Critical evaluation of novel health system interventions is essential

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In this issue of *CMAJ*, McLeod and colleagues describe the results of an evaluation of virtual urgent care services in Ontario, a service intended to divert patients with low-acuity complaints away from emergency departments and reduce the need for in-person emergency department visits during the COVID-19 pandemic.[1] Virtual urgent care is one of many new care pathways and pilot programs popping up across Canada in response to health care crises. The study's results underscore the importance of targeted design and rigorous and transparent evaluation of health system interventions.

At an accelerated pace, health care systems are fundamentally redefining how people access care in Canada; they are also introducing novel commercial partnerships.[2–4] Yet, program to program and province to province, marked variability and quality exist in their implementation and design. The results of an evaluation of Ontario's virtual urgent care program illustrate this well.

Most people using the Ontario service studied in the related research were younger, well-educated and English-speaking urban residents who had primary care providers and were of high socioeconomic status.[1] While most virtual urgent care users did not end up in an emergency department, a large proportion had a visit for their low-acuity concern with another health care provider on the same day as the virtual urgent care visit.[1] In summary, the study's authors found that people with good access to care received more care for low-acuity complaints. With strained health care resources, Canada's health care systems cannot afford redundant interventions that benefit mainly people who already have good access to care.

From the outset, the virtual urgent care program was unlikely to have a substantial impact on relieving emergency services in Ontario given existing evidence. Low-acuity visits are not the root cause of emergency department crowding,[5–7] and Ontario-wide telephone triage services without pre-existing patient-to-provider affiliation have not been shown to affect the proportion of patients who access care in person in an emergency department.[8]

In a system facing unprecedented crowding, the millions of dollars and health human resources needed to run Ontario's pilot program arguably could have been better spent on a program tailored to patients or regions more likely to benefit.[1] There is evidence to support virtual urgent care for targeted populations. Virtual urgent care diverts emergency department visits in children,[9,10] and, when rolled out as a pandemic response, pediatric urgent virtual care programs offloaded low-acuity visits from pediatric acute care hospitals.[11] Two of the 14 virtual urgent care sites in Ontario were exclusively for pediatric patients, and diverting low-acuity pediatric emergency visits was of critical importance in the fall of 2022, when hospitals faced overwhelming numbers of children with viral respiratory infections.[12]

British Columbia has taken a more purposeful and iterative approach to implementation and design of their Real-Time Virtual Supports program, launched in April 2020. This basket of virtual urgent care supports seeks to advance equitable access to care in rural, remote and Indigenous communities throughout the province. So far, evaluations of these programs show that the objectives are being met and that patients from all regions are safely avoiding visits to emergency departments.[13,14]

Laudably, Ontario's virtual urgent care program included a comprehensive evaluation that began before program launch.[1] To facilitate linkages with provincial health administrative databases, mandatory reporting of a minimum of 6 months of standardized patient-level encounter data was a funding requirement. To date, 4 peer-reviewed articles have been published on the design and results of this program.[1,15–17] This most recent evaluation, presented in the related research, provides a timely illustration of the value of comprehensive health administrative data. Recognizing the importance of good data is crucial, given the recent proliferation of novel commercial partnerships in Canada's health systems.[2–4] Commercial partnerships may hinder transparent program evaluation, particularly if people or third parties are paying for services. After decades of investment in health administrative data in Canada, creating near-comprehensive data sets on how populations interact with health care systems,[18,19] visits and interventions with commercial partners may create large gaps in provincial health administrative databases.[20] While they may be interrogated internally for quality-assurance purposes, health care interactions with commercial entities may not be available for independent analysis by academic data scientists, as

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was done in the virtual urgent care evaluation. As novel partnerships continue to grow, some argue governments should mandate that data custodians and service providers permit health care institutions and socially beneficial organizations to make data available, when appropriate, without charge.[20]

As health systems in Canada are rapidly changing, we will learn more about the challenges and complexity of instituting well-intended health system interventions and the critical importance of their timely, rigorous and transparent evaluation. Without critical evaluation, however, health system leaders, providers and constituents cannot assume that the stated objectives of novel programs are being met, and health dollars risk being wasted.

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Competing interests: www.cmaj.ca/staff

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