Public Health Ontario | Santé publique Ontario

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https://youtu.be/zZG__7IplWU

Please scroll down this file to view a copy of the slides from the session.

Immigration/Migration as a Social Determinant of Health & Use of ICES Data

Public Health Ontario Rounds – Dec 8, 2022

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OHDP | ONTARIO HEALTH DATA PLATFORM COVID-19

Conflict of Interest Statement

- No conflicts of interest to declare

Learning Objectives:

By the end of this session, participants will be able to:

- Appreciate that im/migration is a structural and social determinant of health
- Understand the strengths and limitations of the Immigration & Refugee Citizenship Canada (IRCC) database housed at ICES
- Describe the uptake of COVID-19 vaccines among immigrants and refugees in Ontario
- Describe the barriers, facilitators, and determinants of vaccine uptake in migrant populations

Outline

- Canadian immigration policies, immigrant selection
- Current immigration system and trends
- Immigration as a Social Determinant of Health (SDOH)
- Distribution of SDOH among immigrants (Statistics Canada)
- Immigration Refugee Citizenship Canada database at ICES
  - Data elements, data quality
  - Guidance for anti-racist approaches to use of race, ethnicity, immigration data
  - COVID-19 vaccine uptake among immigrants and refugees in Ontario
- Barriers, facilitators and determinants of vaccine uptake
- Importance of community engagement in vaccine uptake strategies

Recent-ish history of Immigration

April 26, 1879 – "The Heathen Crimes in British Columbia"

"Immigration legislation is ultimately a reflection of society's beliefs and attitudes, revealing Canada's history of inclusion and exclusion"

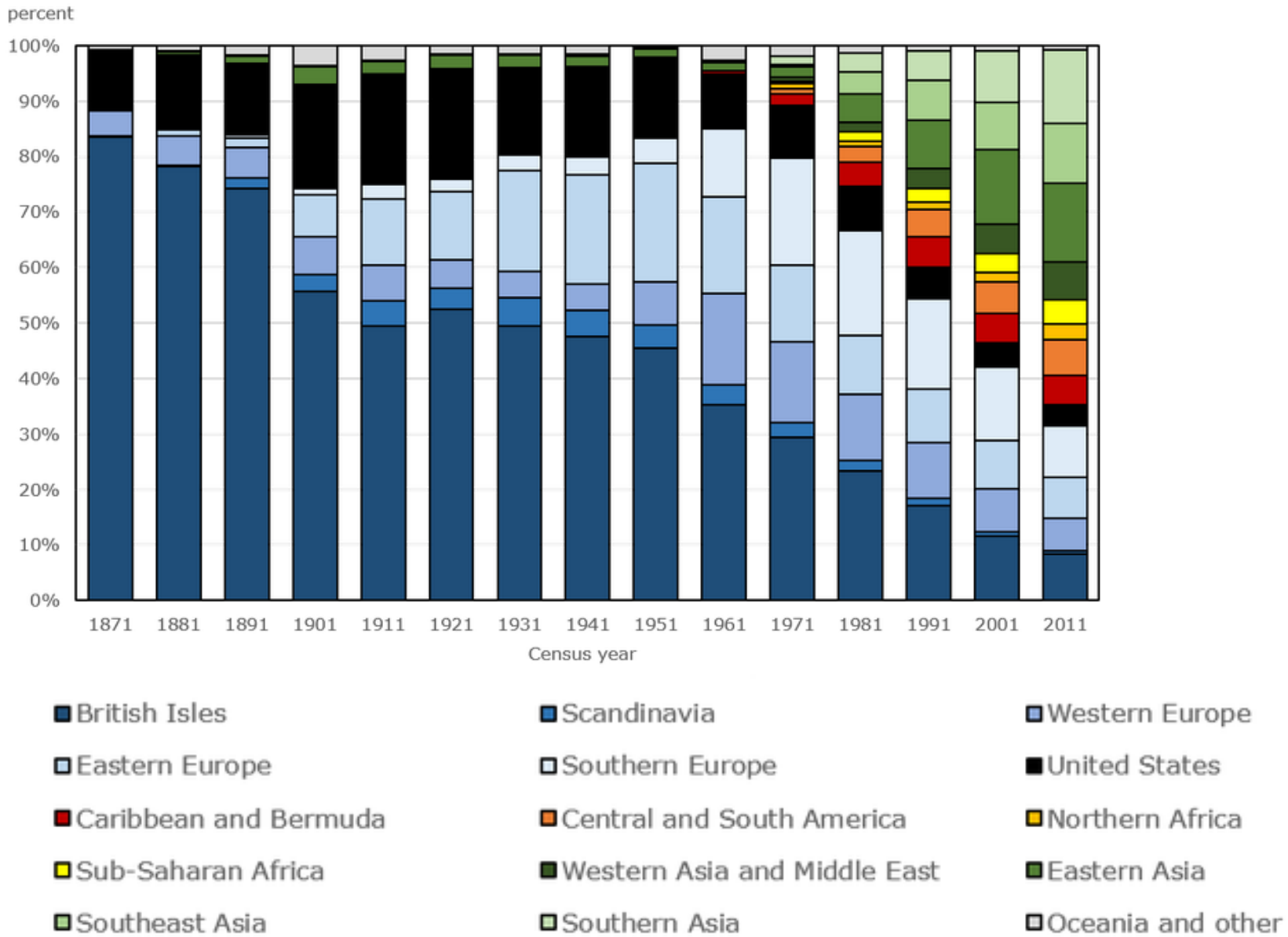
– Canadian Museum of Immigration at Pier 21

- Chinese Immigration Act, 1885
- Continuous Journey Regulation, 1908
- Order-in-Council PC 1911
- White Paper on Immigration, 1966
- Order-in-Council PC 1967

1967: Shifting Immigration Needs

- More “objective” admissions process
- New point system, score in 9 categories: education/training, personal character, occupational demand/skill, age, French/English etc
- Predecessor to points system used today for economic immigrants; other inclusion/exclusion criteria characterize other pathways
- ***Immigration to Canada is highly structured/selective; primary purpose is to fill economic needs, enhance prosperity***

Chart 5
Distribution in percentage of the foreign-born population, by place of birth, Canada, 1871 to 2011



Sources: Statistics Canada, censuses of population, 1871 to 2001. National Household Survey, 2011.

Permanent Resident (PR) Application Criteria

Three broad immigration categories:

- Economic immigrant – highly selected based on “points system” (~60%/yr)
- Family class – sponsored by CDN family members (~30%/yr)
- Refugee – meets UN definition of refugee (~10%/yr);
  - “vulnerable” based on UNHCR criteria (GARs, BVORs, some PSRs)
  - have family in Canada (PSRs), often family members of GARs
  - Refugee claimants (aka asylum-seekers) are unsponsored
- Can apply for Canadian citizenship if meet eligibility criteria

Immigration Medical Exam (IME)

All permanent residents must undergo an immigration medical exam as part of their application.

3 possible reasons for ***inadmissibility based on IME***:

- danger to public health;
- danger to public safety or;
- projected “excessive demand” of health or social services.

- Economic immigrants and most family class immigrants are rejected if exceed “excessive demand” threshold
- Refugees & some family cannot be rejected based on “excessive demand” (as of 2002)

Permanent Residents: Health coverage eligibility (

/IFHP)

- Economic and family class immigrants eligible 3 months after arrival
- Resettled refugees (GAR, PSR, BVOR) eligible for OHIP at arrival, additional benefits coverage through Blue Cross for 1st year
- Refugee claimants become OHIP eligible ***after*** successful asylum claim hearing (transition to PR, "protected person").
  - While awaiting hearing refugee claimants are eligible through IFHP
    - Not possible to track health service use through IFHP at ICES
    - Numerous barriers to accessing IFHP funded health services
      - *Chen YB et al (2018). "A Legacy of Confusion": An Exploratory Study of Service Provision under the Reinstated Interim Federal Health Program". Refuge: Canada's Journal on Refugees, 34(2), 94-102.*

Temporary Residents

- Includes: temporary foreign workers (TFW), international mobility program (IMP), international students, refugee claimants
- OHIP eligible with valid work permit + fulltime work ≥ 6 months
- Cannot directly apply for Canadian citizenship (need PR first, if possible)
- TFW ("unskilled") have no/limited pathways to permanent residency
  - Exception: "caregiver" stream
- Many undocumented persons in Canada initially enter as TR or PR; have not always been without legal status

CONTRIBUTORS OPINION

Migrant workers make our agricultural industry viable. Why do we treat them as disposable?

This March 21, injured migrant workers are demanding to be treated with fairness and respect. It's time the WSIB heard their calls for justice.

By **Maryth Yachnin**
Chris Ramsaroop Contributors
Mon., March 21, 2022 | 3 min. read

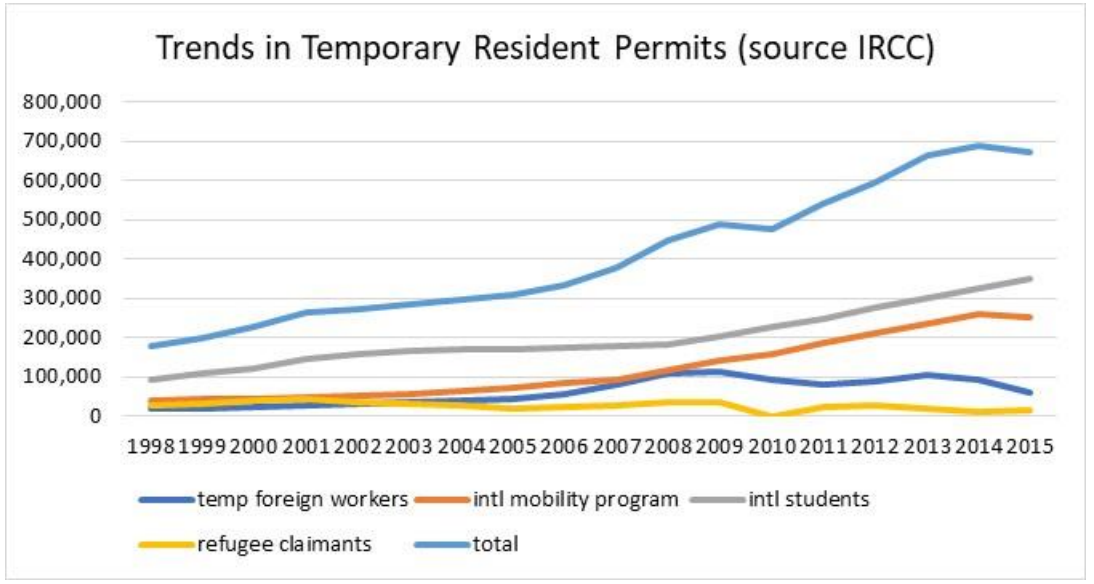
READ THE CONVERSATION

Migrant farm workers do some of the most dangerous work in Ontario; this has been especially true during the pandemic. Last year, 2,852 farm workers suffered COVID-19 infections from their work, making them second only to health-care professionals for COVID risk.

