

# The Burden of Cognitive Impairment Associated with Schizophrenia (CIAS) on People with Lived Experience (PWLE): A National Canadian Survey

R. Milan<sup>1</sup>, S.J. Seung<sup>2</sup>, G. Babe<sup>1</sup>, A. Wong<sup>2</sup>, S. Tiggelaar<sup>1</sup>, N. Ship<sup>1</sup>, J. Wang<sup>3</sup>, C. Summerville<sup>4</sup>, D.J. Robinson<sup>5</sup>, R. Zipursky<sup>6</sup>, O. Agid<sup>6</sup>, H.E. McNeely<sup>7,8</sup>

<sup>1</sup>Boehringer Ingelheim Canada Ltd, Ontario, Canada; <sup>2</sup>HOPE Research Centre, Sunnybrook Research Institute, Ontario, Canada; <sup>3</sup>Boehringer Ingelheim Pharmaceutical Inc, Connecticut, United States of America; <sup>4</sup>Schizophrenia Society of Canada, Manitoba, Canada; <sup>5</sup>Canadian Mental Health Association, Ontario, Canada; <sup>6</sup>The Centre for Addiction and Mental Health (CAMH), Ontario, Canada; <sup>7</sup>Department of Psychiatry and Behavioural Neurosciences, McMaster University, Hamilton, Ontario, Canada; <sup>8</sup>Schizophrenia and Community Integration Service, St. Joseph's Healthcare, Hamilton, Ontario, Canada

## Introduction

- Schizophrenia is a chronic psychiatric disorder affecting 0.4% to 1% of the Canadian population and is associated with nearly \$10 billion CAD in direct and indirect costs<sup>1,2</sup>
- Cognitive impairment associated with schizophrenia (CIAS) is a core symptom of schizophrenia and is associated with poor outcomes, including inability to live independently, reduced quality of life (QoL), and higher healthcare use<sup>3,4</sup>
- Despite its clinical impact, CIAS remains under-recognized and overlooked in routine clinical care and is underrepresented in research<sup>5,6</sup>
- Additionally, Canadian-specific data on the impact of CIAS on people with lived experience (PWLE) is limited

## Objectives

This study aimed to assess the patient characteristics and burden of CIAS among PWLE in Canada, including its impact on healthcare resource utilization (HCRU), support needs, and QoL

