Closing the gap in vaccination among international students and migrant farmworkers in Canada

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While school-based immunization programs are implemented across all Canadian provinces and territories, and some provinces, e.g., Ontario have legislation to verify the vaccination status of school-aged children (*Immunization of School Pupils Act*, R.S.O. 1990, c. I.1, 2021), similar protections do not extend to all segments of the population. The absence of a pan-Canadian vaccine verification policy means a lack of a comprehensive data on the vaccination status of the population. This lack of vaccine verification — used to confirm immunization against diseases such as measles and chickenpox is especially concerning when not applied to international students or migrant farmworkers (also known as international agricultural workers or IAWs). Given that over one million international students are currently enrolled in Canadian educational institutions and more than 70,000 migrant farmworkers support Canada's agricultural industry (Canada, 2024; Canadian Bureau for International Education, 2023), these numbers highlight the scope of this policy gap.

In addition, Canada's approach to vaccine verification for these populations lags behind other nations with similarly diverse populations and a comparably lower proportion of international students. For example, in 2023, the United States had a population of 340 million and 1.5 million international students (IIE Open Doors, 2023; US Census Bureau, 2024). That same year, Canada's population was 40 million, with 1.04 million international students enrolled in post-secondary institutions (Canadian Bureau for International Education, 2023; Government of Canada, Statistics Canada, 2023). In the United States, 34 states require vaccination verification for all post-secondary students, including international students (National Conference of State Legislatures, 2024).

With its relatively high proportion of migrant farmworkers and international students (Government of Canada, Statistics Canada, 2021; Government of Canada, Statistics Canada, 2024), establishing a pan-Canadian vaccine verification policy can ensure consistency across provinces in closing this critical public health gap.

International students and migrant farmworkers often live in densely populated accommodations, such as dormitories or shared housing (Calder *et al.*, 2016; C. Susana Caxaj *et al.*, 2023); where residents typically share bathrooms and kitchens. These living environments increase the likelihood of disease transmission, as vaccine-preventable illnesses such as measles and varicella can spread quickly in close quarters. This vulnerability is further exacerbated by barriers such as limited access to healthcare, language barriers, and financial constraints that may prevent individuals from seeking medical care (Calder *et al.*, 2016; Orkin *et al.*, 2014). Without a system to ensure vaccine verification, these populations face disproportionate health risks, which, in turn, place additional burdens on the broader community.

The recent chickenpox outbreak at a Canadian post-secondary institution housing for international students serves as a pertinent example of the public health risks and burden on an already under-resourced public health system (Ledger *et al.*, 2024). Without standardized vaccine verification, the risk of similar outbreaks remains high, jeopardizing both individual and population health.

Outbreaks of vaccine-preventable diseases can impact the broader population by increasing demands on healthcare facilities, diverting resources from other pressing health issues and intensifying healthcare costs. Beyond direct health outcomes, there are also indirect economic repercussions. In the agricultural sector, outbreaks can halt farm operations, impacting the food supply chain and posing an economic threat to an industry heavily relying on migrant labour. Outbreaks in universities and colleges could disrupt academic activities. Also, by not implementing vaccine verification policies, Canada is indirectly perpetuating health inequities, disproportionately affecting those who already encounter numerous social and economic challenges.

Furthermore, the failure to require vaccination verification for migrant farmworkers and international students can

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foster negative perceptions, stigmatization, and xenophobia. When outbreaks occur within these communities, they may face increased stigma, which can exacerbate social divisions. This scenario was particularly evident during the COVID-19 pandemic, where certain populations were scapegoated as "spreaders" of the virus due to their close working and living conditions (Chang, Conarck, & Contorno, 2020; Rao, 2020).

By implementing a pan-Canadian vaccine verification policy, public health establishments can prevent potential disease outbreaks, counter stigma, and promote social cohesion. Even if these groups could not receive vaccination against infectious diseases of public health significance, the knowledge of their susceptibility can help implement more effective and timely public health interventions during an outbreak, minimizing disruptions to education and agricultural work. In the case of an outbreak, those unvaccinated can be offered post-exposure prophylaxis or be isolated promptly to prevent further spread of the disease.

Canada's vaccine verification gap for international students and migrant farmworkers highlights the critical need for a pan-Canadian vaccine verification policy. Implementing this policy can mitigate the spread of vaccine-preventable diseases, ease burdens on the healthcare system, and promote social cohesion.

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