Recent Immigration Trends in Canada

- Permanent residents
  - Was ~250,000/yr for many years
  - Since ~2015 increased intake to 300,000
  - Projected to accept >465,000 in the coming years

- Temporary residents
  - In 2021, ~900,000

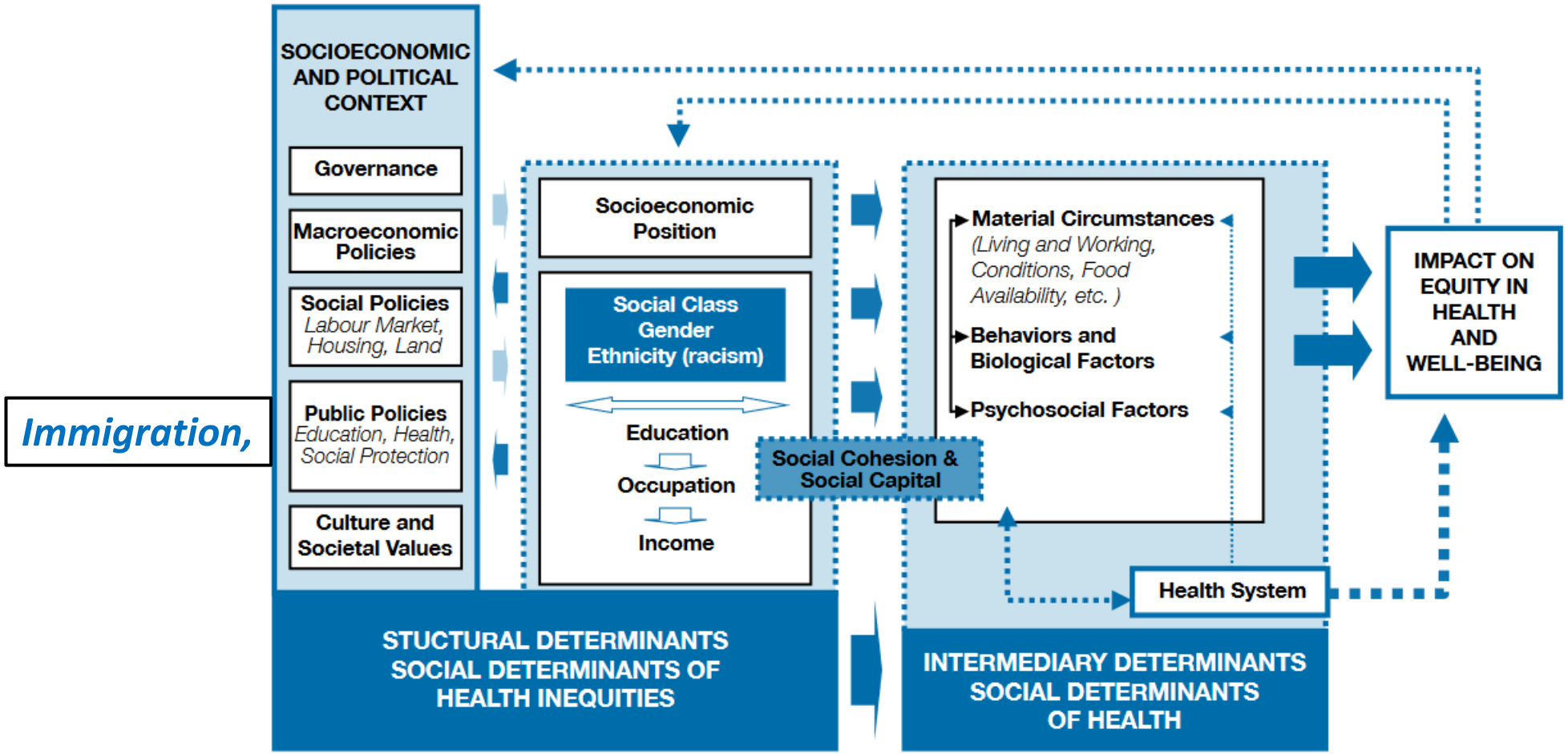


Poll #1

In which immigration category do immigrants NOT have to undergo an Immigration Medical Exam (IME)?

1. Economic Immigrants
2. All immigrants must undergo an IME
3. Refugees and some family class immigrants, since they cannot be rejected for admission based on “excessive demand” determined by the IME
4. No immigrants undergo an IME

WHO Conceptual Framework on SDOH



Ministério da Saúde

Alto Comissariado da Saúde

IOM International Organization for Migration

Migration: A Social Determinant of the Health of Migrants

International Organization for Migration (IOM)

Background Paper

In the framework of the
"Assisting Migrants and Communities (AMAC): Analysis of Social Determinants of Health and Health Inequalities" project
Co-funded by the European Commission DG Health and Consumers' Health Programme 2006 and the Portuguese High Commissariat for Health

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Ms Chiara Frattini

IOM Migration Health Department
Geneva, Switzerland

IOM • OIM

Immigration as a Social Determinant of Health

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*These authors contributed equally to this work.

Keywords

immigration, immigrant health, migrant health, social determinants of health

Abstract

Although immigration and immigrant populations have become increasingly important foci in public health research and practice, a social determinants of health approach has seldom been applied in this area. Global patterns of morbidity and mortality follow inequities rooted in societal, political, and economic conditions produced and reproduced by social structures, policies, and institutions. The lack of dialogue between these two profoundly related phenomena—social determinants of health and immigration—has resulted in missed opportunities for public health research, practice, and policy work. In this article, we discuss primary frameworks used in recent public health literature on the health of immigrant populations, note gaps in this literature, and argue for a broader examination of immigration as both socially determined and a social determinant of health. We discuss priorities for future research and policy to understand more fully and respond appropriately to the health of the populations affected by this global phenomenon.

Integrating social epidemiology into immigrant health research: A cross-national framework

Dolores Acevedo-Garcia [a,*], Emma V. Sanchez-Vaznaugh [b,c], Edna A. Viruell-Fuentes [d], Joanna Almeida [e]

Social Science & Medicine, 2012

Immigrant selection, Immigrant category

Transnational ties – immigrant's lives unfold across borders

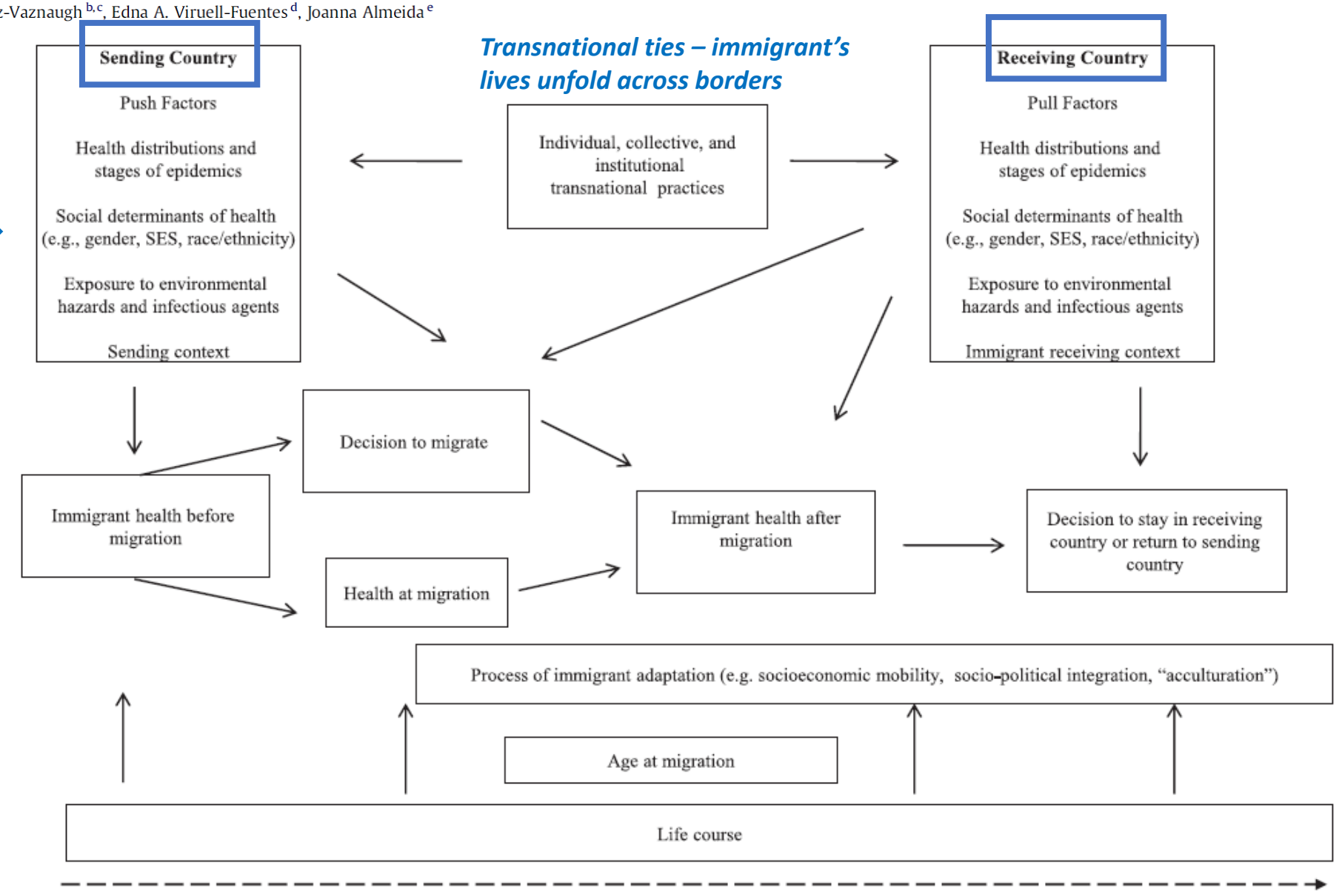
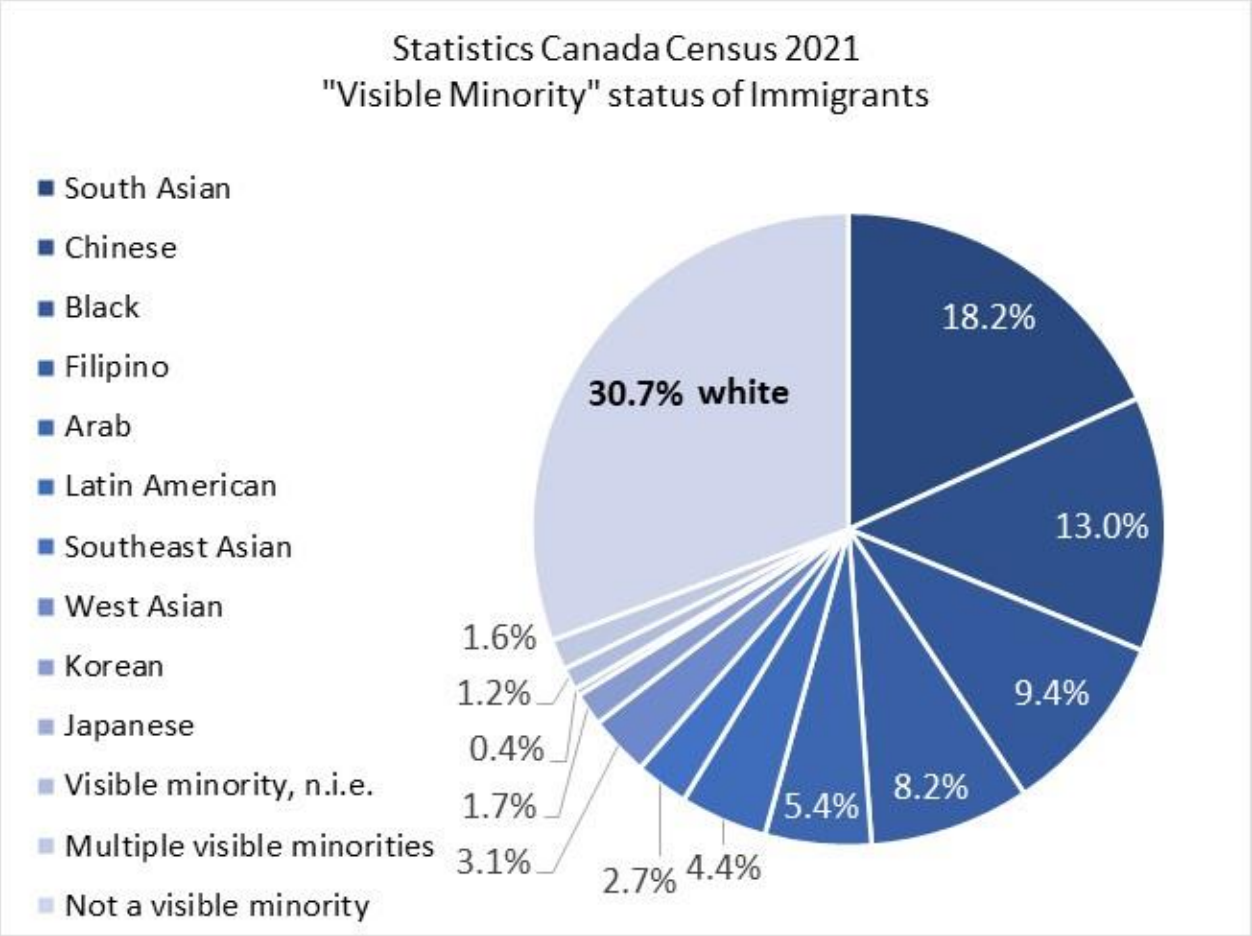
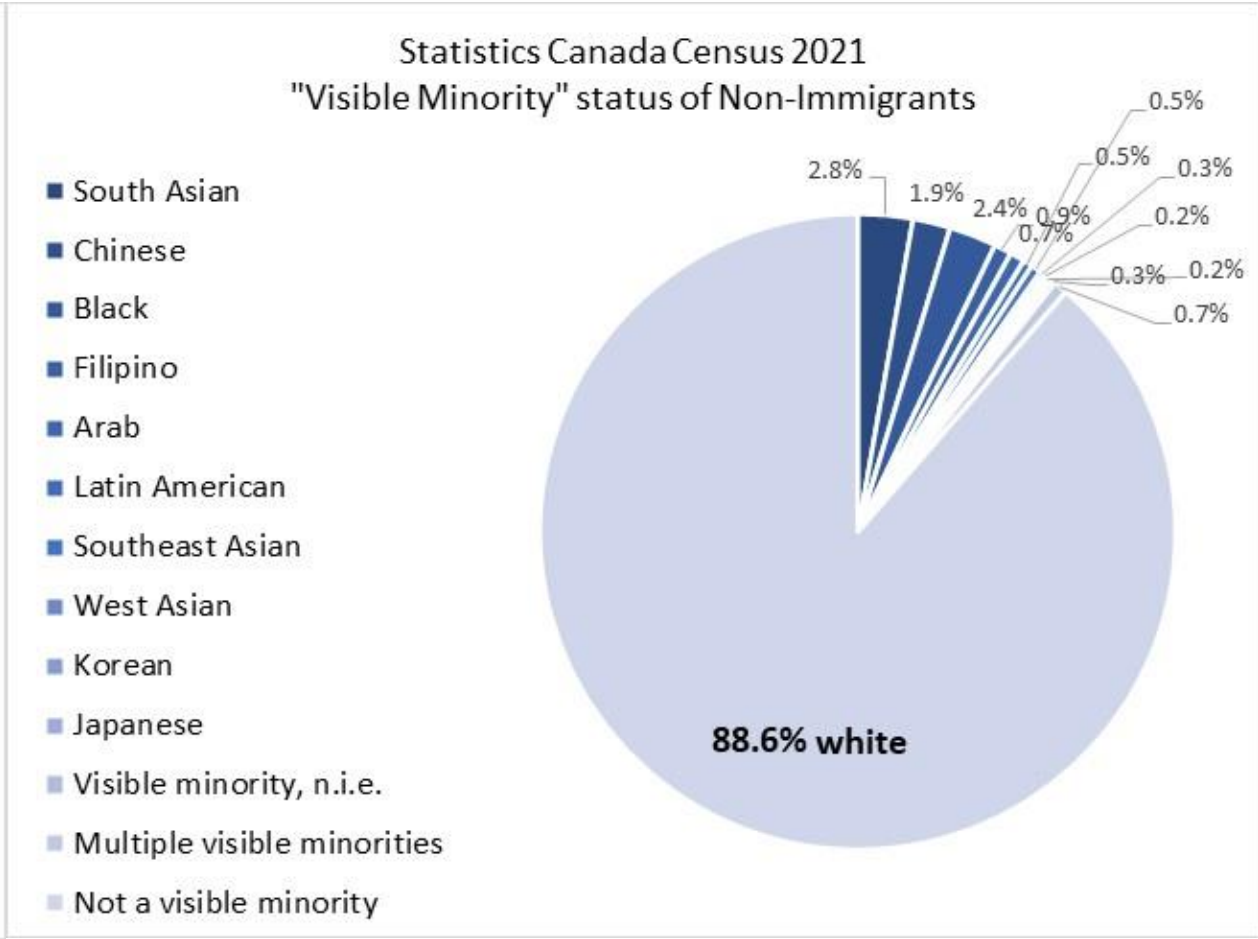


