

# Time trends in mental health and addictions service utilization in immigrant children and youth in Ontario, Canada



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CAHSPR 2016

The logo for SickKids, featuring the word "SickKids" in a bold, blue, sans-serif font. The "i" in "Sick" has a white dot, and the "s" in "Kids" has a white dot. A registered trademark symbol (®) is located at the top right of the "s" in "Kids".

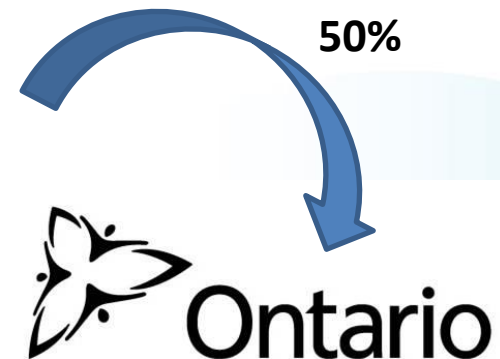
# Disclosures

All authors have documented no financial relationships to disclose or conflicts of interest to resolve.



# Immigrants in Canada

- 20% of population is a 'permanent resident'
- 80-85% skilled and educated workers
- Shifts in immigration
  - Eastern Europe, Central Asia ↓
  - South and East Asia ↑
- Changes to pre- and post-migration exposures may influence mental health service need, utilization, and access



# Mental Health of Immigrants

- Literature inconsistent
- Social deprivation vs. protective immigration factors
- Healthy immigrant effect
- Little is known about how mental health service use has changed over time in immigrants

# Objectives

- Describe time trends in mental health service utilization in recent immigrant children and youth in Ontario, compared with long-term residents.
- Describe these trends in sub-groups of immigrants
  - Immigrant class
  - Duration of residence in Canada
  - Region of origin

## Methods

- Population-based longitudinal study using linked health and demographic databases.
- All youth ages 10 to 24 years living in Ontario
- 3 year cohorts from 1996 to 2012



Database Linkage

# Methods

## Main Exposure

- Immigrant status
  - Recent immigrant (< 10 years in Canada)
  - Long-term resident (Canadian born or immigrants in Canada  $\geq$  10 years from start of cohort period)

## Secondary Exposures

- Immigration Class
  - Refugee versus non-refugee
- Duration of residence
  - < 5 years versus  $\geq$  5 to 10 years
- Region of origin
  - Modified World Bank regions



# Methods

## Main outcome measures

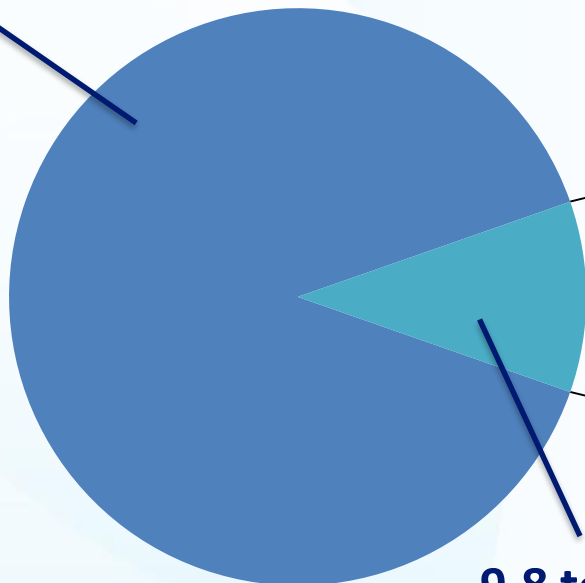
- Mental health outpatient visits
- Mental health emergency department visits
- Mental health hospitalizations

## Analyses

- Linear time trends for each outcome by immigrant status
- Multivariable Poisson regression models with GEE built for each outcome, adjusting for age, sex, neighborhood income quintile, and community size.

