Characterizing patterns of substance use among youth accessing integrated youth services for mental health and substance use in Canada

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Introduction

- Alcohol and drug use among youth (ages 12-24 years) is a global health priority (1).
- Substance use initiation peaks during adolescence, interferes with key developmental milestones and can have lifelong impacts on youth, including social and economic harms and poor health outcomes (1, 2).
- Youth substance use patterns are influenced by current social norms and substance availability (3).
- Thus, it is crucial to continuously monitor youth substance use patterns to inform integrated youth services (IYS), which provide interdisciplinary mental health and substance use interventions in youth-centered environments (4).

Objectives

This study aims to:
1. Characterize substance use patterns among youth (ages 12-24) accessing IYS; and
2. Examine the relationship between social determinants of health and substance use.

Methods

Design & Setting

- A cross-sectional study of youth (ages 10-24) accessing Foundry in British Columbia (Canada) between May 2018 - February 2022.
- Foundry is an IYS initiative with five core service streams: physical and sexual health, mental health, substance use and social and peer support.

Dataset & Measures

- Data for this study were drawn from a comprehensive set of patient-reported outcomes (PROs) on n=6,022 youth.
- PROs were voluntarily collected from youth at the time of their first Foundry service request/visit and measured their current health status, social determinants of health and substance use.
- The main outcome variable was the likelihood of past 30-day substance use service need, reflecting youth with a: (1) low likelihood of substance use service need (GAIN-SS score = 0); and (2) moderate/high likelihood of substance use service need (GAIN-SS score = 1-5).
- Exposure variables included demographic factors (age, gender, race), social and environmental factors (education/employment, financial stress, current housing situation, family support, exposure to violence) and health factors (self-rated health).
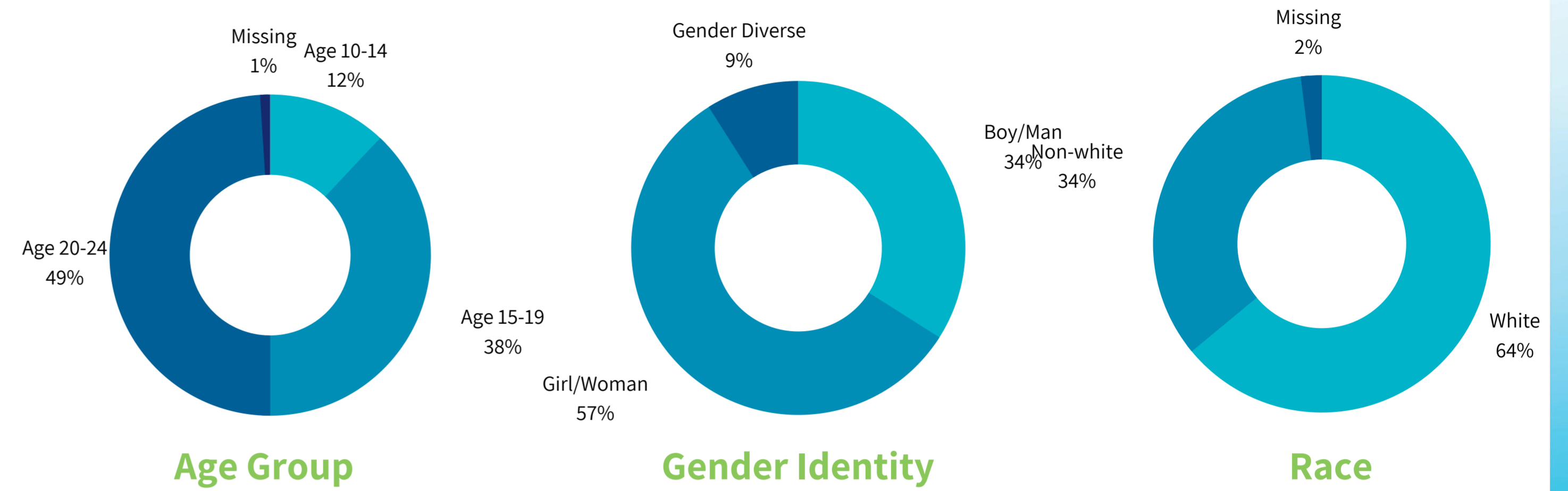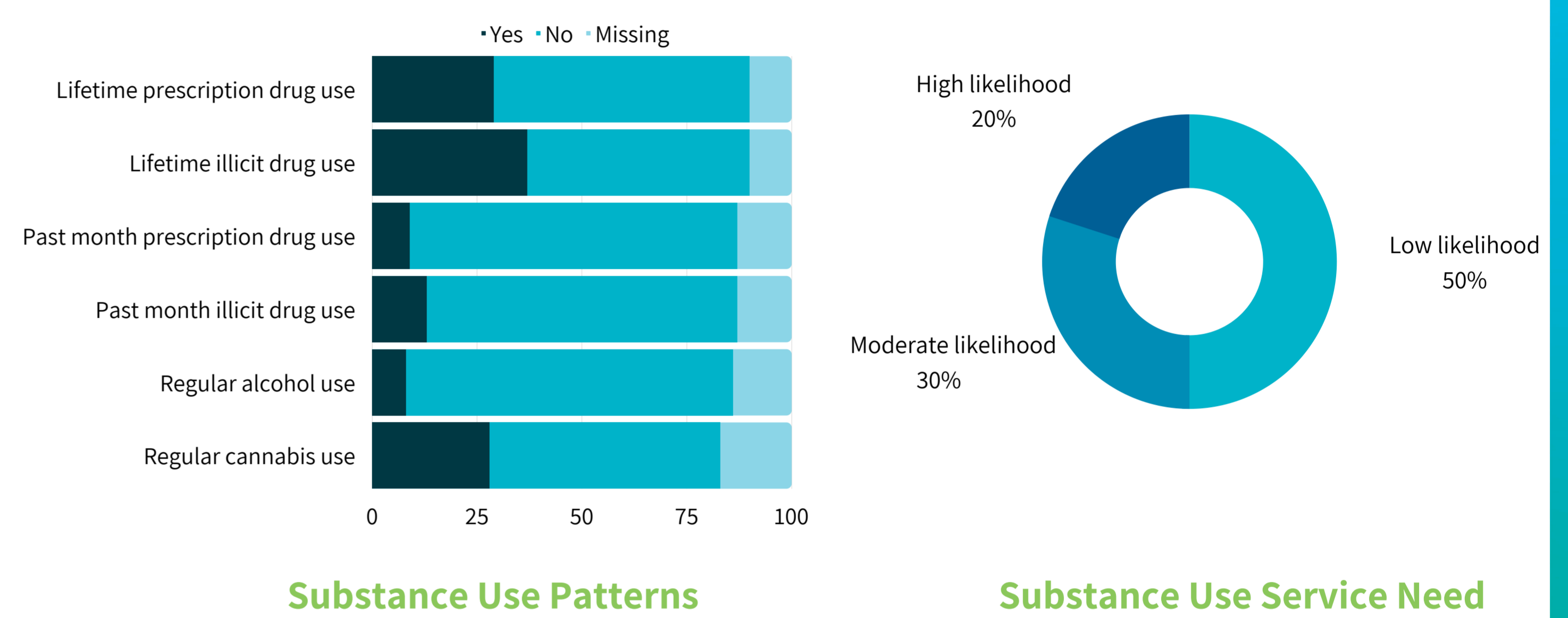
Analysis