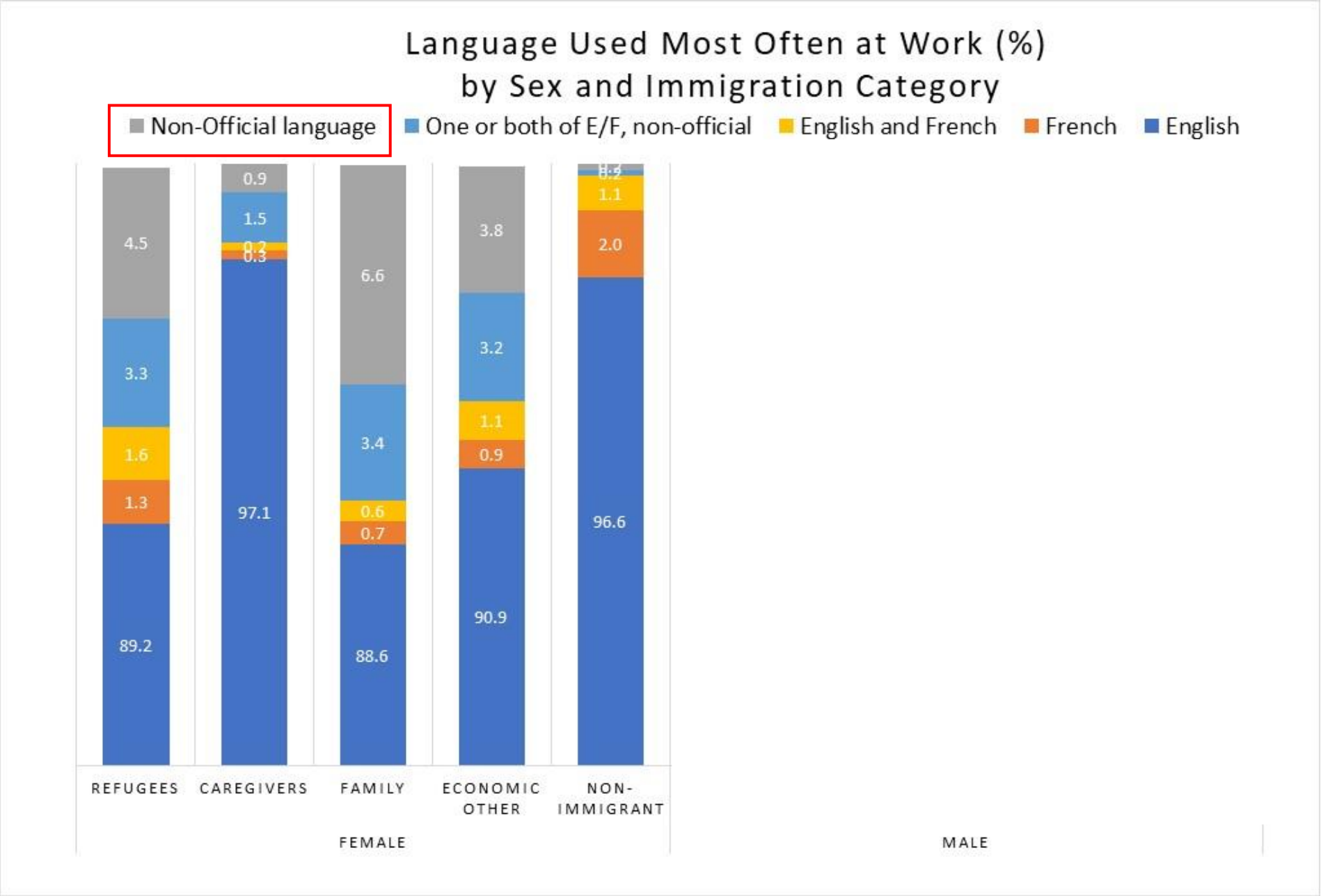
Fig. 1. Cross-national framework for research on immigrant health.





- 70% of immigrants in Canada are racialized (“visible minorities”) vs. 11% of non-immigrants

Census (2016)

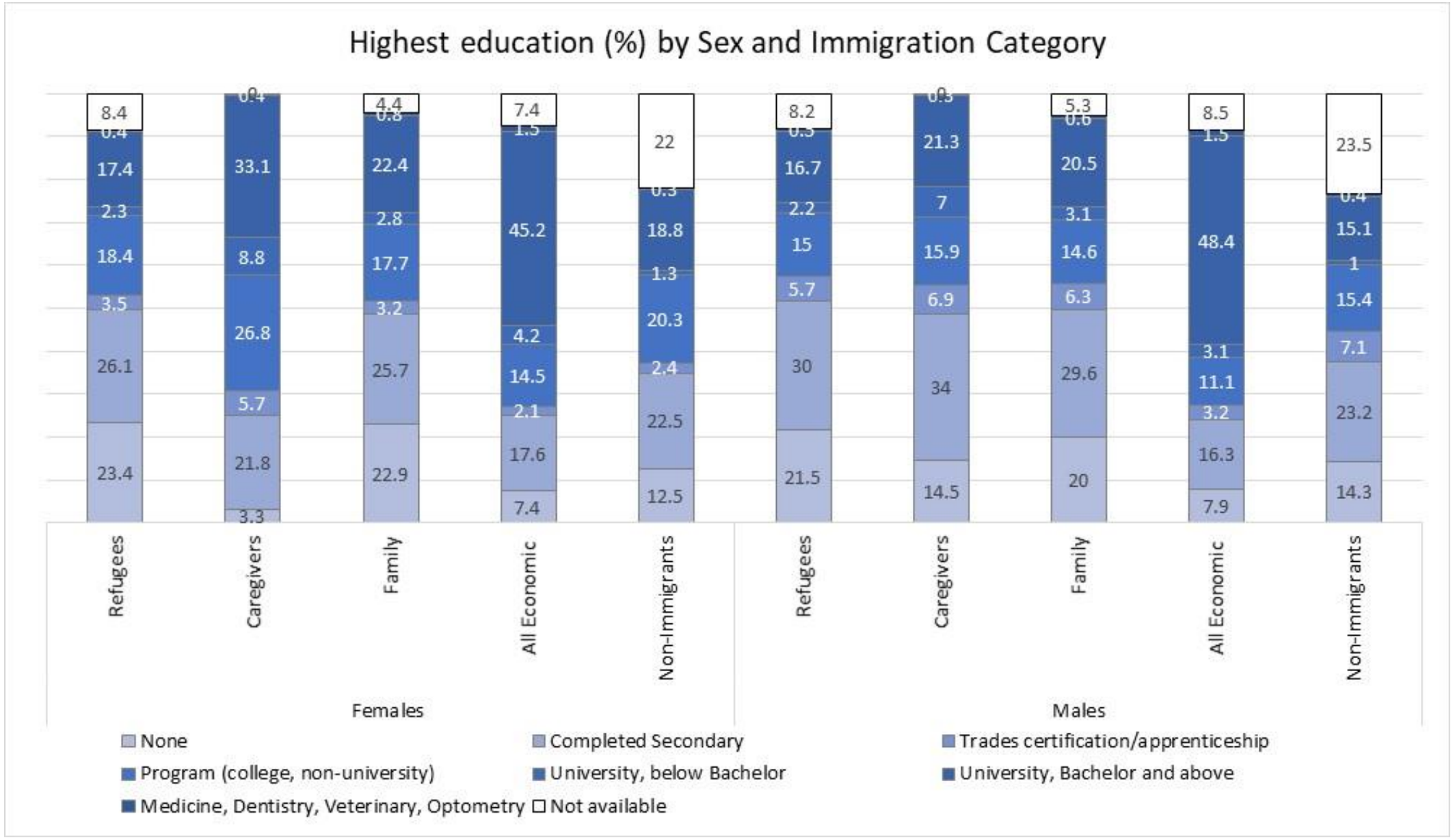

Language Used Most Often at Work (%)
by Sex and Immigration Category
Non-Official language
One or both of E/F, non-official
English and French
French
English
4.5
3.3
1.6
1.3
89.2
0.9
1.5
0.2
0.3
97.1
6.6
3.4
0.6
0.7
88.6
3.8
3.2
1.1
0.9
90.9
1.1
2.0
96.6
REFUGEES
CAREGIVERS
FAMILY
ECONOMIC OTHER
NON-IMMIGRANT
FEMALE
MALE

“Perceptions of Discrimination in Health Services Experienced by Immigrant Minorities in Ontario”