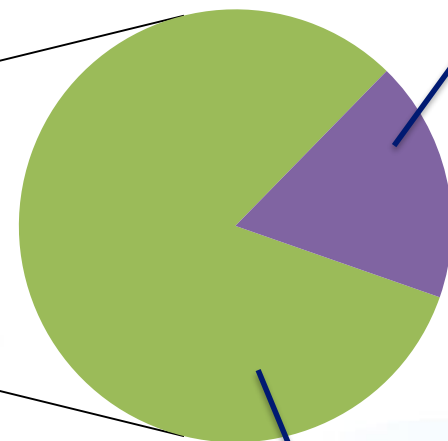
2.5 to 2.9 million person years in each cohort period

88.5 to 90.2%  
Long-term residents



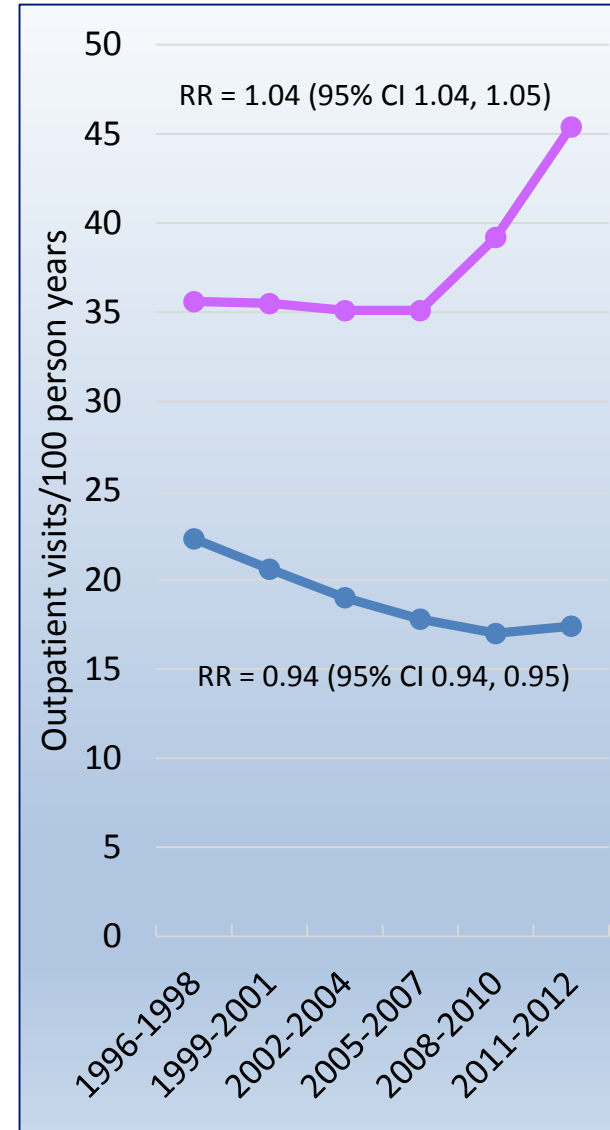
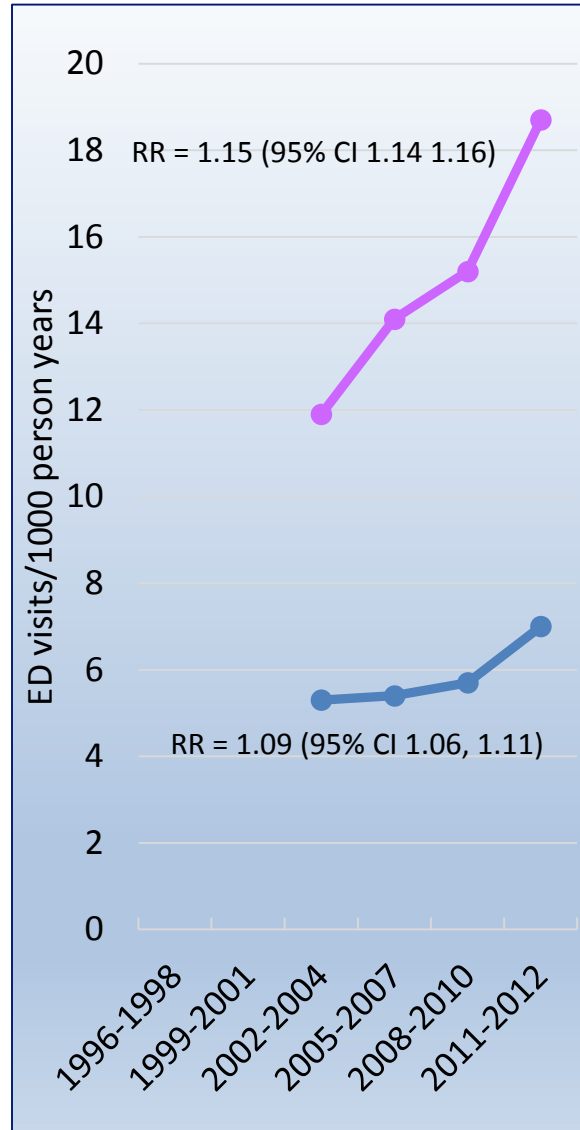
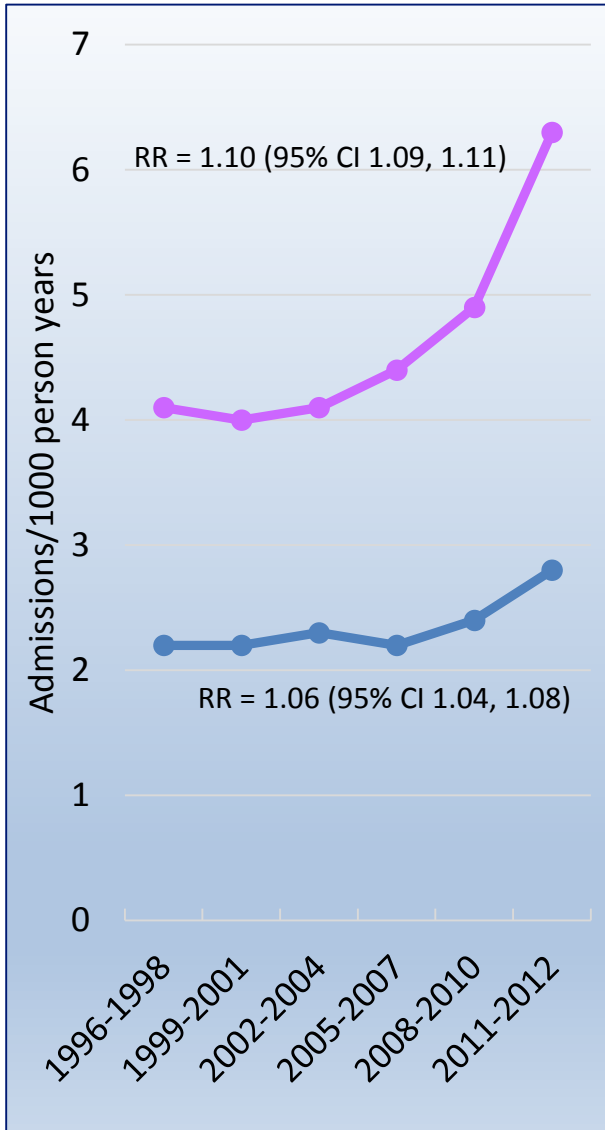
9.8 to 11.5%  
Recent immigrants

