



Opinion: Why we need a national contact-tracing app

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Senators Colin Deacon, Rosemary Moodie and Judith Seidman: It's imperative that politicians and public health officials in all provinces work together in advance of a second wave of COVID-19 to encourage the widespread adoption of one national exposure notification app.

The COVID-19 pandemic represents an unprecedented threat to our collective physical, mental and economic health. To date, over 8,000 Canadians have lost their lives, 8.4 million have accessed emergency income supports, countless businesses have had their viability threatened and our 2021 federal budget deficit will likely exceed \$250 billion — increasing our total federal debt by 35 per cent in just one year.

Governments and businesses are working to ensure that Canadians can safely get back to work in the face of the ongoing coronavirus threat. The importance of these efforts is magnified by the prospect of a second wave of COVID-19 arriving before we have a vaccine. That's why we're advocating for digital contact tracing to be used to augment traditional infection control methods across Canada.

In the absence of an effective treatment or vaccine, our only defences are regular and vigorous hand washing, social distancing, testing, contact tracing, self-isolation and quarantining. A recent survey commissioned by several senators found that over 90 per cent of Canadians agree that these efforts are critical to controlling the spread of COVID-19.

The all-important process of contact tracing and notifying people who may have been exposed is labour intensive and subject to several practical limitations. A public health worker must interview each person who tests positive to find everyone that person might have infected. Success depends on those who test positive remembering, and willingly disclosing, every contact. Public health officials then get on the phone to find and notify each person on that list.

Canadians know that exposure notification is important. The senators' survey found that 82 per cent of Canadians want to be automatically notified if they are exposed to someone who has tested positive for COVID-19 and 92 per cent want others to be automatically notified if they test positive.

An exposure notification app can enable complete and speedy notification, while limiting the amount of private information that must be disclosed. This is because recent software designs keep the contact data on the user's phone until, with the user's permission, public health officials trigger the anonymous digital notification of all those who came into close proximity with the infected person over a certain period of time. This differs from most commercial apps that transfer location information to centralized servers.

Wide adoption of an exposure notification app among the 87 per cent of Canadians who have smartphones would strengthen traditional public health efforts. However, these apps have been launched in several countries and some have had lacklustre results. In early April, Iceland introduced an app just as it flattened its curve. It had limited effect because it was downloaded by only 38 per cent of the population. Singapore was even lower, at 20 per cent.

Just like a vaccine, an app requires a high level of adoption to provide the greatest benefits, but, unlike a vaccine, an exposure notification app is available today. Additionally, it was concerning that only 63 per cent of Canadians said that they would take a vaccine without hesitation once it's available.

A recent Journal of the American Medical Association article argued that the COVID-19 pandemic could be suppressed if traditional methods were augmented by at least 56 per cent of the population using one contact-tracing app. If governments in Canada co-operate and focus their efforts on the adoption of one national contact-tracing app, they'll find a lot of talented entrepreneurs who are willing to help earn the public's trust.

Recently, Health Minister Patty Hajdu told reporters that "some jurisdictions prefer" that contact tracing be done "the old-fashioned way." That's worrisome given recent data showing that 46 per cent of COVID-19 transmissions occur pre-symptomatically, meaning before the individual would normally get tested. The authors concluded that supplementing traditional contact tracing with digital apps was an essential prevention measure. In the words of Dr. Michael Warner, medical director of critical care at Michael Garron Hospital in Toronto, "every minute counts" when tracking down the contacts of people infected with COVID-19.

That's why it's imperative that politicians and public health officials in all provinces work together in advance of a second wave of COVID-19, to encourage the widespread adoption of one national exposure notification app to augment traditional contact-tracing efforts.

Colin Deacon is an independent senator for Nova Scotia who was previously a tech entrepreneur and angel investor. Rosemary Moodie is an independent senator for Ontario, neonatologist and paediatrician who worked on the front lines during the SARS epidemic. Judith Seidman is a Conservative senator for Quebec who spent her career as a health-care researcher and epidemiologist.