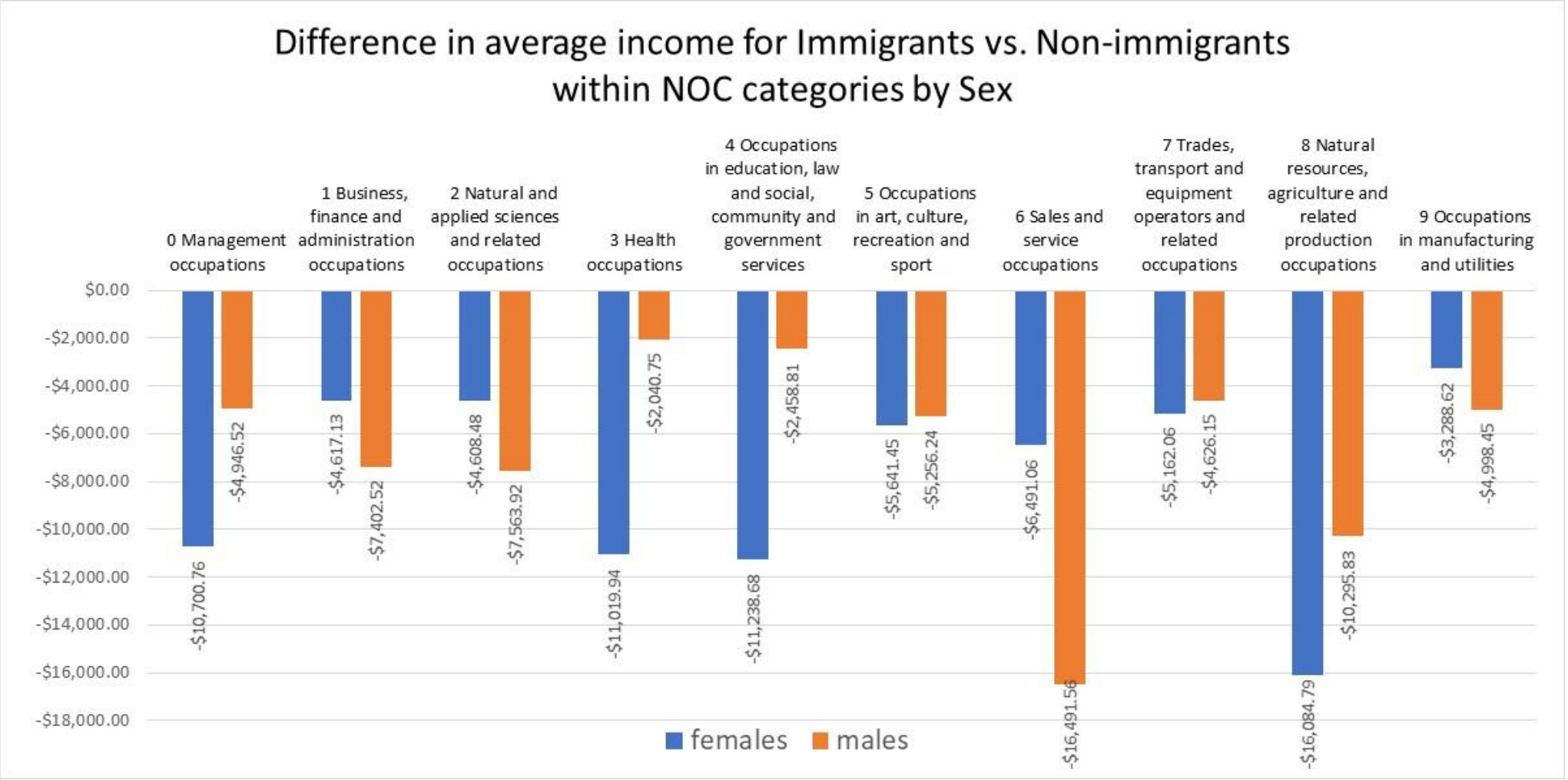
Pollock et al, 2015 – Welcoming Communities Initiative funded by CIC

- Very little research exploring how discrimination influences newcomers relationships with HCPs/healthcare system
- Literature review – most discrimination is subtle
- Key informant interviews
  - Interpersonal discrimination: denial of service based on language ability, insurance type; discrimination based on accent, language etc
    - leads to not accessing services, changing HCPs, seeking HC and meds from other countries, seeking alternative forms of HC, engaging in advocacy
  - Systemic discrimination: lack of information about HC system, lack/underuse of cultural interpreter services, immigration medical exams etc

Census (2016)


Highest education (%) by Sex and Immigration Category
Refugees
Caregivers
Family
All Economic
Non-Immigrants
Females
Males
None
Completed Secondary
Trades certification/apprenticeship
Program (college, non-university)
University, below Bachelor
University, Bachelor and above
Medicine, Dentistry, Veterinary, Optometry
Not available

Census (2016)


Difference in average income for Immigrants vs. Non-immigrants within NOC categories by Sex
0 Management occupations
1 Business, finance and administration occupations
2 Natural and applied sciences and related occupations
3 Health occupations
4 Occupations in education, law and social, community and government services
5 Occupations in art, culture, recreation and sport
6 Sales and service occupations
7 Trades, transport and equipment operators and related occupations
8 Natural resources, agriculture and related production occupations
9 Occupations in manufacturing and utilities
$0.00
-$2,000.00
-$4,000.00
-$6,000.00
-$8,000.00
-$10,000.00
-$12,000.00
-$14,000.00
-$16,000.00
-$18,000.00
-$10,700.76
-$4,946.52
-$4,617.13
-$7,402.52
-$4,608.48
-$7,563.92
-$11,019.94
-$2,040.75
-$11,238.68
-$2,458.81
-$5,641.45
-$5,256.24
-$6,491.06
-$16,491.56
-$5,162.06
-$4,626.15
-$16,084.79
-$10,295.83
-$3,288.62
-$4,998.45
females
males

Substantial Employer Discrimination

American Economic Journal: Economic Policy 3 (November 2011): 148–171
http://www.aeaweb.org/articles.php?doi=10.1257/pol.3.4.148

Why Do Skilled Immigrants Struggle in the Labor Market? A Field Experiment with Thirteen Thousand Resumes†

By PHILIP OREOPOULOS*

Thousands of randomly manipulated resumes were sent in response to online job postings in Toronto to investigate why immigrants, allowed in based on skill, struggle in the labor market. The study finds substantial discrimination across a variety of occupations towards applicants with foreign experience or those with Indian, Pakistani, Chinese, and Greek names compared with English names. Listing language fluency, multinational firm experience, education from highly selective schools, or active extracurricular activities had no diminishing effect. Recruiters justify this behavior based on language skill concerns but fail to fully account for offsetting features when listed. (*JEL* J15, J24, J61)

Do Large Employers Treat Racial Minorities More Fairly? An Analysis of Canadian Field Experiment Data

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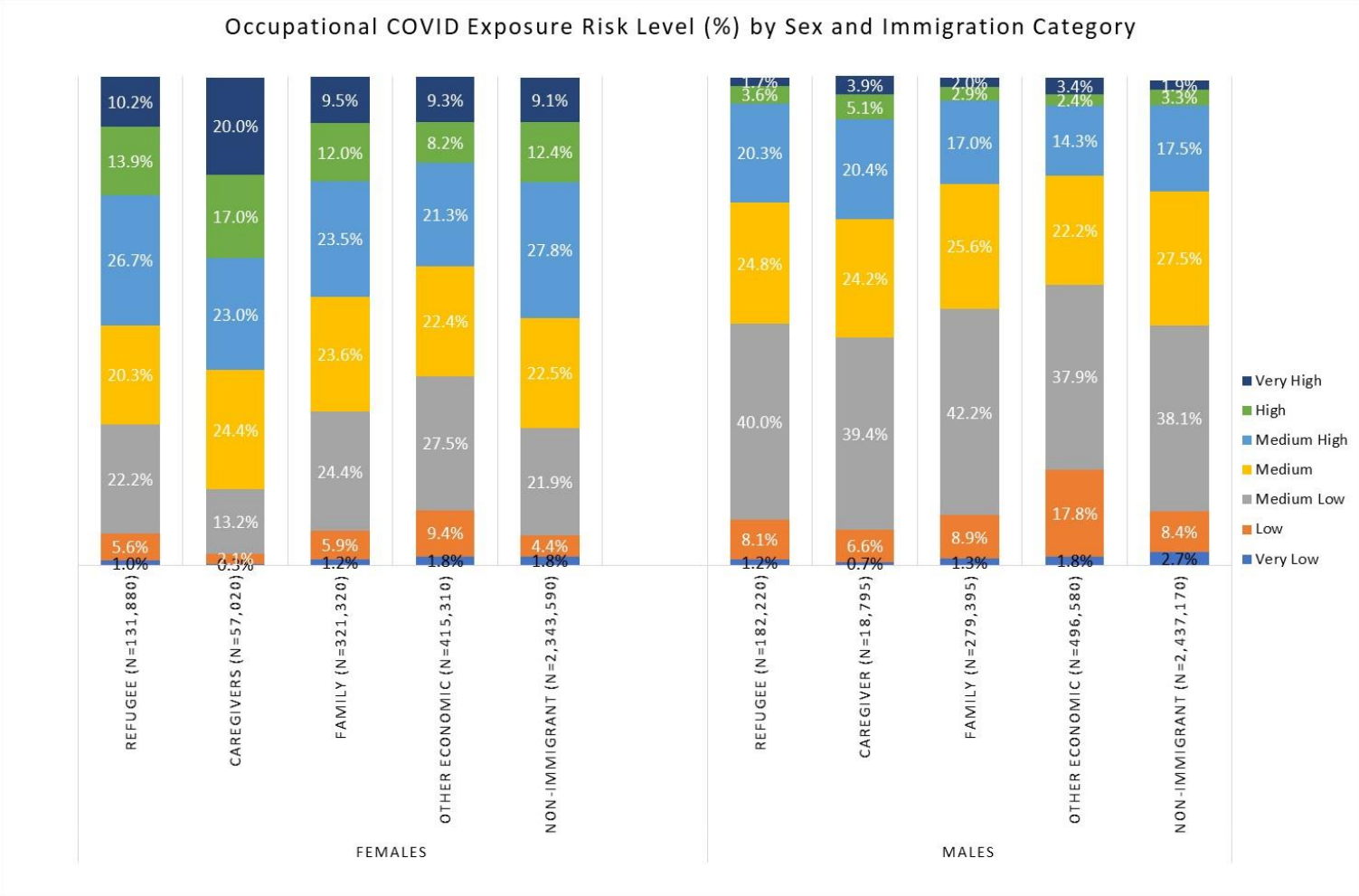
PHIL OREOPOULOS
Department of Economics, University of Toronto, Toronto, Ontario

Analysis of amended data from a large-scale Canadian employment audit study (Oreopoulos 2011) shows substantial organization size differences in discrimination against skilled applicants with Asian (Chinese, Indian, or Pakistani) names in the decision to call for an interview. In organizations with more than 500 employees, Asian-named applicants are 20 percent less likely to receive a callback; in smaller organizations, the disadvantage is nearly 40 percent. Large organizations may discriminate less frequently because of more resources in recruitment and training, more human resources development, and greater experience with diversity. Anonymized résumé review may allow organizations to test hiring procedures for discrimination fairly inexpensively.

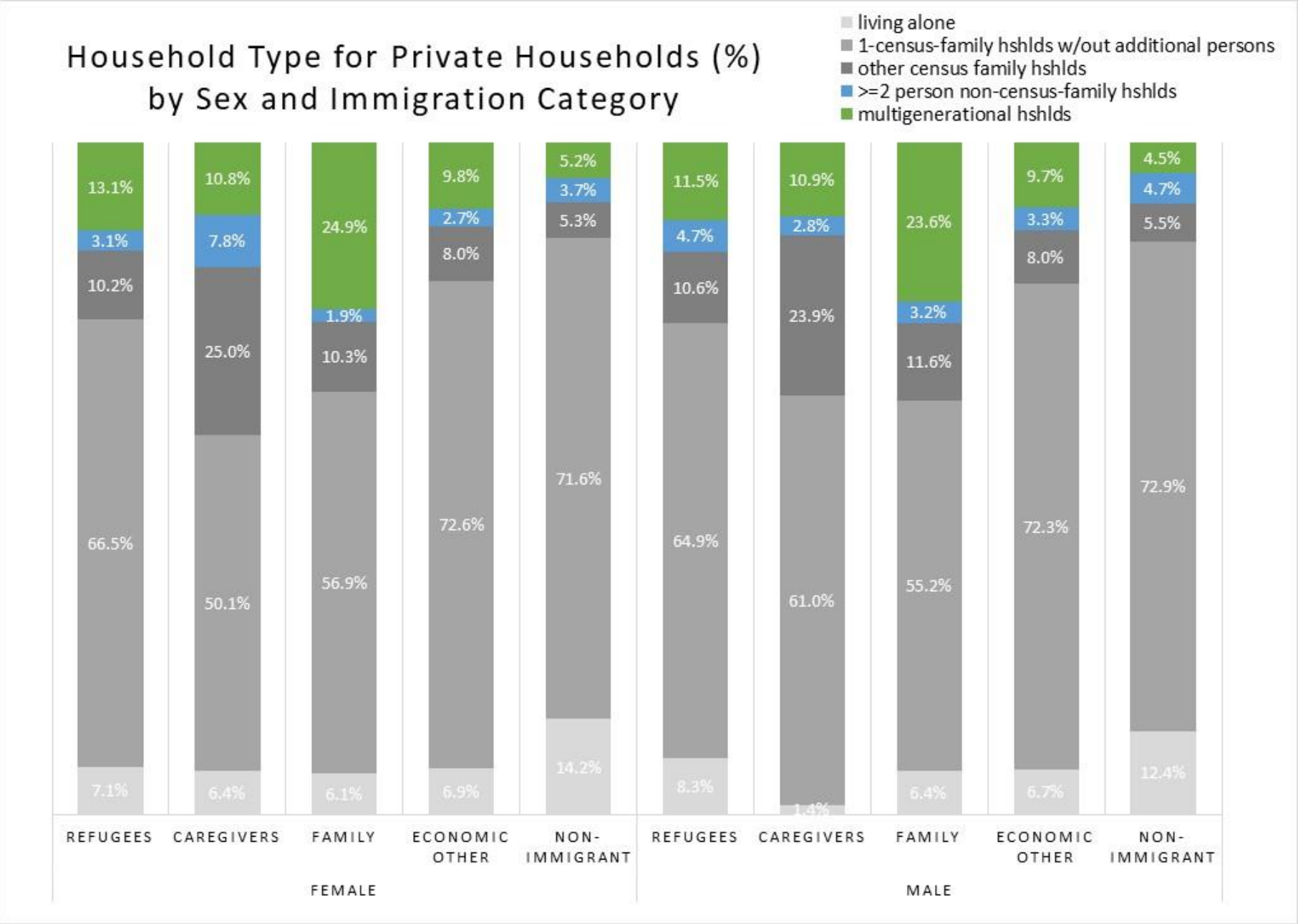
Keywords: audit study, hiring discrimination, immigration, racial minorities, employer size

