

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



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CAHSPR 2016



Disclosures

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

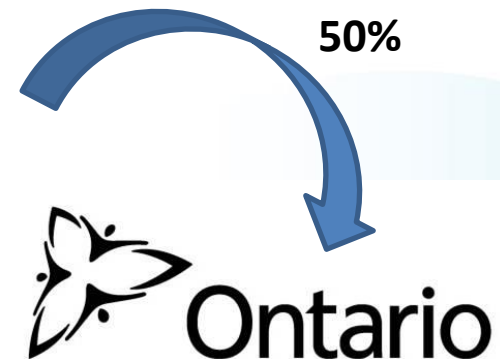
Mental Health Burden

- Mental health problems affect 20% of children and youth
- Service use 
- Trends important for service delivery
- Increasingly important in at risk populations, including immigrants



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

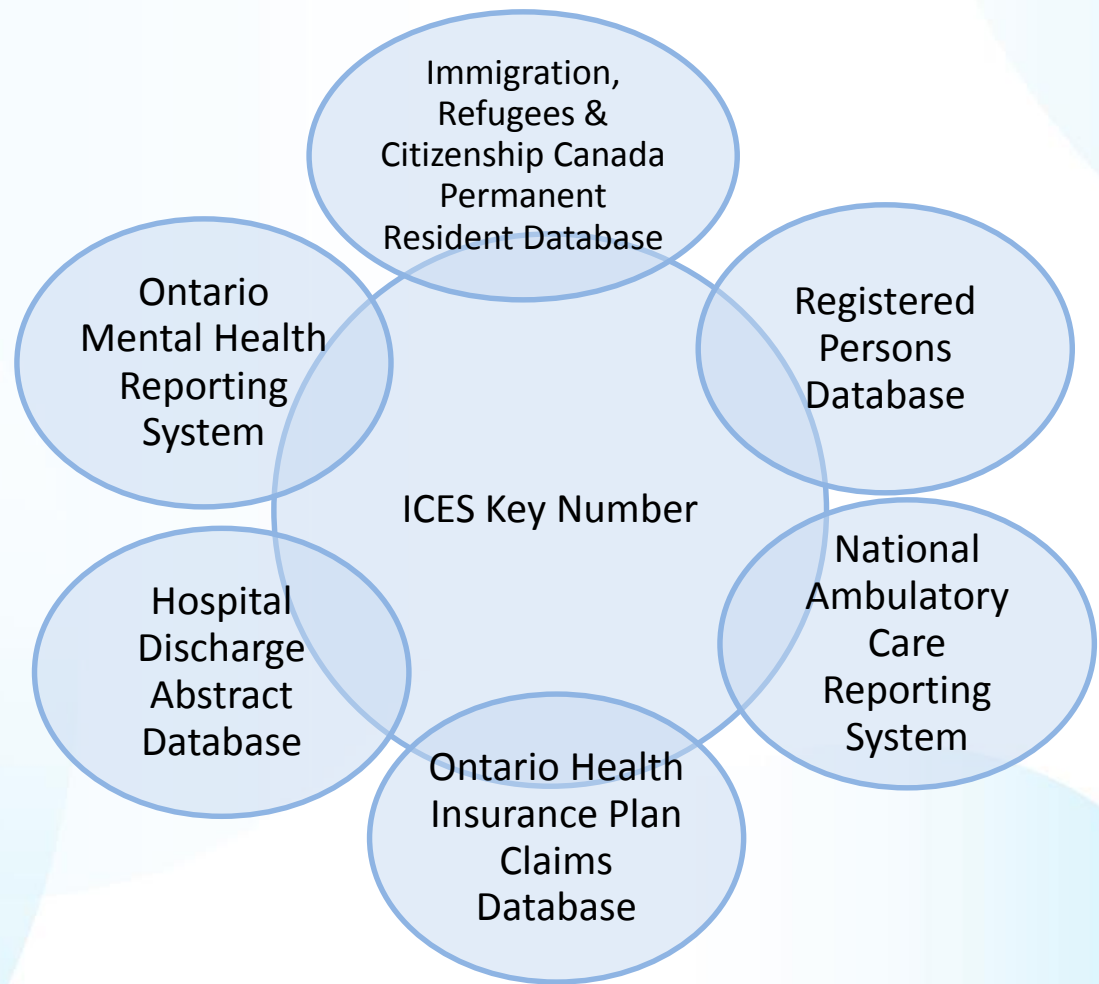
- Literature inconsistent
- Social deprivation vs. protective immigration factors
- Healthy immigrant effect
- Little is known about how mental health service use has changed over time in immigrants

