

The Mental Health of Children and Youth in Ontario

A Baseline Scorecard

March 2015





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About the Institute for Clinical Evaluative Sciences

The **Institute for Clinical Evaluative Sciences** (ICES) is an independent, non-profit organization that uses population-based health information to produce knowledge on a broad range of health care issues. ICES' unbiased evidence provides measures of health system performance, a clearer understanding of the shifting health care needs of Ontarians, and a stimulus for discussion of practical solutions to optimize scarce resources.

Key to ICES' work is its ability to link population-based health information, at the patient level, in a way that ensures the privacy and confidentiality of personal health information. Linked databases reflecting 13 million of 34 million Canadians allow researchers to follow patient populations through diagnosis and treatment, and to evaluate outcomes.

ICES receives core funding from the Ontario Ministry of Health and Long-Term Care. In addition, ICES scientists and staff compete for peer-reviewed grants from federal funding agencies, such as the Canadian Institutes of Health Research, and project-specific funds from provincial and national organizations. ICES knowledge is highly regarded in Canada and abroad, and is widely used by government, hospitals, planners, and practitioners to make decisions about health care delivery and to develop policy.

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EXHIBIT 3.19.10 Standardized rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.20.1 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty, in Ontario, 2002/03 to 2011/12

EXHIBIT 3.20.2 Wait time to first use of mental health specialist service from last referring physician visit, for 0- to 24-year-olds, by physician specialty and patient age group, in Ontario, three-year average for 2009/10 to 2011/12

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EXHIBIT 3.20.4 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty and immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.20.5 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty and neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

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EXHIBIT 3.20.7 Wait time to first use of mental health specialist service provided by paediatricians from last referring physician visit for 0- to 24-year-olds, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.20.8 Wait time to first use of mental health specialist service provided by psychiatrists from last referring physician visit, for 0- to 24-year-olds, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.1 Standardized rate of acute care revisits within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.21.2 Standardized rate of acute care revisits within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.21.3 Rate of acute care revisits within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.4 Rate of acute care revisits within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.5 Standardized rate of acute care revisits within 30 days and 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.6 Standardized rate of emergency department (ED) revisits within 30 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.21.7 Standardized rate of emergency department (ED) revisits within 365 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.21.8 Rate of emergency department (ED) revisits within 30 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.9 Rate of emergency department (ED) revisits within 365 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.10 Standardized rate of emergency department (ED) revisits within 30 days and 365 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.11 Standardized rate of hospital admissions within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.21.12 Standardized rate of hospital admissions within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.21.13 Rate of hospital admissions within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.14 Rate of hospital admissions within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.21.15 Standardized rate of hospital admissions within 30 days and 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.1 Standardized rate of acute care revisits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.22.2 Standardized rate of acute care revisits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.22.3 Rate of acute care revisits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.4 Rate of acute care revisits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.5 Standardized rate of acute care revisits within 30 days and 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.6 Standardized rate of emergency department visits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.22.7 Standardized rate of emergency department visits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.22.8 Rate of emergency department visits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.9 Rate of emergency department visits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.10 Standardized rate of emergency department visits within 30 and 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.11 Standardized rate of readmissions within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.22.12 Standardized rate of readmissions within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years, with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.22.13 Rate of readmissions within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.14 Rate of readmissions within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.22.15 Standardized rate of readmissions within 30 and 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.23.1 Proportion of youth in provincial correctional centres using mental health and addiction services per 100 population aged 12 to 24 years in correctional centres, by age group, in Ontario, 2002/03 to 2011/12

EXHIBIT 3.23.2 Proportion of youth in provincial correctional centres using mental health and addiction services per 100 population aged 12 to 24 years in correctional centres, by age group, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.23.3 Proportion of youth in provincial correctional centres using mental health and addiction services per 100 population aged 12 to 24 years in correctional centres, by sex, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.23.4 Proportion of youth in provincial correctional centres using mental health and addiction services per 100 population aged 12 to 24 years in correctional centres, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.23.5 Proportion of youth in provincial correctional centres using mental health and addiction services per 100 population aged 12 to 24 years in correctional centres, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.23.6 Standardized proportion of youth in provincial correctional centres using mental health and addiction services per 100 population aged 12 to 24 years in correctional centres, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.23.7 Standardized proportion of youth in provincial correctional centres using mental health and addiction services per 100 population aged 12 to 24 years in correctional centres, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.24.1 Standardized rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.24.2 Rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 10 to 14 years with an MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.24.3 Rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 15 to 19 years with an MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.24.4 Rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 20 to 24 years with an MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.24.5 Rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by age group, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.24.6 Rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by sex, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.24.7 Rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.24.8 Rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.24.9 Standardized rate of emergency department (ED) visit as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.25.1 Standardized rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.25.2 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 10 to 14 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.25.3 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 15 to 19 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.25.4 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 20 to 24 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12

EXHIBIT 3.25.5 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by age group, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.25.6 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by sex, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.25.7 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.25.8 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

EXHIBIT 3.25.9 Standardized rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

List of Abbreviations

ChYLD: Child and Youth Linkable Database

ED: Emergency department

FTE: Full-time equivalent

ICES: Institute for Clinical Evaluative Sciences

K-12: Kindergarten to grade 12

LHIN: Local Health Integration Network

MHA: Mental health and addiction

MCYS: Ministry of Children and Youth Services

NAS: Neonatal abstinence syndrome

Introduction

Open Minds, Healthy Minds: Ontario's Comprehensive Mental Health and Addictions Strategy was released in 2011 by the Government of Ontario.¹ The 10-year strategy, which takes a lifespan approach to mental health and addictions, focused on children and youth in its first three years. Three key goals were identified for targeted action:

1. providing fast access to high-quality service
2. identifying and intervening in the mental health needs of children and youth early
3. closing service gaps for children and youth with unique needs

As a part of the strategy, the Ontario Ministry of Health and Long-Term Care tasked the Institute for Clinical Evaluative Sciences (ICES) with the development of a baseline scorecard for child and youth mental health. The purpose of the baseline scorecard is to describe the state of child and youth mental health in Ontario, according to the data available in 2013/14. The baseline scorecard is an empirical snapshot that describes the following areas:

- contexts of the population at risk
- delivery processes of mental health and addiction care for children and youth in Ontario

- relevant child and youth mental health and addictions outcomes

It is hoped that the baseline scorecard will be the first in an ongoing series of scorecards monitoring child and youth mental health in Ontario. It is a useful resource for those with an interest in this important issue.

Background

Interest in addressing the mental health needs of children and youth has been elevated in the province of Ontario in recent years and is highlighted in a number of government policies.¹⁻⁶ Mental health is important at all life stages but particularly for children and youth as up to 70 percent of mental health problems begin in childhood or adolescence. As many as one in five children and youth in Ontario experience some form of mental health problem at any given time⁷; however, fewer than one in six receive the specialized treatment services they require.⁸

Mental health and addictions services in Ontario have been assessed as fragmented, lacking systemic coordination and coherence.^{6,9} In fact, for Canada as a whole, overall mental health and addictions services have been called the “orphan child of health care,”¹⁰ and those for children and youth, the “orphan’s orphan within the health care system.”¹¹ In Ontario in 2013/14, provision of mental health and addictions services for children and youth was primarily the responsibility of three government ministries: the Ministry of Children and Youth Services (MCYS), the Ministry of Education and the Ministry of Health and Long-Term Care. Services could be obtained through a variety of channels: community-based mental health centres (funded by MCYS), outpatient or hospital-based care coordinated by Local Health Integration Networks (Ministry of Health and Long-Term Care), schools (Ministry of Education),

Children’s Aid Societies (MCYS) and from private-sector service providers.¹²

Non-residential mental health care is not legislatively mandated, unlike other aspects of child and adolescent care such as youth justice and child welfare. As noted in a 2010 report from the Office of the Auditor General of Ontario,¹³ this has resulted in service provision being limited by the capacity of the system and determined largely by funding instead of actual need. System coordination is also an issue. A 2008 study that involved interviews with senior managers at children’s mental health centres across Ontario reported the managers describing how multiple agencies in the same community served different catchment areas and age ranges and offered different programs.¹⁴ The 2010 report from the Office of the Auditor General similarly concluded that a lack of system coordination resulted in a patchwork of mental health and addictions services for children and youth, both in local communities and across Ontario.

Ontario’s Comprehensive Mental Health and Addictions Strategy represents an effort to address some of these criticisms and improve the system by which mental health and addictions services for children and youth are delivered. Following in the footsteps of previous government efforts,¹⁵⁻¹⁸ Ontario’s Comprehensive Mental Health and Addictions Strategy takes a ‘whole of government’ approach. For the first three years of the strategy, four government ministries (Children and Youth Services; Education; Health and Long-Term Care; and Training, Colleges and Universities) worked across

their portfolio boundaries toward the shared goal of improving child and youth mental health in Ontario. As the strategy matures and expands to the rest of the lifespan, more ministries will join the effort to improve outcomes and services related to mental health and addictions for Ontarians of all ages.

Organization of the Scorecard

The baseline scorecard was developed using data for two classes of indicators: contextual indicators and performance indicators for the mental health and addictions system. These indicators address different aspects of mental health and addictions, as follows:

- **Contextual indicators** describe the prevalence of major mental health and addictions problems and associated risk factors, the existing state of child and youth mental health and addictions service provision in Ontario, and relevant child and youth mental health outcomes over time.
- **Mental health and addictions system performance indicators** describe how well the system meets the needs of children and youth for mental health and addictions services. These indicators can be used to track system performance over time

Indicators were further organized into six domains based on the goals of the first three years of the strategy (**Exhibit 1.1**). Instead of using a separate category of indicators to address equity, an equity lens was applied to all indicators whenever permitted by data availability. Please refer to the Technical Appendix for detailed definitions and information for each indicator.

EXHIBIT 1.1 Indicators included in the baseline scorecard

Type of Indicator					
Contextual Indicators			Mental Health and Addictions System Performance Indicators		
Domain					
Known Prevalence	System Use	Outcomes	Access	Quality	Early Identification
Indicators					
Prevalence of self-reported mental illness and substance use for youth	Physicians' full-time equivalent allocation to mental health care for children and youth	Annualized prevalence of K-12 students suspended from school	Wait time to first use of mental health specialist service from last referring physician visit for children and youth	Rate of acute care revisits following an incident emergency department visit related to mental health and addictions for children and youth	Proportion of youth in provincial correctional centres using mental health and addictions services
Treated prevalence of schizophrenia in children and youth	Rate at which children and youth were seen by a psychiatrist	Rate of death by suicide for children and youth		Rate of acute care revisits following an incident hospital admission related to mental health and addictions for children and youth	Rate of emergency department as first contact for mental health and addictions for children and youth
Prevalence of neonatal abstinence syndrome	Rate of telepsychiatry consultations for children and youth in Ontario	Rate of emergency department visits for deliberate self-harm in children and youth			
Annualized prevalence of students identified with autism spectrum disorder	Rate of outpatient visits related to mental health and addictions for children and youth	Rate of emergency department visits related to mental health and addictions for children and youth			Rate of hospital admission as first contact for mental health and addictions for children and youth
Annualized prevalence of students identified with behavioural issues	Rate at which children and youth were treated for alcohol and drug problems	Rate of hospital admissions related to mental health and addictions for children and youth			
Annualized prevalence of students identified with a learning disability	Rate at which children and youth were admitted for eating disorders treatment				
	Number of funded applications for out-of-country treatment of eating disorders for children and youth				
	Median length of stay for psychiatric hospitalizations of children and youth				

Gaps in the mental health and addictions system were addressed by identifying indicators that fell into more than one domain or spanned multiple sectors (including community-based mental health, primary care, acute care, education and youth justice). The baseline scorecard used the most current data that were available for these indicators in 2013/14; this was largely restricted to ICES health administrative data, population-based survey data and school-level education data. Consequently, the ability of these indicators to comprehensively describe and quantify the potential impact of the strategy is limited. As the strategy matures, more data may become available (e.g., from community-based children's mental health agencies, youth justice and postsecondary education, among others) and linkable across sectors. This set of indicators will also be expanded, so as to tell a more complete story of child and youth mental health in Ontario.

Social determinants of health, such as gender, socioeconomic status, ethnicity and place of residence, are important to consider when measuring mental health performance. For example, they influence an individual's exposure to stress (which is an important risk factor for the development of mental illness or addictions)¹⁹ and the resources an individual has to promote mental health and well-being. They are also important determinants of access to formal health care and mental health outcomes specifically. Therefore, the following social determinants of health, all related to equity, are reported for each indicator.

Equity lenses

- *Social determinants equity lens.* The Ontario Marginalization Index was chosen as the most relevant measure of social disadvantage even though data were not available for every indicator. To provide a socioecological context for the report as a whole, these data are reported by Local Health Integration Network (LHIN) and MCYS Child and Youth Mental Health Service Areas. Additionally, neighbourhood income was used as a lens for each indicator to better understand the specific impact of this important measure of social disadvantage (i.e., income levels for neighbourhoods in which children and youth reside).
- *Other equity lenses.* Additional measures of equity were chosen based on what sociodemographic data were available at the individual level. These additional measures of equity include age group, sex and immigrant category (refugee, non-refugee immigrant, non-immigrant).

Time

- Indicators are reported over the 10-year period from April 1, 2002, to March 31, 2012, where allowed by data availability, so in the future, the impact of Ontario's Comprehensive Mental Health and Addictions Strategy can be placed within the context of pre-existing trends.

Location

- Indicators are reported for the province of Ontario as a whole and by LHIN and MCYS Child and Youth Mental Health Service Area. Since the Child and Youth Mental Health Service Areas were defined only in late 2013, indicators reported by these regions are meant to identify areas of need, not performance.

For each indicator, significant findings are presented in a brief summary of results and possible interpretations. However, this baseline scorecard is not intended to be prescriptive of causes and possible solutions. Rather, it is meant to describe in broad terms the state of mental health and addictions services as they existed in Ontario in 2013/14. As such, interpretation of each indicator is largely left to the reader. The Main Findings section summarizes findings that cut across multiple indicators.

Results described in this baseline scorecard are based on best available data as of 2013/14 and point to critical data gaps that must be filled to better evaluate the impact of the strategy in the future. Although the available datasets did not allow for causal explanations of any observed trends, the indicators included in this baseline scorecard are replicable. These can therefore be measured repeatedly moving forward, which may support elucidation of cause in future investigations. Although this baseline scorecard cannot speak to the impact of Ontario's Comprehensive Mental Health and Addictions Strategy, it provides information critical to future investigation of relationships between strategy interventions and outcomes for children and youth.

Who Are the Children and Youth at Risk?

It has been estimated that one in five children and youth have mental health and addictions problems in the province of Ontario.⁷ The most common childhood mental health disorders have been identified as attention-deficit hyperactivity disorder, conduct disorder, opposition-defiance disorder and anxiety disorders.^{19,20} Depression, anxiety and drug and alcohol use have been found to be the most common disorders in adolescents and young adults.²¹ Adolescence and early adulthood is also the most likely time of onset for schizophrenia.²² What do we know about the children and youth at risk for these disorders?

Research suggests that a number of risk factors act together to cause mental health and addictions

problems, including genetic, biological and environment risk factors.^{23,24} Environmental factors, particularly those connected to stress and social disadvantage, have been studied extensively. As noted by Avison,²⁵ exposure to stress is shaped by the social circumstances of everyday life, which then influences the trajectory of mental health throughout life. Stress exposure in childhood and adolescence is particularly important. Indeed, a large body of work connects social determinants to child and youth mental health. Social determinants typically include the following sociodemographic factors: age, gender, ethnicity, socioeconomic status, housing and neighbourhood conditions. To date, reports most commonly examine age, gender,

socioeconomic disadvantage and to a lesser extent, ethnicity. For example, the prevalence of addictions and of many mental health disorders (e.g., depression and anxiety disorders) has been shown to increase from early childhood to young adulthood. Clear sex differences in mental health have also been reported. For example, higher rates of neurodevelopmental disorders (attention deficit hyperactivity disorder, autism spectrum disorder) and disorders related to externalizing problems (e.g., conduct disorder) have been observed in boys than girls. In contrast, girls were found to be at higher risk for disorders related to internalizing problems (e.g., anxiety, depression). Researchers have also found a persistent link between poverty and the mental health of children

and youth over time.²⁶⁻³⁰ Similarly, reports link neighbourhood disadvantage to mental health in children and adolescents.^{31,32}

Immigrant children and youth face a number of unique challenges to mental health. Studies show that immigrant populations have different patterns of health and use of health care services than the Canadian-born population. Numerous studies support a so-called healthy immigrant effect: new immigrants initially are healthier than their Canadian-born peers but lose this advantage over time.³³⁻⁴¹ However, exceptions to this have been reported. For example, Tousignant et al. and Maximova and Krahn reported that the mental health of refugees tended to be worse than that of Canadian-born individuals.^{42,43} Hamilton et al. demonstrated that while some outcomes, such as rates of drug use, hazardous and harmful drinking and delinquency, increase across generations, others, such as psychological distress, were highest in first-generation immigrant youth.⁴⁴

Of particular interest is the role of social disadvantage as a risk factor in the mental health of children and youth. Potentially, social disadvantages can be modified (and their risk to mental health ameliorated) through interventions such as income transfer programs and provision of services. However, social disadvantage often involves multiple intersections between status (e.g., gender, ethnicity) and economic and social resources (e.g., education level, income). Such intersections can increase the overall risk of mental health and addictions disorders. For example, children and youth from single- or lone-parent families are at increased risk

for emotional and behavioural problems from this social determinant alone. However, single parenthood often intersects with gender (most single parents are women) and poverty (a shockingly high proportion of single-parent families live at or below the poverty line). This suggests that the risk of mental health and addictions disorders attributed to single parent families in many cases is likely a product of these additional social inequalities (gender, socioeconomic status and perhaps also ethnicity and age). Instead of single indicators such as household income, multiple dimensions of social risk should be considered simultaneously, using measures such as indices of social disadvantage. Unfortunately, when this baseline scorecard was created, such indices were not commonly linked to or available in administrative data.

Social Disadvantage and Deprivation in Ontario

In recognition of the multidimensional nature of social disadvantage and its importance to child and youth mental health, a series of maps was created to show clustering of social disadvantage within and between jurisdictional boundaries relevant to Ontario's Comprehensive Mental Health and Addictions Strategy (i.e., census subdivision, Local Health Integration Network [LHIN] and MCYS Child and Youth Mental Health Service Area). The Ontario

Marginalization Index serves in this context to measure social disadvantage.⁴⁵ Although this index is comprised of four dimensions, only three of these—material deprivation, residential instability and ethnic concentration—were mapped. (For a list of the indicators that make up each dimension of the index, refer to the Ontario Marginalization Index User Guide.⁴⁵) These maps provide a visual comparison of social risk among jurisdictions and are also useful in recognizing the unique needs of populations within government-specific jurisdictional boundaries.

Exhibits 2.1.1 and **2.1.2** show areas of high and low material deprivation. Only the Central LHIN and the Mississauga Halton LHIN lacked any significant clustering of material deprivation. Material deprivation in all other LHINs was moderate to high in at least some communities. The most disadvantaged communities were in the South East, Champlain and North East LHINs. Given the link between social disadvantage and child and youth mental health, these regions can be characterized as particularly vulnerable or high risk.

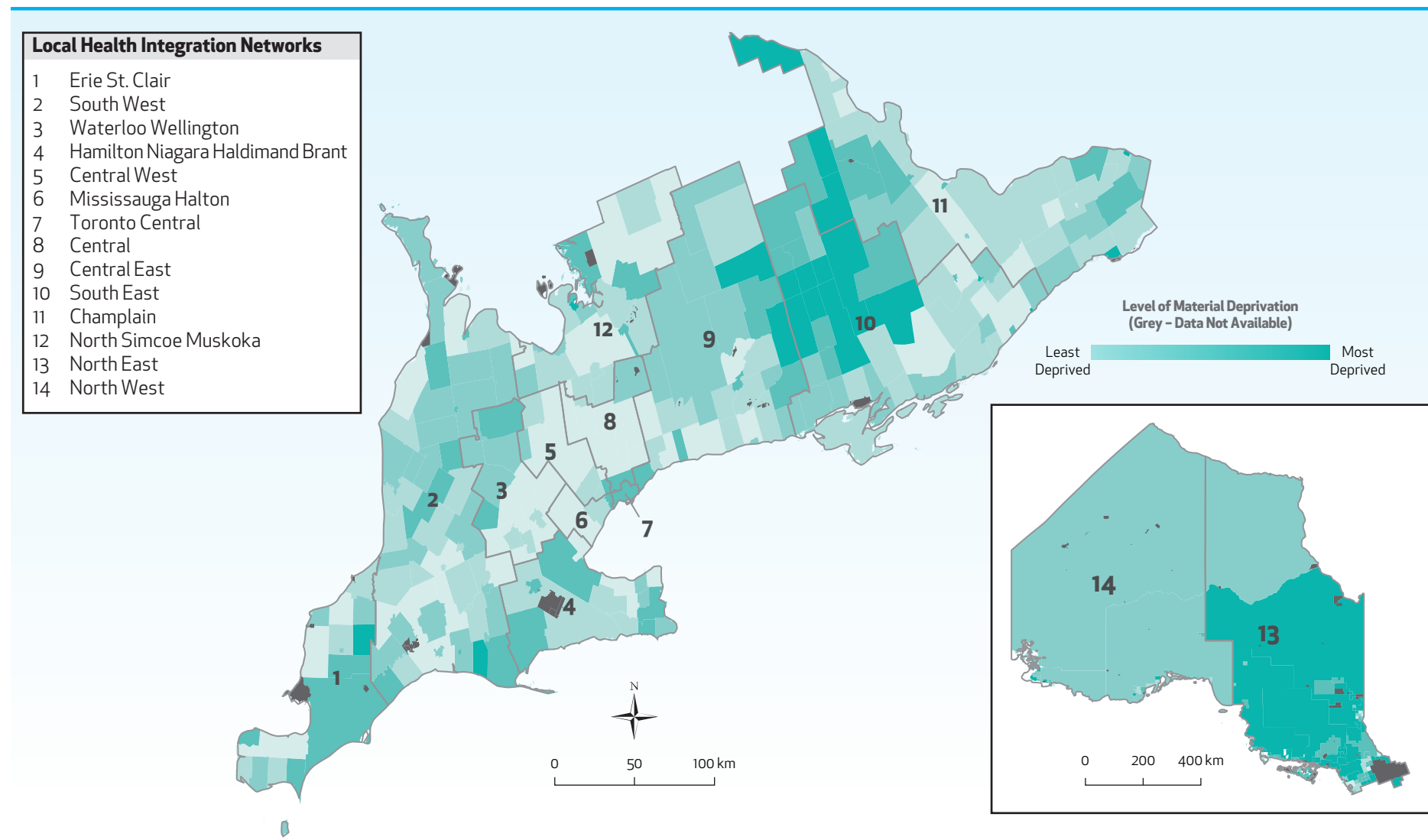
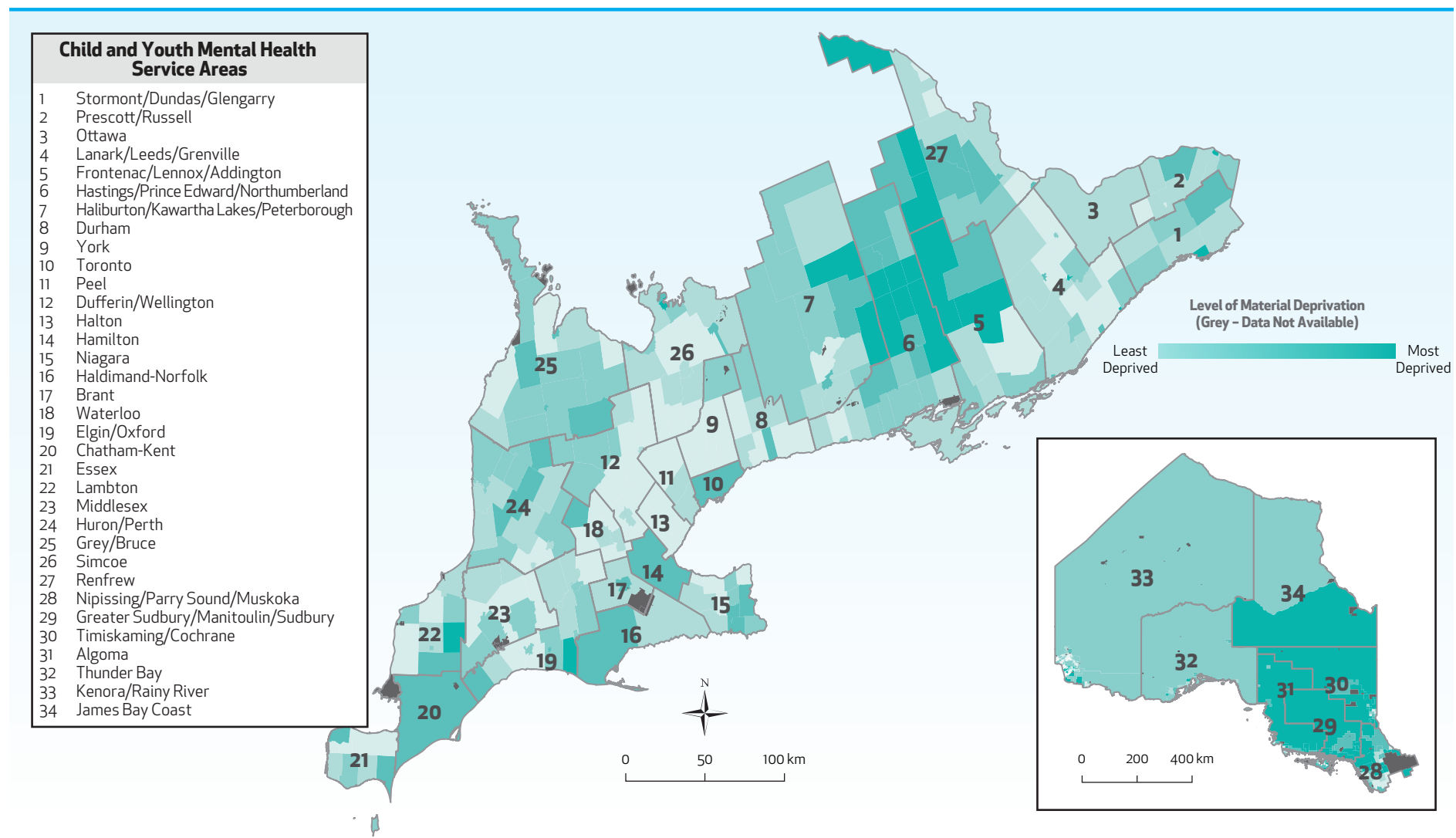
EXHIBIT 2.1.1 Geographic distribution of material deprivation in Ontario and the Local Health Integration Networks, by census subdivision, 2006

EXHIBIT 2.1.2 Geographic distribution of material deprivation in Ontario and the MCYS Child and Youth Mental Health Service Areas, by census subdivision, 2006

There was evidence of residential instability in LHINs with high material deprivation (e.g., the South East LHIN) and also in urban centres (e.g., Toronto and Hamilton) (see **Exhibits 2.2.1 and 2.2.2**). Housing conditions and instability are important risk factors associated with negative mental health outcomes in children and youth.

Exhibits 2.3.1 and 2.3.2 map ethnic concentration by jurisdictional boundaries. Specific areas (e.g., the Central, Mississauga Halton, Central West, and Hamilton Niagara Haldimand Brant LHINs) have high concentrations of recent immigrants and/or self-identified visible minorities. The provision of adequate, appropriate services (e.g., culturally sensitive services) will be essential for children and youth in these areas. Note that these areas are also among the most densely populated parts of the province.

When comparing maps based on LHINs to maps based on MCYS Child and Youth Service Areas, differences across jurisdictional boundaries can be observed for all three dimensions (material deprivation, residential instability and ethnic concentration). This highlights the need to ensure adequate coordination of service provision between sectors. The number of non-overlapping jurisdictional boundaries suggests that such coordination will be challenging throughout the province but is of particular concern in areas of high risk such as the South East LHIN, which contains several MCYS Child and Youth Mental Health Service Areas.

Social Disadvantage: Other Equity Lenses

Despite their limitations, other social equity lenses were applied to the data to identify any variations across meaningful social groupings, including sex, age, socioeconomic status (specifically, neighbourhood household income) and immigrant category. Differences between these groups could signal important inequities in the system or highlight differences in vulnerability or need within the population. While not without limitations and with careful consideration to interpretational challenges (e.g., the inability to infer causal relationships), it is nevertheless important to consider the potential impact of social determinants when evaluating the impact of the Comprehensive Mental Health and Addictions Strategy.

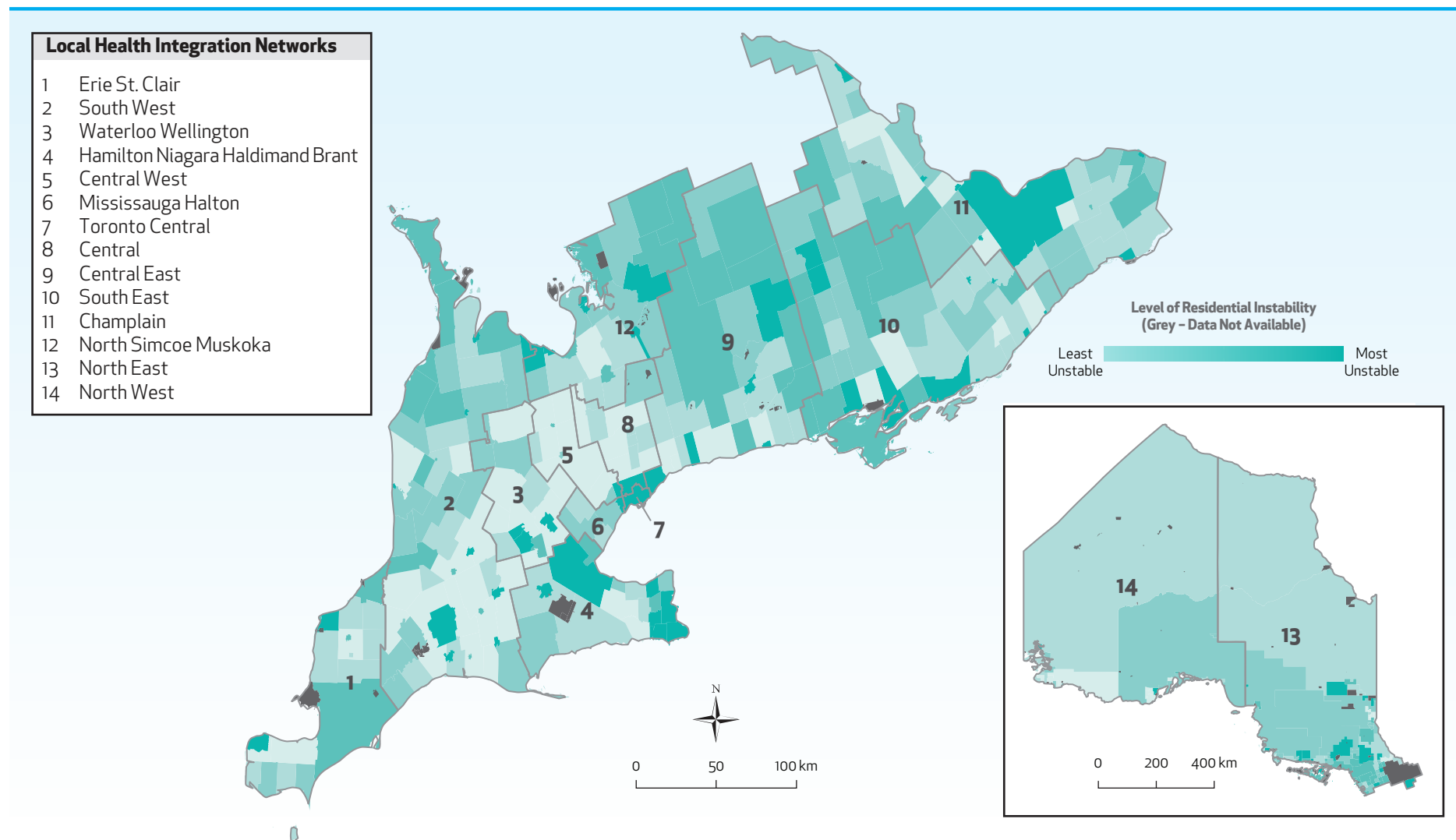
EXHIBIT 2.2.1 Geographic distribution of residential instability in Ontario and the Local Health Integration Networks, by census subdivision, 2006

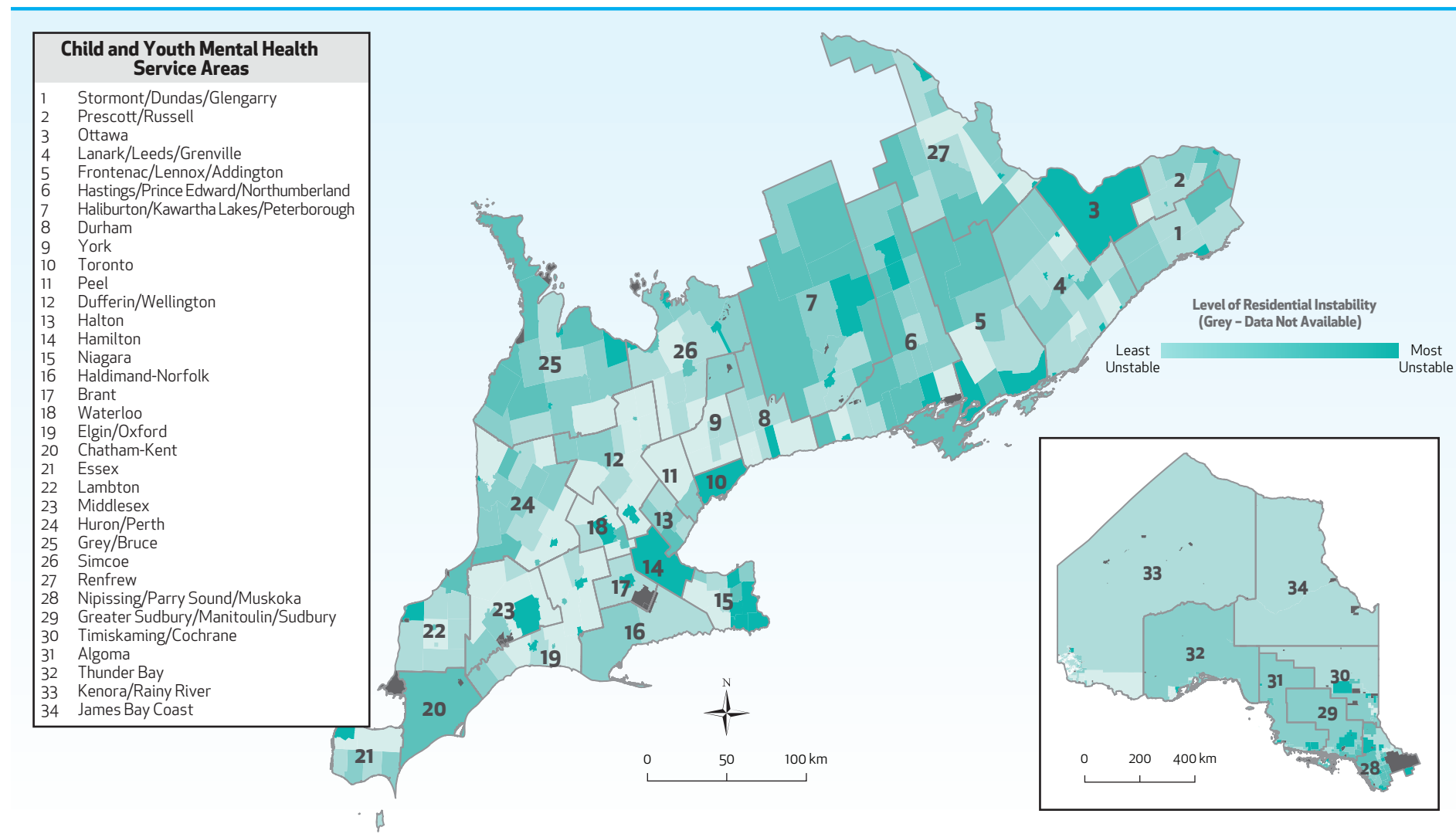
EXHIBIT 2.2.2 Geographic distribution of residential instability in Ontario and the MCYS Child and Youth Mental Health Service Areas, by census subdivision, 2006

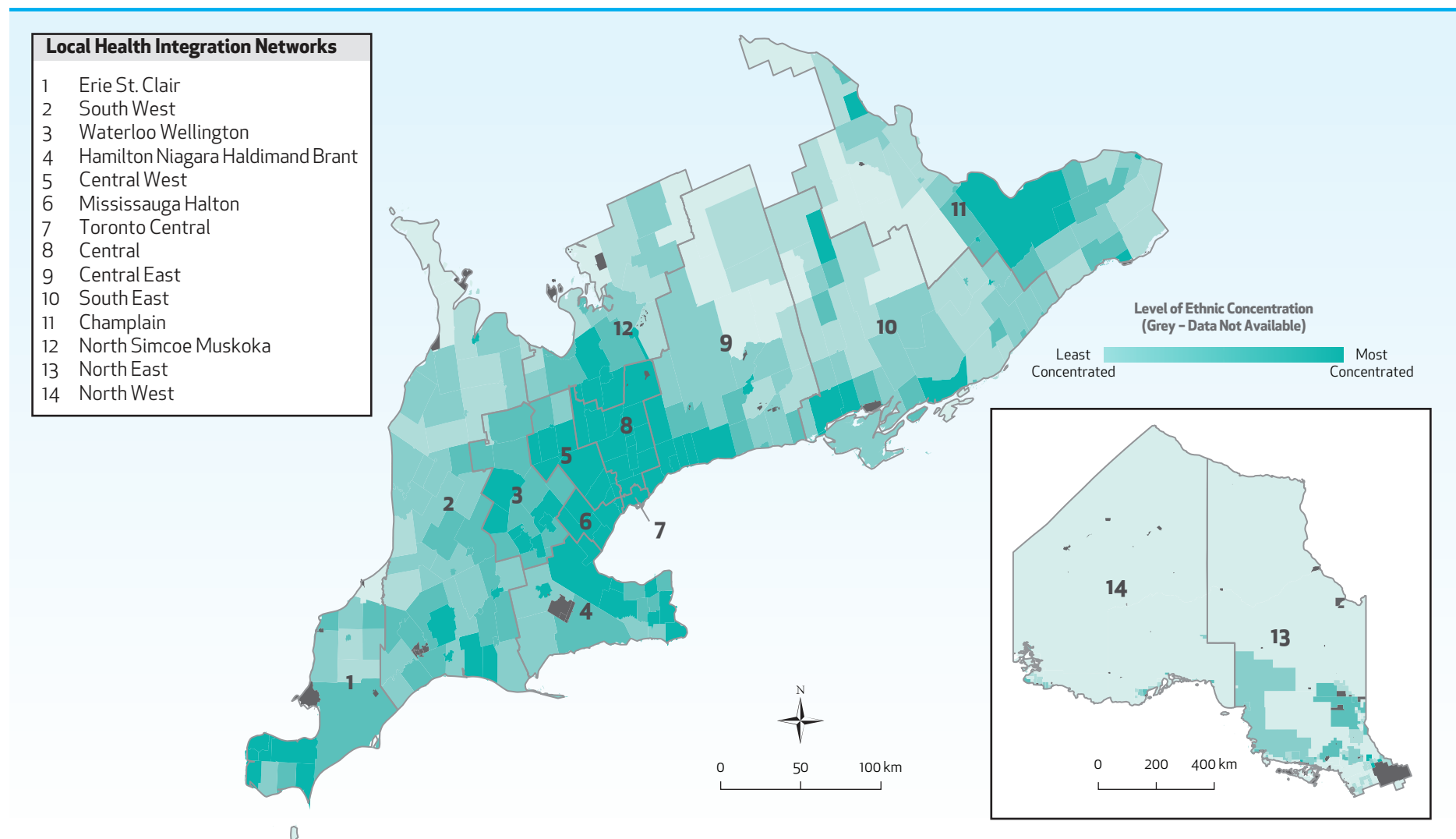
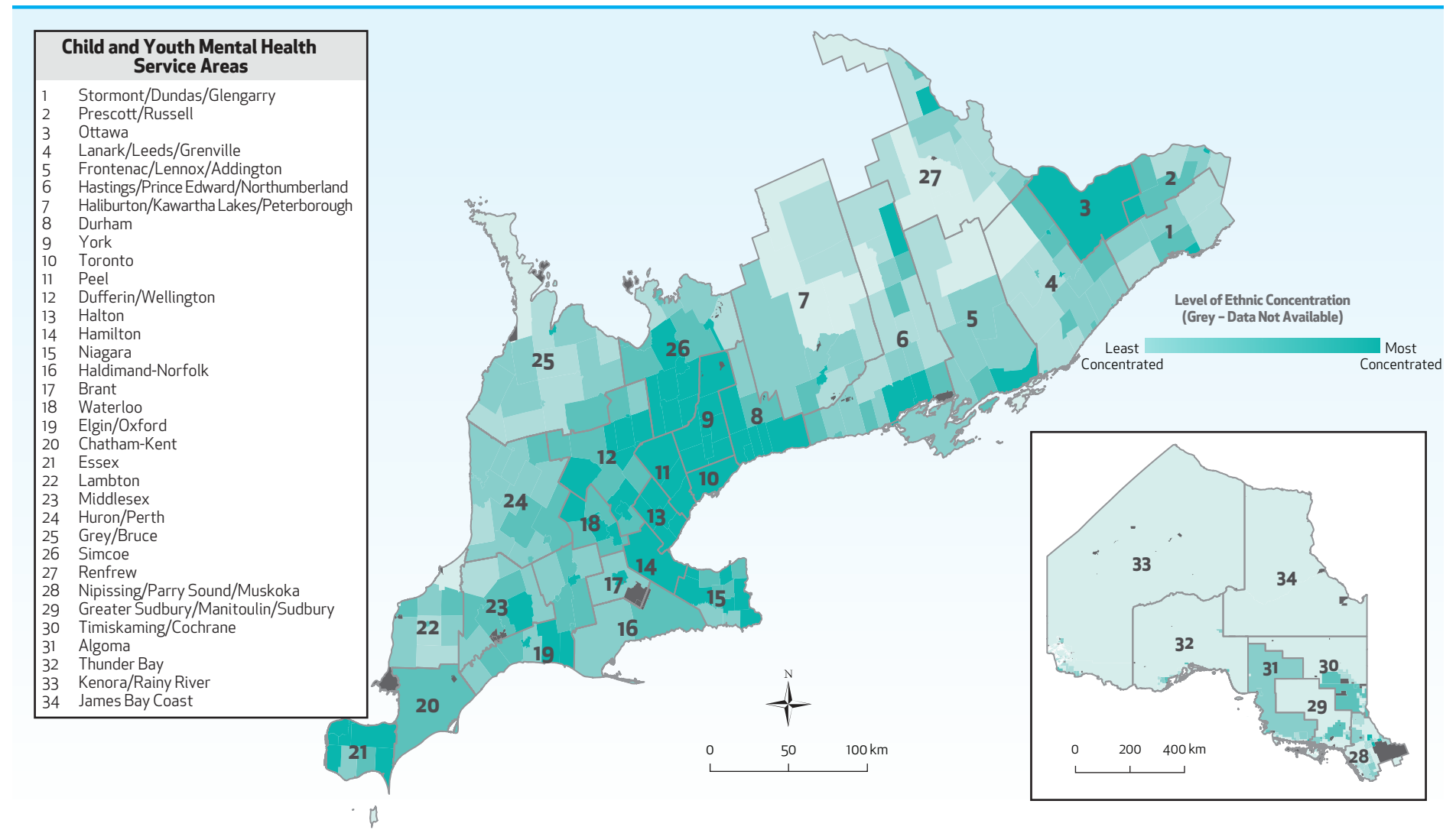
EXHIBIT 2.3.1 Geographic distribution of ethnic concentration in Ontario and the Local Health Integration Networks, by census subdivision, 2006

EXHIBIT 2.3.2 Geographic distribution of ethnic concentration in Ontario and the MCYS Child and Youth Mental Health Service Areas, by census subdivision, 2006

Contextual Indicators

Known Prevalence

- Prevalence of self-reported mental illness and substance use for youth
- Treated prevalence of schizophrenia in children and youth
- Prevalence of neonatal abstinence syndrome
- Annualized prevalence of students identified with autism spectrum disorder
- Annualized prevalence of students identified with behavioural issues
- Annualized prevalence of students identified with a learning disability

Prevalence of self-reported mental illness and substance use for youth

Rationale

Measuring population-based prevalence of substance use and mental illness in youth provides contextual evidence for mental health resource allocation and program planning.

Results

Overall, mood disorders (depression and bipolar disorder) and anxiety disorders (panic disorder, agoraphobia and social phobia) were more prevalent than alcohol dependence and drug use. All conditions were more prevalent among those aged 20 to 24 than those aged 15 to 19. Mood and anxiety disorders were more prevalent among females, while alcohol dependence and (to a lesser extent) drug use were more prevalent among males. A clear gradient in prevalence by neighbourhood income quintile was not seen for mood and anxiety disorders, although the latter tended to be more prevalent among youth in lower-middle income neighbourhoods. Alcohol dependence and drug use were more prevalent among youth living in higher-income neighbourhoods. High rates of mood and anxiety disorders were seen in non-refugee immigrants. Age- and sex-standardized prevalence of mood and anxiety disorders and alcohol dependence varied by geography. Drug use data were not complete (available for only four LHINs) and are not shown.

Interpretation

Differences in the prevalence of mood disorders and anxiety disorders by age, sex and income are consistent with published epidemiological studies. The relatively lower prevalence of drug use compared to that of alcohol dependence and mood and anxiety disorders could be due to self-reporting bias. Comparable rates of mood and anxiety disorders between immigrant and non-immigrant youth reinforce the importance of including strategies to target immigrant youth and their families. Geographic differences highlight the need to consider regional variability in the distribution of need in Ontario. Regional differences may also reflect differences in need related, in part, to immigrant status and social disadvantage.

EXHIBIT 3.1.1 Prevalence of self-reported mental illness and substance use in youth per 1,000 population aged 15 to 24 years, by age group and type of disorder, in Ontario, 2002

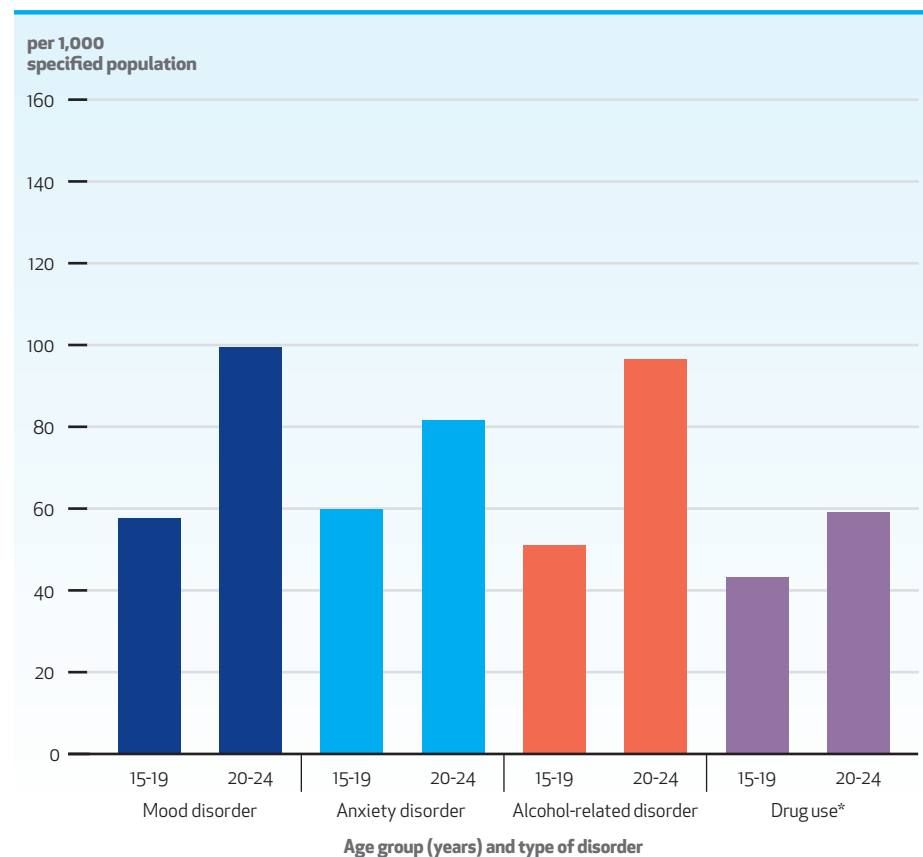
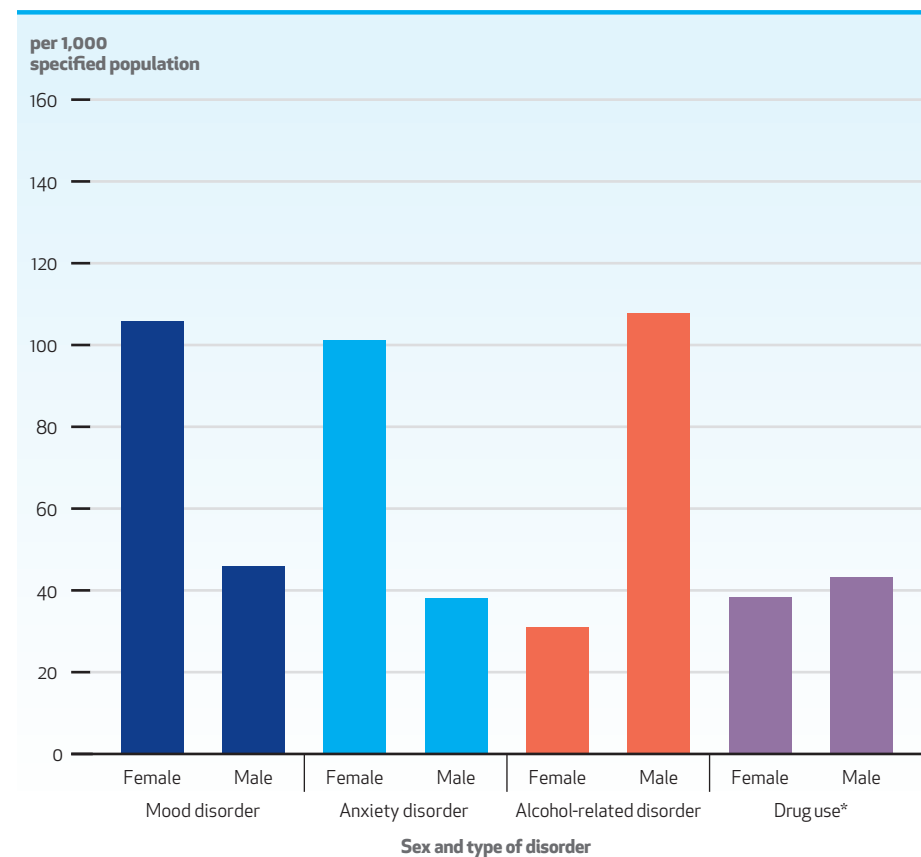


EXHIBIT 3.1.2 Prevalence of self-reported mental illness and substance use in youth per 1,000 population aged 15 to 24 years, by sex and type of disorder, in Ontario, 2002



*Drug use is based on 2003 survey data.

EXHIBIT 3.1.3 Prevalence of self-reported mental illness and substance use in youth per 1,000 population aged 15 to 24 years, by immigrant category and type of disorder, in Ontario, 2002

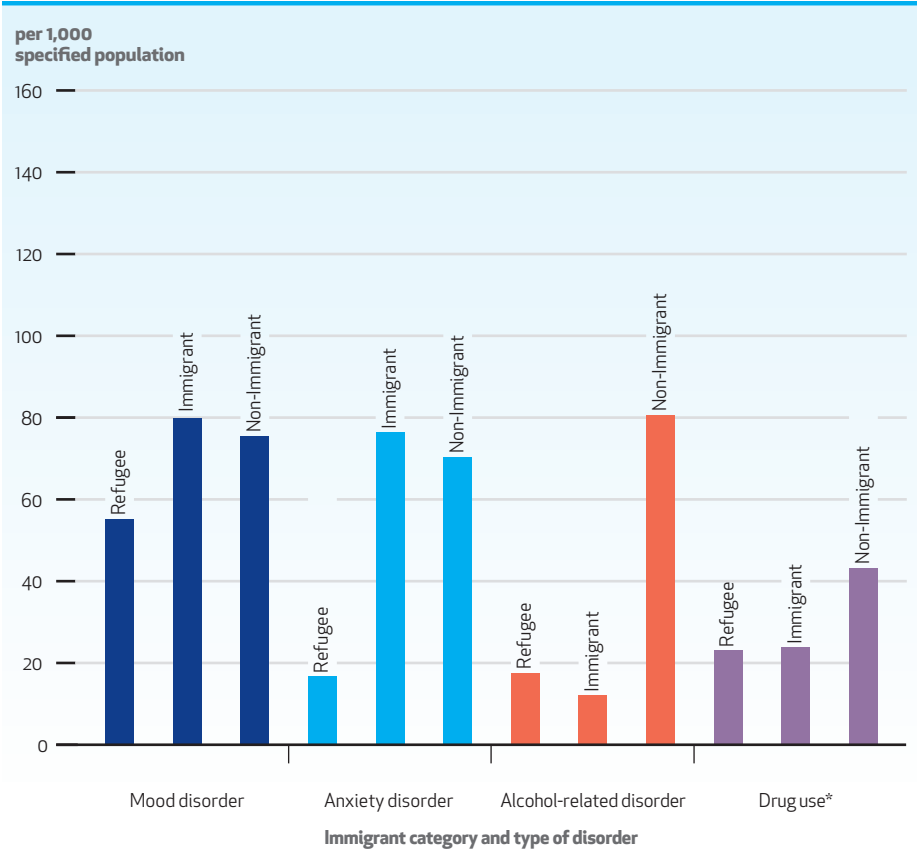
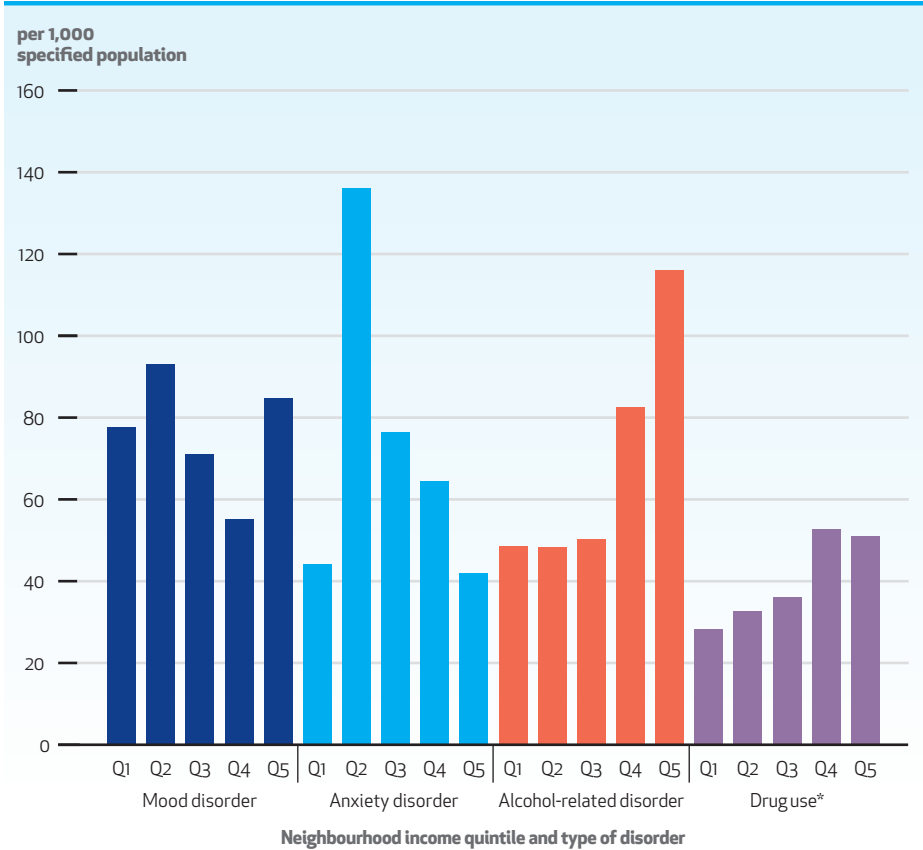
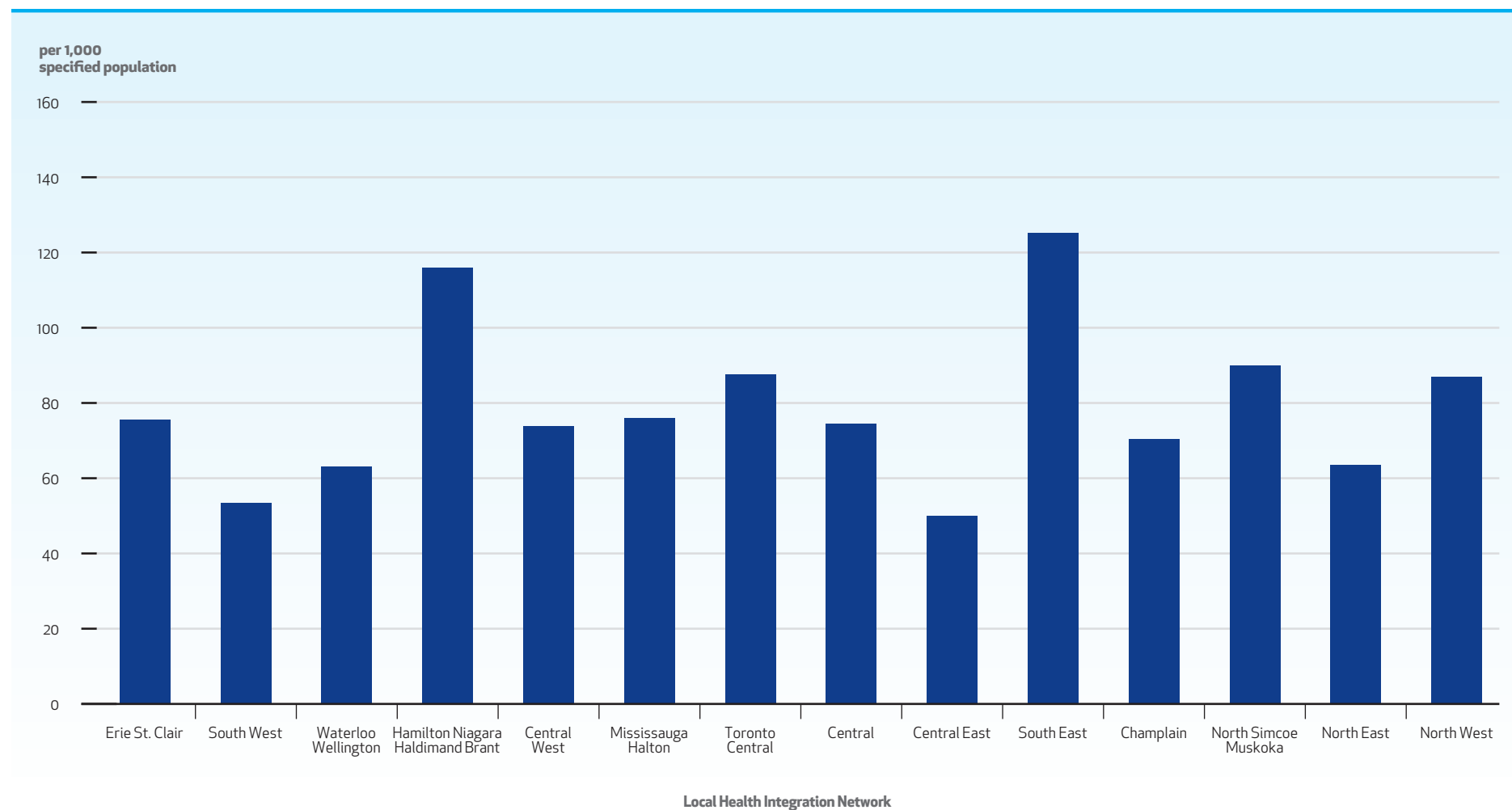


EXHIBIT 3.1.4 Prevalence of self-reported mental illness and substance use in youth per 1,000 population aged 15 to 24 years, by neighbourhood income quintile and type of disorder, in Ontario, 2002



*Drug use is based on 2003 survey data.
Q1 = lowest income quintile

EXHIBIT 3.1.5 Standardized prevalence of self-reported mood disorders in youth per 1,000 population aged 15 to 24 years, by Local Health Integration Network, in Ontario, 2002



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.1.6 Standardized prevalence of self-reported anxiety disorders in youth per 1,000 population aged 15 to 24 years, by Local Health Integration Network, in Ontario, 2002

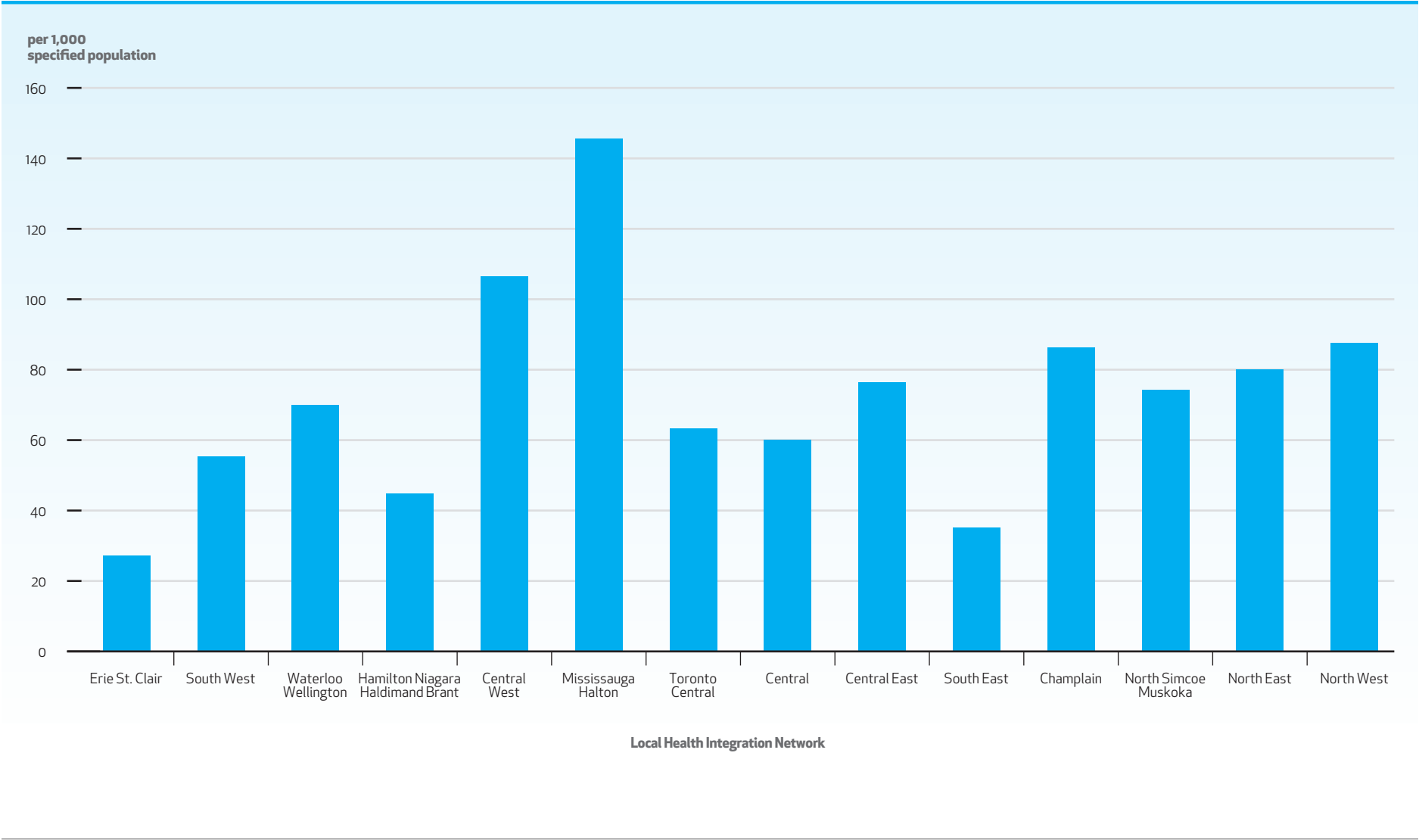
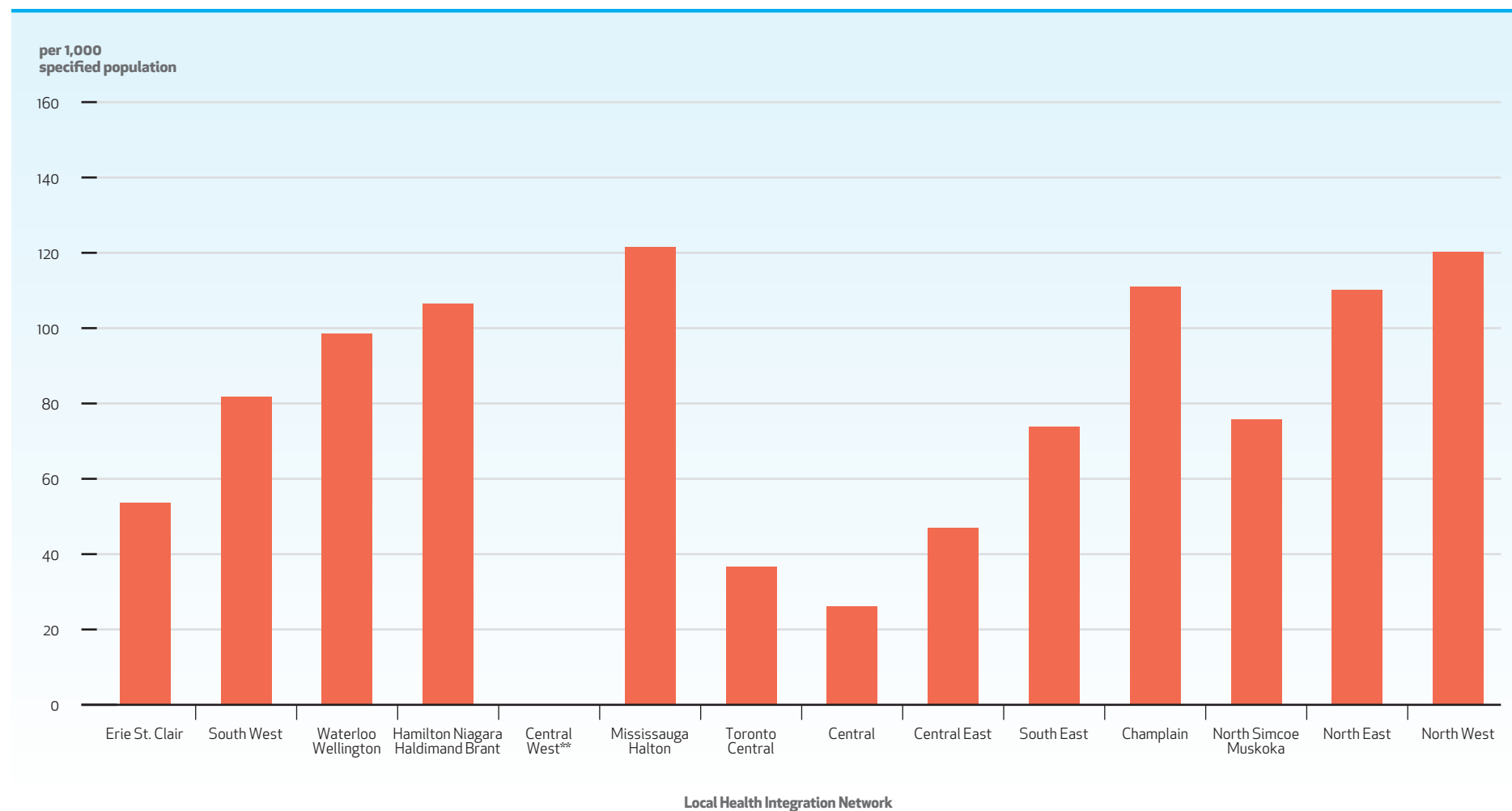


EXHIBIT 3.1.7 Standardized prevalence of self-reported alcohol-related disorders in youth per 1,000 population aged 15 to 24 years, by Local Health Integration Network, in Ontario, 2002



Note: Rates were standardized by age and sex to the 2002 Ontario population.
 ** Data not available.

Treated prevalence of schizophrenia in children and youth

Rationale

Schizophrenia is a serious mental disorder with onset in the late teens and young adulthood. Tracking treatment rates over time can provide insight on access to and utilization of services for severe mental illness in children and youth.

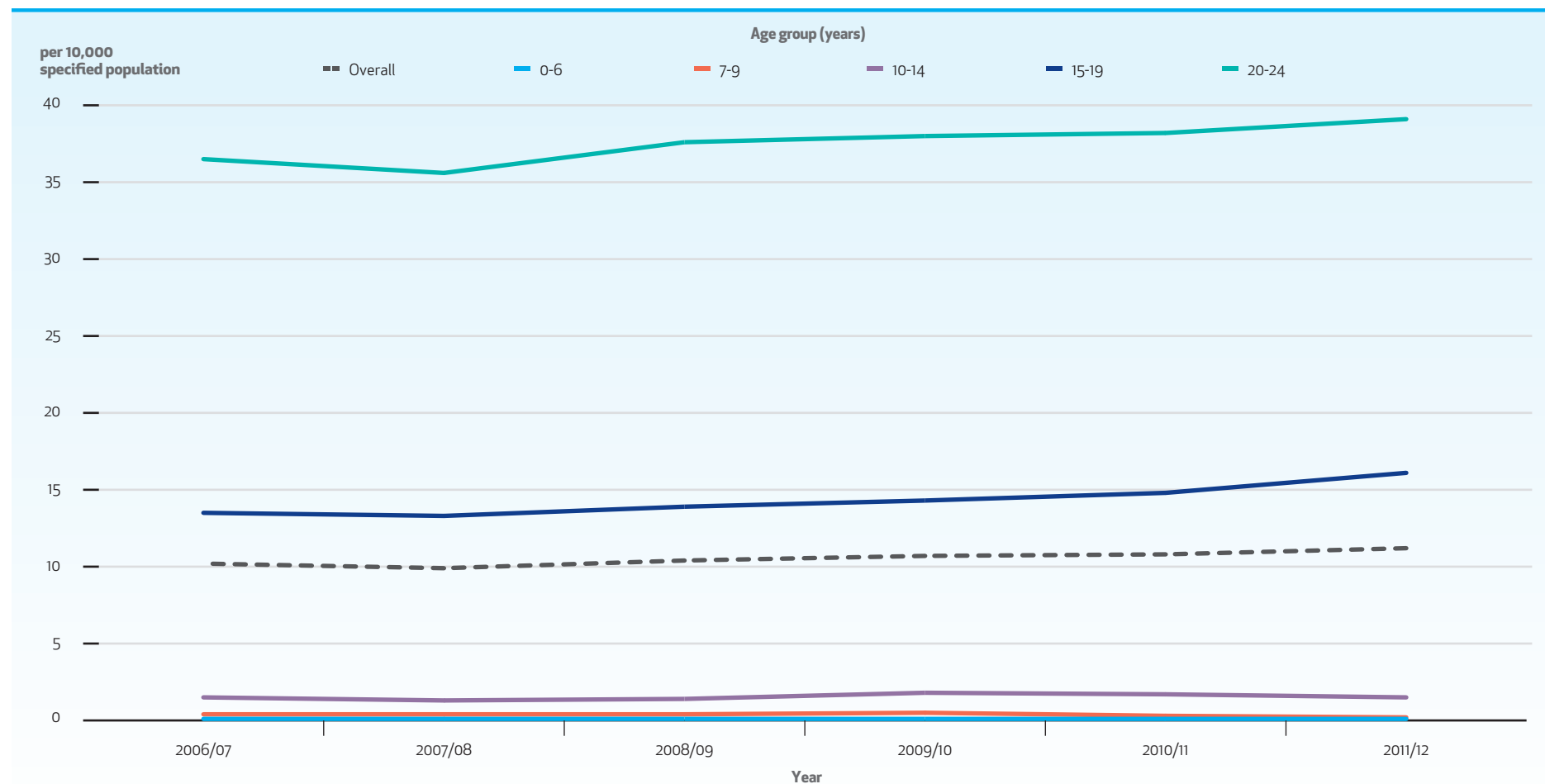
Results

The prevalence of individuals treated for schizophrenia was low (prevalence is reported per 10,000 population) and remained relatively stable over time except in the 15 to 19 and 20 to 24-year age groups, both of which saw a slight increase. The treated prevalence rate for schizophrenia was significantly higher among those aged 20 to 24 compared to younger age groups, which is consistent with the average age of onset for schizophrenia. Rates were higher among males and refugees and in youth from lower-income neighbourhoods. Geographic variability was observed, with the Toronto Central LHIN having the highest treatment rates. The ICES schizophrenia diagnostic algorithm has been used in previous literature and produces a prevalence of schizophrenia in Ontario similar to previous Canadian prevalence estimates (less than 1%).^{46,47}

Interpretation

The results are consistent with the existing literature on schizophrenia prevalence. Its higher prevalence in the Toronto Central LHIN may reflect the fact that there are more services per capita for schizophrenia in this region. The higher rate of schizophrenia observed in refugees may highlight an important area of service need.

EXHIBIT 3.2.1 Standardized treated prevalence of schizophrenia per 10,000 population aged 0 to 24 years, overall and by age group and year, in Ontario, 2006/07 to 2011/12



Note: Overall rates were standardized by age and sex, and rates by age group were standardized by sex, both to the 2002 Ontario population.

EXHIBIT 3.2.2 Treated prevalence of schizophrenia per 10,000 population aged 0 to 24 years, by age group, in Ontario, three-year average for 2009/10 to 2011/12

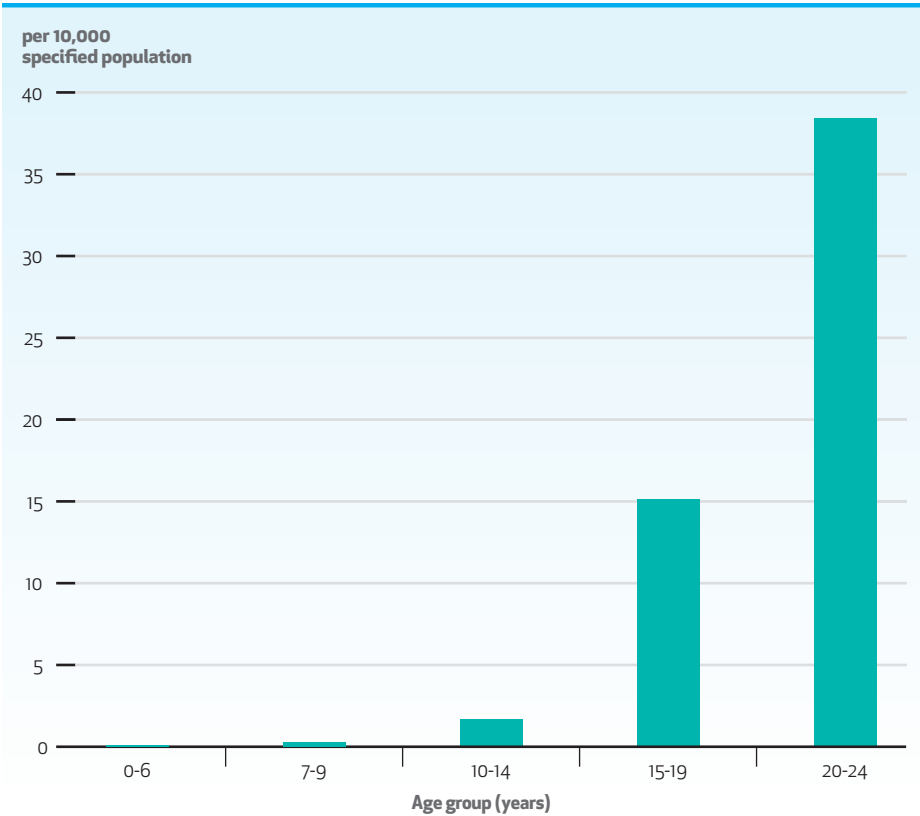


EXHIBIT 3.2.3 Treated prevalence of schizophrenia per 10,000 population aged 0 to 24 years, by sex, in Ontario, three-year average for 2009/10 to 2011/12

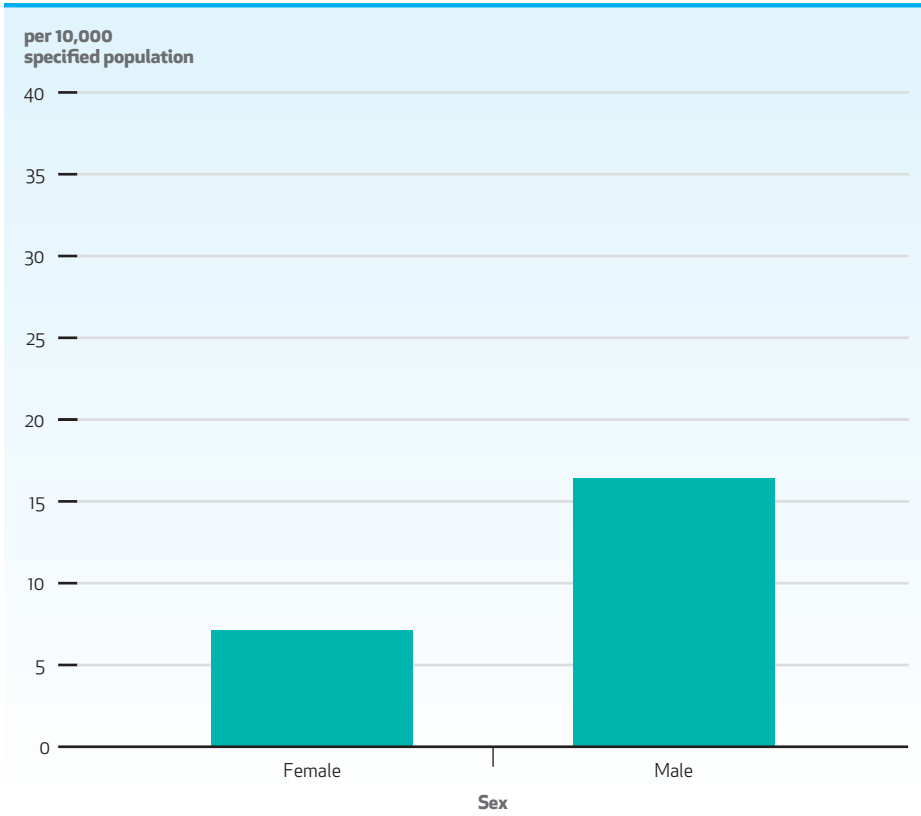


EXHIBIT 3.2.4 Treated prevalence of schizophrenia per 10,000 population aged 0 to 24 years, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

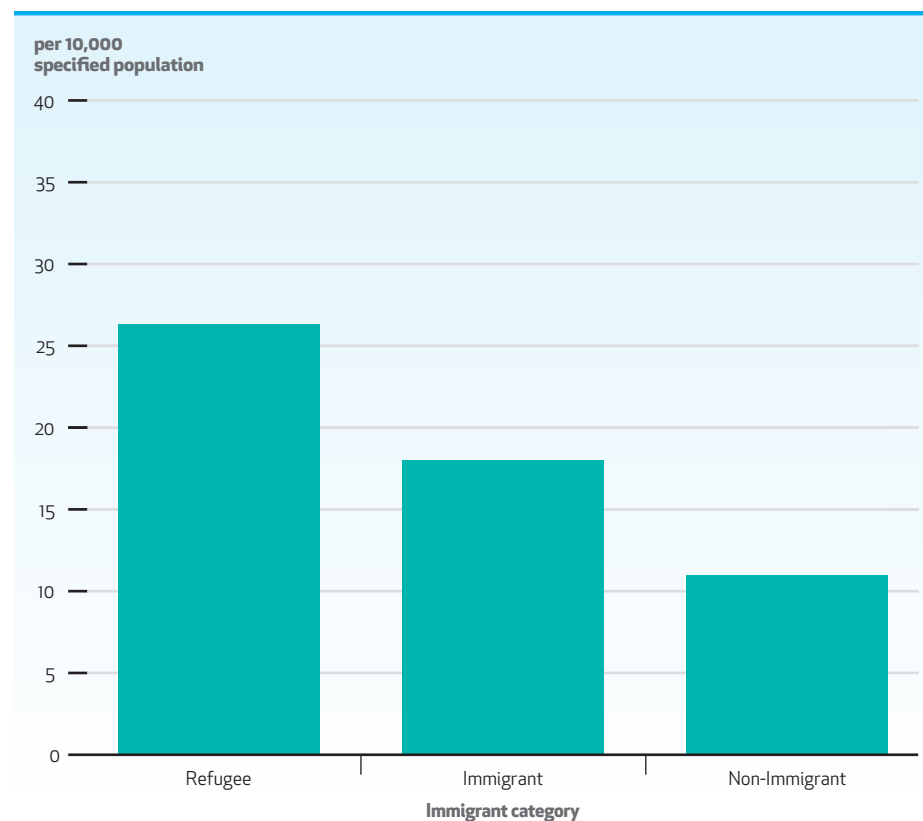


EXHIBIT 3.2.5 Treated prevalence of schizophrenia per 10,000 population aged 0 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

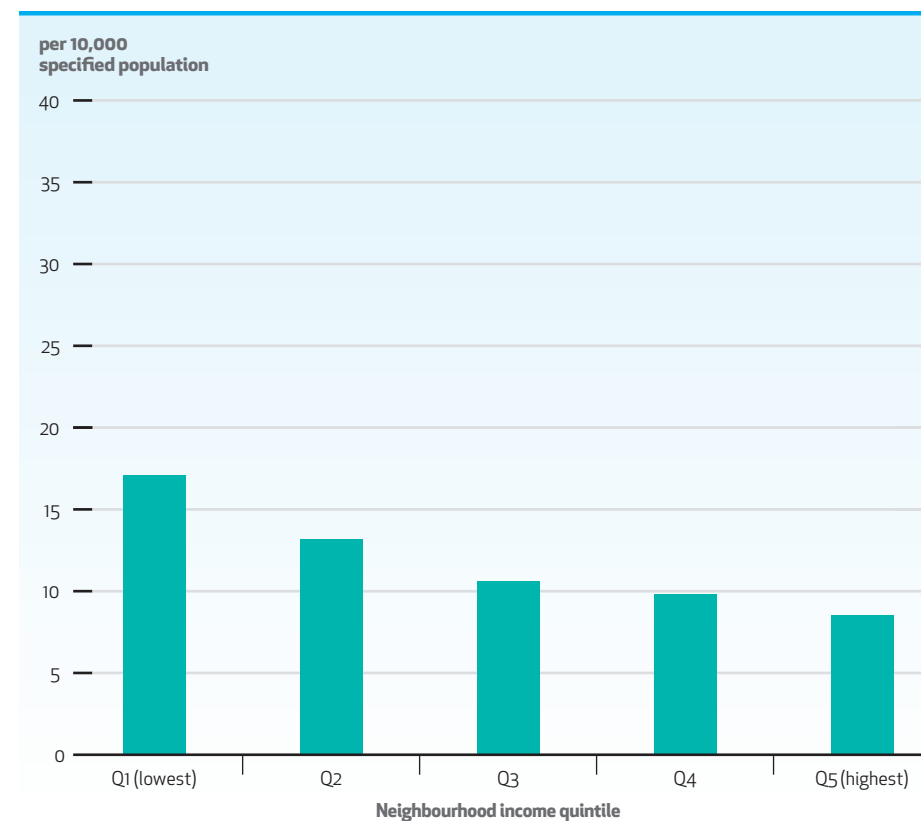
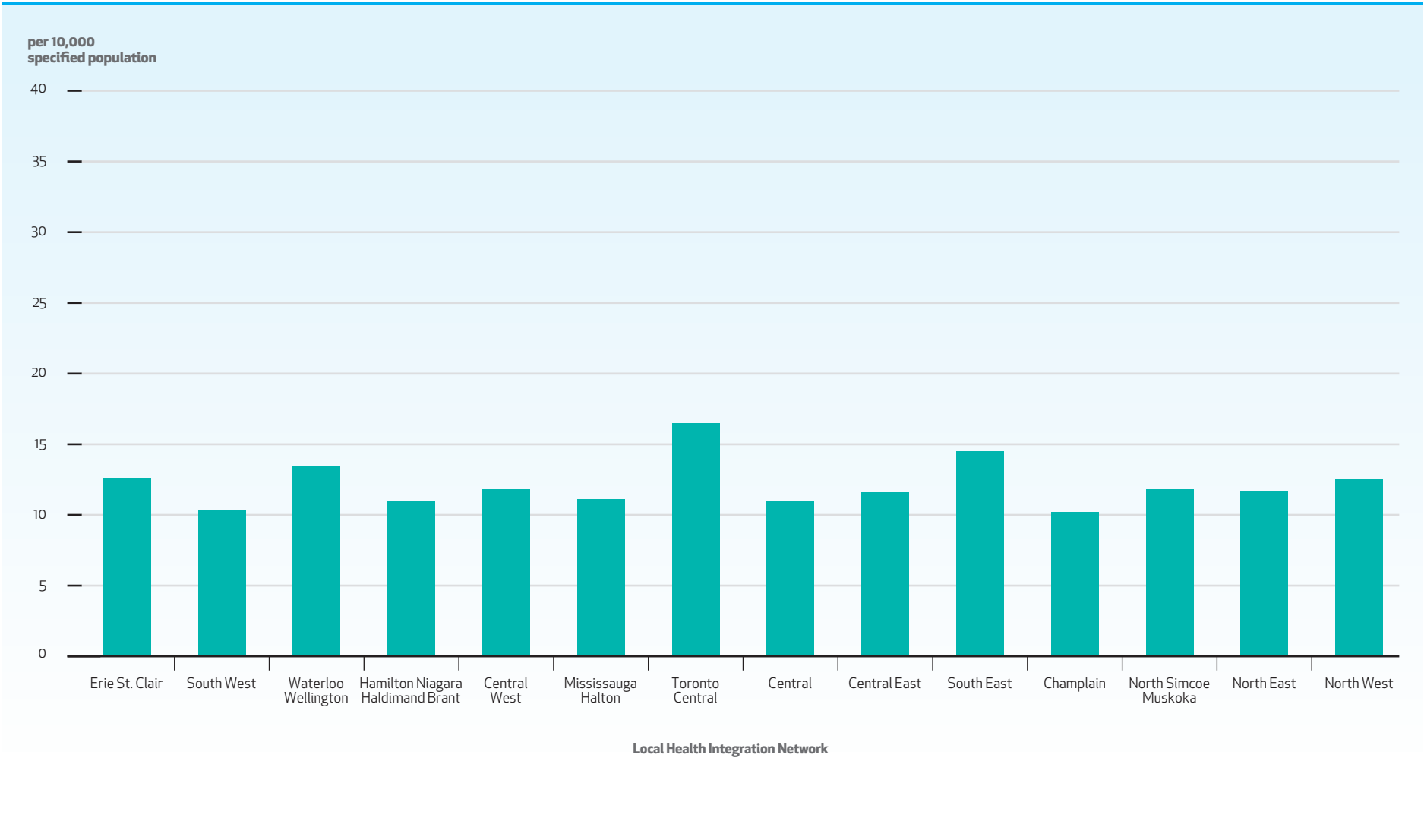


EXHIBIT 3.2.6 Standardized treated prevalence of schizophrenia per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Prevalence of neonatal abstinence syndrome

Rationale

Neonatal abstinence syndrome (NAS) is a withdrawal syndrome observed in the babies of mothers who are either using opioids or being treated for opioid dependence with methadone. Rates of NAS are a proxy for maternal substance-use problems.