Census (2016)

National Occupational Category mapped to COVID exposure risk (VSE COVID Risk Assessment)



Census (2016)


Household Type for Private Households (%) by Sex and Immigration Category
living alone
1-census-family hshlds w/out additional persons
other census family hshlds
>=2 person non-census-family hshlds
multigenerational hshlds
13.1%
3.1%
10.2%
66.5%
7.1%
10.8%
7.8%
25.0%
50.1%
6.4%
24.9%
1.9%
10.3%
56.9%
6.1%
9.8%
2.7%
8.0%
72.6%
6.9%
5.2%
3.7%
5.3%
71.6%
14.2%
11.5%
4.7%
10.6%
64.9%
8.3%
10.9%
2.8%
23.9%
61.0%
1.4%
23.6%
3.2%
11.6%
55.2%
6.4%
9.7%
3.3%
8.0%
72.3%
6.7%
4.5%
4.7%
5.5%
72.9%
12.4%
REFUGEES
CAREGIVERS
FAMILY
ECONOMIC OTHER
NON-IMMIGRANT
FEMALE
REFUGEES
CAREGIVERS
FAMILY
ECONOMIC OTHER
NON-IMMIGRANT
MALE

Poll #2

According to the literature review conducted by Pollock et al (2015), how do newcomers describe discrimination experienced in Canadian health care settings?

1. Overt
2. Newcomers did not experience discrimination in health care settings in Canada
3. Frequent
4. Subtle

Immigration, Refugees and Citizenship Canada Permanent Residents DB

- Permanent residents who *intended* to land in Ontario, 1985-2017
  - Immigrants arriving <1985 or migrating to Ontario from other provinces before or after 1985 cannot identified
- Data elements collected during the immigration application process – mostly entered by the IRCC, some by CBSA (successful refugee claimants)
- Some data elements verified for economic principal applicants; self-reported by principal applicant for other immigration categories and by principal applicant for other family members

IRCC Data Elements + Data Quality

- Immigration category (fine categories, some short-lived), roll up to common categories (<1% missing)
- Family status (principal applicant, parent, child etc) (<1% missing)
- Educational qualification at arrival (no missing)
- Years of schooling at arrival (<1% missing)
- Official language ability at arrival (<1% missing)
- Mother tongue (hundreds) (no missing)
- Country of birth/country of citizenship (+ regional classifications) (no missing)
  - does not translate well to race/ethnicity categories
  - Borders are man-made (socially constructed)
- Year of Permanent Residency ("landing" date) (no missing)
  - + service use dates = duration of residence/length of stay,
- National occupational classification – NOC (high missing + not meaningful values)

Chiu et al. BMC Medical Informatics and Decision Making (2016) 16:135
DOI 10.1186/s12911-016-0375-3

BMC Medical Informatics and Decision Making

RESEARCH ARTICLE Open Access

Describing the linkages of the immigration, refugees and citizenship Canada permanent resident data and vital statistics death registry to Ontario's administrative health database

Maria Chiu[1], Michael Lebenbaum[1], Kelvin Lam[2], Nelson Chong[1], Mahmoud Azimaee[1], Karey Iron[3], Doug Manuel[4] and Astrid Guttmann[1*]

- Overall linkage rate between IRCC-PRD and RPDB was 86.4%
- 68.2% after at least 3 deterministic passes, 18.2% were linked probabilistically
- Few systematic differences between unlinked and linked individuals

New IRCC Data!!

- National file – can ID immigrants re-migrating to Ontario from other provinces
- Includes temporary residents who transition to permanent residents
- Includes those who held temporary permits and did/could not remain in Canada as permanent residents
- Includes arrivals up to September 2020
- Application identifier – all persons on a given immigration application, family and extended family

Poll #3

Resettled refugees must wait 3 months before being eligible for OHIP.

1. True
2. False
3. Resettled refugees are not eligible for OHIP.

Resettled refugees are the only group of immigrants eligible for OHIP when they arrive.

ICES Guidance for Anti-Racist Approaches to Research and Analytics at ICES

- Acknowledges race and related data (ethnicity, mother tongue, country of birth etc) are social constructs, have no biologic or genetic relevance
- Use data to illustrate impact of racism on health, advance health equity or evaluate solutions to improve health

Goals:

1. Guide appropriate use of race and related data
2. Promote community-driven research
3. Sustain anti-racist research with meaningful community engagement
4. Develop community data governance
5. Ensure accountability and transparency

Characteristics of COVID-19 vaccine recipients in Ontario by immigration variables (Vaccination dates from 14DEC2020 to 08AUG2021)

Prepared By

Sima Gandhi, Research Program Manager
Hong Lu, Senior Research Analyst
Susitha Wanigaratne, ICES Fellow
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Acknowledgement & Disclaimers

This work is supported by the Applied Health Research Questions (AHRQ) Portfolio at ICES, which is funded by the Ontario Ministry of Health. For more information on AHRQ and how to submit a request, please visit www.ices.on.ca/DAS/AHRQ. This work is also supported by the Ontario Health Data Platform (OHDP), a Province of Ontario initiative to support Ontario's ongoing response to COVID-19 and its related impacts. Parts of this material are based on data and information compiled and provided by Ontario Ministry of Health, the Canadian Institute for Health Information and Public Health Ontario. The analyses, conclusions, opinions and statements expressed herein are solely those of the authors and do not reflect those of ICES, the OHDP, the funding or data sources; no endorsement is intended or should be inferred. We would like to acknowledge Public Health Ontario for access to case level data from CCM and COVID-19 laboratory data, as well as assistance with data interpretation. We also thank the staff of Ontario's public health units who are responsible for COVID-19 case and contact management and data collection within CCM.

These datasets were linked using unique encoded identifiers and analyzed at ICES.

Parts or whole of this material are based on data and/or information compiled and provided by Immigration, Refugees and Citizenship Canada (IRCC) current to May 30, 2017. However, the analyses, conclusions, opinions and statements expressed in the material are those of the author(s), and not necessarily those of IRCC.

