

Tackling COVID-19 vaccine hesitancy in Ontario: does language matter?

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BACKGROUND

On April 7, 2021, Ontario entered into its third wave lockdown. At the same time, vaccines were gradually being made available to the general Canadian public.

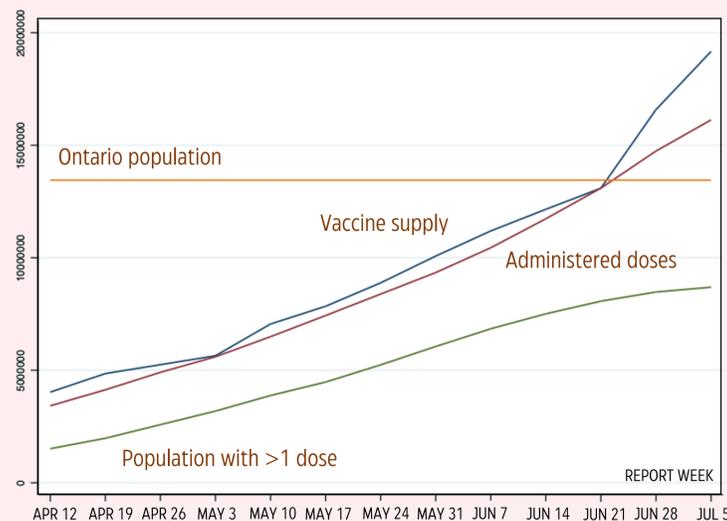


Fig. 1 : Vaccine rollout in Ontario

Vaccination outcomes (uptake **levels** and uptake **growth**) are heterogeneous across communities in Ontario (F.2). Low coverage areas maintain a high risk of disease transmission.

42.5%

OF CANADIANS SURVEYED IN 2020 EXPRESSED SOME DEGREE OF COVID-19 VACCINE HESITANCY²

The public health literature identifies vaccine hesitancy as a key determinant of vaccine uptake¹:

high hesitancy ⇒ low uptake,
while low hesitancy ⇒ high uptake.

Vaccine hesitancy refers to any delay in or refusal of vaccination, despite availability of vaccination services. Examples include:

- Waiting to receive specific brand of vaccine out of personal preference;
- Unwillingness to vaccinate due to perceptions of vaccine efficacy; and/or
- Delayed vaccination due to barriers to access, e.g. difficulties registering for vaccine, transporting to clinic.

RESEARCH QUESTION

What are the determinants of vaccine uptake?

How do COVID-19 vaccine uptake trends differ across official language groups in Ontario?

"A lack of services available in French during the pandemic forced [John Doe] to take the day off work so that he could translate for his wife at the immunization clinic."

SOURCE: RADIO-CANADA. TRANSLATED FROM FRENCH.

LANGUAGE BARRIERS TO HEALTH CARE

Hesitancy is high in marginalized and underserved communities (i.e. ethnic and/or language minorities, lower SES households, rural communities, etc.). Progress is underway to better understand health care utilization among these groups, but despite evidence that minority language status is linked to health care underutilization (and consequently, poorer health outcomes), the literature on language barriers to health care in the Canadian context is wanting.

DATA

- Cached *Vaccine shipments and deliveries* page from Government of Canada: weekly provincial vaccine allocation
- ICES COVID-19 dashboard: Population having received at least one dose of a COVID-19 vaccine
- 2016 Census: Age, sex, most spoken languages at home
- Ontario Marginalization Index: Quintiles of ethnic concentration, material deprivation, dependency, residential instability
- Ontario Data: Regional health authority jurisdictions

METHOD & CHALLENGES

- Used regression analysis (OLS and panel fixed effects) to identify language effects on vaccine uptake in Ontario
- Controlled for confounding variables (demographics, time fixed effects, time x health region fixed effects)
- Uptake heterogeneity could be due to a number of language-independent factors (e.g. large senior population mechanically increases uptake rates)