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

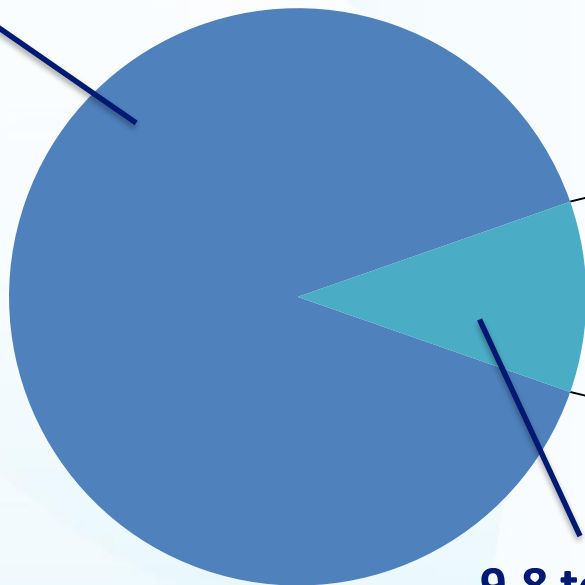
- Mental health outpatient visits
- Mental health emergency department visits
- Mental health hospitalizations

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.

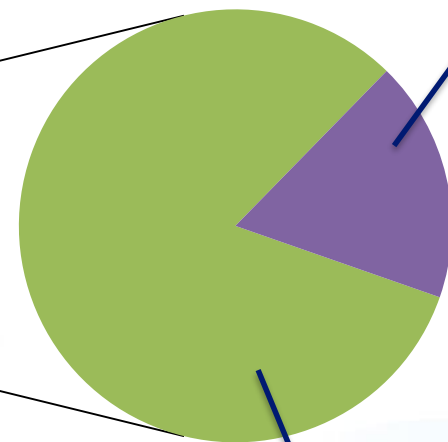
2.5 to 2.9 million person years in each cohort period