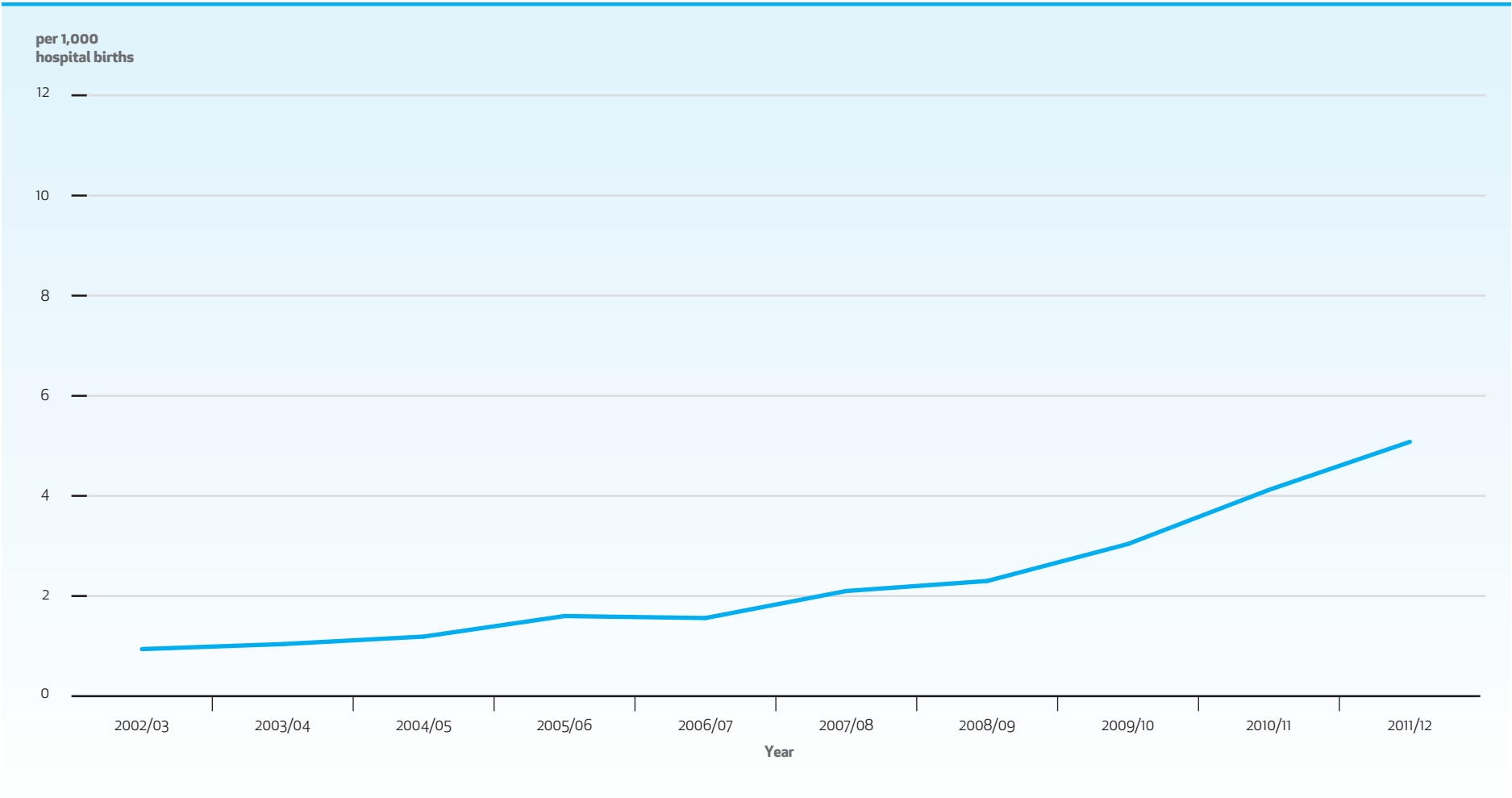
Results

The prevalence of infants with NAS has increased significantly over time. This may be due to an increase in maternal use of illicit or prescription drugs or to improvements in detection at the time of birth. The prevalence of NAS was five times higher among infants born to mothers who delivered their first child prior to age 19 compared to mothers who were older at first delivery. There was a significant neighbourhood income gradient of NAS prevalence. Prevalence was substantially higher for non-immigrant infants compared to immigrant and refugee infants. NAS prevalence was highest among the Local Health Integration Networks in northern Ontario.

Interpretation

Addressing the increasing rate of babies born with NAS will require targeted interventions to both reduce morbidity of babies born to mothers who use methadone, as well as reducing the prevalence of opioid use in pregnancy.

EXHIBIT 3.3.1 Standardized prevalence of neonatal abstinence syndrome per 1,000 hospital births, in Ontario, 2002/03 to 2011/12



Note: Rates were standardized by sex to the 2002 MOMBABY population.

EXHIBIT 3.3.2 Prevalence of neonatal abstinence syndrome per 1,000 hospital births, by mother's age at first delivery, in Ontario, for the 10-year period from 2002/03 to 2011/12

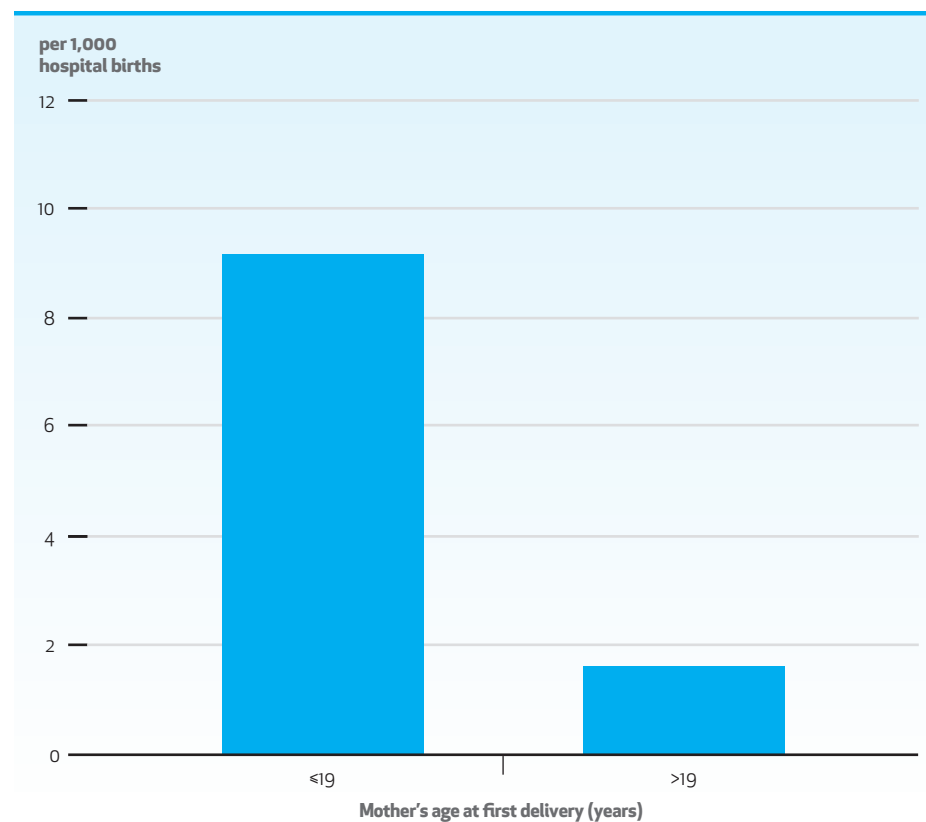


EXHIBIT 3.3.3 Prevalence of neonatal abstinence syndrome per 1,000 hospital births, by sex, in Ontario, three-year average for 2009/10 to 2011/12

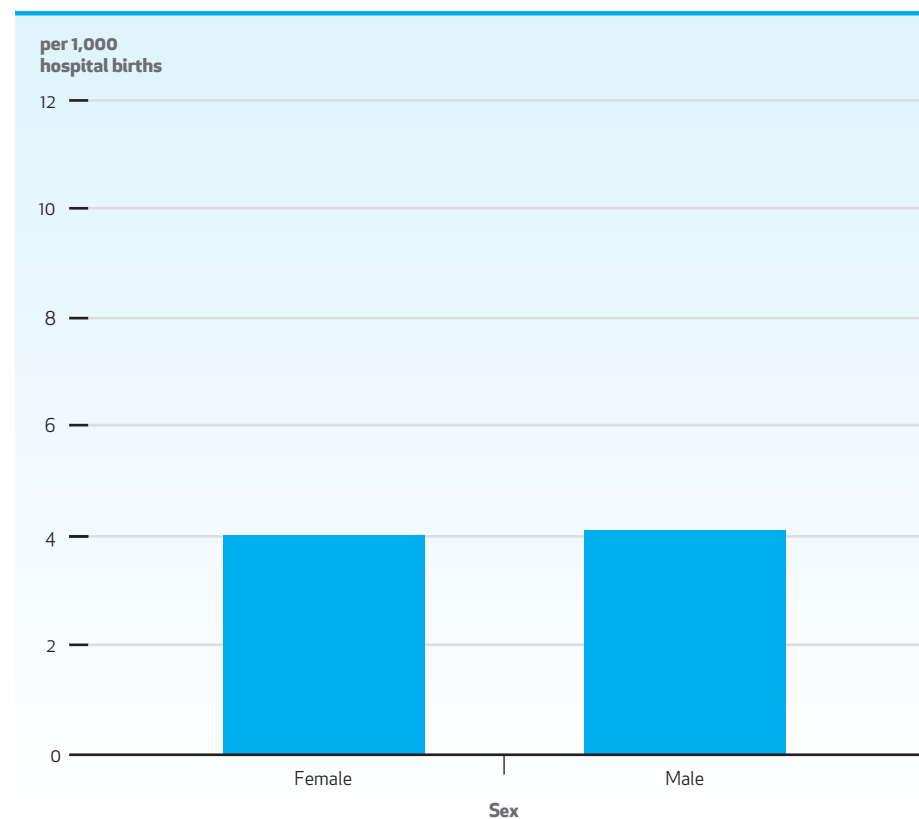


EXHIBIT 3.3.4 Prevalence of neonatal abstinence syndrome per 1,000 hospital births, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

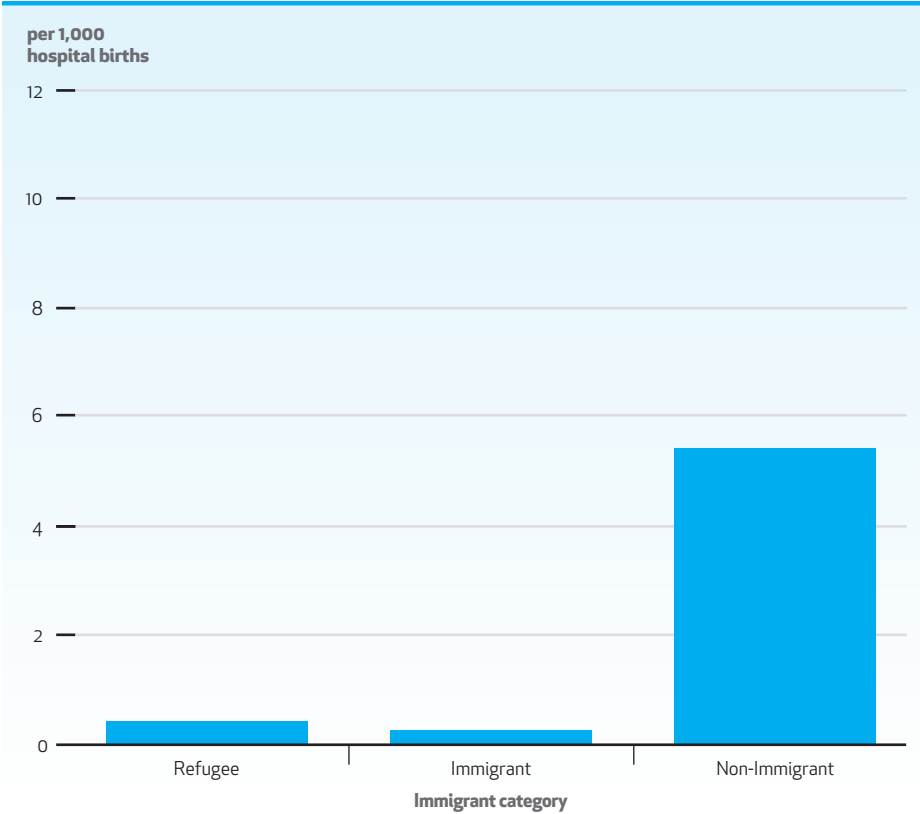


EXHIBIT 3.3.5 Prevalence of neonatal abstinence syndrome per 1,000 hospital births, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

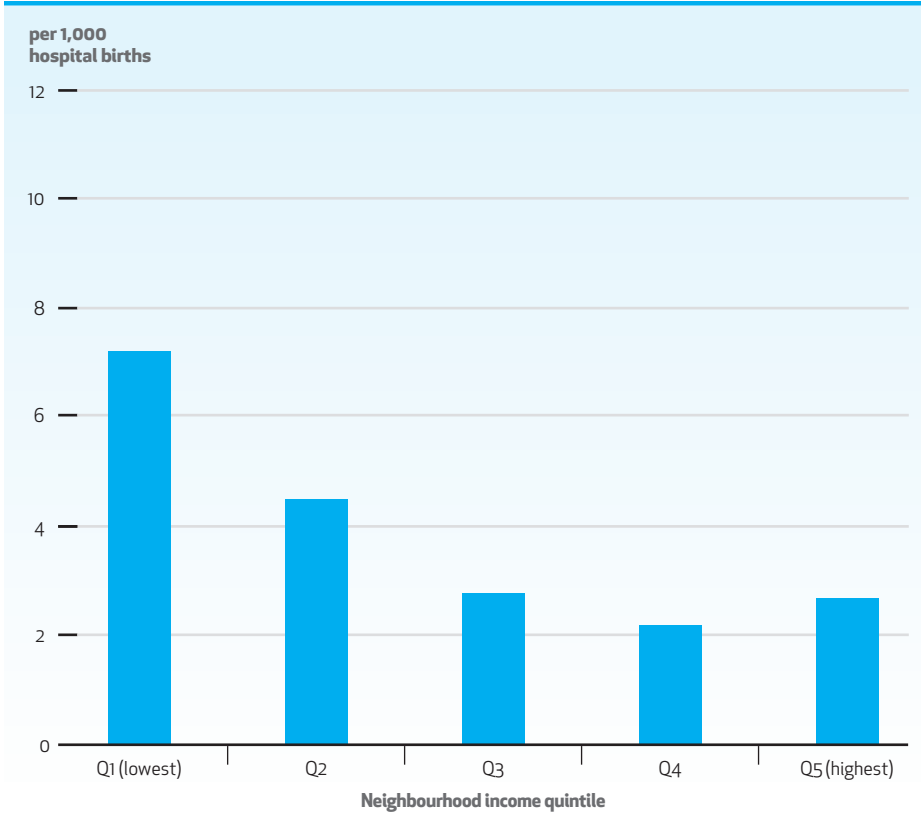
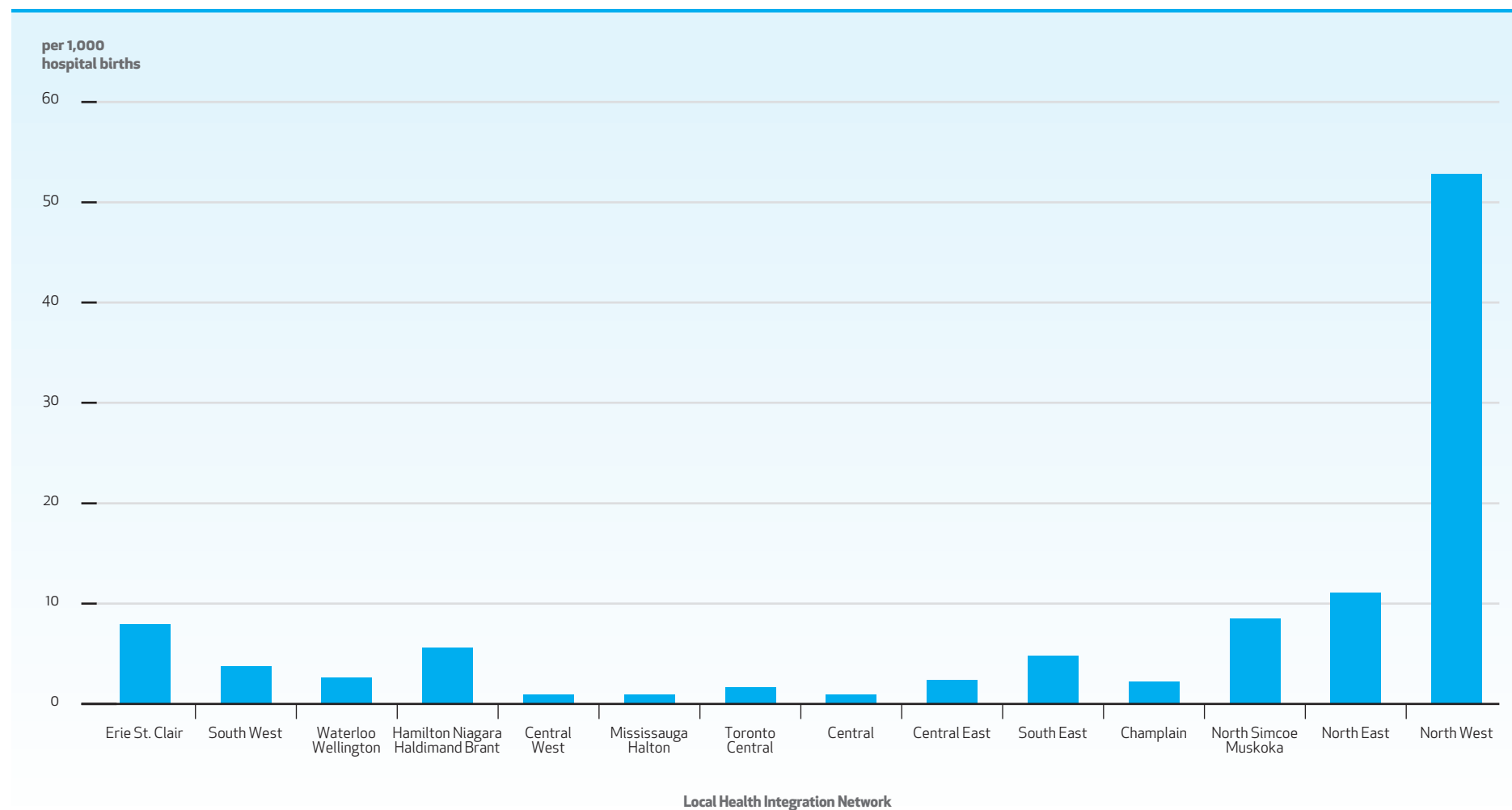


EXHIBIT 3.3.6 Standardized prevalence of neonatal abstinence syndrome per 1,000 hospital births, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by sex to the 2002 MOMBABY population.

Annualized prevalence of students identified with autism spectrum disorder

Rationale

Early identification of exceptionalities in the school environment can help improve both school-based achievements and general mental health outcomes. Autism spectrum disorders can have a profound impact on school performance and social development.

Results

Students in the North East LHIN had the highest annualized prevalence of identified autism spectrum disorder, followed by the North West, North Simcoe Muskoka, and South East LHINs. Similar results were reflected at the level of MCYS Child and Youth Mental Health Service Areas: autism spectrum disorder was most prevalent in the Child and Youth Mental Health Service Areas of Algoma, Nipissing/Parry Sound/Muskoka and Prescott/Russell. As the diagnosis of exceptionalities varies across school boards, findings should be interpreted with caution.

Interpretation

The high prevalence of autism spectrum disorder in northeastern Ontario indicates the need for specialized services in the region.

EXHIBIT 3.4.1 Annualized prevalence of students identified with autism spectrum disorder per 1,000 K-12 students attending schools whose primary language of instruction is English, by Local Health Integration Network, in Ontario, 2009/10 to 2011/12

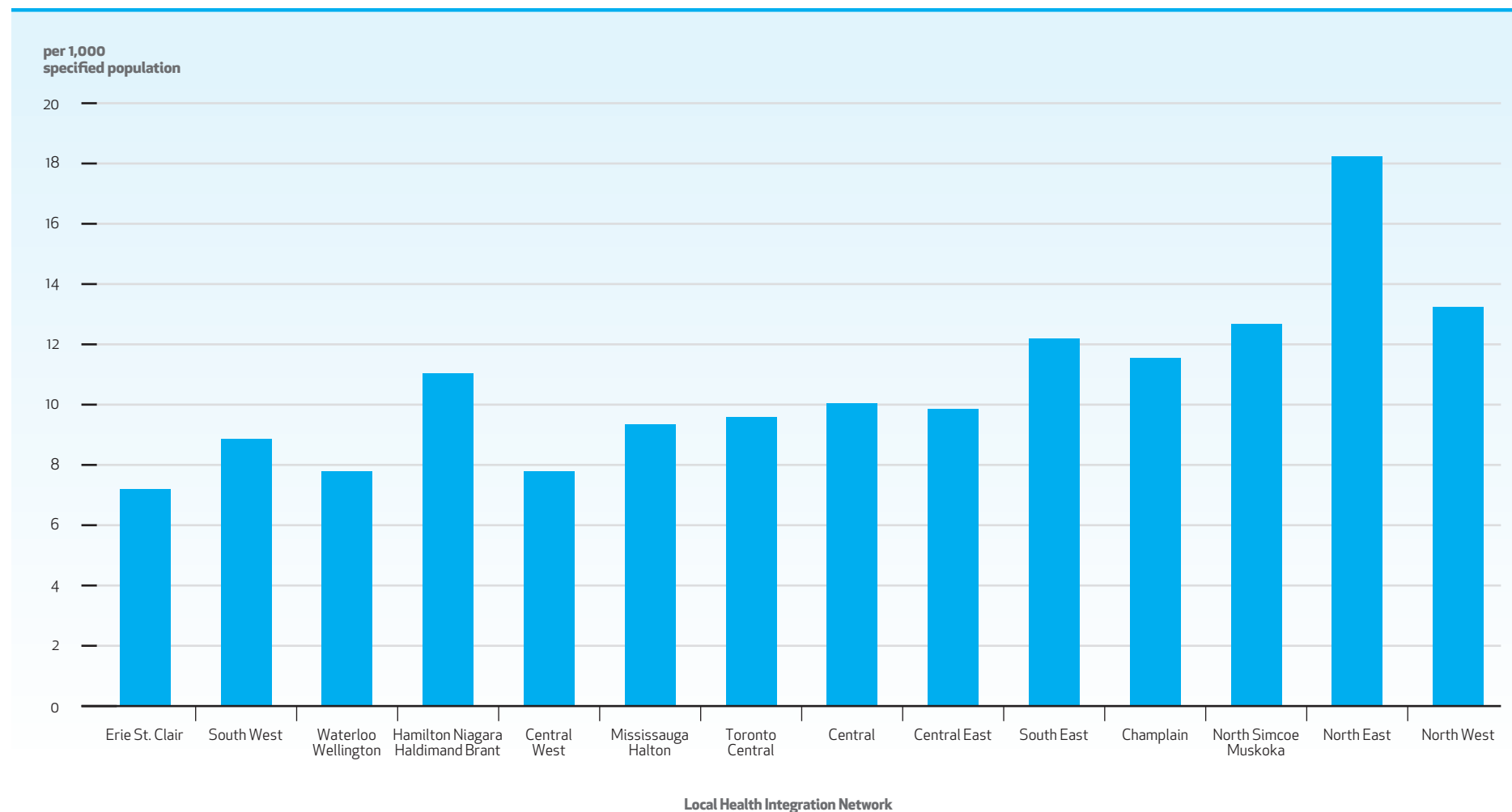
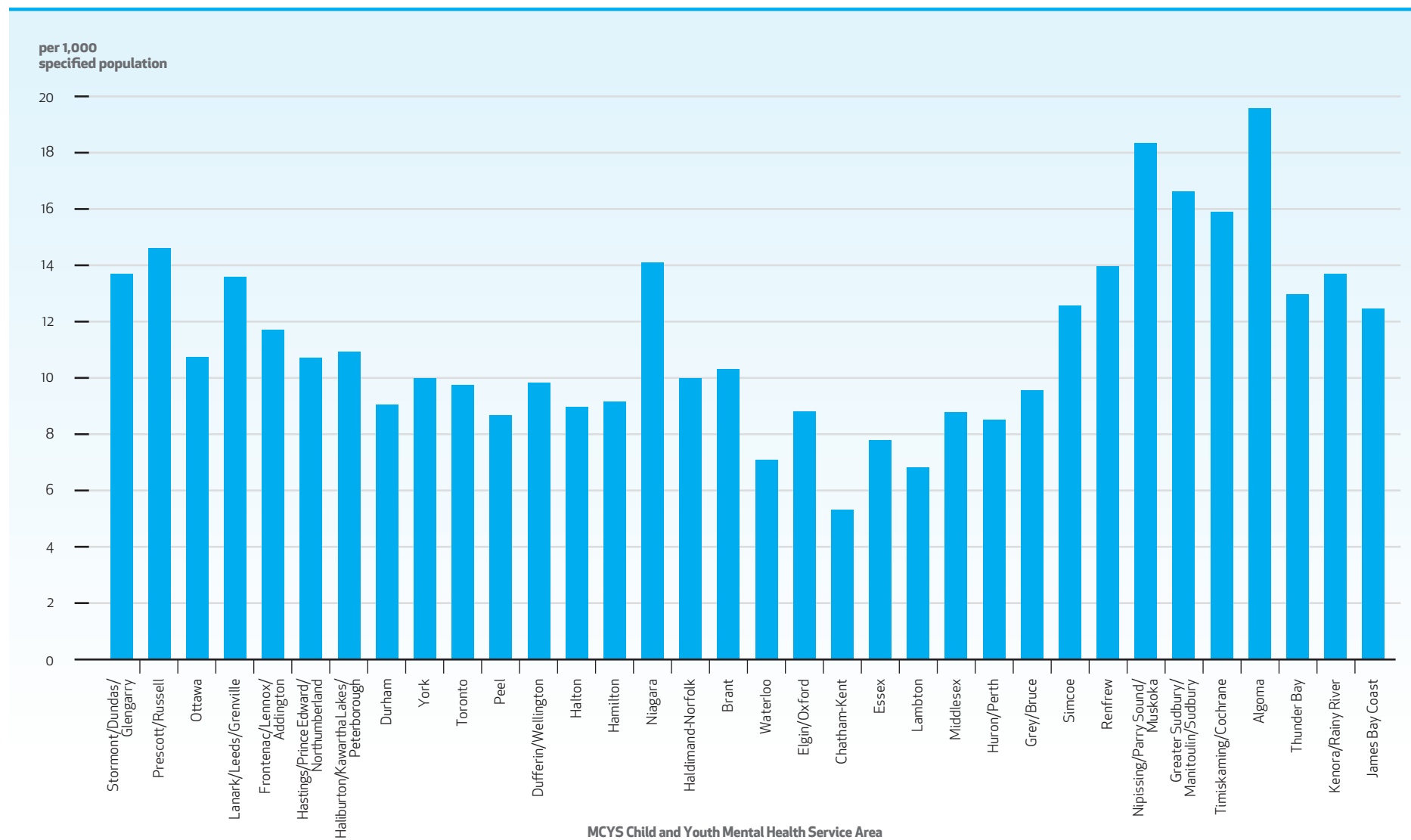


EXHIBIT 3.4.2 Annualized prevalence of students identified with autism spectrum disorder per 1,000 K-12 students attending schools whose primary language of instruction is English, by MCYS Child and Youth Mental Health Service Area, in Ontario, 2009/10 to 2011/12



Annualized prevalence of students identified with behavioural issues

Rationale

Early identification of exceptionalities in the school environment may help improve both school-based achievements and general mental health outcomes. Behavioural issues are defined as specific behaviour problems over such a period of time and to such a marked degree and of such a nature as to adversely affect educational performance; they may be a general marker of psychosocial distress.

Results

The annualized prevalence of behavioural issues was highest in the North East LHIN, followed closely by the North West and South East LHINs. Among the Child and Youth Mental Health Service Areas, behavioural issues were most prevalent in Stormont/Dundas/Glengarry and Renfrew in the eastern part of the province followed by Greater Sudbury/Manitoulin/Sudbury, Nipissing/Parry Sound/Muskoka and Thunder Bay in the north. As the diagnosis of exceptionalities varies across school boards, findings should be interpreted with caution.

Interpretation

The high prevalence of behavioural issues in northern regions where large numbers of Aboriginal youth reside may be indicative of many complex issues, including cultural tensions and/or mental health issues. Specific mental health services may be necessary. The ability to monitor reporting of behavioural issues may provide an opportunity to track interventions targeted at this population over time.

EXHIBIT 3.5.1 Annualized prevalence of students identified with behavioural issues per 1,000 K-12 students attending schools whose primary language of instruction is English, by Local Health Integration Network, in Ontario, 2009/10 to 2011/12

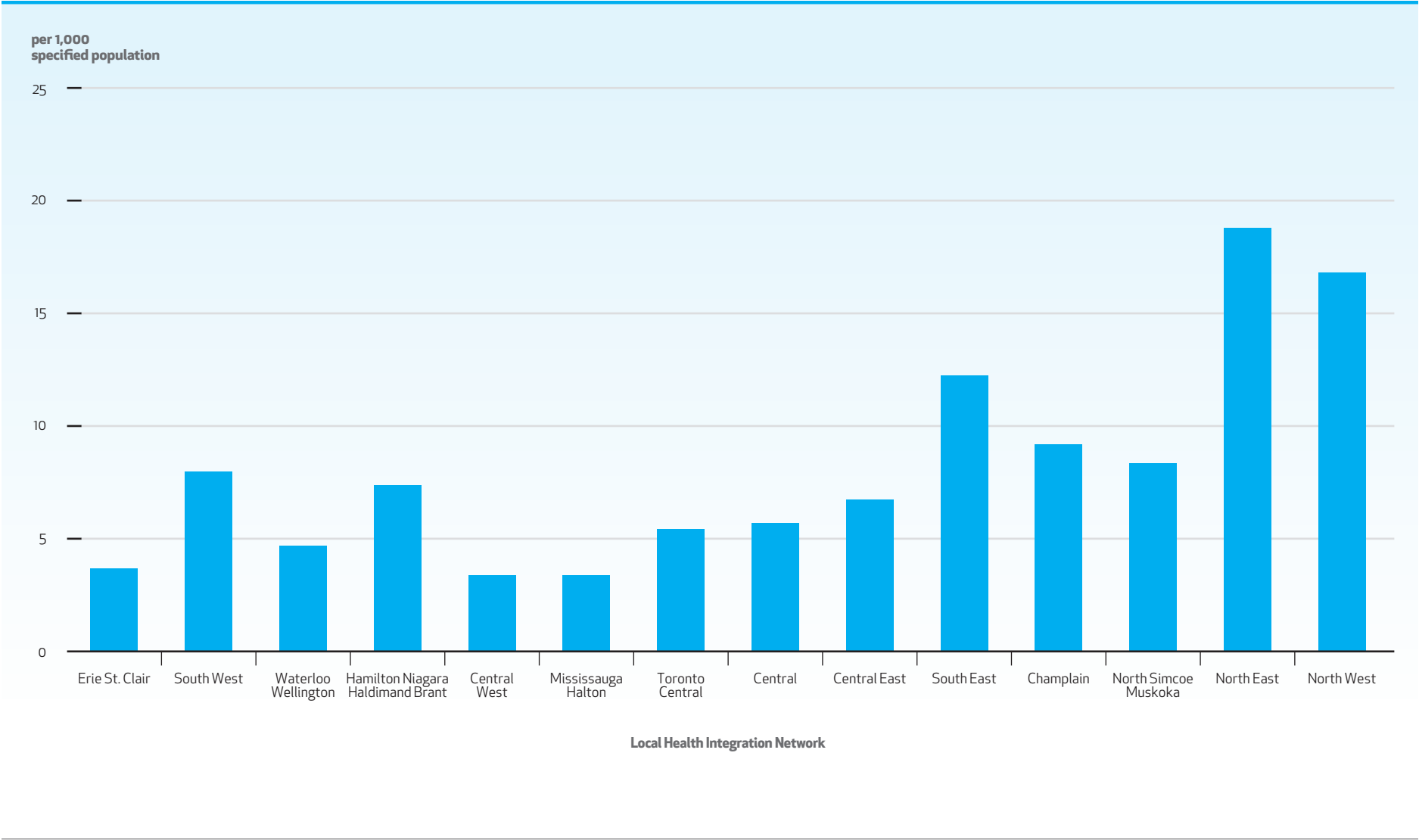
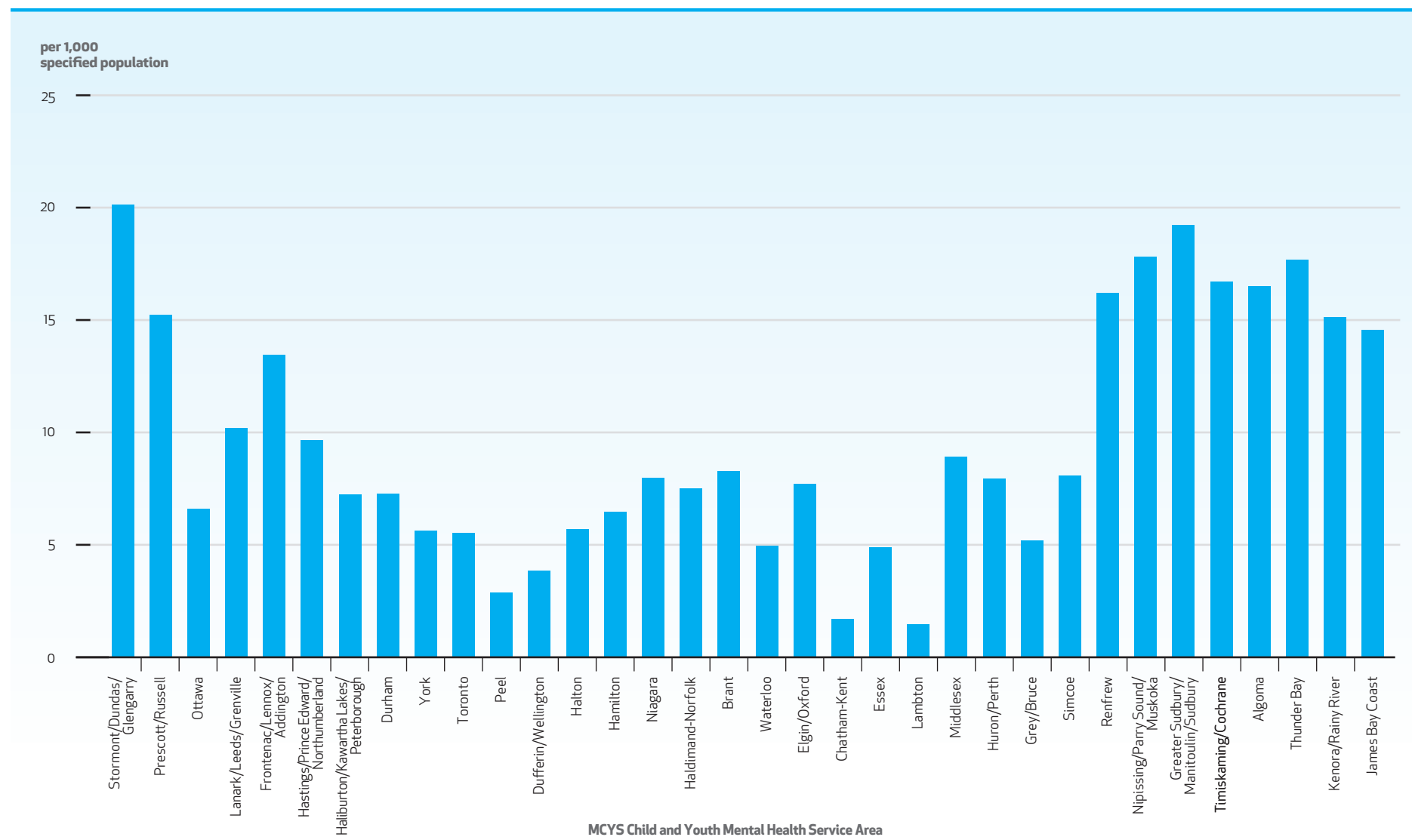


EXHIBIT 3.5.2 Annualized prevalence of students identified with behavioural issues per 1,000 K-12 students attending schools whose primary language of instruction is English, by MCYS Child and Youth Mental Health Service Area, in Ontario, 2009/10 to 2011/12



Annualized prevalence of students identified with a learning disability

Rationale

Early identification of exceptionalities in the school environment may help improve both school-based achievements and general mental health outcomes. Learning disabilities can deeply impact self-esteem and psychosocial development and increase the risk of depression and anxiety disorders later in life.

Results

The North East, Champlain, Erie St. Clair, Central and Toronto Central LHINs had the highest annualized prevalence of students identified with learning disabilities, which was mirrored by the MCYS Child and Youth Mental Health Service Areas in similar geographic regions. For instance, learning disabilities were most prevalent in the Child and Youth Mental Health Service Areas of Lambton and Chatham-Kent (in the southwestern part of the Erie St. Clair LHIN), followed by James Bay Coast, Algoma, Nipissing/Parry Sound/Muskoka and Renfrew (all in northeastern Ontario). The spike in prevalence in the Central LHIN matched the prevalence in the York Child and Youth Mental Health Service Area. On the other hand, prevalence in the Toronto Child and Youth Mental Health Service Area was lower than in the Toronto Central LHIN, which implies that a higher concentration of students with learning disabilities resided in the downtown core of the Greater Toronto Area. As the diagnosis of exceptionalities varies across school boards, findings should be interpreted with caution.

Interpretation

Prevalence of students identified with learning disabilities in Ontario may reflect availability of services as much as real differences in need by geographic region. Monitoring over time can be used to track changes in service provision related to learning disabilities.

EXHIBIT 3.6.1 Annualized prevalence of students identified with a learning disability per 1,000 K-12 students attending schools whose primary language of instruction is English, by Local Health Integration Network, in Ontario, 2009/10 to 2011/12

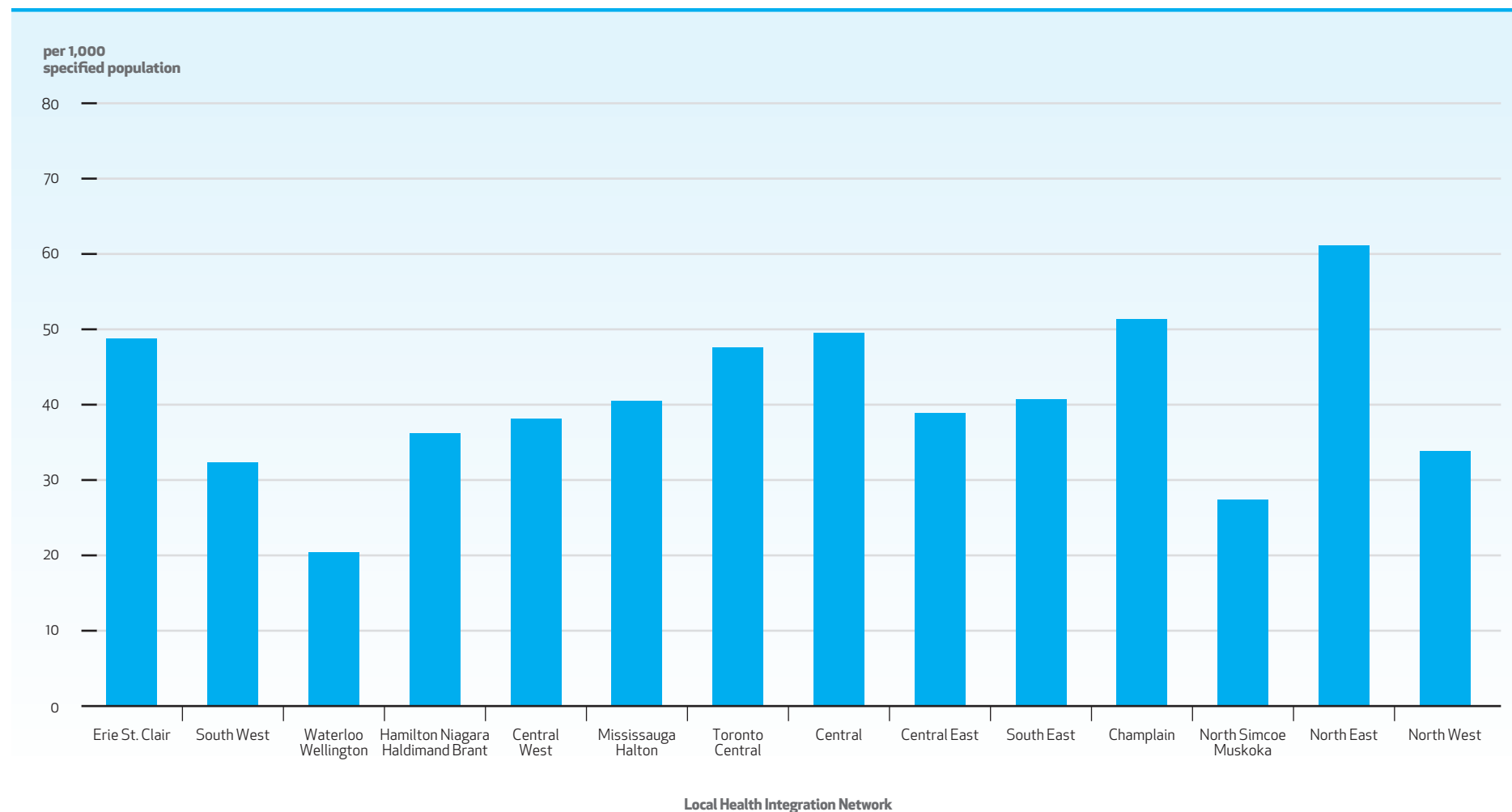
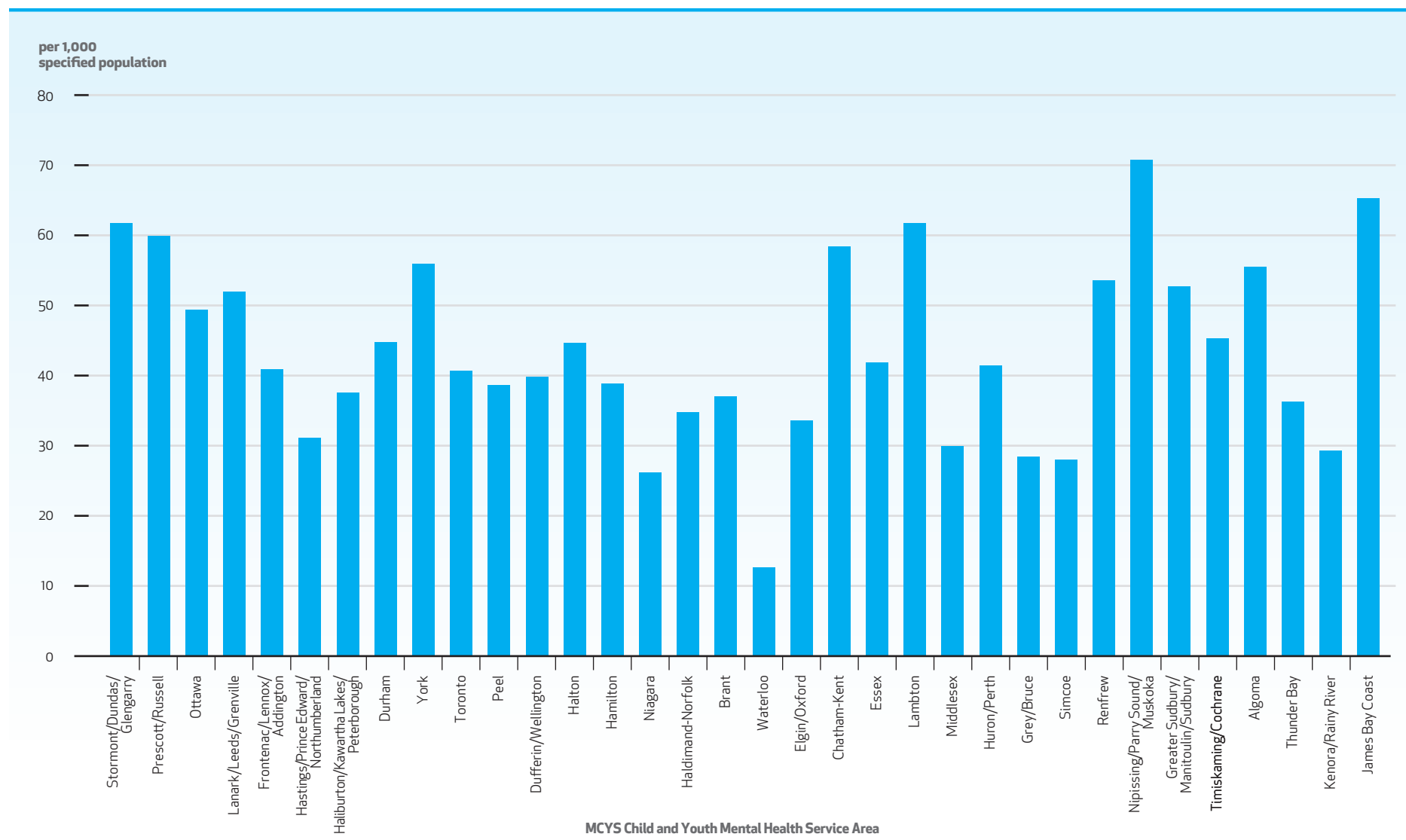


EXHIBIT 3.6.2 Annualized prevalence of students identified with a learning disability per 1,000 K-12 students attending schools whose primary language of instruction is English, by MCYS Child and Youth Mental Health Service Area, in Ontario, 2009/10 to 2011/12



System Use

- Physicians' full-time equivalent allocation to mental health care for children and youth
- Rate at which children and youth were seen by a psychiatrist
- Rate of telepsychiatry consultations for children and youth
- Rate of outpatient visits related to mental health and addiction for children and youth
- Rate at which children and youth were treated for alcohol and drug problems
- Rate at which children and youth were admitted for treatment of eating disorders
- Number of funded applications for out-of-country treatment of eating disorders for children and youth
- Median length of stay for psychiatric hospitalizations of children and youth

Physicians' full-time equivalent allocation to mental health care for children and youth

Rationale

This indicator provides a more complete understanding of the existing capacity of Ontario physicians to provide mental health services. Although not directly addressed in Ontario's Comprehensive Mental Health and Addictions Strategy, physician supply is important for the identification and treatment of children and youth with mental health problems.

Results

The physician's full-time equivalent (FTE) from 2009/10 to 2011/12 was annualized and adjusted for migration. For migration adjustment, physician FTEs were allocated to the region where a physician's patients lived rather than where the physician's practice was located. Psychiatrists were found to provide the majority of mental health care for children and youth, with a high proportion coming from the Toronto Central and Champlain LHINs. In contrast, physician FTEs allocated to both general and mental health care were lowest in the North East and North West LHINs.

Interpretation

Mental health comprises a small proportion of FTE activities for family physicians and paediatricians. Although there are far fewer psychiatrists than family physicians and paediatricians, they deliver the majority of mental health-related care.

EXHIBIT 3.7.1 Annualized migration-adjusted physicians' full-time-equivalent allocation per 10,000 population aged 0 to 24 years, by Local Health Integration Network and physician specialty, in Ontario, 2009/10 to 2011/12

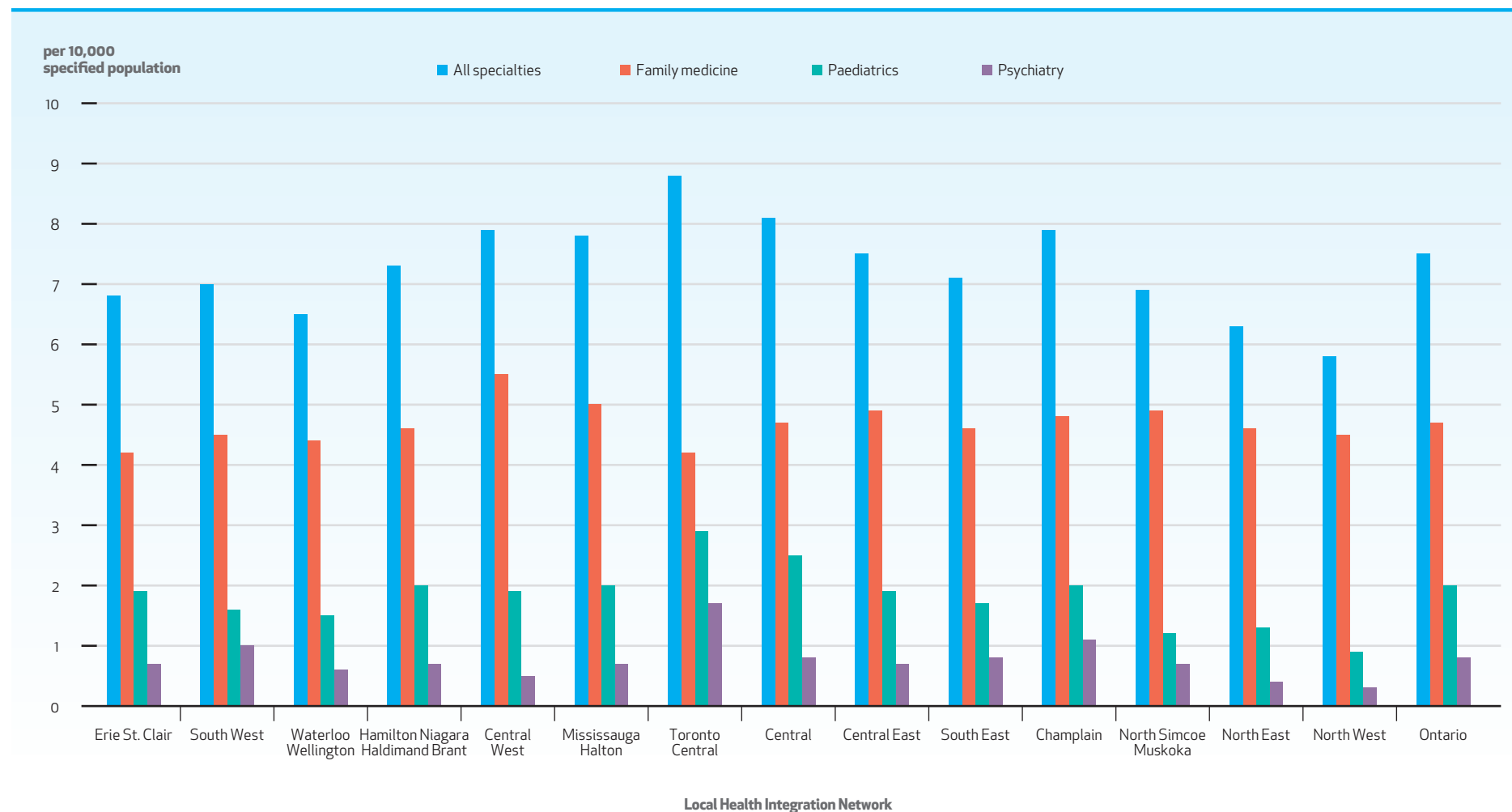
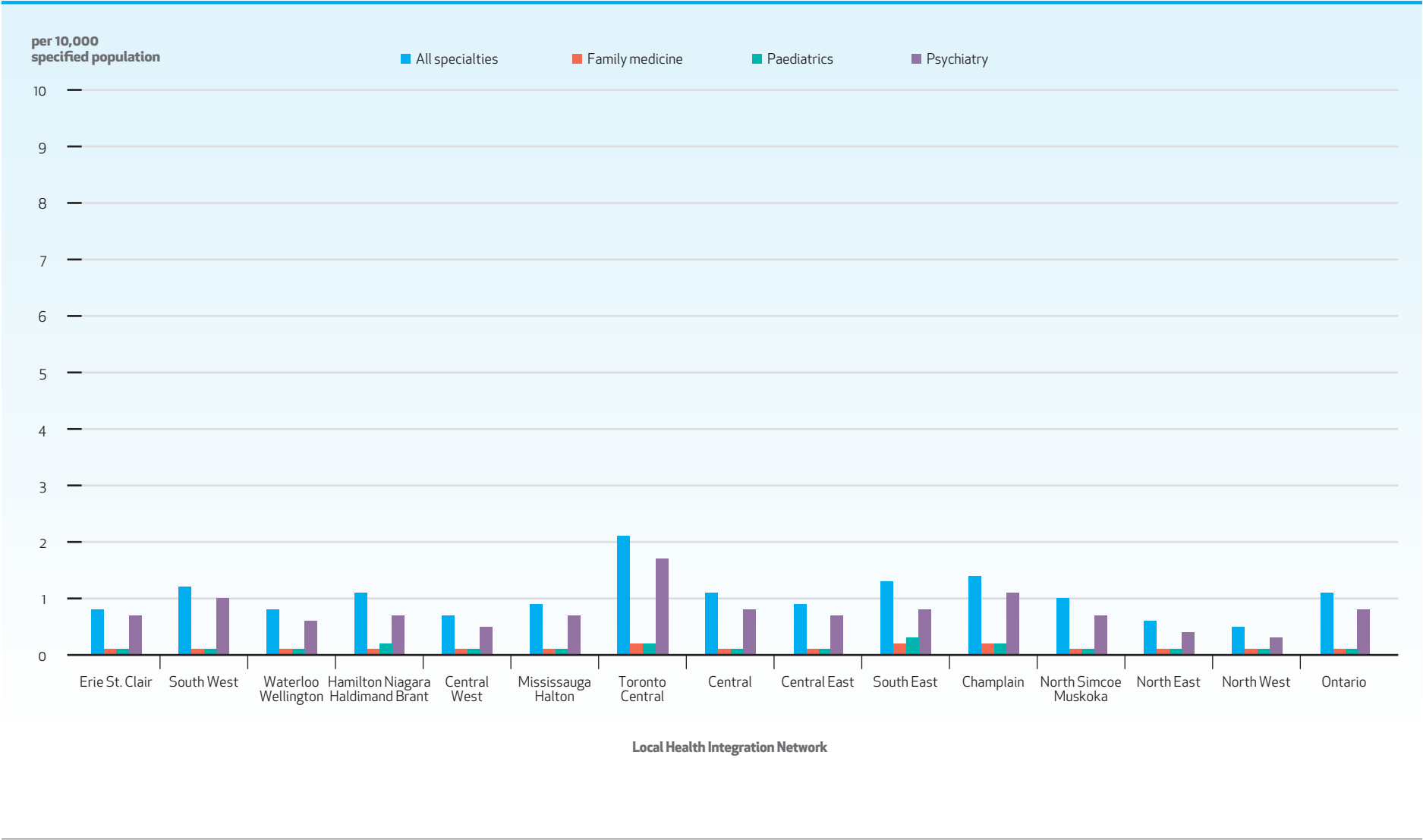


EXHIBIT 3.7.2 Annualized migration-adjusted physicians’ full-time-equivalent allocation to mental health and addictions care per 10,000 population aged 0 to 24, by Local Health Integration Network and physician specialty, in Ontario, 2009/10 to 2011/12



Rate at which children and youth were seen by a psychiatrist

Rationale

Many mental health disorders have an initial onset during adolescence and are a common cause of youth hospitalizations. However, little is known about the rate at which children and youth are seen by psychiatrists in Ontario.

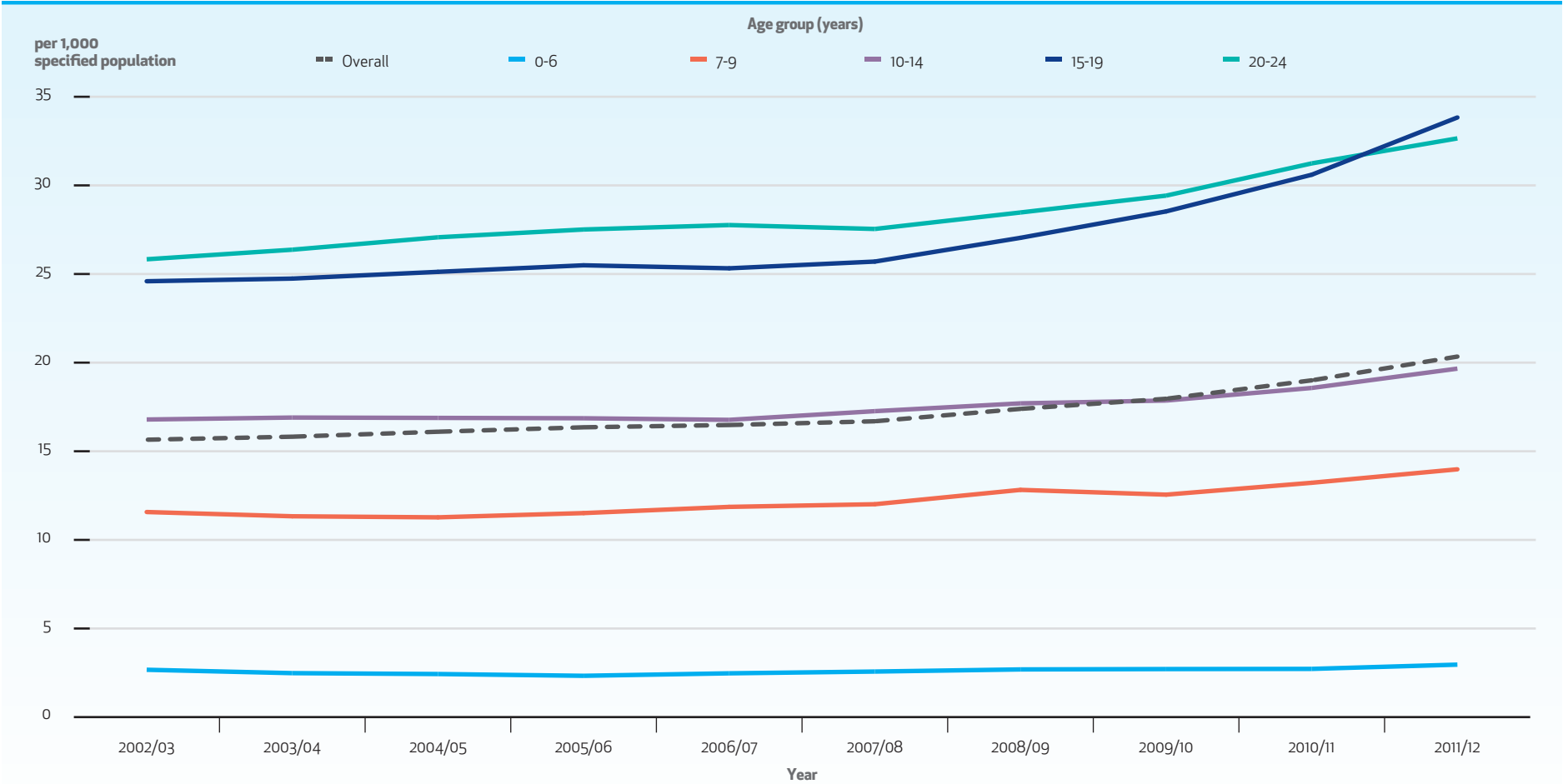
Results

A gradual increase was seen over 10 years in the rate at which children and youth were seen by a psychiatrist (rates were standardized by age and sex). The rate at which males saw a psychiatrist was higher than that of females. The highest rates were found among youth aged 15 to 24 years. Rates for immigrant children and youth were slightly higher than for non-immigrants. Both the lowest- and highest-income neighbourhoods showed elevated rates. Among LHINs, a significantly higher rate of children and youth saw a psychiatrist in the Toronto Central LHIN, and the rate was lowest in the North West LHIN.

Interpretation

The number of children and youth seen by psychiatrists increased over time, which could reflect greater capacity, greater demand or both. Similar to what was seen with the rate of outpatient visits, more children and youth residing in wealthier neighbourhoods and in LHINs with large urban centres had psychiatrist visits, suggesting that factors other than need are influencing access to specialist care.

EXHIBIT 3.8.1 Standardized rate at which children and youth were seen by a psychiatrist per 1,000 population aged 0 to 24 years, by age group and year, in Ontario, 2002/03 to 2011/12



Note: Overall rates were standardized by age and sex and age group rates were standardized by sex, both to the 2002 Ontario population.

EXHIBIT 3.8.2 Rate at which children and youth were seen by a psychiatrist per 1,000 population aged 0 to 24 years, by age group, in Ontario, three-year average for 2009/10 to 2011/12

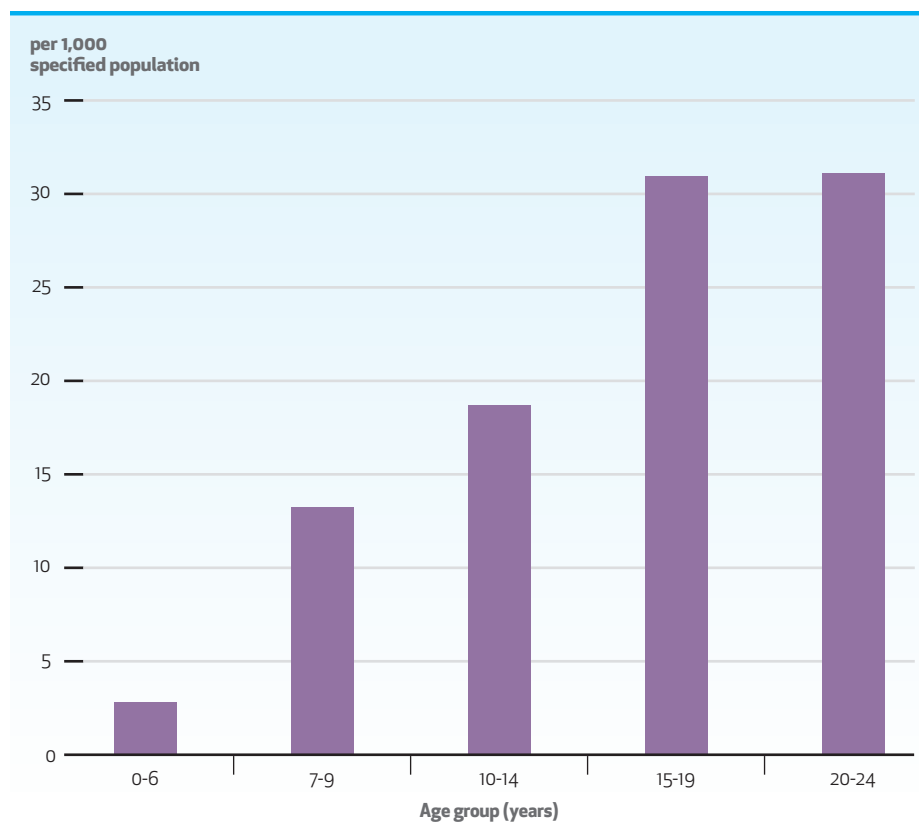


EXHIBIT 3.8.3 Rate at which children and youth were seen by a psychiatrist per 1,000 population aged 0 to 24 years, by sex, in Ontario, three-year average for 2009/10 to 2011/12

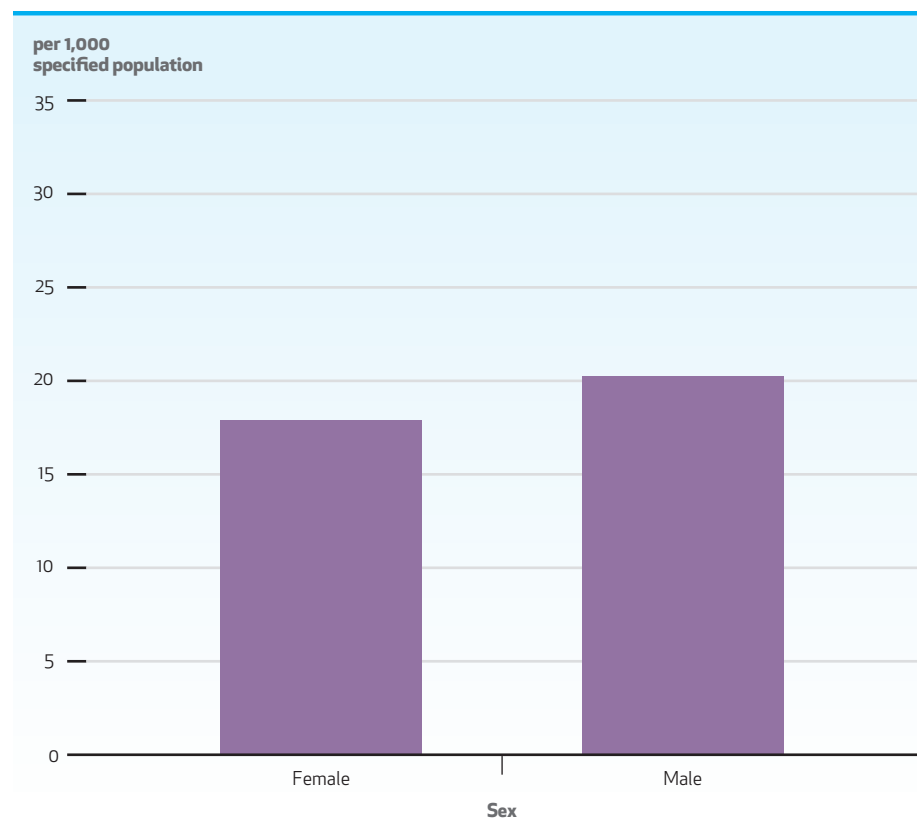


EXHIBIT 3.8.4 Rate at which children and youth were seen by a psychiatrist per 1,000 population aged 0 to 24 years, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

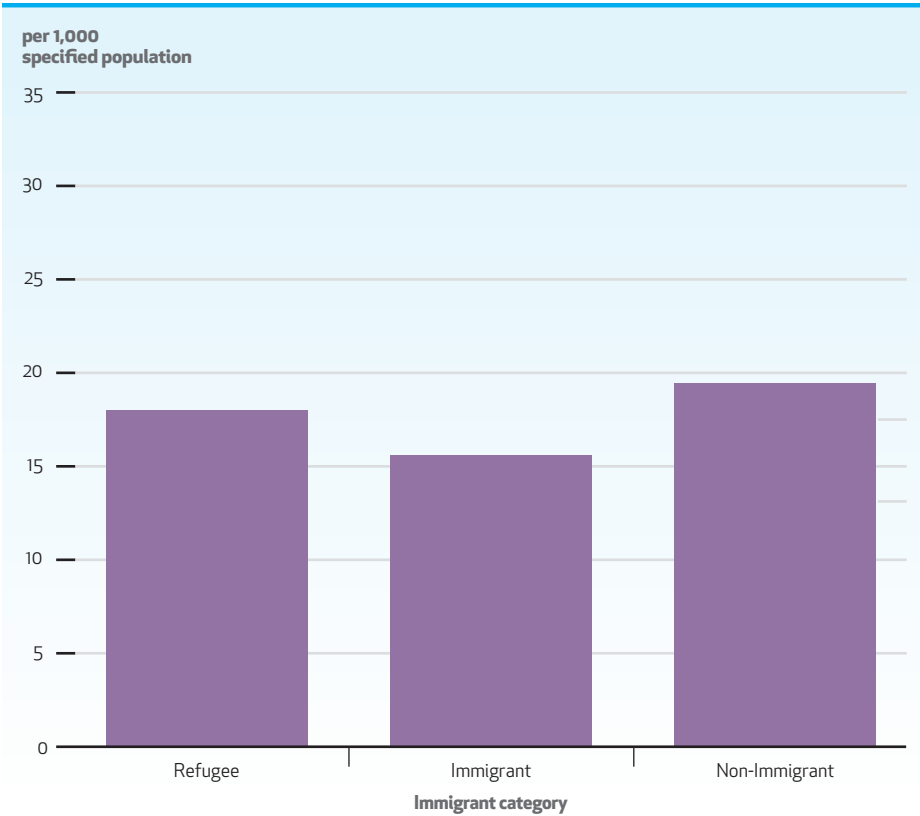


EXHIBIT 3.8.5 Rate at which children and youth were seen by a psychiatrist per 1,000 population aged 0 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

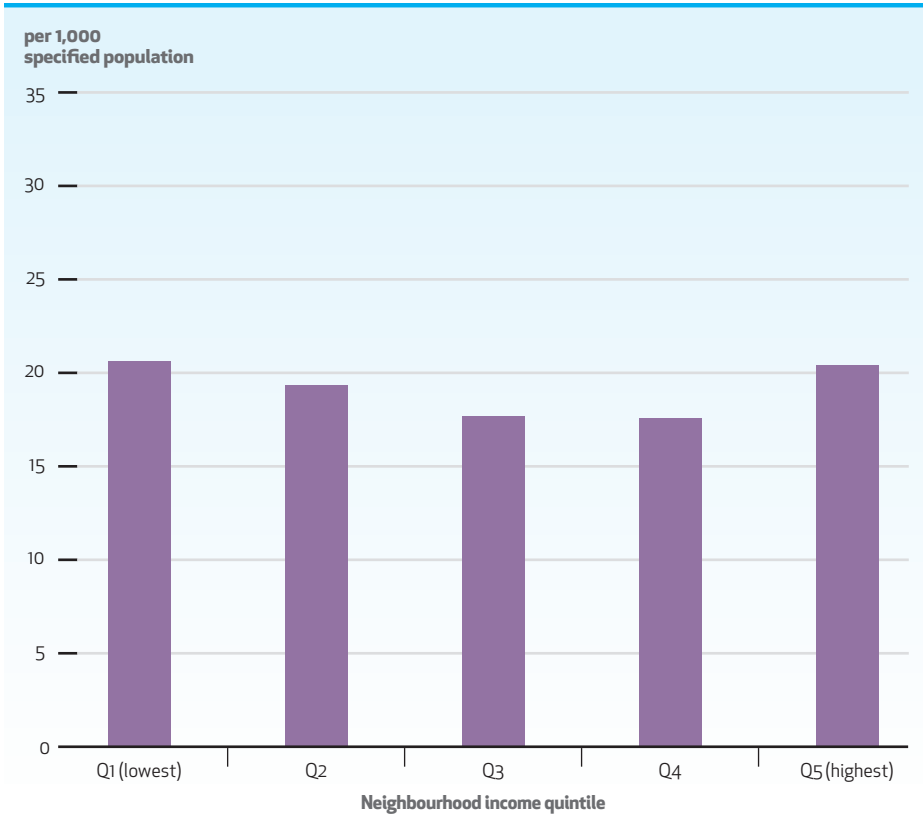
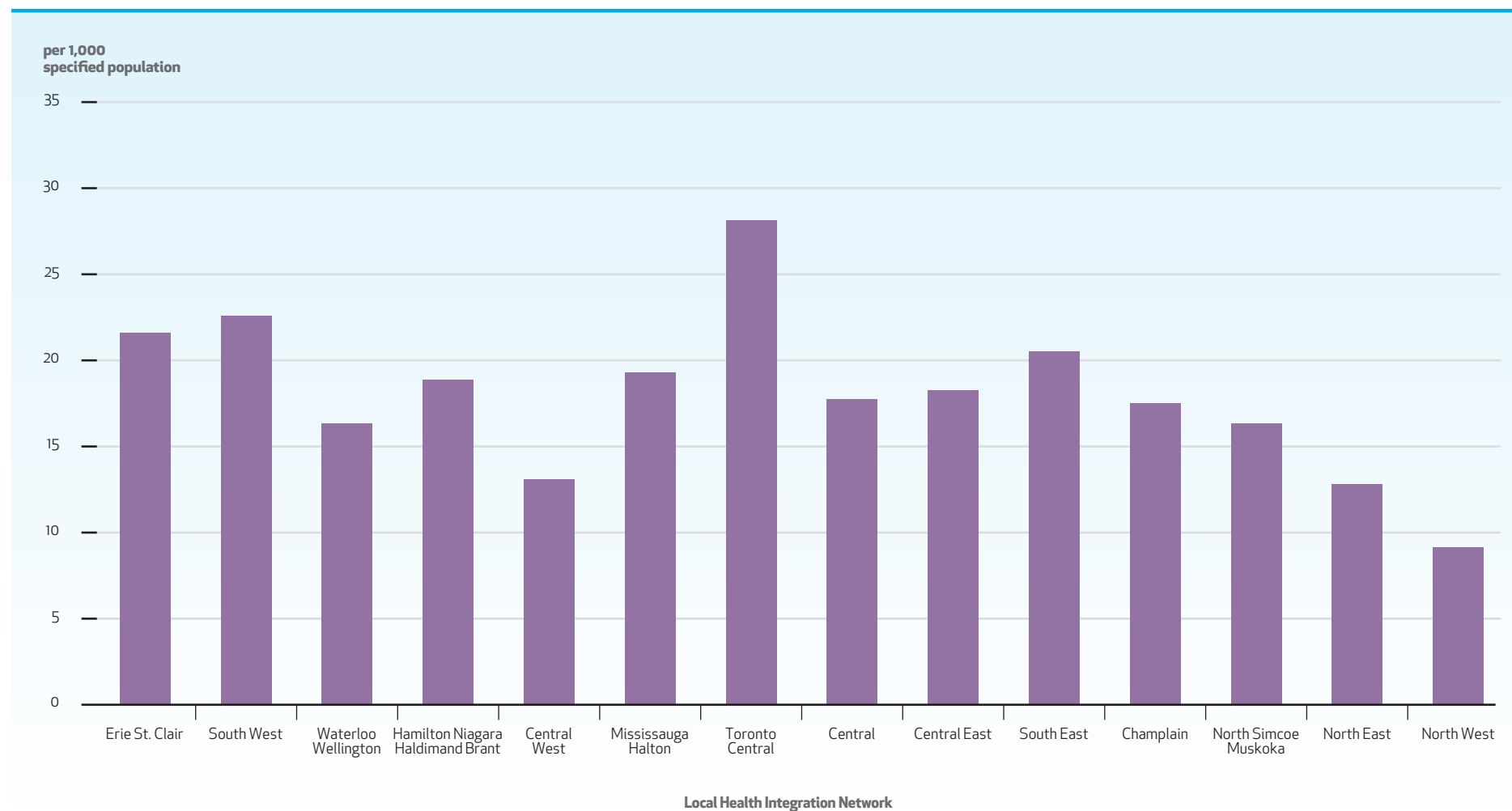


EXHIBIT 3.8.6 Standardized rate at which children and youth were seen by a psychiatrist per 1,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of telepsychiatry consultations for children and youth

Rationale

Telepsychiatry has become an integral part of mental health care service delivery for rural and remote populations and can be an effective way to improve access to mental health care services in regions with few or no psychiatrists. Unrestricted access to telepsychiatry consultations for rural and remote populations is an explicit initiative of the strategy.

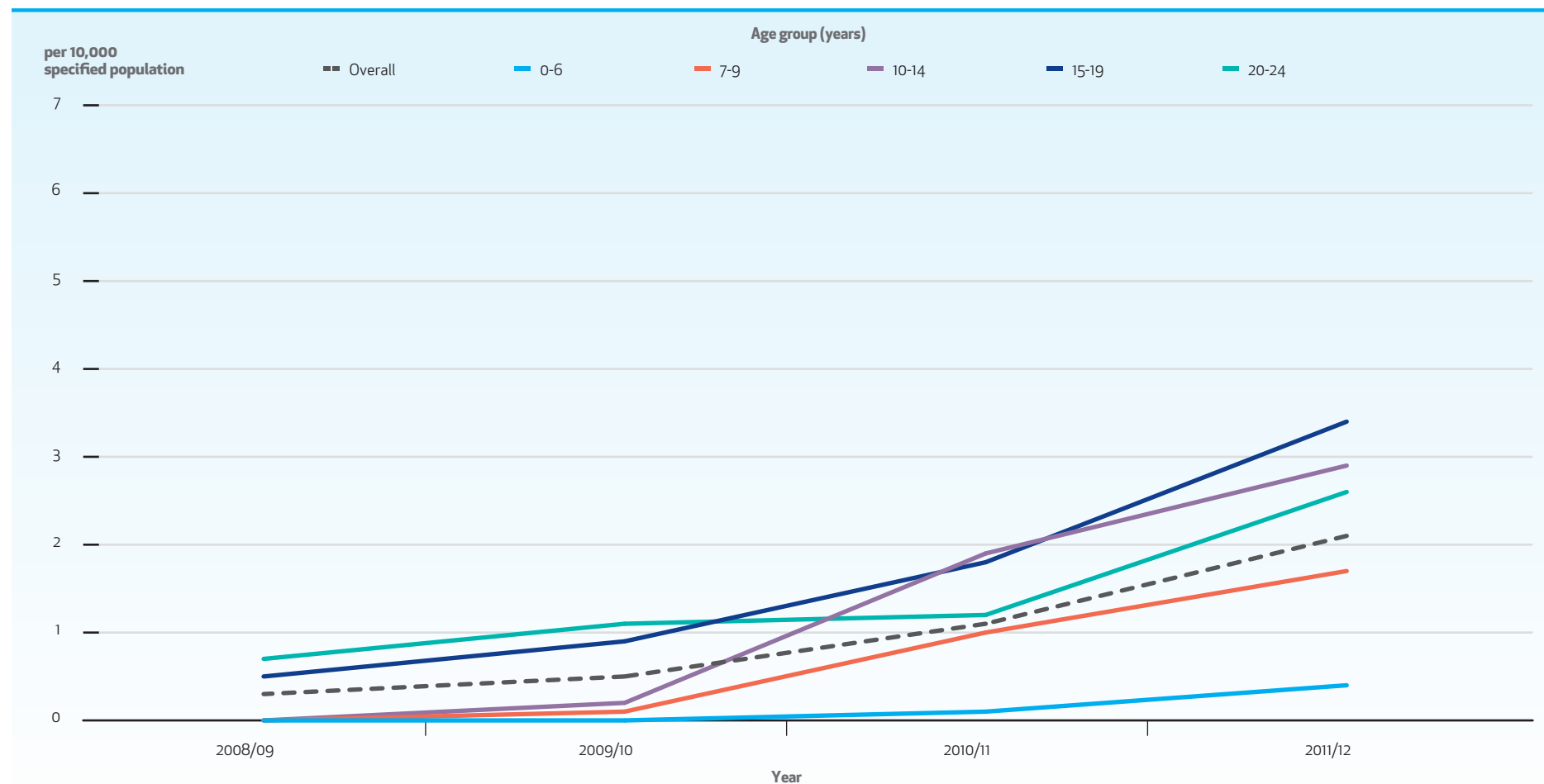
Results

Over a four-year period, telepsychiatry use increased for all age groups, but especially for youth aged 15 to 19 years. Non-immigrants and individuals living in lower-income neighbourhoods were more likely to receive mental health care by telepsychiatry. Children and youth residing in the northern LHINs were two to three times more likely to receive services by telepsychiatry.

Interpretation

As expected, telepsychiatry use was higher in rural and remote areas. The increasing rates of telepsychiatry use were likely having an impact on access to specialist services in rural and remote areas.

EXHIBIT 3.9.1 Standardized rate of telepsychiatry consultations per 10,000 population aged 0 to 24 years, by age group, in Ontario, 2008/09 to 2011/12



Note: Overall rates were standardized by age and sex, and age group rates were standardized by sex, both to the 2002 Ontario population.