17.7 to 18.0%  
Refugees





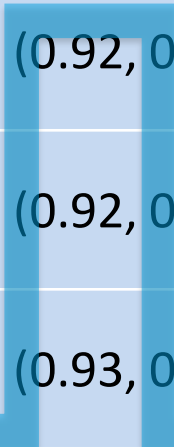

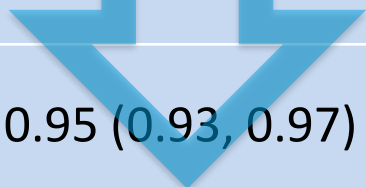

82.0 to 82.3%  
Non-Refugees

# Mental health service use over time.



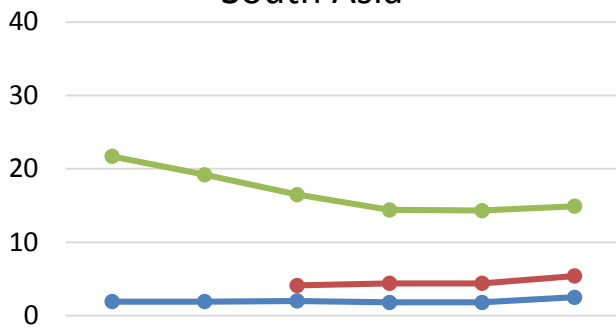
Long-term Resident — Recent Immigrant —

Adjusted Poisson regression models for rates of hospitalizations, emergency department visits and outpatient visits by immigration class over time.

