

Canada needs a vaccine seroepidemiology surveillance system

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Canada should establish a vaccine seroepidemiology surveillance network to better understand the effectiveness of vaccination programs, according to an analysis in *CMAJ* (*Canadian Medical Association Journal*).

Many countries, in Europe for example, have well-established national serosurveillance programs, despite differing vaccination practices. Canada, however, lacks a coordinated serosurveillance program despite the country's strong vaccination programs and support systems.

A serosurveillance program would help understand [vaccine coverage](#) by population, identify trends relating to vaccine-preventable diseases, predict outbreaks and provide a framework for Canada's 13 [immunization programs](#).

Seroepidemiology helps monitor the long-term effect of new vaccines and the length of immunity that may require modifying vaccine guidelines. It was used in the United Kingdom to evaluate measles vaccination programs and led to the introduction of a second dose of the MMR (measles, mumps or rubella) vaccine for four-year-olds after seroepidemiology helped identify that [preschool children](#) were highly vulnerable to the disease.

"Developing a seroepidemiology network in Canada is ambitious and poses a number of challenges related to funding, ethics and epidemiologic and laboratory considerations," writes Dr. Natasha

Crowcroft, Public Health Ontario, with coauthors. "However, these challenges are not insurmountable, and there will always be competing priorities for scarce resources. Establishing a seroepidemiology network would provide a strong evidence-informed foundation from which to successfully advocate for improvements in vaccine policy and methods of surveillance."

Challenges to implementation that need to be addressed include long-term stable funding, clarification of roles for federal and provincial participants and standardization of laboratory procedures.

"Canada is uniquely positioned to benefit from the establishment of a seroepidemiology network, with its strong evidence-based immunization policy, its range of immunization schedules, the diverse and growing proportion of new Canadians and strong supporting systems for the surveillance of vaccine-preventable diseases," state the authors.

Provided by Canadian Medical Association Journal

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