EXHIBIT 3.9.2 Rate of telepsychiatry consultations per 10,000 population aged 0 to 24 years, by age group, in Ontario, three-year average for 2009/10 to 2011/12

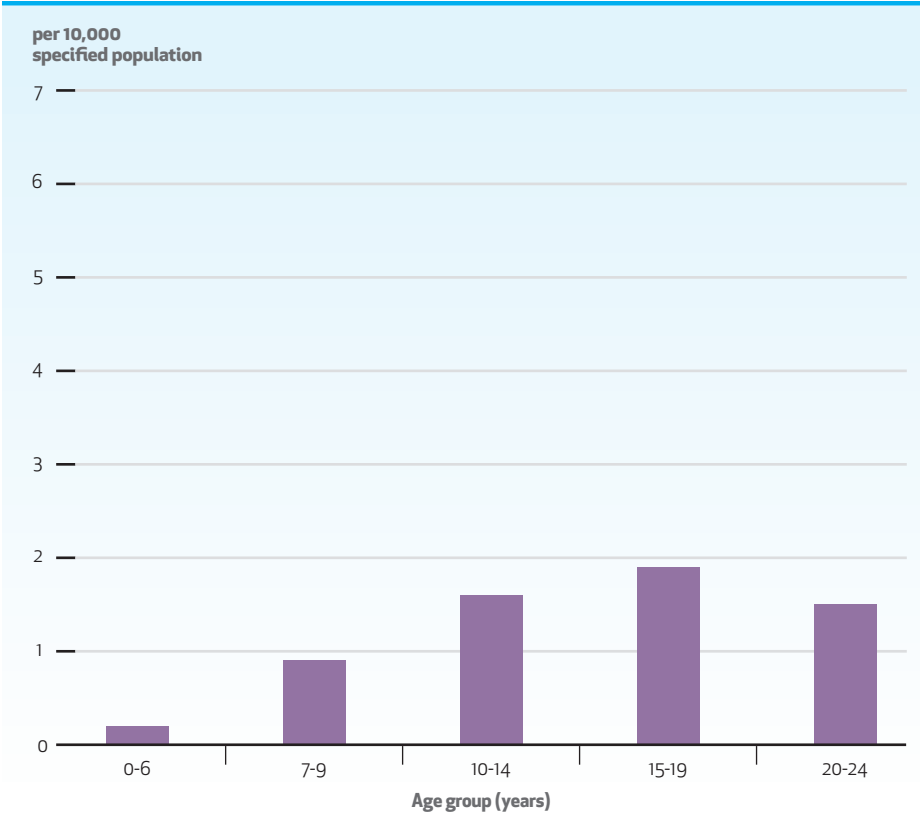


EXHIBIT 3.9.3 Rate of telepsychiatry consultations per 10,000 population aged 0 to 24 years, by sex, in Ontario, three-year average for 2009/10 to 2011/12

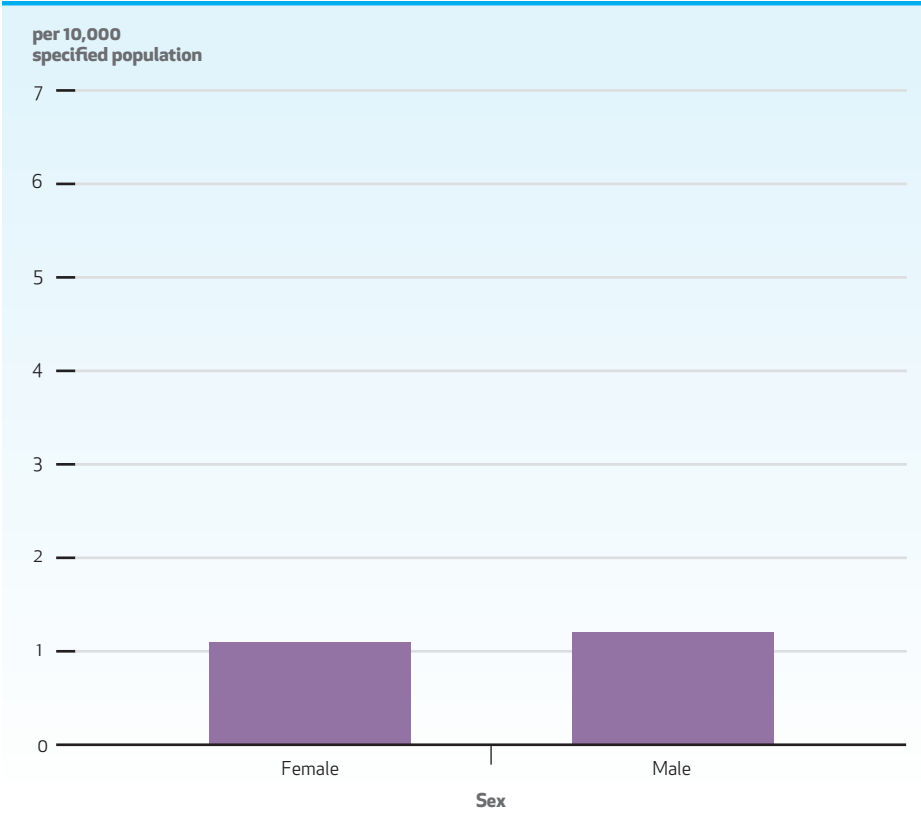


EXHIBIT 3.9.4 Rate of telepsychiatry consultations per 10,000 population aged 0 to 24 years, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

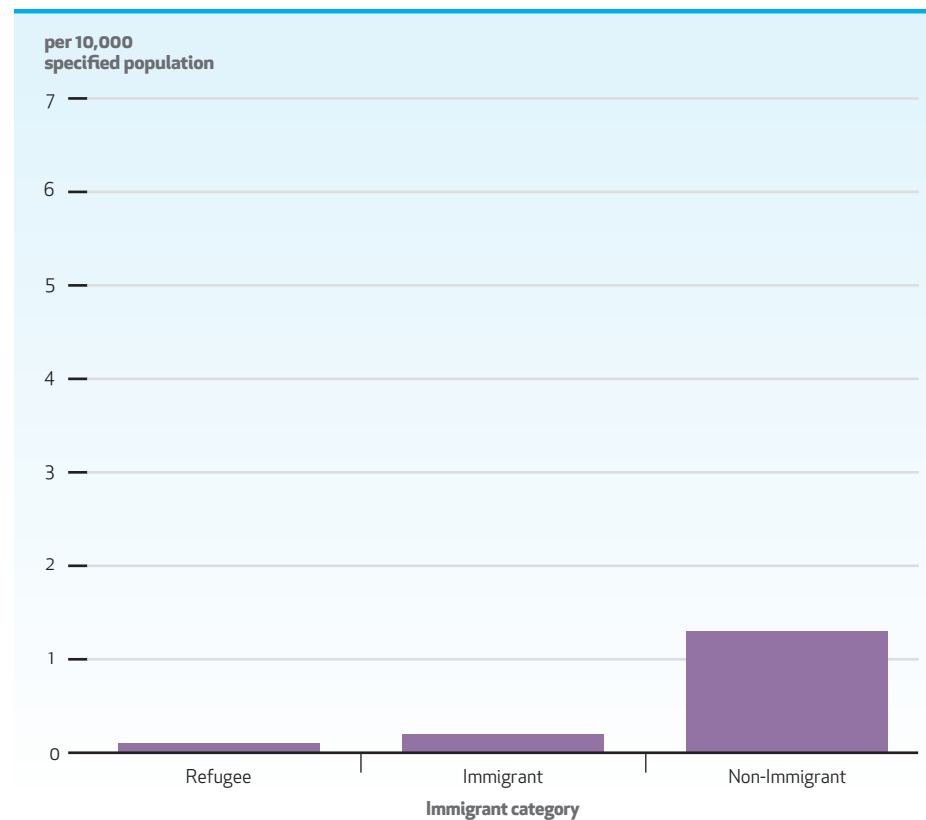


EXHIBIT 3.9.5 Rate of telepsychiatry consultations per 10,000 population aged 0 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

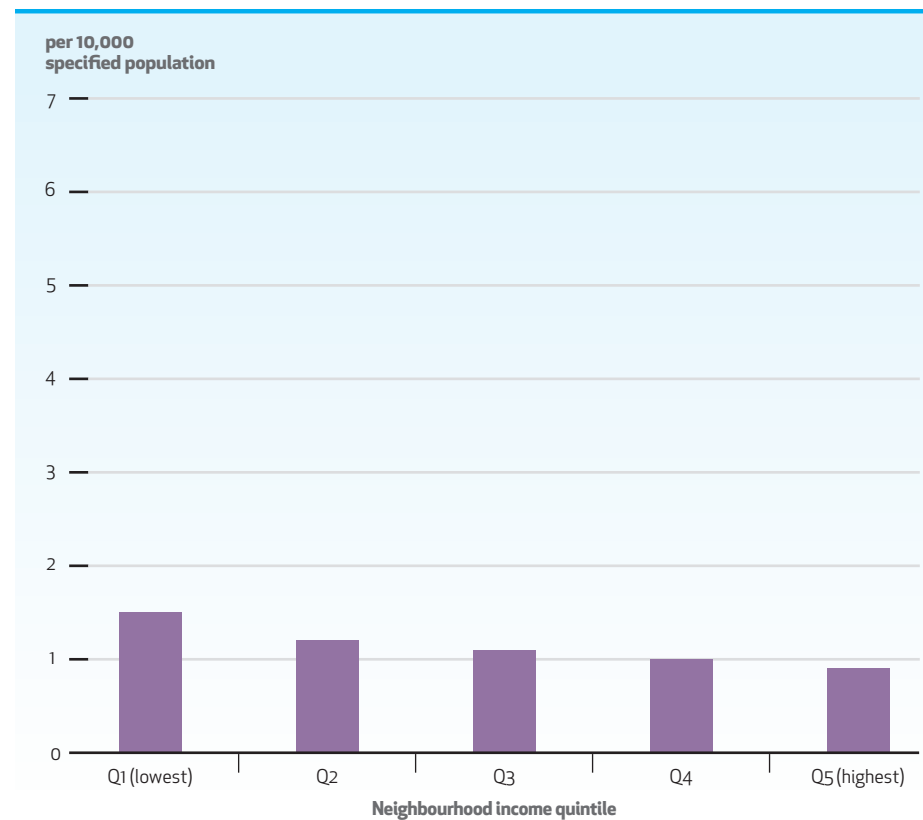
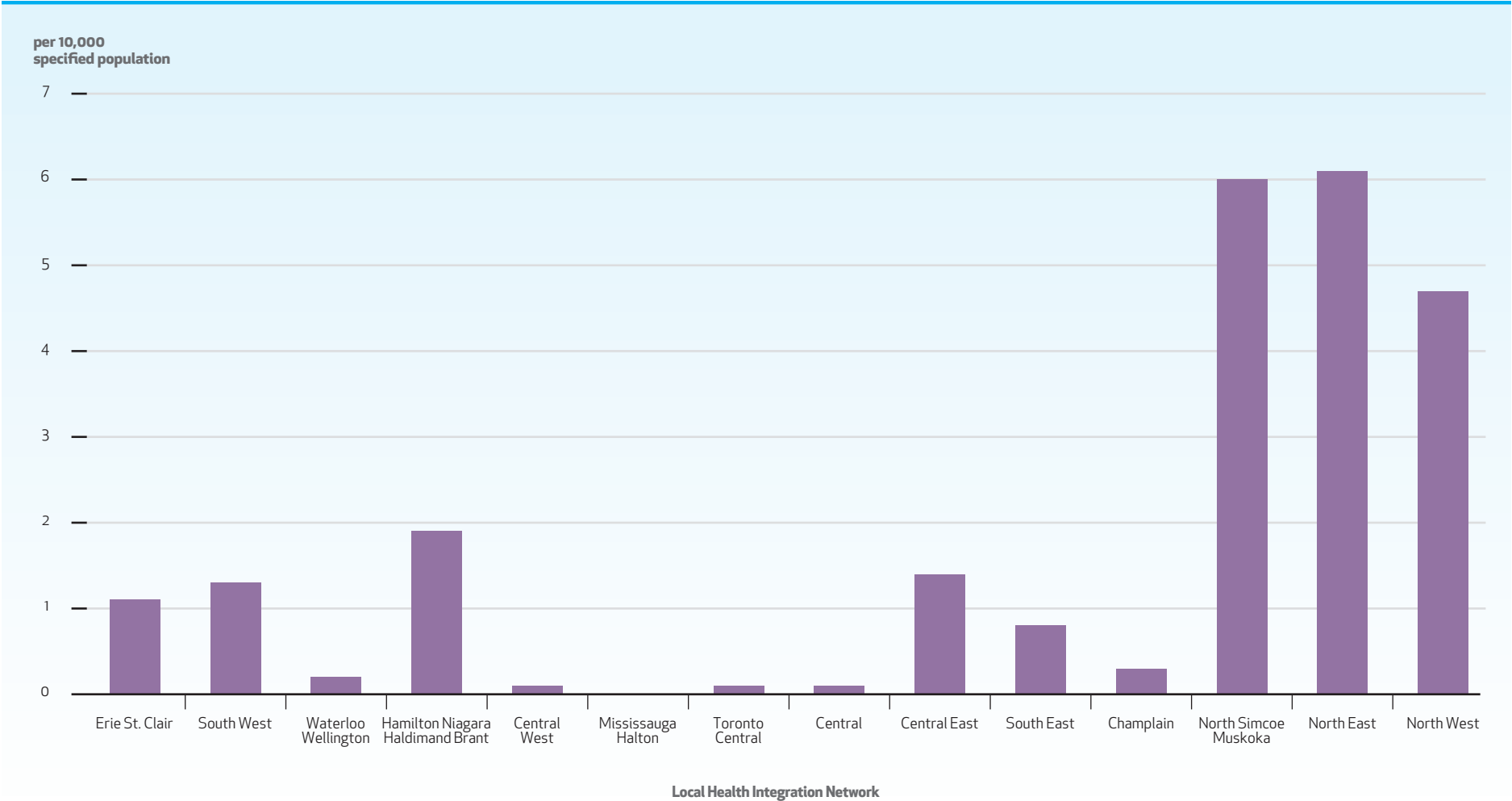
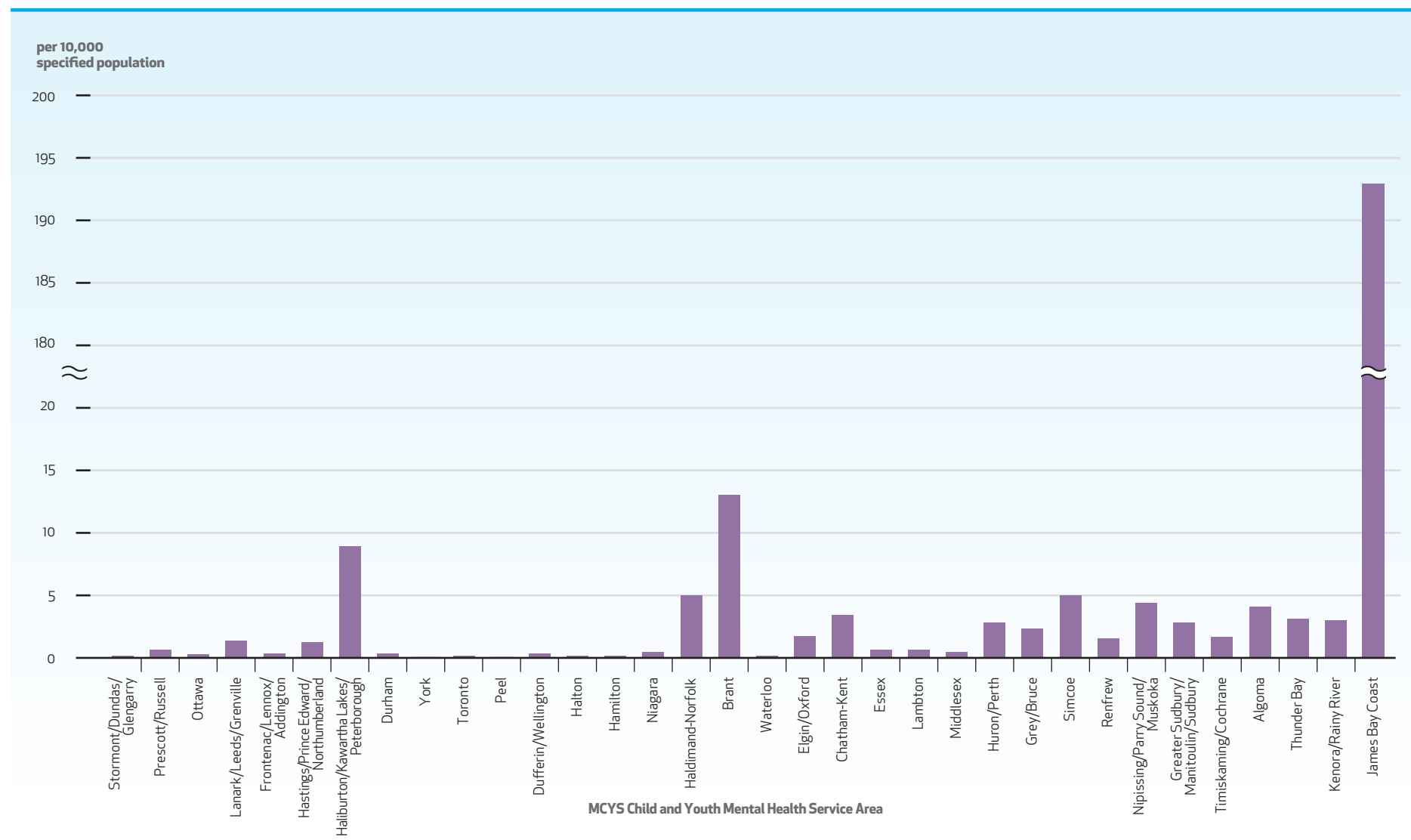


EXHIBIT 3.9.6 Standardized rate of telepsychiatry consultations per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.9.7 Standardized rate of telepsychiatry consultations per 10,000 population aged 0 to 24 years, by MCYS Child and Youth Mental Health Service Area, in Ontario, 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of outpatient visits related to mental health and addictions for children and youth

Rationale

Although there are many providers of mental health services, the use of physician services for mental health and addictions problems (currently the only outpatient service for which data are available) provides a measure of service needs. Knowledge of the rate of and trends for outpatient visits according to the type of physician could help in human resource planning.

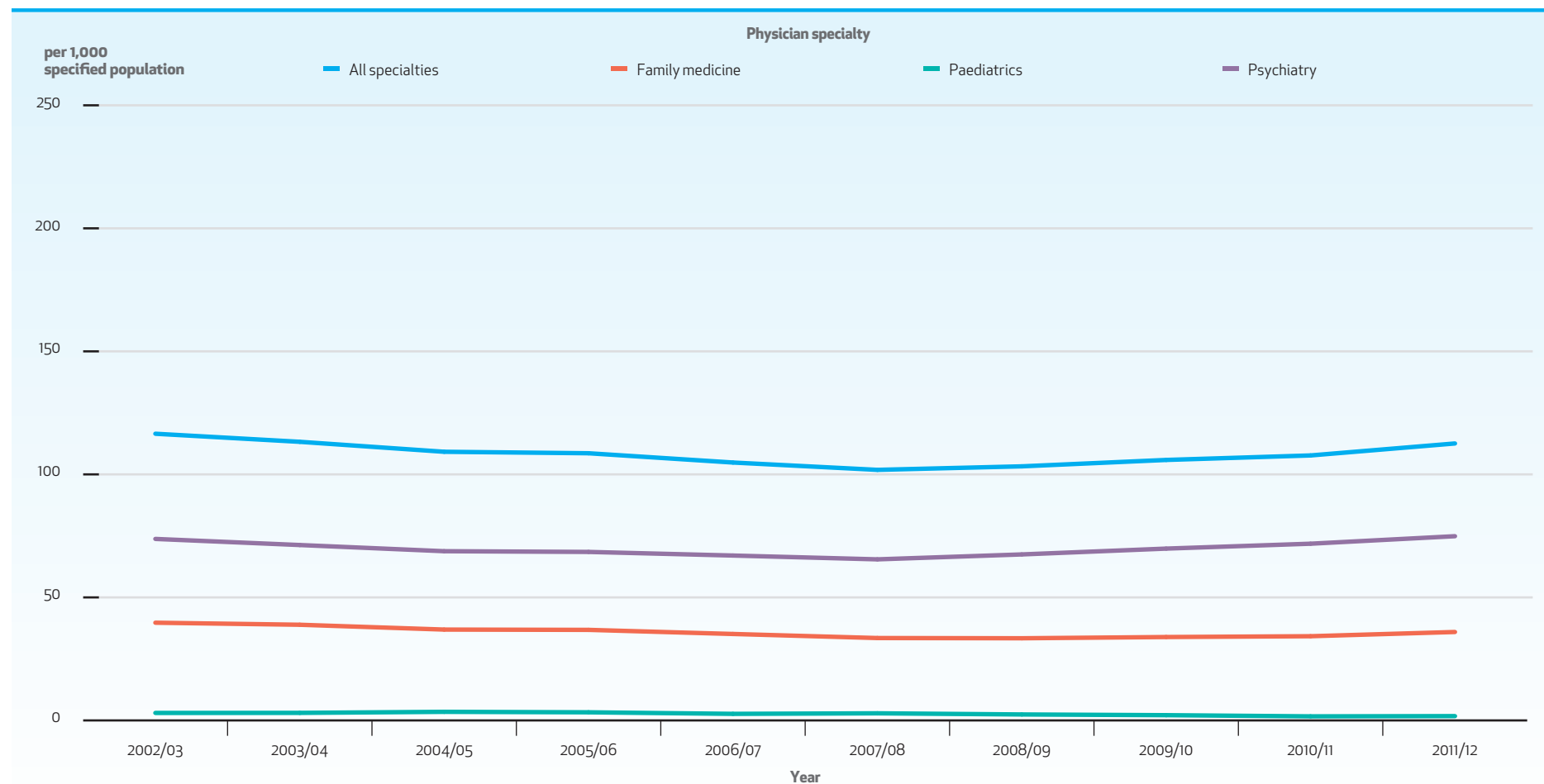
Results

Rates of outpatient visits by patient age group and physician specialty were consistent over time. Psychiatrists provided the most outpatient visits related to mental health and addictions, followed by family physicians and paediatricians. Children and youth from high-income neighbourhoods and from immigrant populations had the highest outpatient visit rates across all physician specialties. A strong geographic difference in outpatient visit rates was found between the Toronto LHIN and the remaining LHINs, especially those in northern Ontario.

Interpretation

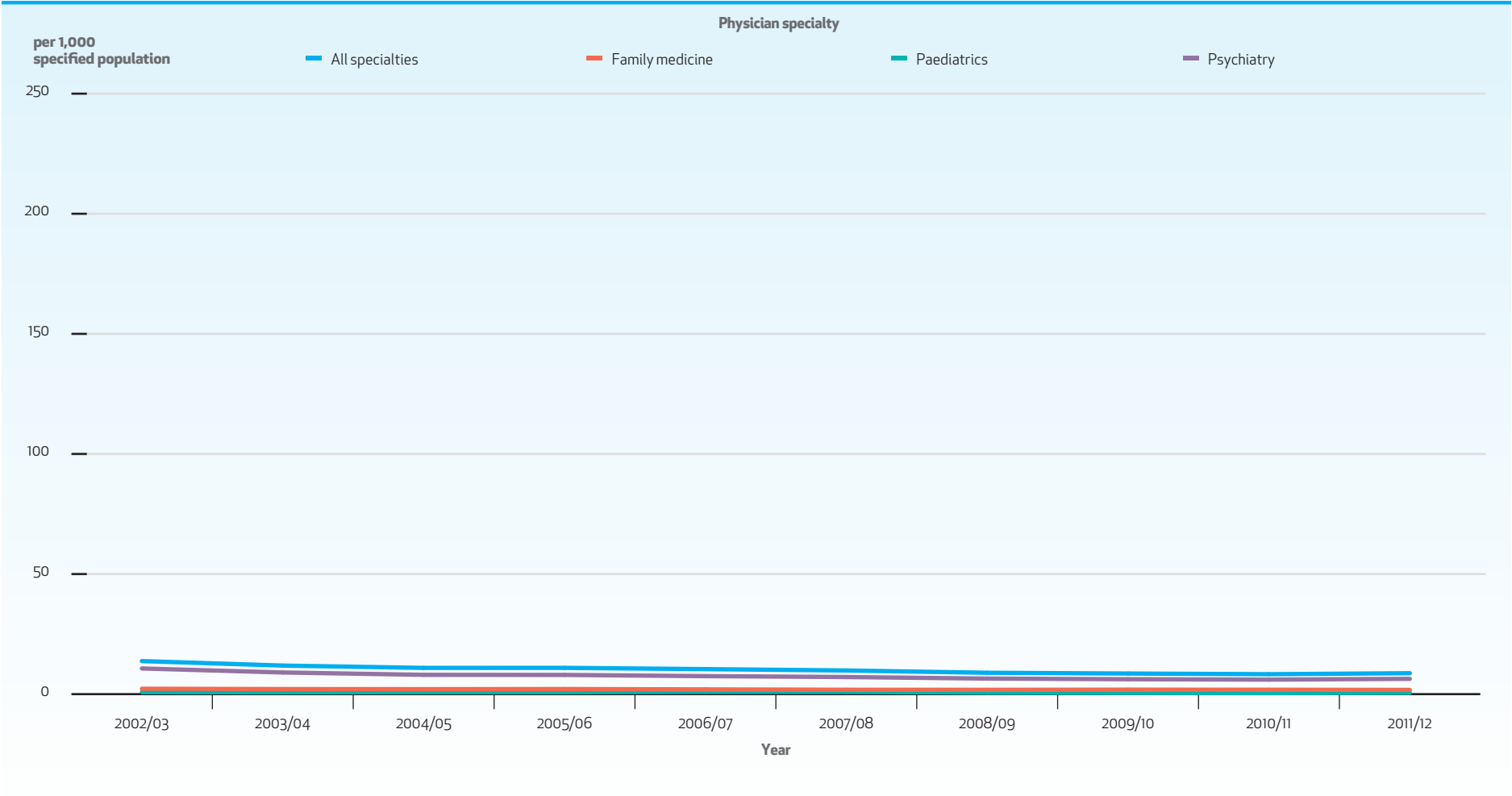
The patterns observed suggest that the number of outpatient visits was more strongly influenced by the number of available physicians than by the degree of need.

EXHIBIT 3.10.1 Standardized rate of outpatient visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by physician specialty, in Ontario, 2002/03 to 2011/12



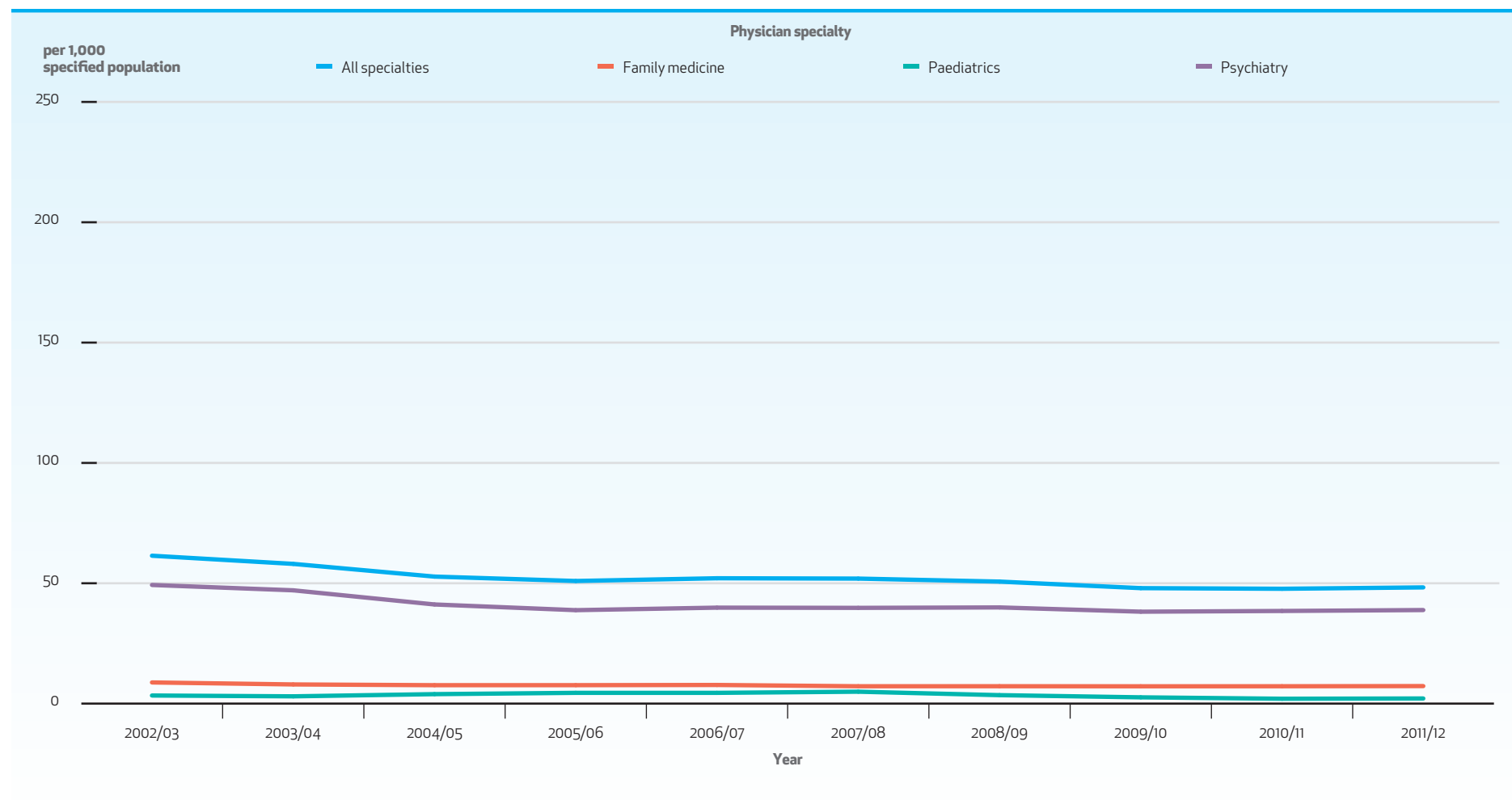
Note: Rates were standardized by age and sex to the 2002 Ontario population

EXHIBIT 3.10.2 Standardized rate of outpatient visits related to mental health and addictions per 1,000 population aged 0 to 6 years, by physician specialty, in Ontario, 2002/03 to 2011/12



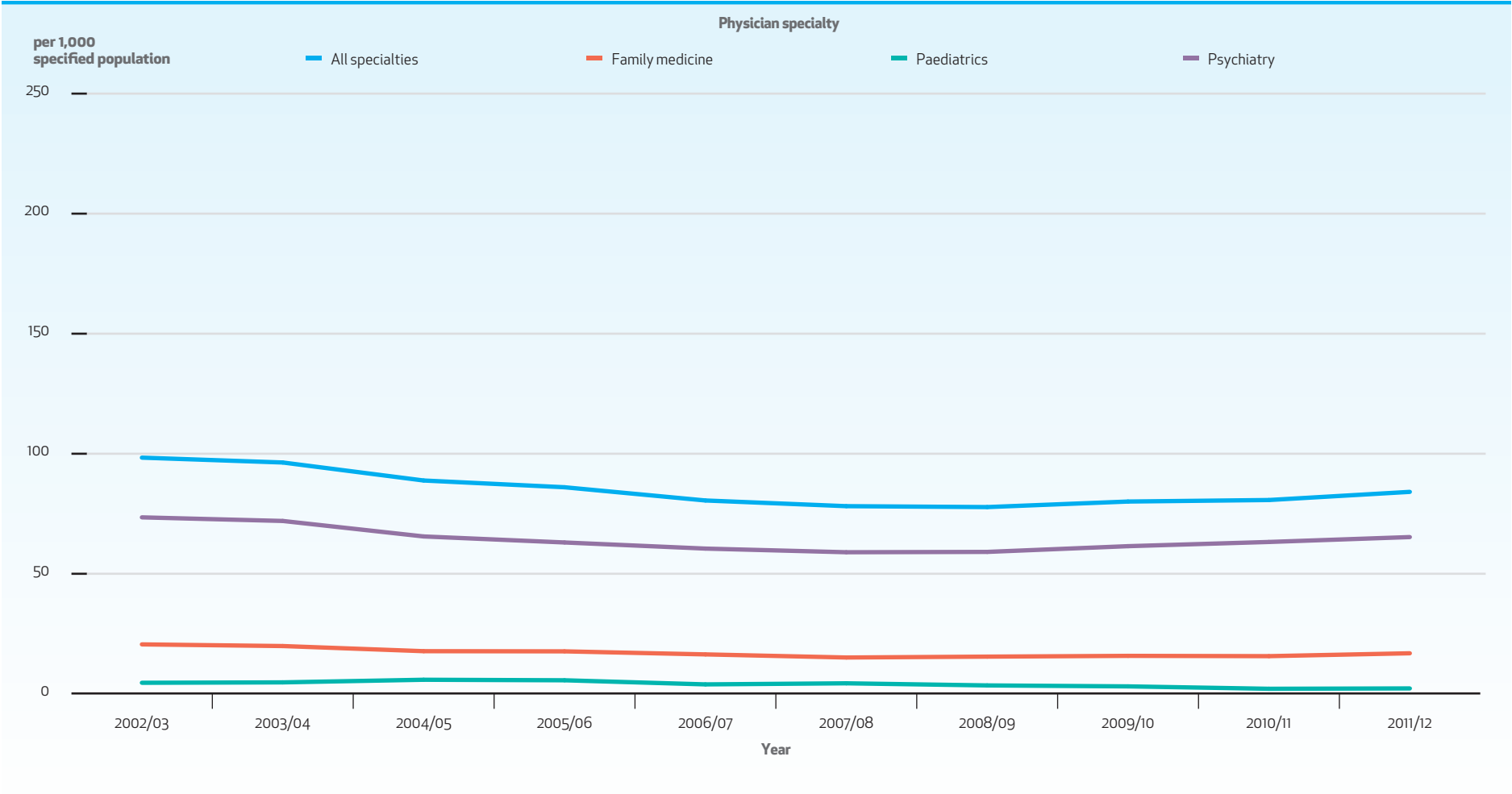
Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.10.3 Standardized rate of outpatient visits related to mental health and addictions per 1,000 population aged 7 to 9 years, by physician specialty, in Ontario, 2002/03 to 2011/12



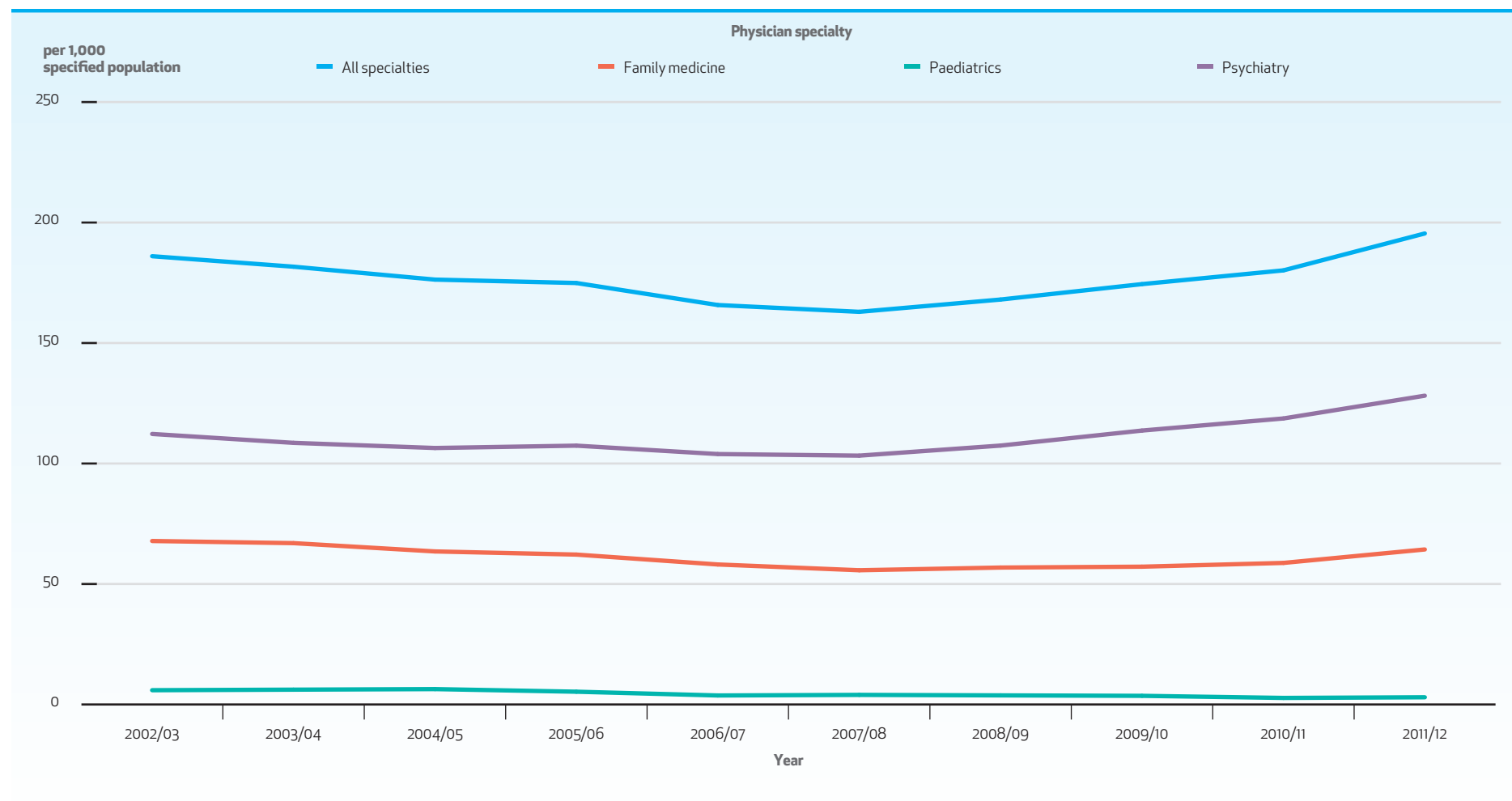
Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.10.4 Standardized rate of outpatient visits related to mental health and addictions per 1,000 population aged 10 to 14 years, by physician specialty, in Ontario, 2002/03 to 2011/12



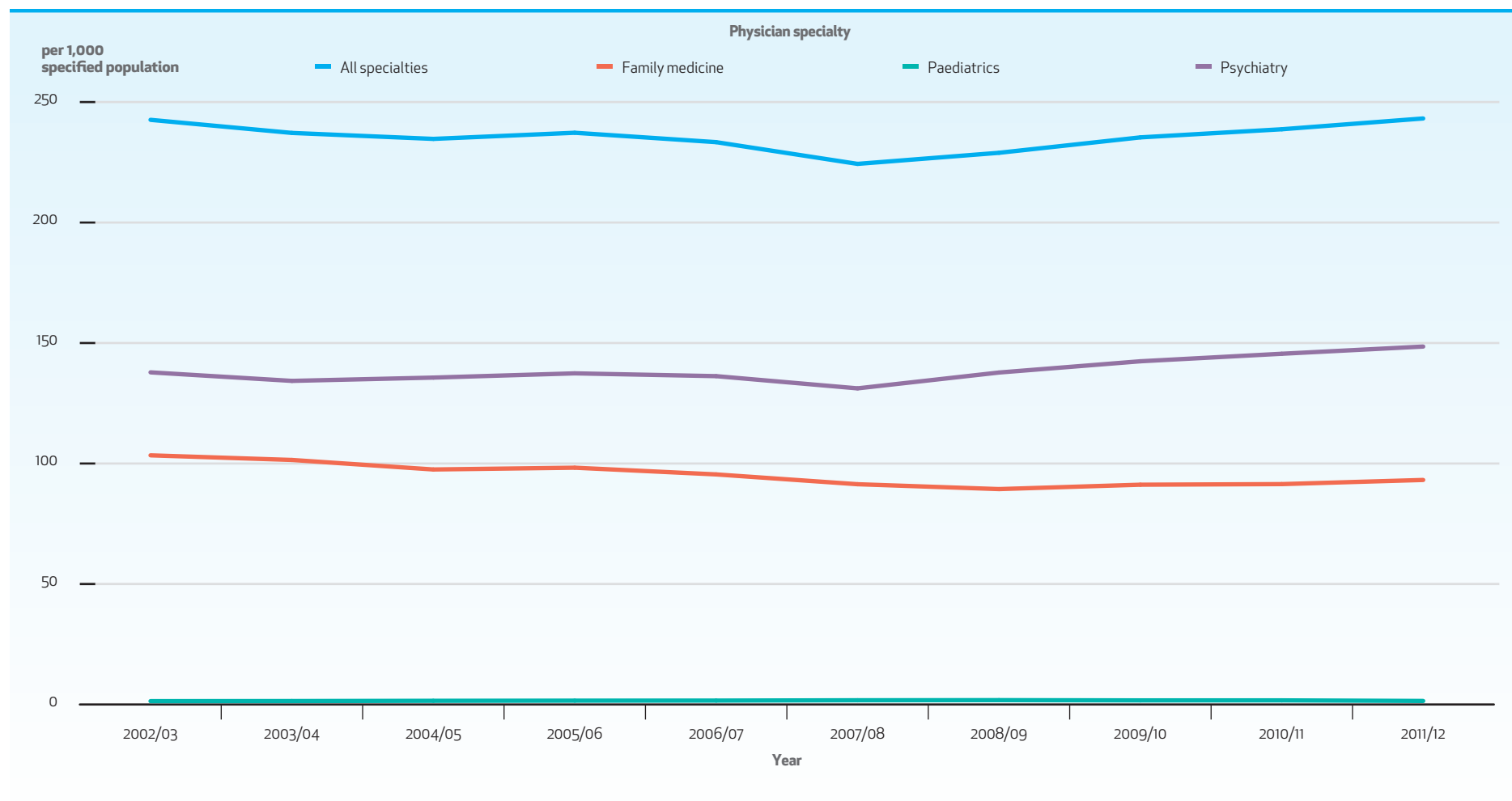
Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.10.5 Standardized rate of outpatient visits related to mental health and addictions per 1,000 population aged 15 to 19 years, by physician specialty, in Ontario, 2002/03 to 2011/12



Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.10.6 Standardized rate of outpatient visits related to mental health and addictions per 1,000 population aged 20 to 24 years, by physician specialty, in Ontario, 2002/03 to 2011/12



Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.10.7 Rate of outpatient visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by age group and physician specialty, in Ontario, three-year average for 2009/10 to 2011/12

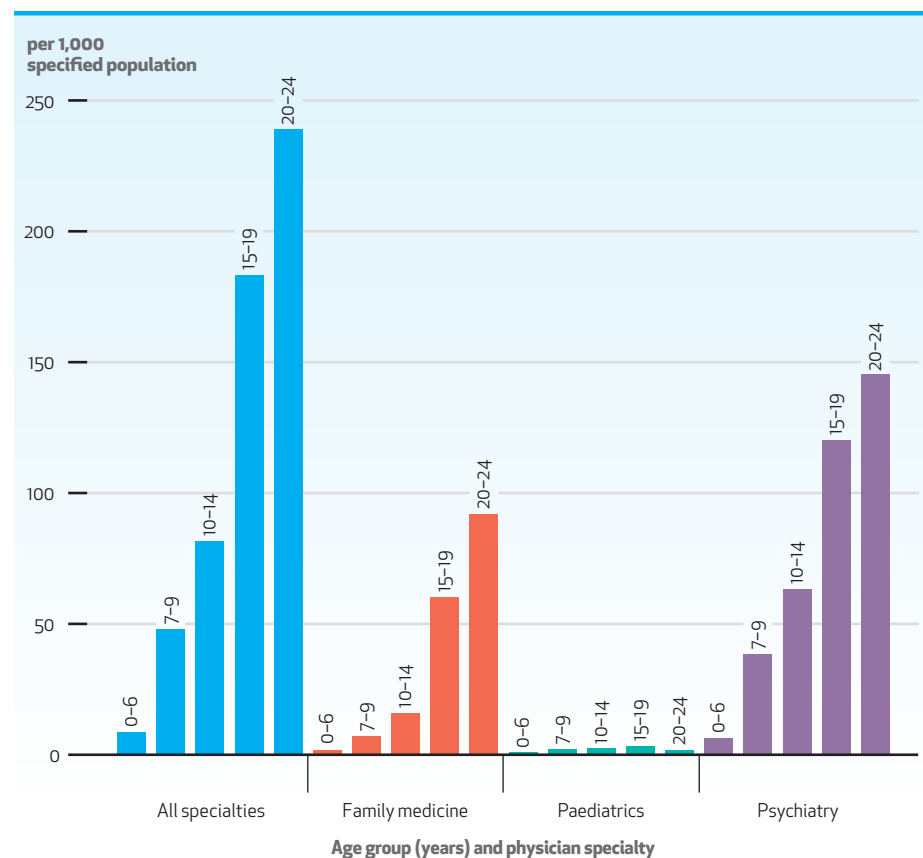


EXHIBIT 3.10.8 Rate of outpatient visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by sex and physician specialty, in Ontario, three-year average for 2009/10 to 2011/12

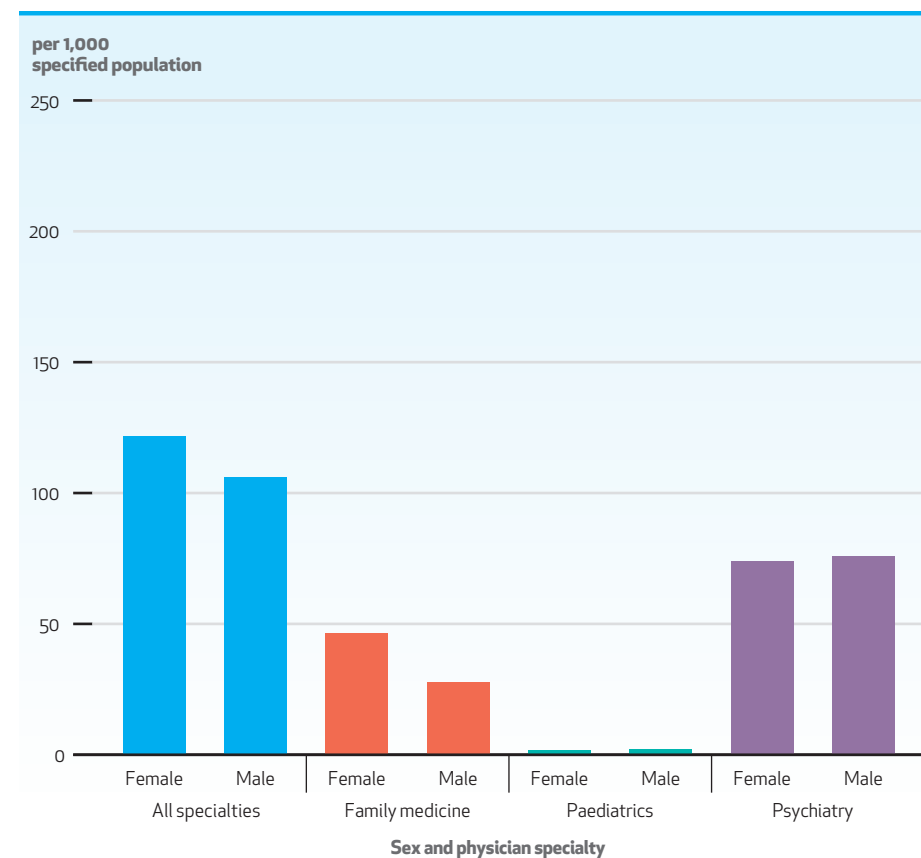


EXHIBIT 3.10.9 Rate of outpatient visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by immigrant category and physician specialty, in Ontario, three-year average for 2009/10 to 2011/12

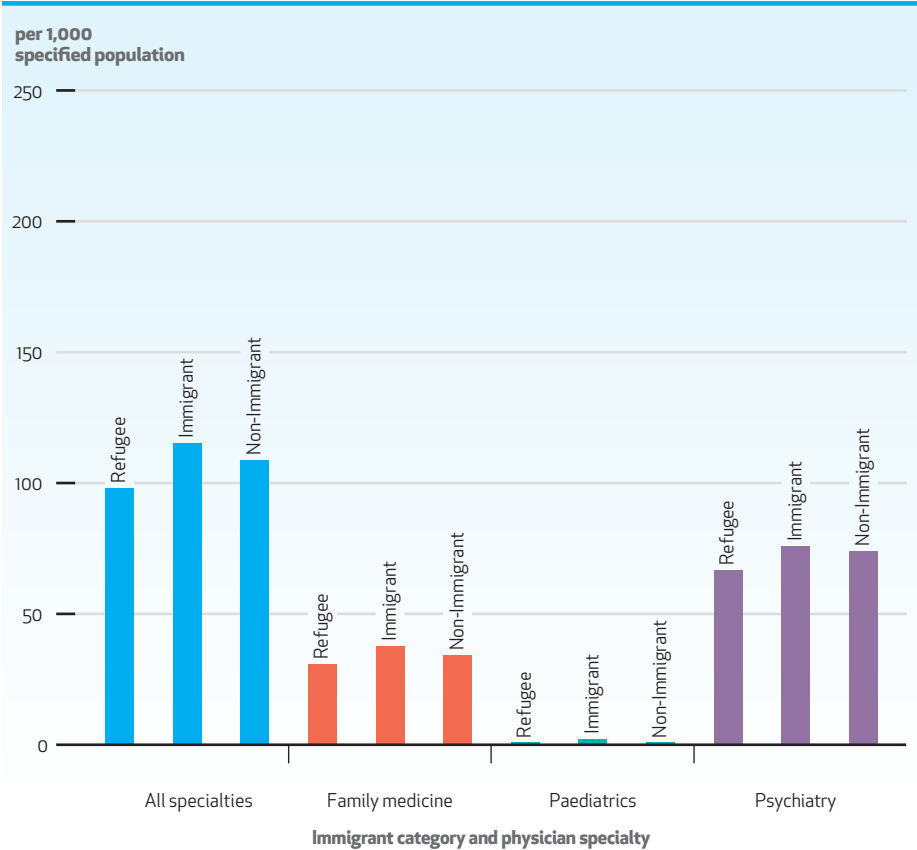
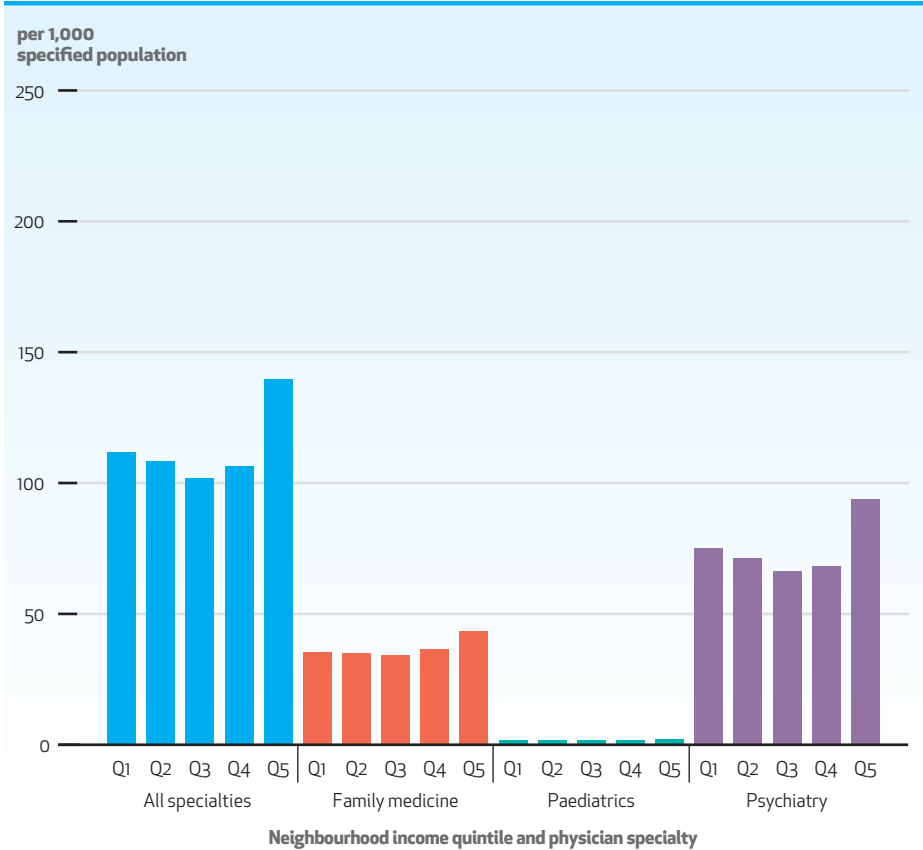
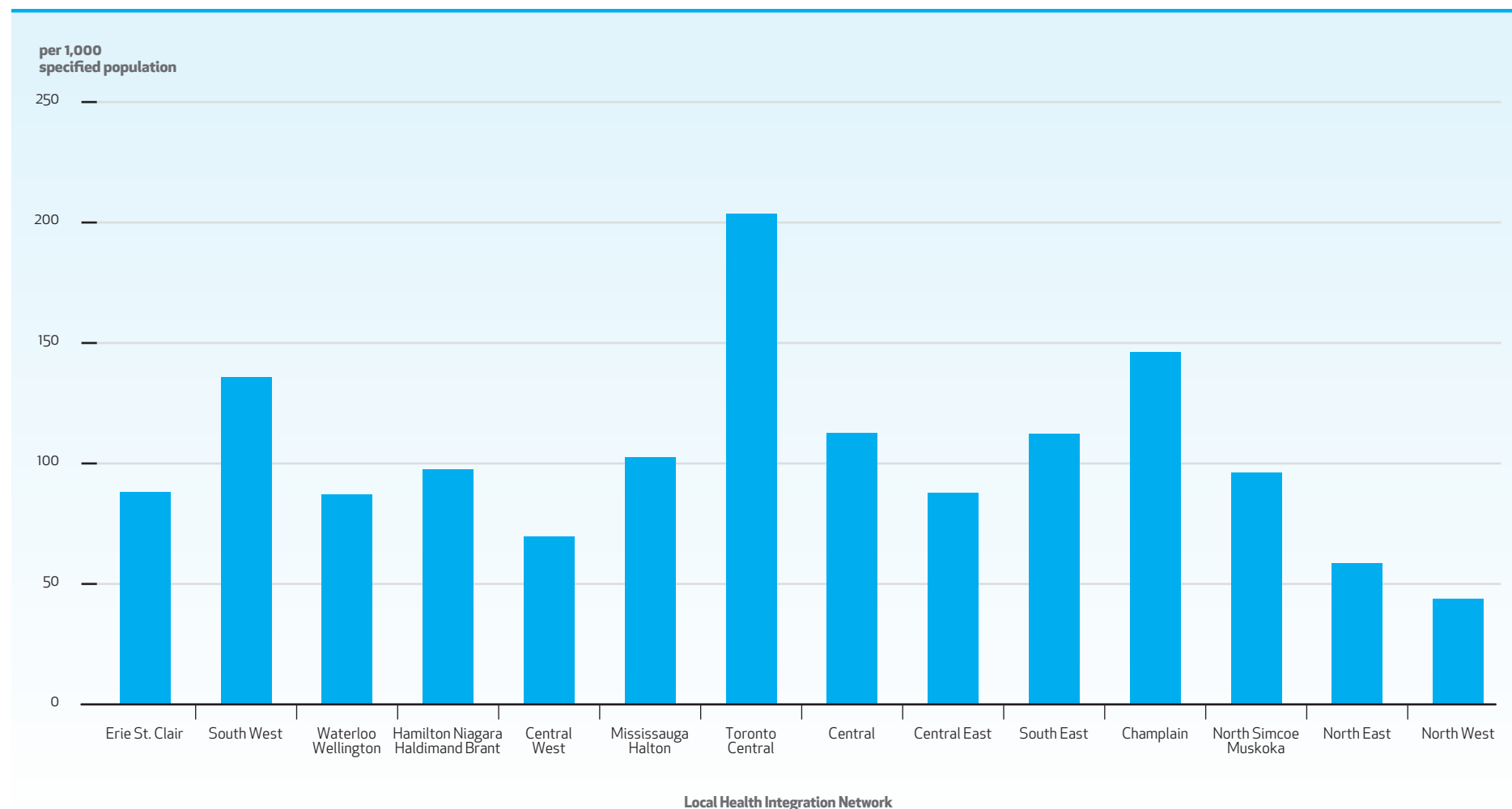


EXHIBIT 3.10.10 Rate of outpatient visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by sex and physician specialty, in Ontario, three-year average for 2009/10 to 2011/12



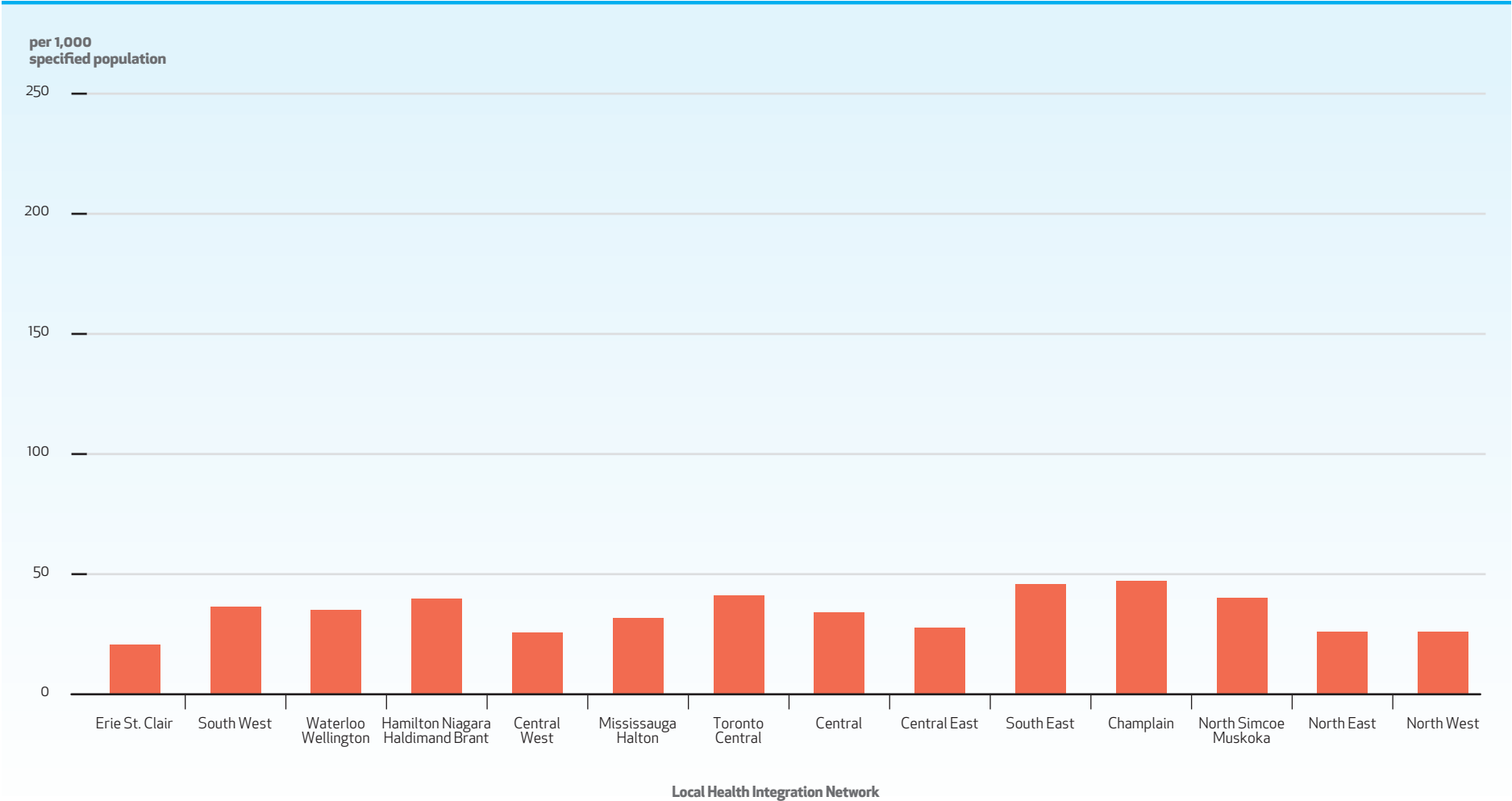
Q1 = lowest income quintile

EXHIBIT 3.10.11 Standardized rate of outpatient visits to all physicians related to mental health and addictions per 1,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



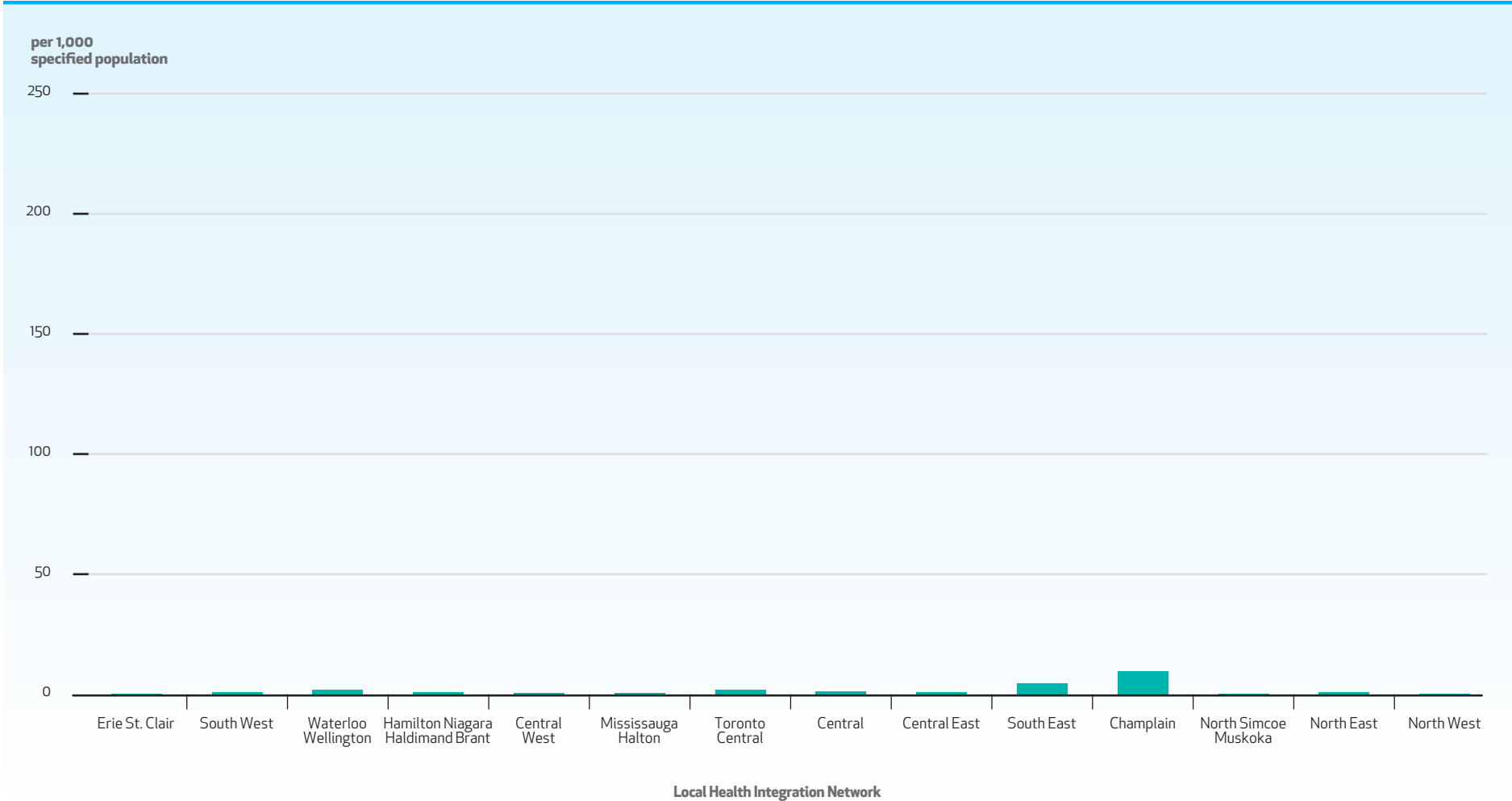
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.10.12 Standardized rate of outpatient visits to family physicians related to mental health and addictions per 1,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



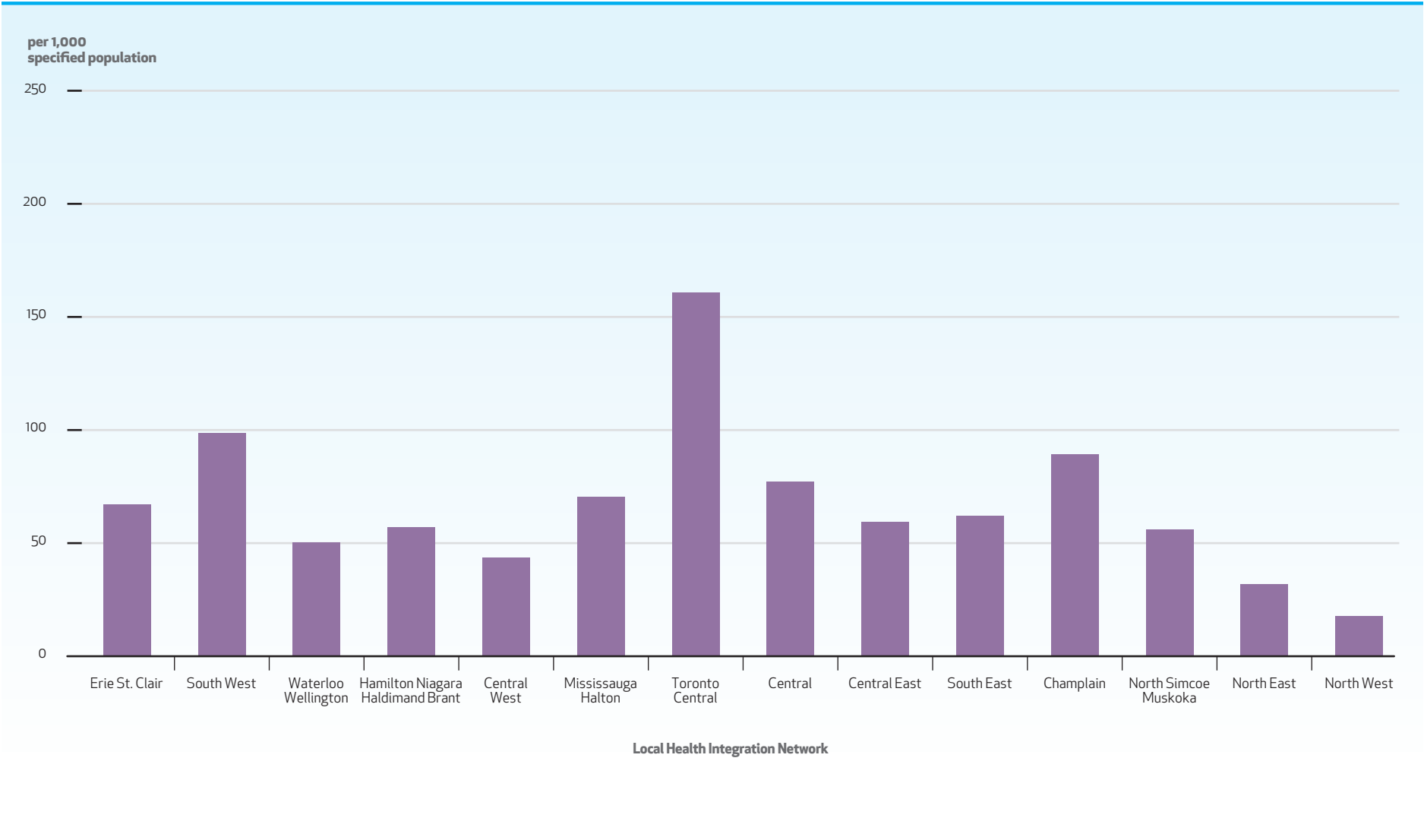
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.10.13 Standardized rate of outpatient visits to paediatricians related to mental health and addictions per 1,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.10.14 Standardized rate of outpatient visits to psychiatrists related to mental health and addictions per 1,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate at which children and youth were treated for alcohol and drug problems

Rationale

Tracking drug and alcohol treatment rates over time may provide insight into access to and utilization of such services, particularly when interpreted alongside data of the population-based prevalence of drug and alcohol problems in children and youth.

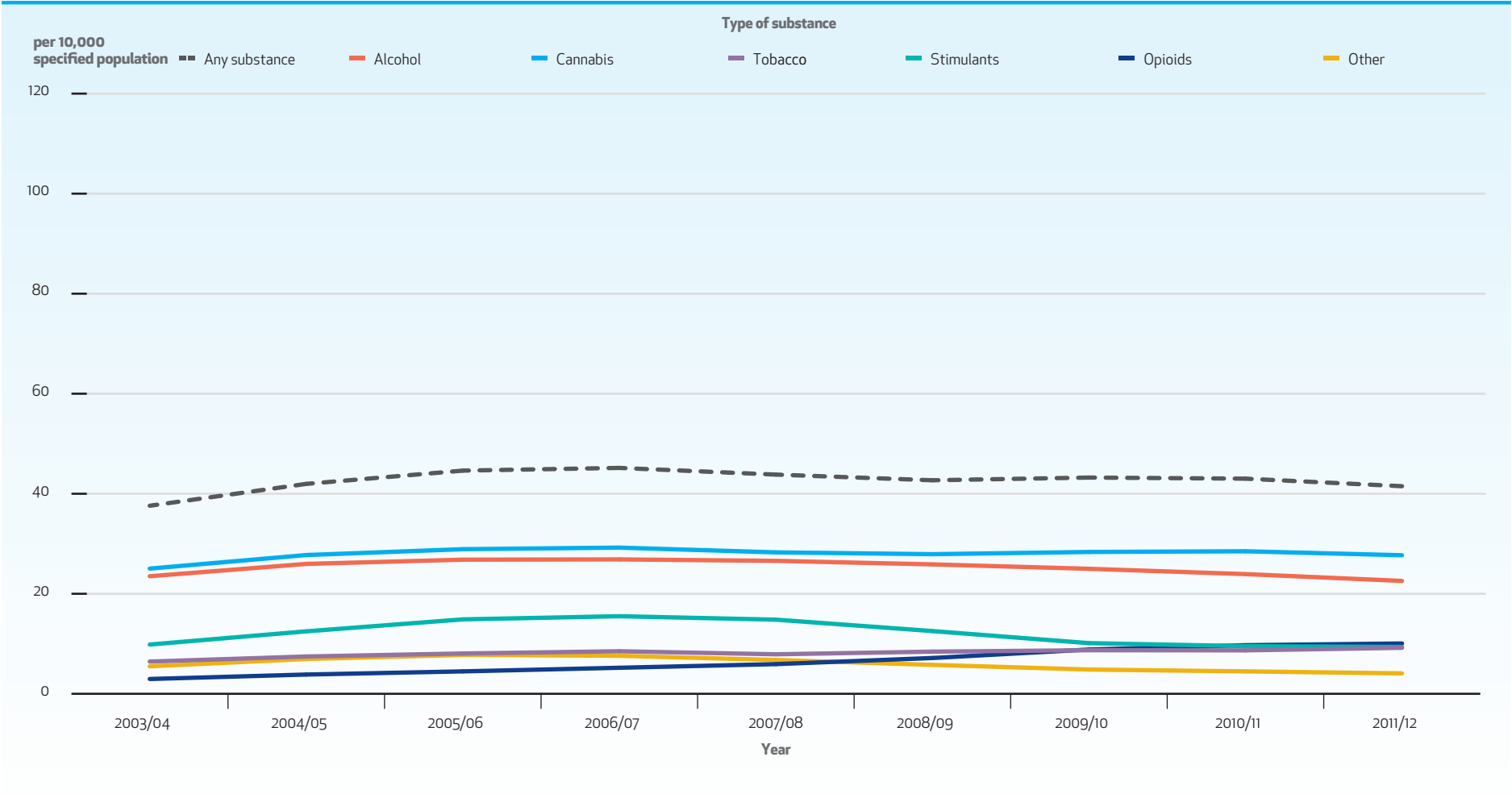
Results

Individuals may list up to five problem substances during intake for treatment, so rates for different substances are not mutually exclusive. Rates at which children and youth were treated for drug and alcohol problems remained stable. The most common problem substance was cannabis, except among those aged 20 to 24 years for whom it was alcohol. Rates varied by age group and were highest in those aged 15 to 19 years and 20 to 24 years. For cannabis and other substances, rates were highest for those aged 15 to 19 years. Those in the 20- to 24-year age group had higher rates for stimulants and opioids. For all substances, more males sought treatment than females. Overall, higher rates were observed in the northern LHINs and in the Toronto Central LHIN.

Interpretation

Rates at which children and youth were treated for alcohol and drug problems were consistent with rates of substance use observed in children and youth, with respect to age and substance. The fact that rates were highest in areas with a large Aboriginal youth population suggests there may be a need for targeted prevention and treatment strategies in these regions and for this population.

EXHIBIT 3.11.1 Standardized rate at which children and youth were treated for alcohol and drug problems per 10,000 population aged 0 to 24 years, by type of substance, in Ontario, 2003/04 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.11.2 Rate at which children and youth were treated for alcohol and drug problems per 10,000 population aged 10 to 14 years, by type of substance, in Ontario, 2003/04 to 2011/12

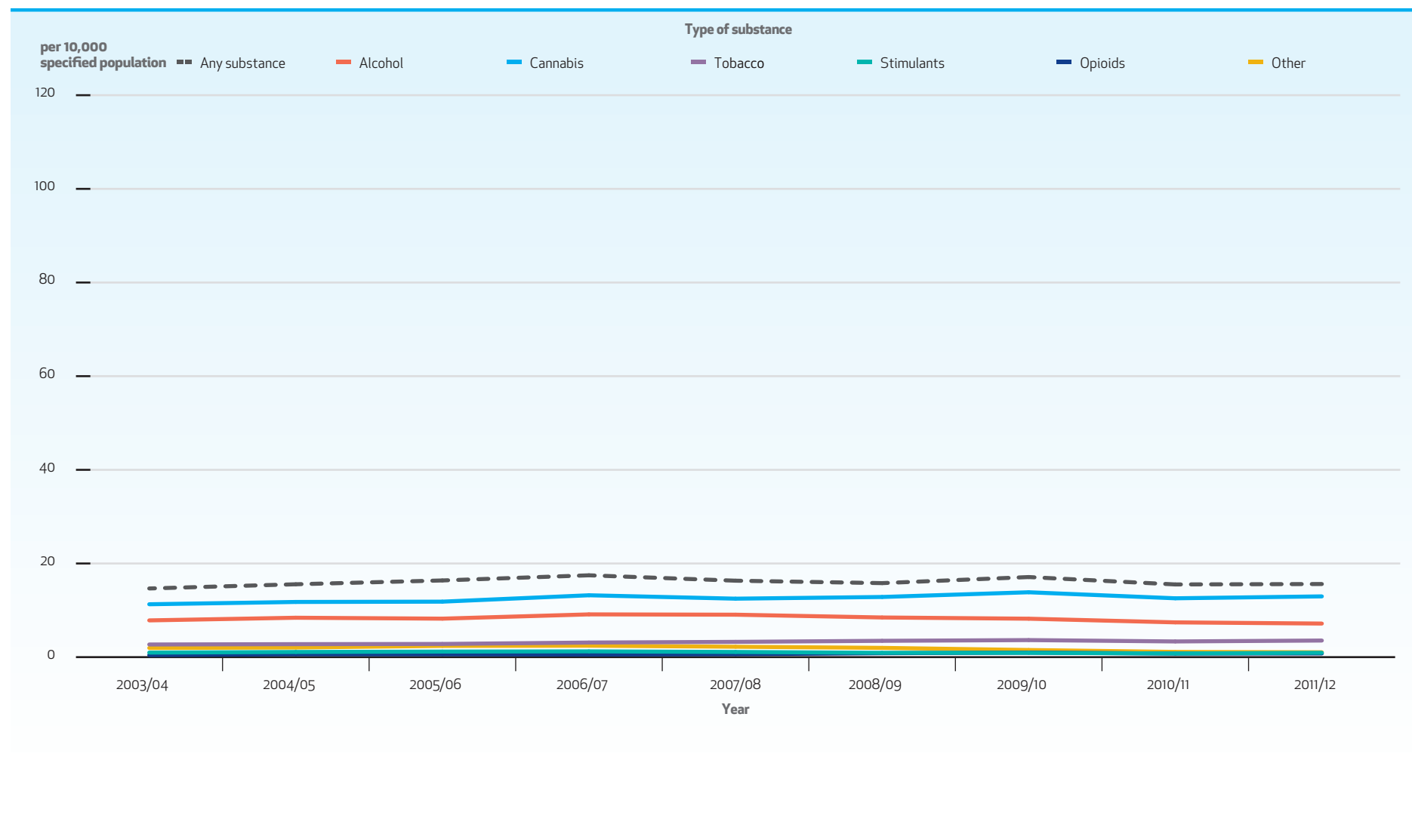
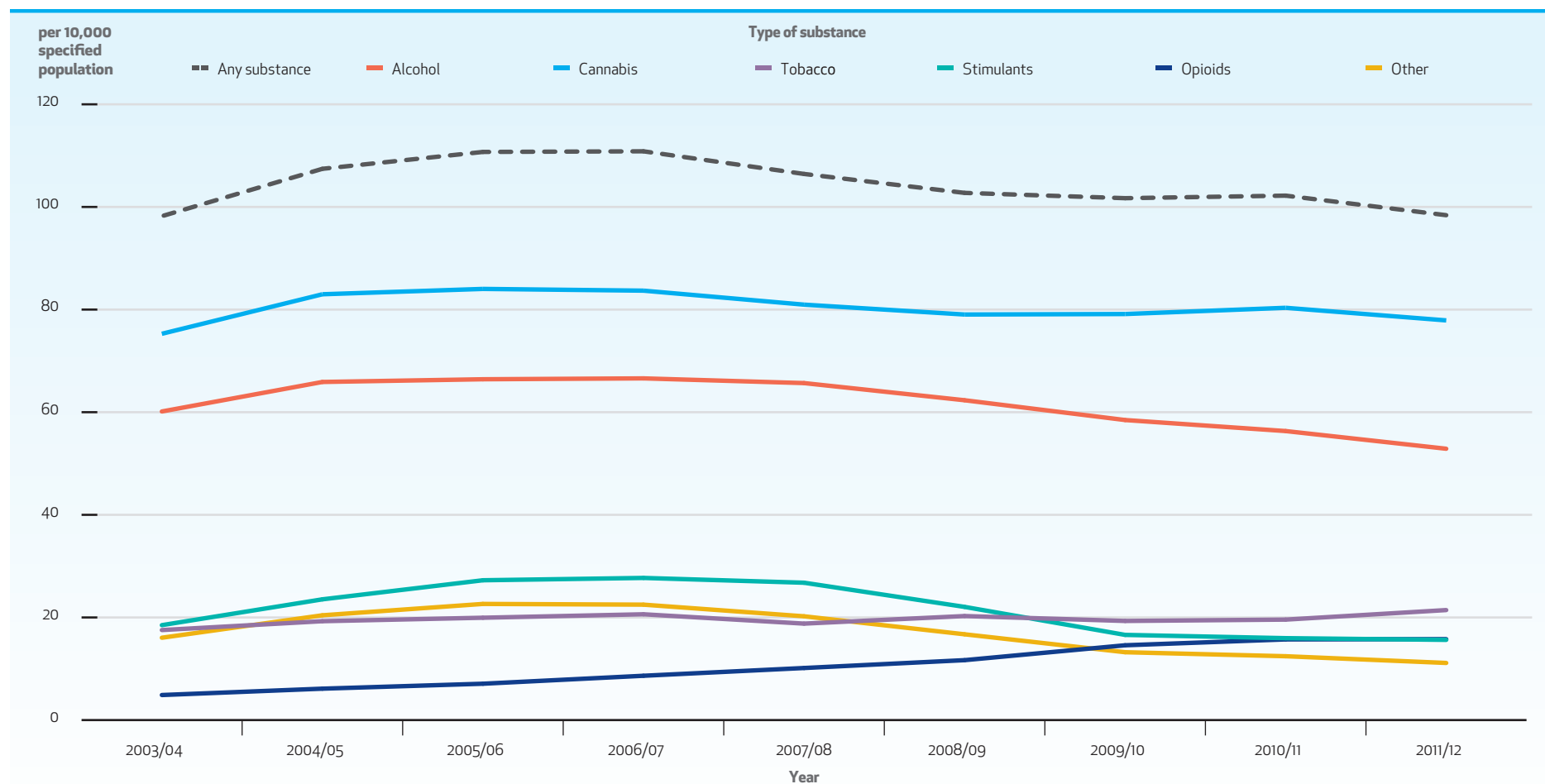
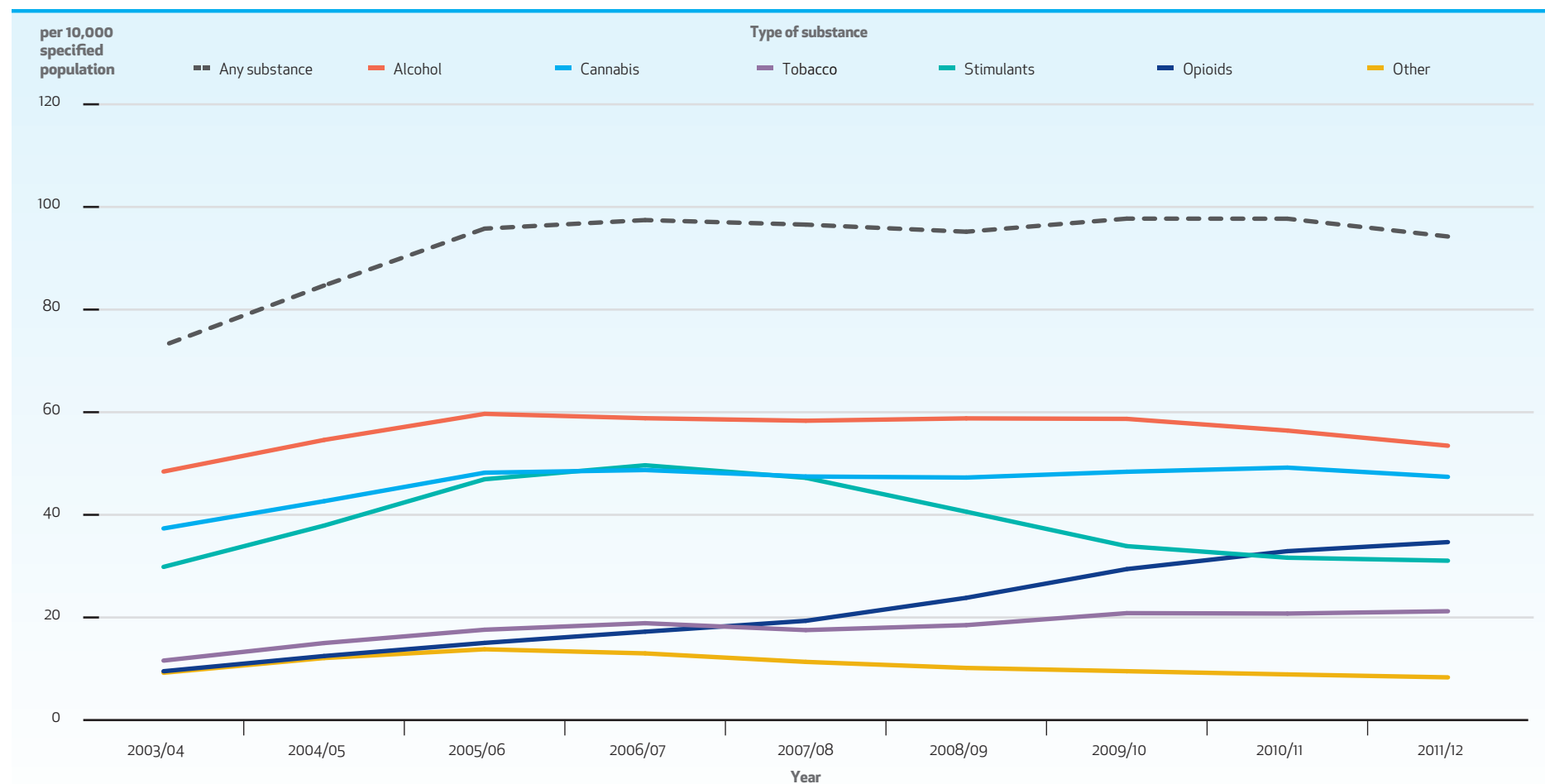


EXHIBIT 3.11.3 Rate at which children and youth were treated for alcohol and drug problems per 10,000 population aged 15 to 19 years, by type of substance, in Ontario, 2003/04 to 2011/12



Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.11.4 Rate at which children and youth were treated for alcohol and drug problems per 10,000 population aged 20 to 24 years, by type of substance, in Ontario, 2003/04 to 2011/12



Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.11.5 Rate at which children and youth were treated for alcohol and drug problems per 10,000 population aged 0 to 24 years, by age group and type of substance, in Ontario, three-year average for 2009/10 to 2011/12

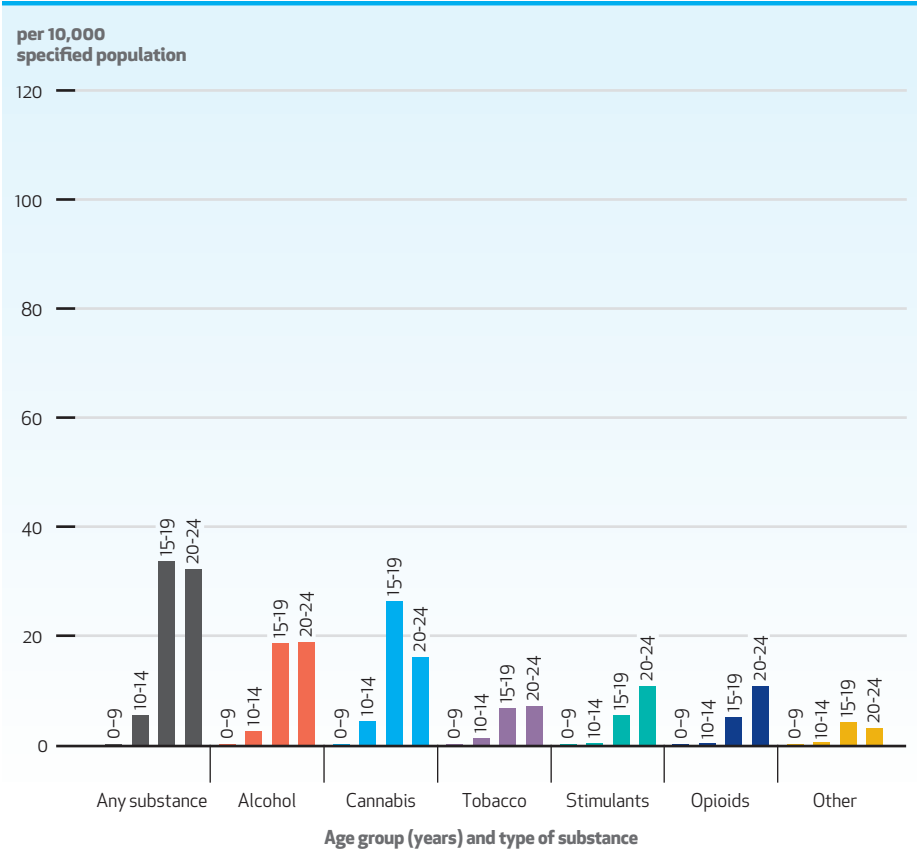
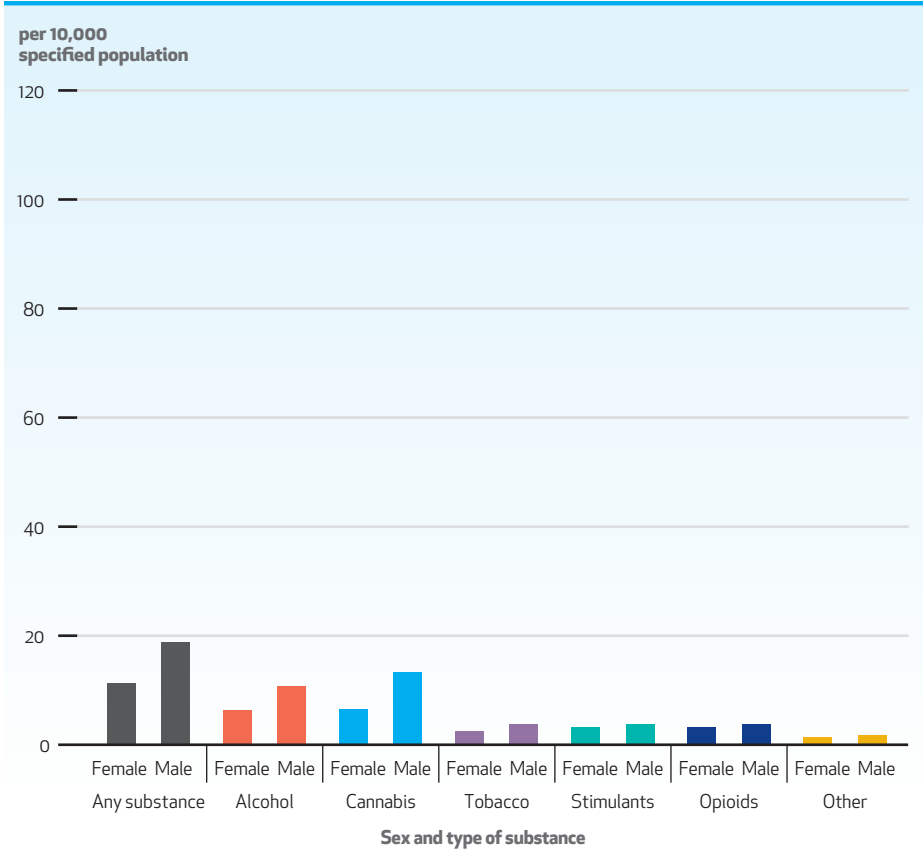
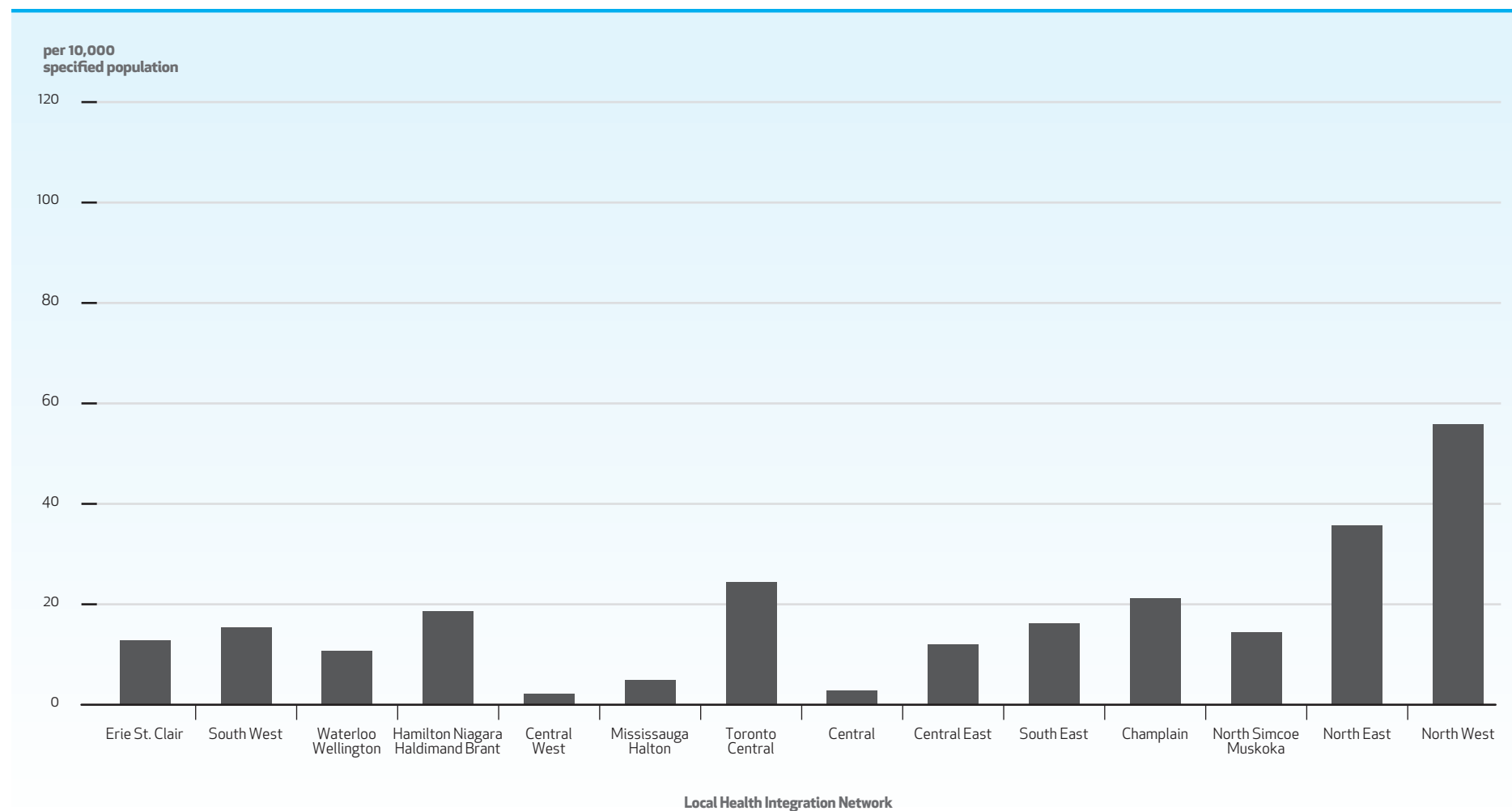


EXHIBIT 3.11.6 Rate at which children and youth were treated for alcohol and drug problems per 10,000 population aged 0 to 24 years, by sex and type of substance, in Ontario, three-year average for 2009/10 to 2011/12



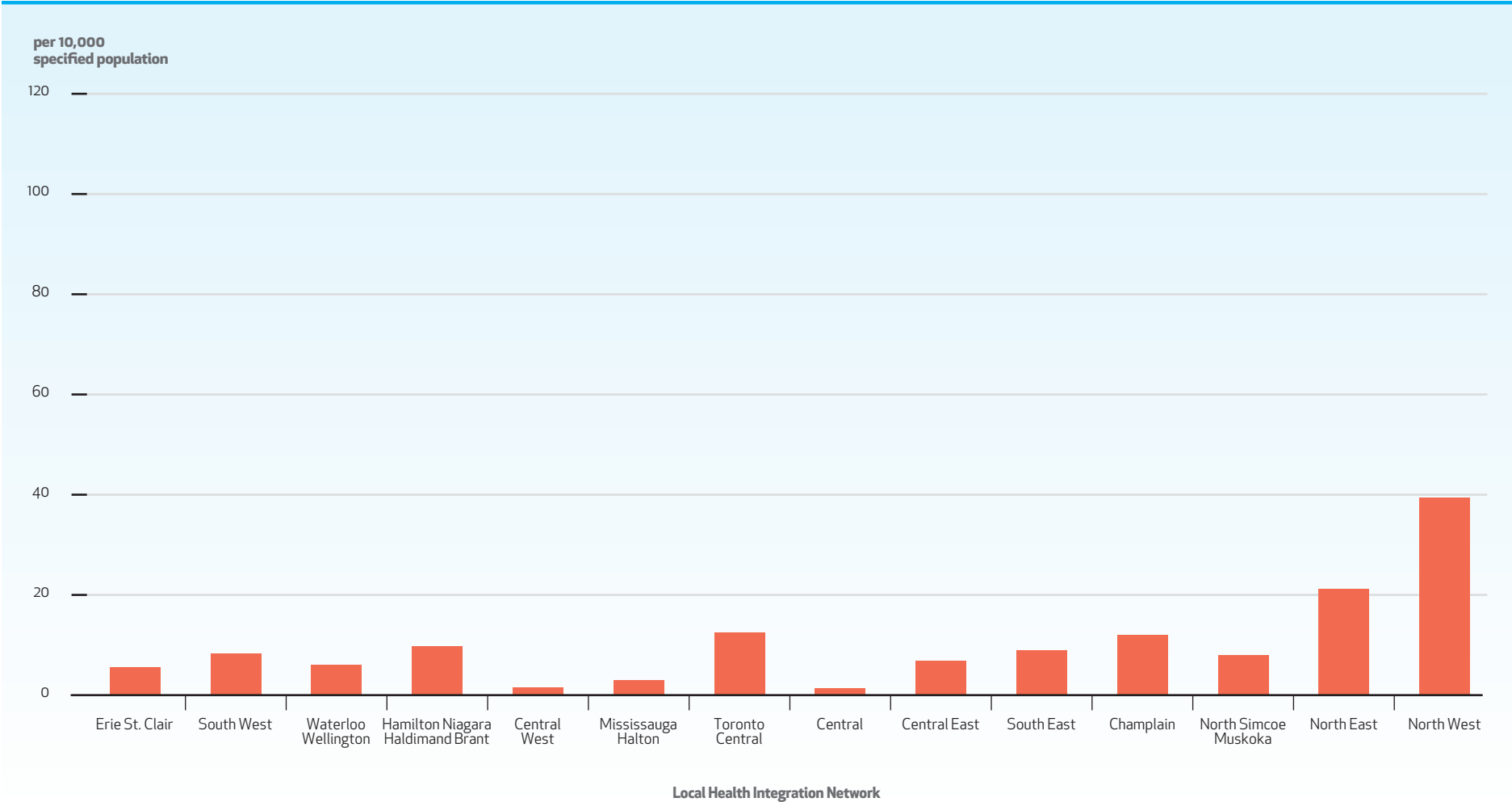
Note: Rates were standardized by sex to the 2002 Ontario population.

