The ENDCAT trial of patients with stage I endometrial cancer provides promising evidence for the use of virtual care in long-term follow-up for asymptomatic patients, where high patient satisfaction was found with no evidence of delay in diagnosis of recurrence with virtual follow-up
- In the area of genetic counselling, telephone counselling was noninferior to usual care for all outcomes (knowledge, decision conflict, cancer distress, perceived stress, genetic counseling satisfaction), however there was lower perceived support and emotional recognition

## Discussion

### Limitations

- The study was unable to determine impacts of reduced screening & diagnostic delays on cancer incidences, diagnostic staging, and cancer outcomes, which would require long-term data<sup>1</sup>
- The study did not account for non pandemic-related events that occurred during the same period. Overall impact was also underestimated as the study did not include aspects of primary prevention, cancer-related primary care, emergency department visits, or palliative and end-of-life care<sup>2</sup>
- The study is limited by the fact that virtual care infrastructure varies across institutions, making it difficult to determine optimal care<sup>3</sup>
- Guidelines that enable integration of virtual care are continuously changing, resulting in fluctuations of support for sustaining virtual care beyond the pandemic

### Future studies

- High-quality long-term studies will provide more clarity with regards to the impact of implementation of virtual care on patients and the resulting clinical outcomes
- There is a need for virtual care trials that help inform the provision of anticancer therapy and associated supportive care through virtual care<sup>4</sup>

### Anticipated changes

- According to the Canadian Institute for Health Information (CIHI), since 2020 there was increased remuneration for physician virtual care. There are still continual virtual palliative care consultations which includes cancer patients, updated as of March 18, 2022<sup>5</sup>
- Recent October news indicate that Ontario is set to introduce permanent changes to its virtual care program, where general physicians will receive a pay cut from \$37 to \$15 per virtual patient visit; specialists have been spared for the time being<sup>6</sup>
- Privacy concerns and data sharing continue to challenge digital tools
- Disparities for older individuals, lower-income and Indigenous people found were not new, but the pandemic has shown the increased need to restore services to pre-pandemic state and establish equitable access<sup>1</sup>

## References

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