88.5 to 90.2%
Long-term residents



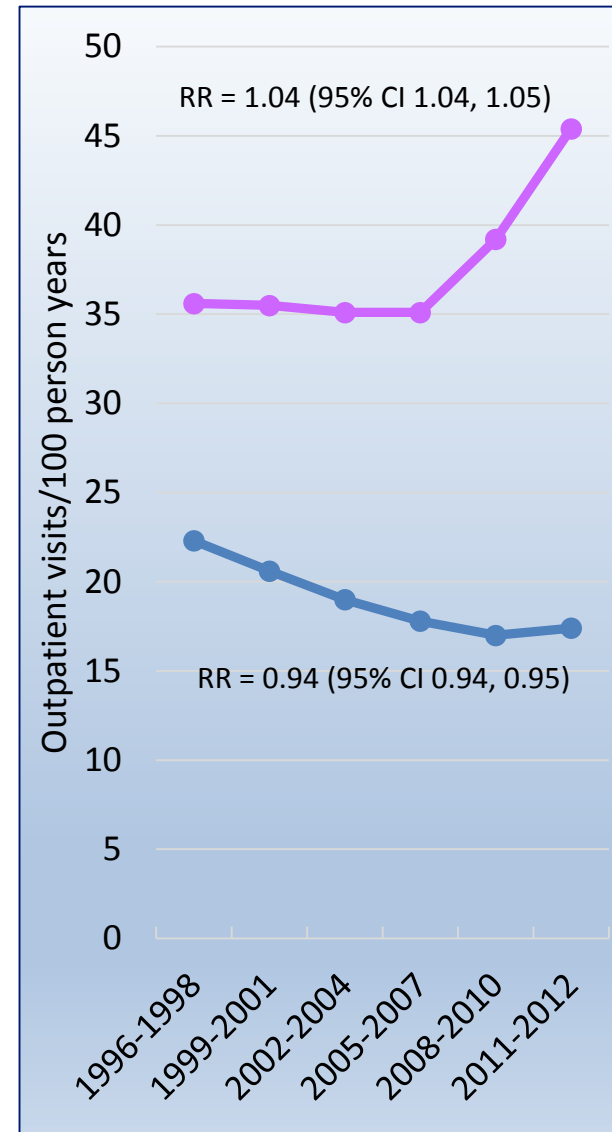
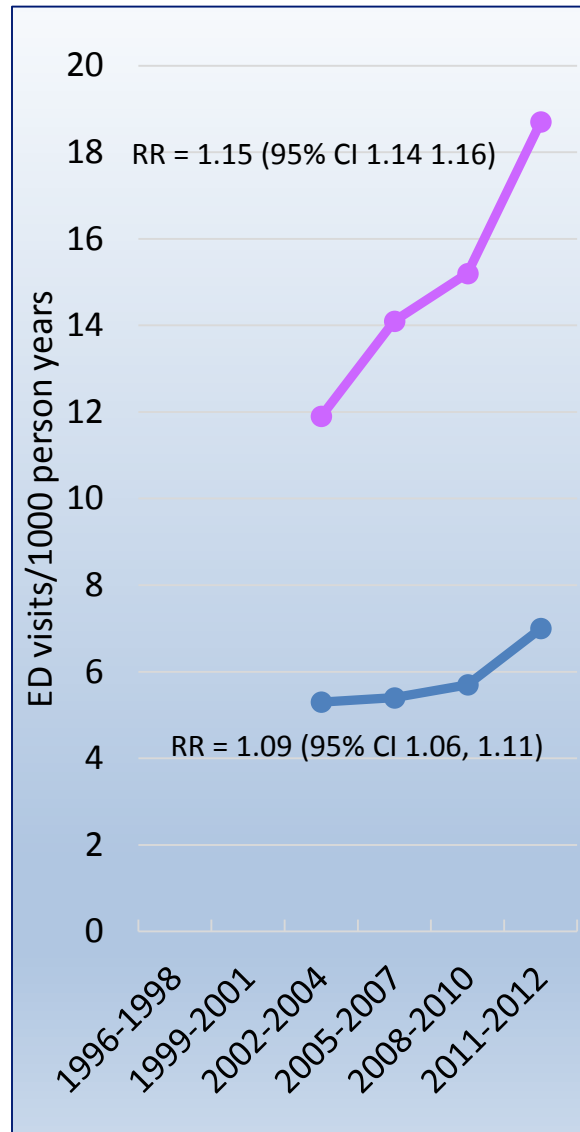
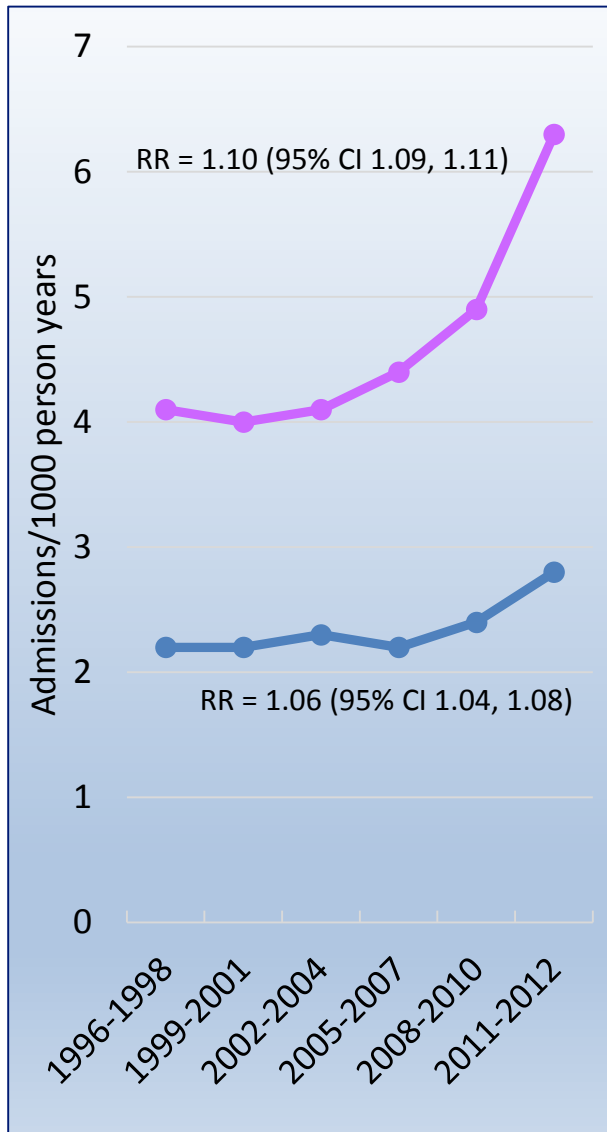
9.8 to 11.5%
Recent immigrants