EXHIBIT 3.11.7 Standardized rate at which children and youth were treated for any alcohol and drug problems per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



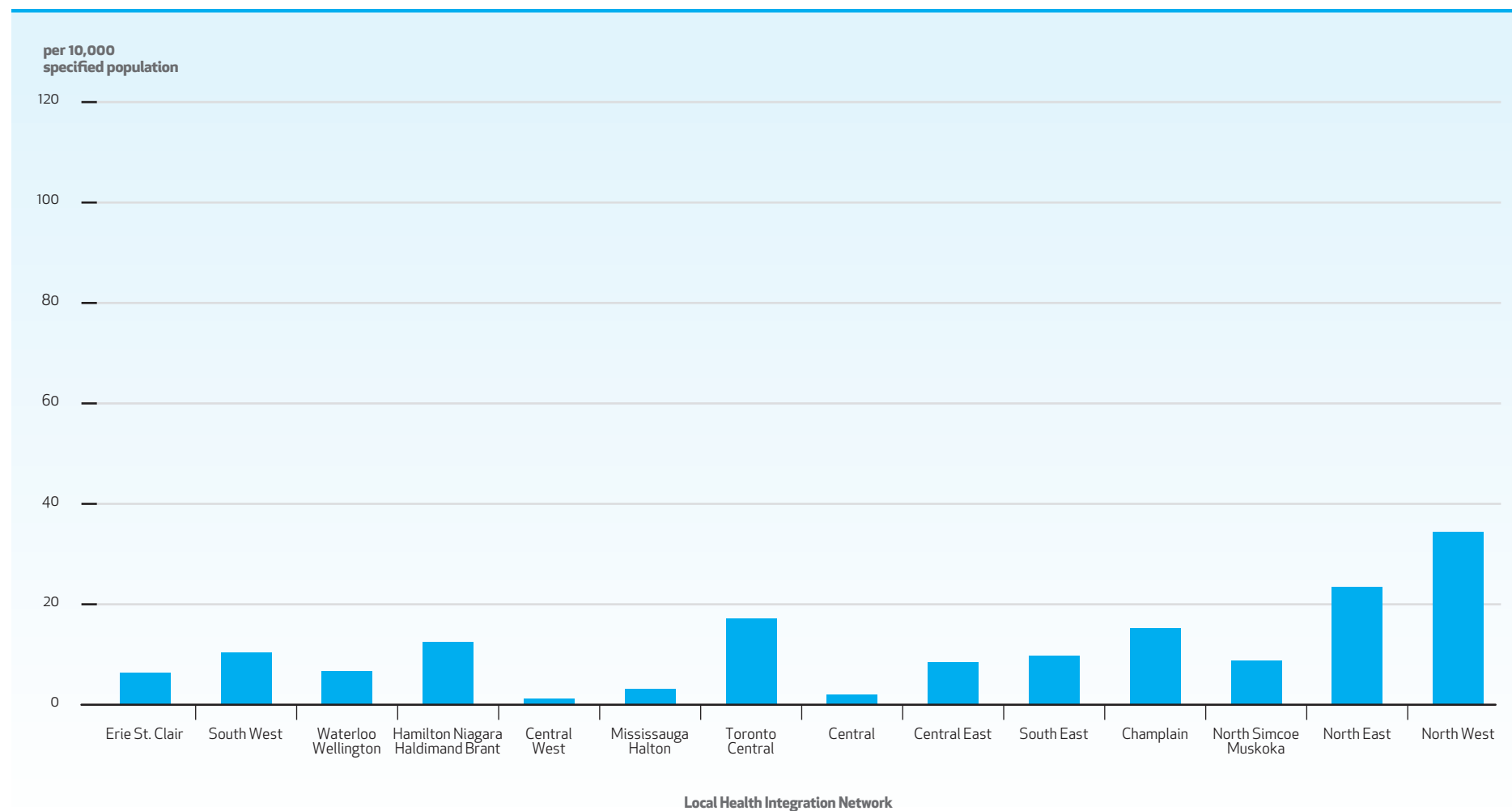
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.11.8 Standardized rate at which children and youth were treated for alcohol use per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



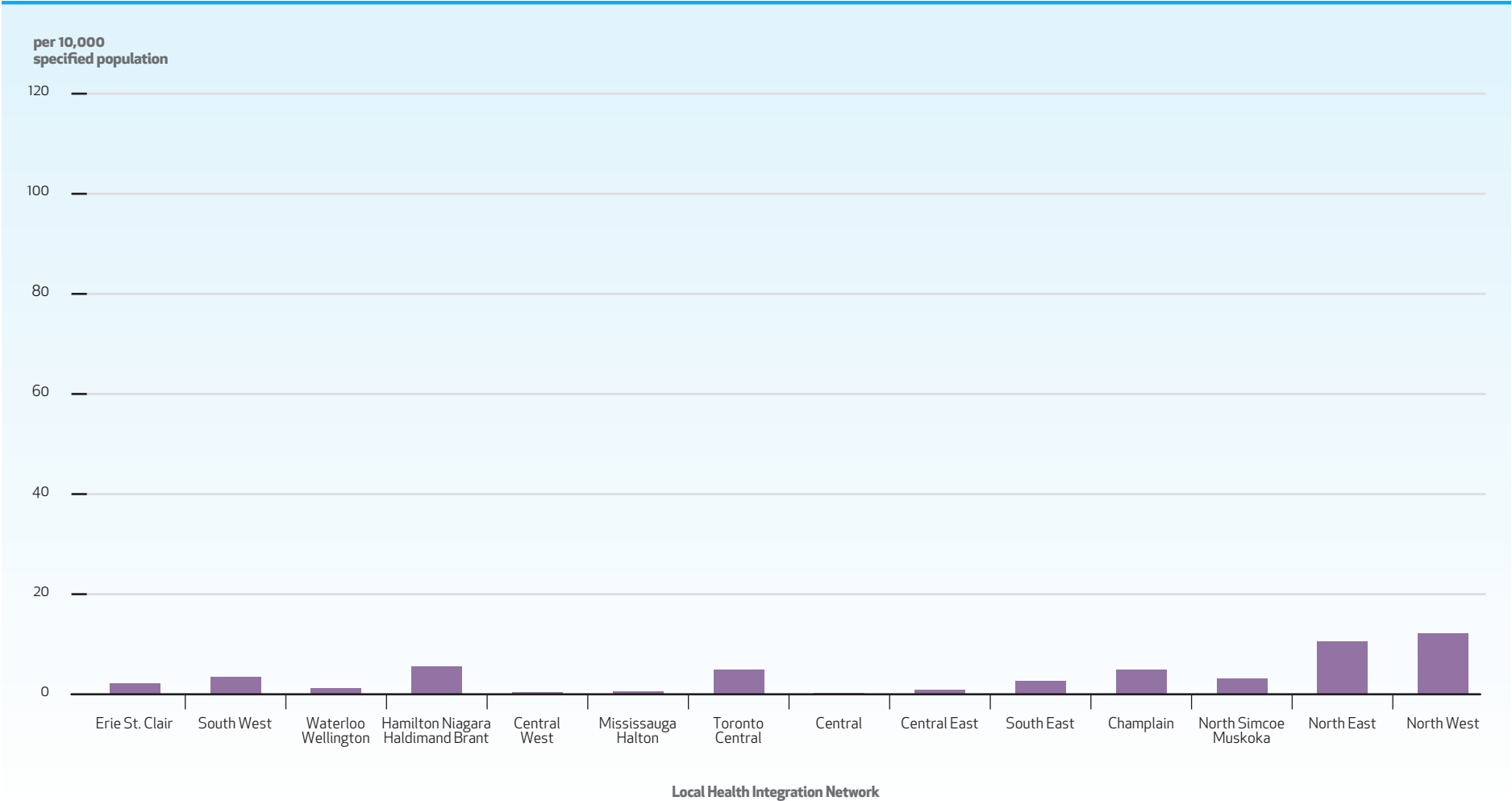
Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.11.9 Standardized rate at which children and youth were treated for cannabis use per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



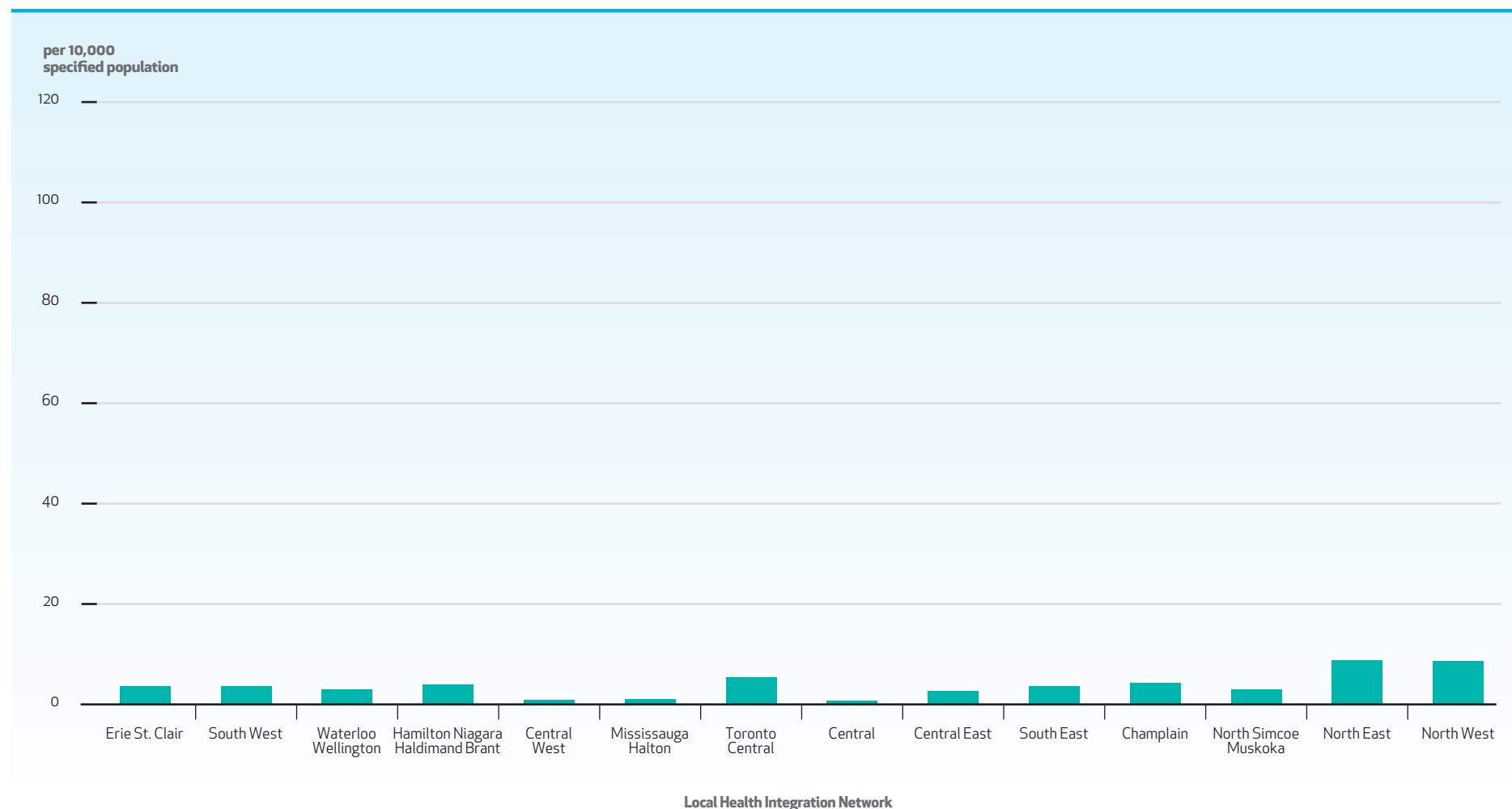
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.11.10 Standardized rate at which children and youth were treated for tobacco use per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



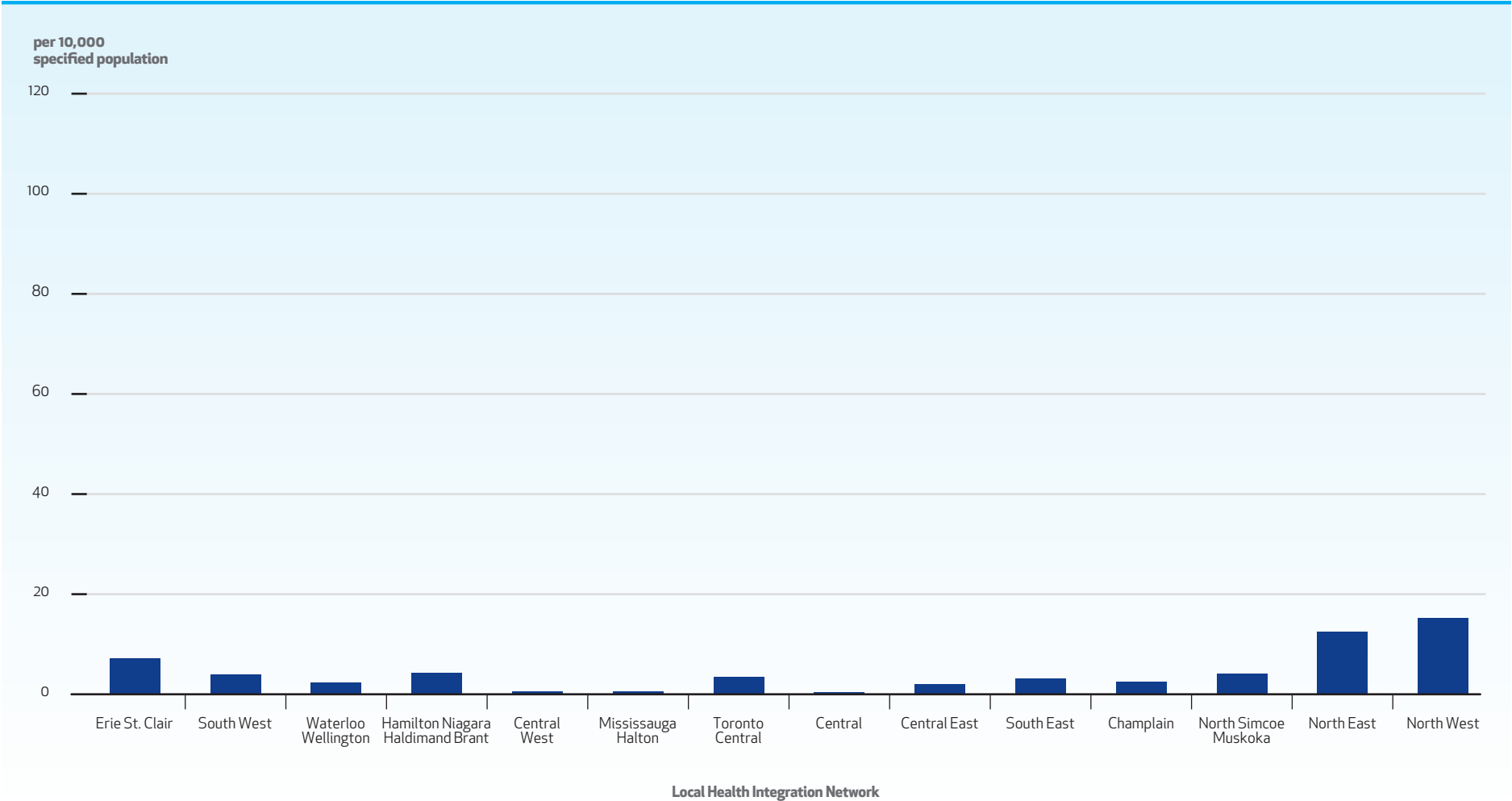
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.11.11 Standardized rate at which children and youth were treated for stimulant use per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



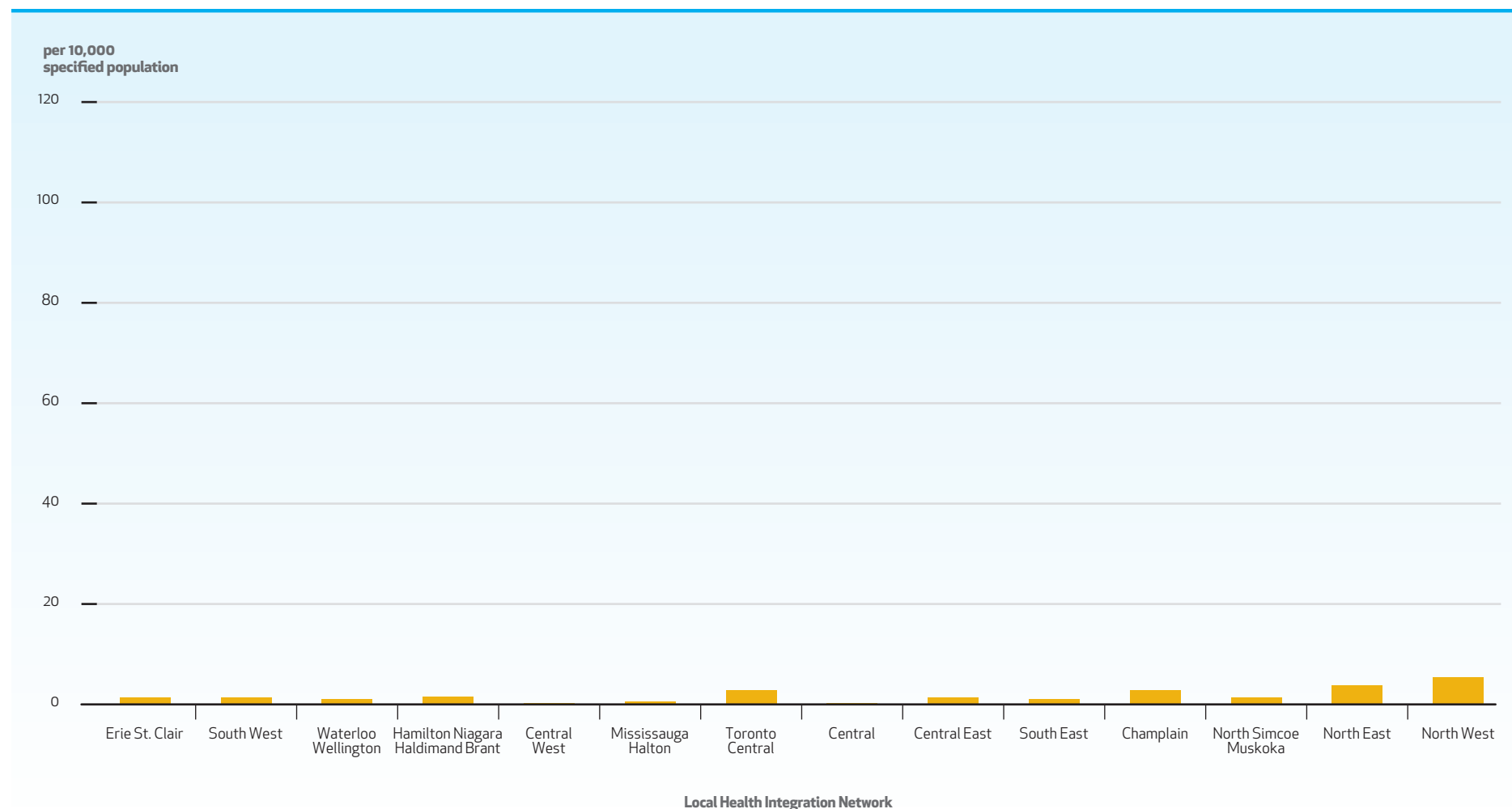
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.11.12 Standardized rate at which children and youth were treated for opioid use per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.11.13 Standardized rate at which children and youth were treated for other substance use per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate at which children and youth were admitted for treatment of eating disorders

Rationale

Tracking rates of children and youth treated for eating disorders can provide insight on access to and utilization of such services. This indicator captures only hospitalizations in Ontario and so does not reflect all eating disorder treatments, since eating disorder treatment also occurs in ambulatory settings.

Results

Rates of children and youth admitted for eating disorders remained consistent over time. The highest rates were consistently seen in 15- to 19-year-olds. Males and females had significantly different admission rates. Unlike other mental illnesses and addictions, the highest rates of hospital admissions for eating disorder treatment were for children and youth from the highest-income neighbourhoods. Among Local Health Integration Networks, the highest admission rates were found in the South West and Champlain LHINs.

Interpretation

Rates of children and youth hospitalized for eating disorders remained stable over time. The rate differences observed between age groups and by sex are consistent with those in the published research. Correlations in admission rates and neighbourhood income differences may reflect inequities in access to services and socioeconomic differences in the prevalence of eating disorders.

EXHIBIT 3.12.1 Standardized rate at which children and youth were admitted for treatment of eating disorders per 10,000 population aged 0 to 24 years, by age group, in Ontario, 2002/03 to 2011/12



Note: Overall rates were standardized by age and sex, and rates for age groups were standardized by sex, both to the 2002 Ontario population.

EXHIBIT 3.12.2 Rate at which children and youth were admitted for treatment of eating disorders per 10,000 population aged 0 to 24 years, by age group, in Ontario, three-year average for 2009/10 to 2011/12

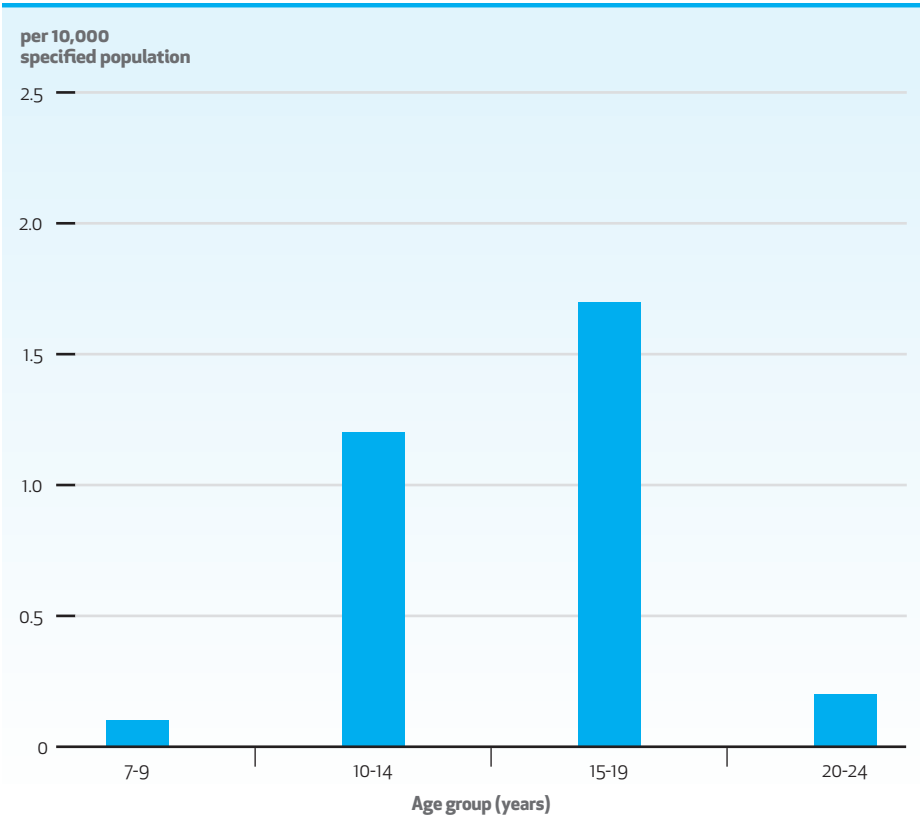


EXHIBIT 3.12.3 Rate at which children and youth were admitted for treatment of eating disorders per 10,000 population aged 0 to 24 years, by sex, in Ontario, three-year average for 2009/10 to 2011/12

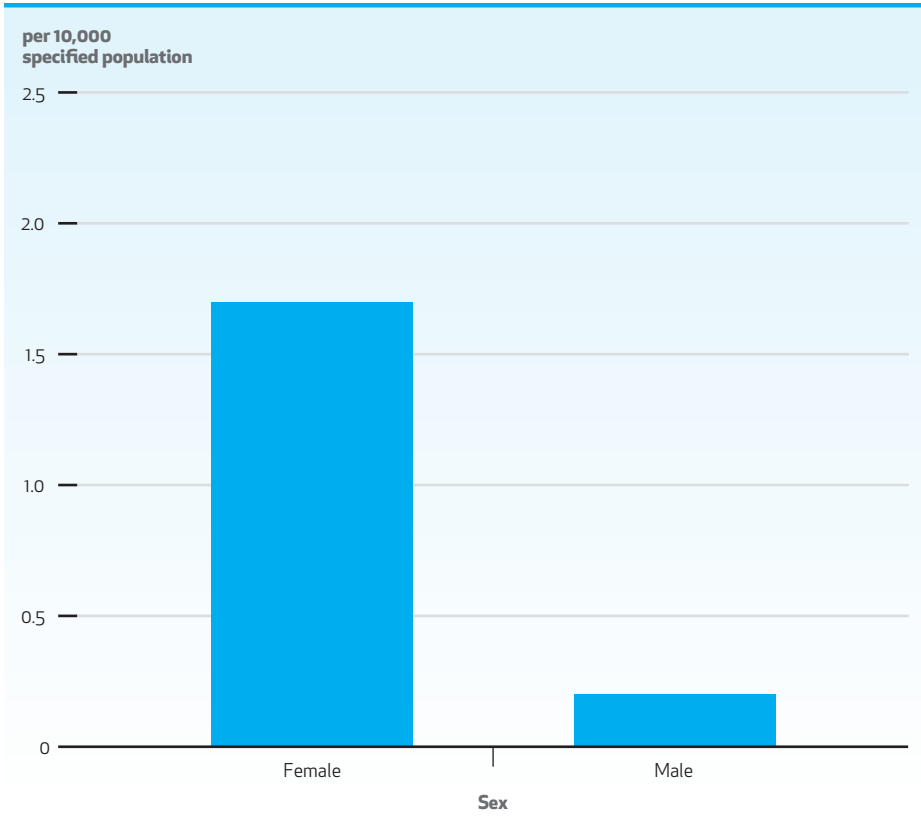


EXHIBIT 3.12.4 Rate at which children and youth were admitted for treatment of eating disorders per 10,000 population aged 0 to 24 years, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

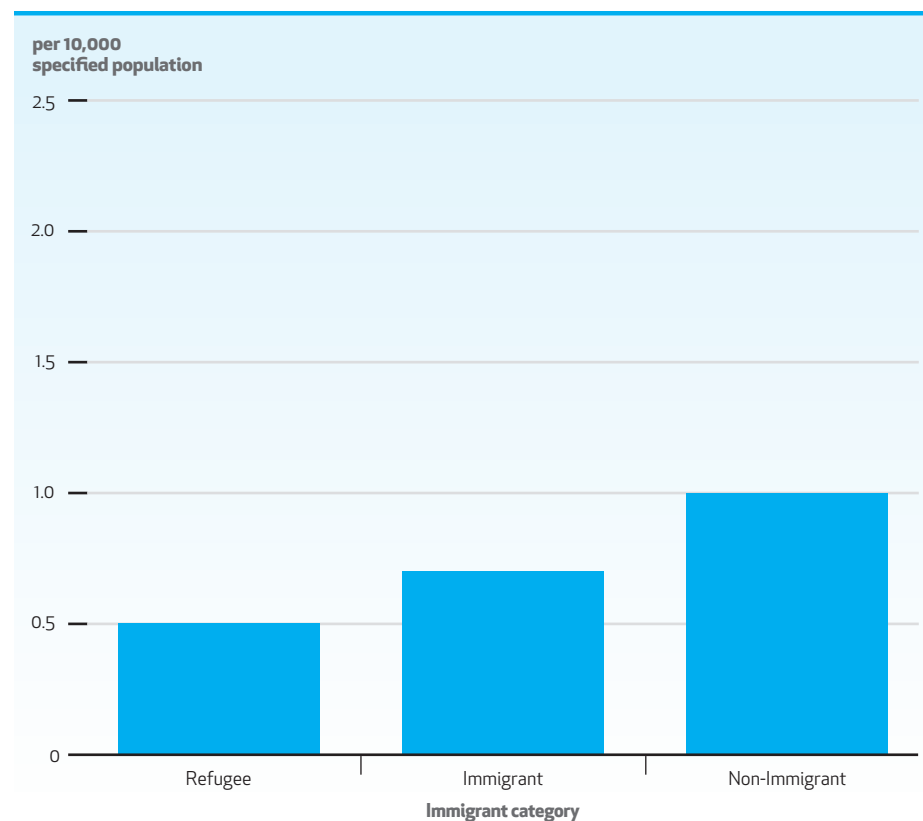


EXHIBIT 3.12.5 Rate at which children and youth were admitted for treatment of eating disorders per 10,000 population aged 0 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

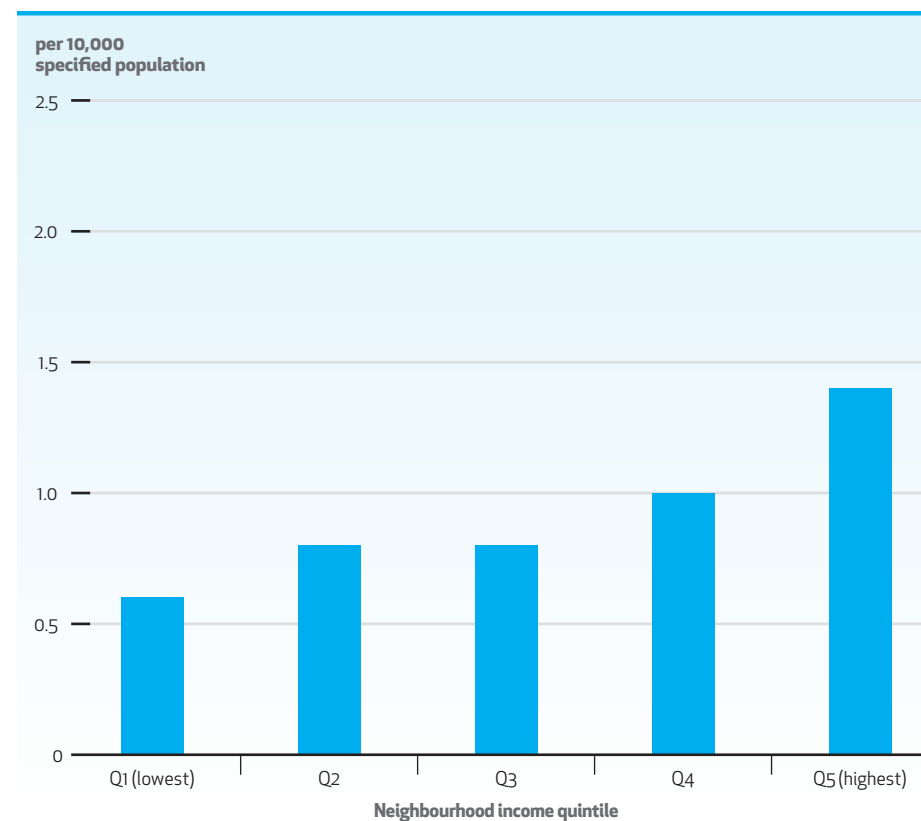
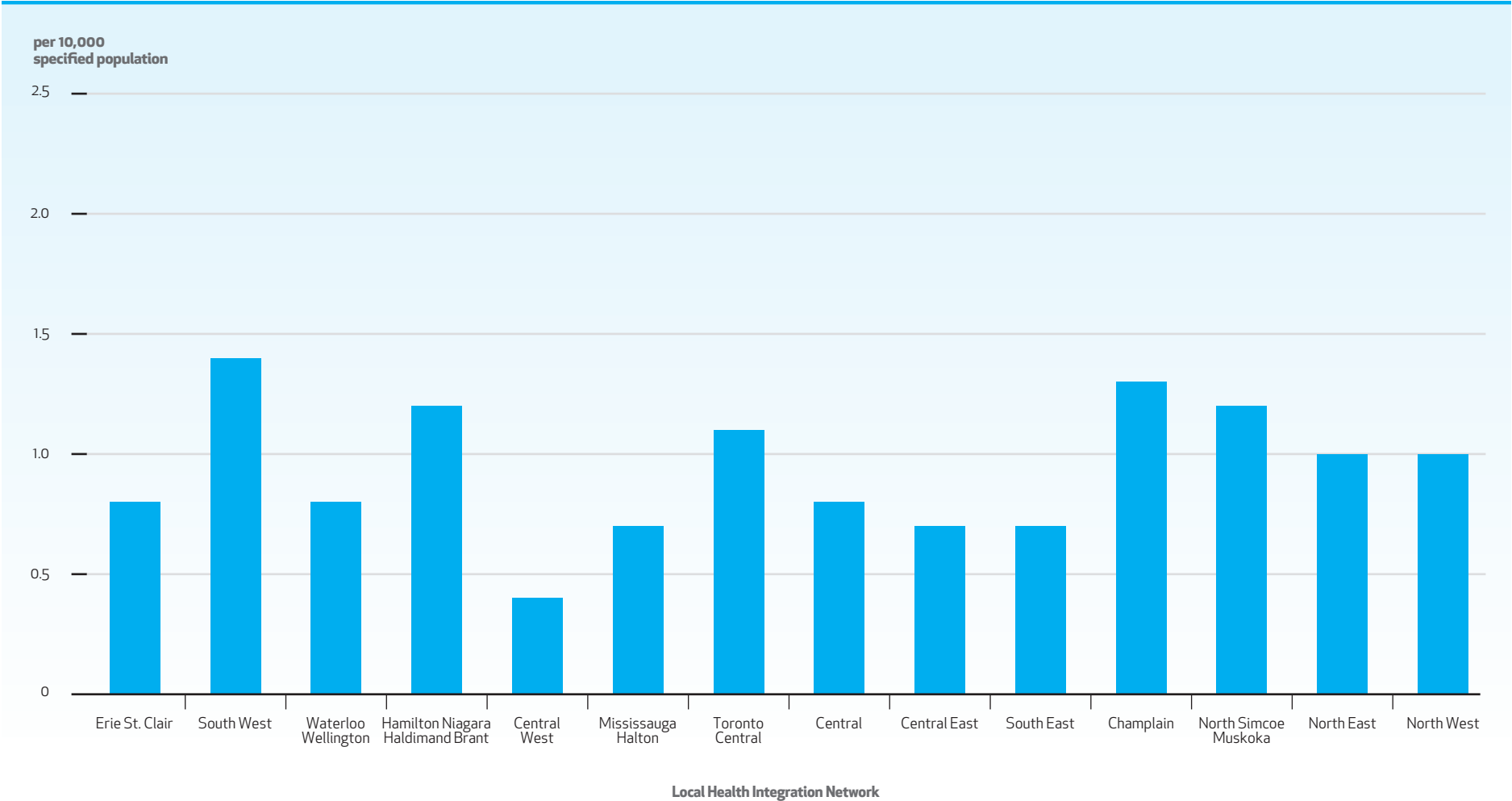


EXHIBIT 3.12.6 Standardized rate at which children and youth were admitted for treatment of eating disorders per 10,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Number of funded applications for out-of-country treatment of eating disorders for children and youth

Rationale

A small number of children and youth from Ontario may travel to the United States to receive treatment for eating disorders each year. Rates of out-of-country eating disorder treatment service use are tracked by the Ministry of Health and Long-Term Care and may provide insight on access to and utilization of such services. Ontario's Comprehensive Mental Health and Addictions Strategy has increased inpatient treatment capacity for eating disorders in Ontario, which may influence the number of individuals sent out of country for treatment.

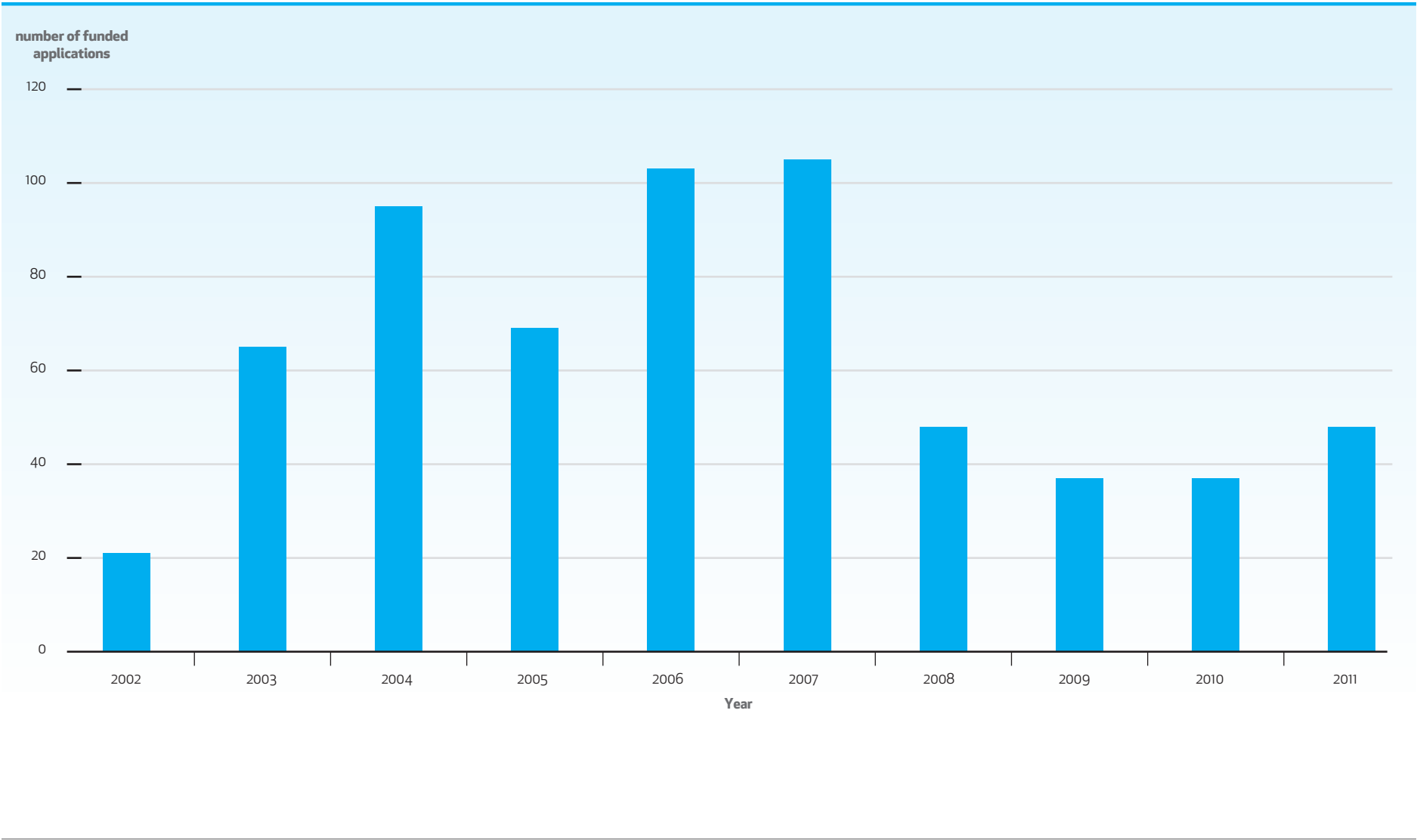
Results

The number of funded applications for out-of-country eating disorder treatment increased from 2002 to 2007. After 2007, there was a rapid decrease in the number of children and youth receiving out-of-country treatment.

Interpretation

Rates of funded applications for out-of-country eating disorder treatment reflect a number of factors, from undercapacity in regional eating disorder centres in Ontario to patient need for highly subspecialized care not available in Ontario. The decrease observed in funded applications for out-of-country eating disorder treatment after 2007 likely reflects the implementation of a standardized application screening process.

EXHIBIT 3.13.0 Number of funded applications for out-of-country eating disorder treatment for 0- to 24-year-olds, by year of application, in Ontario, 2002 to 2011



Median length of stay for psychiatric hospitalizations of children and youth

Rationale

Length of stay for psychiatric hospitalizations can be affected by illness severity at admission, discharge planning and other care processes at the hospital, and availability of community resources to support discharge. Along with analyses of hospitalization prevalence, trends in lengths of stay could reflect the efficiency of the mental health and addictions care system.

Results

Median length of stay for psychiatric hospitalizations remained stable over time. Among the five diagnostic categories, hospitalizations for schizophrenia and other psychotic disorders had the longest median length of stay. The Champlain LHIN reported the longest median length of stay in all categories but substance-related disorders. **Exhibits 3.19.1 to 3.19.10** provide some useful contextual information on rates of hospital admissions for mental health issues among children and youth in Ontario.

Interpretation

There was very little variation in length of stay over time and within diagnostic categories. The high length of stay in the Champlain LHIN may reflect the presence of a large tertiary-care psychiatric inpatient unit for children and youth in that region.

EXHIBIT 3.14.1 Median length of stay for psychiatric hospitalizations of 0- to 24-year-olds, by type of disorder, in Ontario, 2006/07 to 2011/12

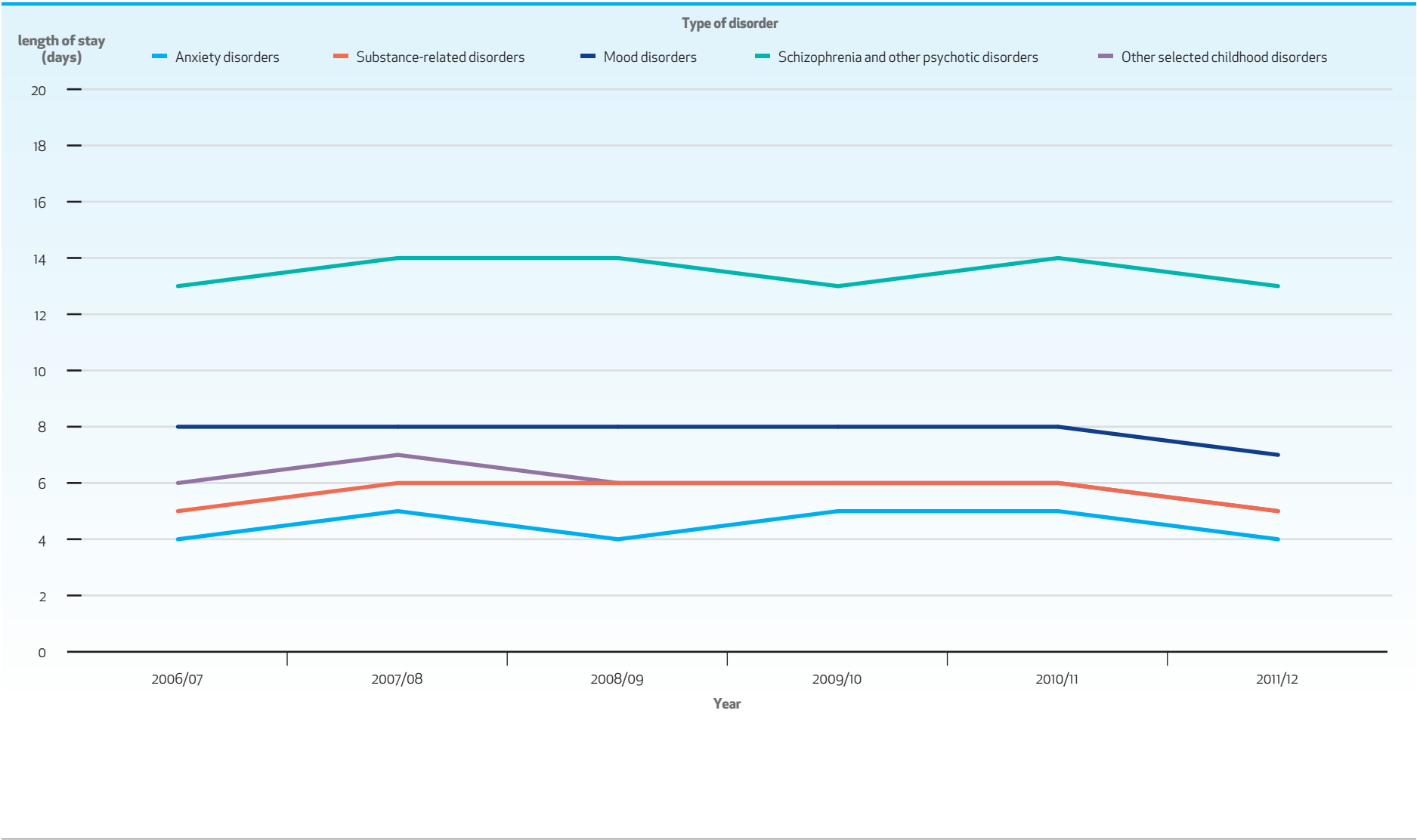


EXHIBIT 3.14.2 Median length of stay for psychiatric hospitalizations of 0- to 24-year olds related to substance use, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

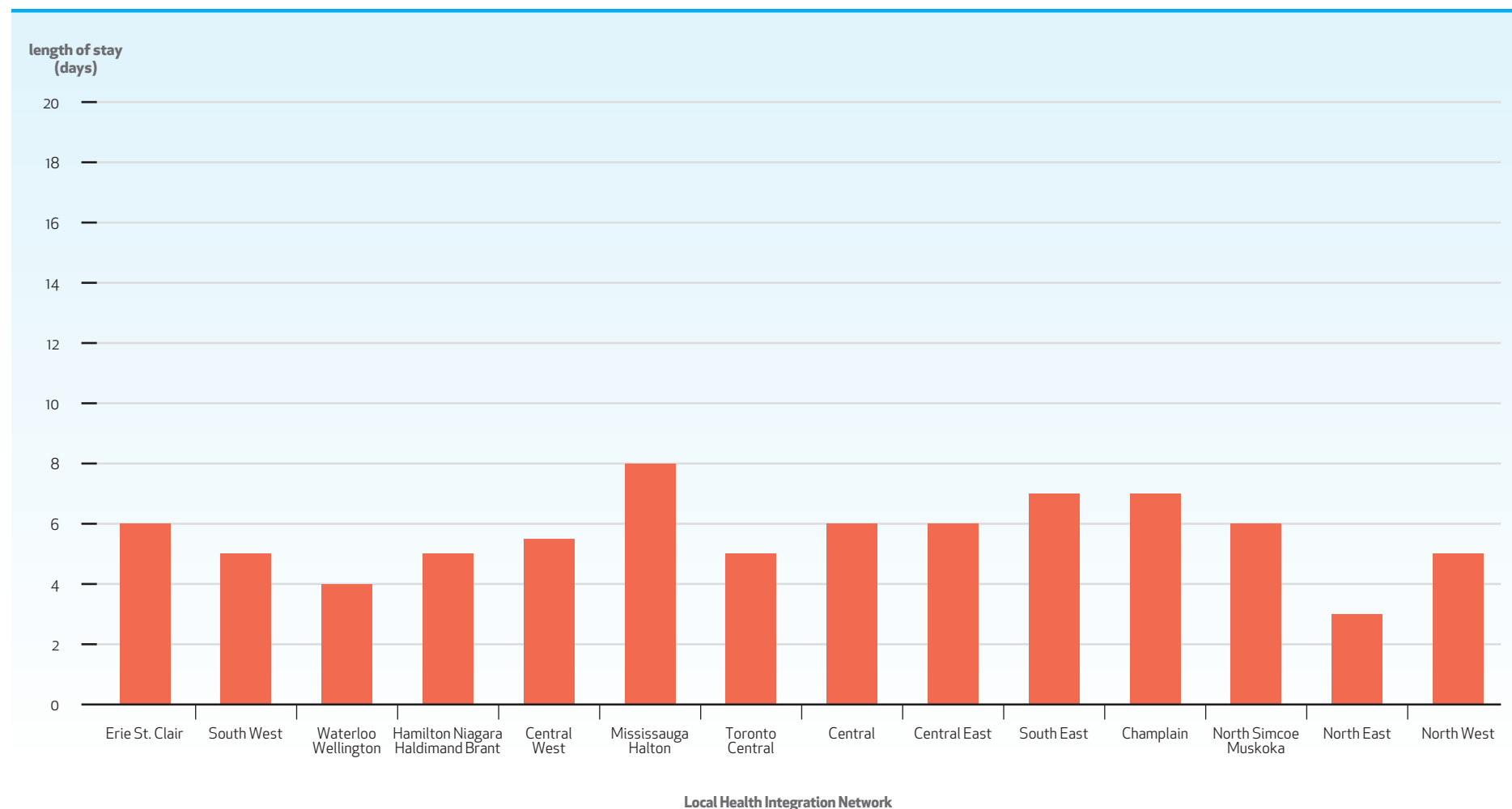


EXHIBIT 3.14.3 Median length of stay for psychiatric hospitalizations of 0- to 24-year olds related to schizophrenia and other psychotic disorders, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

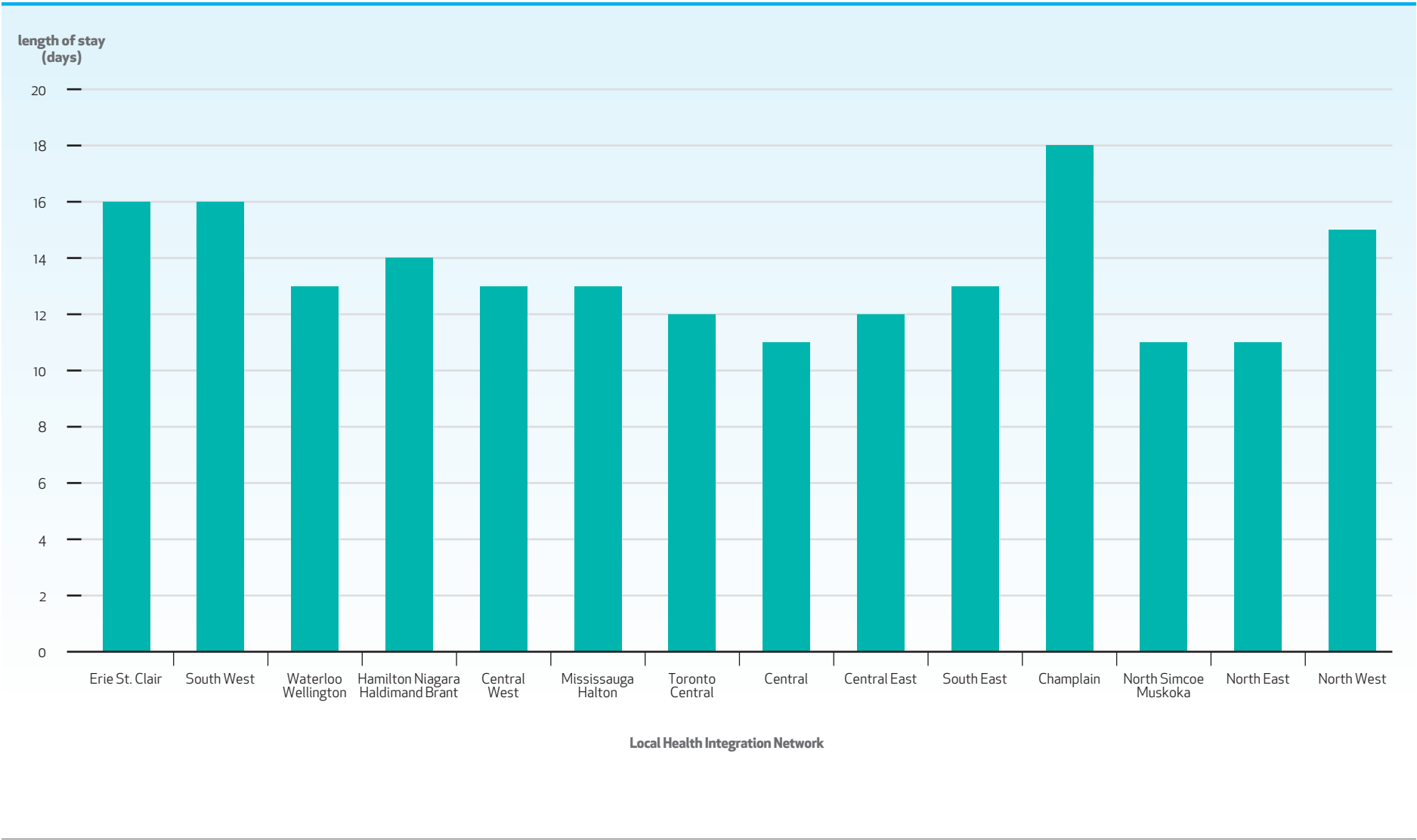


EXHIBIT 3.14.4 Median length of stay for psychiatric hospitalizations of 0- to 24-year olds related to mood disorders, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

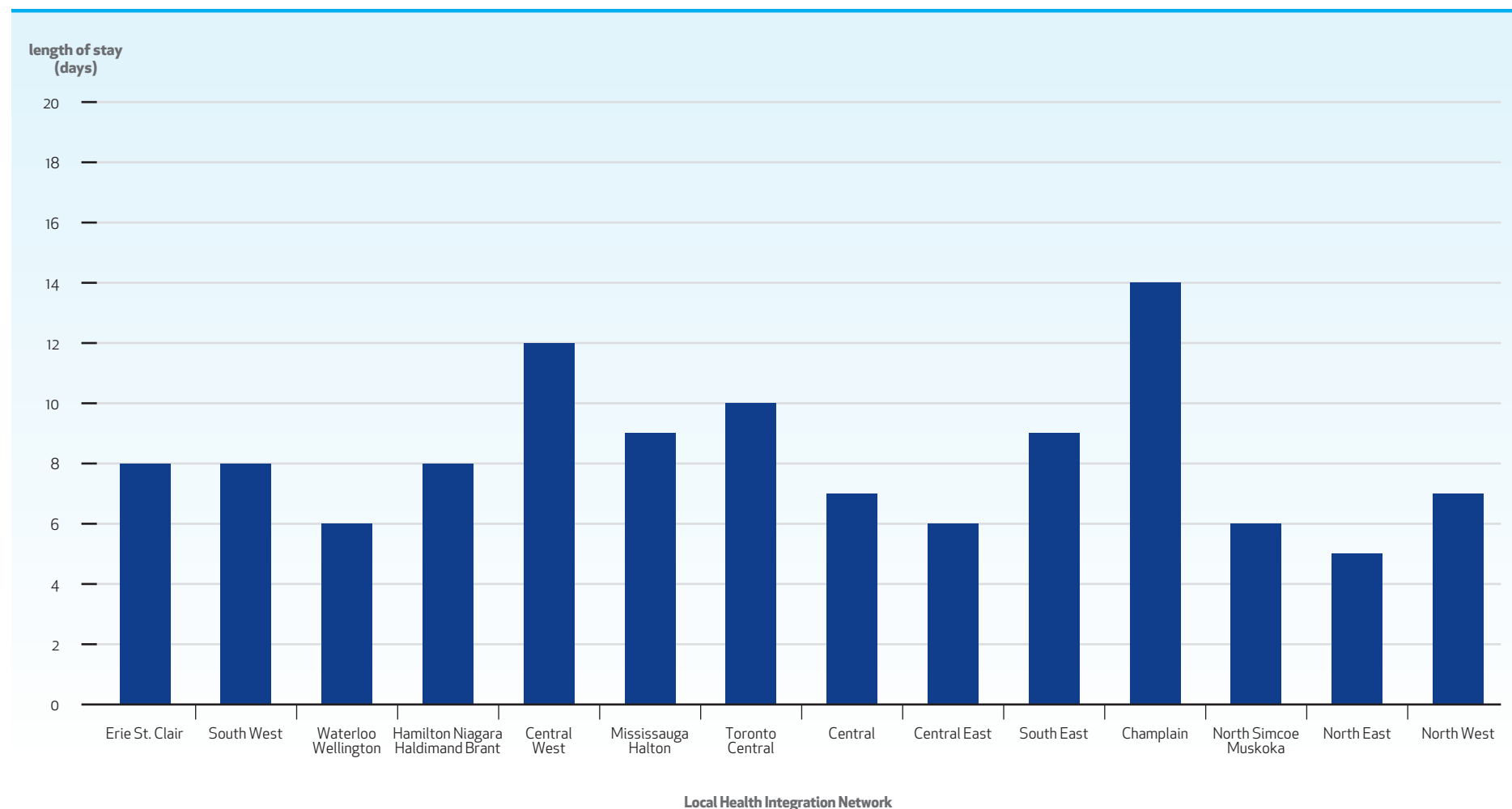


EXHIBIT 3.14.5 Median length of stay for psychiatric hospitalizations of 0- to 24-year olds related to anxiety disorders, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

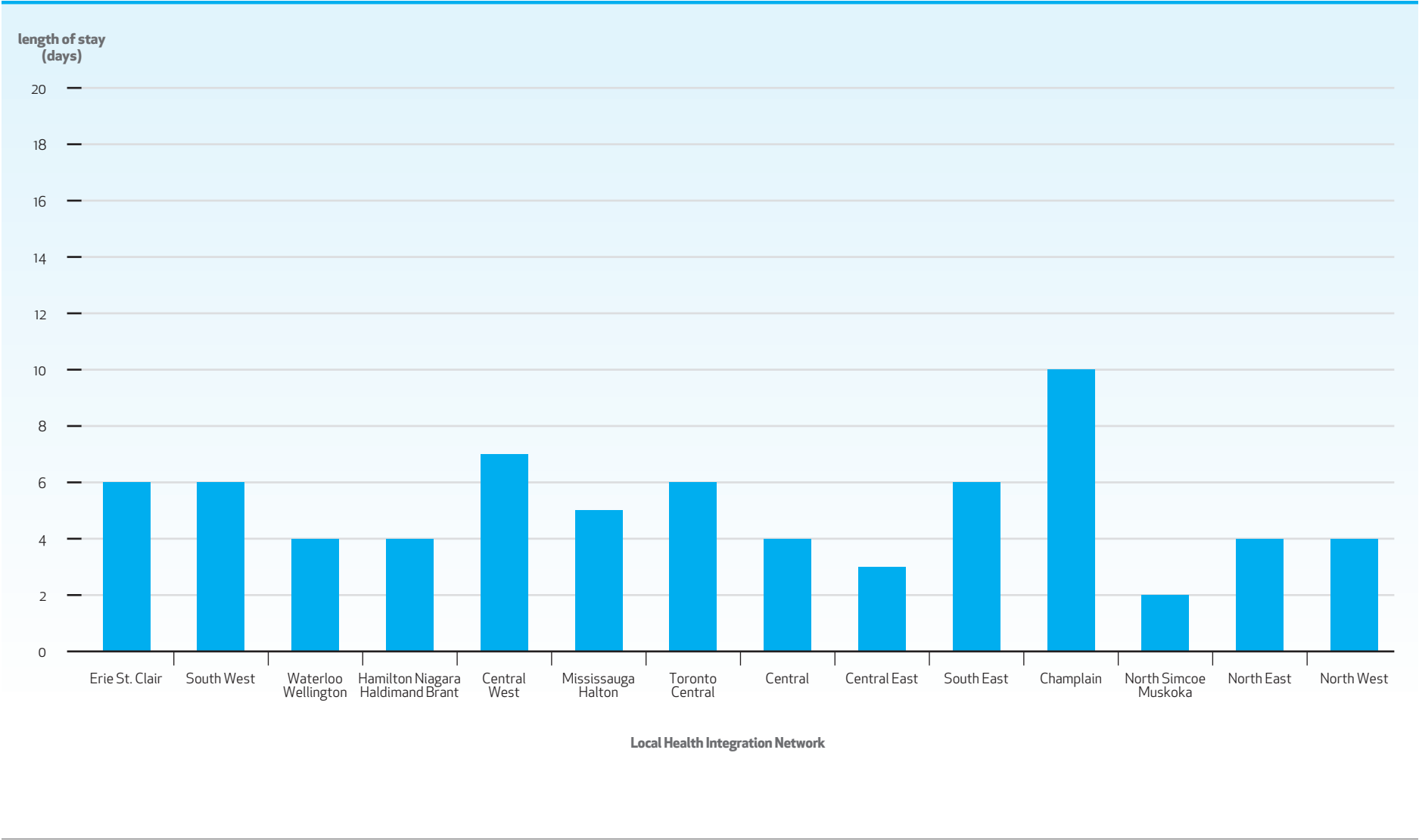
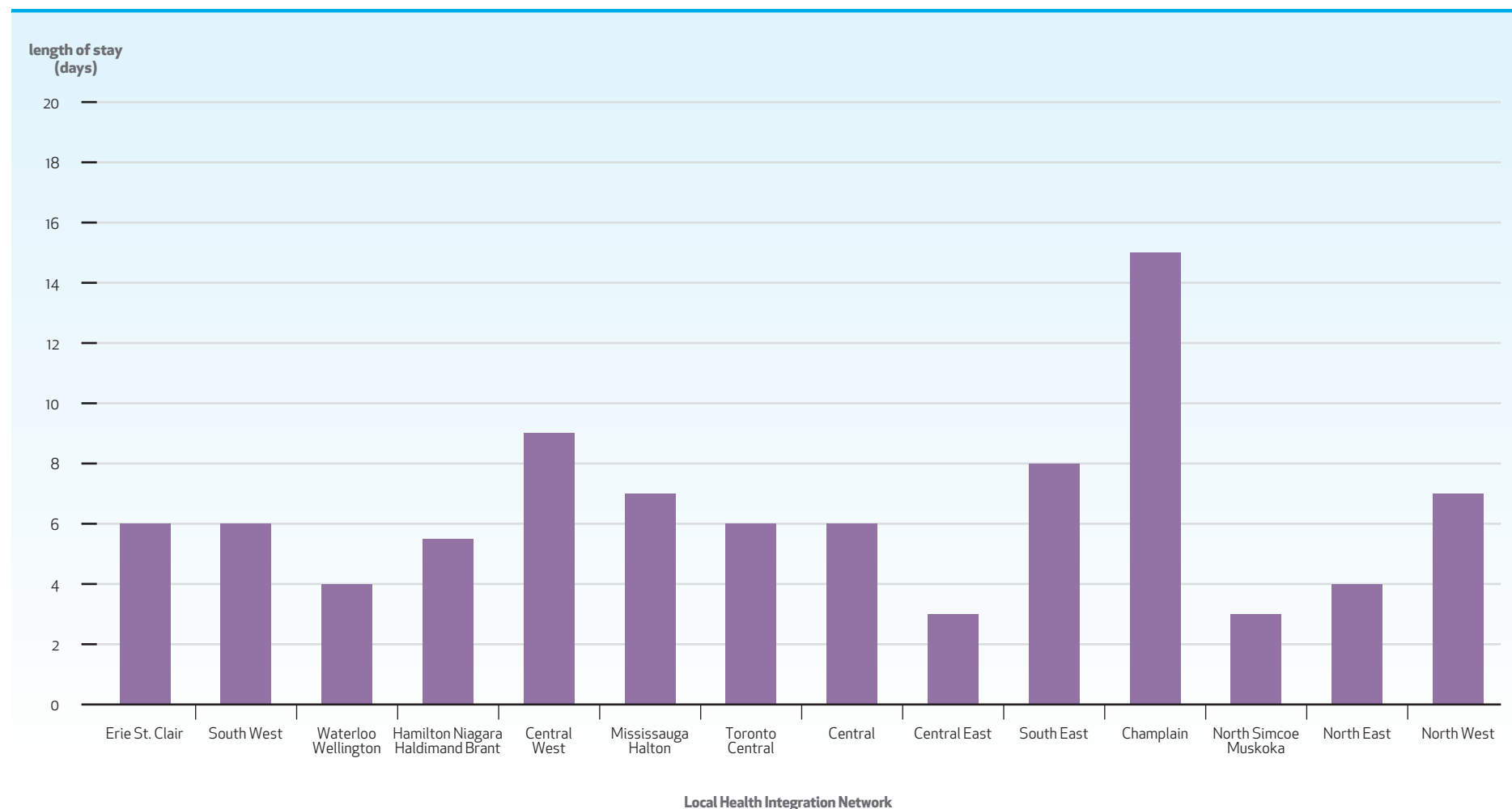


EXHIBIT 3.14.6 Median length of stay for psychiatric hospitalizations of 0- to 24-year olds related to other selected childhood disorders, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Outcomes

- Annualized prevalence of K–12 students suspended from school
- Rate of death by suicide for children and youth
- Rate of emergency department visits for deliberate self-harm among children and youth
- Rate of emergency department visits related to mental health and addictions for children and youth
- Rate of hospital admissions related to mental health and addictions for children and youth

Annualized prevalence of K-12 students suspended from school

Rationale

School suspensions can be a sign of general psychosocial distress and problematic behaviour and may be an early sign of the need for student support and services.

Results

School suspension prevalence was highly variable across regions. Suspensions were most prevalent in the North East, Erie St. Clair and South East LHINs where they were triple the lowest prevalence reported by the Toronto Central and Central LHINs. Among MCYS Child and Youth Mental Health Service Areas, school suspensions were most prevalent in Timiskaming/Cochrane, Greater Sudbury and Algoma (in northern Ontario); in Essex, Brant and Haldimand-Norfolk (in southwestern Ontario); and in Stormont/Dundas/Glengarry and Hastings/Prince Edward/Northumberland (in southeastern Ontario).

Interpretation

School suspensions are a non-specific indicator of behavioural issues. Nonetheless, prevalence of school suspensions can be monitored over time to track general outcomes associated with school-based interventions.

EXHIBIT 3.15.1 Annualized prevalence of students suspended from school per 1,000 K-12 students attending schools whose primary language of instruction is English, by Local Health Integration Network, in Ontario, for three-year period from 2009/10 to 2011/12

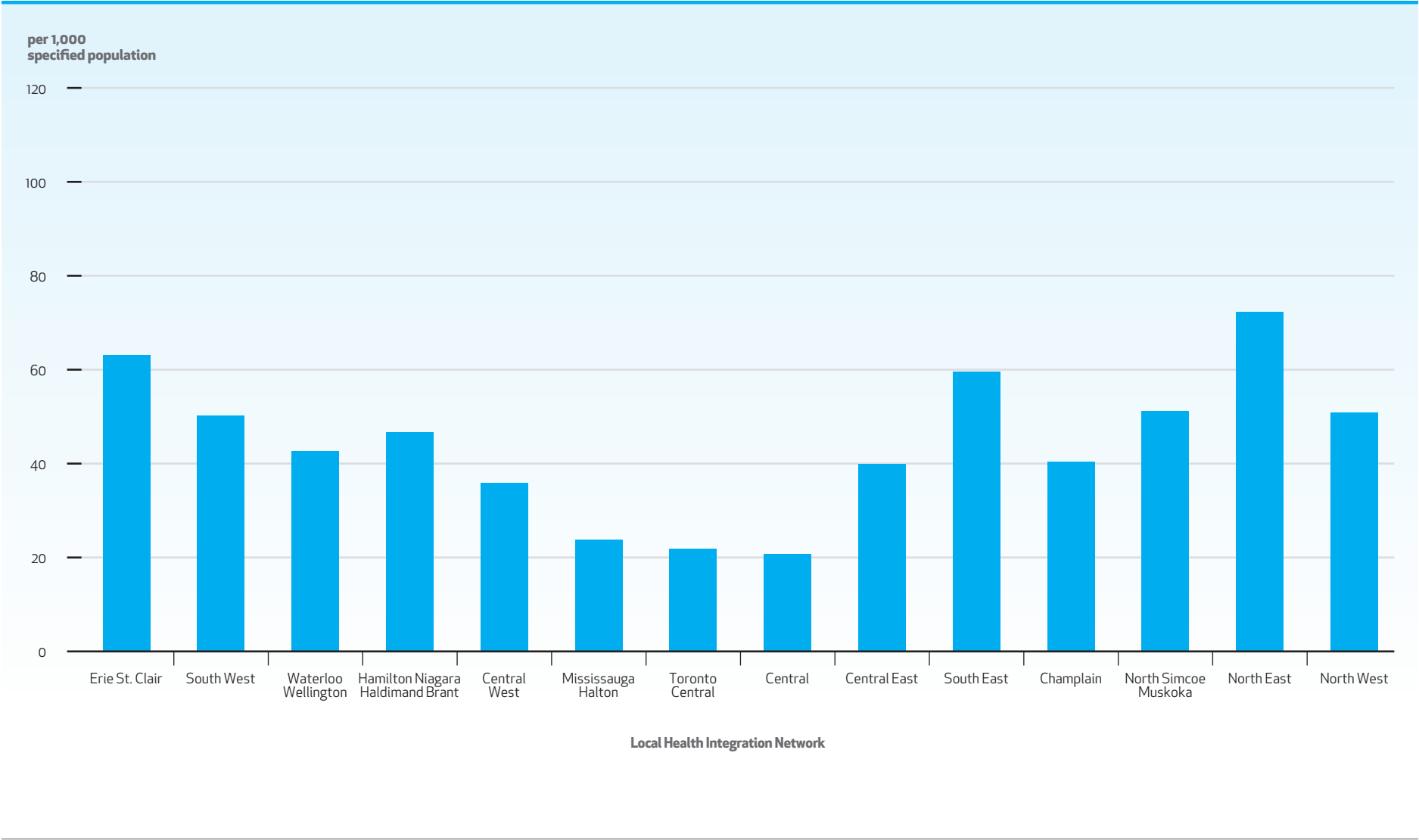
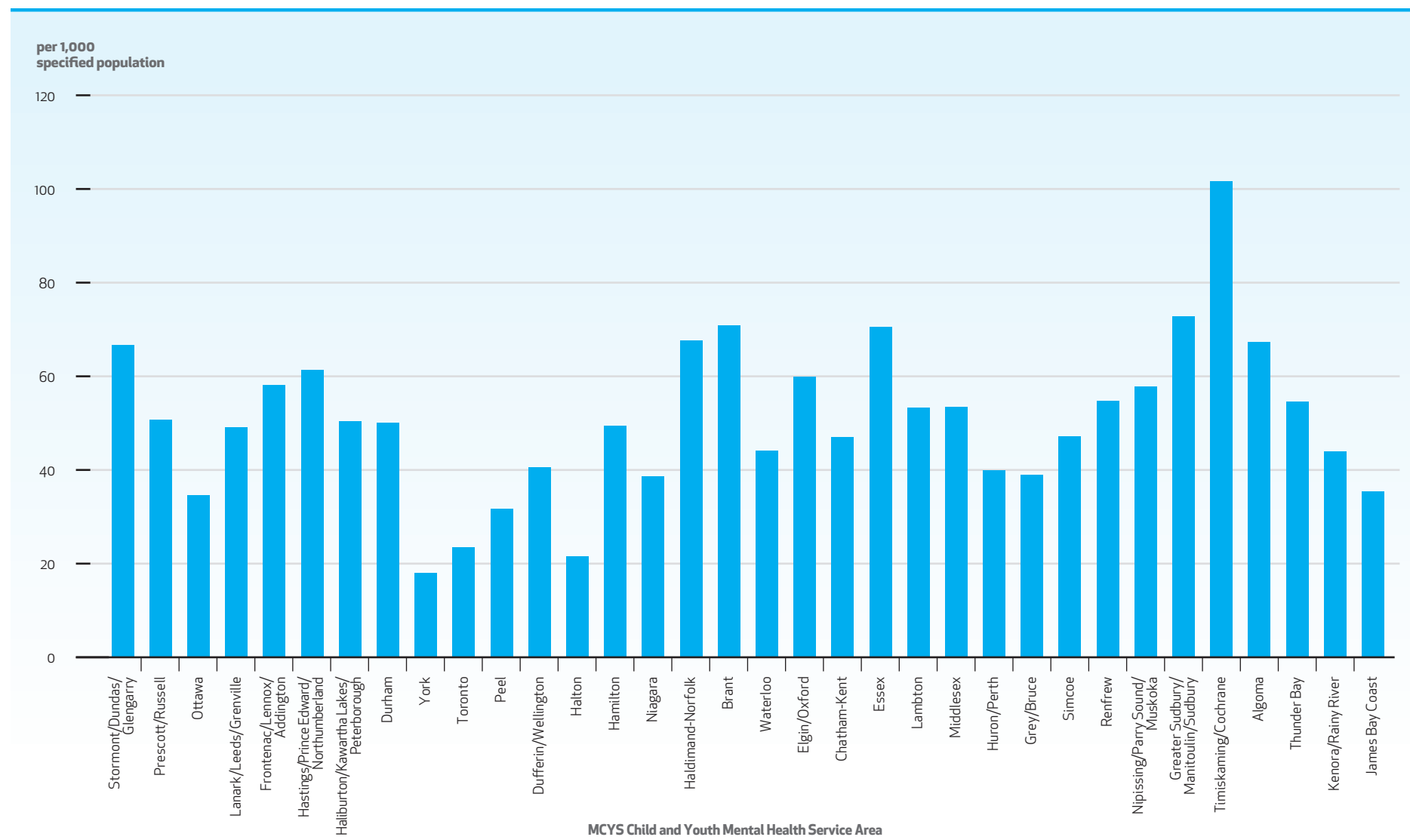


EXHIBIT 3.15.2 Annualized prevalence of students suspended from school per 1,000 K-12 students attending schools whose primary language of instruction is English, by MCYS Child and Youth Mental Health Service Area, in Ontario, for three-year period from 2009/10 to 2011/12



Rate of death by suicide for children and youth

Rationale

Suicide is one of the most common causes of death during adolescence. Understanding variations and trends in suicide rates may assist in identifying high-risk groups and designing appropriate interventions to reduce suicidal behaviours.

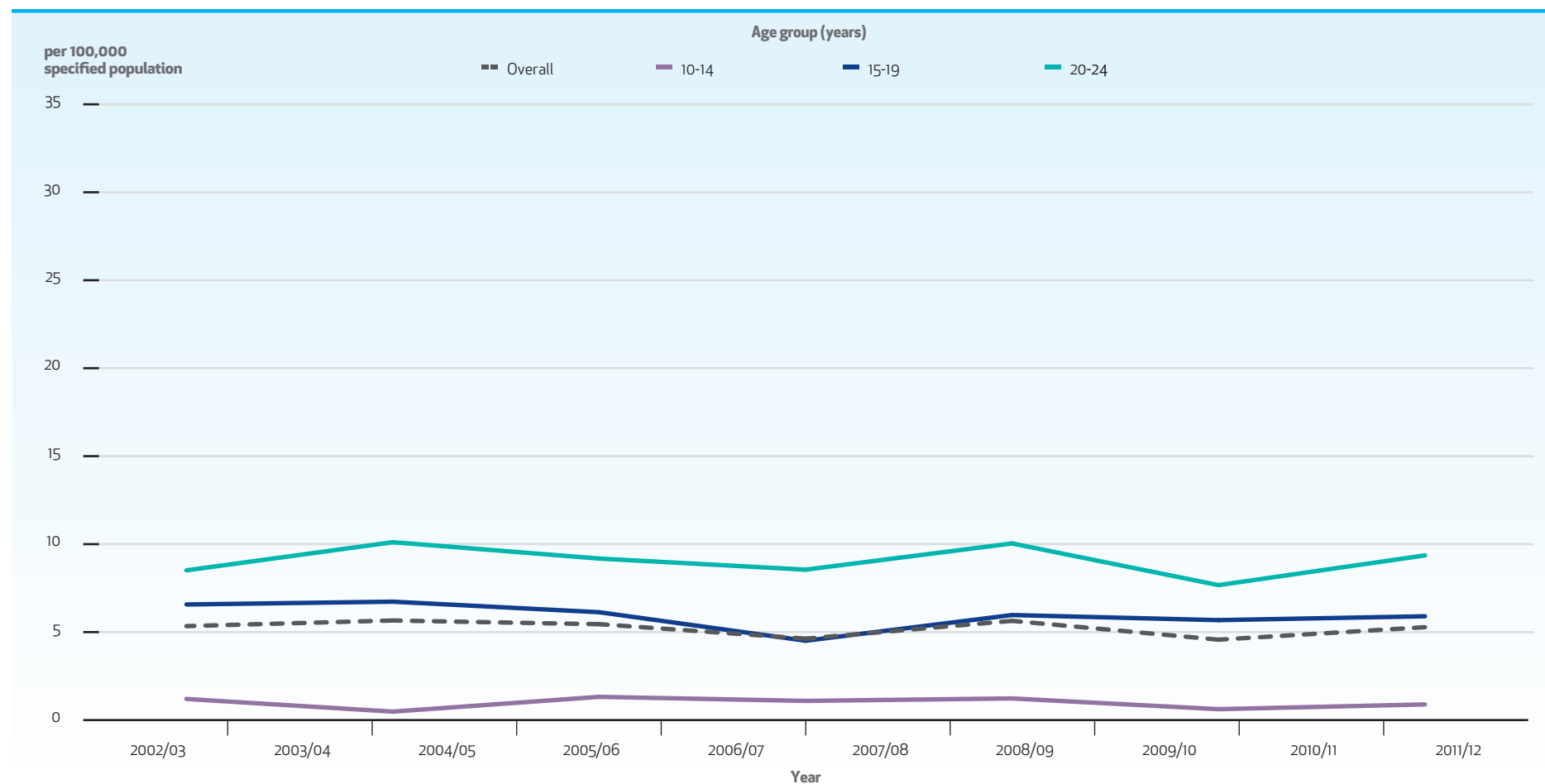
Results

Rates of death by suicide remained consistent over time across age groups. Suicide rates were most pronounced among males aged 20 to 24 years and those living in the lowest-income neighbourhoods. Canadian-born children and youth had higher rates of suicide than their immigrant and refugee peers. Suicide rates were highest in both the LHINs and the MCYS Child and Youth Mental Health Service Areas in northern Ontario. Since the cause of death for those younger than 10 years cannot be classified as suicide, suicide rates were unavailable for this age group. The death rate due to suicide for 10- to 14-year-olds was low but may be inaccurate due to possible misclassification.

Interpretation

Although suicide rates were relatively stable over time, the regional, gender and socioeconomic differences in these rates are important for prevention strategies. The geographical analysis based on LHINs and MCYS Child and Youth Mental Health Service Areas, along with the strikingly high rates observed in the northern part of the province, add an important regional perspective to the issue of suicide rates among Aboriginal youth. Very little information was available about suicide risk in immigrant youth in Canada. It is reassuring that refugee children and youth, a high-risk group, had lower suicide rates than other categories of immigrants or Canadian-born children and youth.

EXHIBIT 3.16.1 Standardized rate of death by suicide per 100,000 population aged 10 to 24 years, overall and by age group, in Ontario, 2003/04 to 2009/10



Note: Overall rates were standardized by age and sex, and rates for age groups were standardized by sex, both to the 2002 Ontario population.

