We need vaccine passports, but how should they be designed?

Vivek Krishnamurthy and Colleen M. Flood Vivek Krishnamurthy and Colleen M. Flood are law professors at the University of Ottawa. The authors are part of a research team funded the federal COVID-19 Immunity Task Force.

The question of whether Canada should create COVID-19 vaccine passports was answered by Health Minister Patty Hadju recently, when she confirmed that the federal government will create such a system to allow Canadians to travel internationally again. Now is the time to consider who in Canada will provide such passports, and how they should be designed and deployed.

Vaccine passports of one design or another are already in operation in several countries and regions around the world, including Israel, Denmark, China, Mexico and Lebanon. The European Union is developing one and so is the U.K., and New York has its own system.

For all the benefits, there are good reasons for Canadians to be concerned about the privacy impacts of vaccine passports. History teaches us that measures enacted to respond to emergencies are often "sticky." Income tax was introduced as a temporary measure during the First World War.

Correspondingly, privacy campaigners have expressed concerns that a passport system used to check our vaccination status before entering a store during COVID times could form the backbone of a long-lasting system of location-based surveillance.

These are legitimate concerns, but our research makes clear that choices can be made in the design characteristics of a vaccine passport system and the rules governing their use to avert them. To do this, several critical questions need to be addressed at the outset.

First, who should be permitted to issue vaccination passports? The private sector is taking the lead in many countries and regions. If governments in Canada don't act, likely the private sector will introduce vaccine passports here too, raising a host of worries relating to equity, discrimination and privacy.

Second, what information should vaccine passports include? Concerns that vaccine passports could be used to track our movements are very real. But to do so, vaccine passports would need to encode information about our identity - like our name, or a unique identifier, like our social insurance number (SIN). As a matter of principle, vaccine passports should collect as little information about us as possible, possibly not even containing our names.

Finally, what technological form will the passports take? Most proposals call for digital passports as scannable QR codes or mobile app. But digital systems...
make it easy to collect and store data about the use of vaccine passports, forever. By contrast, paper-based systems could be better at protecting privacy.

We should also consider who can ask to see your vaccine passport; how vaccine passports will be verified and validated when they are presented to gain access to a place or a service; and what information can be collected and stored whenever a passport holder is required to show it. Good policy can mitigate privacy concerns in each case.

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