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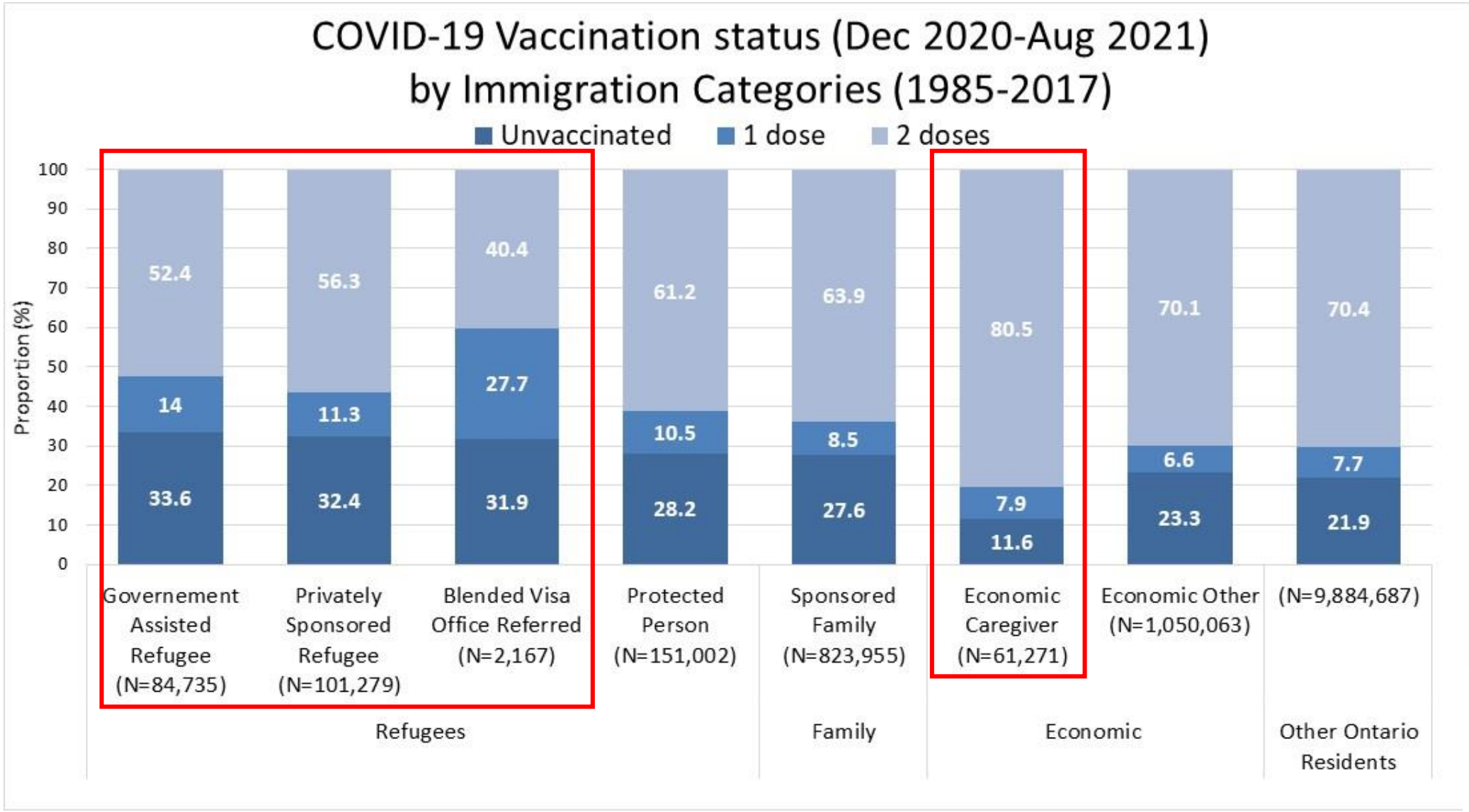
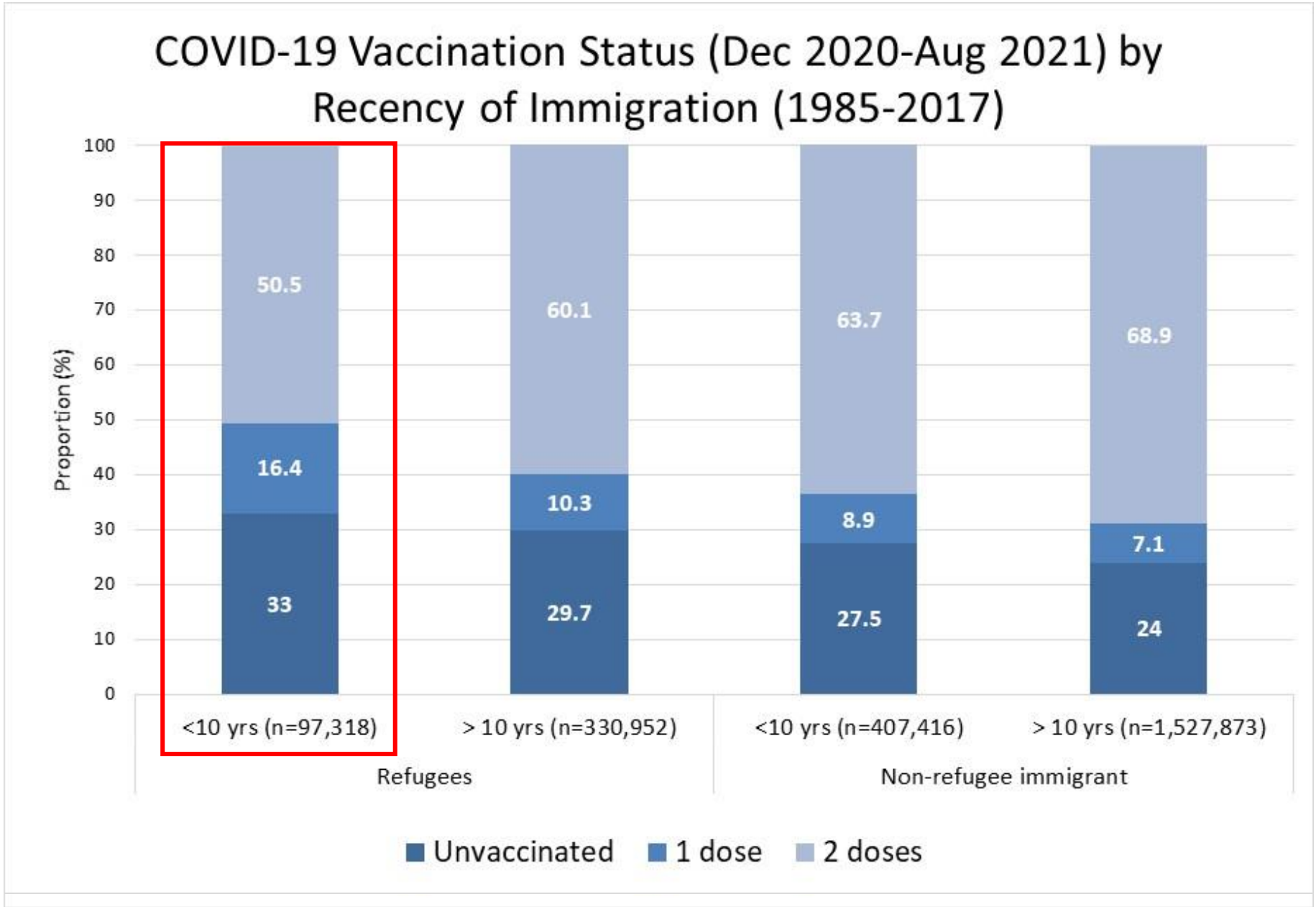
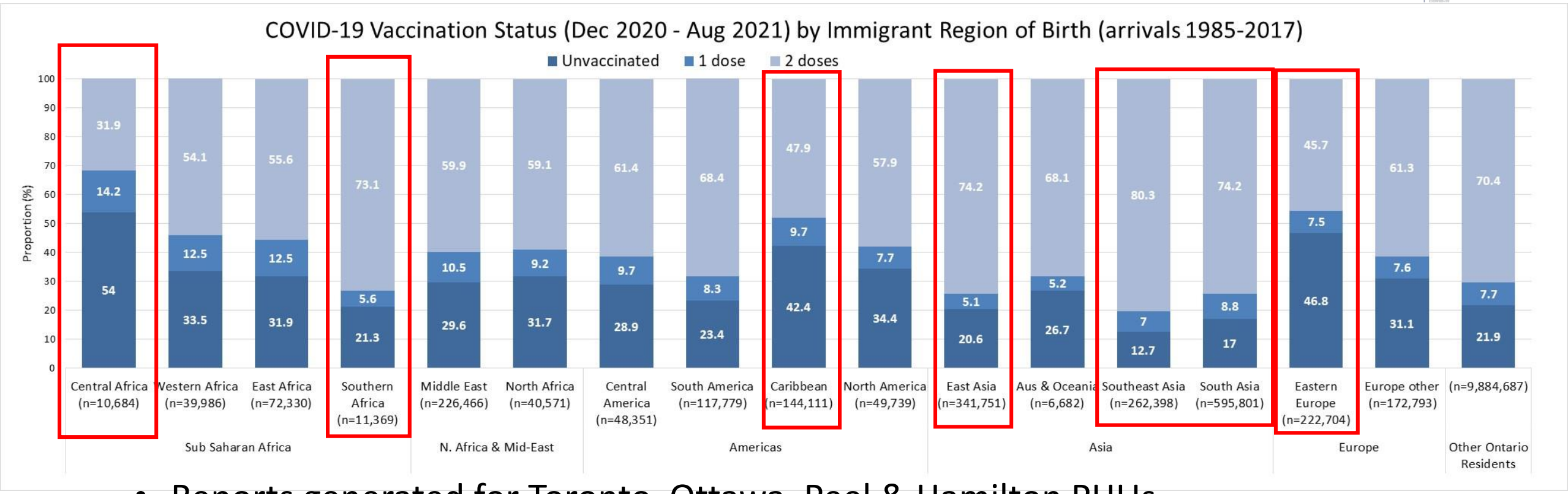
To reference this document, please cite as:
Gandhi S, Lu H, Wanigaratne S, Guttmann A. Characteristics of COVID-19 vaccine recipients in Ontario by Immigration Variables (Vaccination dates from 14DEC2020 to 08AUG2021), Applied Health Research Questions (AHRQ) # 2021 0950 080 000. Toronto: Institute for Clinical Evaluative Sciences; 2020.


COVID-19 Vaccination status (Dec 2020-Aug 2021)
by Immigration Categories (1985-2017)
Unvaccinated
1 dose
2 doses
Proportion (%)
100
90
80
70
60
50
40
30
20
10
0
52.4
14
33.6
56.3
11.3
32.4
40.4
27.7
31.9
61.2
10.5
28.2
63.9
8.5
27.6
80.5
7.9
11.6
70.1
6.6
23.3
70.4
7.7
21.9
Governement Assisted Refugee (N=84,735)
Privately Sponsored Refugee (N=101,279)
Blended Visa Office Referred (N=2,167)
Protected Person (N=151,002)
Sponsored Family (N=823,955)
Economic Caregiver (N=61,271)
Economic Other (N=1,050,063)
(N=9,884,687)
Refugees
Family
Economic
Other Ontario Residents


COVID-19 Vaccination Status (Dec 2020-Aug 2021) by Recency of Immigration (1985-2017)
Proportion (%)
100
90
80
70
60
50
40
30
20
10
0
50.5
16.4
33
60.1
10.3
29.7
63.7
8.9
27.5
68.9
7.1
24
<10 yrs (n=97,318)
> 10 yrs (n=330,952)
<10 yrs (n=407,416)
> 10 yrs (n=1,527,873)
Refugees
Non-refugee immigrant
Unvaccinated
1 dose
2 doses



- Reports generated for Toronto, Ottawa, Peel & Hamilton PHUs
- Team presented to immigrant-serving organizations working with Toronto Public Health in Fall 2021
- TPH held focus group discussions with agencies serving the Eastern European population in Nov 2021 → winter 2022 re-analysis indicated improved uptake

ICES IRCC contacts

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Astrid Guttmann, Chief Science Officer

- Helps with partnership and scientific lead for IRCC data
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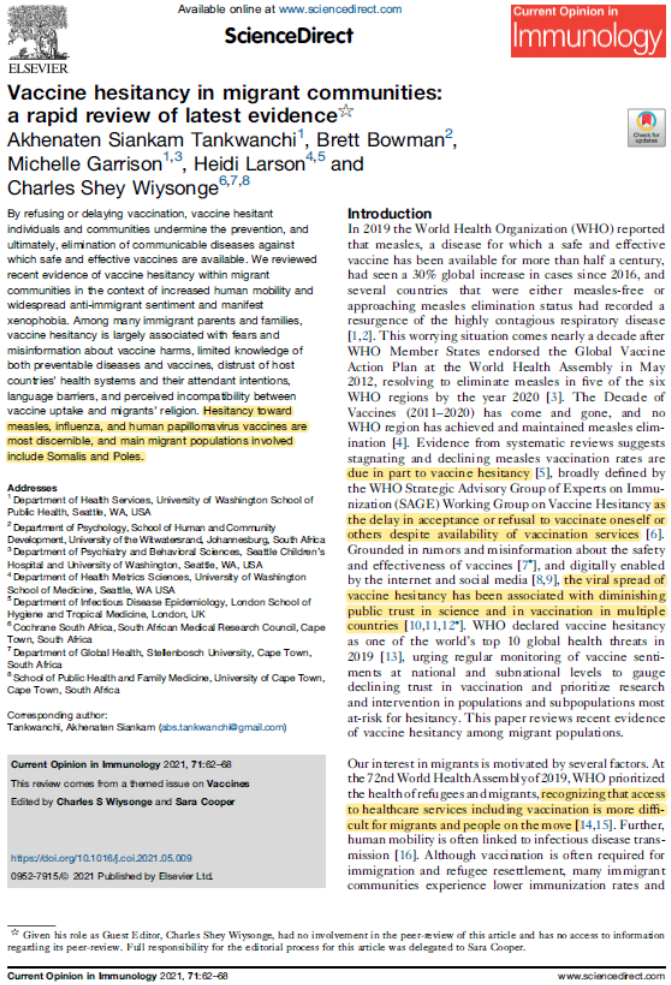
Vaccine Uptake among Migrants: Barriers, Facilitators & Determinants



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Current Opinion in Immunology

Vaccine hesitancy in migrant communities: a rapid review of latest evidence☆

Akhenaten Siankam Tankwanchi[1], Brett Bowman[2], Michelle Garrison[1,3], Heidi Larson[4,5] and Charles Shey Wiysonge[6,7,8]

By refusing or delaying vaccination, vaccine hesitant individuals and communities undermine the prevention, and ultimately, elimination of communicable diseases against which safe and effective vaccines are available. We reviewed recent evidence of vaccine hesitancy within migrant communities in the context of increased human mobility and widespread anti-immigrant sentiment and manifest xenophobia. Among many immigrant parents and families, vaccine hesitancy is largely associated with fears and misinformation about vaccine harms, limited knowledge of both preventable diseases and vaccines, distrust of host countries' health systems and their attendant intentions, language barriers, and perceived incompatibility between vaccine uptake and migrants' religion. Hesitancy toward measles, influenza, and human papillomavirus vaccines are most discernible, and main migrant populations involved include Somalis and Poles.

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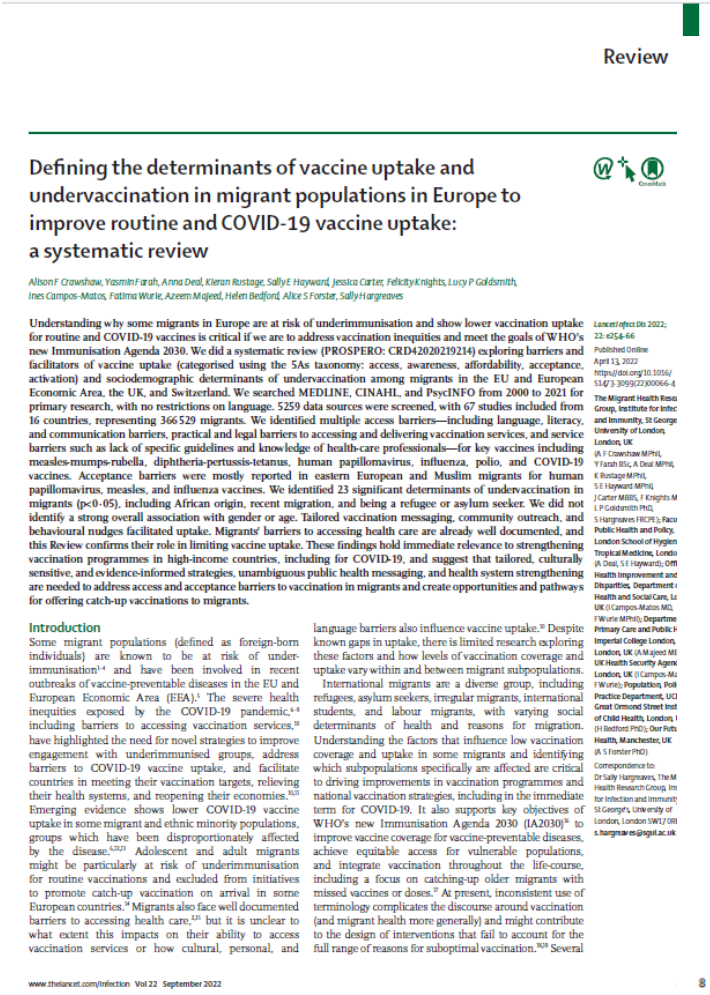
Introduction

In 2019 the World Health Organization (WHO) reported that measles, a disease for which a safe and effective vaccine has been available for more than half a century, had seen a 30% global increase in cases since 2016, and several countries that were either measles-free or approaching measles elimination status had recorded a resurgence of the highly contagious respiratory disease [1,2]. This worrying situation comes nearly a decade after WHO Member States endorsed the Global Vaccine Action Plan at the World Health Assembly in May 2012, resolving to eliminate measles in five of the six WHO regions by the year 2020 [3]. The Decade of Vaccines (2011–2020) has come and gone, and no WHO region has achieved and maintained measles elimination [4]. Evidence from systematic reviews suggests stagnating and declining measles vaccination rates are due in part to vaccine hesitancy [5], broadly defined by the WHO Strategic Advisory Group of Experts on Immunization (SAGE) Working Group on Vaccine Hesitancy as the delay in acceptance or refusal to vaccinate oneself or others despite availability of vaccination services [6]. Grounded in rumors and misinformation about the safety and effectiveness of vaccines [7*], and digitally enabled by the internet and social media [8,9], the viral spread of vaccine hesitancy has been associated with diminishing public trust in science and in vaccination in multiple countries [10,11,12*]. WHO declared vaccine hesitancy as one of the world's top 10 global health threats in 2019 [13], urging regular monitoring of vaccine sentiments at national and subnational levels to gauge declining trust in vaccination and prioritize research and intervention in populations and subpopulations most at-risk for hesitancy. This paper reviews recent evidence of vaccine hesitancy among migrant populations.