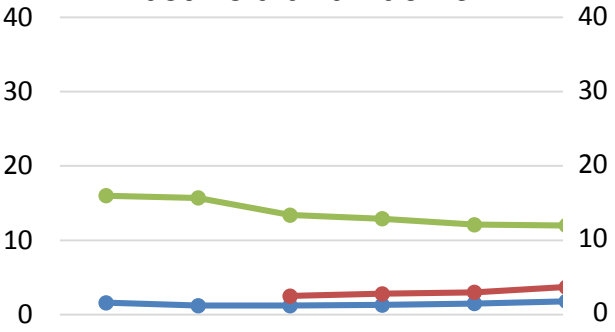
	<b>Hospitalizations</b>	<b>Emergency department visits</b>	<b>Outpatient visits</b>
<b>Immigration Class</b>	RR (95% CI)		
<b>Non-refugees 0 to 5 years</b>	1.04 (1.01, 1.07) 	1.04 (1.00, 1.07) 	0.93 (0.92, 0.94) 
<b>Non-refugees ≥5 to 10 years</b>	1.01 (0.97, 1.05)	1.05 (1.01, 1.10) 	0.93 (0.92, 0.95)
<b>Refugees 0 to 5 years</b>	1.02 (0.97, 1.08)	1.14 (1.07, 1.22)	0.95 (0.93, 0.96) 
<b>Refugees ≥5 to 10 years</b>	1.12 (1.03, 1.21) 	1.11 (1.02, 1.20)	0.95 (0.93, 0.97)

Acute visits/1000 person years and outpatient visits/100 person years

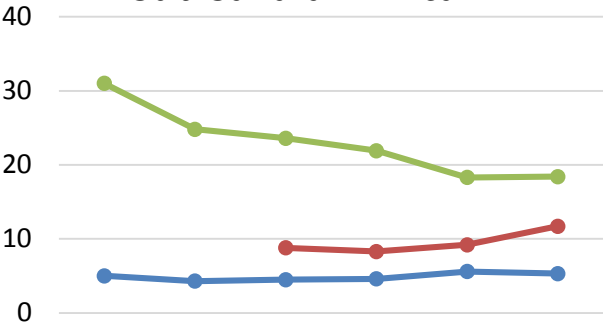
### South Asia



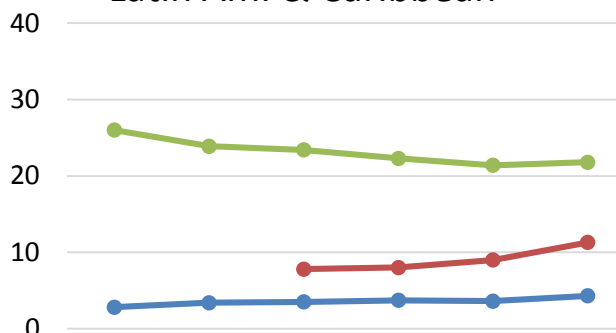
### East Asia and Pacific



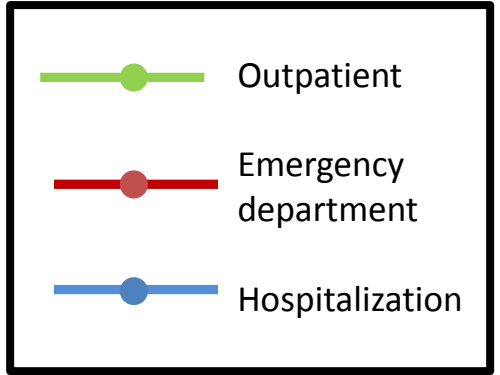
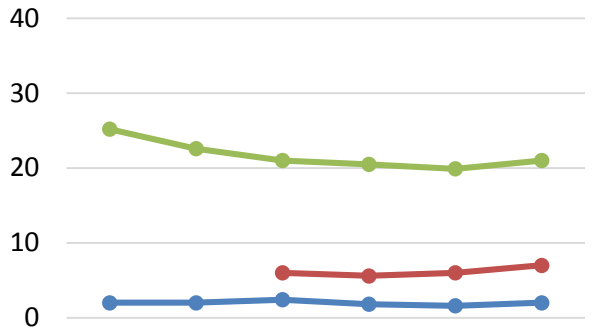
### Sub-Saharan Africa