FINDINGS

- In the absence of controls, vaccine uptake decreases on the share of the francophone population in a given FSA
- With controls, vaccine uptake increases on the francophone population share
- Language group effect is 1.9x the effect of rurality on uptake, and is stronger than hotspot and marginalization indicators
- Strong positive effect of senior population share on uptake (longest eligibility period)
- Negative effect of male/female gender ratio on uptake (over-representation of women in essential health occupations)
- Effect of language on uptake is stronger when controlling for time and health region fixed effects, which capture some unobserved supply-side effects

In general, uptake outcomes in francophone communities are no worse than in anglophone communities; if anything, outcomes are better

- Likely consequence of targeted government health policy (messaging, vaccine allocation, etc.) in response to pressures imposed by francophone community⁴

References

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- 3 "Profile of the Francophone Population in Ontario." Ministry of Francophone Affairs. Updated July 29, 2021. Retrieved from <https://www.ontario.ca/page/profile-francophone-population-ontario-2016>
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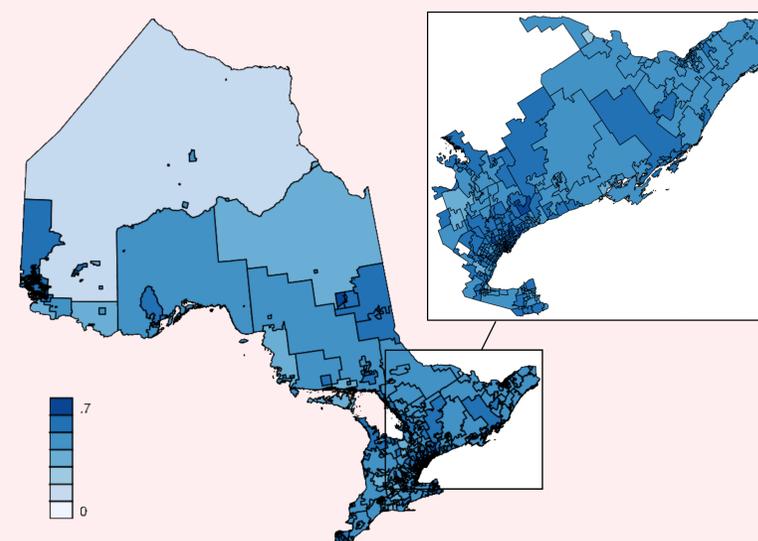


Fig. 2 : % population having received at least one dose of a COVID-19 vaccine, as of June 1, 2021

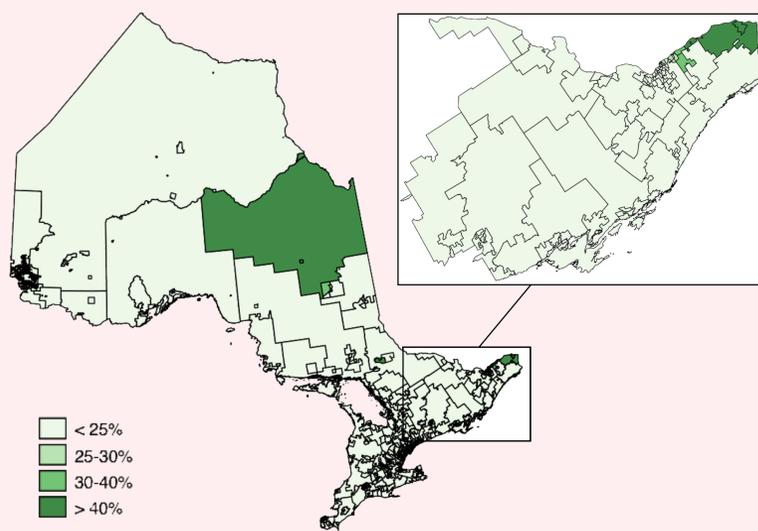


Fig. 3 : % households where French is language spoken most at home, 2016 census

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