Our interest in migrants is motivated by several factors. At the 72nd World Health Assembly of 2019, WHO prioritized the health of refugees and migrants, recognizing that access to healthcare services including vaccination is more difficult for migrants and people on the move [14,15]. Further, human mobility is often linked to infectious disease transmission [16]. Although vaccination is often required for immigration and refugee resettlement, many immigrant communities experience lower immunization rates and

☆ Given his role as Guest Editor, Charles Shey Wiysonge, had no involvement in the peer-review of this article and has no access to information regarding its peer-review. Full responsibility for the editorial process for this article was delegated to Sara Cooper.



Review

Defining the determinants of vaccine uptake and undervaccination in migrant populations in Europe to improve routine and COVID-19 vaccine uptake: a systematic review

Alison F Crawshaw, Yasmin Farah, Anna Deal, Kieran Rustage, Sally E Hayward, Jessica Carter, Felicity Knights, Lucy P Goldsmith, Ines Campos-Matos, Fatima Wurie, Azeem Majeed, Helen Bedford, Alice S Forster, Sally Hargreaves

Understanding why some migrants in Europe are at risk of underimmunisation and show lower vaccination uptake for routine and COVID-19 vaccines is critical if we are to address vaccination inequities and meet the goals of WHO's new Immunisation Agenda 2030. We did a systematic review (PROSPERO: CRD42020219214) exploring barriers and facilitators of vaccine uptake (categorised using the 5As taxonomy: access, awareness, affordability, acceptance, activation) and sociodemographic determinants of undervaccination among migrants in the EU and European Economic Area, the UK, and Switzerland. We searched MEDLINE, CINAHL, and PsycINFO from 2000 to 2021 for primary research, with no restrictions on language. 5259 data sources were screened, with 67 studies included from 16 countries, representing 366 529 migrants. We identified multiple access barriers—including language, literacy, and communication barriers, practical and legal barriers to accessing and delivering vaccination services, and service barriers such as lack of specific guidelines and knowledge of health-care professionals—for key vaccines including measles-mumps-rubella, diphtheria-pertussis-tetanus, human papillomavirus, influenza, polio, and COVID-19 vaccines. Acceptance barriers were mostly reported in eastern European and Muslim migrants for human papillomavirus, measles, and influenza vaccines. We identified 23 significant determinants of undervaccination in migrants (p<0·05), including African origin, recent migration, and being a refugee or asylum seeker. We did not identify a strong overall association with gender or age. Tailored vaccination messaging, community outreach, and behavioural nudges facilitated uptake. Migrants' barriers to accessing health care are already well documented, and this Review confirms their role in limiting vaccine uptake. These findings hold immediate relevance to strengthening vaccination programmes in high-income countries, including for COVID-19, and suggest that tailored, culturally sensitive, and evidence-informed strategies, unambiguous public health messaging, and health system strengthening are needed to address access and acceptance barriers to vaccination in migrants and create opportunities and pathways for offering catch-up vaccinations to migrants.

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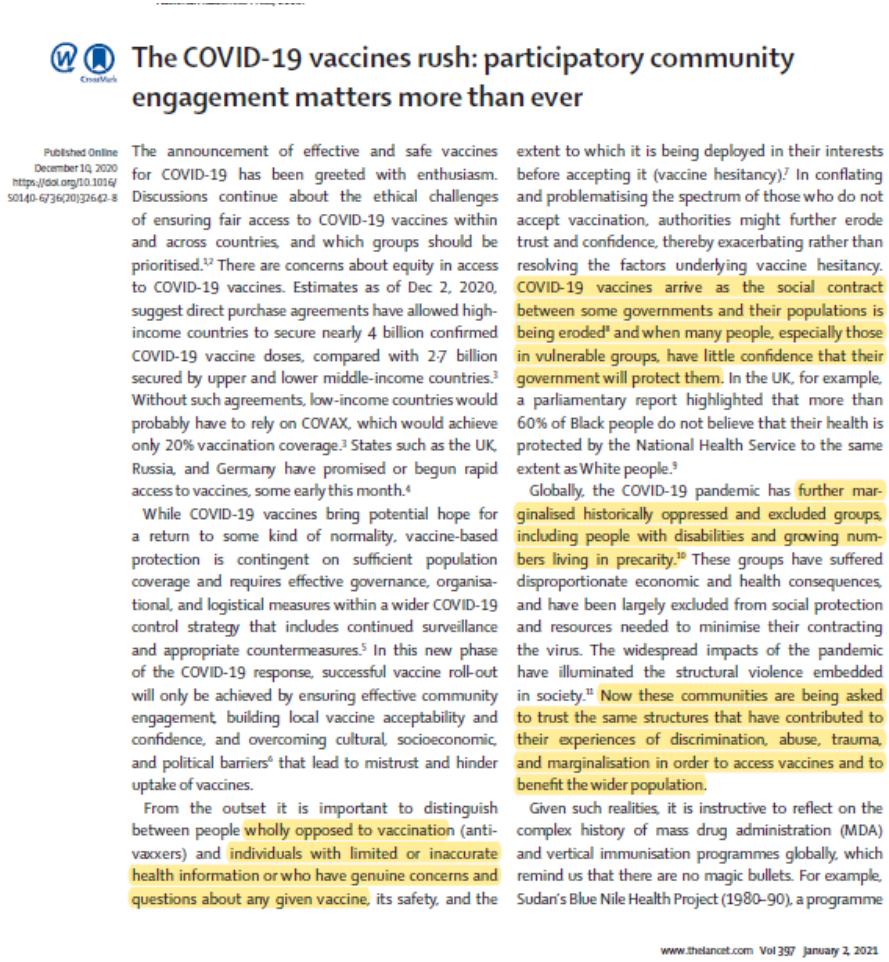
Introduction

Some migrant populations (defined as foreign-born individuals) are known to be at risk of undervaccination[1–4] and have been involved in recent outbreaks of vaccine-preventable diseases in the EU and European Economic Area (EEA).[1] The severe health inequities exposed by the COVID-19 pandemic,[4–6] including barriers to accessing vaccination services,[7] have highlighted the need for novel strategies to improve engagement with undervaccinated groups, address barriers to COVID-19 vaccine uptake, and facilitate countries in meeting their vaccination targets, relieving their health systems, and reopening their economies.[8,9] Emerging evidence shows lower COVID-19 vaccine uptake in some migrant and ethnic minority populations, groups which have been disproportionately affected by the disease.[6,10,11] Adolescent and adult migrants might be particularly at risk of underimmunisation for routine vaccinations and excluded from initiatives to promote catch-up vaccination on arrival in some European countries.[12] Migrants also face well documented barriers to accessing health care,[2,13] but it is unclear to what extent this impacts on their ability to access vaccination services or how cultural, personal, and language barriers also influence vaccine uptake.[10] Despite known gaps in uptake, there is limited research exploring these factors and how levels of vaccination coverage and uptake vary within and between migrant subpopulations.

International migrants are a diverse group, including refugees, asylum seekers, irregular migrants, international students, and labour migrants, with varying social determinants of health and reasons for migration. Understanding the factors that influence low vaccination coverage and uptake in some migrants and identifying which subpopulations specifically are affected are critical to driving improvements in vaccination programmes and national vaccination strategies, including in the immediate term for COVID-19. It also supports key objectives of WHO's new Immunisation Agenda 2030 (IA2030)[14] to improve vaccine coverage for vaccine-preventable diseases, achieve equitable access for vulnerable populations, and integrate vaccination throughout the life-course, including a focus on catching-up older migrants with missed vaccines or doses.[15] At present, inconsistent use of terminology complicates the discourse around vaccination (and migrant health more generally) and might contribute to the design of interventions that fail to account for the full range of reasons for suboptimal vaccination.[16,17] Several



The COVID-19 vaccines rush: participatory community engagement matters more than ever

Published Online December 10, 2020 https://doi.org/10.1016/S0140-6736(20)32642-8

The announcement of effective and safe vaccines for COVID-19 has been greeted with enthusiasm. Discussions continue about the ethical challenges of ensuring fair access to COVID-19 vaccines within and across countries, and which groups should be prioritised.[1,2] There are concerns about equity in access to COVID-19 vaccines. Estimates as of Dec 2, 2020, suggest direct purchase agreements have allowed high-income countries to secure nearly 4 billion confirmed COVID-19 vaccine doses, compared with 2·7 billion secured by upper and lower middle-income countries.[3] Without such agreements, low-income countries would probably have to rely on COVAX, which would achieve only 20% vaccination coverage.[3] States such as the UK, Russia, and Germany have promised or begun rapid access to vaccines, some early this month.[4]

While COVID-19 vaccines bring potential hope for a return to some kind of normality, vaccine-based protection is contingent on sufficient population coverage and requires effective governance, organisational, and logistical measures within a wider COVID-19 control strategy that includes continued surveillance and appropriate countermeasures.[5] In this new phase of the COVID-19 response, successful vaccine roll-out will only be achieved by ensuring effective community engagement, building local vaccine acceptability and confidence, and overcoming cultural, socioeconomic, and political barriers[6] that lead to mistrust and hinder uptake of vaccines.

From the outset it is important to distinguish between people wholly opposed to vaccination (anti-vaxxers) and individuals with limited or inaccurate health information or who have genuine concerns and questions about any given vaccine, its safety, and the extent to which it is being deployed in their interests before accepting it (vaccine hesitancy).[7] In conflating and problematising the spectrum of those who do not accept vaccination, authorities might further erode trust and confidence, thereby exacerbating rather than resolving the factors underlying vaccine hesitancy. COVID-19 vaccines arrive as the social contract between some governments and their populations is being eroded[8] and when many people, especially those in vulnerable groups, have little confidence that their government will protect them. In the UK, for example, a parliamentary report highlighted that more than 60% of Black people do not believe that their health is protected by the National Health Service to the same extent as White people.[9]

Globally, the COVID-19 pandemic has further marginalised historically oppressed and excluded groups, including people with disabilities and growing numbers living in precarity.[10] These groups have suffered disproportionate economic and health consequences, and have been largely excluded from social protection and resources needed to minimise their contracting the virus. The widespread impacts of the pandemic have illuminated the structural violence embedded in society.[11] Now these communities are being asked to trust the same structures that have contributed to their experiences of discrimination, abuse, trauma, and marginalisation in order to access vaccines and to benefit the wider population.