EXHIBIT 3.16.2 Rate of death by suicide per 100,000 population aged 10 to 24 years, by age group, in Ontario, three-year average for 2007/08 to 2009/10

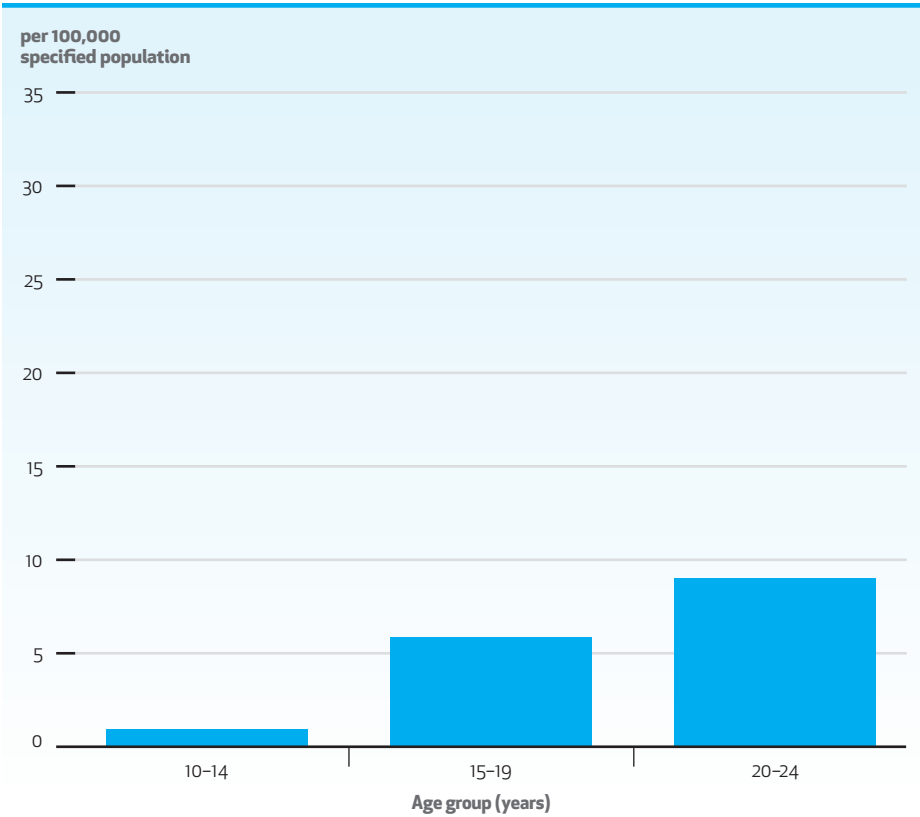


EXHIBIT 3.16.3 Rate of death by suicide per 100,000 population aged 10 to 24 years, by sex, in Ontario, three-year average for 2007/08 to 2009/10

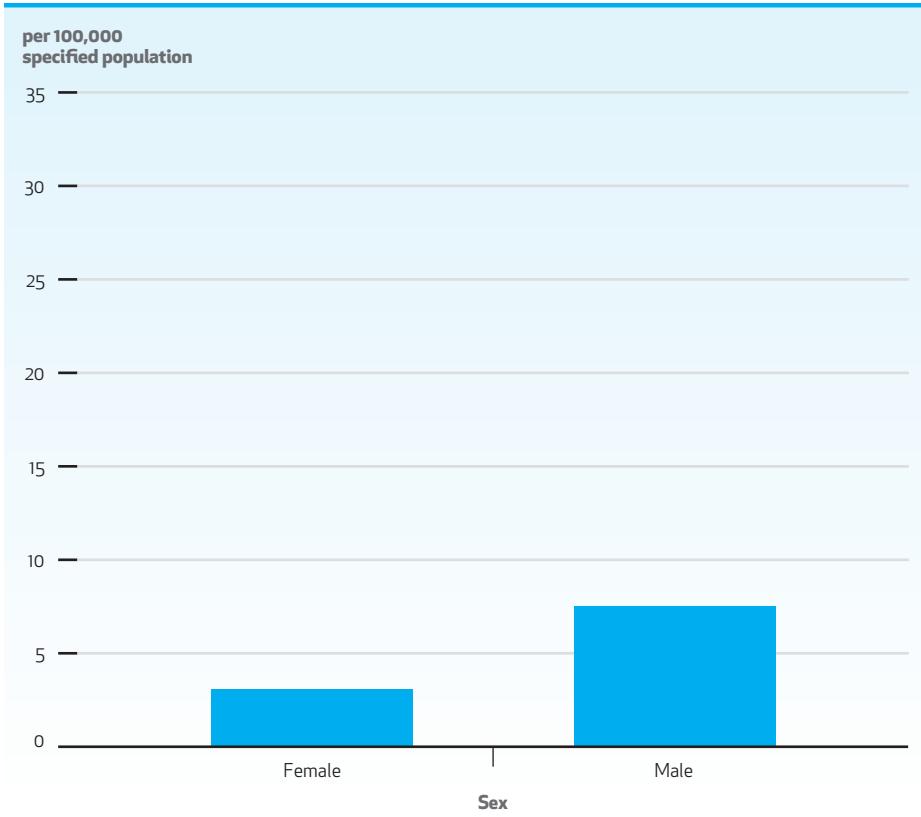


EXHIBIT 3.16.4 Rate of death by suicide per 100,000 population aged 10 to 24 years, by immigrant category, in Ontario, three-year average for 2007/08 to 2009/10

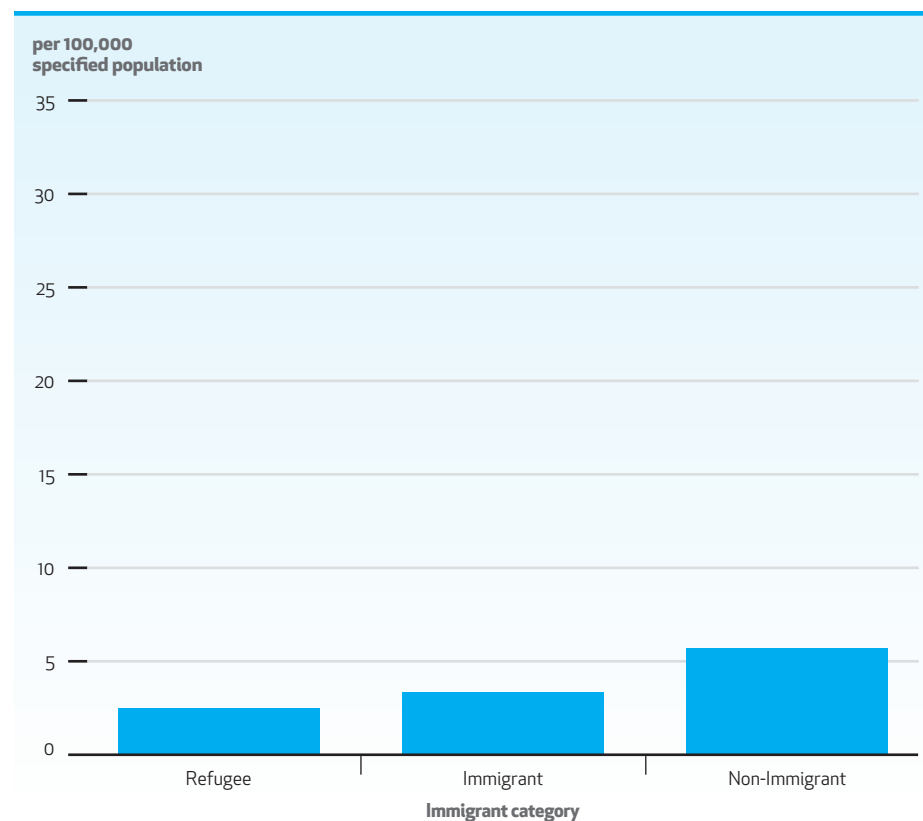


EXHIBIT 3.16.5 Rate of death by suicide per 100,000 population aged 10 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2007/08 to 2009/10

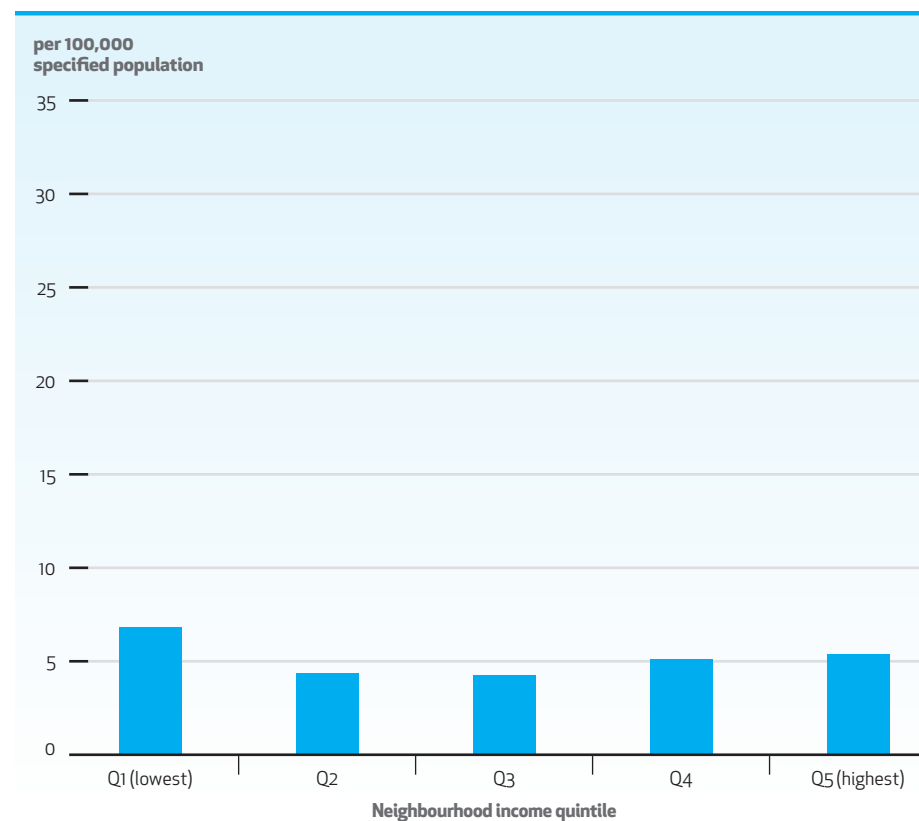
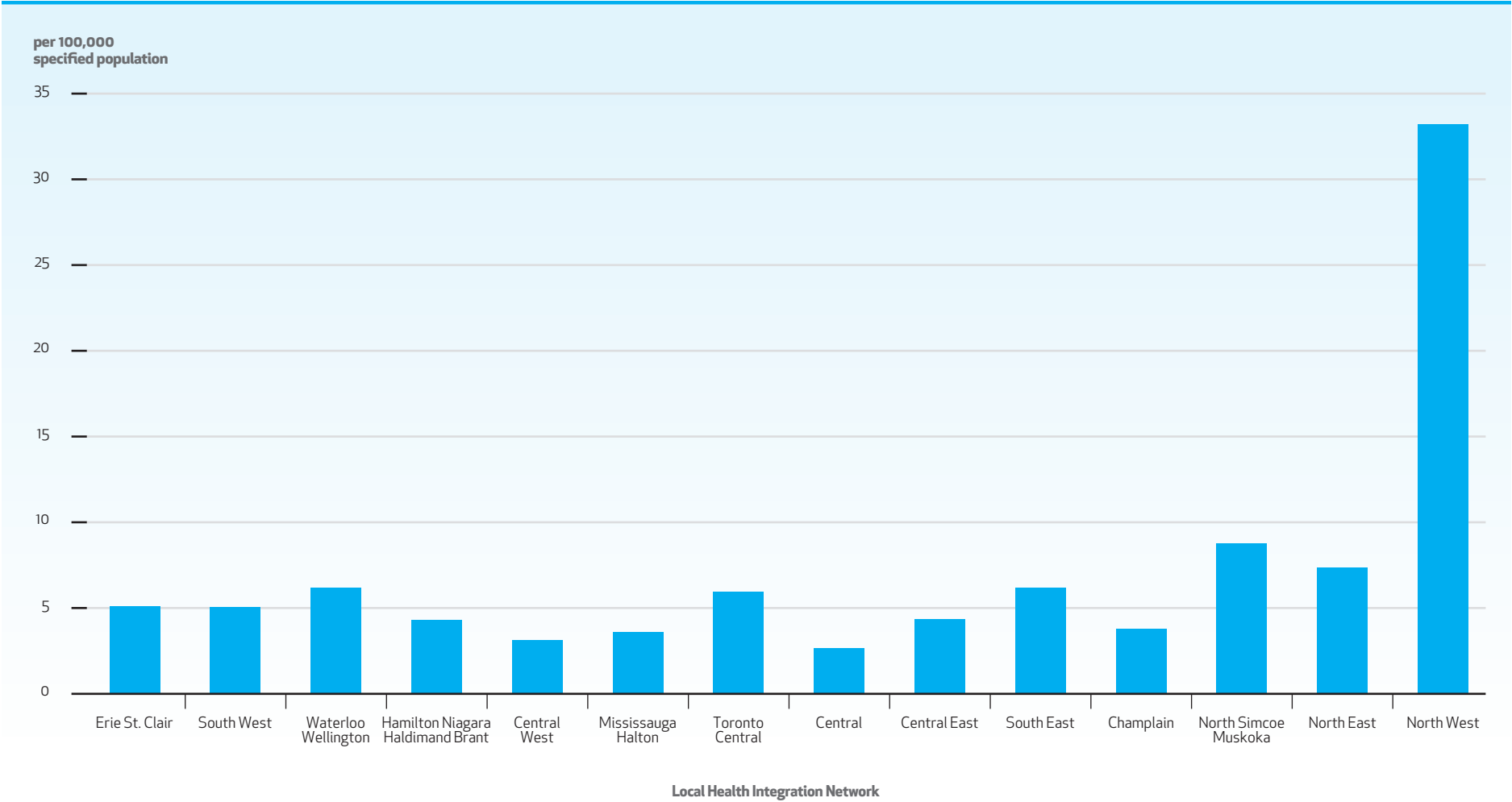
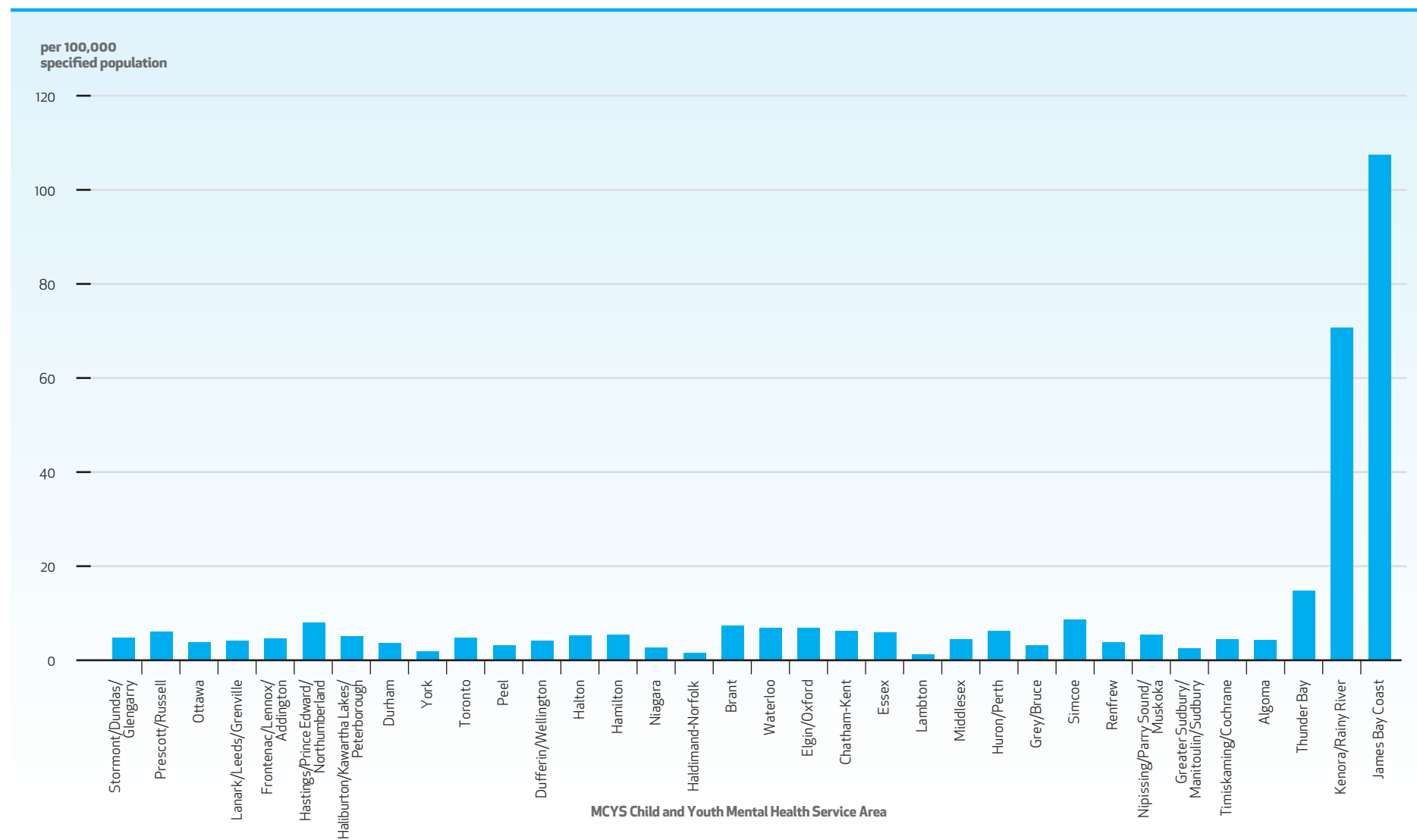


EXHIBIT 3.16.6 Standardized rate of death by suicide per 100,000 population aged 10 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2007/08 to 2009/10



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.16.7 Standardized rate of death by suicide per 100,000 population aged 10 to 24 years, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2007/08 to 2009/10



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of emergency department visits for deliberate self-harm among children and youth

Rationale

Deliberate self-harm refers to non-fatal self-poisoning or self-injury and encompasses a wide range of behaviours, from non-suicidal acts to attempted suicide (carried out with at least some intent to end one's life). These behaviours are important markers of mental health and may reflect a lack of access to community-based mental health services.

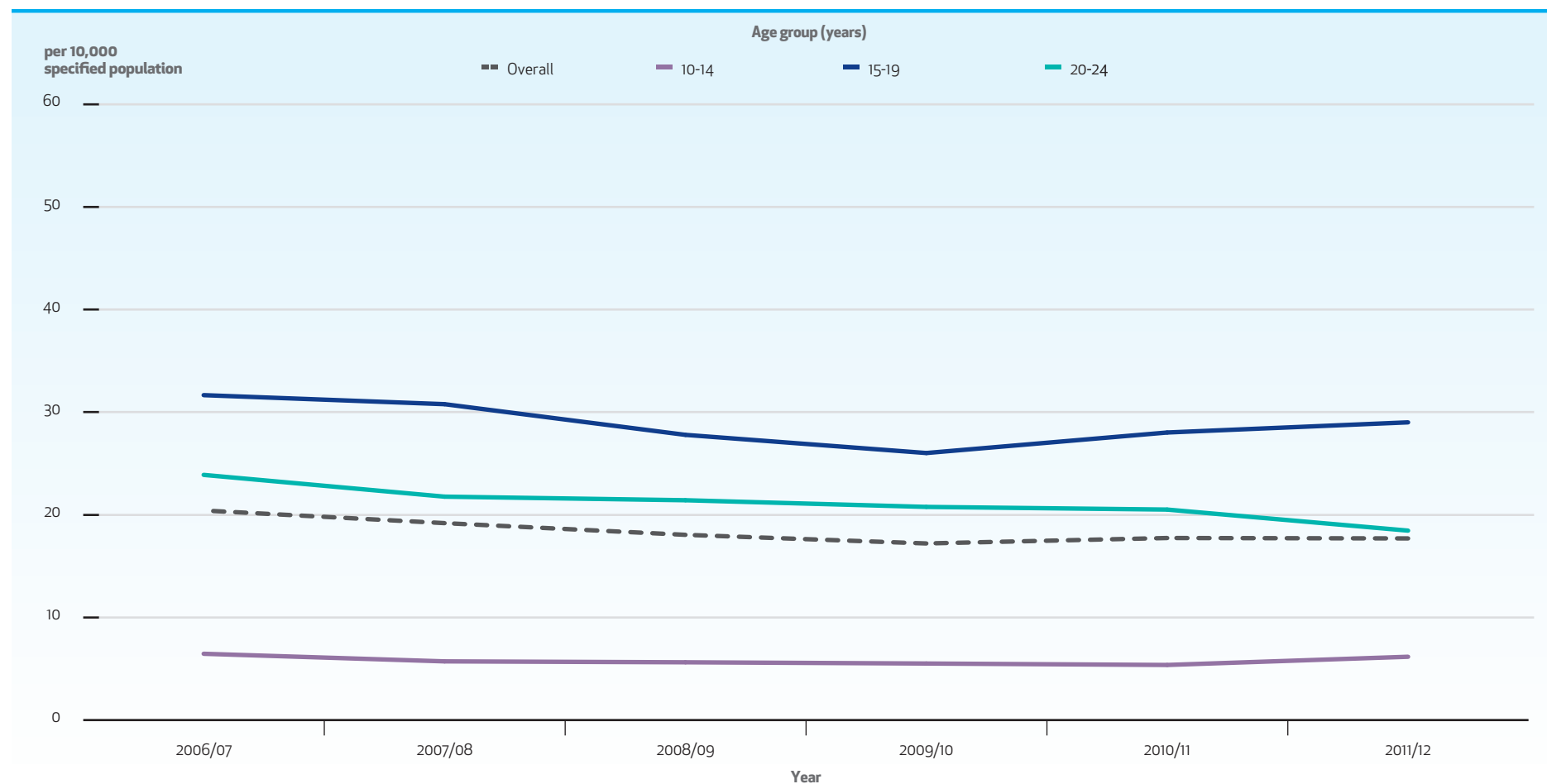
Results

Rates of emergency department visits for deliberate self-harm declined across all age groups from 2006/07 to 2011/12. Youth aged 15 to 19 years consistently had the highest rates. Females were twice as likely as males to engage in self-harm. Rates for non-immigrants and those living in lower-income neighbourhoods were noticeably elevated. The North West LHIN reported a substantially higher rate of deliberate self-harm than other LHINS. The northern MCYS Child and Youth Mental Health Service Areas of James Bay Coast and Kenora/Rainy River reported the highest self-harm rates. This analysis is limited in that it does not include individuals who did not visit an emergency department for self-harming behaviours.

Interpretation

Overall, rates of emergency department visits for deliberate self-harm trended down over time. The finding of higher rates of self-harm in girls is consistent with the gender paradox identified in the literature: mortality from suicide is higher in males, while suicide attempts are higher in females.^{48,49} In contrast to the results for suicide rates, the higher rates of self-harm observed in refugees relative to other immigrants suggest that there may be mental health care access challenges for refugees. Similar to the patterns of suicide rates, the rates of deliberate self-harm in the North West LHIN and in northern MCYS Child and Youth Mental Health Service Areas are a clear indication of the severe mental health problems that exist in this region.

EXHIBIT 3.17.1 Standardized rate of emergency department visits for deliberate self-harm per 10,000 population aged 10 to 24 years, overall and by age group, in Ontario, 2006/07 to 2011/12



Note: Overall rates were standardized by age and sex, and rates for age groups were standardized by sex, both to the 2002 Ontario population.

EXHIBIT 3.17.2 Rate of emergency department visits for deliberate self-harm per 10,000 population aged 10 to 24 years, by age group, in Ontario, three-year average for 2009/10 to 2011/12

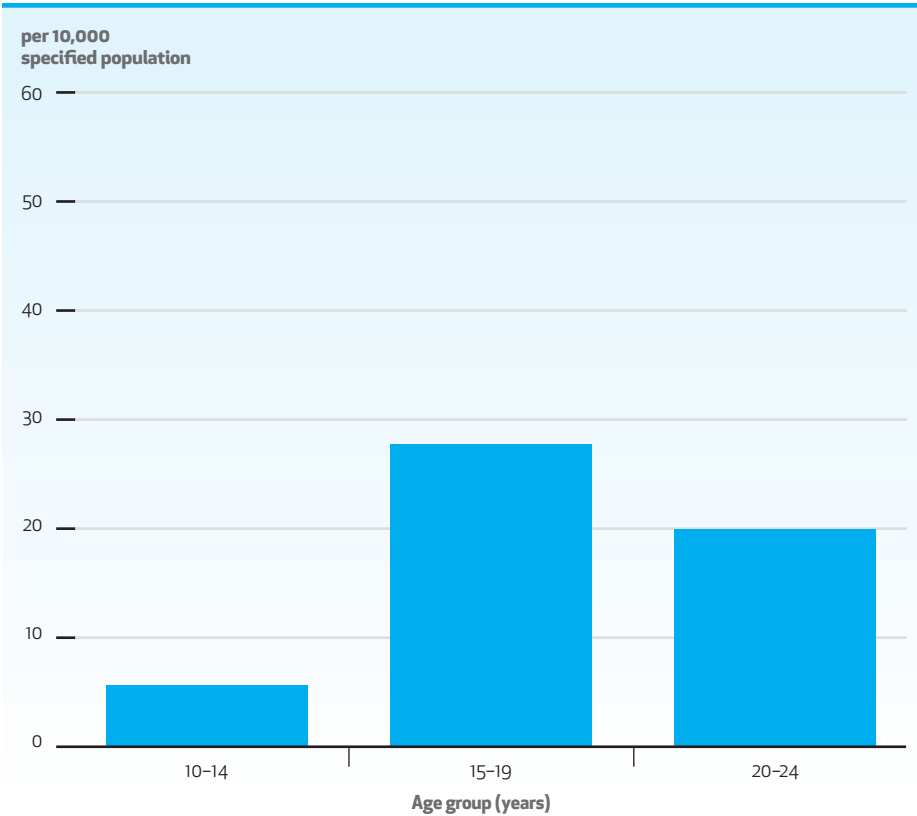


EXHIBIT 3.17.3 Rate of emergency department visits for deliberate self-harm per 10,000 population aged 10 to 24 years, by sex, in Ontario, three-year average for 2009/10 to 2011/12

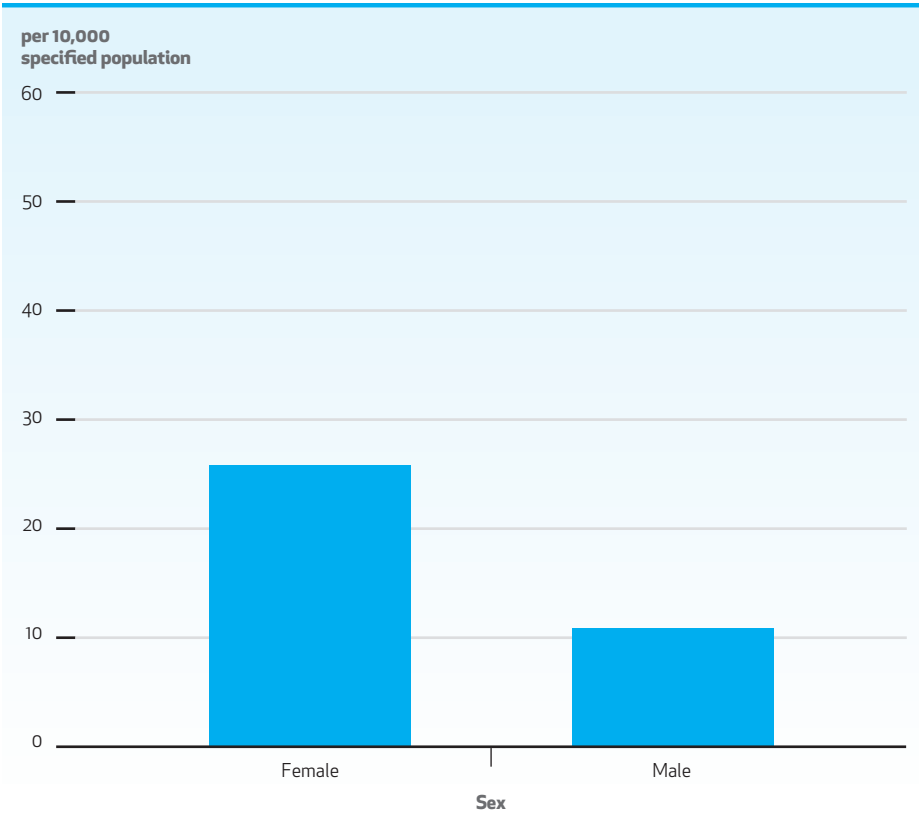


EXHIBIT 3.17.4 Rate of emergency department visits for deliberate self-harm per 10,000 population aged 10 to 24 years, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

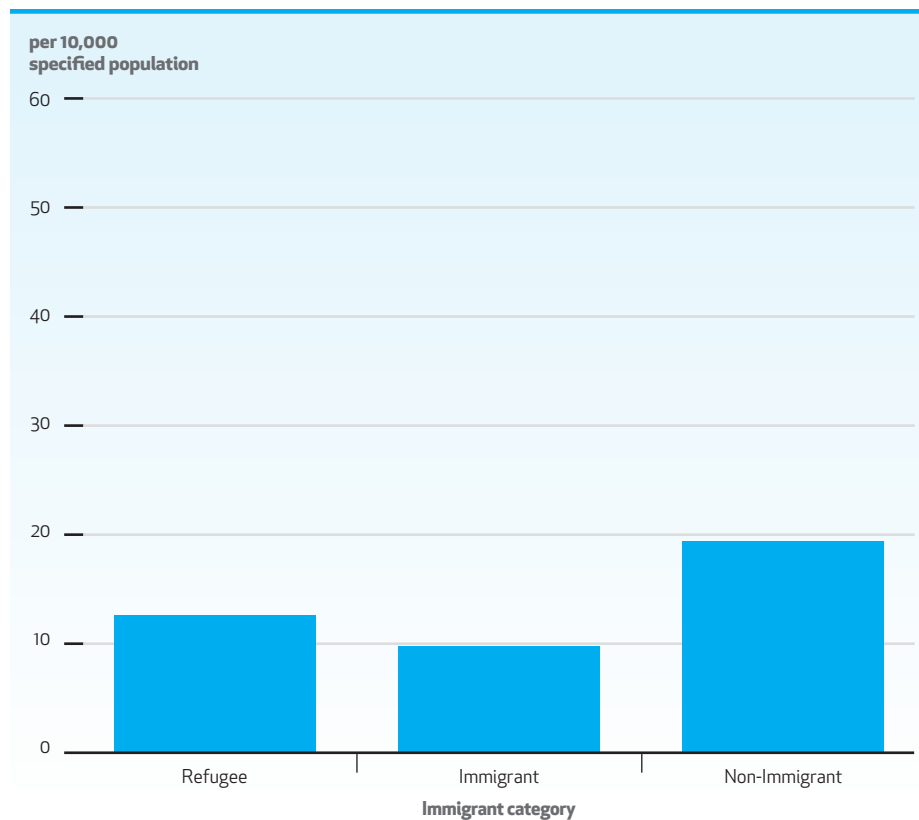


EXHIBIT 3.17.5 Rate of emergency department visits for deliberate self-harm per 10,000 population aged 10 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

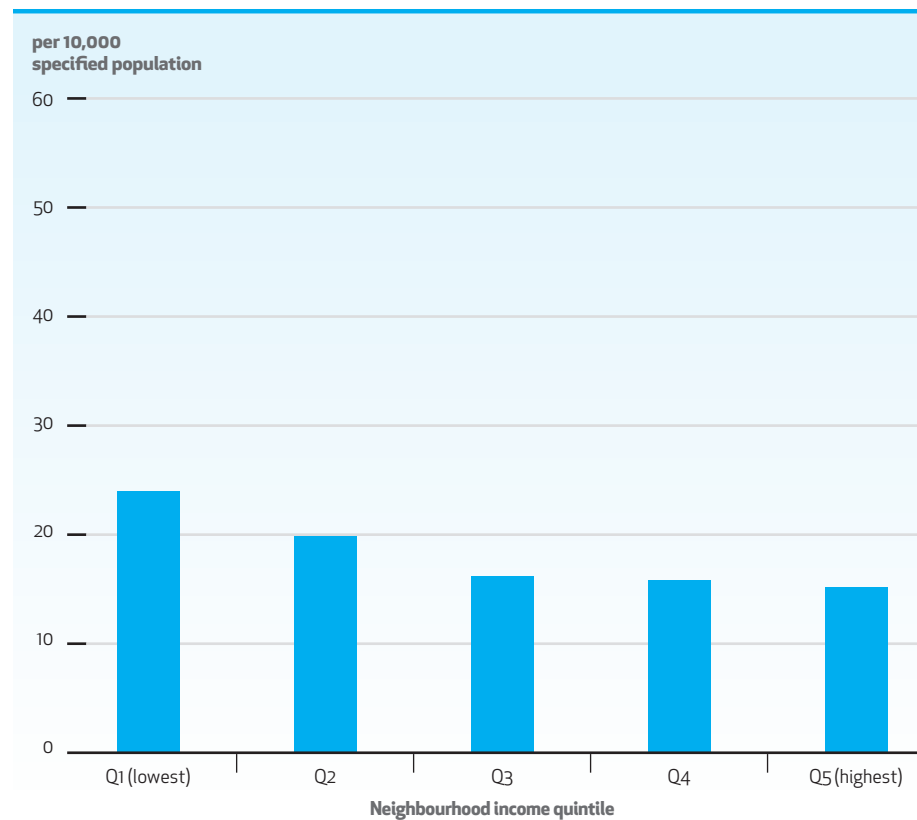
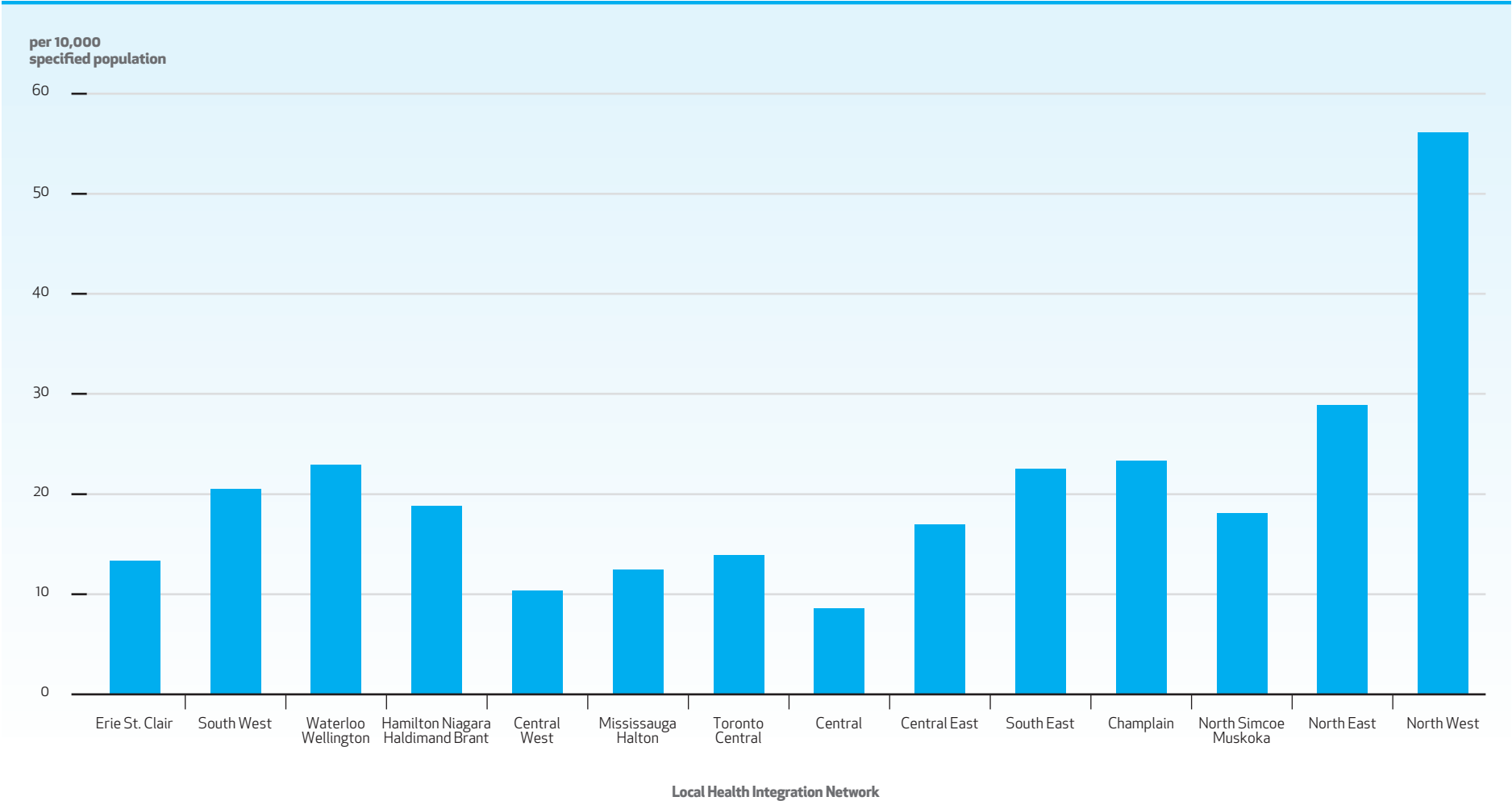
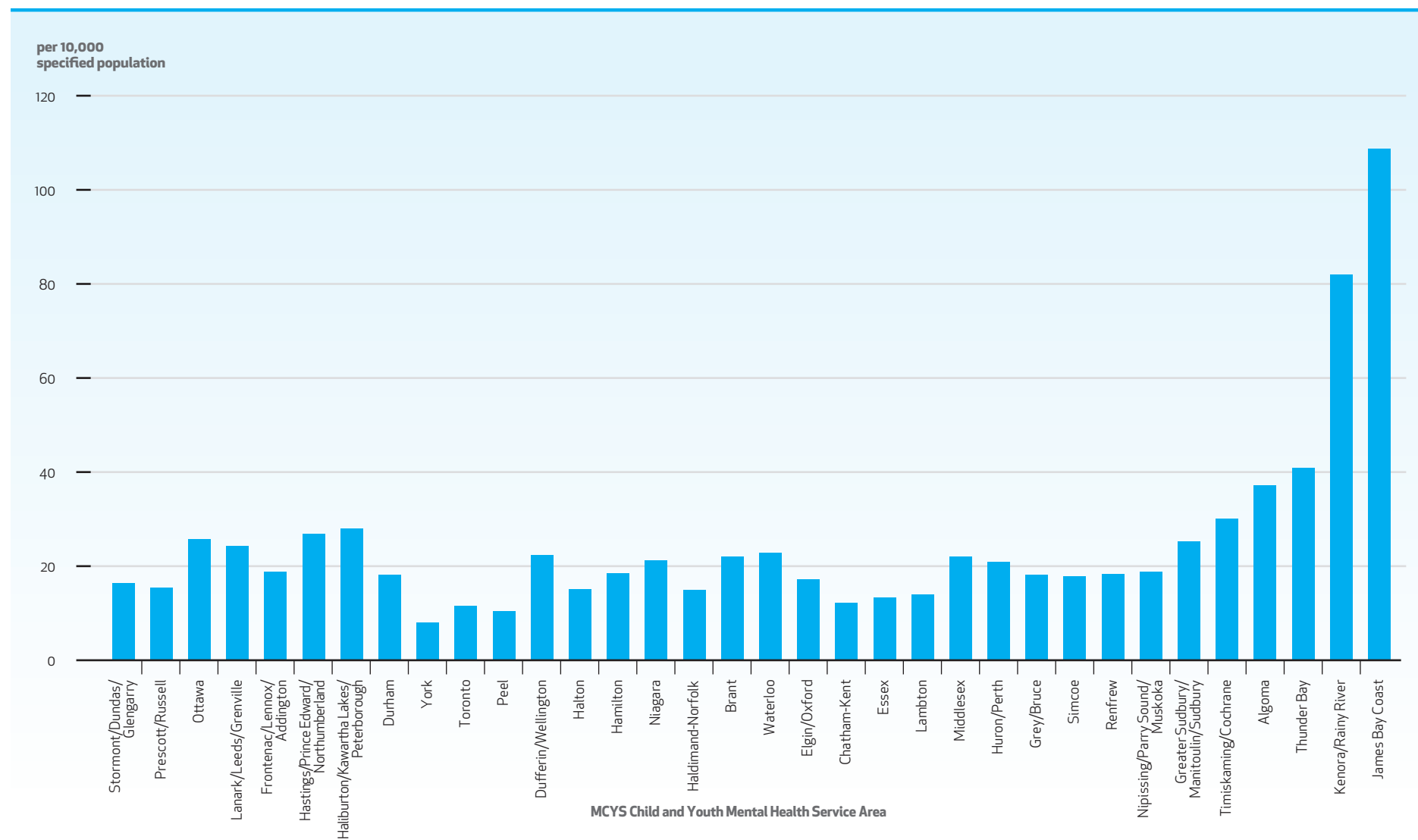


EXHIBIT 3.17.6 Standardized rate of emergency department visits for deliberate self-harm per 10,000 population aged 10 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.17.7 Standardized rate of emergency department visits for deliberate self-harm per 10,000 population aged 10 to 24 years, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of emergency department visits related to mental health and addictions for children and youth

Rationale

The use of emergency departments for mental health and addictions problems may signal a lack of early identification of mental health and addictions needs, as well as gaps in service provided at the primary care and community levels.

Results

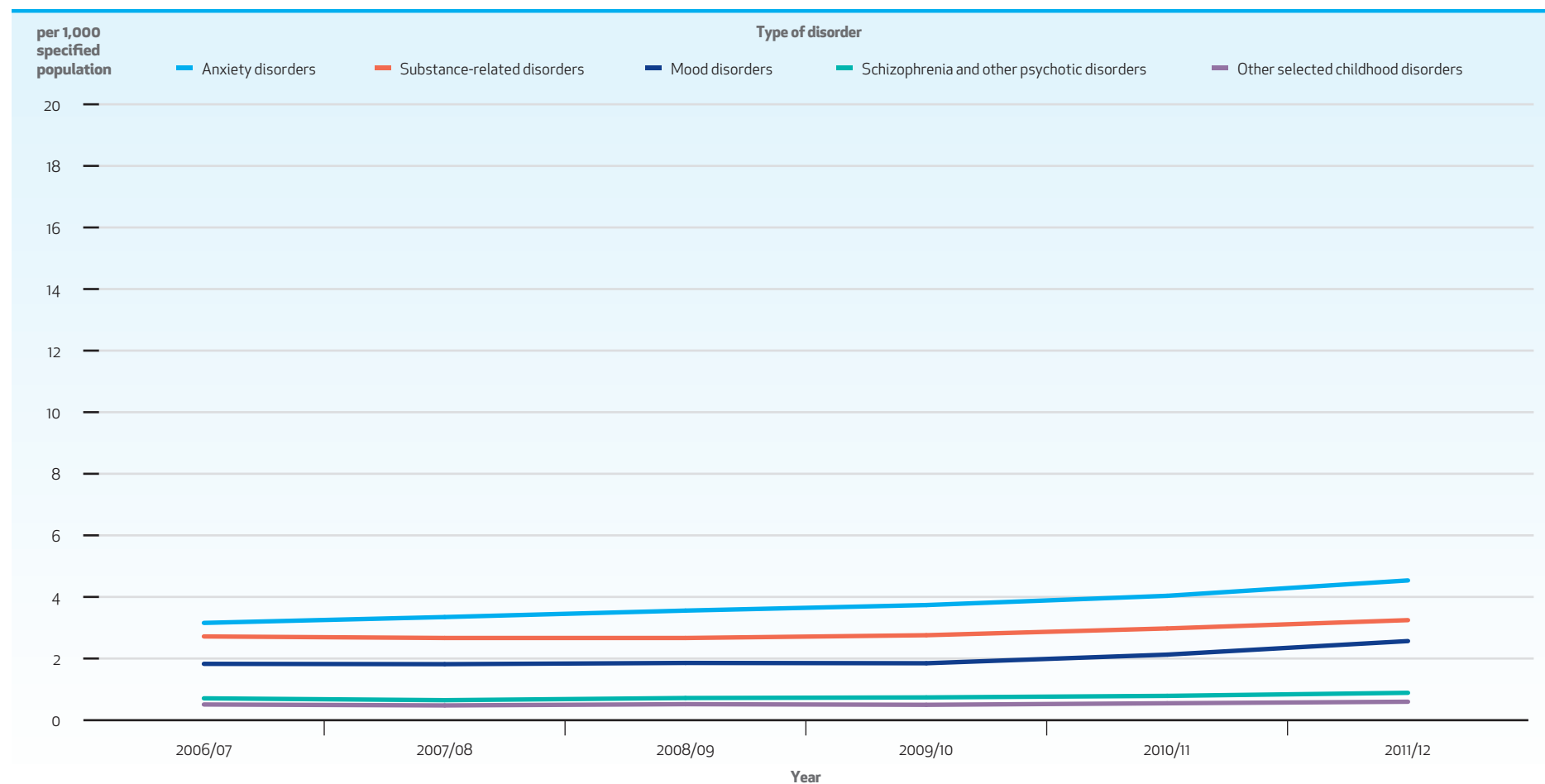
The rate of emergency department visits for anxiety disorders, substance abuse disorders and mood disorders increased. Rates remained stable for schizophrenia and other psychotic disorders and for other childhood disorders. Rates of emergency department visits for 20- to 24-year-olds were consistently higher, both by year and across the categories of mental health disorders other than other childhood disorders. However, among youth aged 15 to 19, notable annual increases were found between 2009/10 and 2011/12 for anxiety disorders, substance abuse disorders and mood disorders.

When all conditions were combined, the rates of emergency department visits were highest in the older age groups and slightly higher among females. Across immigrant groups, rates were highest for refugees and lowest for other (non-refugee) immigrants. Children and youth from neighbourhoods with the lowest incomes had the highest rates of emergency department visits across income groups. Among LHINs, the North West LHIN had the highest rate of emergency department visits and the Central LHIN the lowest. Differences across MCYS Child and Youth Mental Health Service Areas were minimal, with the exception of the James Bay Coast, which had significantly higher rates of emergency department visits.

Interpretation

The increases in emergency department visits for substance abuse, mood disorders and anxiety disorders suggest that there are inadequate community-based services for these conditions and may also indicate an increase in prevalence for these conditions. The high rate of emergency department visits in the North West LHIN likely reflects an inadequacy in all community-based resources, particularly substance abuse-related supports. The observed income differences are consistent with published differences in prevalence for these disorders.

EXHIBIT 3.18.1 Standardized rate of emergency department visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.18.2 Rate of emergency department visits related to mental health and addictions per 1,000 population aged 10 to 14 years, by type of disorder, in Ontario, 2006/07 to 2011/12

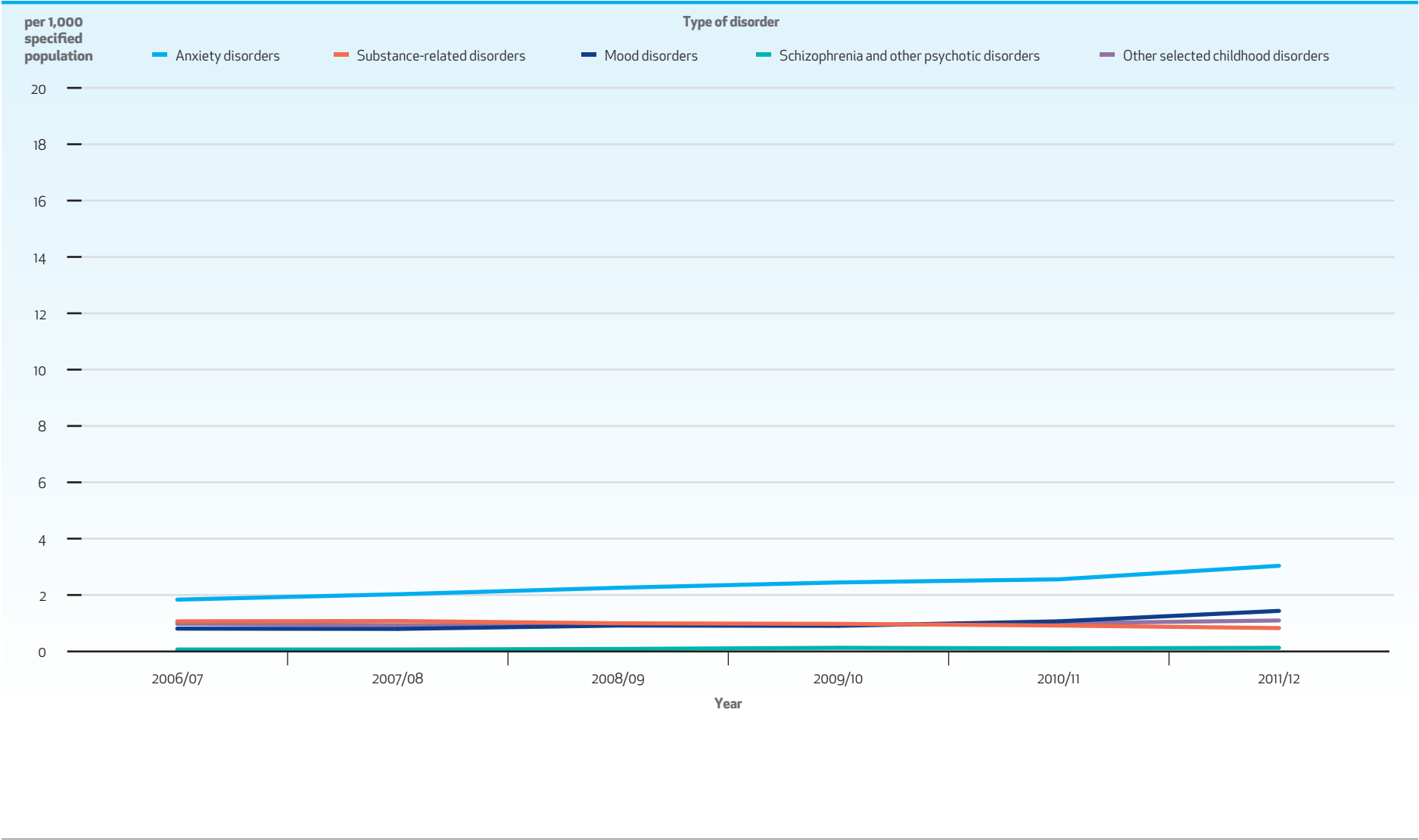


EXHIBIT 3.18.3 Rate of emergency department visits related to mental health and addictions per 1,000 population aged 15 to 19 years, by type of disorder, in Ontario, 2006/07 to 2011/12

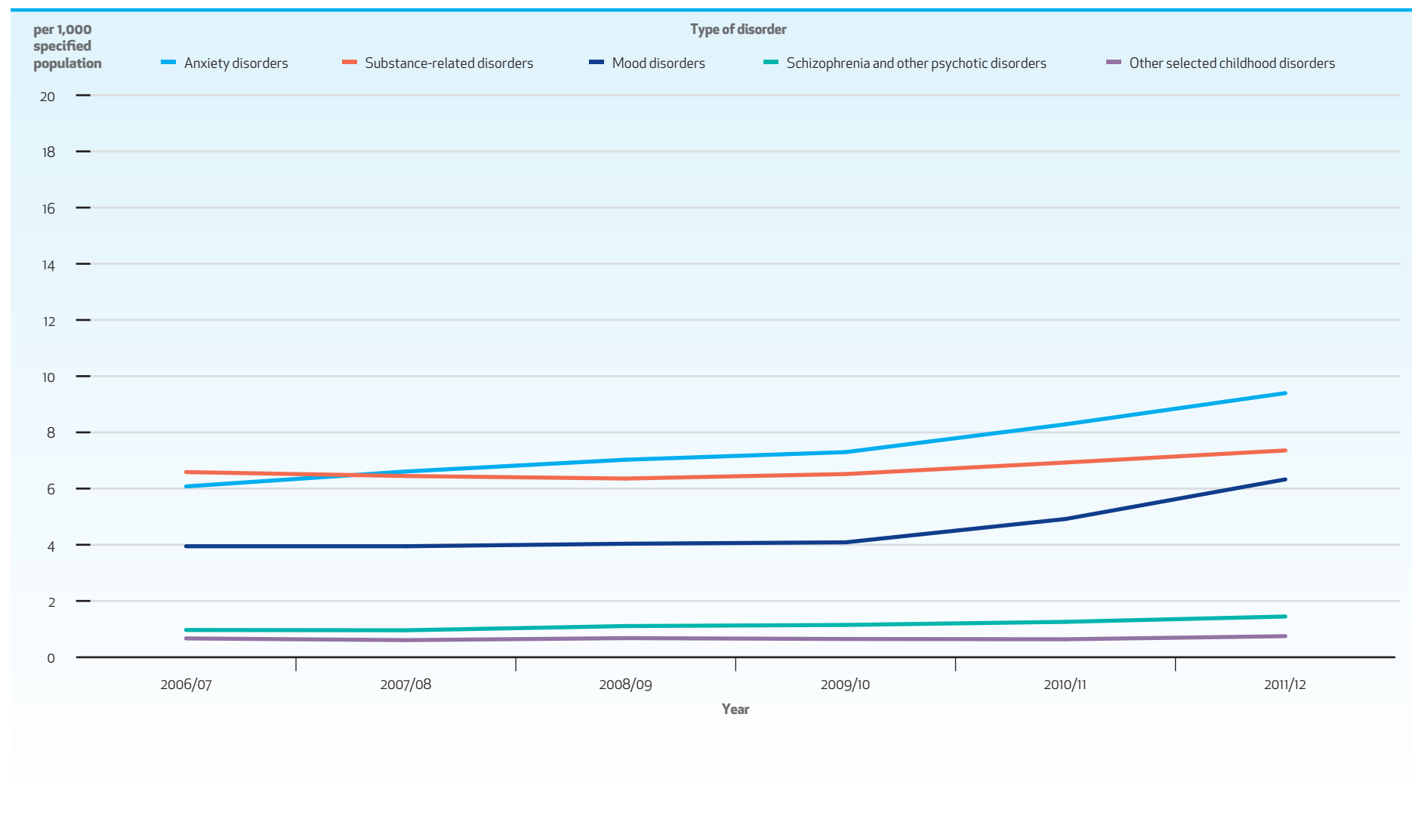


EXHIBIT 3.18.4 Rate of emergency department visits related to mental health and addictions per 1,000 population aged 20 to 24 years, by type of disorder, in Ontario, 2006/07 to 2011/12

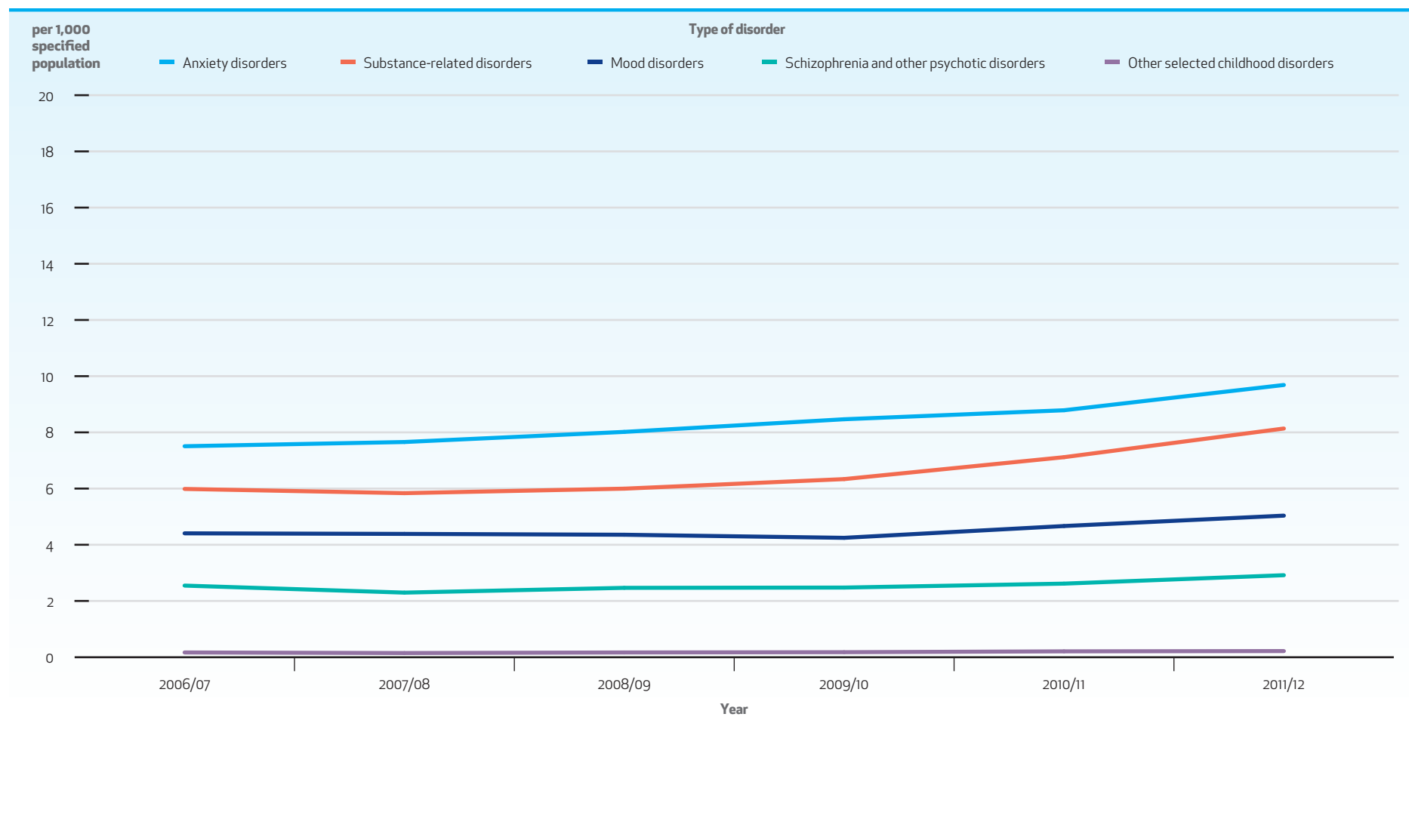


EXHIBIT 3.18.5 Rate of emergency department visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by age group, in Ontario, three-year average for 2009/10 to 2011/12

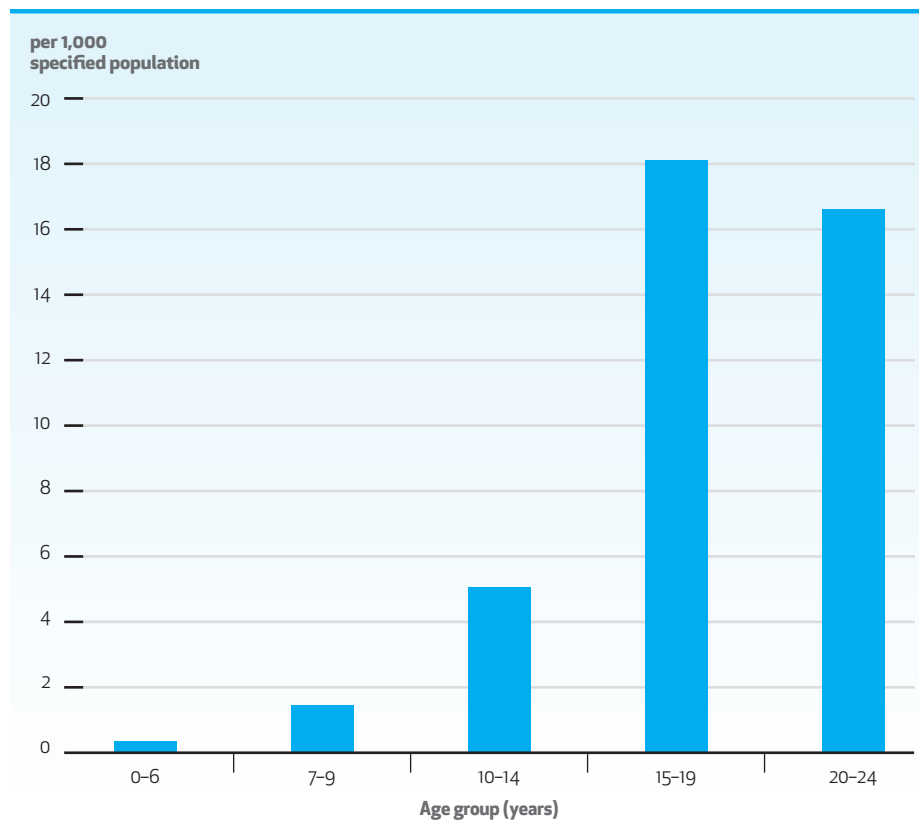


EXHIBIT 3.18.6 Rate of emergency department visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by sex, in Ontario, three-year average for 2009/10 to 2011/12

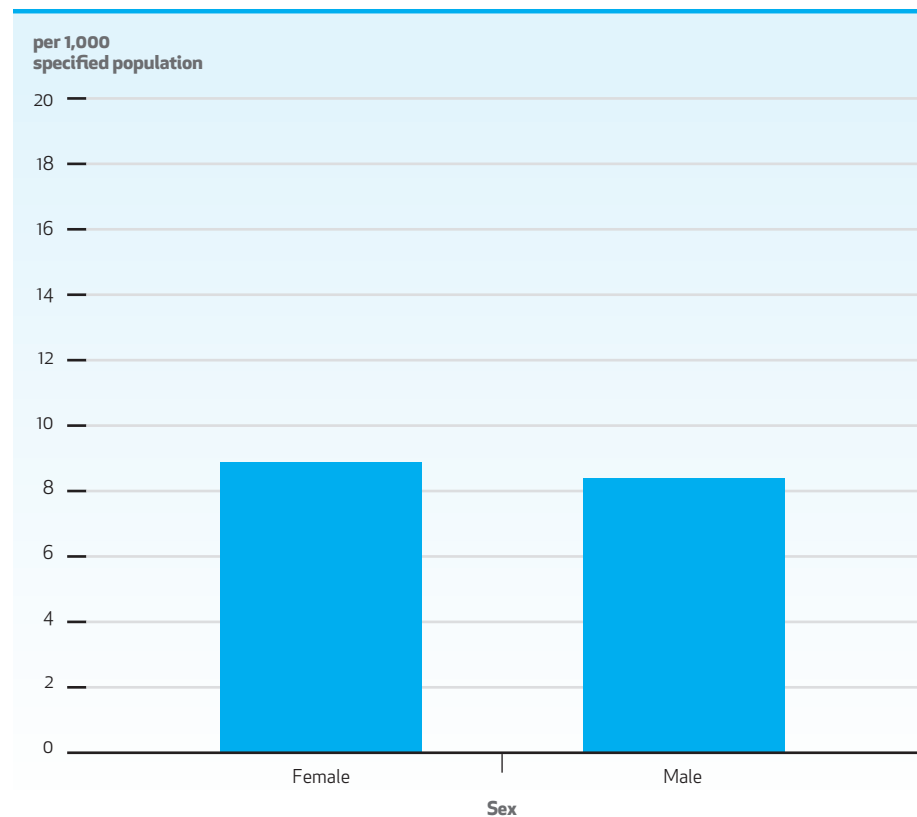


EXHIBIT 3.18.7 Rate of emergency department visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

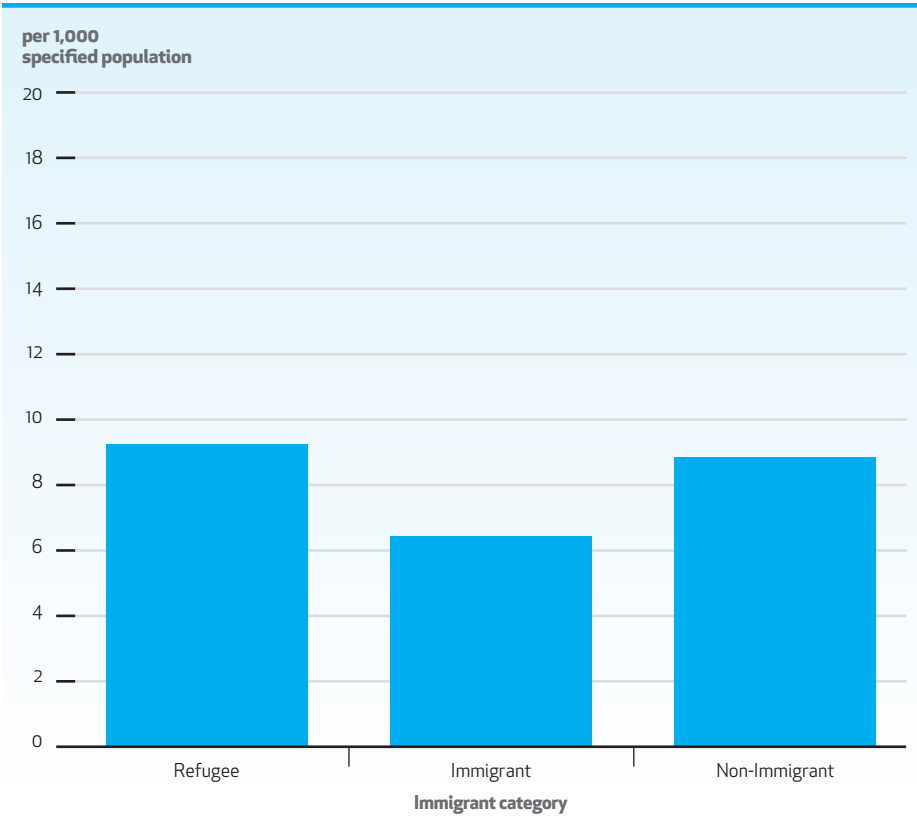


EXHIBIT 3.18.8 Rate of emergency department visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

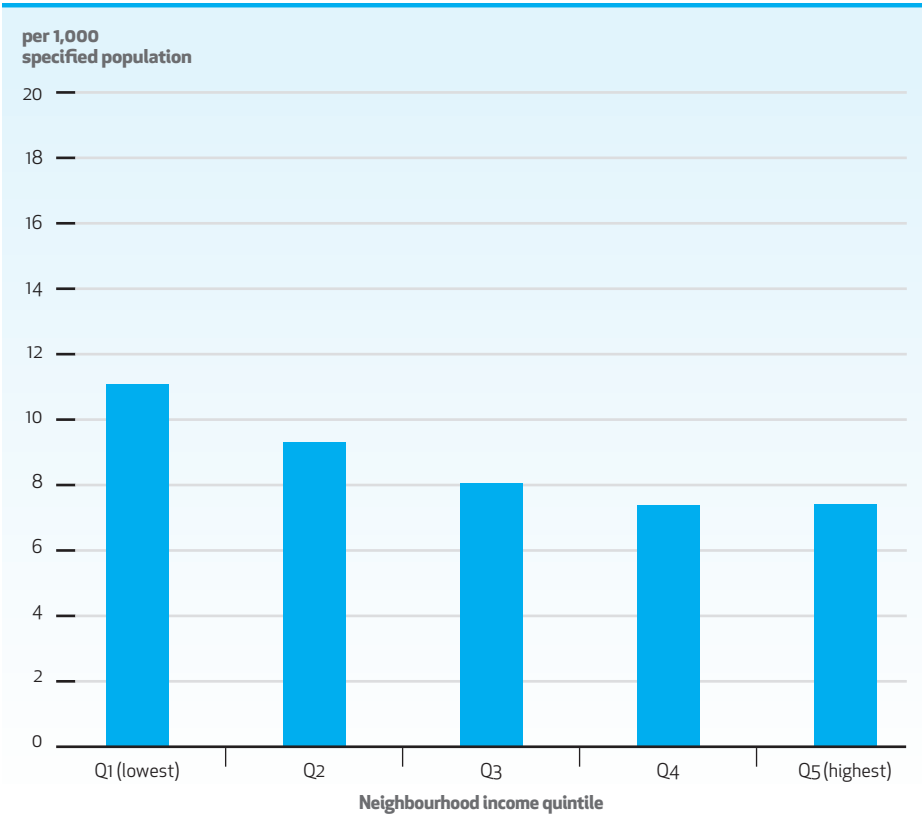
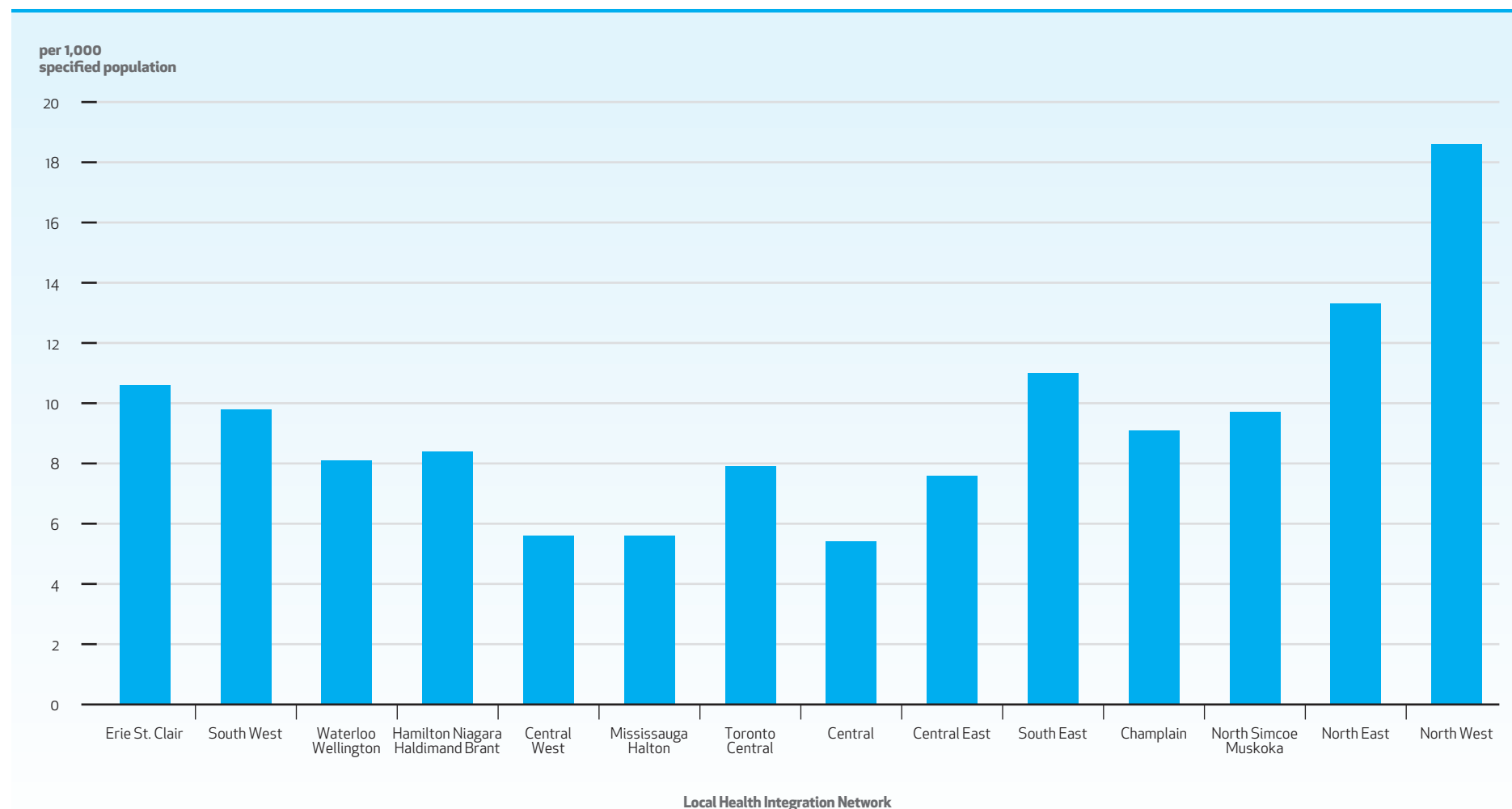
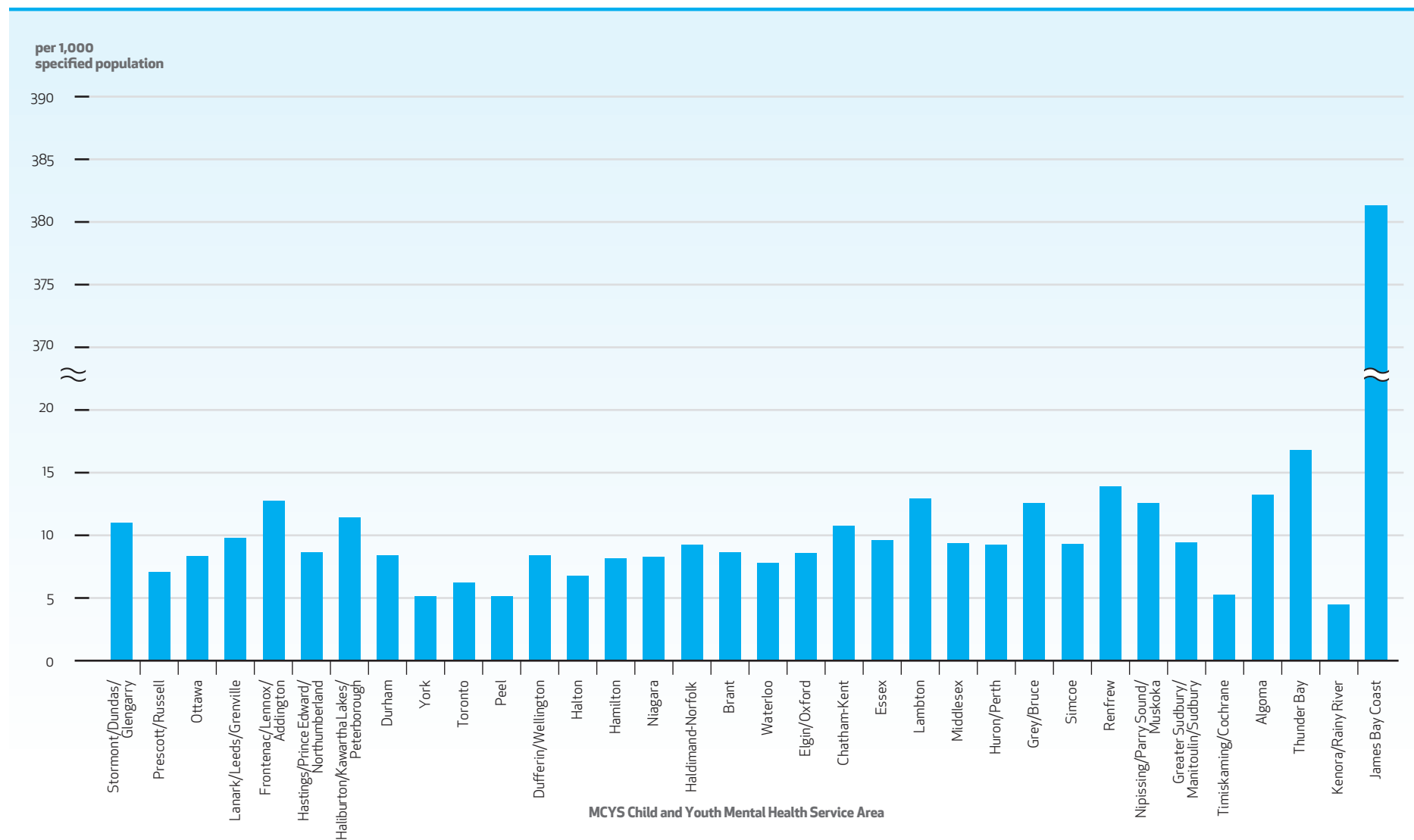


EXHIBIT 3.18.9 Standardized rate of emergency department visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.18.10 Standardized rate of emergency department visits related to mental health and addictions per 1,000 population aged 0 to 24 years, by MCYS Child and Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of hospital admissions related to mental health and addictions for children and youth

Rationale

Hospital admission for mental health and addictions may be the result of inadequate early identification and of service and treatment gaps at the community and primary care levels.

Results

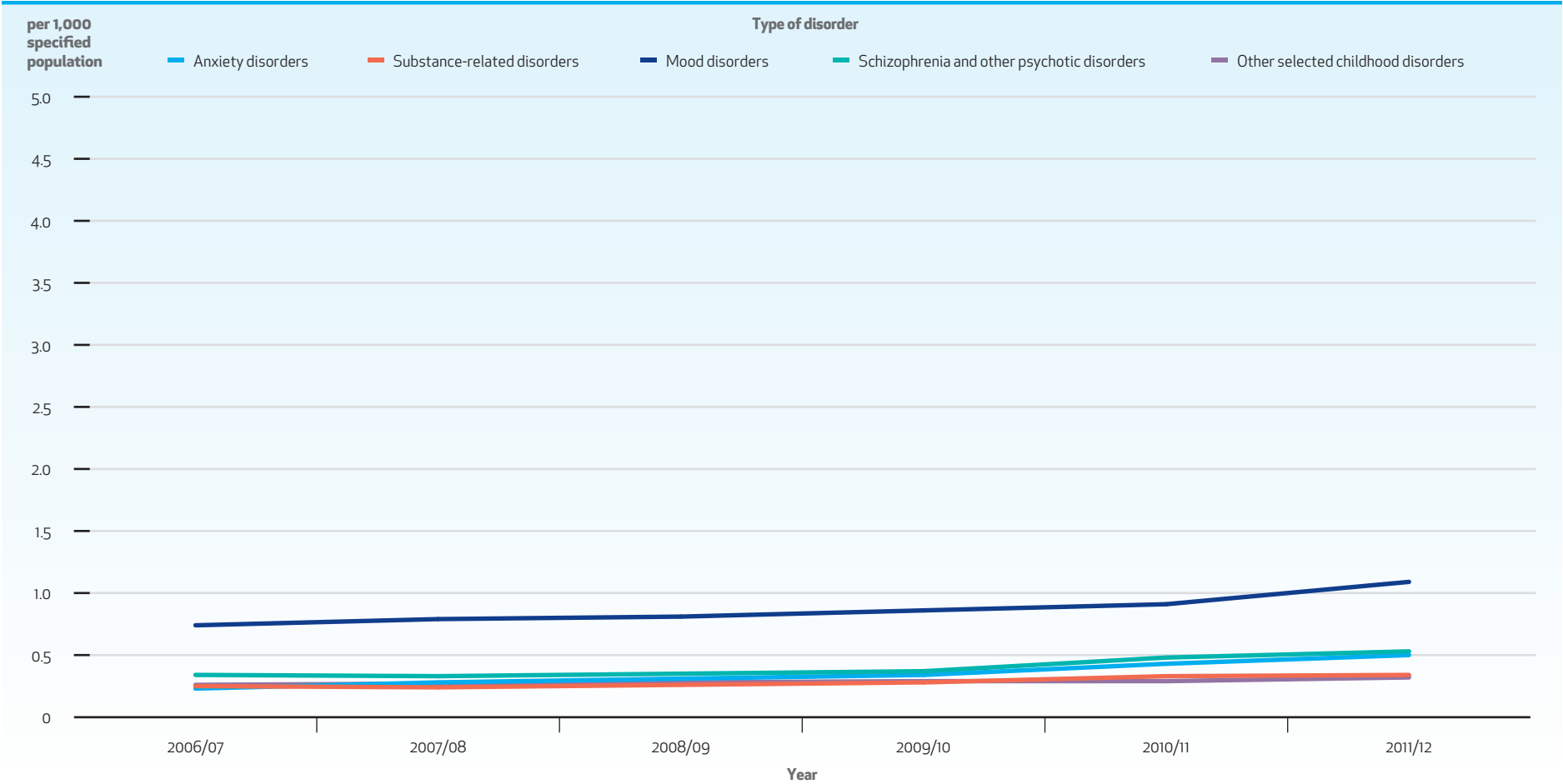
From 2006/07 to 2011/12, rates of hospital admissions remained stable. However, when stratified by age, gradual increases were found among youth aged 15 to 19 years and 20 to 24 years. The most common reason for hospitalization was mood disorders, for which rates increased considerably between 2006/07 and 2011/12 among youth aged 15 to 19 years.

Stratified by age, the highest rates of hospital admissions were seen among youth aged 15 to 19 years. No major differences between males and females were found. Hospital admission rates were higher among refugees and non-immigrants compared to other immigrants. Across all diagnoses, hospital admissions were highest among those in the lowest-income group, with rates decreasing as income level increased. The rate of hospital admissions was the highest in the North West LHIN and lowest in the Mississauga Halton LHIN. Differences across MCYS Child and Youth Mental Health Service Areas were minimal with the exception of the James Bay Coast, which had very high rates of hospital admissions.

Interpretation

Population-based rates of hospitalizations for mental health and addictions are very low, making interpretation of trends and demographic and regional differences difficult. The high rates of hospitalization in northern Ontario likely reflects a combination of a higher prevalence of mental illness and addictions and relatively lower access to community-based services that could serve as alternatives to hospitalization.