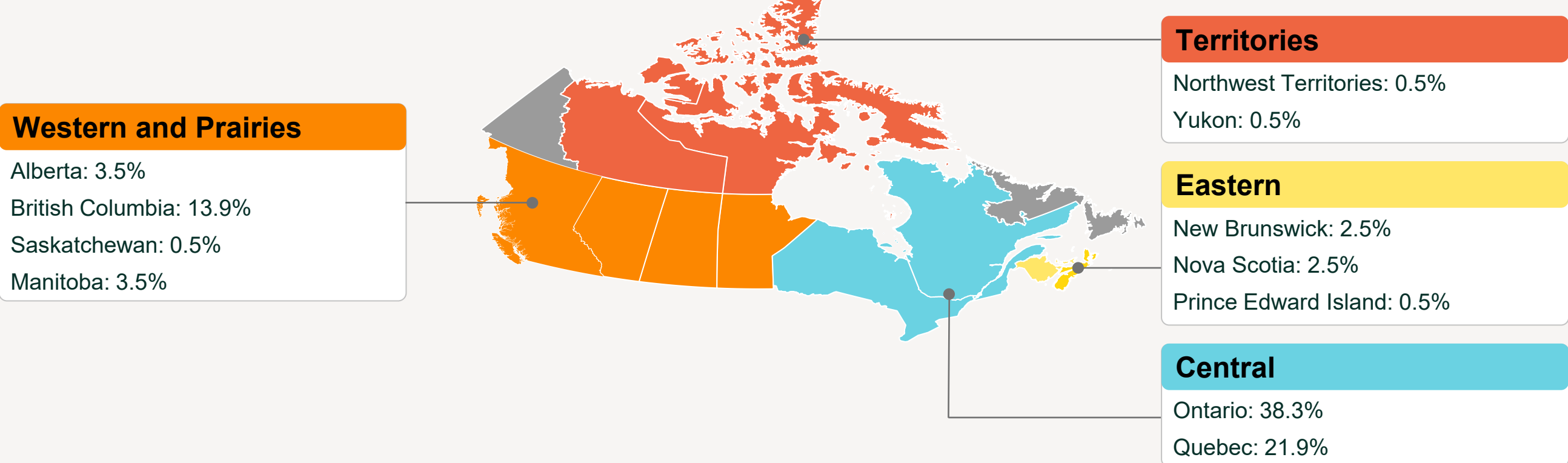
## Methods

- A cross-sectional study using electronic surveys was conducted in Canada from October to December 2024. Surveys were distributed across Canadian patient organizations, clinics specializing in psychotic disorders, and market research panels, and recruited participants through convenience sampling. All participants received a \$15 electronic gift card for completing the survey
- The survey was designed to be completed in 20–30 minutes, available in English and French, and included questions on:
  - Socio-demographic and clinical characteristics
  - CIAS severity: Assessed using the Patient Global Impression of Severity (PGI-S)<sup>7</sup>
  - Self-reported symptom activity (stable vs active) based on changes in antipsychotics or hospital/emergency room (ER) visits due to worsening schizophrenia symptoms in the past 3 months
  - Support and HCRU: Health care professional (HCP) encounters, antipsychotics use, and caregiving support
  - QoL: Measured using the Schizophrenia Quality of Life Scale (SQLS)<sup>8</sup>
- PWLE were eligible for the survey if they:
  - Were aged ≥18 years
  - Resided in Canada
  - Could read/write English/French
  - Self-identified as a person with a confirmed diagnosis of schizophrenia
- Descriptive statistics and group comparisons were conducted according to CIAS severity and symptom activity (stable vs active) using SAS v9.4