Given such realities, it is instructive to reflect on the complex history of mass drug administration (MDA) and vertical immunisation programmes globally, which remind us that there are no magic bullets. For example, Sudan's Blue Nile Health Project (1980–90), a programme

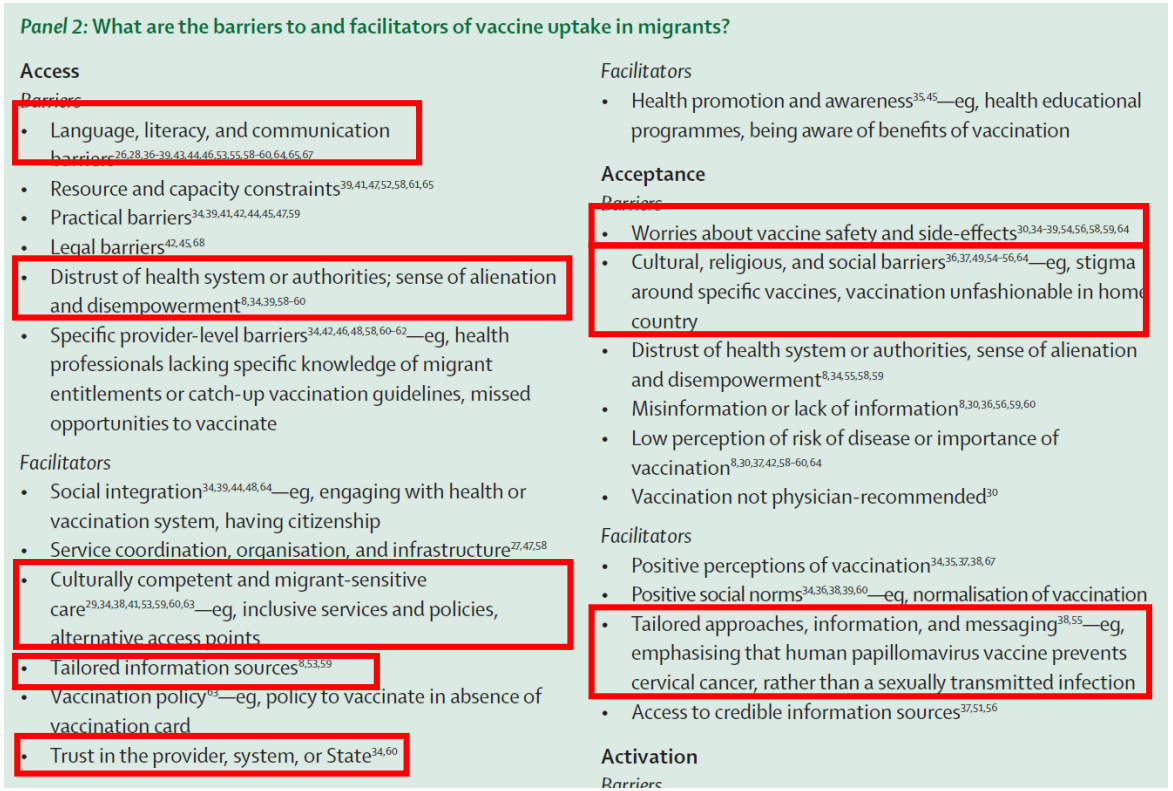
Determinants of Vaccine Uptake

(Crawshaw et al, 2022)

	Significant association with undervaccination?	Number of studies finding a significant association/number of studies investigating the determinant
Individual characteristics		
Geographical origin:[26,31–33,45,47,50,54,62,70,71,73–77,81,84,85,86,87,89–93] African region (Africa,[45,73,76,92] sub-Saharan Africa,[31,71,75,77,84] north Africa,[75,77] Morocco,[62,74,86] Eritrea,[50] Suriname,[62] Somalia[84]); European region (eastern Europe,[26,73,77,84] central and eastern Europe,[71] Europe,[91] western Europe,[71] Turkey[62,74,86]); eastern Mediterranean and Middle Eastern region (eastern Mediterranean,[54] Middle East,[73] Syria,[33,47] Iraq,[47,50,84] Afghanistan,[50,84] Iran[50]); Asian region (Asia,[31,73,75,89,92] mid or eastern Asia,[77] western Asia,[77]); Americas (central or South America,[76,77] Americas[71,92]); other*[50,71,76,77,81,84,87,90,91,93]	Studies finding a significant association;[26,31–33,45,47,50,54,62,70,71,73–77,81,84,86,87,89–93] studies not finding a significant association[85]	25/26
Having recently migrated to the host country[31,32,45,48,78,82,84]	Studies finding a significant association;[31,32,78,82,84] studies not finding a significant association[45,48]	5/7
Being less acculturated to the host country[83]	Studies finding a significant association[83]	1/1
Gender or sex:[27,44,45,47,48,50,78,82,83,94] being female;[50,94] being male[78,94]	Studies finding a significant association;[50,78,94] studies not finding a significant association[27,44,45,47,48,82,83]	3/10
Age (or birth year or birth cohort)[27,31–33,44,45,48,50,77,78,80,82,84,88,91,94]	Studies finding a significant association;[27,33,44,48,50,77,80,91,94] studies not finding a significant association[31,32,45,78,82,84,88]	9/16
Being a refugee or asylum seeker[45,52,84]	Studies finding a significant association;[52,84] studies not finding a significant association[45]	2/3
Income (household or disposable):[44,48,84,88] having higher income;[44,48,88] having lower income[84]	Studies finding a significant association[44,48,84,88]	4/4
Not having accessed health care/GP in past 12 months[44,48]	Studies finding a significant association[44,48]	2/2
Not having private health insurance[44,48]	Studies finding a significant association[44,48]	2/2

Barriers and Facilitators To Vaccine Uptake

(Crawshaw et al, 2022)



Panel 2: What are the barriers to and facilitators of vaccine uptake in migrants?

Access

Barriers

- Language, literacy, and communication barriers[26,28,36-39,43,44,46,53,55,58-60,64,65,67]
- Resource and capacity constraints[39,41,47,52,58,61,65]
- Practical barriers[34,39,41,42,44,45,47,59]
- Legal barriers[42,45,68]
- Distrust of health system or authorities; sense of alienation and disempowerment[8,34,39,58-60]
- Specific provider-level barriers[34,42,46,48,58,60-62]—eg, health professionals lacking specific knowledge of migrant entitlements or catch-up vaccination guidelines, missed opportunities to vaccinate

Facilitators

- Social integration[34,39,44,48,64]—eg, engaging with health or vaccination system, having citizenship
- Service coordination, organisation, and infrastructure[27,47,58]
- Culturally competent and migrant-sensitive care[29,34,38,41,53,59,60,63]—eg, inclusive services and policies, alternative access points
- Tailored information sources[8,53,59]
- Vaccination policy[63]—eg, policy to vaccinate in absence of vaccination card
- Trust in the provider, system, or State[34,60]

Facilitators

- Health promotion and awareness[35,45]—eg, health educational programmes, being aware of benefits of vaccination

Acceptance

Barriers

- Worries about vaccine safety and side-effects[30,34-39,54,56,58,59,64]
- Cultural, religious, and social barriers[36,37,49,54-56,64]—eg, stigma around specific vaccines, vaccination unfashionable in home country
- Distrust of health system or authorities, sense of alienation and disempowerment[8,34,55,58,59]
- Misinformation or lack of information[8,30,36,56,59,60]
- Low perception of risk of disease or importance of vaccination[8,30,37,42,58-60,64]
- Vaccination not physician-recommended[30]

Facilitators

- Positive perceptions of vaccination[34,35,37,38,67]
- Positive social norms[34,36,38,39,60]—eg, normalisation of vaccination
- Tailored approaches, information, and messaging[38,55]—eg, emphasising that human papillomavirus vaccine prevents cervical cancer, rather than a sexually transmitted infection
- Access to credible information sources[37,51,56]

Activation

Barriers

- Trust in the provider, system, or State[34,60]

Affordability

Barriers

- Direct costs[28,32,42,58]
- Indirect costs[59]—eg, cost of travelling to vaccination appointment
- Competing priorities[34,58,59]

Facilitators

- Cost offsetting[32,36,39,44,48,59]—eg, free vaccination, insurance cover
- Convenience[38,58]—eg, walk-in clinics rather than pre-booked appointments, flexible appointments

Awareness

Barriers

- Lack of knowledge about disease or need for vaccination[8,28,30,35,37,39,42,43,45,46,51,54,55,58,60,64]
- Lack of knowledge about entitlement to vaccination[39,45]
- Personal health stewardship[45,66]—eg, knowing own medical and vaccination history
- Misinformation or lack of information[8,51,58-60]—eg, about the vaccine or its availability

Activation

Barriers

- Lack of information or practical support from health-care professionals when desired[64]
- Blanket approaches[58]—eg, vaccination reminders sent via letter or text message not suitable for transient Roma populations

Facilitators

- Catch-up vaccination initiatives[47,50]—eg, on-arrival health screening and vaccination for asylum seekers, mass vaccination campaigns
- Mandates[54]—eg, mandatory workplace vaccination
- Provider recommendation[54]
- Health promotion and education[42]
- Culturally tailored and community-based interventions[39,47,57,58]—eg, face-to-face communication, personalised reminders, community advocates

Other

Barriers

- Lack of vaccination documentation or record[41,45,65,66]

Facilitators

- Not applicable

Community-Based Participatory Approaches


Toronto

20 townhalls later, here's how Toronto's Black scientists' task force reduced vaccine hesitancy

New report explores frustrations, concerns of Black Torontonians through pandemic

Kate McGillivray · CBC News · Posted: Jun 15, 2021 5:00 AM ET | Last Updated: June 15, 2021


LOCAL : NEWS

Punjabi Community Health Services providing human connection through mobile COVID-19 vaccination clinics

Partnership with Peel Region brings nearly 1,000 needles to arms over two-day span

BRAMPTON Guardian

By Alexandra Heck Reporter
Wed., May 5, 2021 | 2 min. read

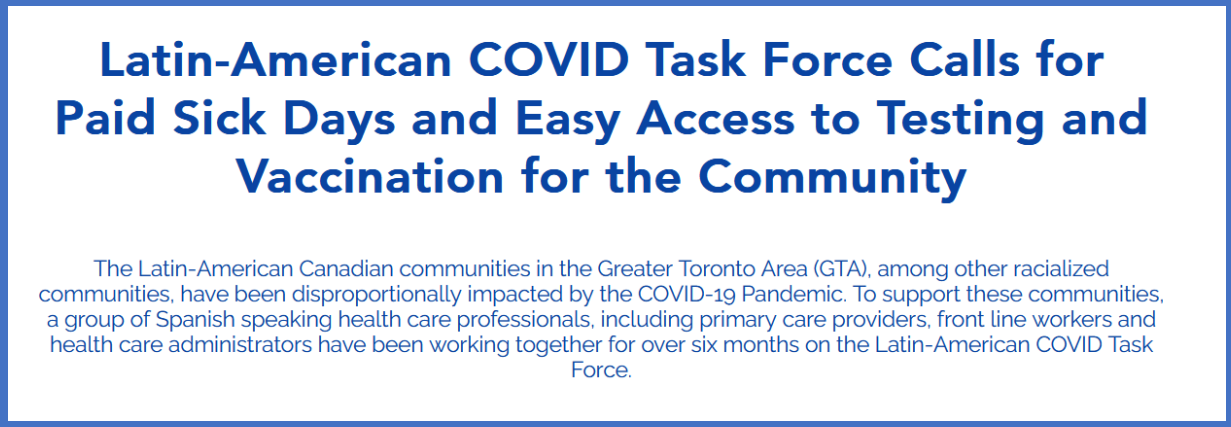
Set Brampton as My Local news


Toronto

The behind-the-scenes, back-alley push to get Toronto's Chinatown vaccinated against COVID-19

Volunteers make sure Chinatown doesn't get left behind in push to get vaccines into arms

Samantha Beattie · CBC News · Posted: Jun 07, 2021 4:00 AM ET | Last Updated: June 7, 2021


Latin-American COVID Task Force Calls for Paid Sick Days and Easy Access to Testing and Vaccination for the Community

The Latin-American Canadian communities in the Greater Toronto Area (GTA), among other racialized communities, have been disproportionally impacted by the COVID-19 Pandemic. To support these communities, a group of Spanish speaking health care professionals, including primary care providers, front line workers and health care administrators have been working together for over six months on the Latin-American COVID Task Force.

Summary

- The CDN immigration process is highly selective (across categories for SDOH + IME exclusions) - a structural determinant of health
- It is critical that we integrate a social determinants of health perspective into immigrant health research
- Statistics Canada census data analysis: immigration categories (& their differential selection criteria) are associated with several structural/social determinants of health
- Linked data at ICES demonstrate that immigrants from many regions of birth were less likely to be double vaccinated than other Ontario residents
- Immigrants experience complex barriers to vaccine uptake (e.g., transnational social ties, distrust in healthcare system and providers)
- Community engagement/participation is critical to overcome complex and nuanced barriers to vaccination experienced by immigrants

THANK YOU!

Edwin S.H. Leong Centre for Healthy Children
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Questions? Comments?

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