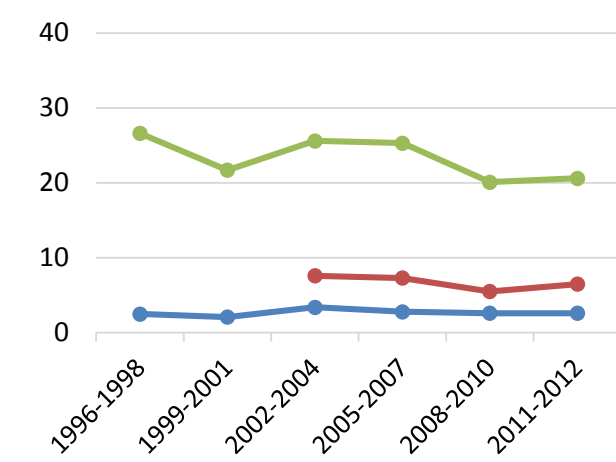
### Latin Am. & Caribbean



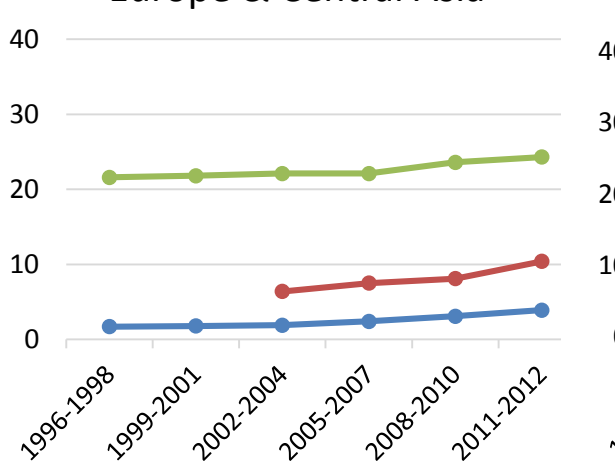
### Mid. East & North Africa



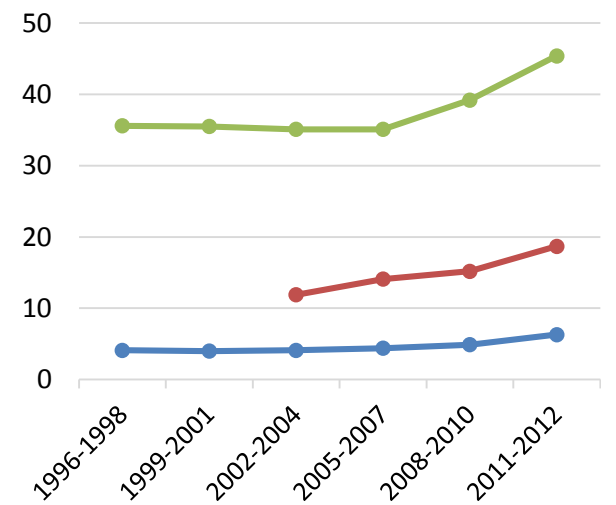
### North America



### Europe & Central Asia



### Long-term Residents



## **Main Finding #1:**

Mental health service use consistently lower in recent immigrants

- Health immigrant effect
- Stigma

## **Main Finding # 2:**

Rates of acute care mental health service use increased over time in both populations but at a faster rate in long-term residents

- Reduced stigma
- Improved access to acute care services

### **Main Finding #3:**

Outpatient mental health service use increased over time in long-term residents but declined in recent immigrants

- Inequities in service delivery for recent immigrants
- Familiarity with mental health service availability
- Differences in informal supports or social networks in immigrants

### **Main Finding # 4:**

Similar trends observed across both refugees and non-refugee immigrants and immigrants from the majority of world regions

- Regional findings suggest cultural congruency may play a role

# Discussion

## Strengths

- Large, population-based
- Broad range of mental health disorders
- Almost complete provincial coverage
- Detailed immigration data
- Does not rely on self-report

## Limitations

- Absence of information on social supports or informal use of mental health services
- No measures of clinical comorbidities
- No data on temporary or non-status residents.



# Implications

- Increasing disparity in outpatient and acute care service use over time
- Need to explore why this service gap exists
- Need to develop policies to reduce potential inequities in access and use with active effort to clarify the role of mental health services for recent immigrants

# Acknowledgments

This study was supported by the Institute for Clinical Evaluative Sciences (ICES), which is funded by an annual grant from the Ontario Ministry of Health and Long-Term Care (MOHLTC). Immigration data was accessed through an agreement with Immigration, Refugees and Citizenship Canada. These datasets were linked using unique encoded identifiers and analyzed at ICES. The opinions, results and conclusions reported in this paper are those of the authors and are independent from the funding sources. No endorsement by ICES, the Ontario MOHLTC, or Immigration, Refugees and Citizenship Canada is intended or should be inferred.