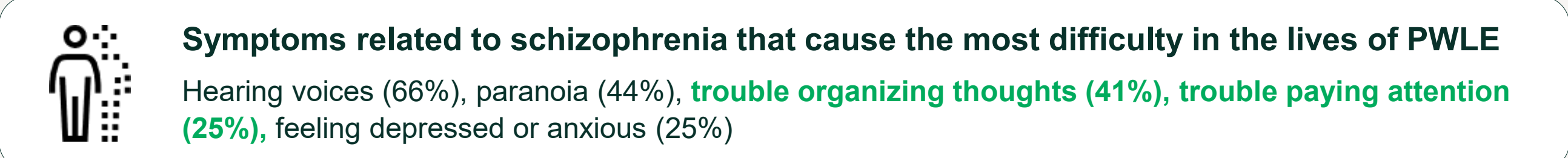
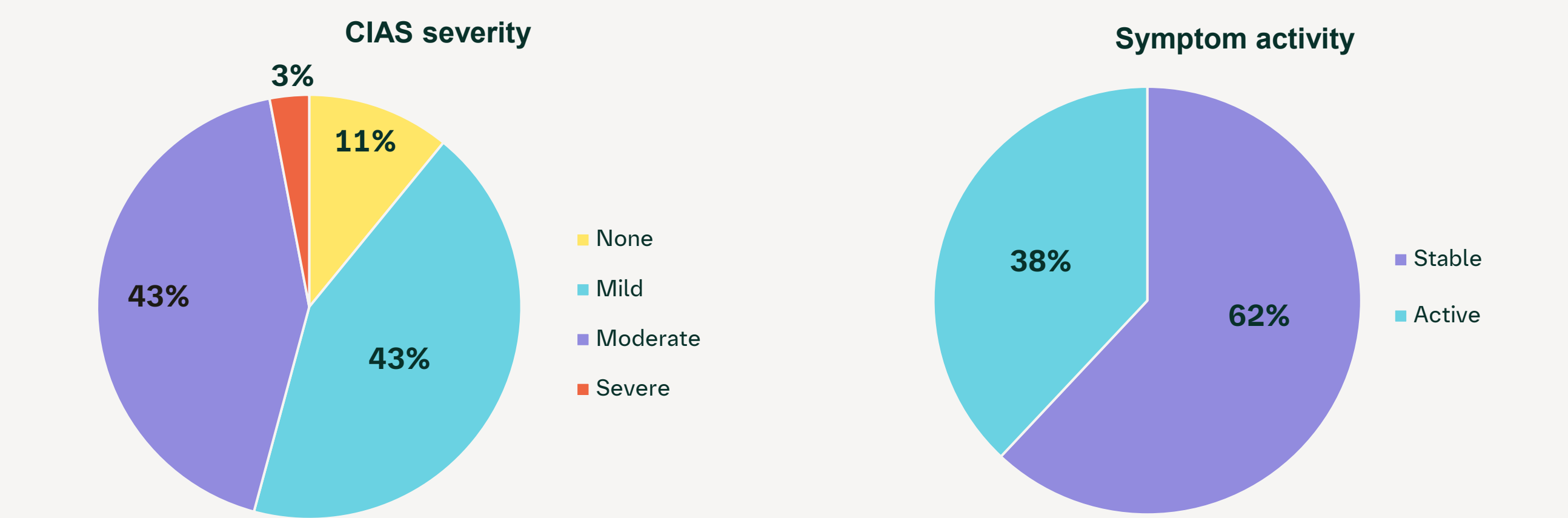
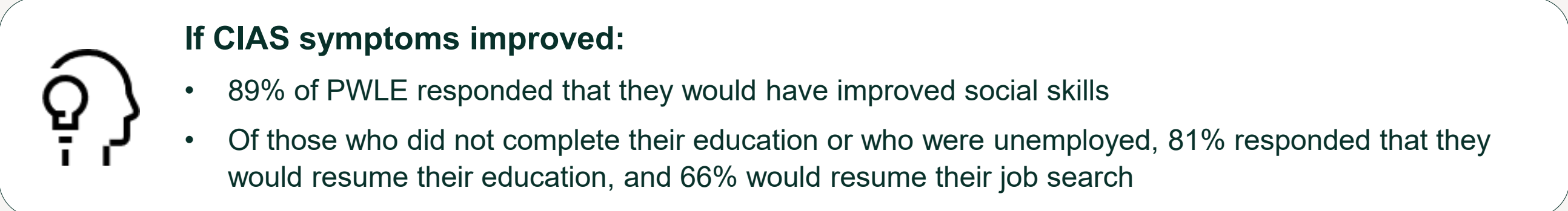
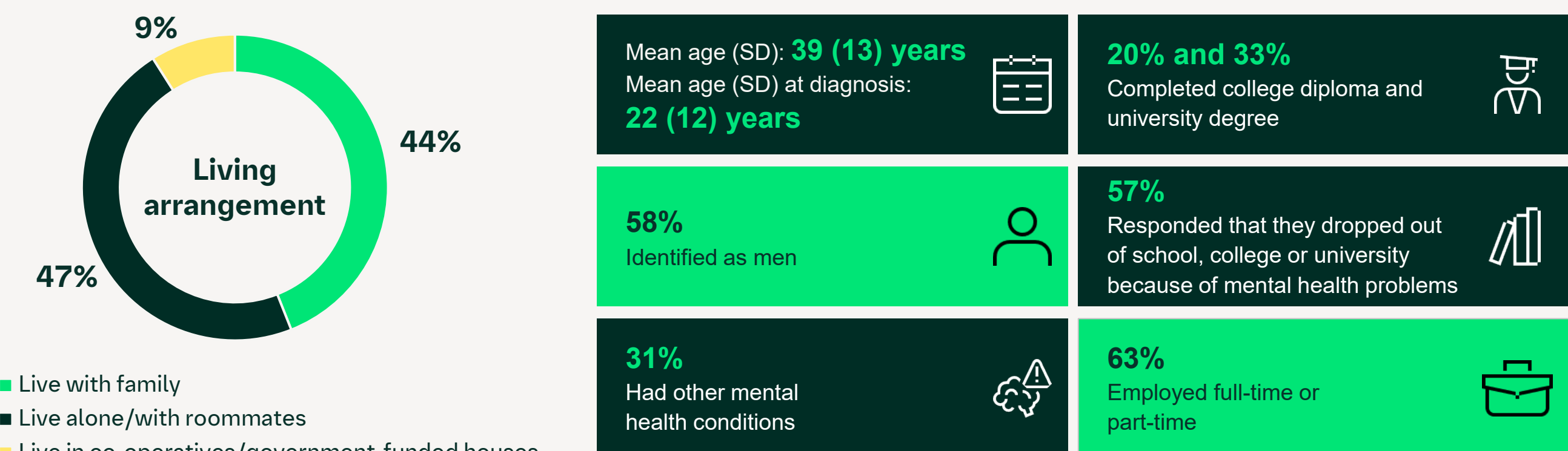
## Results