17.7 to 18.0%
Refugees



82.0 to 82.3%
Non-Refugees



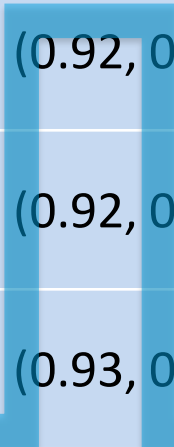

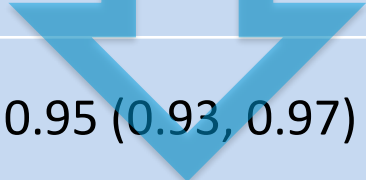

Mental health service use over time.



Long-term Resident 

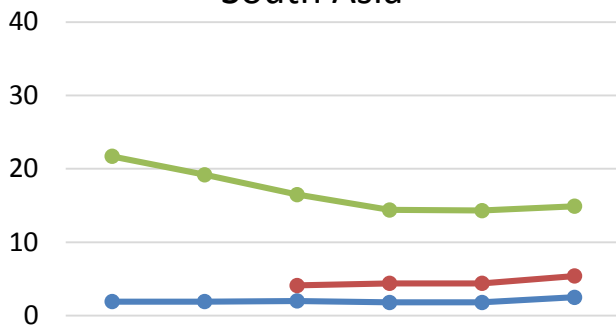
Recent Immigrant 

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

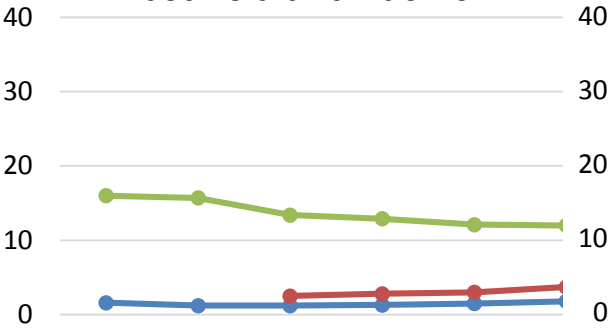
	Hospitalizations	Emergency department visits	Outpatient visits
Immigration Class	RR (95% CI)		
Non-refugees 0 to 5 years	1.04 (1.01, 1.07) 	1.04 (1.00, 1.07) 	0.93 (0.92, 0.94) 
Non-refugees ≥5 to 10 years	1.01 (0.97, 1.05)	1.05 (1.01, 1.10) 	0.93 (0.92, 0.95)
Refugees 0 to 5 years	1.02 (0.97, 1.08)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