- Descriptive and bivariate statistics were used to describe youths' social determinants of health characteristics and substance use patterns.
- Multivariable logistic regression analyzed the relationship between social determinants of health and substance use.

Results

Demographic Characteristics

Age Group · Gender Identity · Race

Substance Use Patterns

Substance Use Patterns · Substance Use Service Need

Social Determinants of Health & Substance Use Service Need

Characteristic	Overall (N=6022) Adjusted Odds Ratio (95% Confidence Interval)
Age group (reference: 10-14)	
15-18	**2.278 (1.872, 2.771)**
19-24	**3.852 (3.161, 4.694)**
Gender identity (reference: Girl/Woman)	
Boy/Man	**1.392 (1.233, 1.572)**
Gender diverse	**0.713 (0.585, 0.869)**
Non-white vs. white race	0.904 (0.804, 1.017)
In education and/or employment, Yes vs. No	0.912 (0.774, 1.075)
I can talk to someone in family if I have problems (reference: Yes)	
Sometimes	**1.154 (1.015, 1.313)**
No	1.074 (0.895, 1.288)
Feel safe in current living situation, No vs. Yes	1.005 (0.821, 1.231)
Seen or experienced violence in last three months, Yes vs. No	**2.636 (2.327, 2.986)**
Time per week doing meaningful activities (reference: >16 hours)	
11-15 hours	0.973 (0.801, 1.181)
6-10 hours	**0.825 (0.695, 0.980)**
2-5 hours	**0.839 (0.710, 0.992)**
<2 hours	0.862 (0.717, 1.036)
Self-rated health (reference: Excellent/Very good)	
Good	**1.270 (1.058, 1.524)**
Fair	**1.631 (1.345, 1.978)**
Poor	**1.996 (1.544, 2.580)**
Self-rated mental health (reference: Excellent/Very good)	
Good	0.992 (0.696, 1.414)
Fair	1.332 (0.952, 1.863)
Poor	**1.663 (1.181, 2.340)**

Table Note: Results from multivariable logistic regression analysis of the relationship between social determinants of health and substance use service need. Bolded text indicates odds ratios were significant, p-value < 0.05.

Conclusion

- Fifty percent of youth met moderate/high criteria for past month substance use service need.
- The odds of substance use service need were strongly associated with older age, recent exposure to violence and poor physical and mental health.
- These findings are critical to developing earlier substance use interventions across the growing network of international IYS settings.

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