### Demographics

PWLE were included from most Canadian provinces and territories (N=201); the majority being from Ontario (38%)

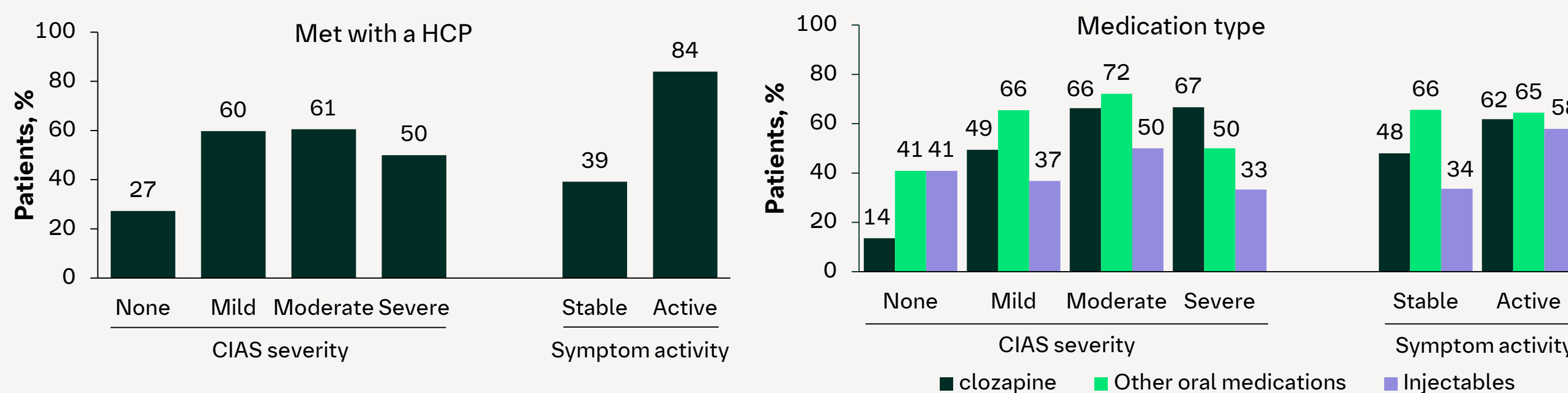


Note: Percentages do not add up to 100% as some patients responded, "prefer not to answer". Provinces were marked in gray if zero participants were recruited.