EXHIBIT 3.19.1 Standardized rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.19.2 Rate of hospital admissions related to mental health and addictions per 1,000 population aged 10 to 14 years, by type of disorder, in Ontario, 2006/07 to 2011/12

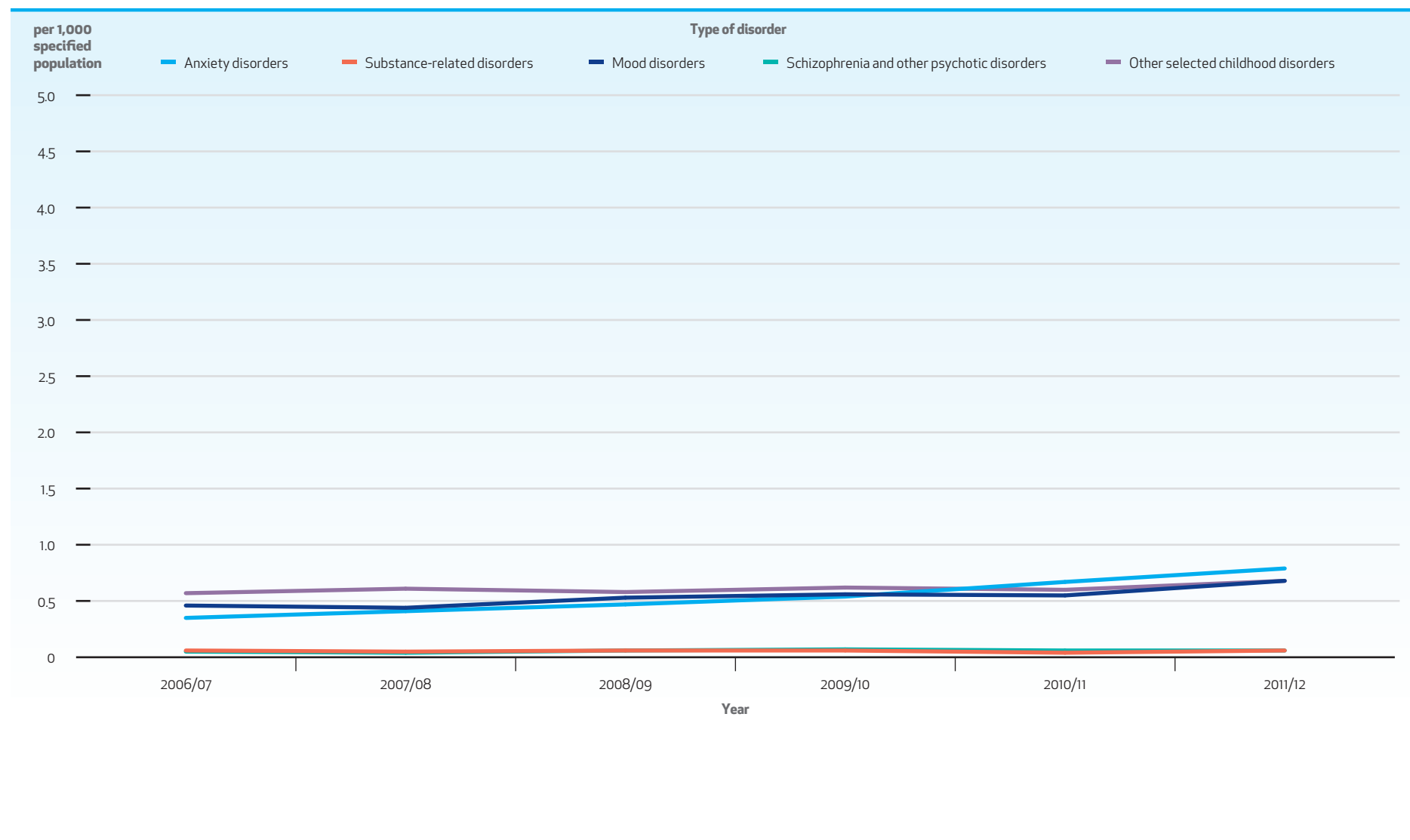


EXHIBIT 3.19.3 Rate of hospital admissions related to mental health and addictions per 1,000 population aged 15 to 19 years, by type of disorder, in Ontario, 2006/07 to 2011/12

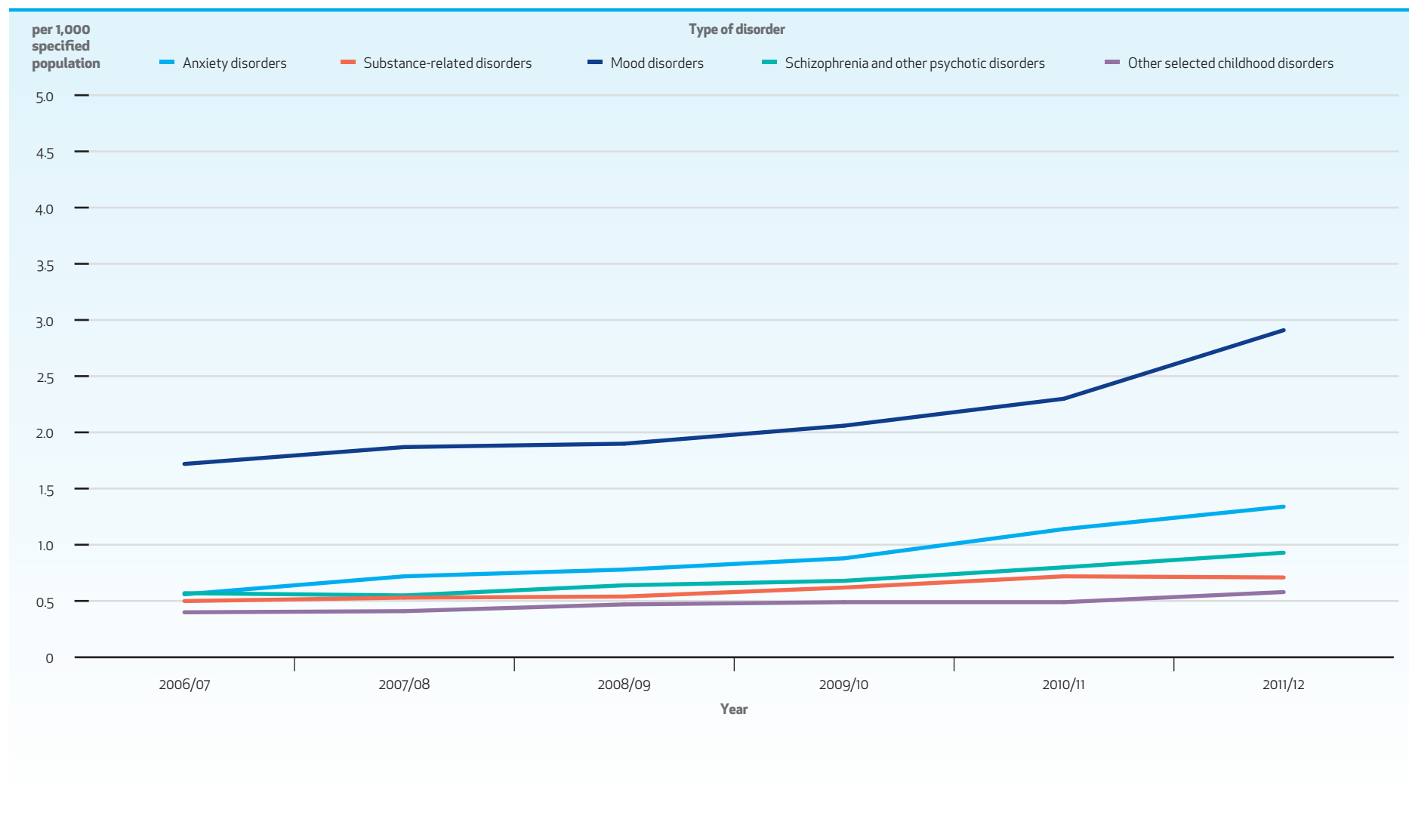


EXHIBIT 3.19.4 Rate of hospital admissions related to mental health and addictions per 1,000 population aged 20 to 24 years, by type of disorder, in Ontario, 2006/07 to 2011/12

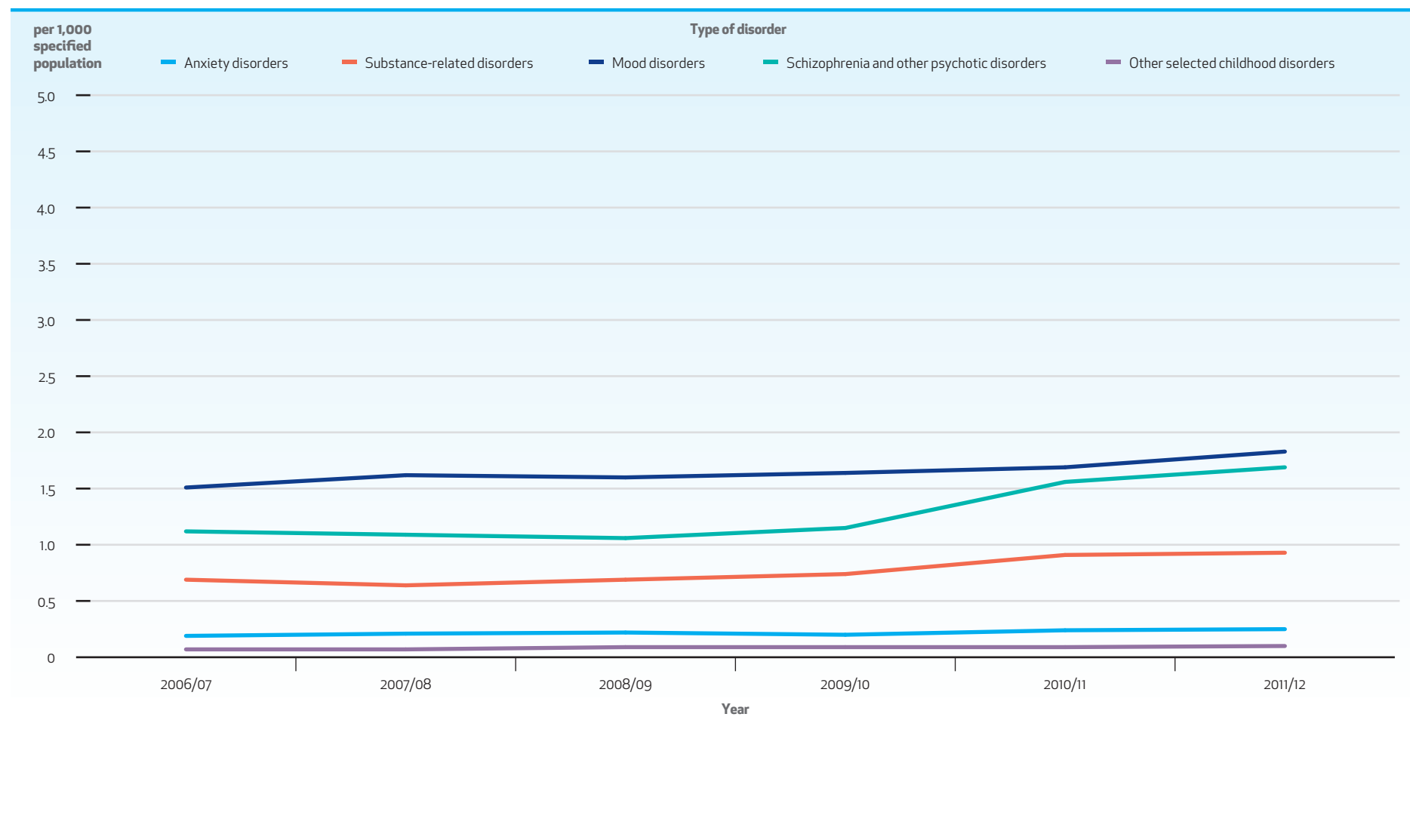


EXHIBIT 3.19.5 Rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by age group, in Ontario, three-year average for 2009/10 to 2011/12

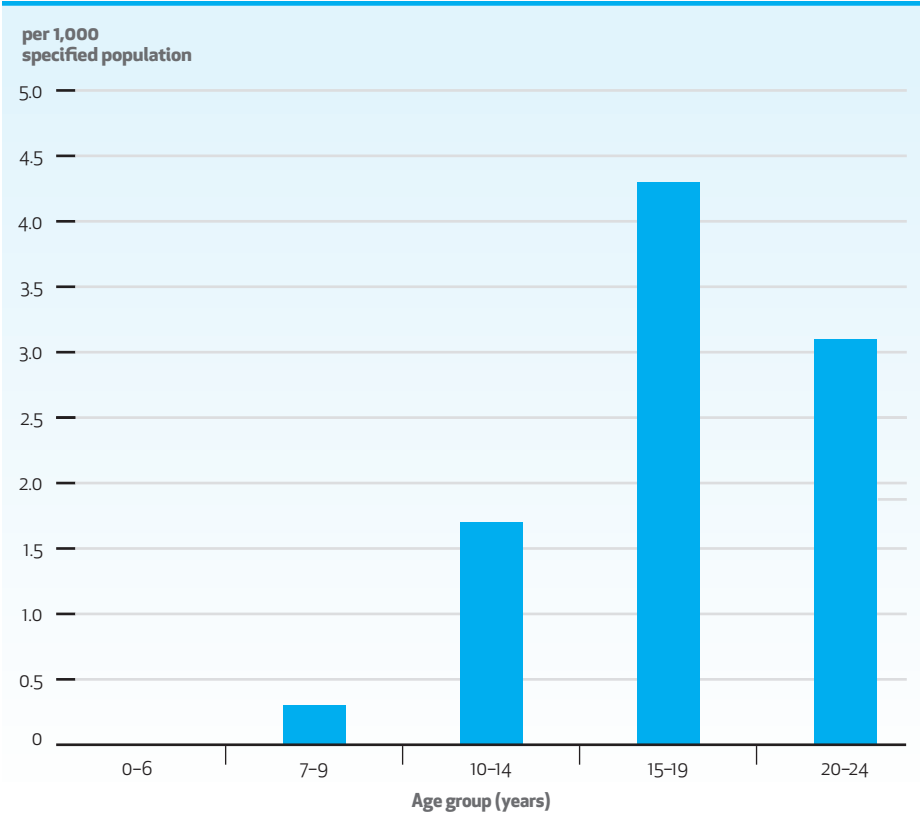


EXHIBIT 3.19.6 Rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by sex, in Ontario, three-year average for 2009/10 to 2011/12

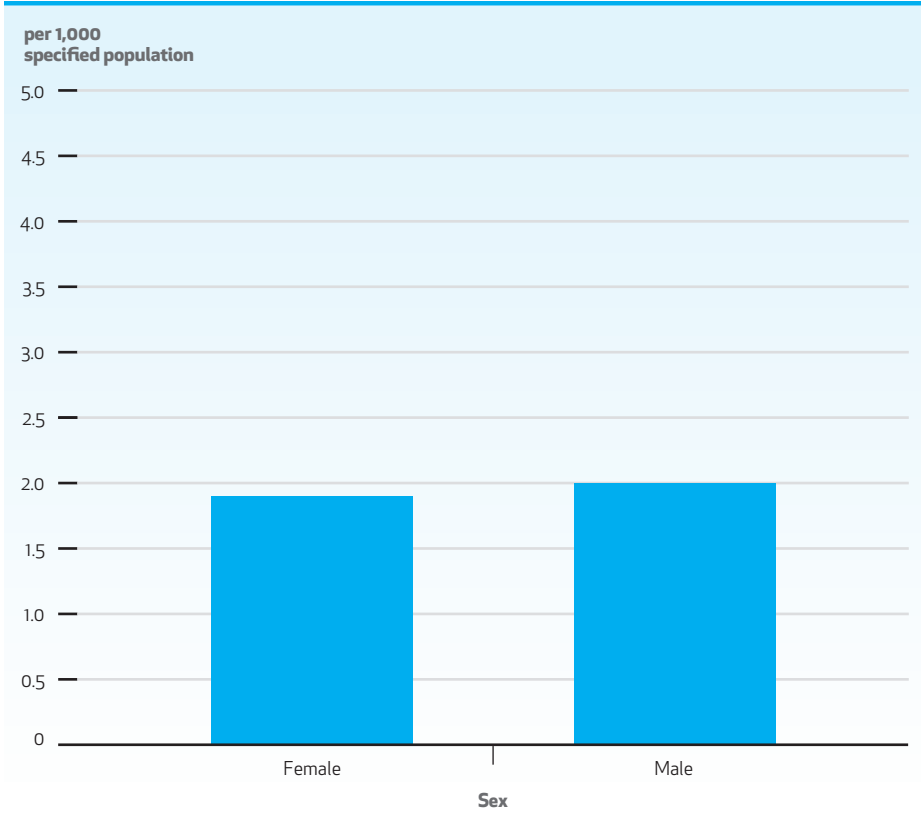


EXHIBIT 3.19.7 Rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

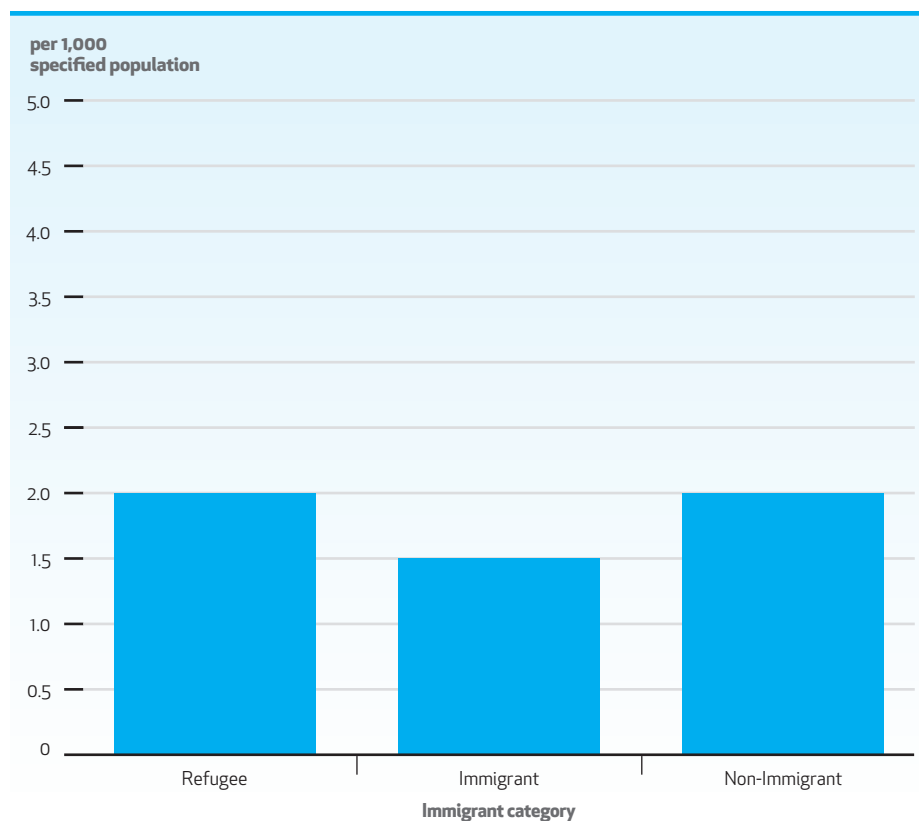


EXHIBIT 3.19.8 Rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

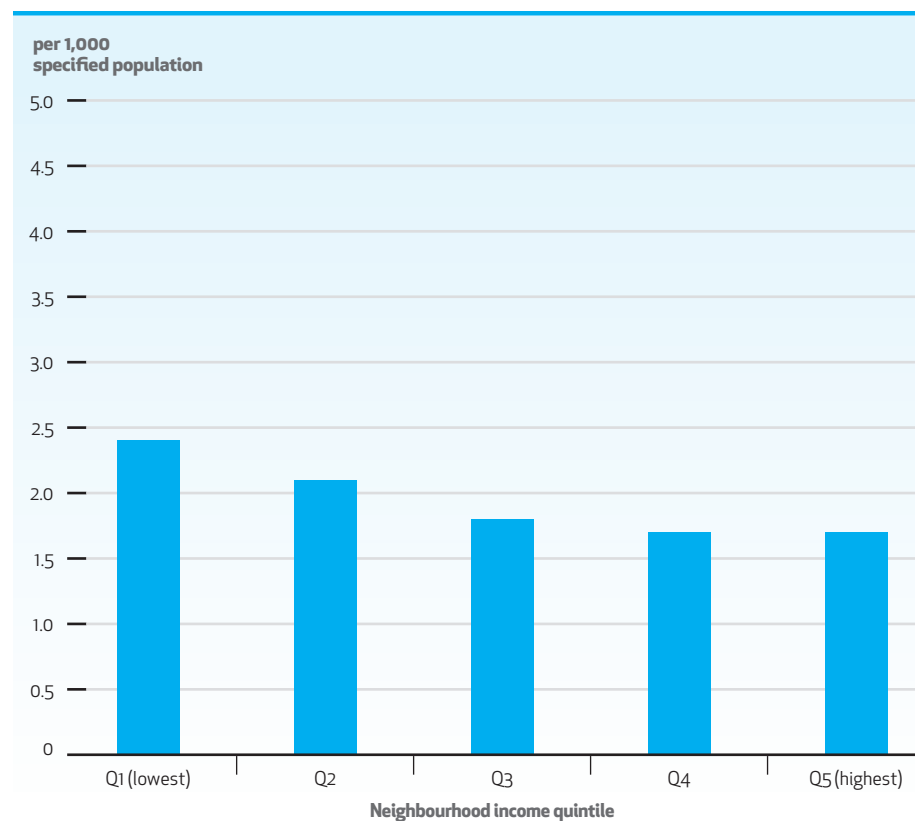
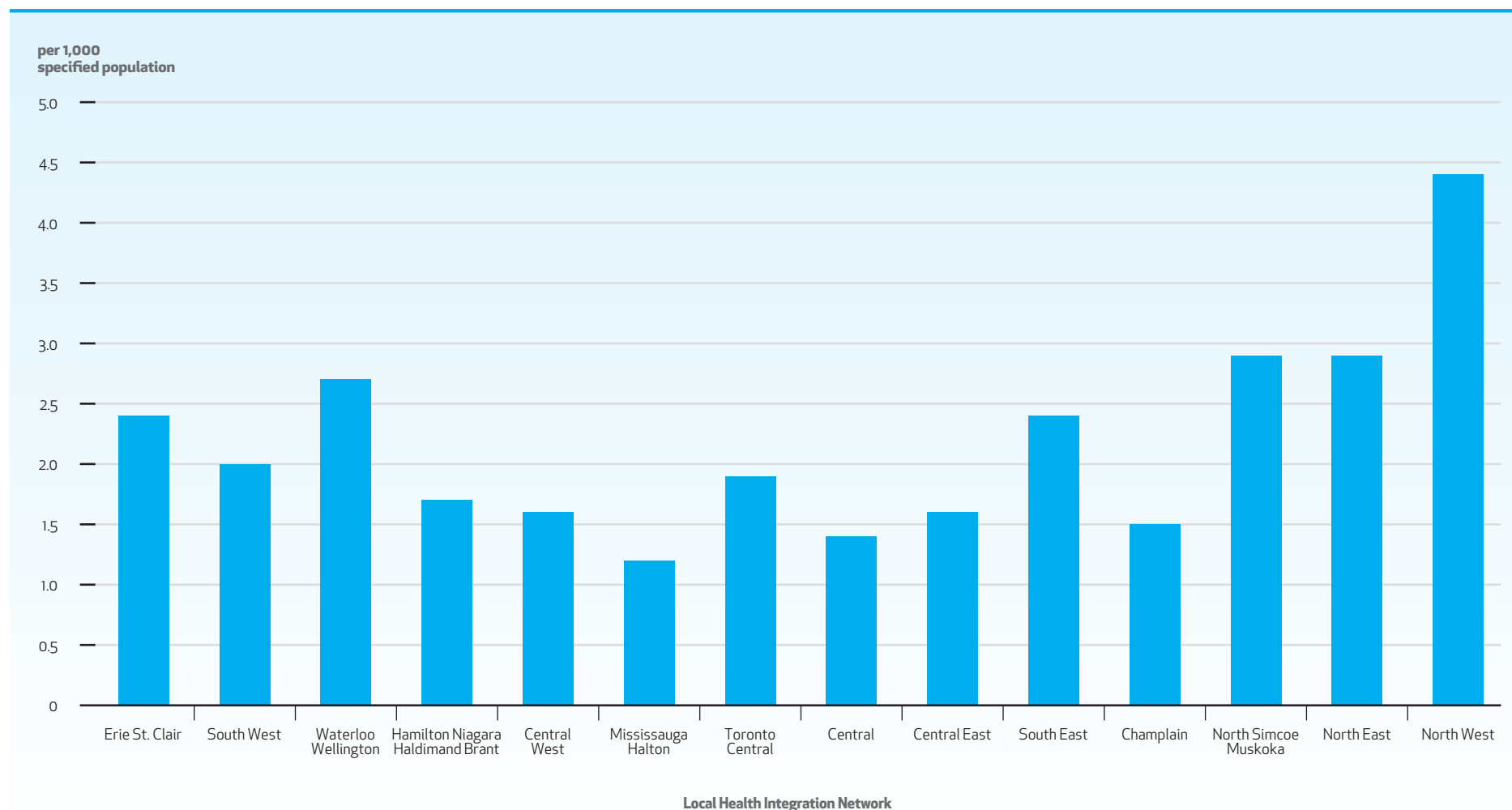
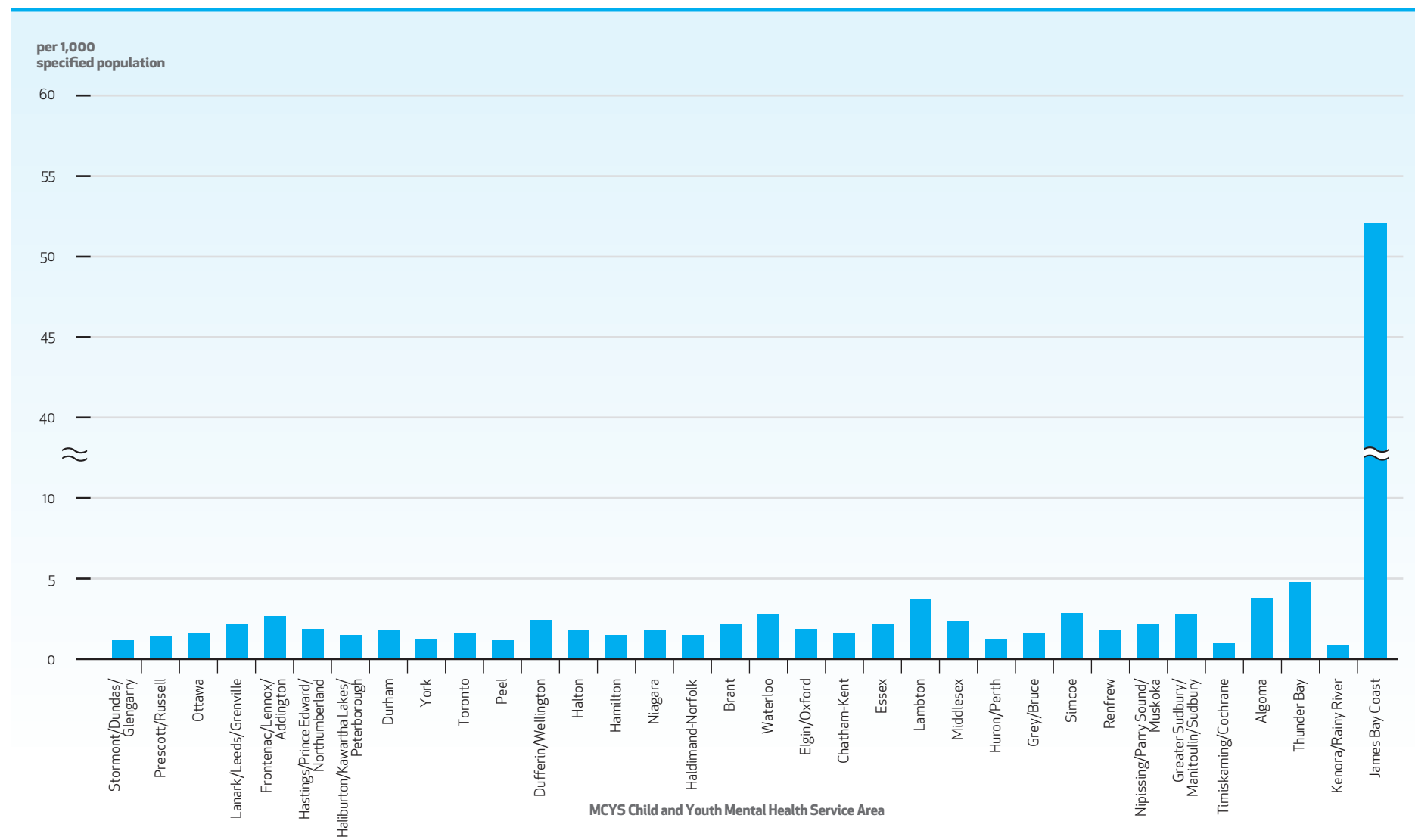


EXHIBIT 3.19.9 Standardized rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.19.10 Standardized rate of hospital admissions related to mental health and addictions per 1,000 population aged 0 to 24 years, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Mental Health System Performance Indicators

Access

- Wait time to first use of mental health specialist service from last referring physician visit for children and youth

Wait time to first use of mental health specialist service from last referring physician visit for children and youth

Rationale

Improving access to mental health care is a key aspect of the strategy. Monitoring how long children and youth wait for physician-based mental health service is a key metric in measuring access to care.

Results

Twenty-five percent of children and youth waited longer than three months to see a physician. Generally, the median wait time increased over time, and it took longer to see paediatricians for mental health issues than psychiatrists. Non-immigrants and 7- to 14-year-olds had the longest wait times among their peers. Socioeconomic factors were not associated with wait times. Wait times to see paediatricians for mental health care was longer in the LHINs in northern Ontario than in those in the rest of the province. Data on access to non-physician specialists, such as psychologists, were not included in this indicator. Wait times were measured from the last primary care visit involving mental health to the initial mental health consultation visit, not from the date of referral to initial mental health consultation visit. Therefore, wait times may be underestimated because children and youth may be seen by their primary care provider for ongoing mental health care while waiting for the specialist visit.

Interpretation

There was relatively little variation in wait time by specialist type, region, age group or sex. Although the median wait time was approximately 1.5 months, a substantial proportion of children and youth waited many months for a specialist mental health consultation.

EXHIBIT 3.20.1 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty, in Ontario, 2002/03 to 2011/12

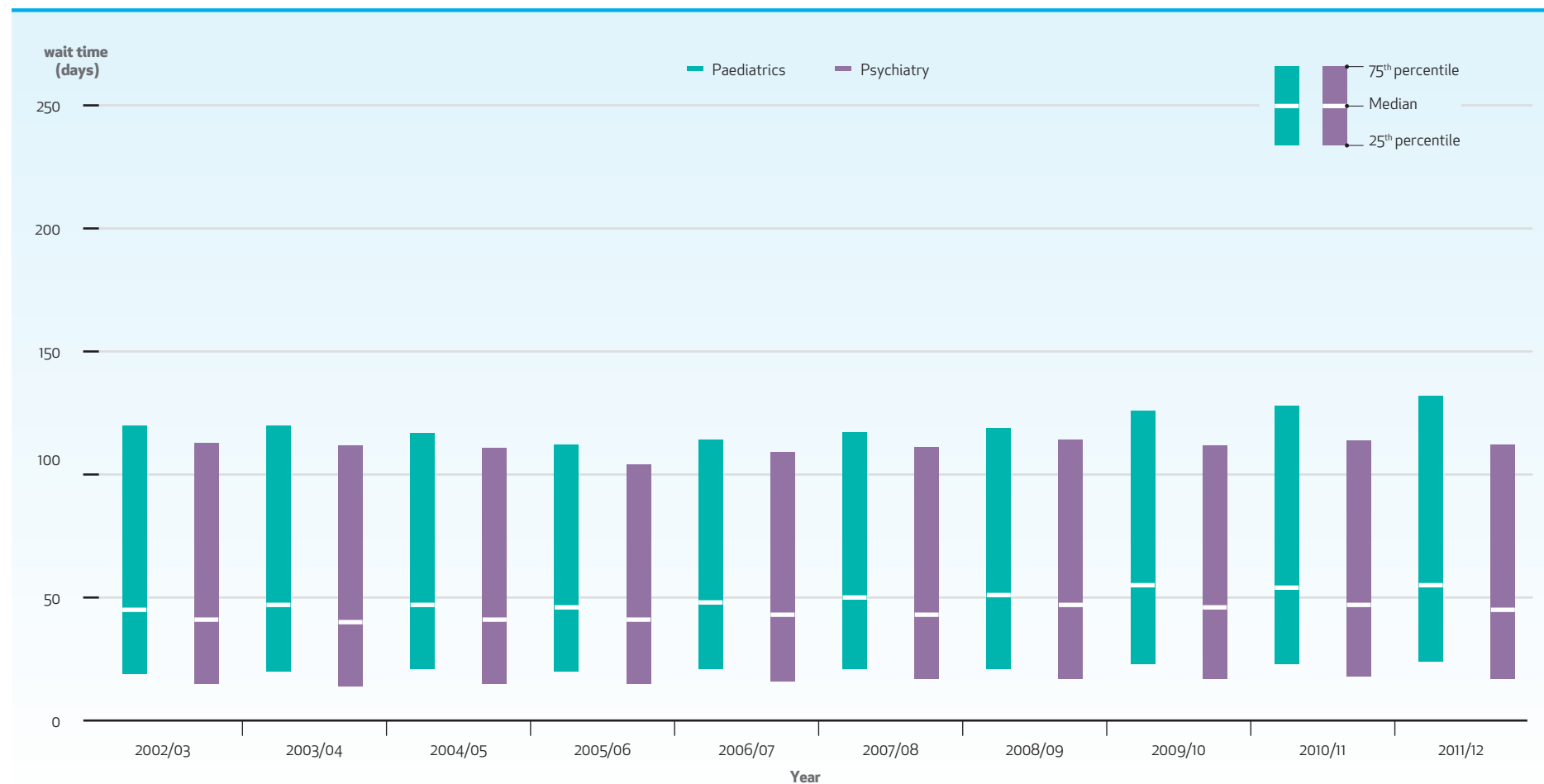


EXHIBIT 3.20.2 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty and patient age group, in Ontario, three-year average for 2009/10 to 2011/12

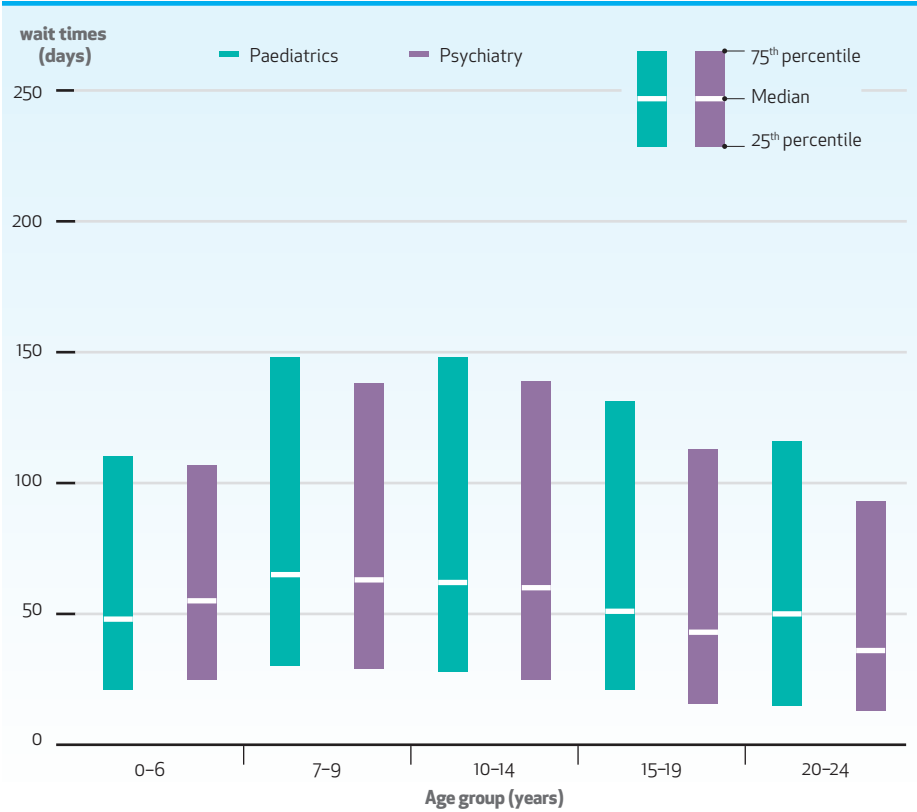


EXHIBIT 3.20.3 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year olds, by physician specialty and patient sex, in Ontario, three-year average for 2009/10 to 2011/12

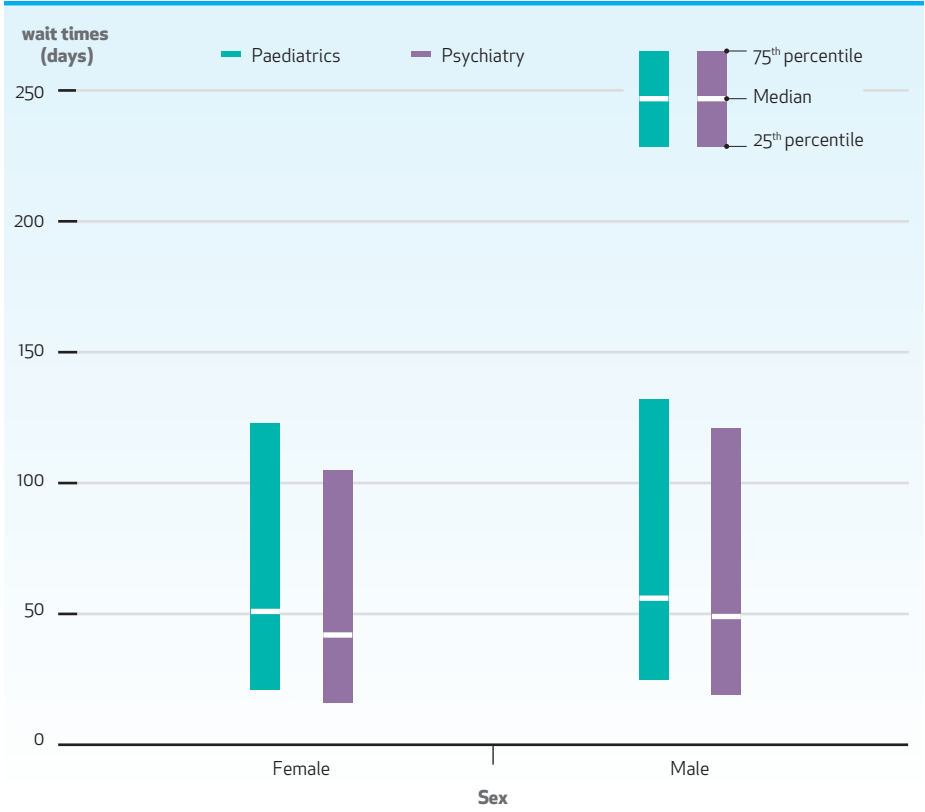


EXHIBIT 3.20.4 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty and immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

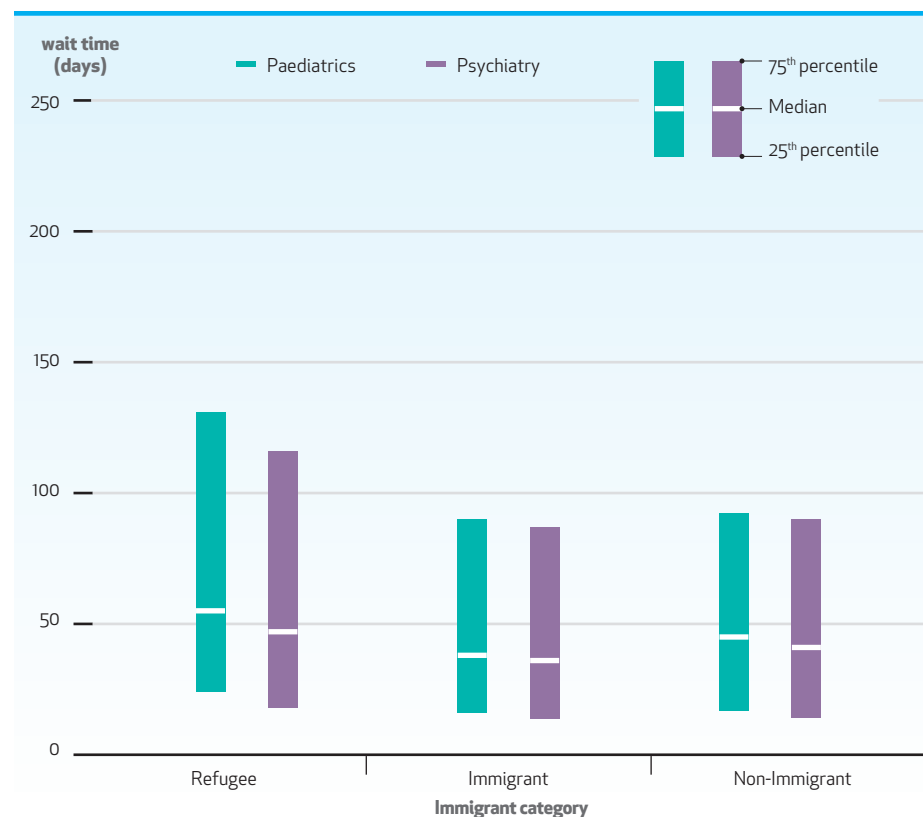


EXHIBIT 3.20.5 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty and neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

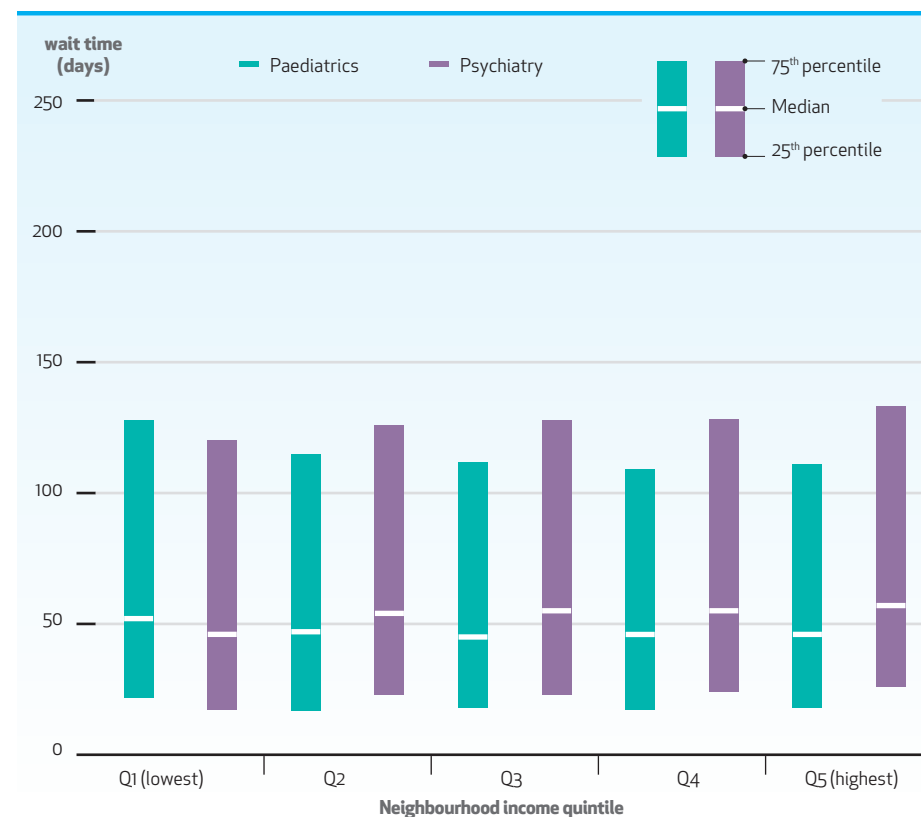


EXHIBIT 3.20.6 Wait time to first use of mental health specialist service from last referring physician visit for 0- to 24-year-olds, by physician specialty and Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12

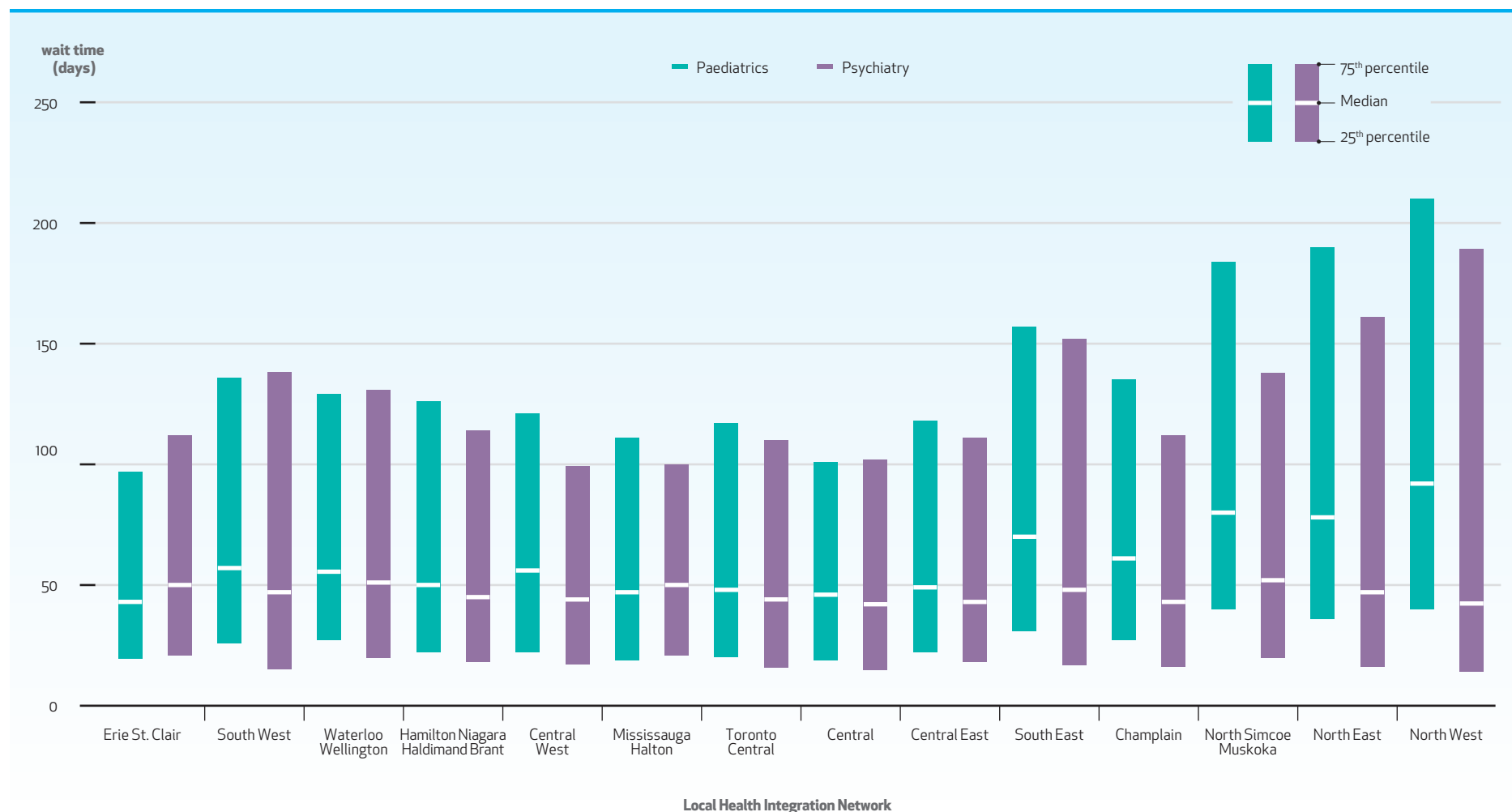


EXHIBIT 3.20.7 Wait time to first use of mental health specialist service provided by a paediatrician from last referring physician visit for 0- to 24-year-olds, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12

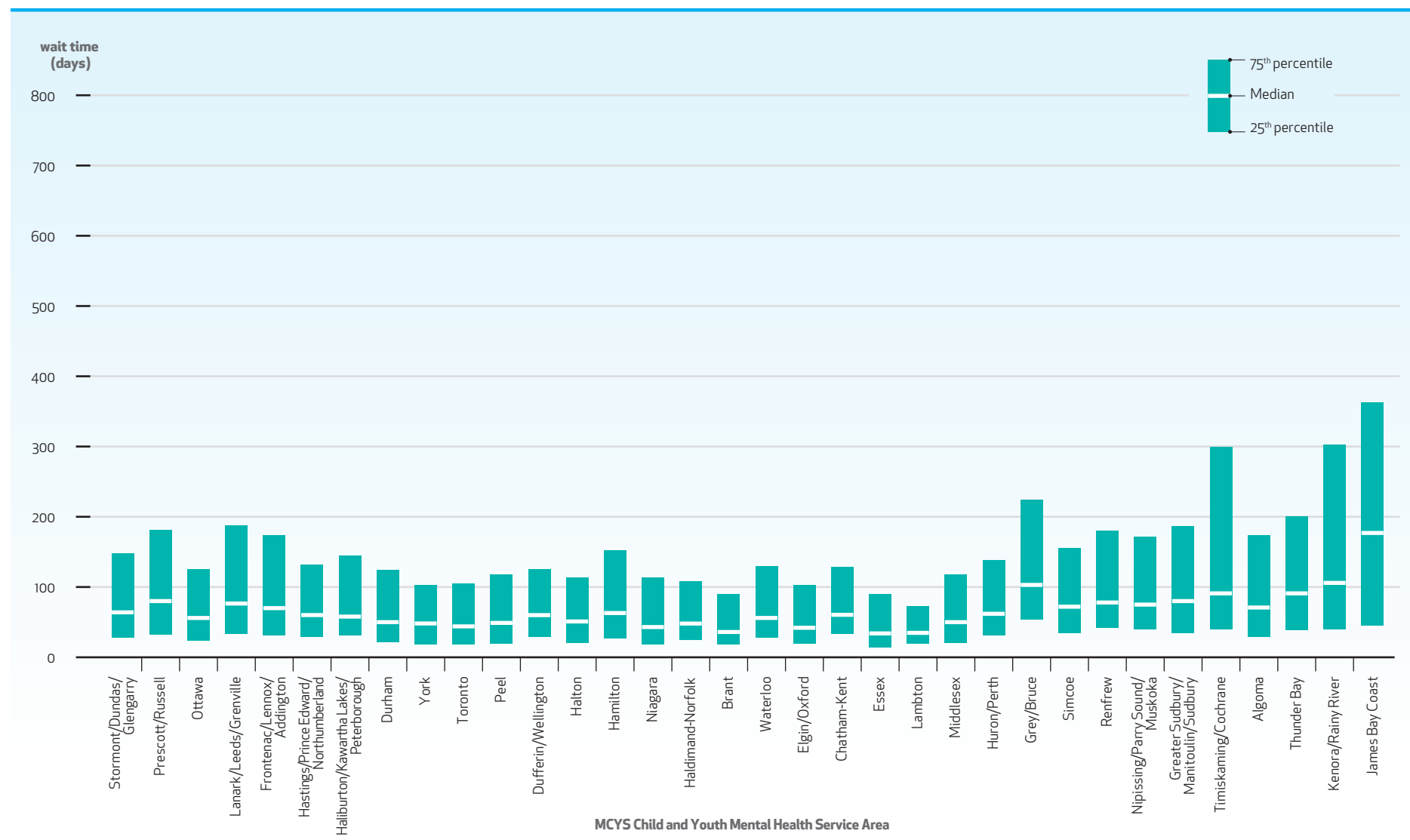
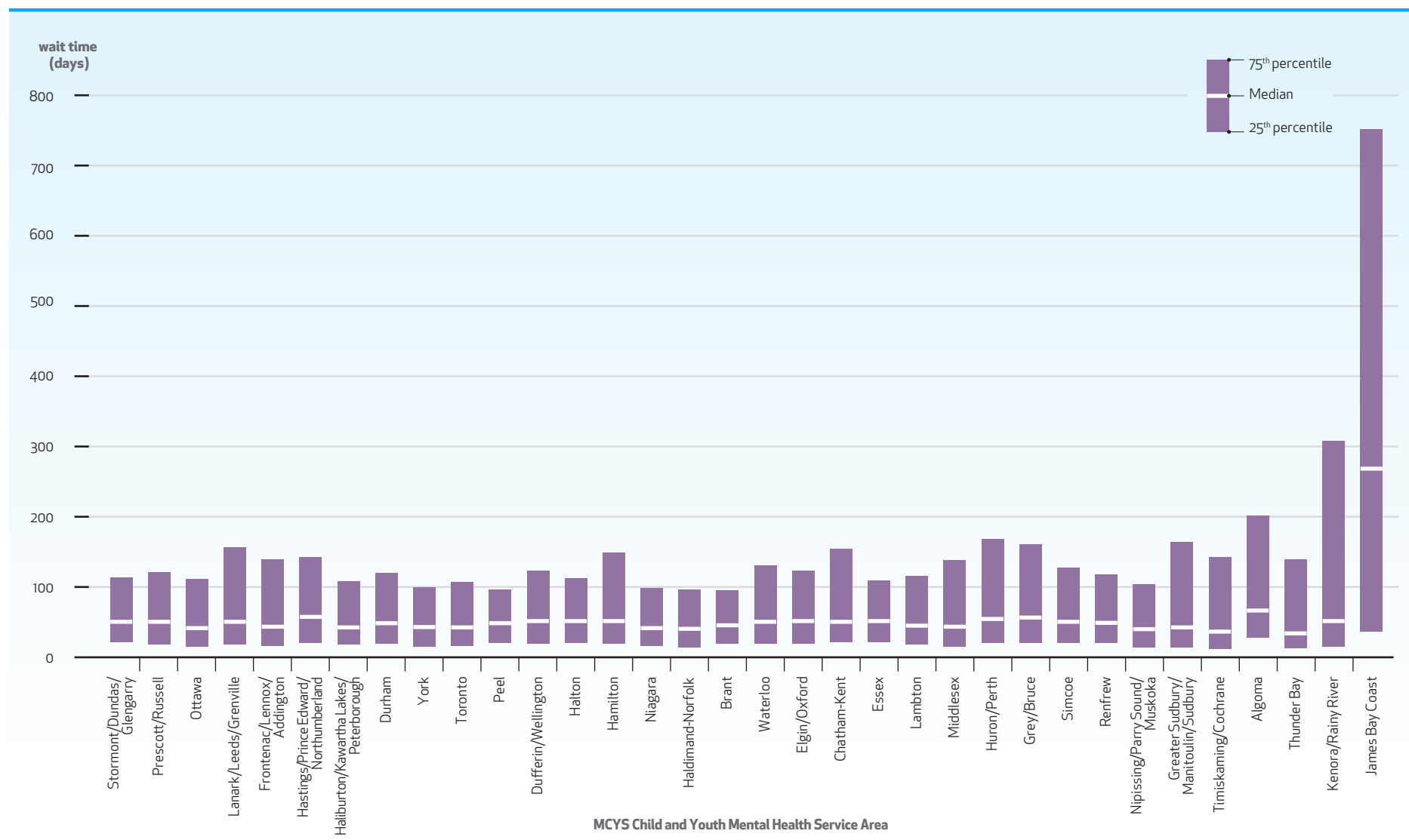


EXHIBIT 3.20.8 Wait time to first use of mental health specialist service provided by a psychiatrist from last referring physician visit for 0- to 24-year-olds, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12



Quality

- Rate of acute care revisits following an incident emergency department visit related to mental health and addictions for children and youth
- Rate of acute care revisits following an incident hospital admission related to mental health and addictions for children and youth

Rate of acute care revisits following an incident emergency department visit related to mental health and addictions for children and youth

Rationale

Acute care revisits (emergency department revisits or hospital admissions) following an incident emergency department discharge could signal inadequate support from community-based mental health services.

Results

Instances of a schizophrenia-related emergency department visit that resulted in a discharge home were the ones most often followed by an acute care revisit within 30 and 365 days. The highest rates were found among 20- to 24-year-olds, males, refugees and those living in the lowest-income neighbourhoods. These findings were consistent in the data for both observation periods analyzed.

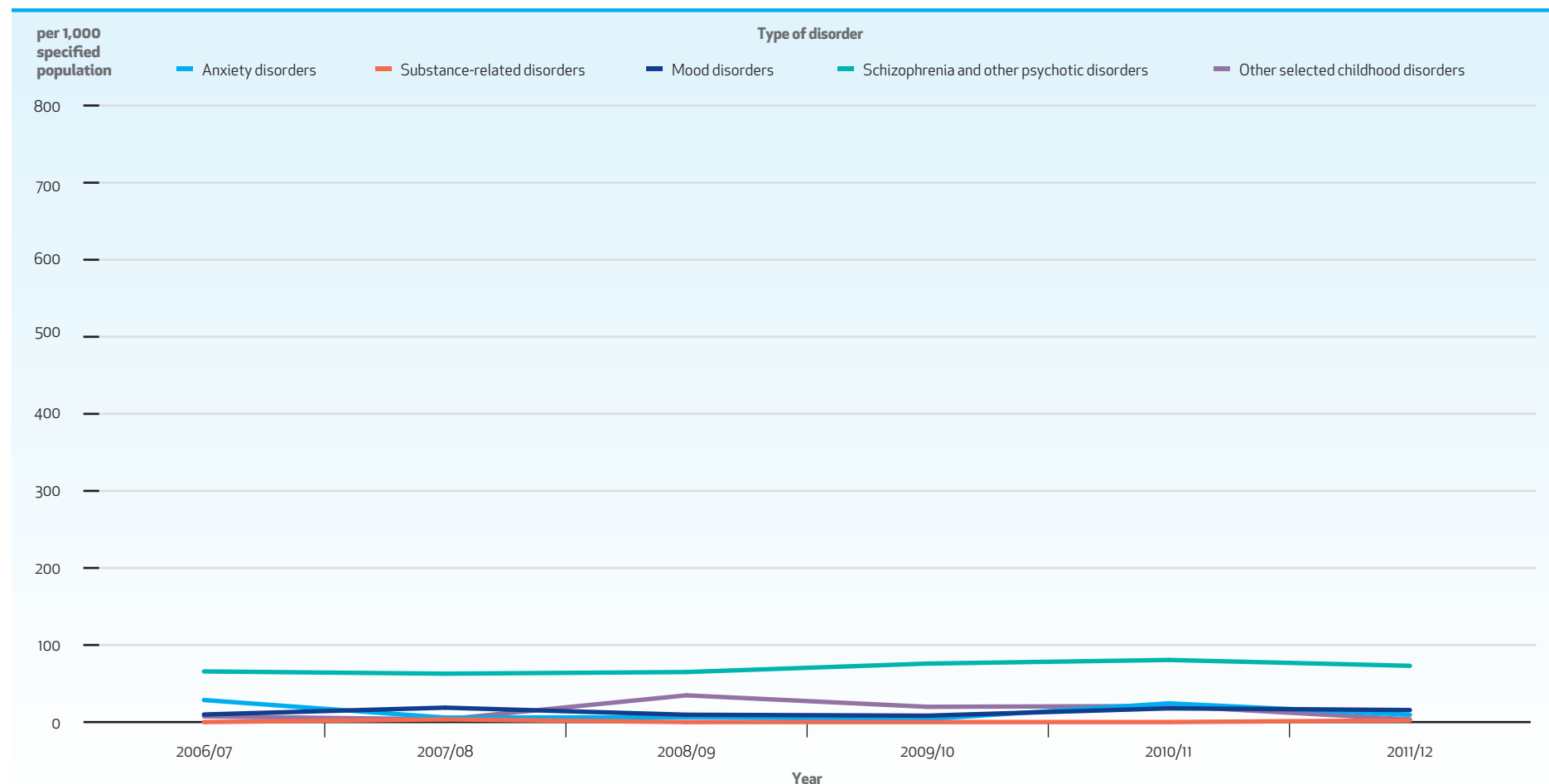
Following an incident emergency department visit related to mental health and addictions, rates of hospital admissions were higher than rates of emergency department revisits. However, trends for hospital admissions and emergency department revisits followed similar patterns across age groups and by sex, immigrant category and neighbourhood income quintile.

Most rates of emergency department revisits were highest in the North West LHIN but the Central East LHIN had the highest rate of emergency department revisits occurring within 365 days. For hospital admissions following an emergency department visit related to mental health and addictions, the Toronto Central LHIN had the highest rate within 30 days and the Central West LHIN had the highest rate within 365 days.

Interpretation

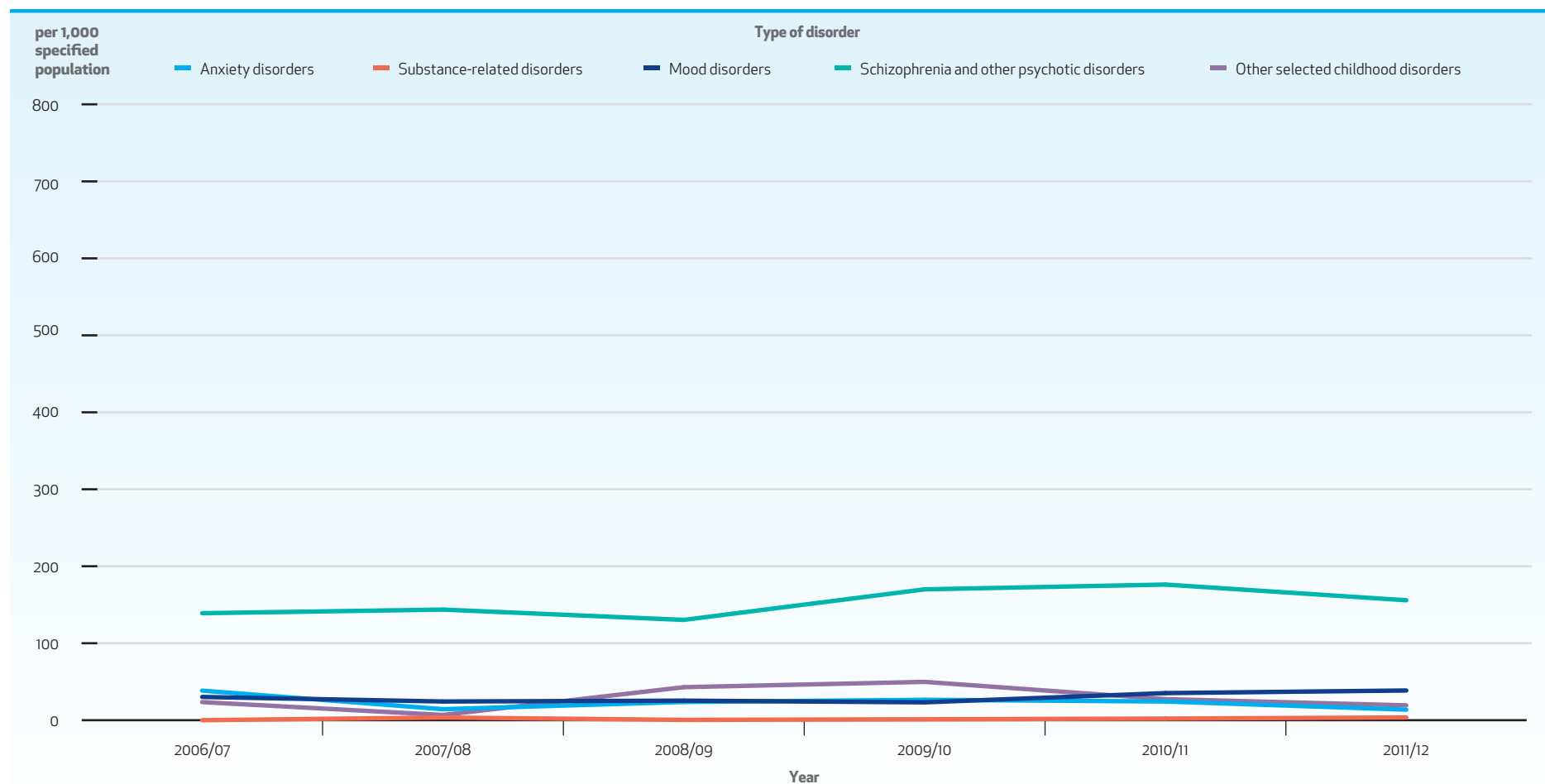
Acute care revisits following an incident emergency department visit were most commonly for children and youth with schizophrenia and other psychotic disorders, which is consistent with findings in previous research. Individuals with schizophrenia and other psychotic disorders are likely to require considerable community-based resources to avoid costly hospitalizations.

EXHIBIT 3.21.1 Standardized rate of acute care revisits within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12



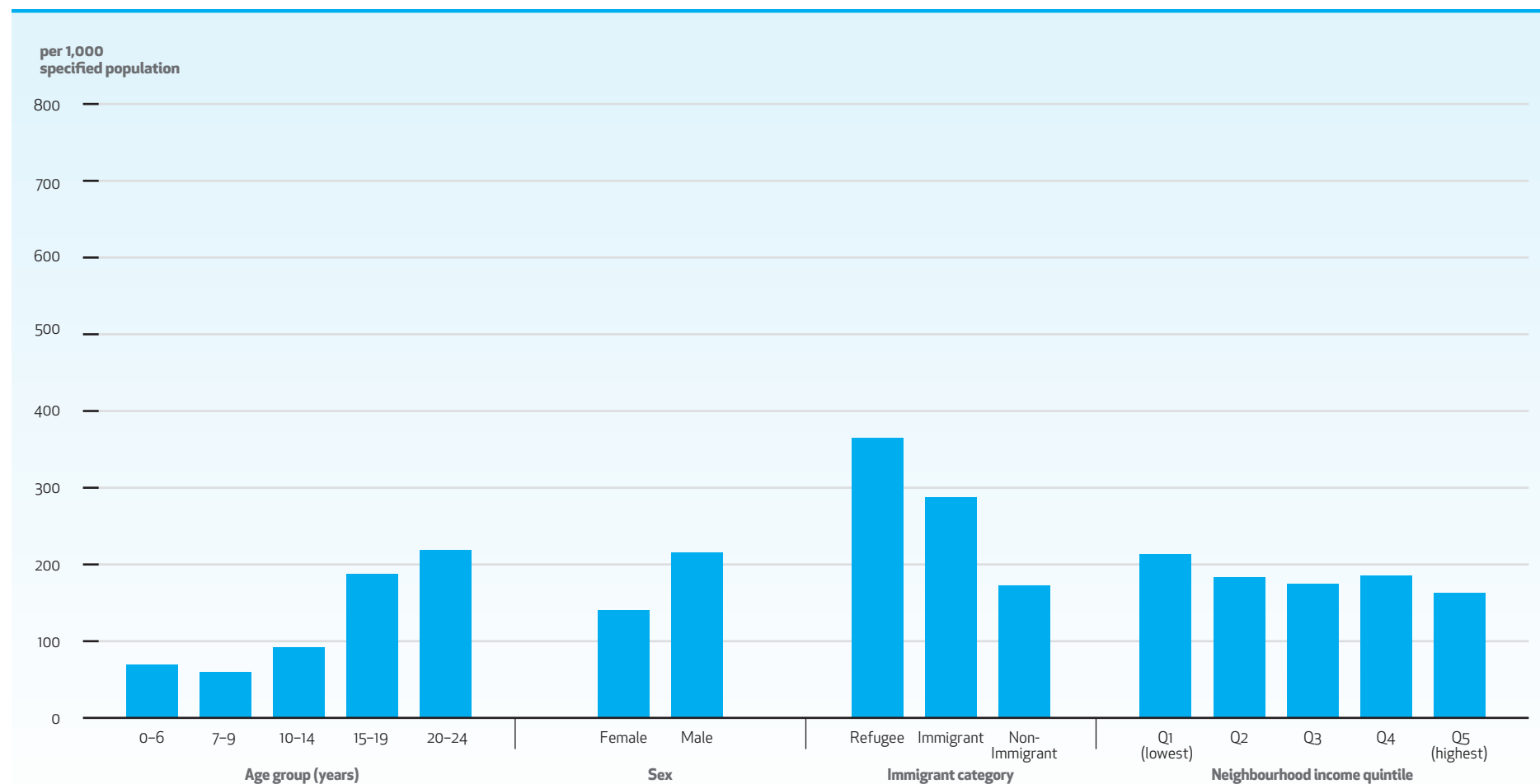
Note: Rates were standardized by age and sex to the 2002 Ontario population. Acute care revisits included emergency department revisits and hospital admissions.

EXHIBIT 3.21.2 Standardized rate of acute care revisits within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12



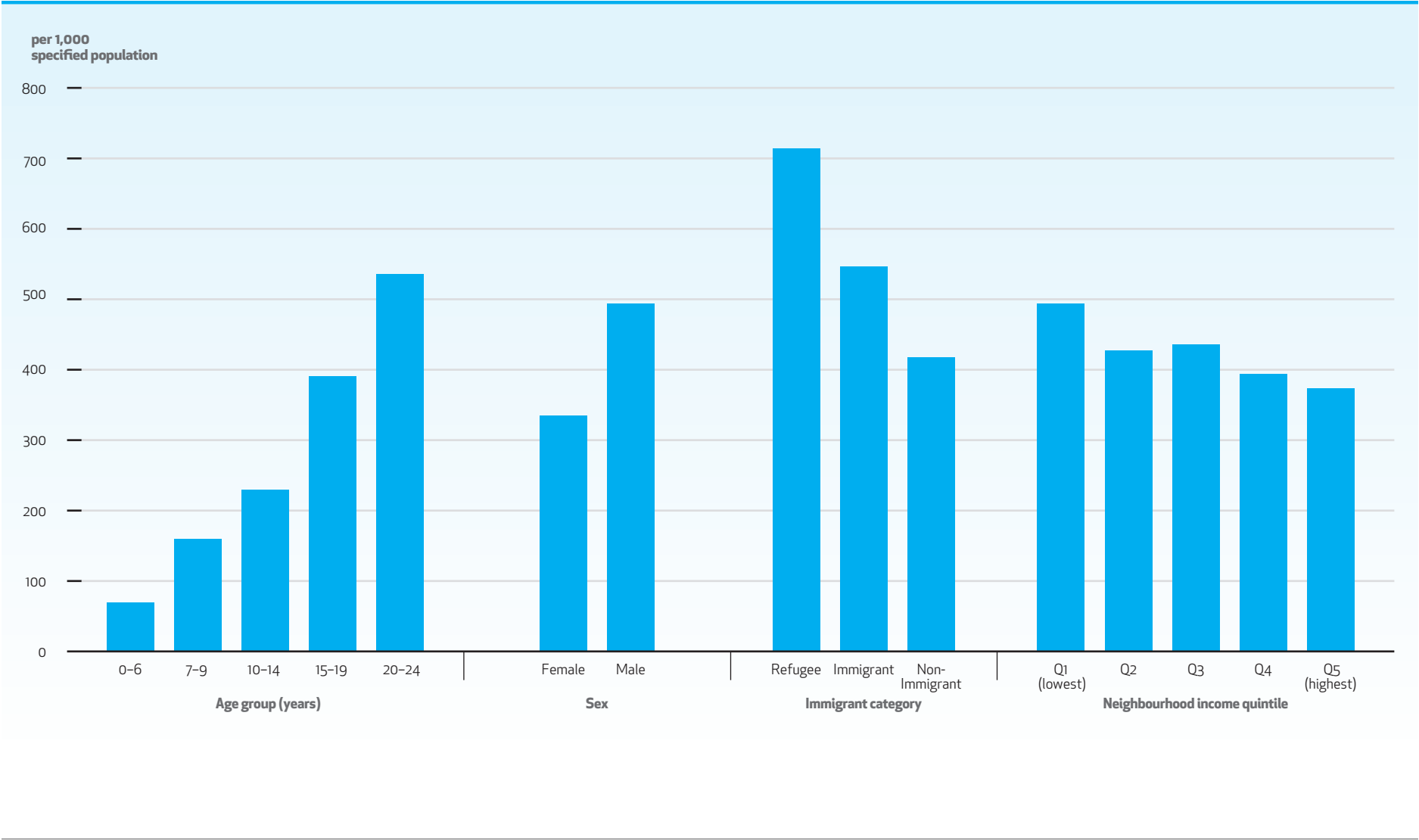
Note: Rates were standardized by age and sex to the 2002 Ontario population. Acute care revisits included emergency department revisits and hospital admissions.

EXHIBIT 3.21.3 Rate of acute care revisits within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12



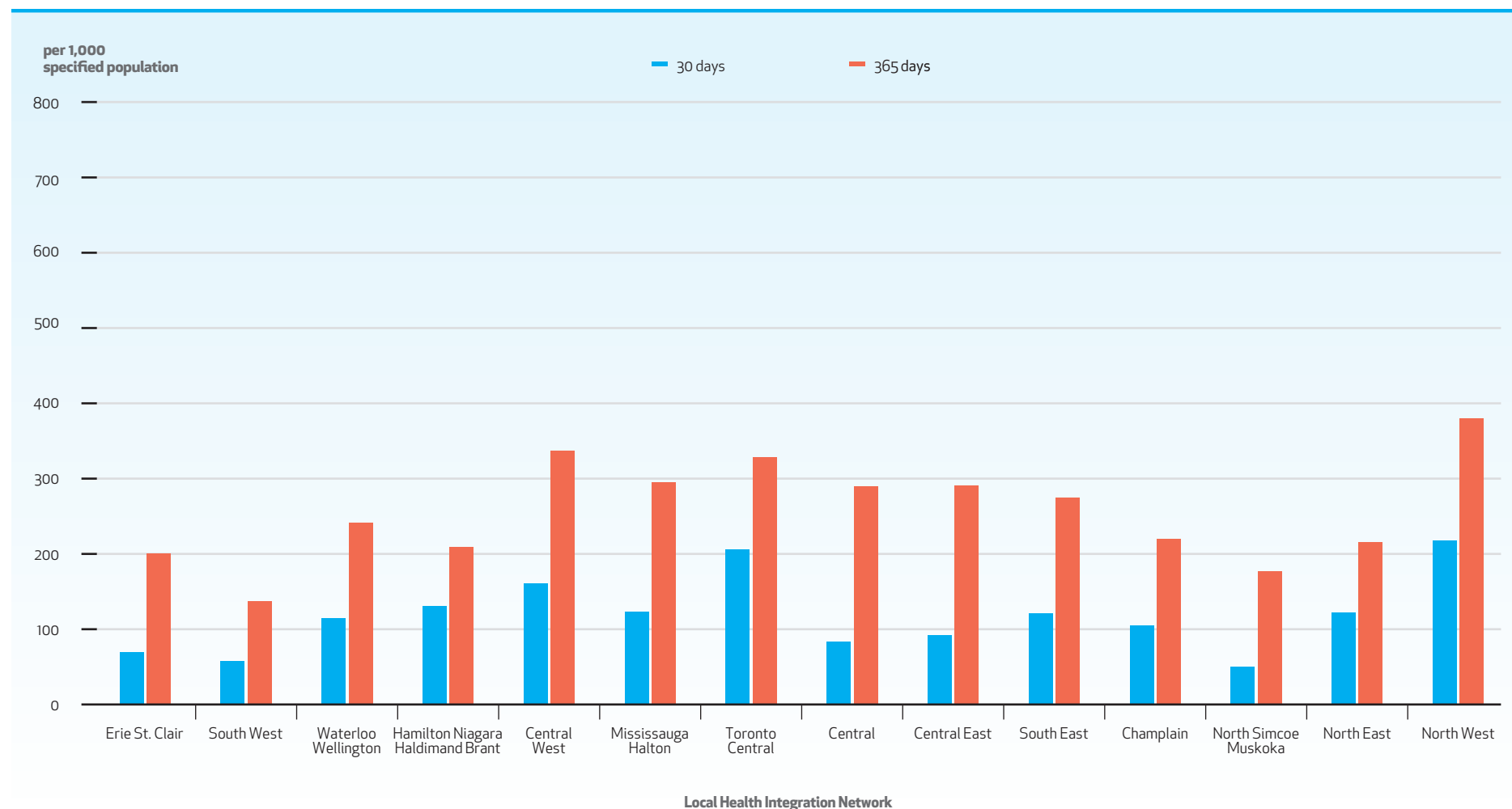
Note: Acute care revisits included emergency department revisits and hospital admissions.

EXHIBIT 3.21.4 Rate of acute care revisits within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12



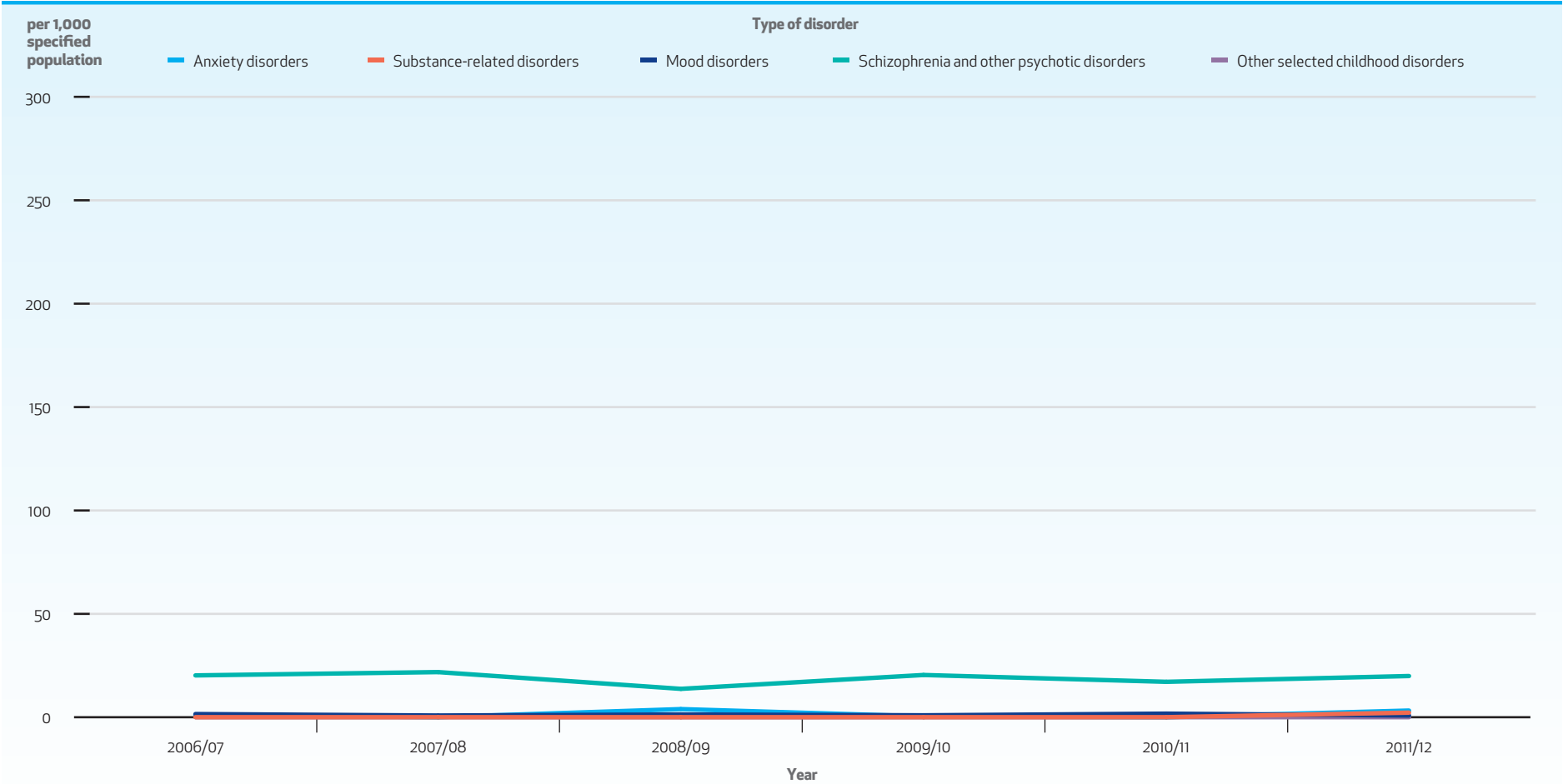
Note: Acute care revisits included emergency department revisits and hospital admissions.

EXHIBIT 3.21.5 Standardized rate of acute care revisits within 30 days and 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



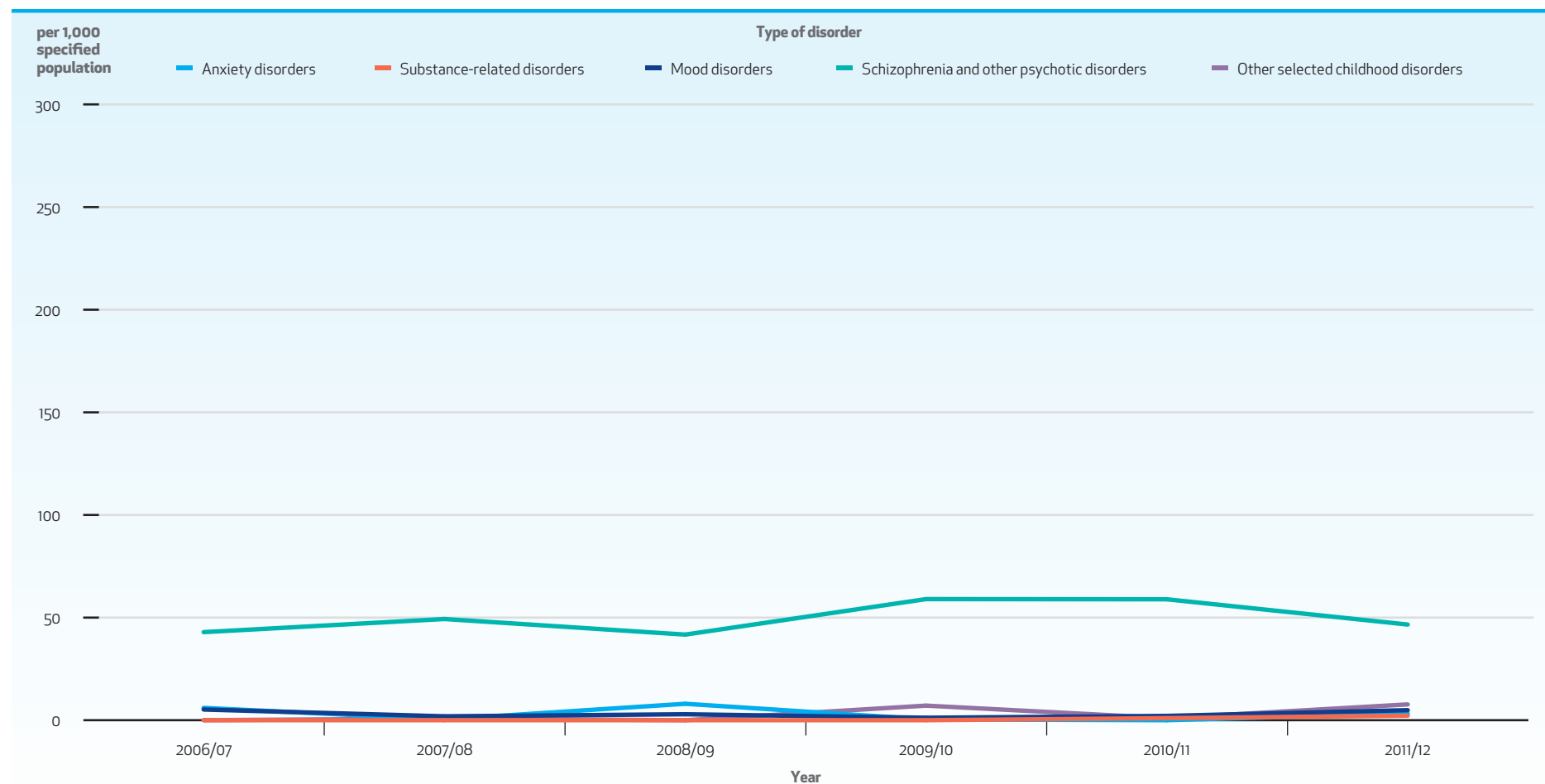
Note: Rates were standardized by age and sex to the 2002 Ontario population. Acute care revisits included emergency department revisits and hospital admissions.