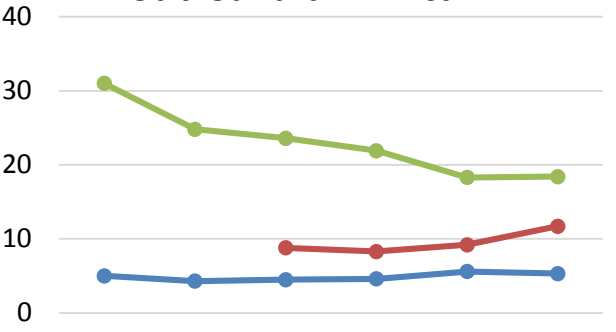
South Asia



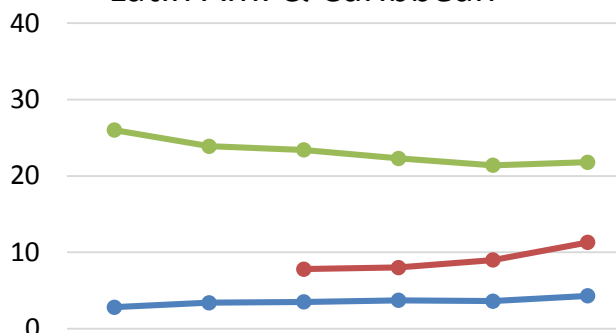
East Asia and Pacific



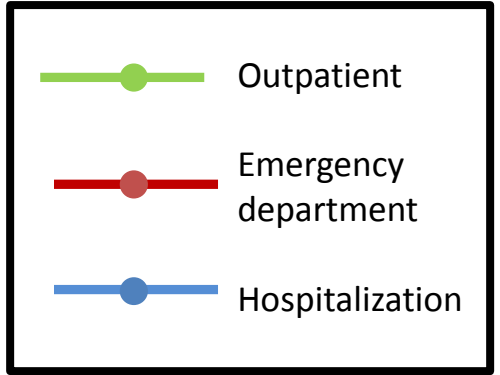
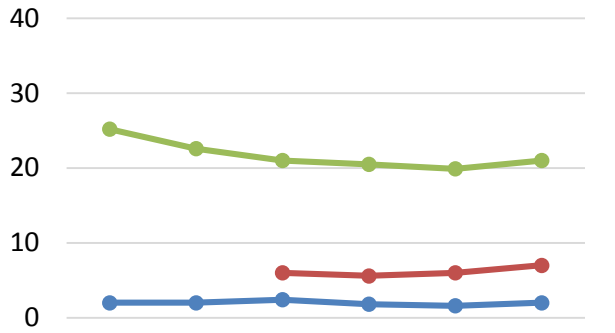
Sub-Saharan Africa



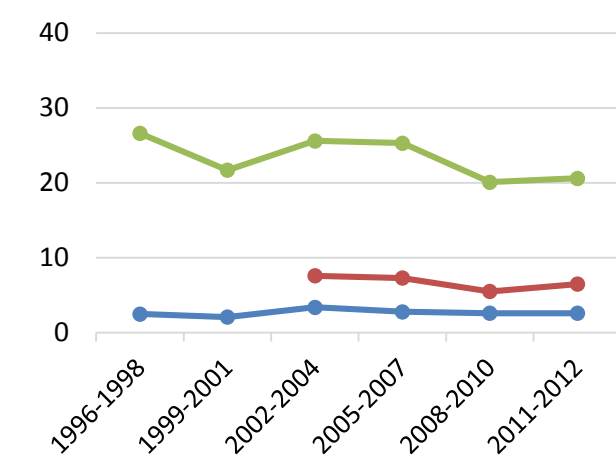
Latin Am. & Caribbean



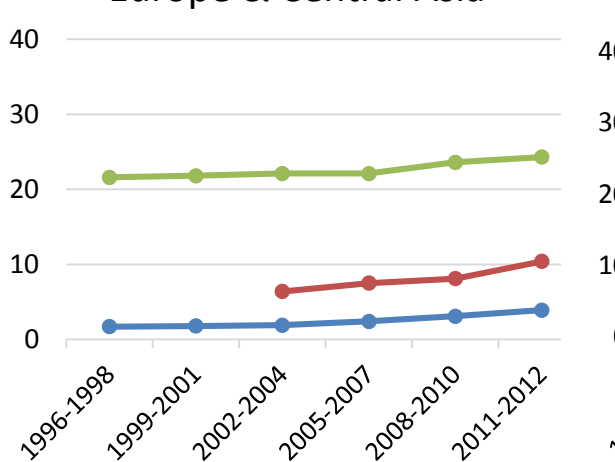
Mid. East & North Africa



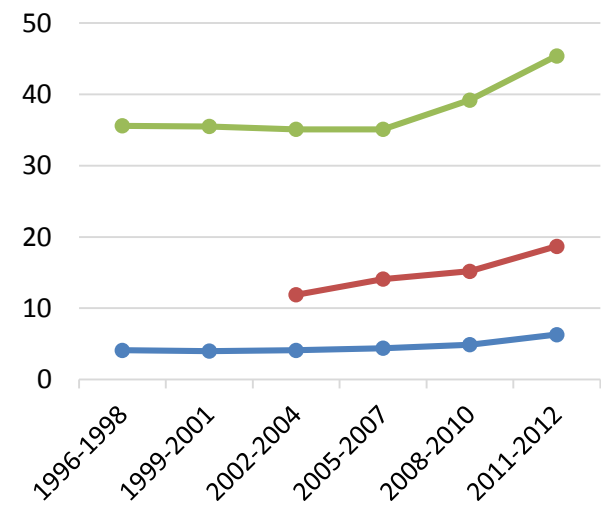
North America



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.