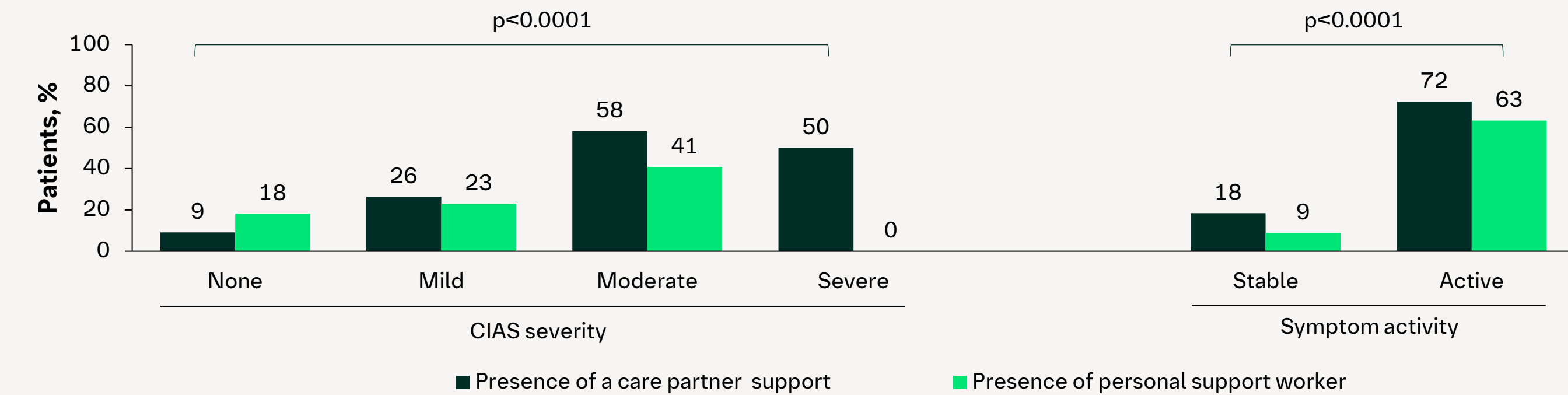
### HCRU and antipsychotics use

- Overall, among PWLE:
  - 56% reported having met ≥1 HCP encounter in the past month
  - 26% had a hospital/ER room visit in the past 3 months because their symptoms got worse
  - 91% received antipsychotic medication(s): clozapine (53%), other oral antipsychotic medications (65%), and injectable antipsychotic medications (43%)
  - 38% had changes in antipsychotic medications in the past 3 months because their symptoms got worse
- HCP encounters and clozapine use increased with CIAS severity and were higher in those with active than stable symptoms



### Caregiving support

- Overall, most PWLE did not receive support from a care partner (61%) or personal support worker (68%) in daily activities
- Caregiving support among PWLE increased with CIAS severity and was higher in those with active than stable symptoms



### QoL

- Overall, PWLE reported poor QoL (mean [SD] SQLS total score: 54.6 [17.6]), which worsened significantly with increasing CIAS severity (mild to severe) and was worse in those with active than stable symptoms

SQLS		<div><div>Good</div><div></div><div></div><div></div><div></div><div></div><div>Poor</div><div>SQLS</div></div>
Mean (SD)		
CIAS severity		
None	28.5 (18.0)	
Mild	51.8 (14.0)	
Moderate	63.0 (11.3)	
Severe	71.5 (26.8)	
Symptom activity		
Stable	50.9 (19.1)	
Active	60.8 (12.6)	

Note: Higher SQLS scores indicate poorer QoL.

- When asked about their life aspirations, 70% of PWLE selected to lead an independent life to the best of their ability, followed by coping better with stress and mental health symptoms (57%) and feeling accepted and included in society (40%)

## Conclusions

- This national survey revealed that the clinical burden, including mild to moderate CIAS, was common among PWLE, with over one-third experiencing active symptoms
- CIAS and active symptoms in PWLE were associated with increased healthcare use, and significantly greater support needs and lower QoL
- Findings from this study underscore the need to address CIAS as a critical part of schizophrenia management to improve clinical, functional, and QoL outcomes and reduce the overall burden (HCRU, costs) on PWLE

### Limitations

- Recall bias due to self-reported data
- Generalizability beyond the Canadian population