EXHIBIT 3.21.6 Standardized rate of emergency department (ED) revisits within 30 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.21.7 Standardized rate of emergency department (ED) revisits within 365 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.21.8 Rate of emergency department (ED) revisits within 30 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

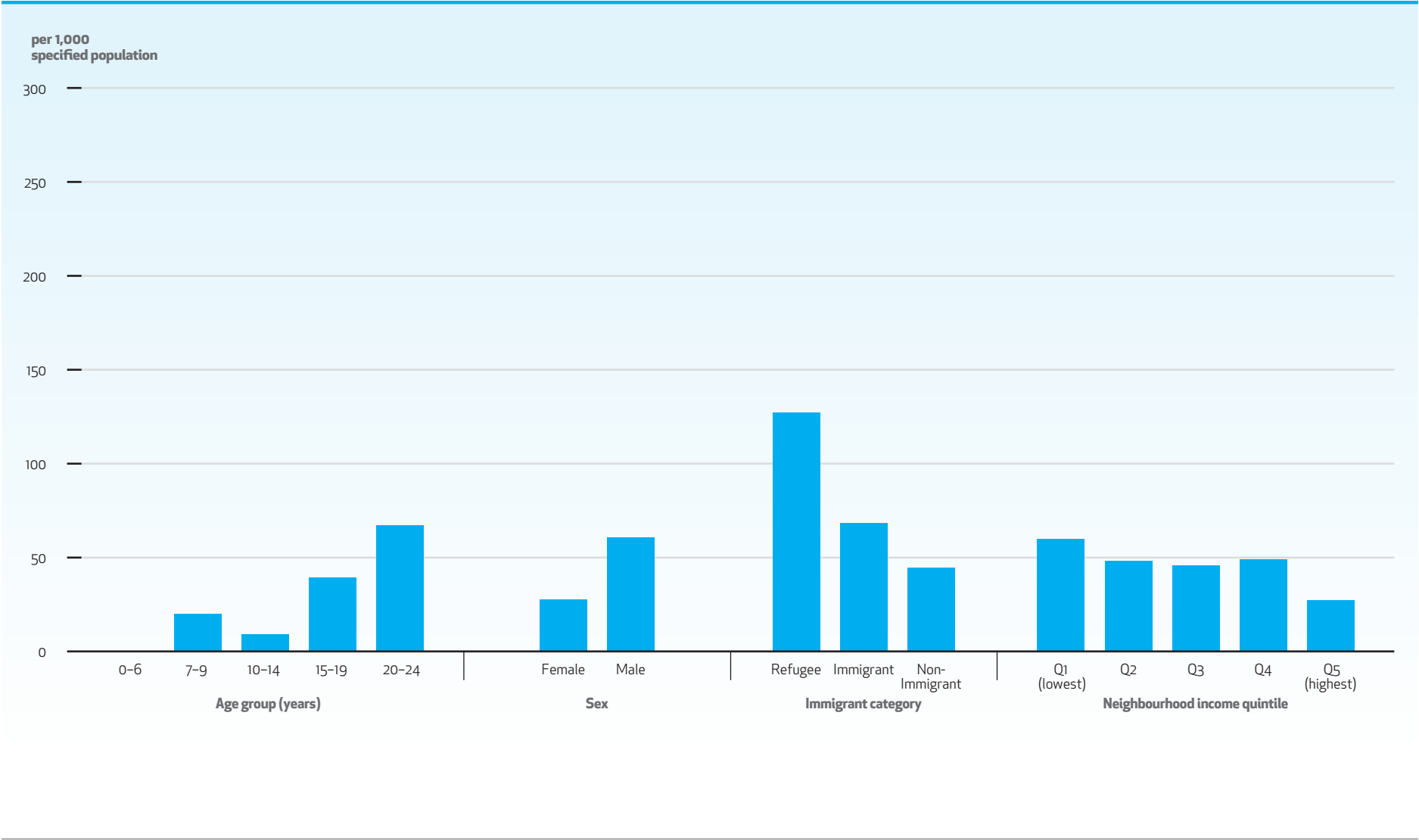


EXHIBIT 3.21.9 Rate of emergency department (ED) revisits within 365 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

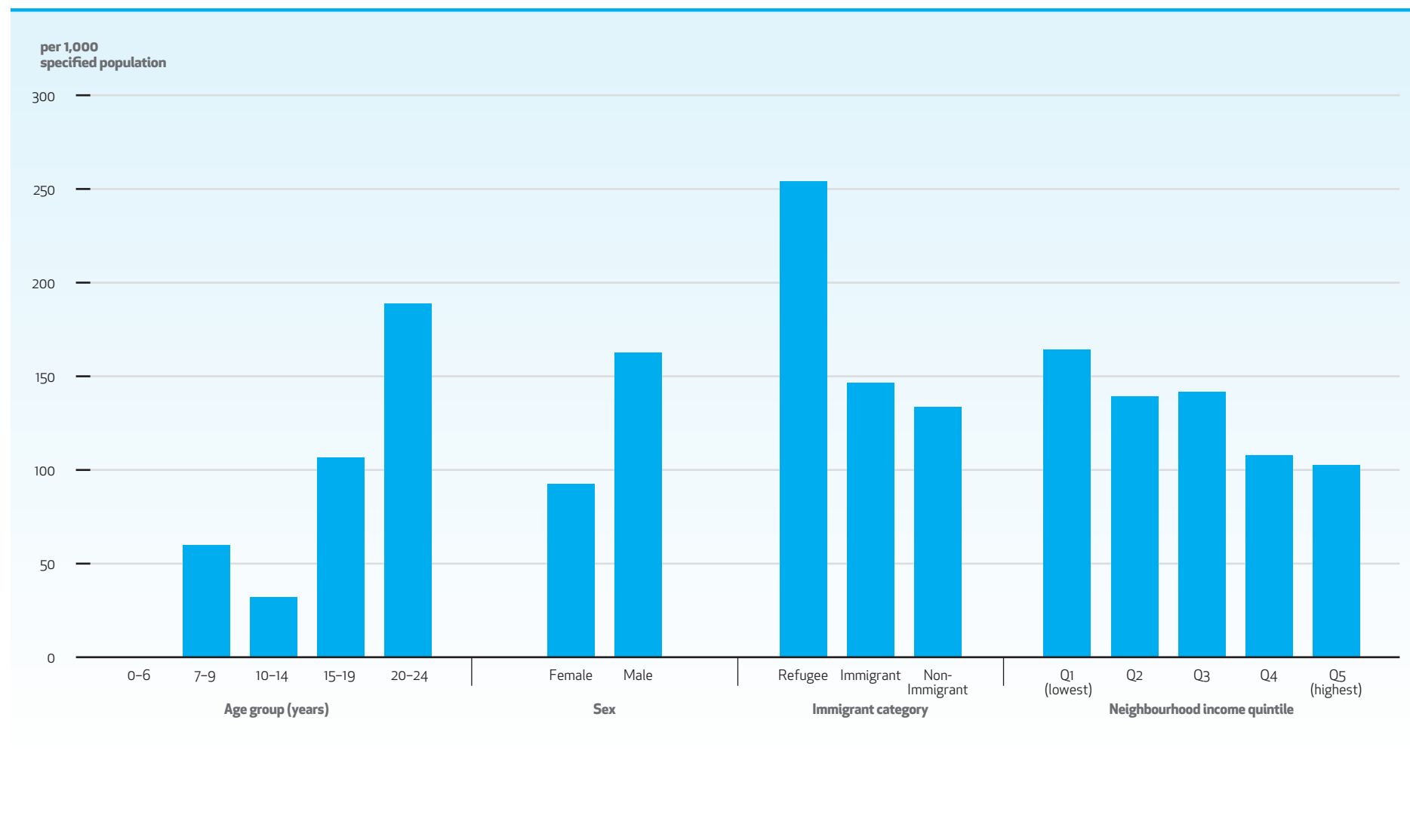
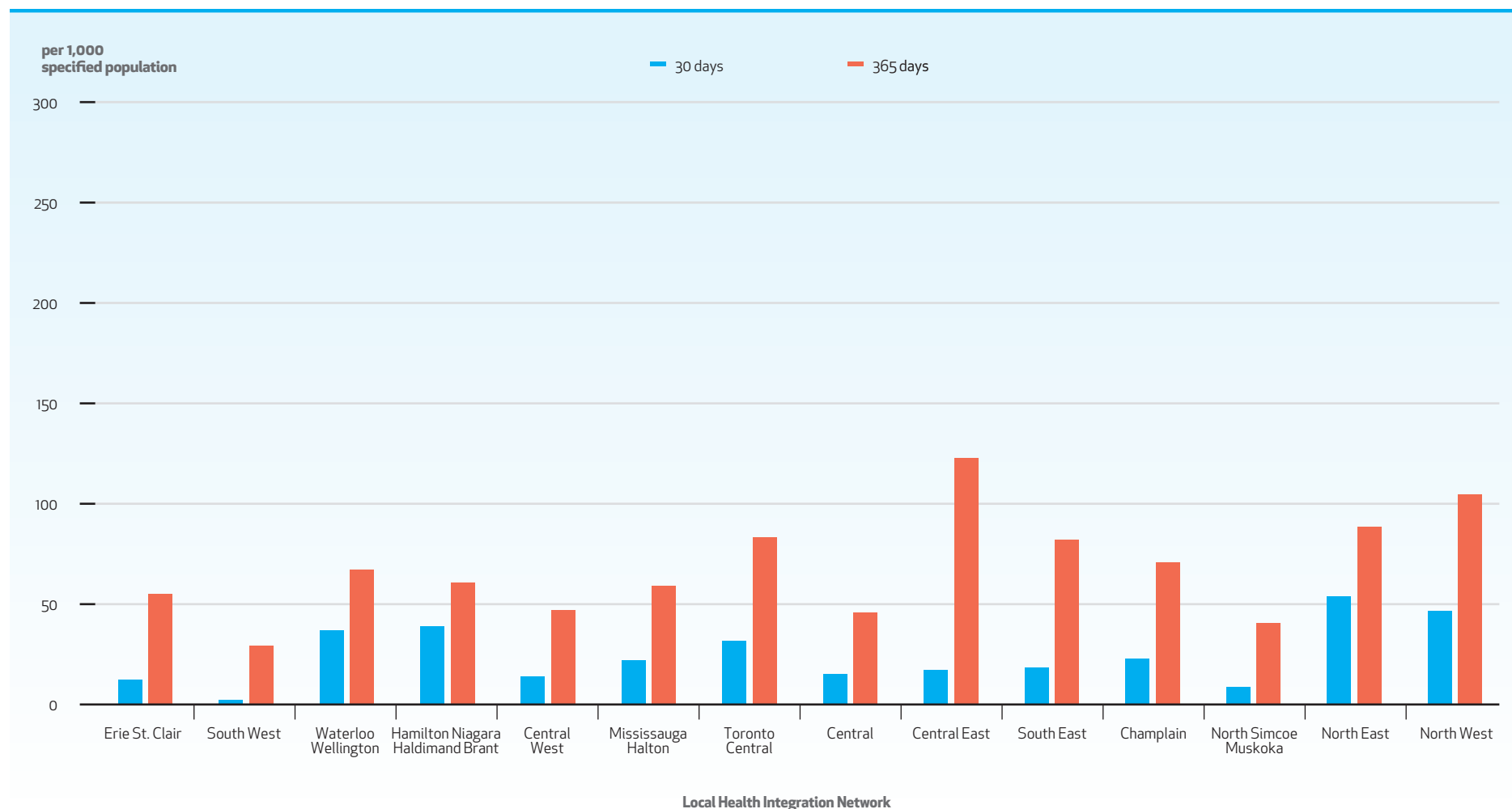
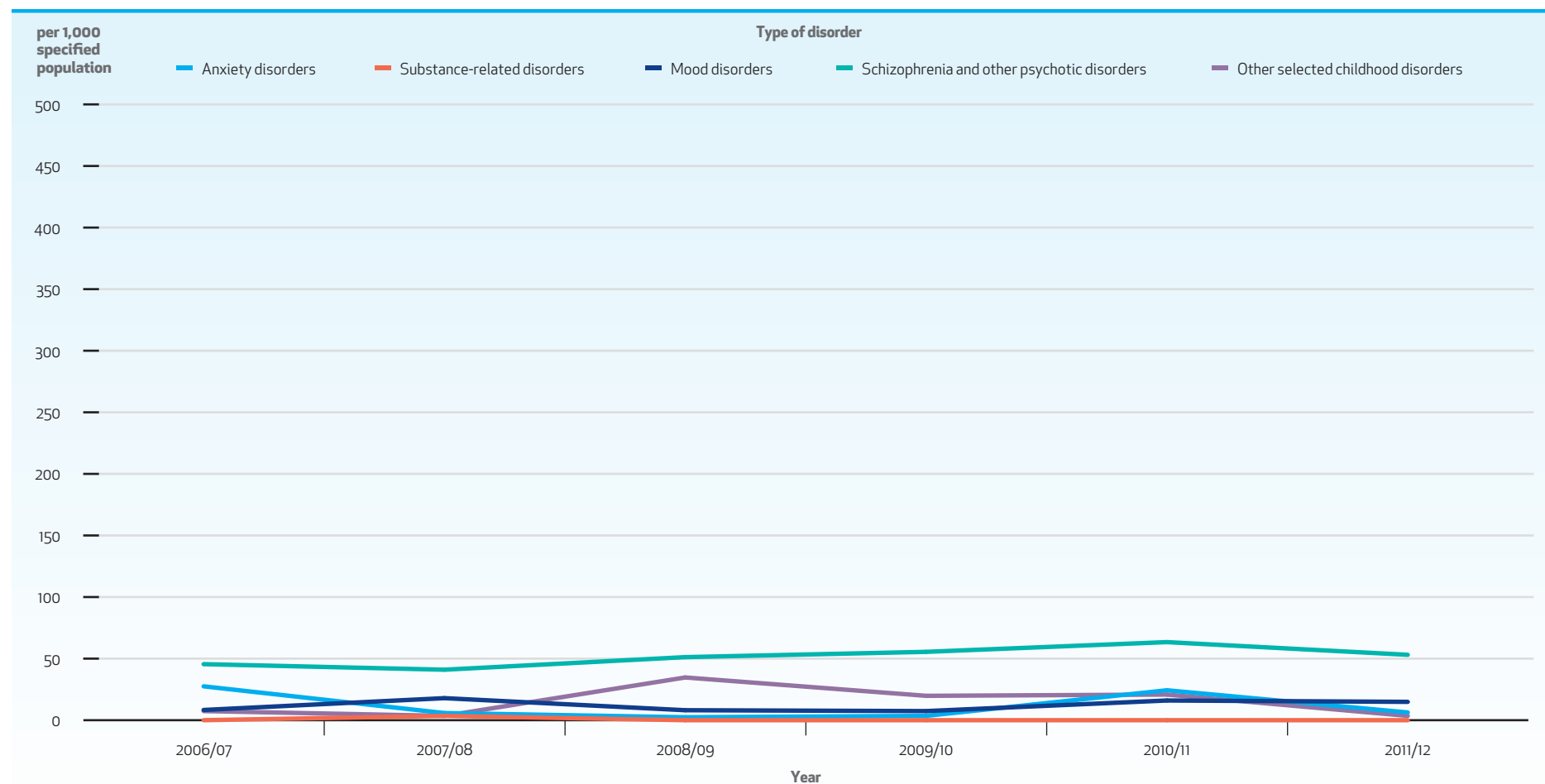


EXHIBIT 3.21.10 Standardized rate of emergency department (ED) revisits within 30 days and 365 days of an incident ED visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



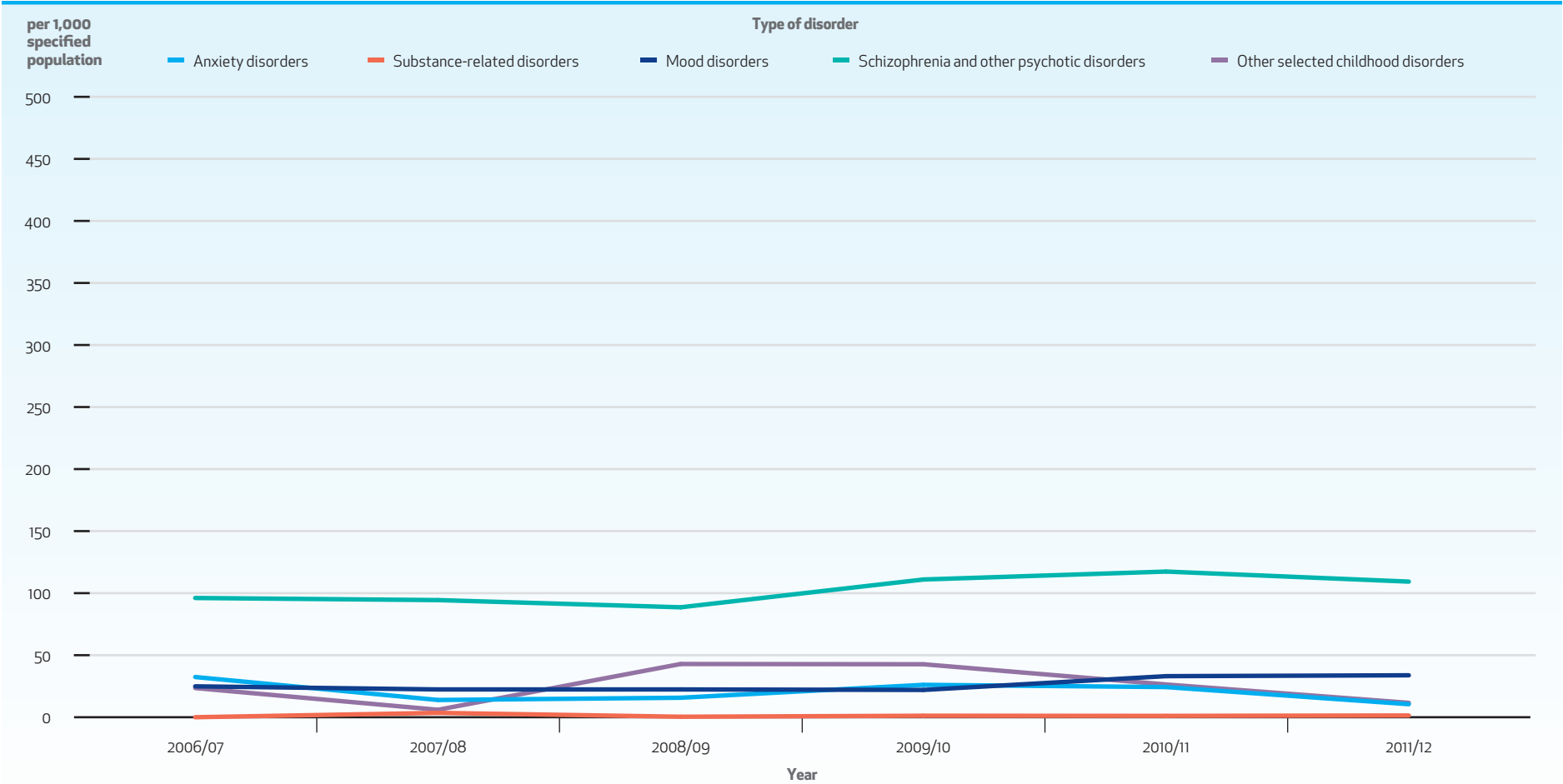
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.21.11 Standardized rate of hospital admissions within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.21.12 Standardized rate of hospital admissions within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.21.13 Rate of hospital admissions within 30 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three year average for 2009/10 to 2011/12

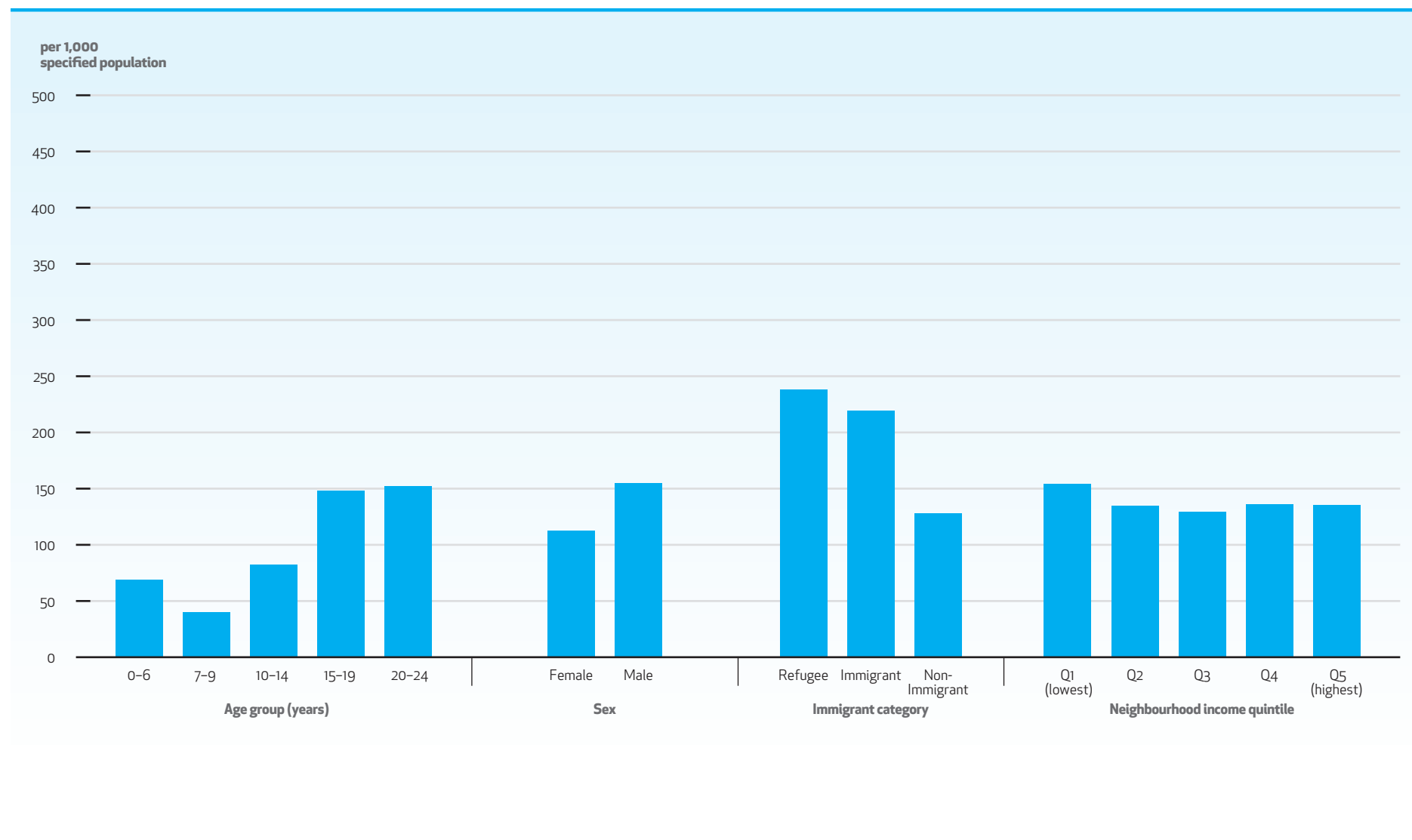


EXHIBIT 3.21.14 Rate of hospital admissions within 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

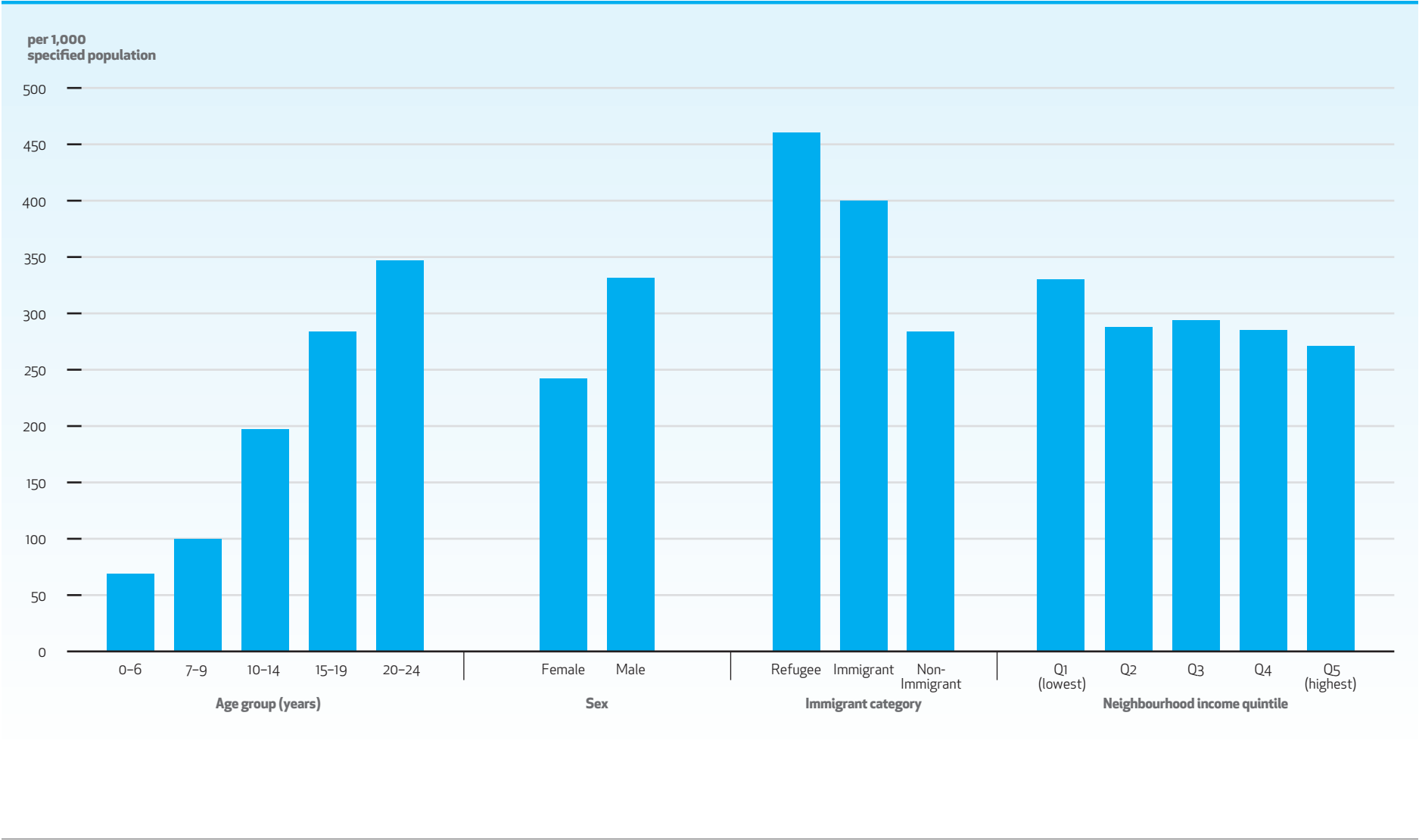
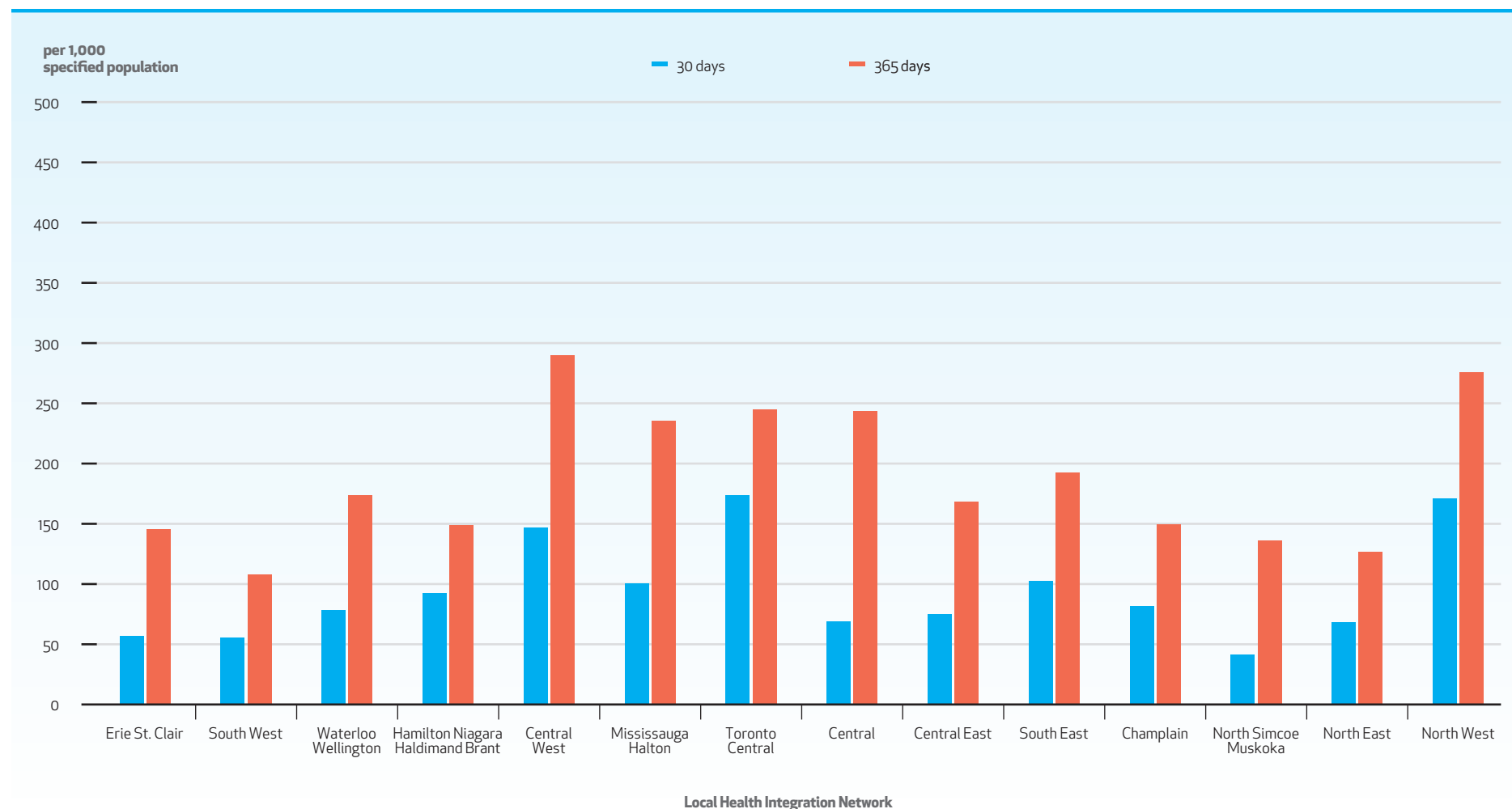


EXHIBIT 3.21.15 Standardized rate of hospital admissions within 30 days and 365 days of an incident emergency department (ED) visit related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of acute care revisits following an incident hospital admission related to mental health and addictions for children and youth

Rationale

Acute care revisits (emergency department visits or hospital readmissions) following an inpatient discharge could signal inadequate support and poor integration and continuity with community-based mental health services.

Results

There was little variation in the rate of acute care revisits within 30 days of an incident hospital admission over time for all disorders analyzed. However, in 2010/11, most acute care revisits within 30 days were related to an anxiety disorder. A similar pattern occurred in the rates of acute care revisits within 365 days of an incident hospital admission. The exception was rates of schizophrenia-related revisits within 365 days of an incident hospital admission which increased annually.

Children aged 7 to 9 years had the highest rate of acute care revisits within 30 days of an incident hospital admission. Rates of acute care revisits within 365 days of an incident hospital admission were higher for older youth aged 20 to 24 years, males, immigrants and those in the lowest-income neighbourhoods. The Toronto Central LHIN had the highest rate of acute care revisits within 30 days but the highest rate within 365 days was found in the North Simcoe Muskoka LHIN.

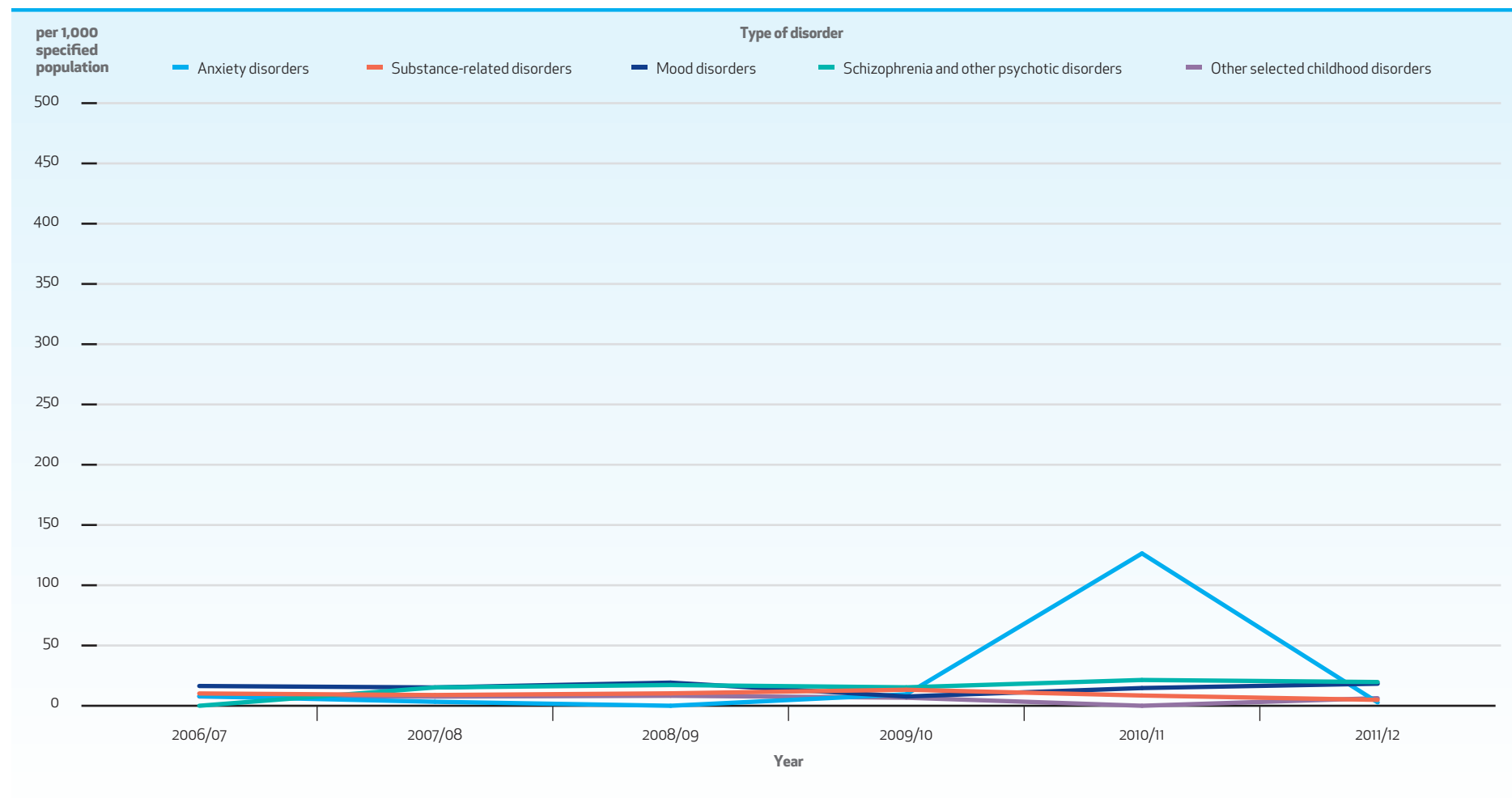
Rates of emergency department visits following an incident hospital admission were considerably lower than rates of hospital readmissions following an incident hospital admission. The highest rates of emergency department visits within 30 and 365 days occurred when incident hospital admissions were related to schizophrenia and other psychotic disorders, and these rates increased over time. Emergency department visits within 30 and 365 days of an incident hospital admission occurred at higher rates among youth aged 20 to 24 years. Among LHINS, the Central West LHIN reported the highest rate of emergency department visits within 30 and 365 days of an incident hospital admission.

Interpretation

Acute care revisits following hospital discharges occurred at high rates and were mainly hospital readmissions. The increased rates of anxiety disorder-related acute care revisits seen in 2010/11 were mainly hospital readmissions and warrant further investigation. More acute care revisits occurred within 30 days than within 365 days of an incident hospital admission. Comparing 30-day and 365-day revisit rates, the majority of revisits occurred early postdischarge, suggesting that interventions should occur early after discharge from or even during an incident hospitalization.

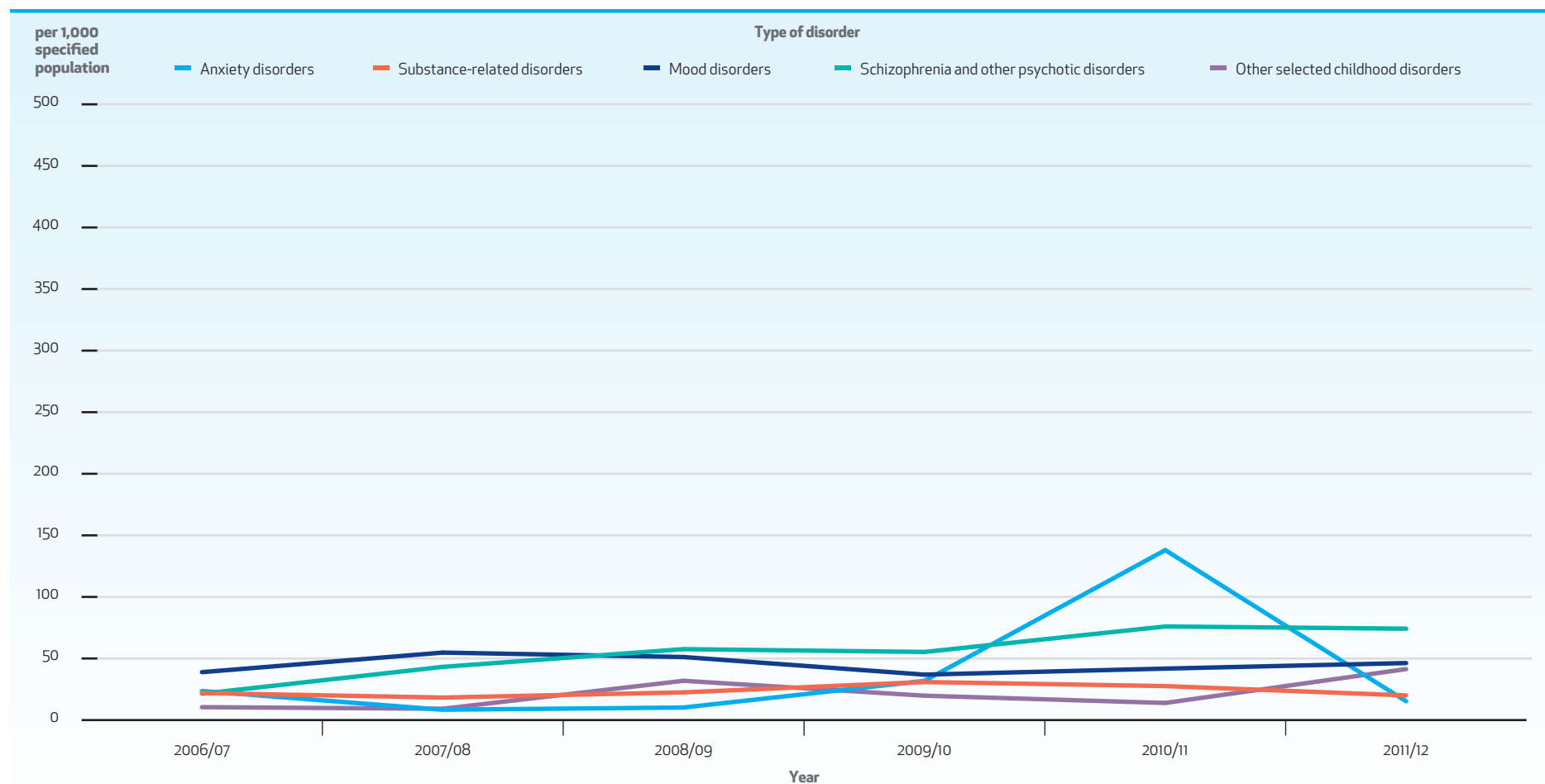
This difference in rates may also reflect regional variations in availability of acute care resources. Relative to other regions, those with elevated rates of acute care revisits within 365 days after an incident hospital admission may reflect a greater prevalence of mental health disorders and addictions that require acute care interventions.

EXHIBIT 3.22.1 Standardized rate of acute care revisits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12



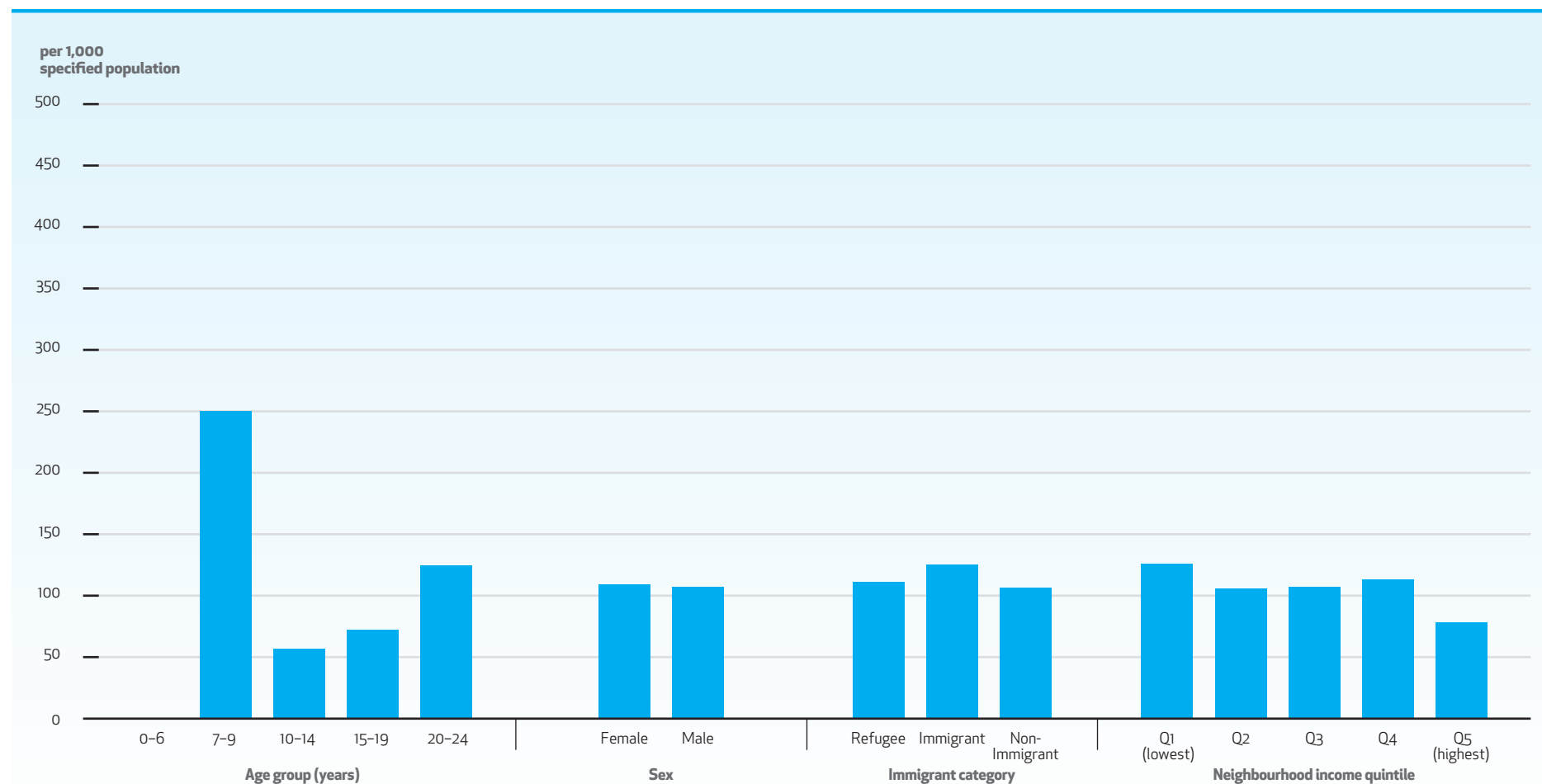
Note: Rates were standardized by age and sex to the 2002 Ontario population. Acute care revisits included emergency department visits and hospital readmissions.

EXHIBIT 3.22.2 Standardized rate of acute care revisits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12



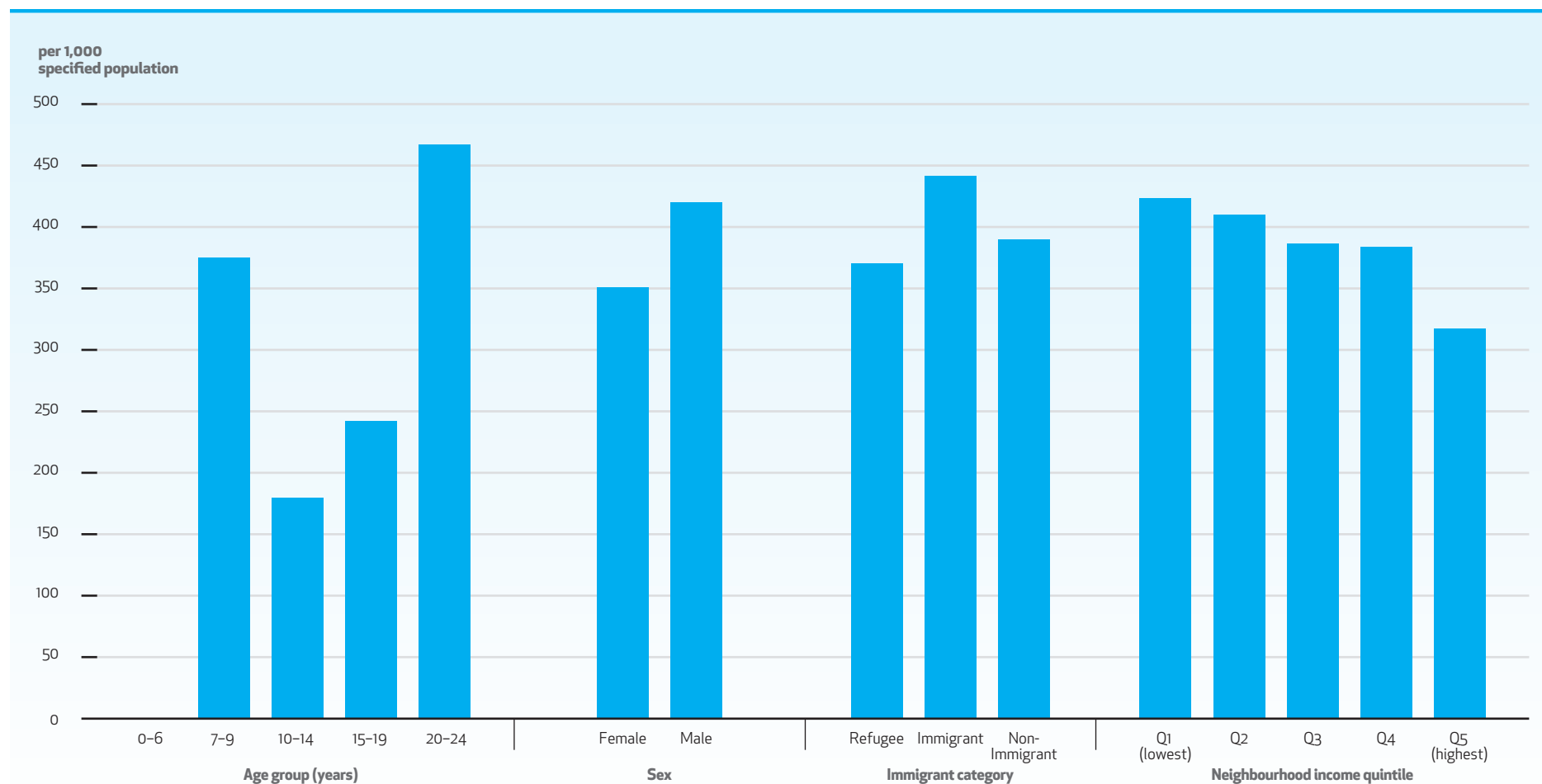
Note: Rates were standardized by age and sex to the 2002 Ontario population. Acute care revisits included emergency department visits and hospital readmissions.

EXHIBIT 3.22.3 Rate of acute care revisits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12



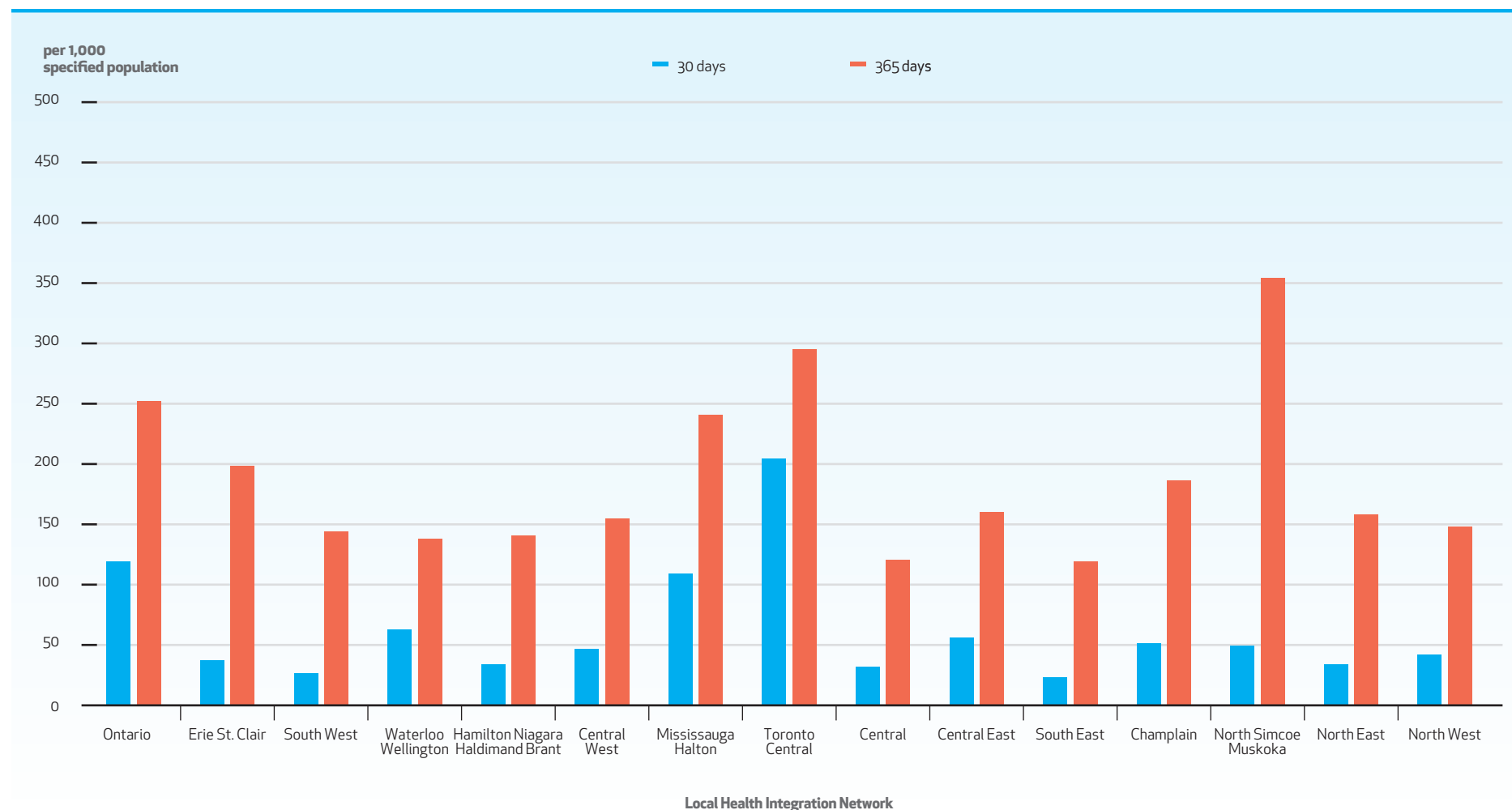
Note: Acute care revisits included emergency department visits and hospital readmissions.

EXHIBIT 3.22.4 Rate of acute care revisits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12



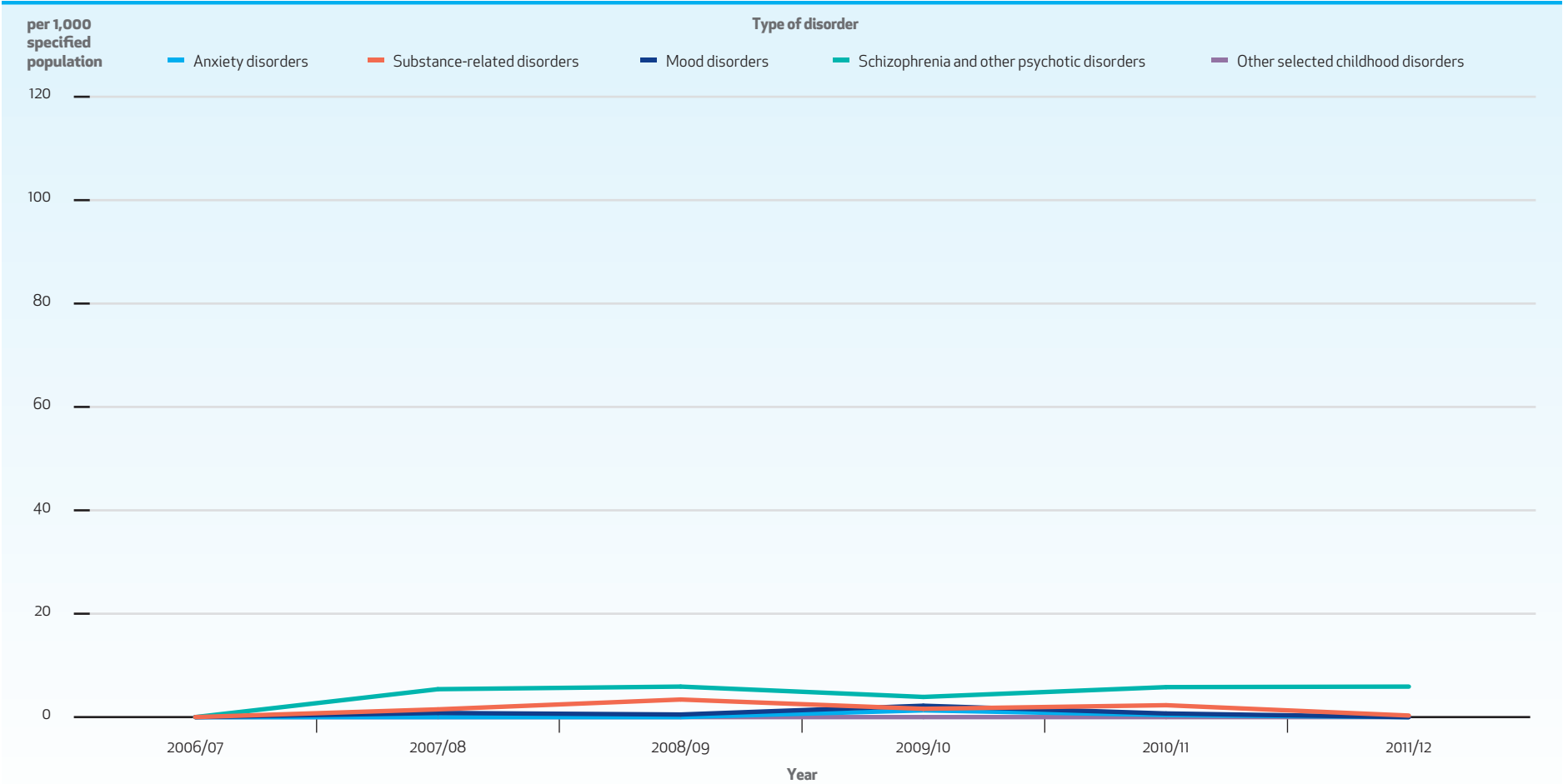
Note: Acute care revisits included emergency department visits and hospital readmissions.

EXHIBIT 3.22.5 Standardized rate of acute care revisits within 30 days and 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



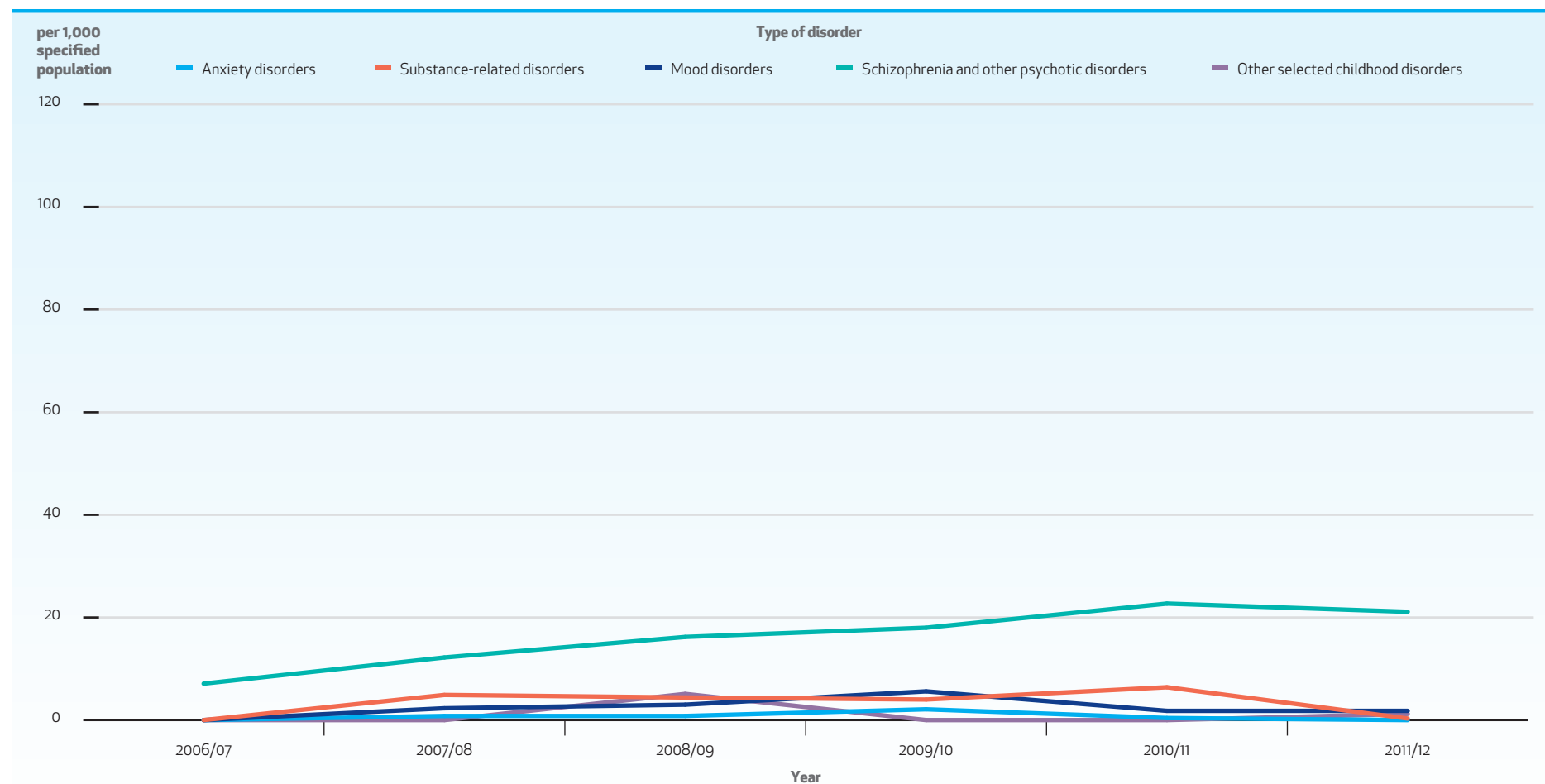
Note: Rates were standardized by age and sex to the 2002 Ontario population. Acute care revisits included emergency department visits and hospital readmissions.

EXHIBIT 3.22.6 Standardized rate of emergency department visits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.22.7 Standardized rate of emergency department visits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.22.8 Rate of emergency department visits within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

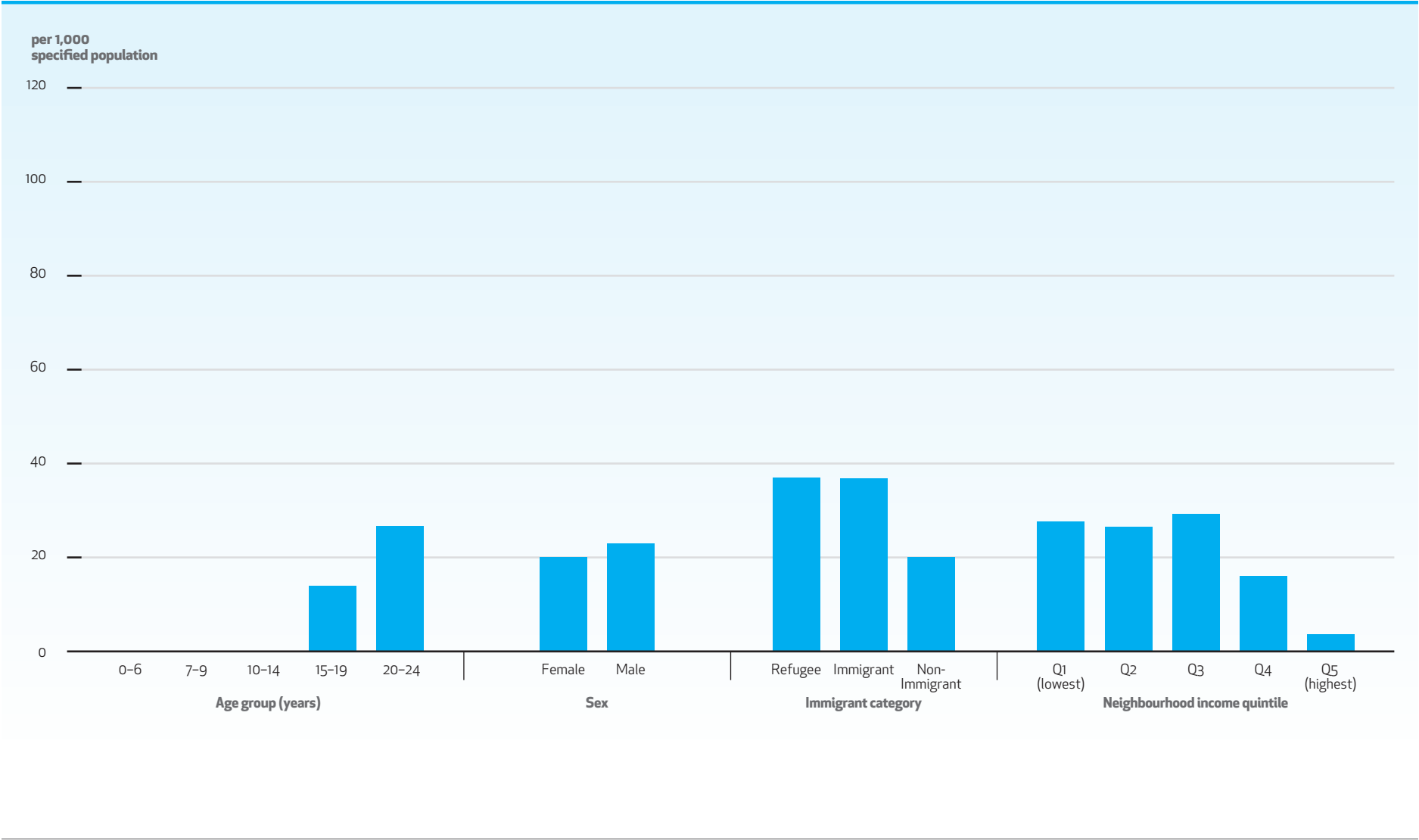


EXHIBIT 3.22.9 Rate of emergency department visits within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

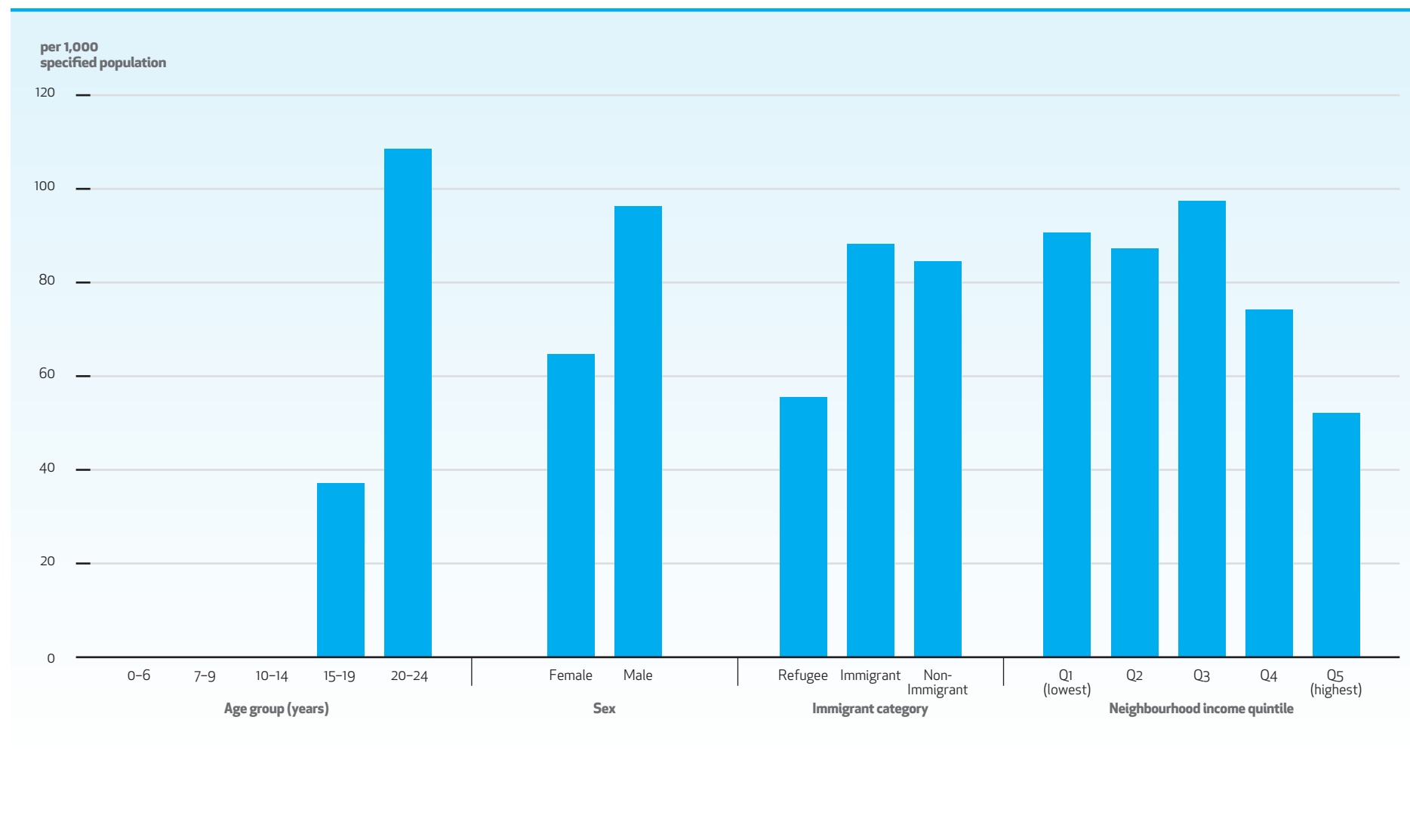
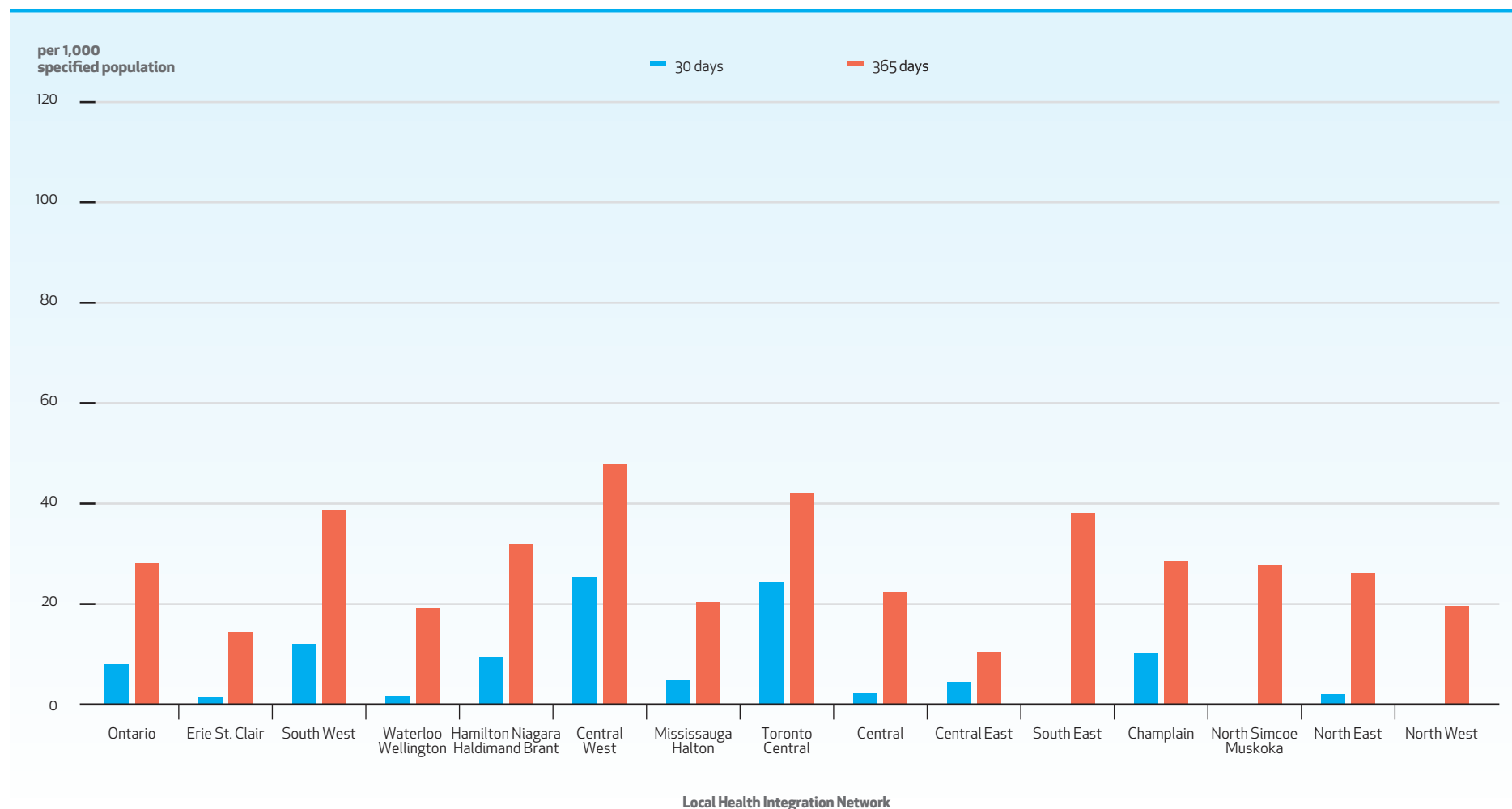
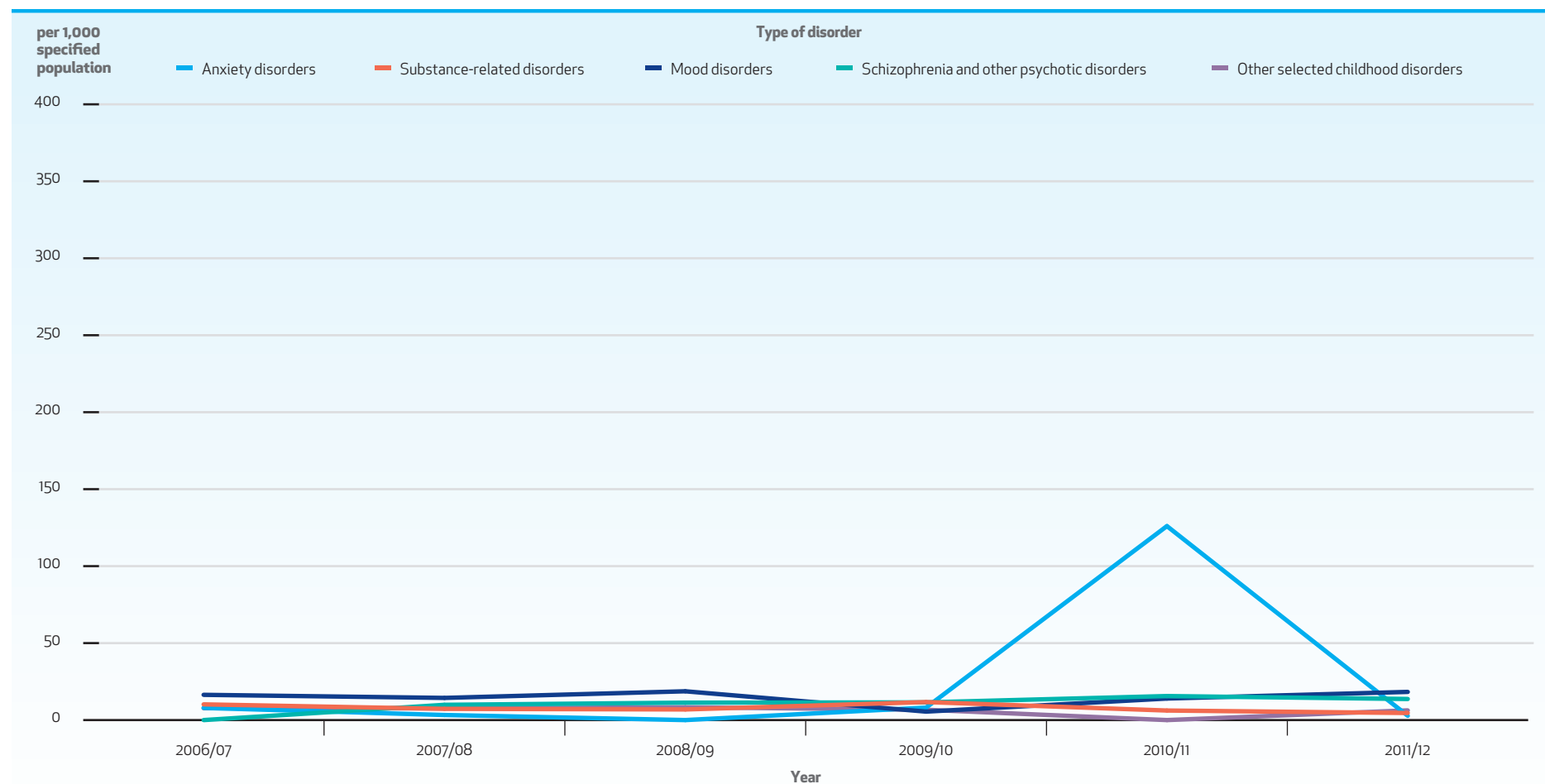


EXHIBIT 3.22.10 Standardized rate of emergency department visits within 30 days and 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



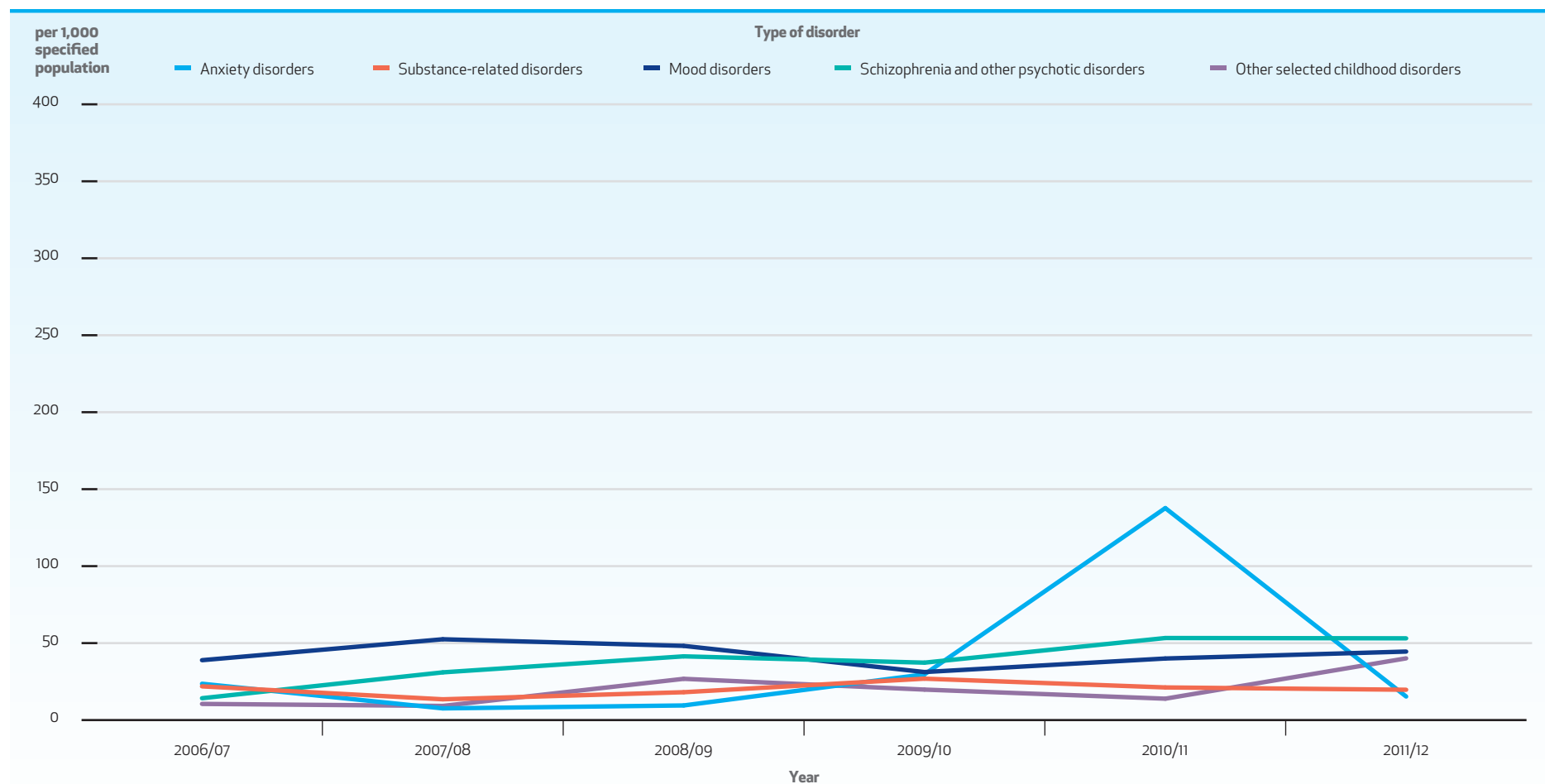
Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.22.11 Standardized rate of readmissions within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.22.12 Standardized rate of readmissions within 365 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years, with an incident MHA-related hospital admission, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.22.13 Rate of readmissions within 30 days of an incident hospital admission related to mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

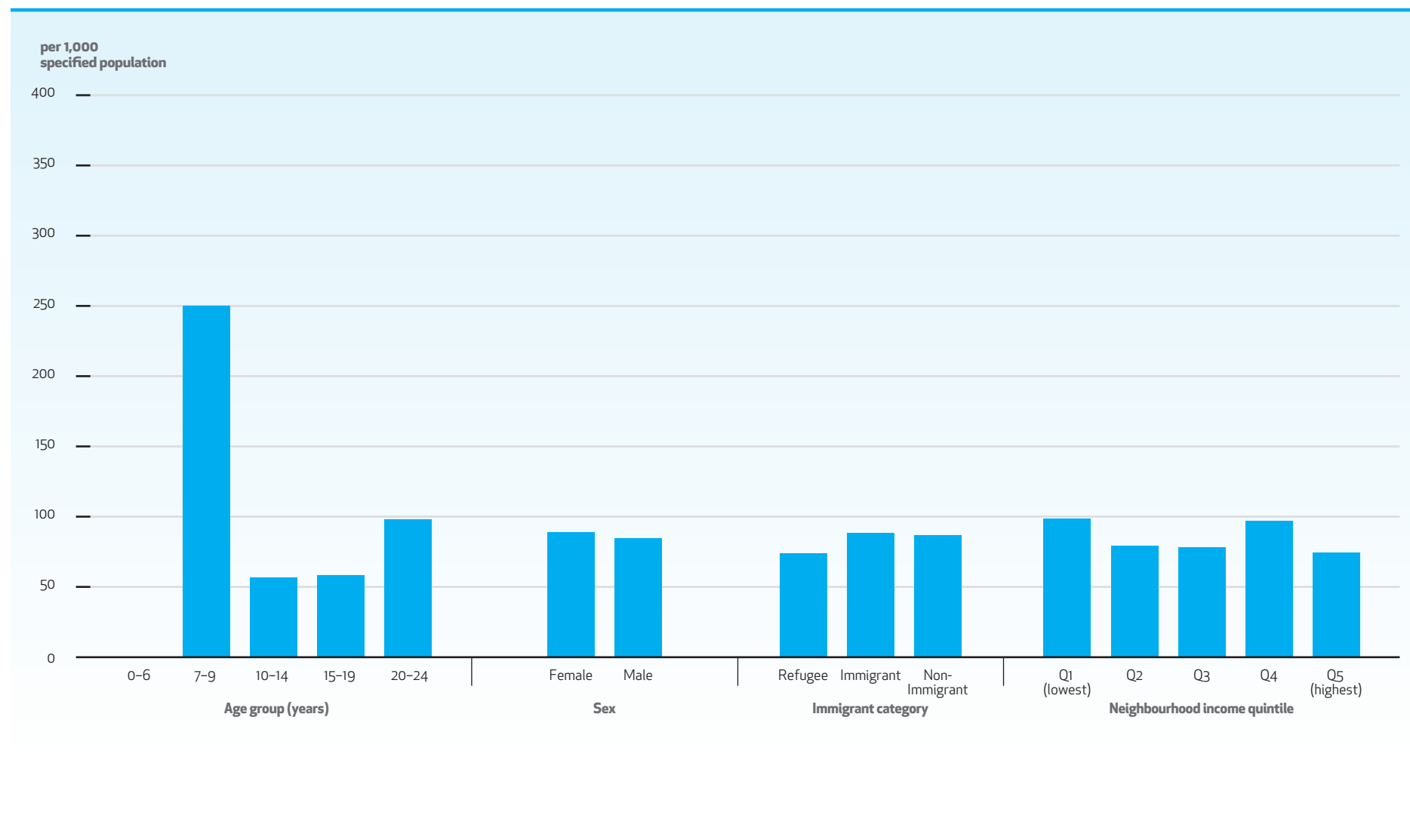


EXHIBIT 3.22.14 Rate of readmissions within 365 days of an incident hospital admission related to mental health and addiction (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by equity lens, in Ontario, three-year average for 2009/10 to 2011/12

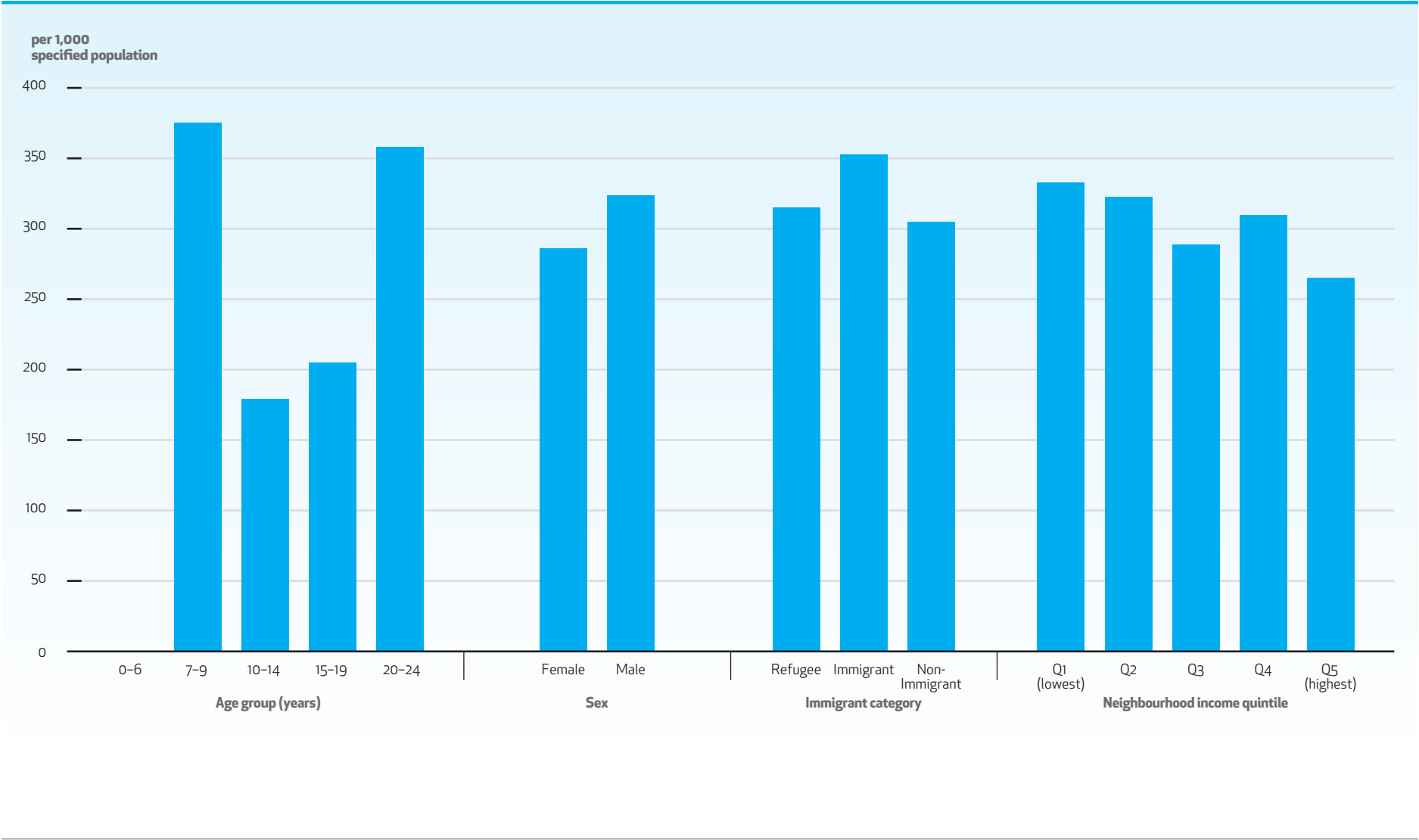
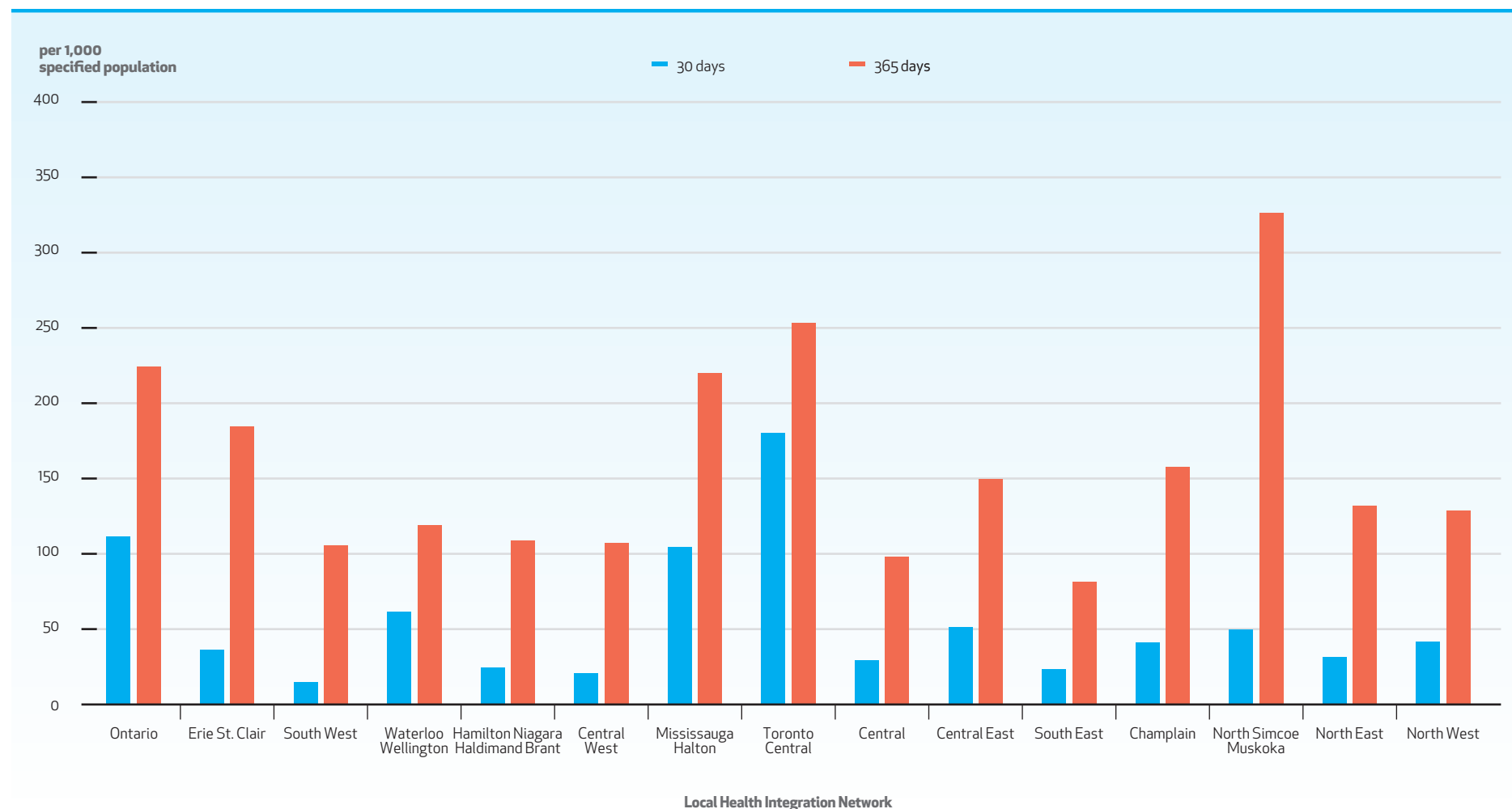


EXHIBIT 3.22.15 Standardized rate of readmissions within 30 days and 365 days of an incident hospital admission related to mental health and addiction (MHA) per 1,000 population aged 0 to 24 years with an incident MHA-related hospital admission, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Early Identification

- Proportion of youth in provincial correctional centres using mental health and addictions services
- Rate of emergency department visit as first contact for mental health and addictions for children and youth
- Rate of hospital admission as first contact for mental health and addictions for children and youth

Proportion of youth in provincial correctional centres using mental health and addictions services

Rationale

Mental health and addictions rates are high among individuals involved in correctional services. High use of mental health and addictions services by youth in custody could signal missed opportunities to identify needs for such services before entry into the youth justice system.

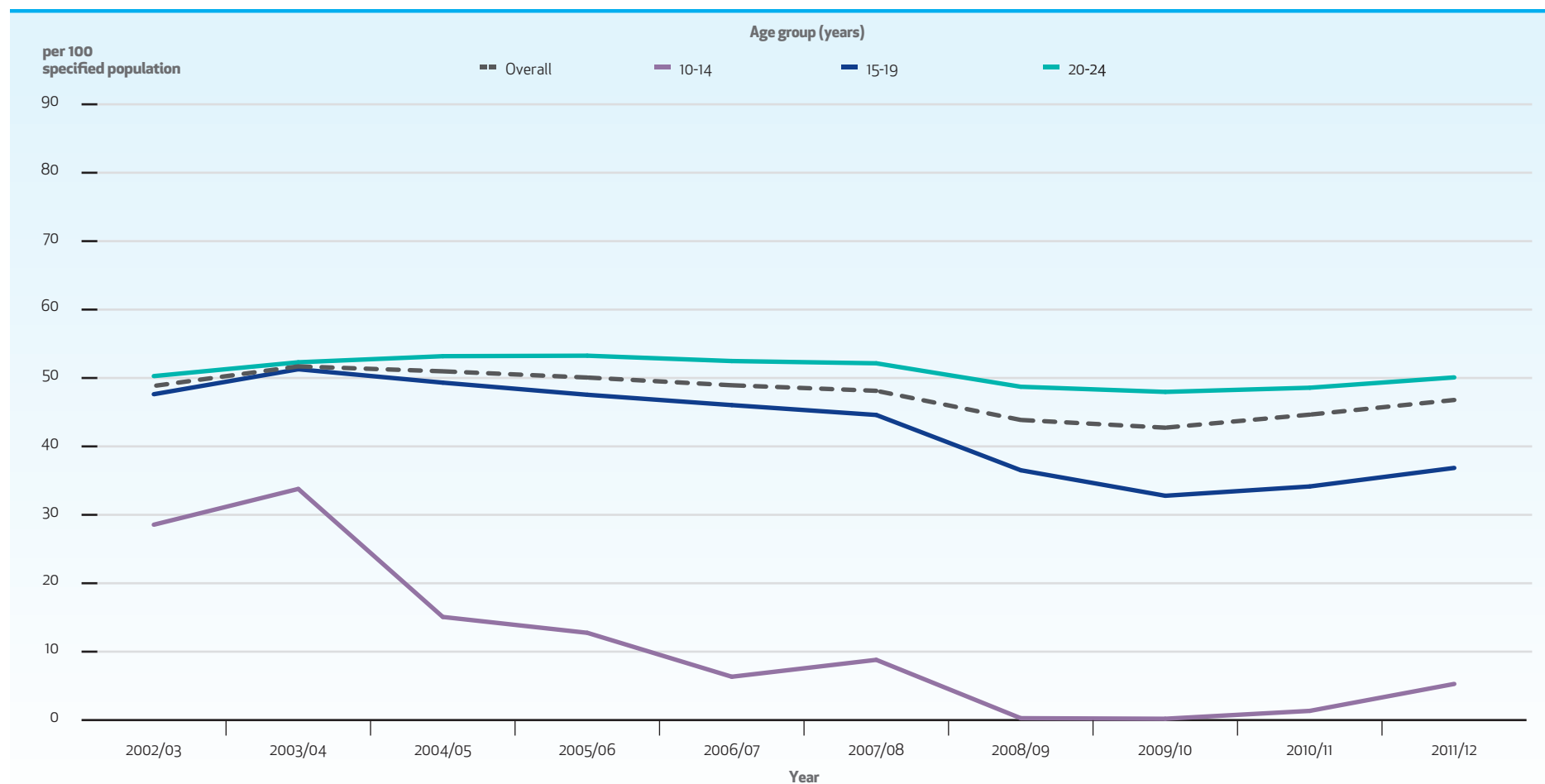
Results

The proportion of youth in provincial correctional centres using physician-based mental health and addictions services decreased over time. The largest decrease was seen among youth aged 12 to 14 years. The highest use of mental health and addictions services was among 20- to 24-year-olds. Males had higher service use than females. Refugees and non-immigrants in provincial correctional centres used mental health and addictions services more than non-refugee immigrants. Service use was also elevated for youth from lower-income neighbourhoods. Youth in provincial correctional centres from the Erie St. Clair and Champlain LHINs had the highest proportions of service use, and those from the Central West LHIN had the lowest proportion. Similarly, among MCYS Child and Youth Mental Health Service Areas, the highest use of mental health and addictions services was observed in youth from Huron/Perth and Chatham-Kent, and the lowest use was observed in youth from Peel.

Interpretation

The decline in use of mental health and addictions services by youth in custody may be due to Canada-wide decreases in youth custody rates related to the enactment of the *Youth Criminal Justice Act* in 2003 or to increased diversion away from the justice system of youth with mental health and addictions problems or to a combination of both. Refugees in Ontario could have a greater need for mental health services, based on the high rate of mental health and addictions service use observed in this group.

EXHIBIT 3.23.1 Proportion of youth in provincial correctional centres using mental health and addictions services per 100 population aged 12 to 24 years in correctional centres, by age group, in Ontario, 2002/03 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.23.2 Proportion of youth in provincial correctional centres using mental health and addictions services per 100 population aged 12 to 24 years in correctional centres, by age group, in Ontario, three-year average for 2009/10 to 2011/12

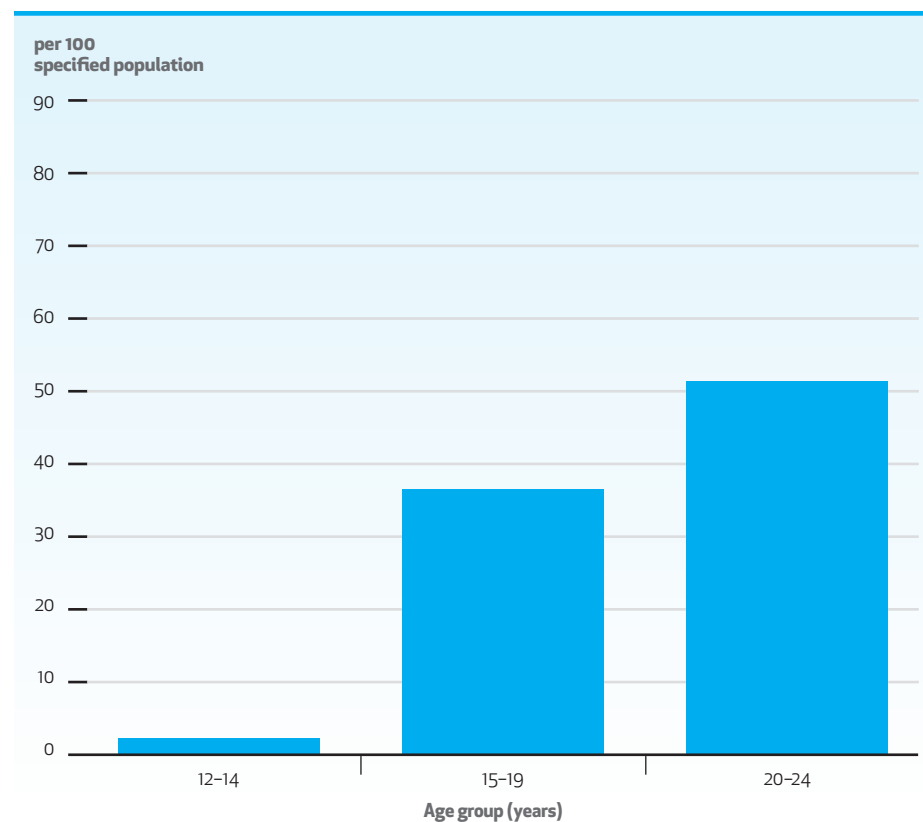


EXHIBIT 3.23.3 Proportion of youth in provincial correctional centres using mental health and addictions services per 100 population aged 12 to 24 years in correctional centres, by sex, in Ontario, three-year average for 2009/10 to 2011/12

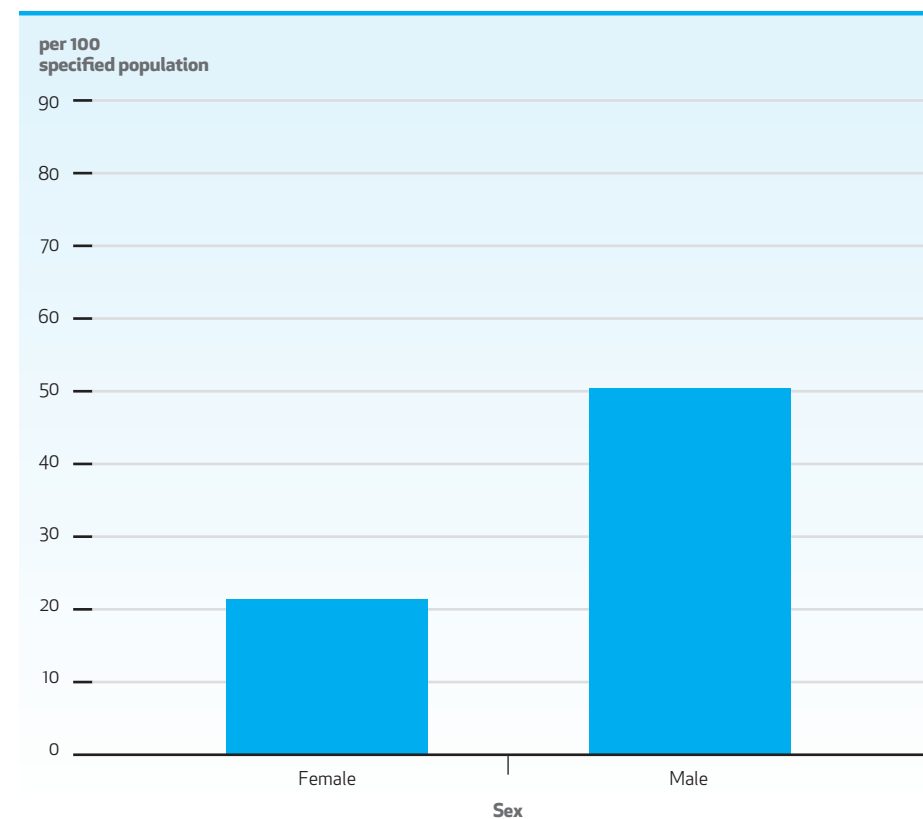


EXHIBIT 3.23.4 Proportion of youth in provincial correctional centres using mental health and addictions services per 100 population aged 12 to 24 years in correctional centres, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

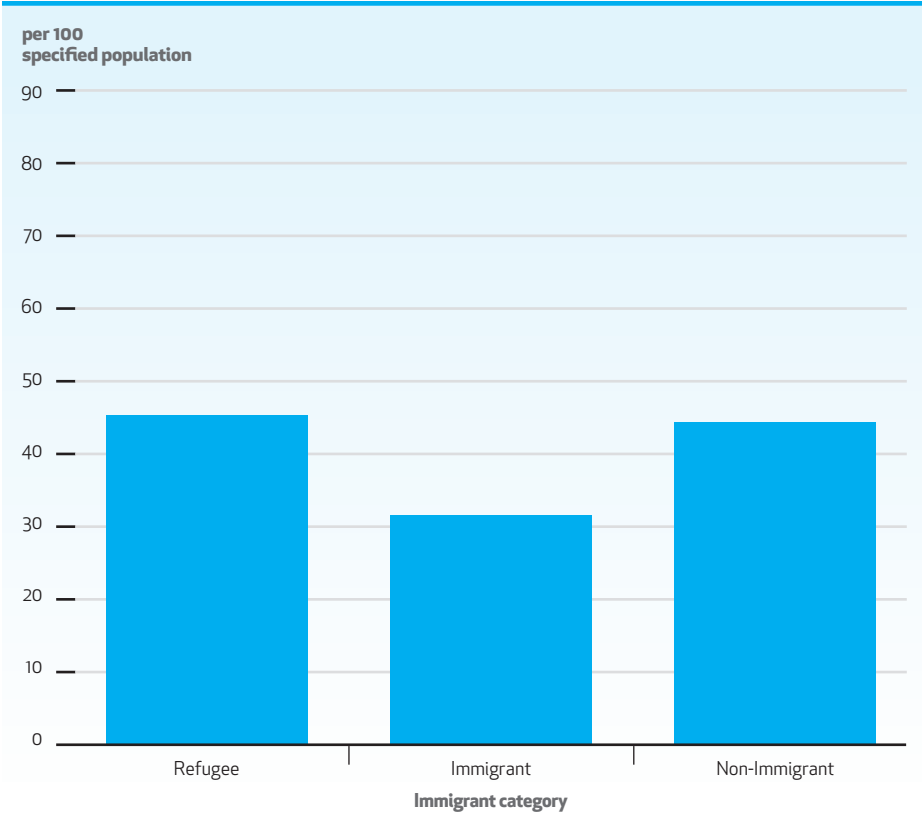


EXHIBIT 3.23.5 Proportion of youth in provincial correctional centres using mental health and addictions services per 100 population aged 12 to 24 years in correctional centres, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

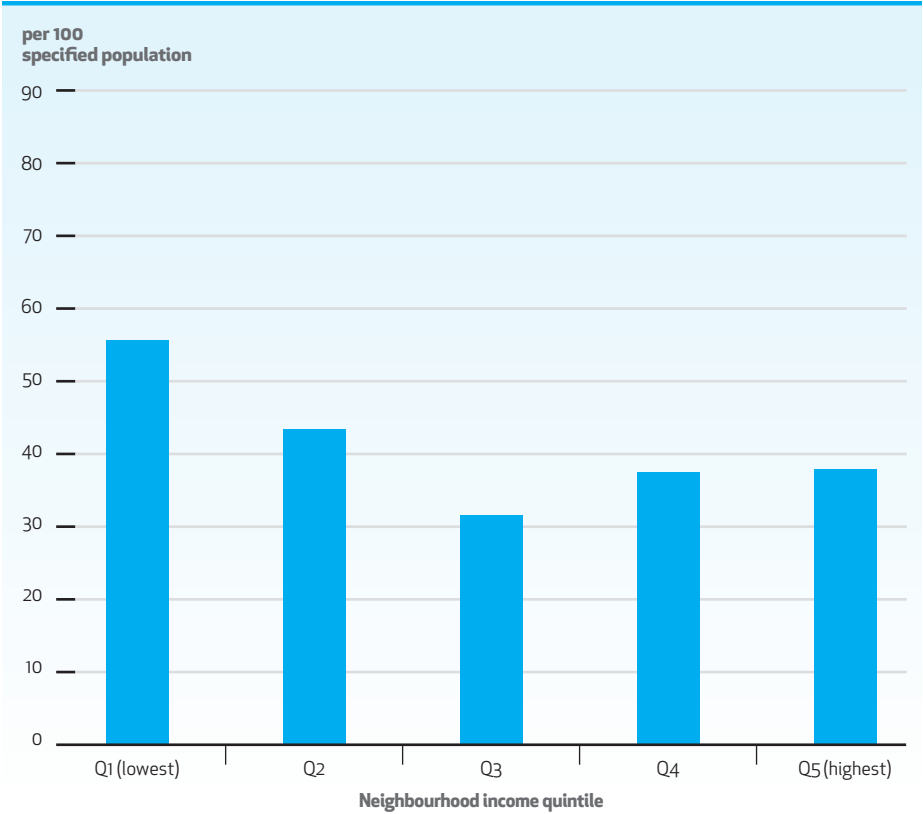
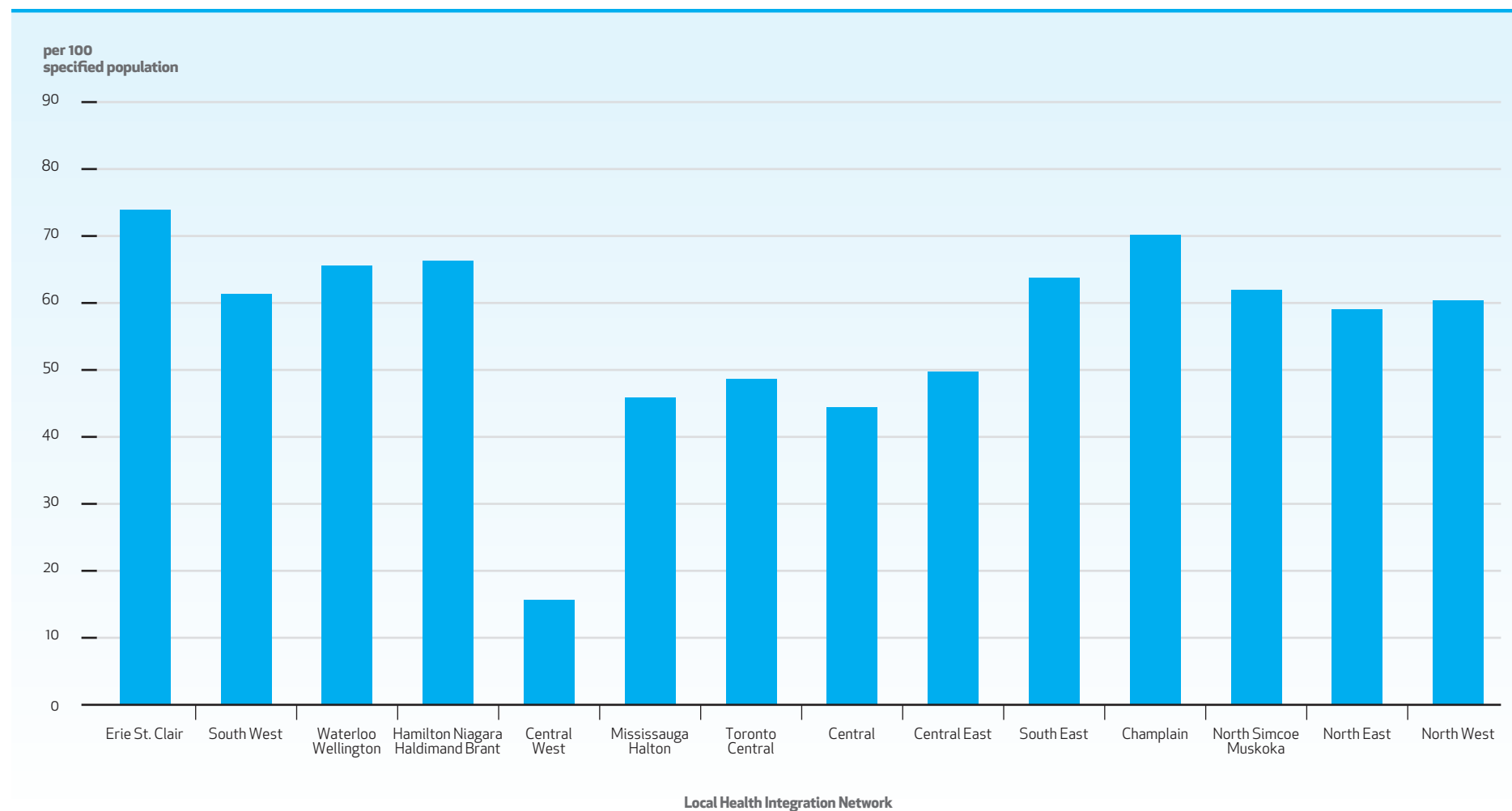
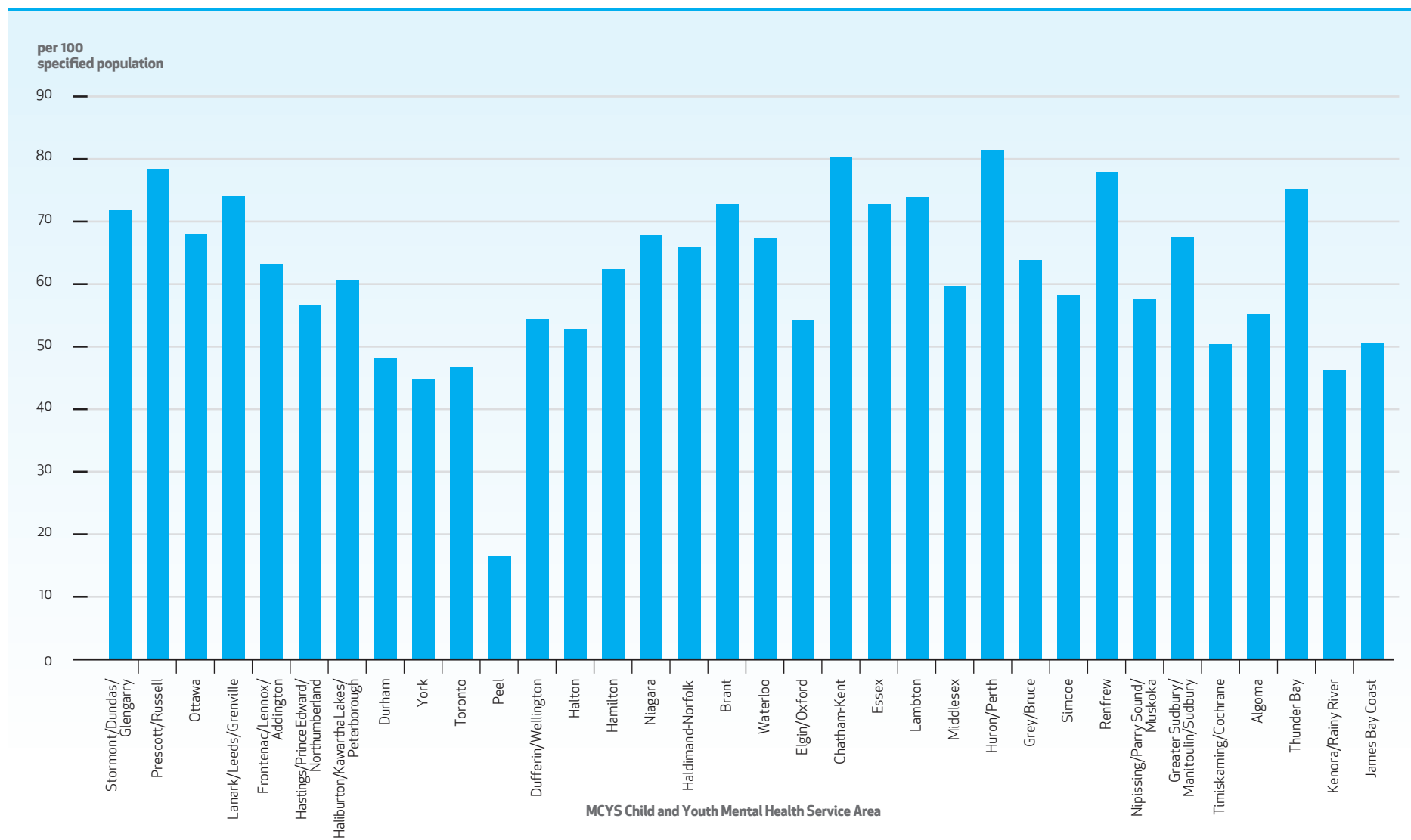


EXHIBIT 3.23.6 Standardized proportion of youth in provincial correctional centres using mental health and addictions services per 100 population aged 12 to 24 years in correctional centres, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.23.7 Standardized proportion of youth in provincial correctional centres using mental health and addictions services per 100 population aged 12 to 24 years in correctional centres, by MCYS Child and Youth Mental Health Service Area, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of emergency department visit as first contact for mental health and addictions for children and youth

Rationale

When the emergency department is the first point of contact for mental health and addictions care, it could be a signal that access to timely community-based mental health assessment and treatment is insufficient.

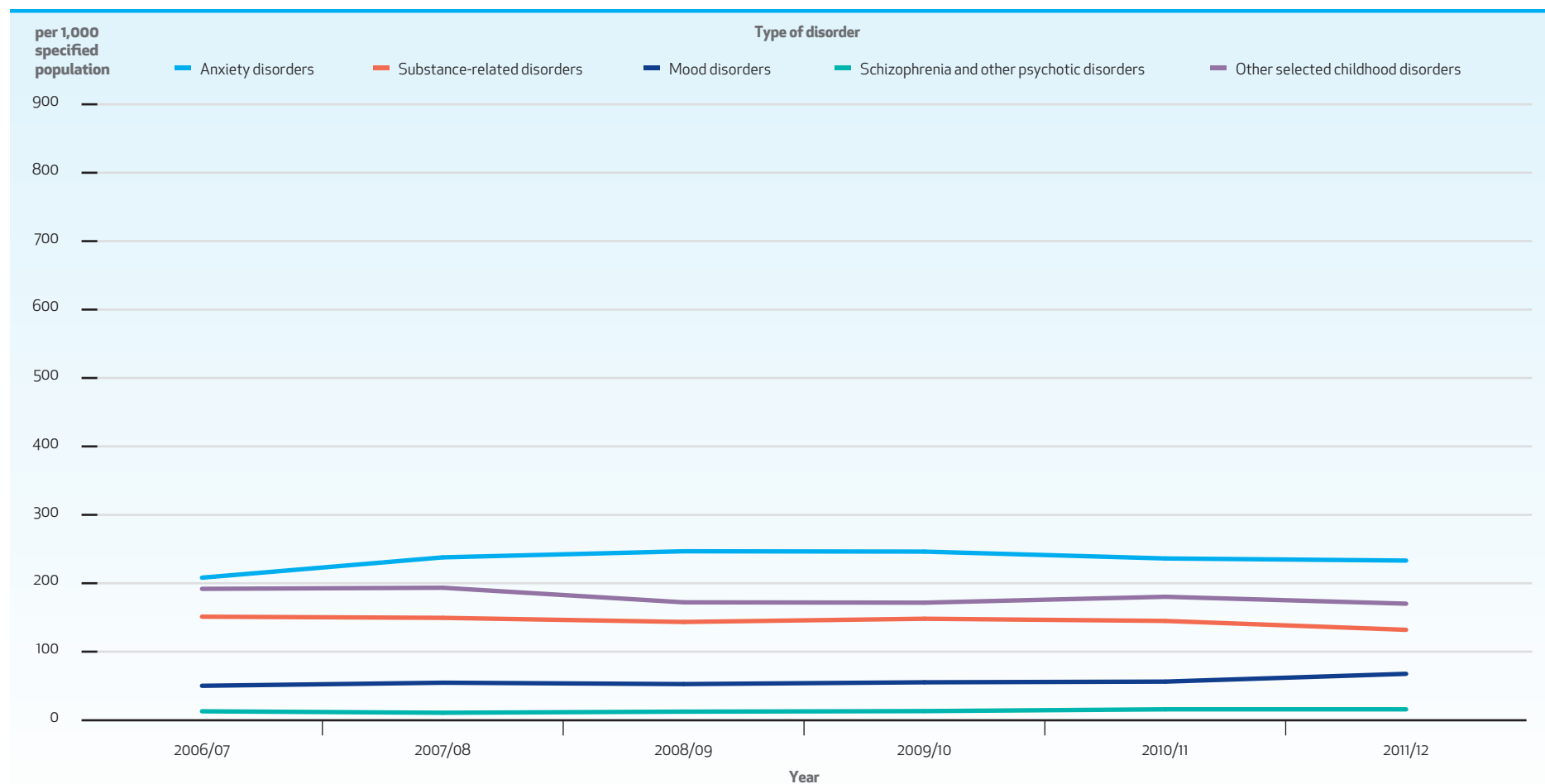
Results

Rates of the emergency department as first point of contact with the health system for mental health and addictions disorders remained stable. For 10- to 14-year-olds, first contact occurring in the emergency department was most commonly for anxiety disorders, and this rate increased over time. In contrast, first contacts occurring in the emergency department for 15- to 19-year-olds was most often for substance-related disorders, and these rates decreased over time. The lowest rates were found in 20- to 24-year-olds and the highest in 0- to 6-year-olds. Rates of emergency department visits among refugee children and youth were slightly higher than rates among non-refugee immigrants and non-immigrants. Rates did not vary by sex, neighbourhood income or Local Health Integration Network.

Interpretation

Among children aged 0 to 6 years, first contact in the emergency department was most commonly for the other selected childhood disorders diagnostic category. For youth aged 10 to 19 years, rates related to substance use decreased, but those related to anxiety disorders increased. Rates for older youth (20- to 24-year-olds) changed little across all the diagnostic categories. Rates of emergency department visits by diagnostic category are presented in the Technical Appendix. These results may reflect acute care needs for first presentations for which there was inadequate access to physician-based ambulatory and community-based services.

EXHIBIT 3.24.1 Standardized rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by type of disorder and year, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.24.2 Rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 10 to 14 years with an MHA-related ED visit, by type of disorder and year, in Ontario, 2006/07 to 2011/12

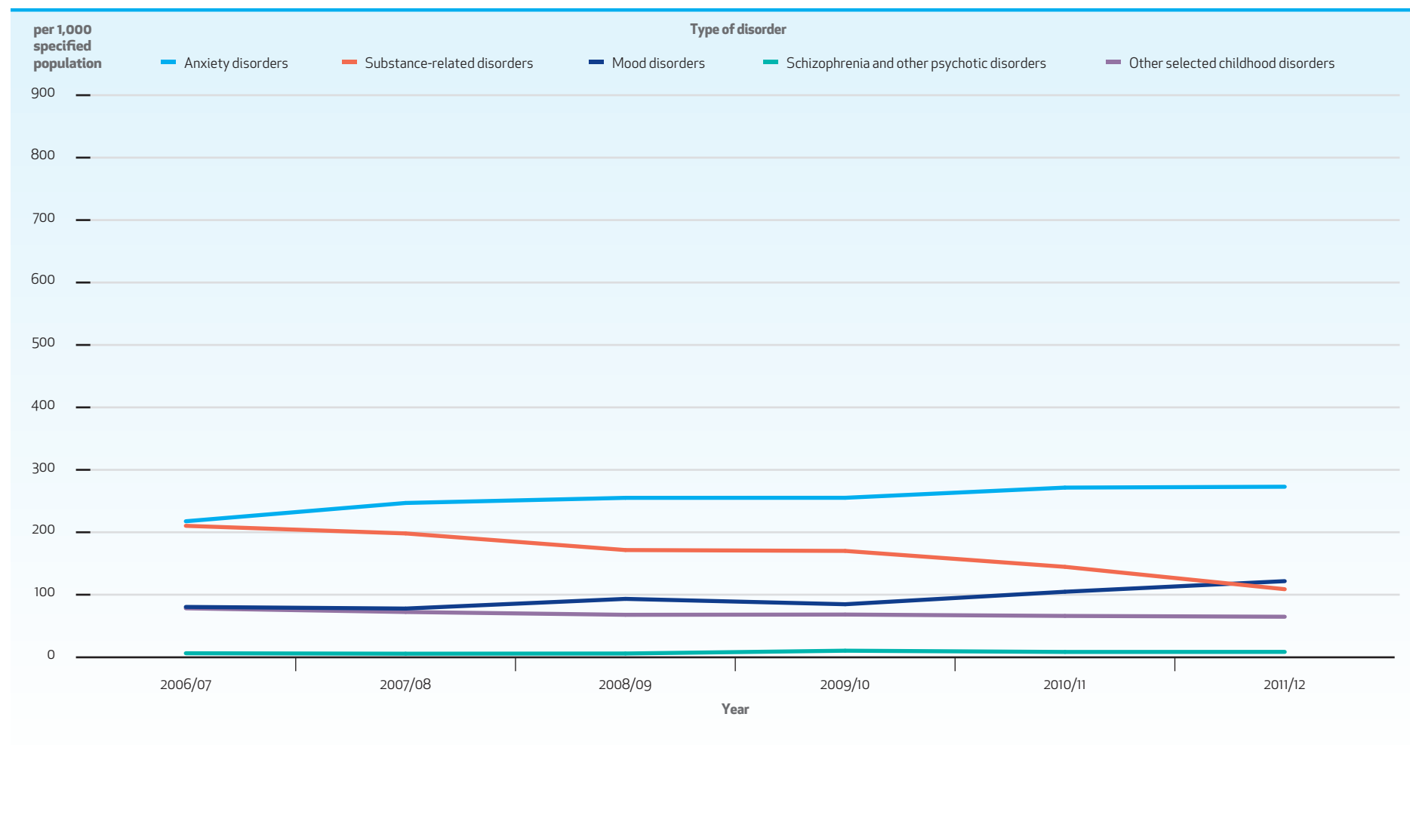


EXHIBIT 3.24.3 Rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 15 to 19 years with an MHA-related ED visit, by type of disorder and year, in Ontario, 2006/07 to 2011/12

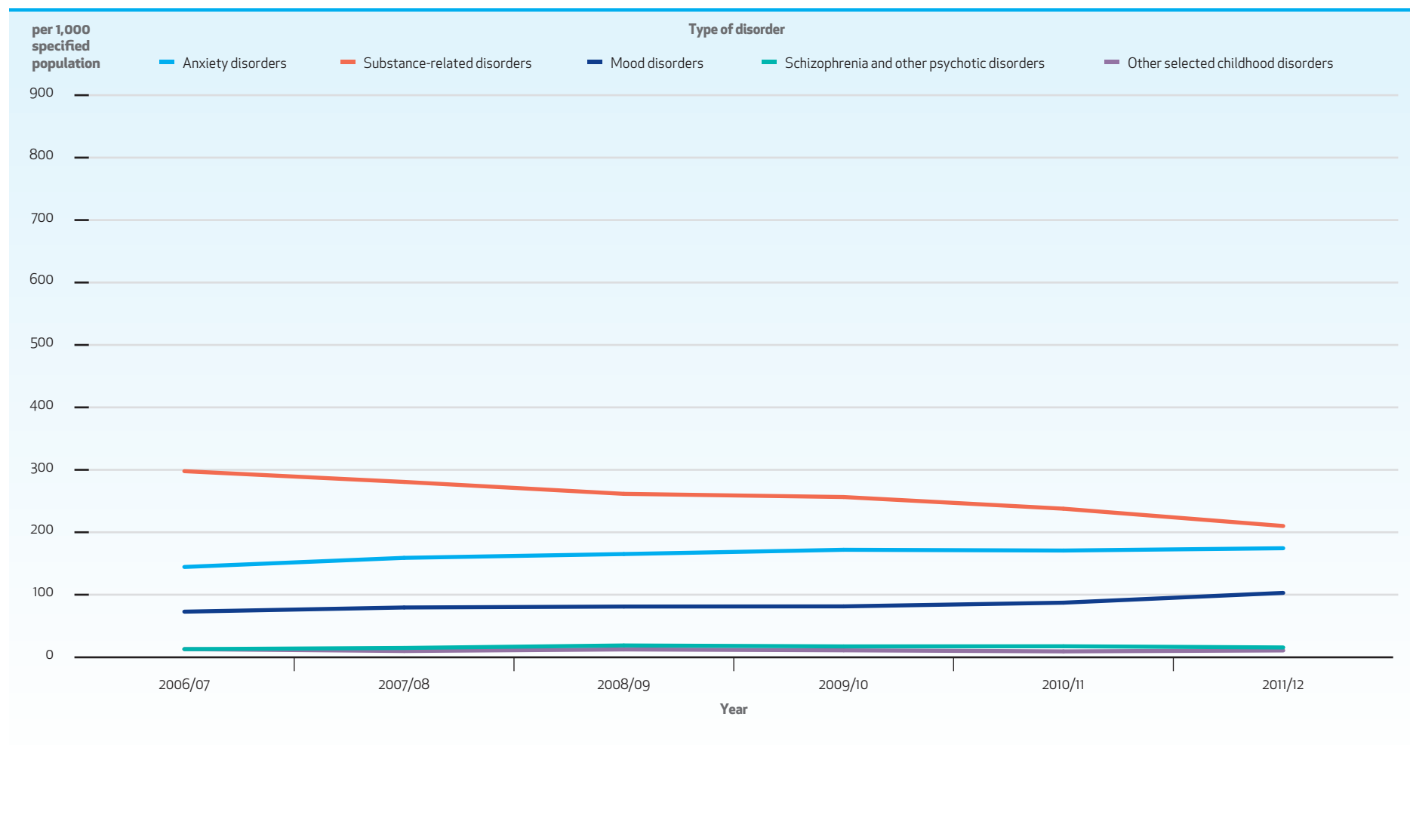


EXHIBIT 3.24.4 Rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 20 to 24 years with an MHA-related ED visit, by type of disorder, in Ontario, 2006/07 to 2011/12

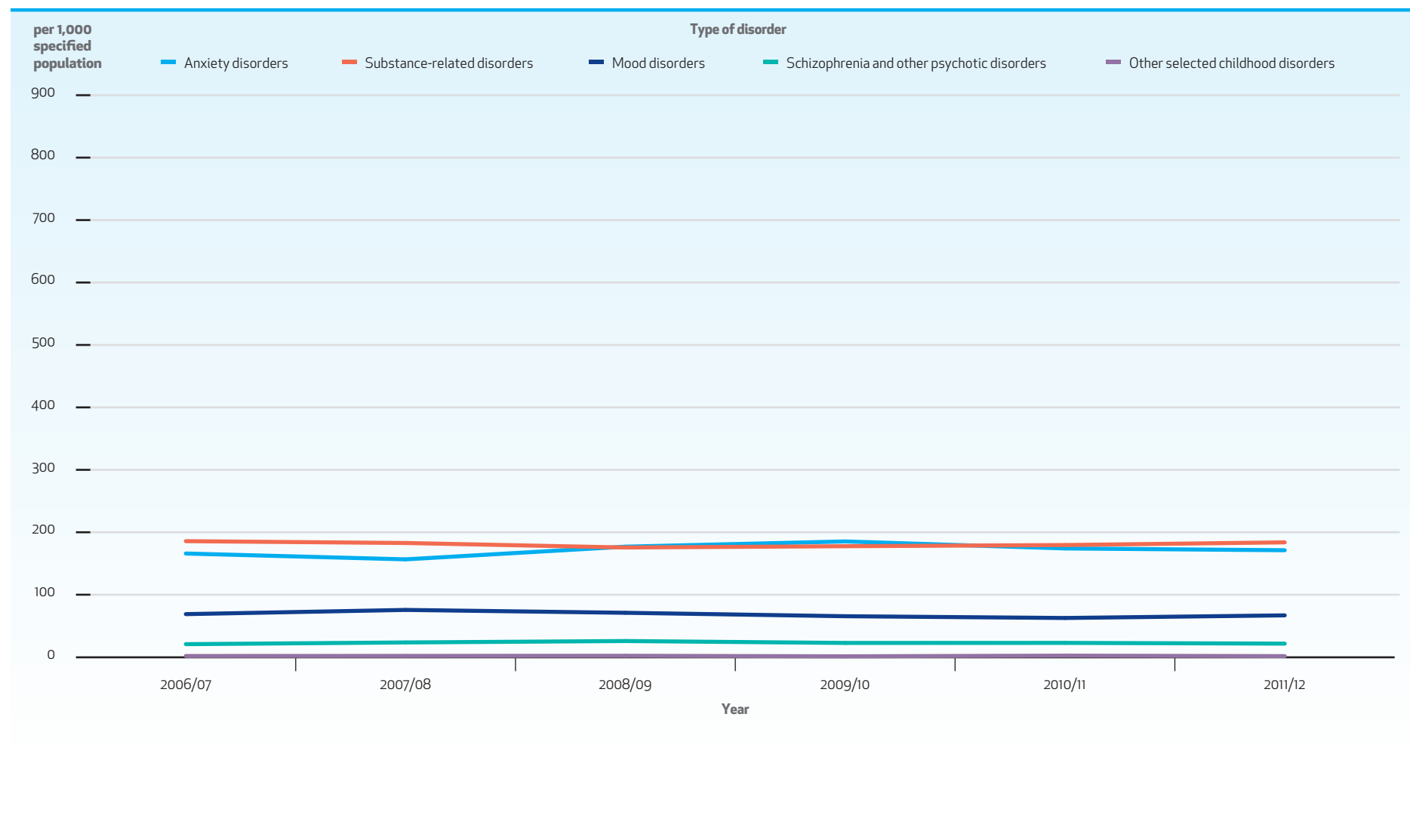


EXHIBIT 3.24.5 Rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by age group, in Ontario, three-year average for 2009/10 to 2011/12

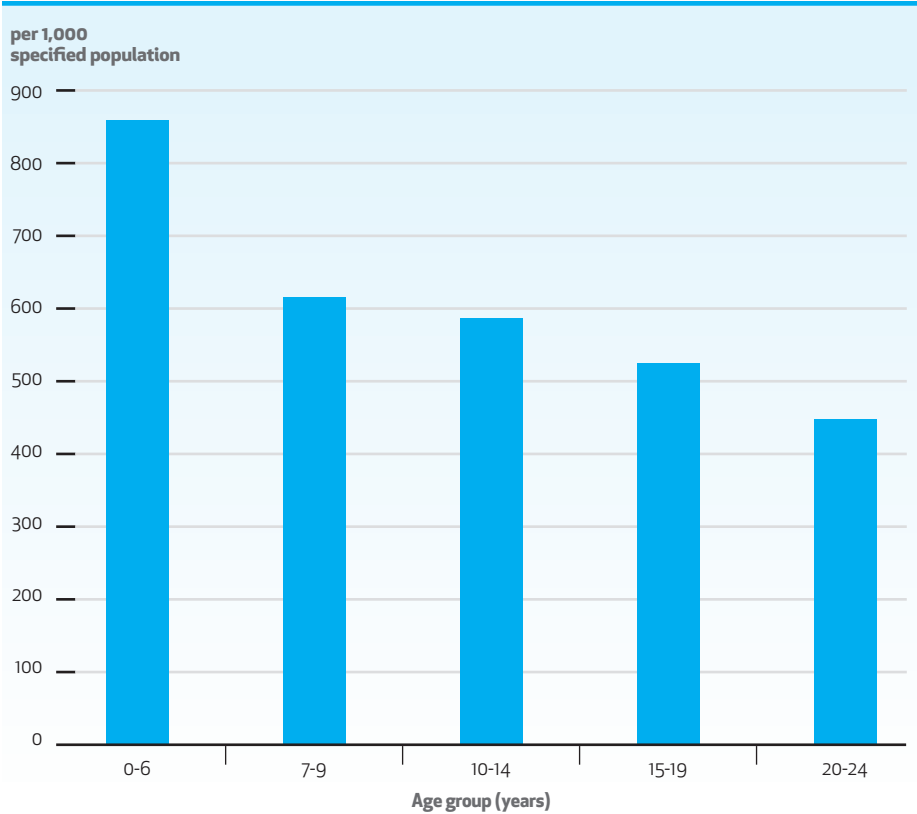


EXHIBIT 3.24.6 Rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by sex, in Ontario, three-year average for 2009/10 to 2011/12

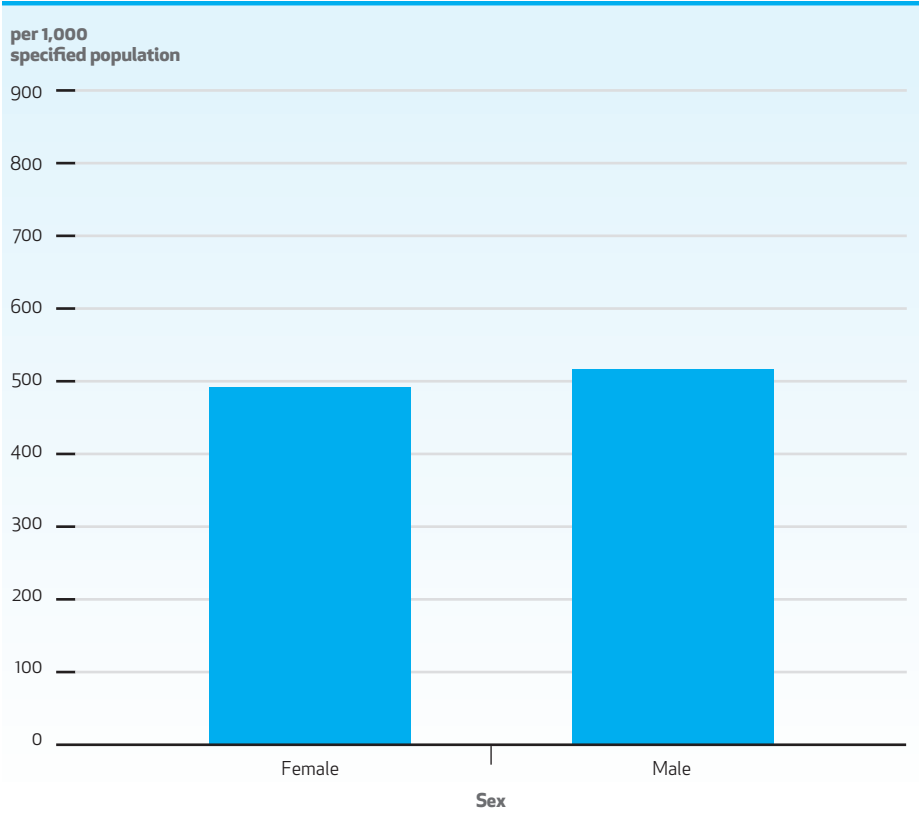


EXHIBIT 3.24.7 Rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

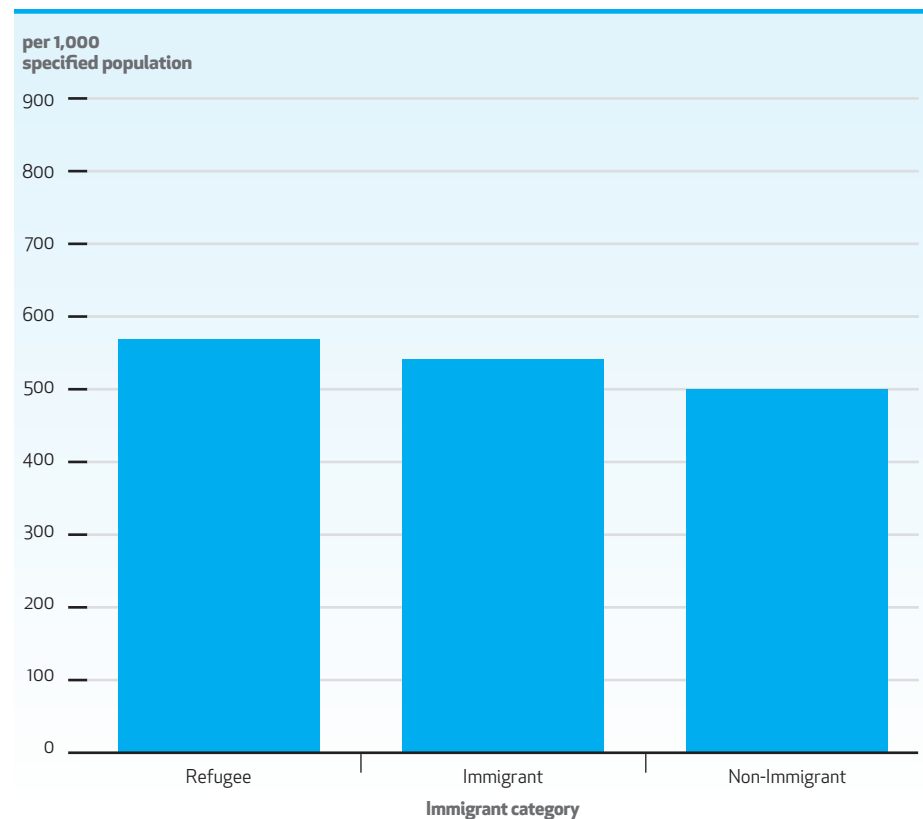


EXHIBIT 3.24.8 Rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

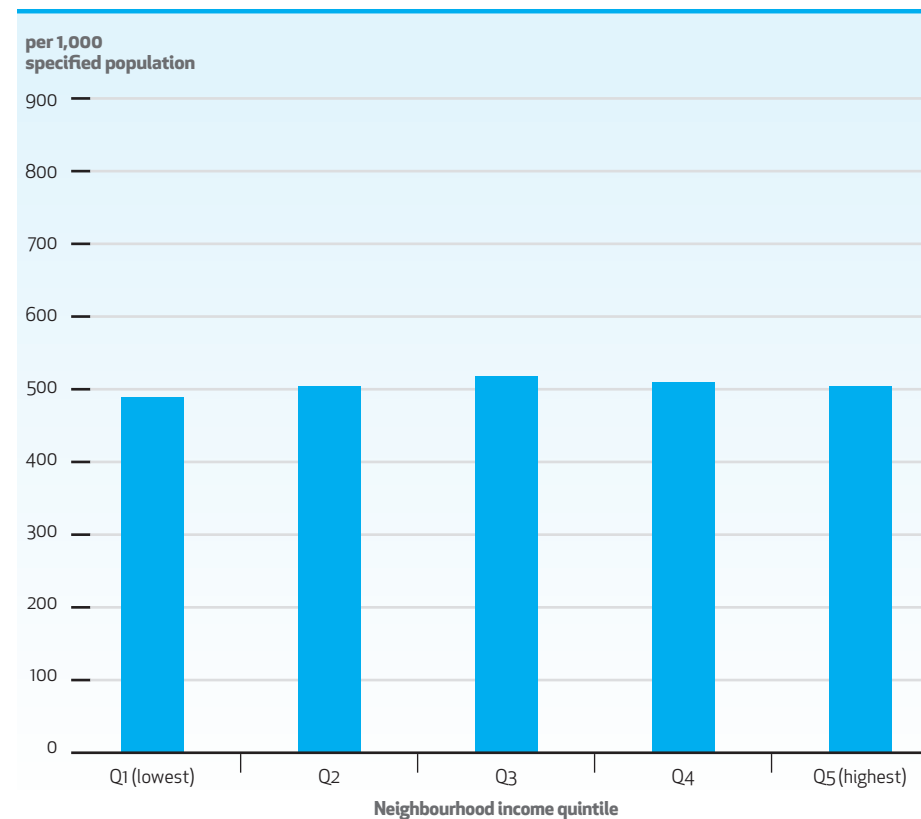
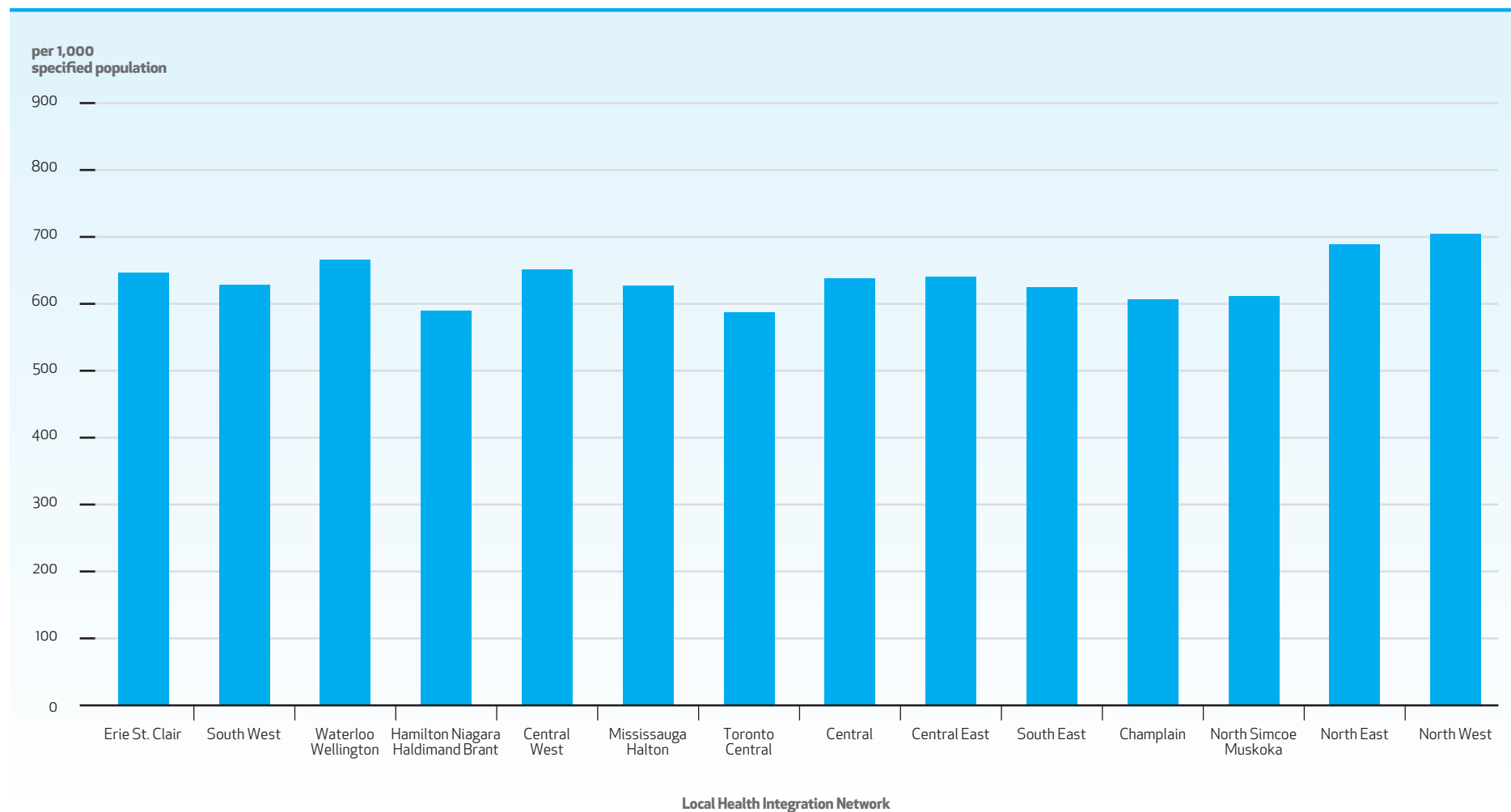


EXHIBIT 3.24.9 Standardized rate of emergency department (ED) as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related ED visit, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Rate of hospital admission as first contact for mental health and addictions for children and youth

Rationale

Hospitals are an important point of access for children and youth experiencing a mental health or addiction crisis, particularly when access to community and primary care support and resources is limited. High rates of first mental health and addictions contact taking place in the hospital could signal poor access to physician-based outpatient mental health assessment and treatment.

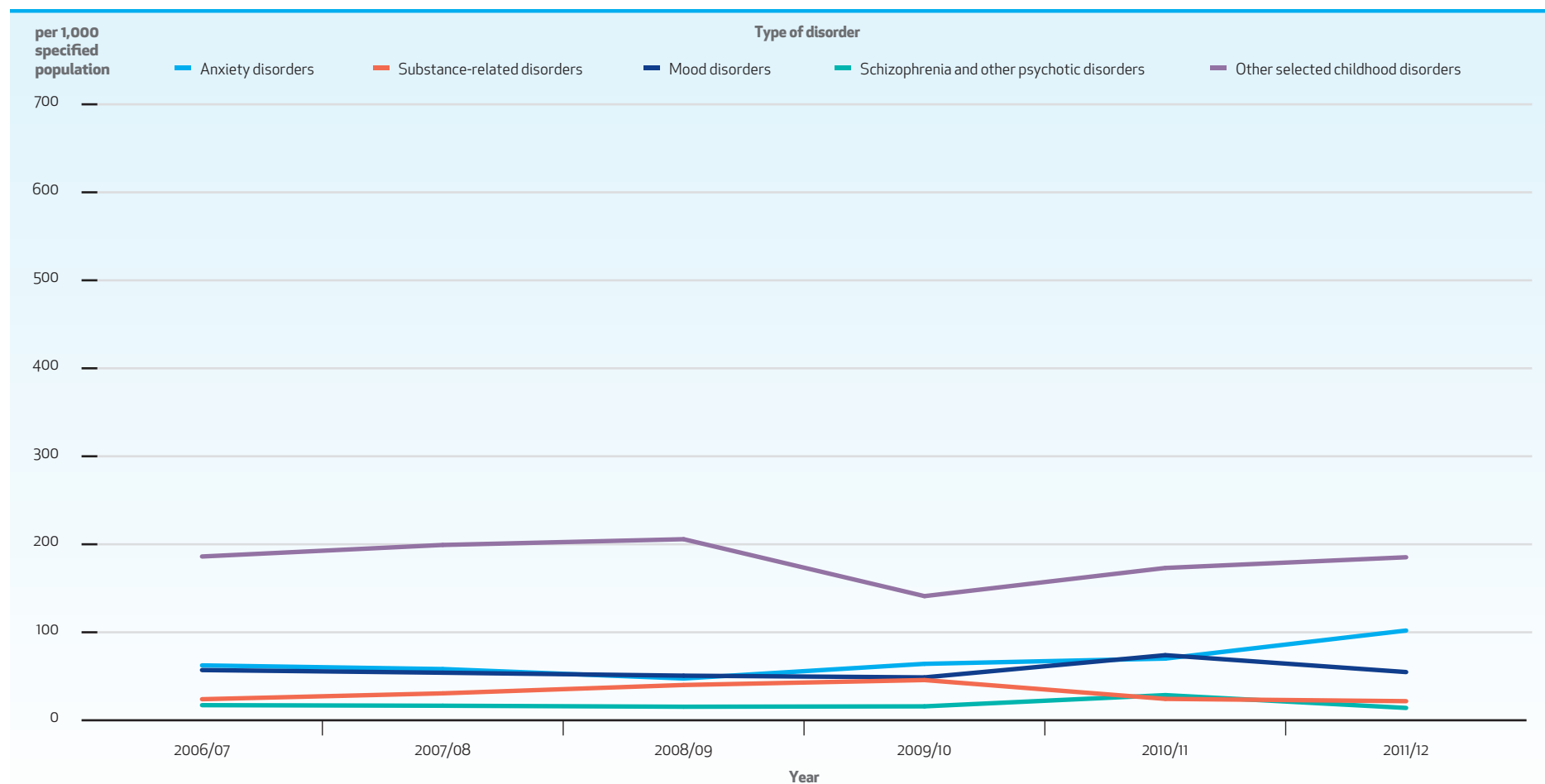
Results

Among those aged 0 to 24 years, the first contact for mental health and addictions taking place in the hospital was most commonly categorized as 'other selected childhood disorders.' For youth aged 15 to 24 years, rates of first contact occurring in the hospital were most commonly related to mood disorders. Three-year averages were considerably higher for 0- to 6-year-olds than for the other age groups. Rates of hospital admission as first contact for mental health and addictions were slightly higher in the lowest-income neighbourhoods and highest in the North West LHIN.

Interpretation

For youth aged 10 to 19 years, rates related to substance use decreased, but those related to anxiety disorders increased. This pattern was also noted for rates of first contact for mental health and addictions in the emergency department, but the cause of these patterns is unclear. Rates of first hospitalization did not vary by age, sex, immigration status or LHIN.

EXHIBIT 3.25.1 Standardized rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

EXHIBIT 3.25.2 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 10 to 14 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12

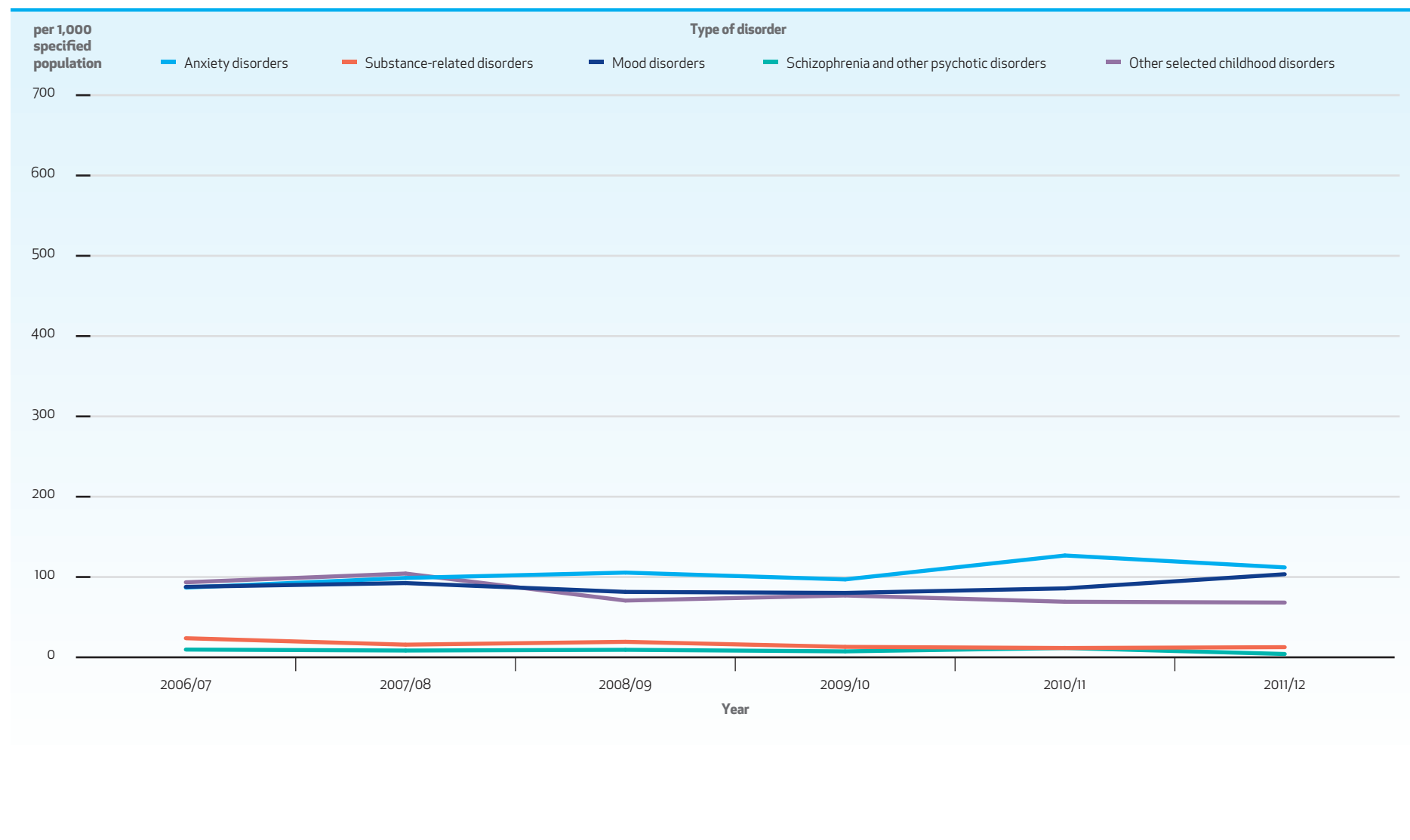


EXHIBIT 3.25.3 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 15 to 19 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12

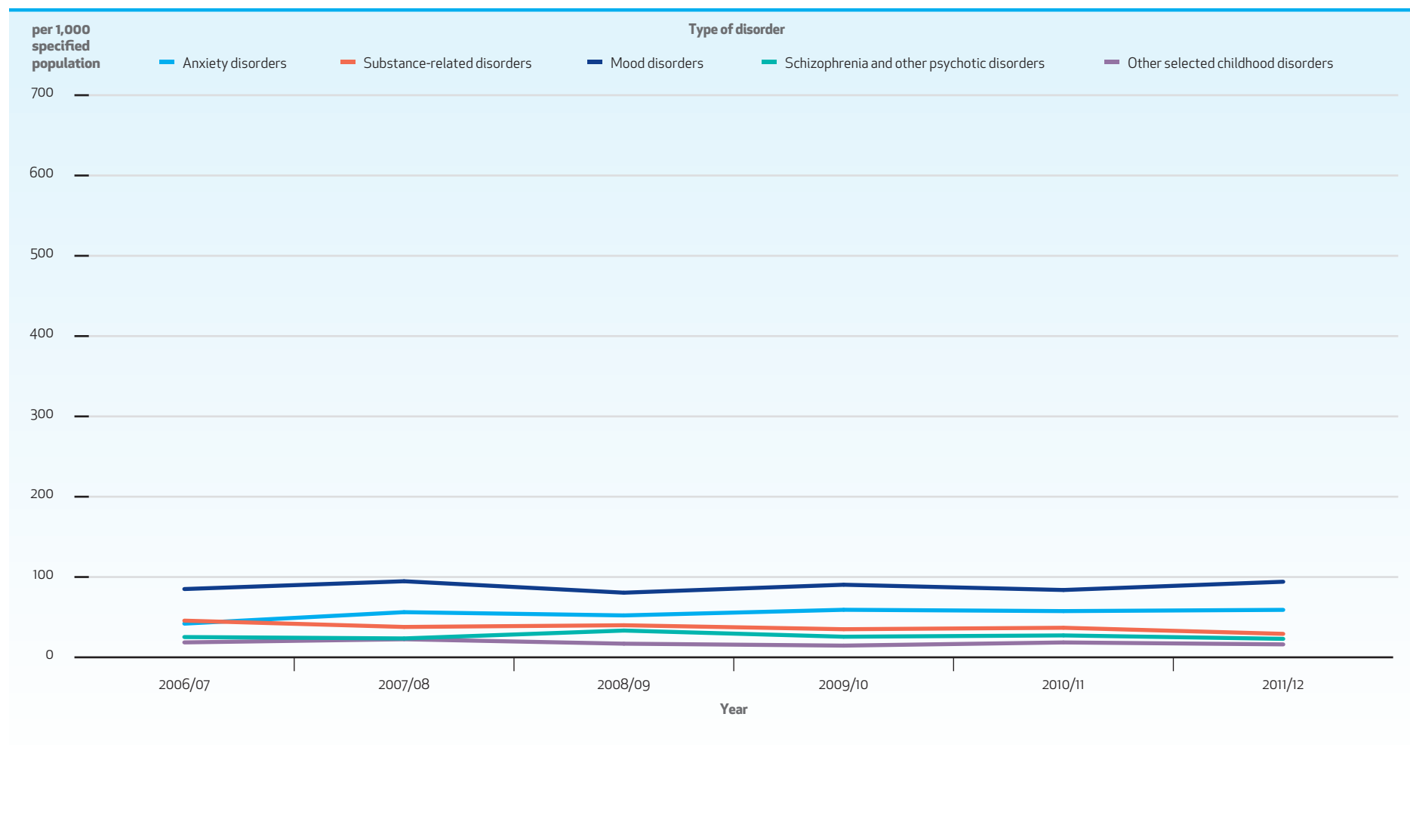


EXHIBIT 3.25.4 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 20 to 24 years with an MHA-related hospitalization, by type of disorder, in Ontario, 2006/07 to 2011/12

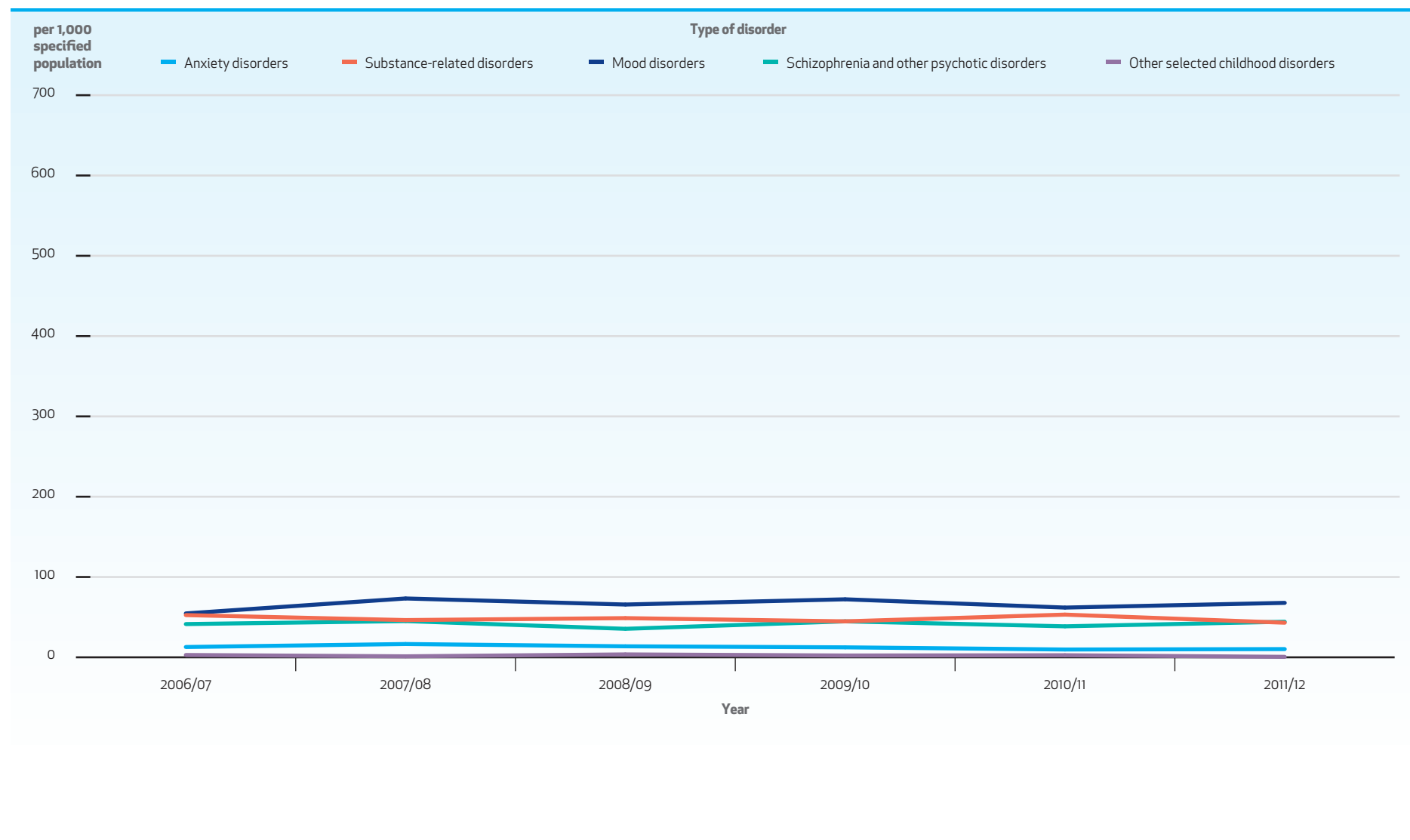


EXHIBIT 3.25.5 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by age group, in Ontario, three-year average for 2009/10 to 2011/12

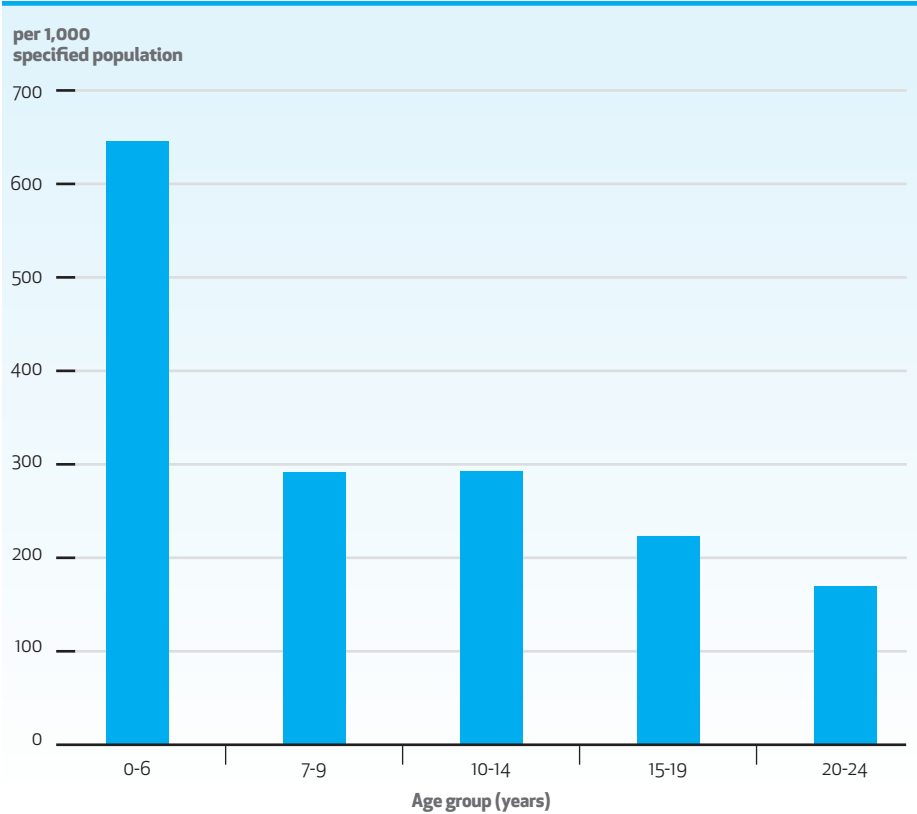


EXHIBIT 3.25.6 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by sex, in Ontario, three-year average for 2009/10 to 2011/12

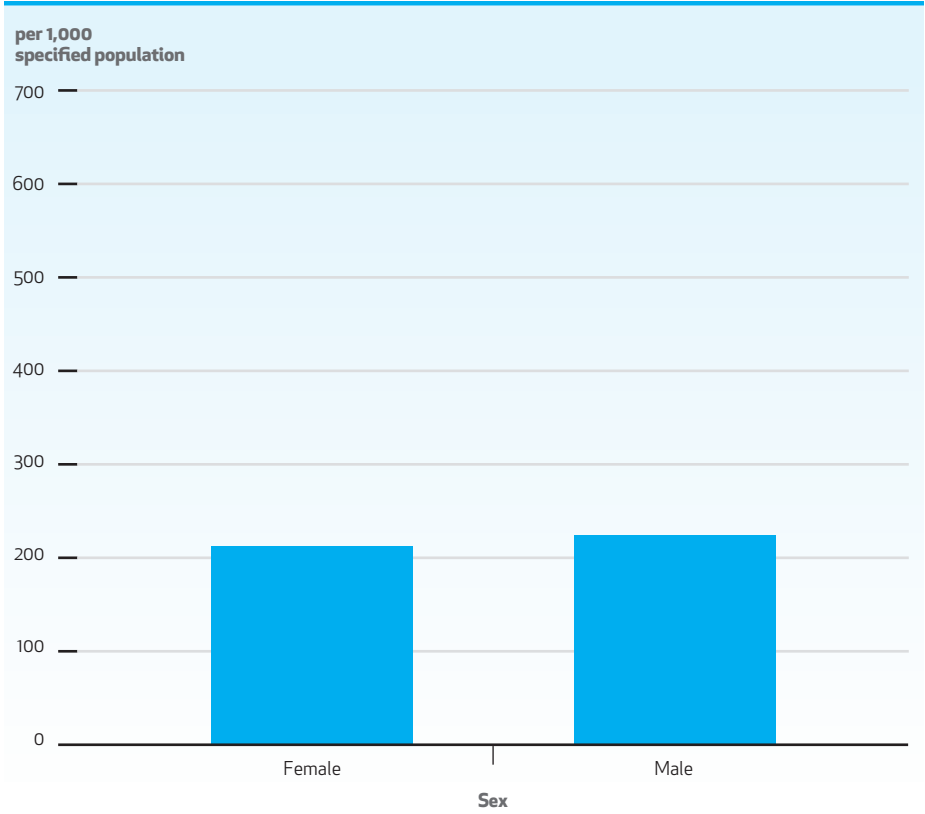


EXHIBIT 3.25.7 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, immigrant category, in Ontario, three-year average for 2009/10 to 2011/12

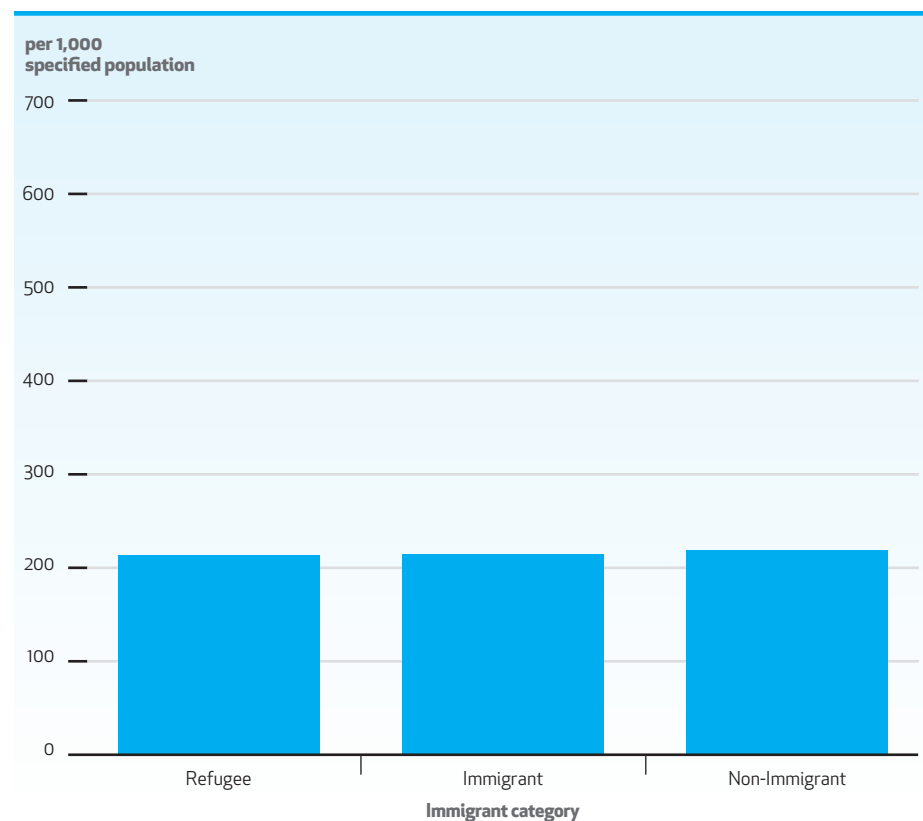


EXHIBIT 3.25.8 Rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by neighbourhood income quintile, in Ontario, three-year average for 2009/10 to 2011/12

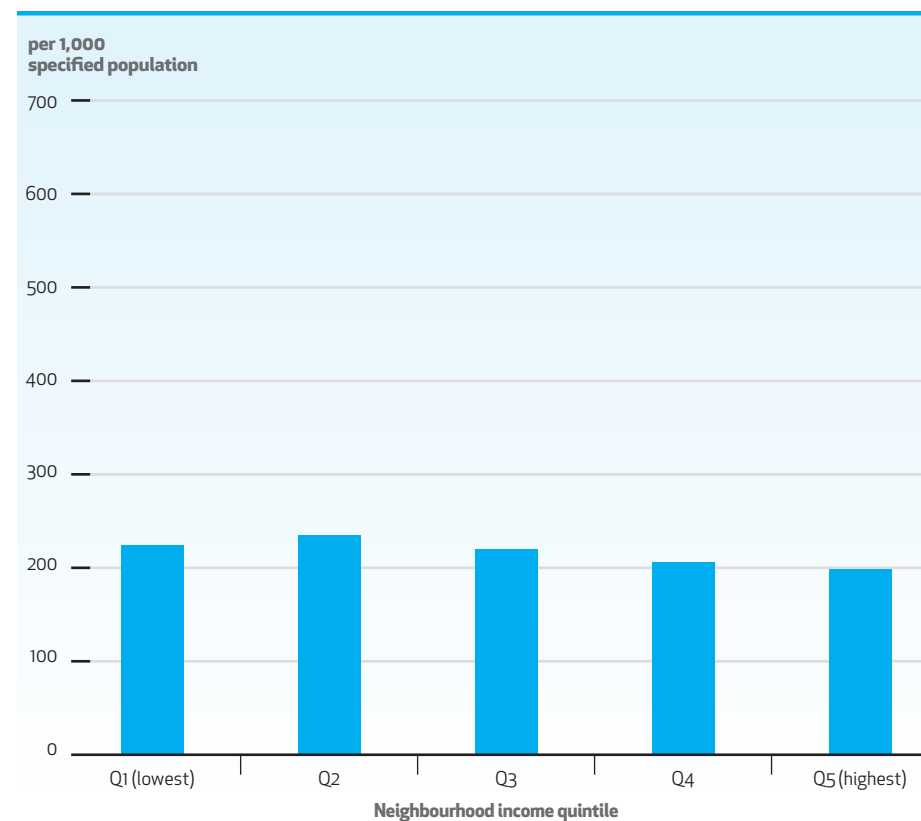
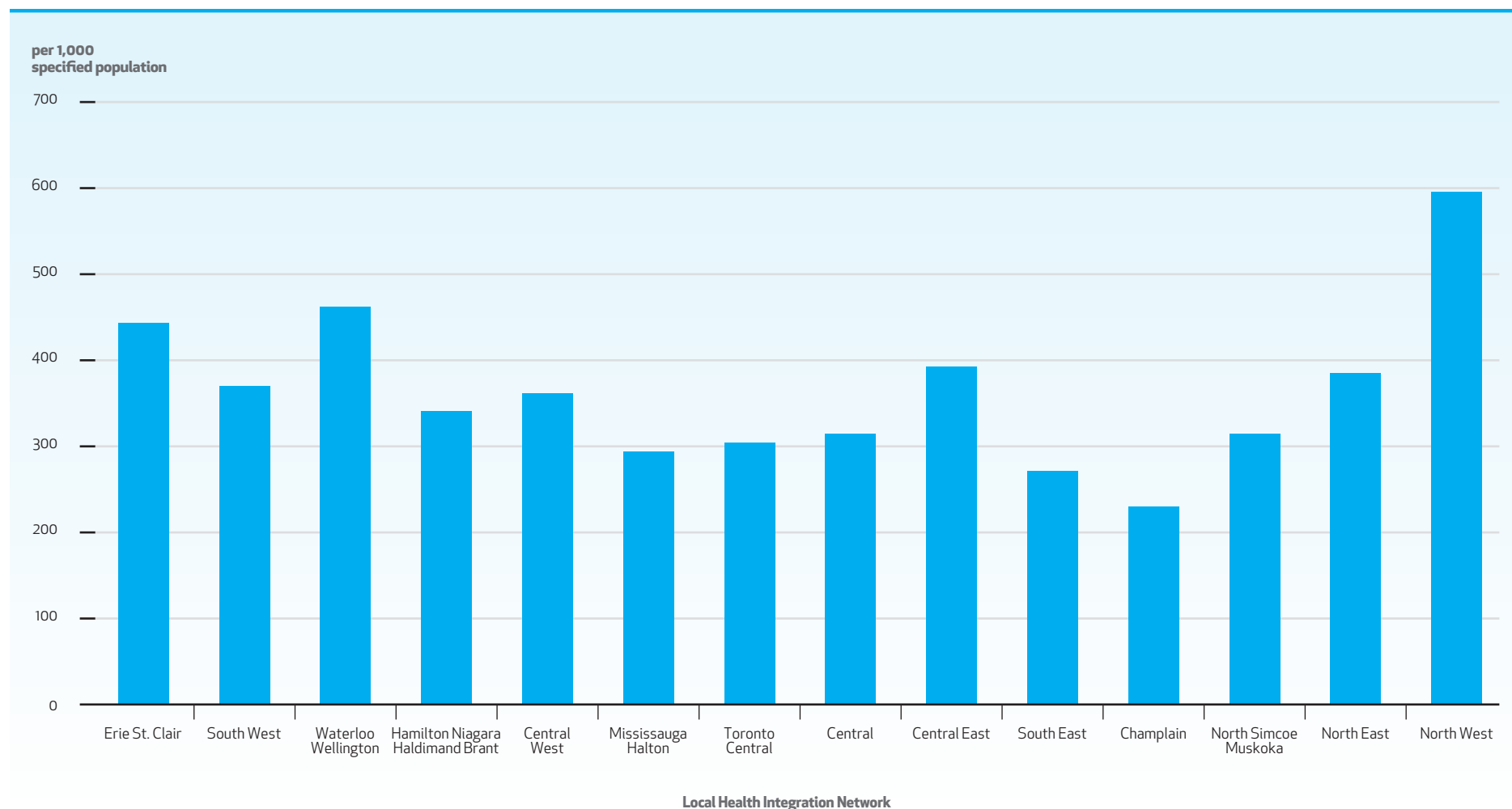


EXHIBIT 3.25.9 Standardized rate of hospital admission as first contact for mental health and addictions (MHA) per 1,000 population aged 0 to 24 years with an MHA-related hospitalization, by Local Health Integration Network, in Ontario, three-year average for 2009/10 to 2011/12



Note: Rates were standardized by age and sex to the 2002 Ontario population.

Findings

The prevalence of mental health disorders varied by sociodemographic characteristics.

- Immigrants and non-immigrants reported similar rates of mood and anxiety disorders, but immigrants were less likely to have alcohol and drug problems.
- The treated prevalence of schizophrenia was higher in refugees than in non-refugee immigrants and non-immigrants. These disorders were also much more prevalent among those living in the lowest-income neighbourhoods.
- Babies of mothers who were young, who lived in the lowest-income neighbourhoods or who lived in the North West LHIN had much higher rates of neonatal abstinence syndrome than other babies.
- Children and youth living in the lowest-income neighbourhoods had the highest suicide rates. Rates of death by suicide were six times higher in the North West LHIN than in the other LHINs.
- Rates of emergency department visits for self-harm were higher for children and youth living in the lowest-income neighbourhoods and in northern Ontario, a pattern similar to that found in suicide rates. However, emergency department visits for self-harm were higher for refugees than for non-refugee immigrants, the reverse of the observed pattern in suicide rates.
- Children and youth living in the lowest-income neighbourhoods had the highest rates of acute care mental health service use (emergency department visits and hospitalizations).
- Rates of behavioural issues identified by the education system were highest in the LHINs in northern Ontario.

Prevalence trends increased over time.

- There was a fourfold increase in neonatal abstinence syndrome over 10 years.
- There was an upward trend in the use of acute health care services (emergency department visits and hospitalizations) for anxiety disorders.

Rates of physician visits for mental health and addictions were linked to where children and youth lived.

- The number of children and youth seen by psychiatrists increased over time, but there were large regional differences in rates of visits to psychiatrists.
- Rates of physician visits were highest among LHINs with academic health sciences centres where a larger supply of child psychiatrists per capita would be expected.
- Children and youth living in the highest-income neighbourhoods saw psychiatrists most often.
- Wait times to see mental health specialists were very long across the province but longest in rural areas.

Use of physician-based mental health and addictions services was not always aligned with need.

- Regions with higher need, as demonstrated by higher rates of substance use, neonatal abstinence syndrome, hospital admissions, emergency department visits, suicide and behavioural issues, are also areas where there are fewer outpatient services and resources, the longest wait times and the lowest rates of mental health visits by all physician types.
- Outpatient physician services were used the least in regions having the greatest social disadvantage as well as high rates of substance use, emergency department visits, hospital admissions, suicide and behavioural issues. This suggests a misalignment between need for and availability of services.
- Neighbourhood income levels were inversely related to rates of indicators that are linked to high service needs (e.g., emergency department visits and hospital admissions). Conversely, children and youth living in high income neighbourhoods had higher rates of outpatient physician visits. This suggests that socioeconomic status is associated with better access to physician mental health services.

- Although children and youth in northern Ontario, where there is a large Aboriginal population, had a high prevalence of mental health and addictions problems and school-related behavioural issues, they have the lowest rates of physician-based mental health care (with the exception of telepsychiatry).
- Refugee children and youth had a high treated prevalence of schizophrenia, the highest rates of emergency department visits (including visits for self-harm), high acute care revisit rates and, among the youth correctional centre population, the highest use of mental health and addictions services. These indicate that refugee children and youth are a high need population. However, this group also had high rates for overall mental health-related physician visits (including psychiatrist visits).

Targeted investments in services were associated with improved access to mental health and addictions care.

- Out-of-country treatment of eating disorders decreased significantly after the implementation of a systematic referral screening process in 2008.
- Rates of telepsychiatry increased dramatically after 2009/10, with services going to remote regions with a low per capita supply of psychiatrists.

Limitations

We had very few validated performance measures for child and youth mental health and addictions systems. For indicators without pre-existing validation, we used expert opinion as face validity of the measures and, in particular, their relevance to the strategy initiatives.

Data-related limitations include different biases introduced by different data sources, lack of data on certain populations and service sectors, and absence of data linked across sectors and ministries. This baseline scorecard relied on a number of data. Each data source has a unique set of limitations and biases and so could show very different results for conceptually similar indicators. For example, the prevalence of self-reported alcohol and drug

dependence ([see Exhibit 3.1.1](#)), which is derived from self-reported survey data, is far greater than the rate at which treatment for alcohol and drug problems was sought ([see Exhibit 3.11.5](#)), which was calculated using data from a drug treatment client information system. Data availability and restrictions impinged on the examination of indicators through certain equity lenses. For example, although differences in mental health service use by ethnocultural group have been reported,⁵⁰ data on ethnicity is generally not available within health administrative datasets. Therefore, this equity lens could not be applied. Accordingly, although the geographic lenses pointed to different patterns of prevalence and service use in the northern parts of

the province, any relationships to the large Aboriginal populations residing in that region could not be directly tested.

A critical limitation is that the available data was not linked across ministries and sectors. Given that mental health problems are identified and services delivered across multiple sectors (such as health care, community-based care, youth justice, child welfare and education), linkage of data across these sectors would allow for a more robust understanding of service use and outcomes. For example, a probable hypothesis is that children and youth who receive treatment for mental health and addictions are more likely to graduate or remain in school than those who do not receive needed care. However, because the

data were not linked, following the educational outcomes of individuals who benefitted from treatment was impossible. Although it was possible to determine trends in numbers of individuals receiving care and in school performance outcomes, interpreting changes in one trend relative to the other is challenging. There is also little available data on the mental health and addictions services that are delivered in community settings or the outcomes of those services. Continued efforts to access and link to new data sources will enhance our ability to examine the mental health status of children and youth, service delivery and related outcomes.

The aggregate, unlinked nature of the data available for this baseline scorecard made interpretation complex and somewhat limited. It is possible for two indicators to separately reveal what appear to be negative consequences (e.g., an increasing prevalence of mental health problems and increased wait times), but then reflect a positive outcome when aggregated, such as early identification. In this example, if early identification were successful, the number of children and youth identified with mental health and addictions issues could increase and, in the absence of commensurate increase in system capacity, wait times would also increase. This highlights the importance of attuning to changes in the mental health system in order to

provide the necessary context for interpreting indicator results. Measuring indicators over time is also important as changes to the mental health system may not be reflected by short term outcomes.

This section highlighted only overarching limitations that cut across all indicators. For limitations related to individual indicators, see the detailed indicator descriptions in the Technical Appendix.

Future Directions

Based on the indicator data included in this baseline scorecard, the following future directions are proposed.

1. Standardized performance measurement

A system can be responsive only when performance is measured systematically. Historically, community-based children's mental health agencies were mandated to use the Brief Child and Family Phone Interview and the Child and Adolescent Functional Assessment Scale to document individual-level standardized information. At the time of writing, there were no plans to mandate a single standardized outcome measurement tool. Instead, MCYS-funded child and youth mental health agencies are required to

report on a standardized set of data elements, which will include some outcome measures. Future child and youth mental health performance measurement would be enhanced by widespread, cross-sectoral adoption of standardized assessment.

2. Ongoing scorecard development

Future evaluation of Ontario's Comprehensive Mental Health and Addictions Strategy (and any future intervention on child and youth mental health and addictions) depends on the capacity to measure individual-level outcomes longitudinally and the ability to link data from different sectors (e.g., education, community-based child and youth

mental health, postsecondary education, youth justice). To generate a longitudinal perspective, the contextual and performance indicators in this baseline scorecard will be monitored by replicating or updating the scorecard every two years. Additional surveillance surveys (e.g., the 2012 Canadian Community Health Survey, the 2014 Ontario Child Health Study) will be incorporated to update contextual indicators (e.g., prevalence, social risk factors). More indicators will also be included as further administrative and population health data become available or as it becomes possible to link data across sectors (see proof of principle project below).

3. Data linkage proof-of-principle project

Kinark Child and Family Services is a Ministry of Children and Youth Services-funded organization that provides mental health services to residents of Durham, Northumberland, Peterborough, Simcoe and York. In partnership with Kinark, ICES created a linked dataset that combines administrative data from a large, community-based children's mental health organization and health administrative data in the province of Ontario. These data can provide a proof of principle by demonstrating how concurrent mental health service use and patterns may be explored. The utility and importance of data linkage for the baseline scorecard will be illustrated by measuring pathways of care (e.g., Kinark clients' presentation to the emergency department), performance (e.g., Kinark clients presenting to the emergency department or being admitted to hospital during or after community treatment), and system integration (e.g., Kinark clients co-managed by family physicians or psychiatrists).

4. Child and Youth Linkable Data (ChYLD) Repository

ICES has proposed the development of the Child and Youth Linkable Data (ChYLD) repository. This will be an integrated repository of record-level, linkable and encoded data on Ontario children and youth that will span multiple ministries and cross sectors. In order to mitigate risks to privacy, ICES is investigating methodologies to integrate encoded data in such a manner that they cannot be re-identified.

5. Changes to mental health and addictions service delivery

In recognition of the challenges of the current community-based mental health system for children, youth and families, the Ministry of Children and Youth Services is leading the implementation of Moving on Mental Health,³ an action plan to transform the community-based child and youth mental health system. As part of this initiative, 34 geographical service areas have been identified, and lead agencies in each of these service areas will be responsible for analyzing, planning, funding and monitoring and evaluating child and youth mental health services in their areas.

Telepsychiatry is enabling greater access to mental health care. For example, the MCYS-funded Tele-Mental Health Service was enhanced in 2013/14 to provide more care to children and youth in rural, remote and under-served communities through the expansion of technology, linkages with telemedicine, establishment of coordination agencies and more service access sites.

In addition, Health Links is an emerging development from the Ministry of Health and Long-Term Care whereby interprofessional teams of primary care providers and specialists are organizing to provide more integrated care for individuals with complex needs, including children and youth with mental illnesses or addictions.⁵¹ Linkages between Health Links, the lead child and youth mental health agencies, and specialized mental health care providers could improve integration of mental health care and address the transitional needs of individuals moving from the

child and youth mental health system to the adult system or between hospitals and community-based care. These changes in service delivery may also have implications for the availability of new data for future monitoring of child and youth mental health in Ontario. For example, moving forward, the 34 MCYS child and youth mental health lead agencies will be required to report on a standardized set of data elements, including some measures of outcome.

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