

# The Positive Spaces, Healthy Places Study: Homelessness and Housing Instability Associated with Food Insecurity among People with HIV in Ontario



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## The Challenge

Food insecurity is a serious issue for Canadians living with HIV. People with HIV are often forced to choose between buying food or paying rent. The purpose of this study is to examine the prevalence of food insecurity among people with HIV in Ontario and the factors that affect food security.

## Our Approach

As part of our longitudinal observational study – *Positive Spaces, Healthy Places* – to assess the housing needs and impact of housing on health-related quality of life among people living with HIV in Ontario, Canada, we:

- Recruited 605 HIV+ adults from across Ontario through local AIDS service organizations.
- Engaged peer research assistants (people with HIV) to conduct baseline interviews and a set of one-year follow-up interviews with study participants.
- Used a semi-structured quantitative questionnaire with several standard instruments/measures including the:
  - Center for Epidemiological Depression Scale (CES-D) to assess the level of depression;
  - Alcohol Use Disorder Identification Test (AUDIT-10) to measure harmful alcohol use;
  - Drug Abuse Screening Test (DAST-20) to gauge harmful substance use;
  - Medical Outcomes Study HIV Health Survey (MOS-HIV) to assess health-related quality of life.
- Asked participants at baseline if they experienced difficulty in buying enough food in the last 12 months and if they accessed Food Bank Services in the last 3 month period.
- Identified independent predictors and factors associated with food insecurity, with specific focus on housing status, using univariate and multivariate logistic regression analyses.

## Characteristics of Participants

- Mean age was 44 years
- 75% were Male
- 64% identified as Gay, Lesbian, or Bisexual
- 13% were Aboriginal
- 22% had less than high school education
- 80% were unemployed
- Median annual income was \$13,700 CAD
- 11% had children living at home
- 62% resided in the Greater Toronto Area
- 43% had been homeless at least once
- 35% reported experiencing discrimination while trying to get housing services
- 5% were living in unstable housing, including on the street and in motels, shelters, and parks
- 32% had been incarcerated previously
- 49% had been diagnosed with AIDS
- 88% were receiving HIV treatment
- 29% reported harmful use of substances
- 21% used alcohol in a harmful manner
- 54% reported significant (CES-D >=16) level of depression

## Our Findings

### Food Insecurity is Prevalent among People with HIV in Ontario

More than half of people surveyed (57%) experienced food insecurity in the 12 months before the baseline interview.

### Demographic factors, Housing, Addiction, and Mental Health Issues are Associated with Food Insecurity

We were interested in identifying the major social determinants of health associated with food insecurity. To address this issue, we conducted univariate logistic regressions and identified 10 factors (see Figures 1 and 2) that were significantly (P<0.05) associated with food insecurity.

Compared to people who did not experience food insecurity, those who reported facing difficulty buying enough food for themselves and their dependents were:

- Twice [OR=1.9] more likely to be younger than 43 years of age;
- One and a half times [OR=1.7] more likely to identify themselves as female or transgendered;
- Three and a half times [OR=3.3] more likely to have children living at home;
- One and a half times [OR=1.7] more likely to be unemployed;
- One and a half times [OR=1.6] more likely to be low income earners (i.e. annual income of less than \$13,700 CAD);
- Twice [OR=1.9] more likely to report a history of homelessness;
- Twice [OR=1.9] more likely to report experiencing housing-related discrimination;
- One and a half times more likely to use alcohol [OR=1.6] and substances [OR=1.7] in a harmful manner; and
- Two and a half times more likely [OR=2.4] to report significant level of depression.

Figure 1. Sociodemographic Factors associated with Food Insecurity

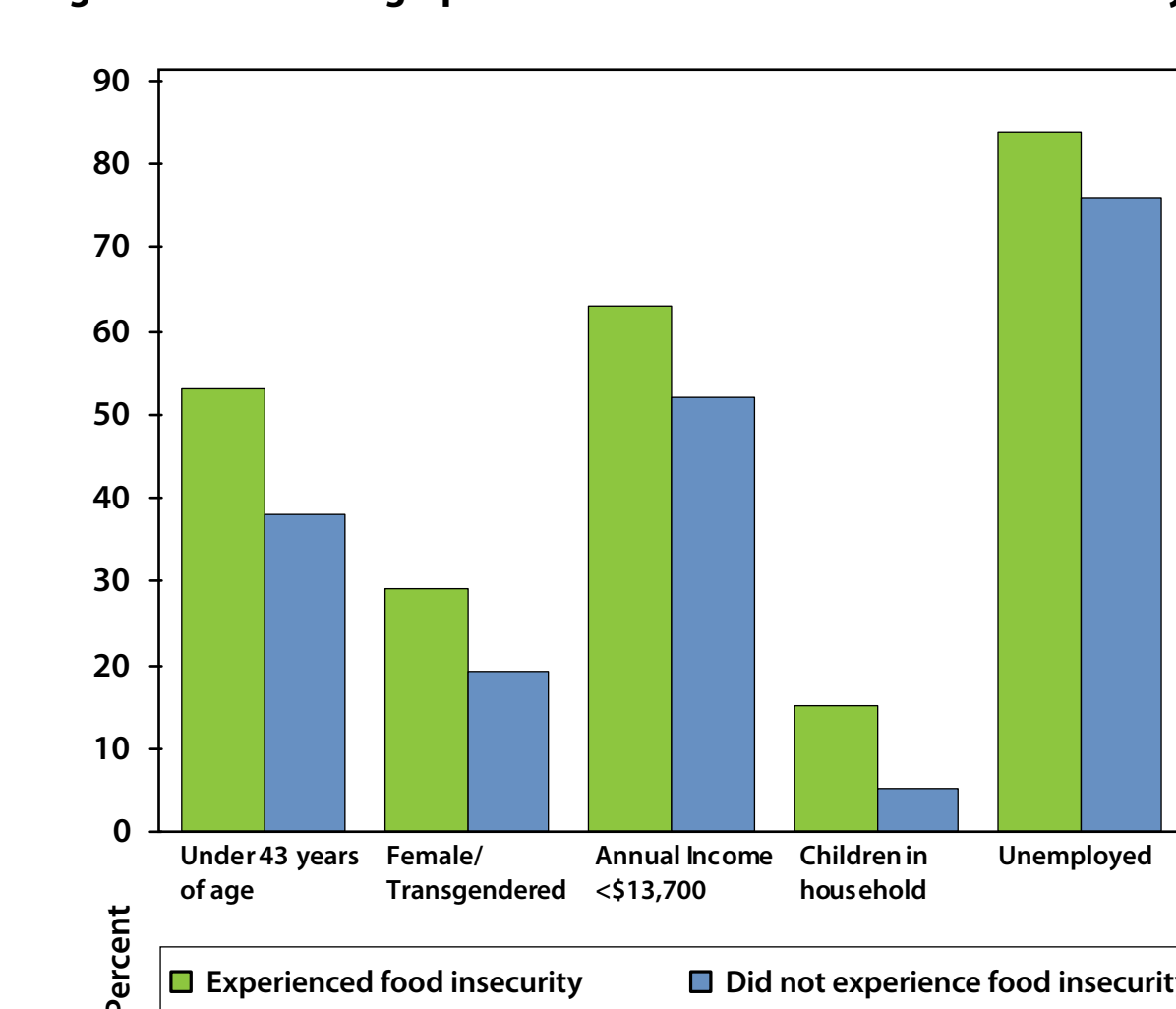
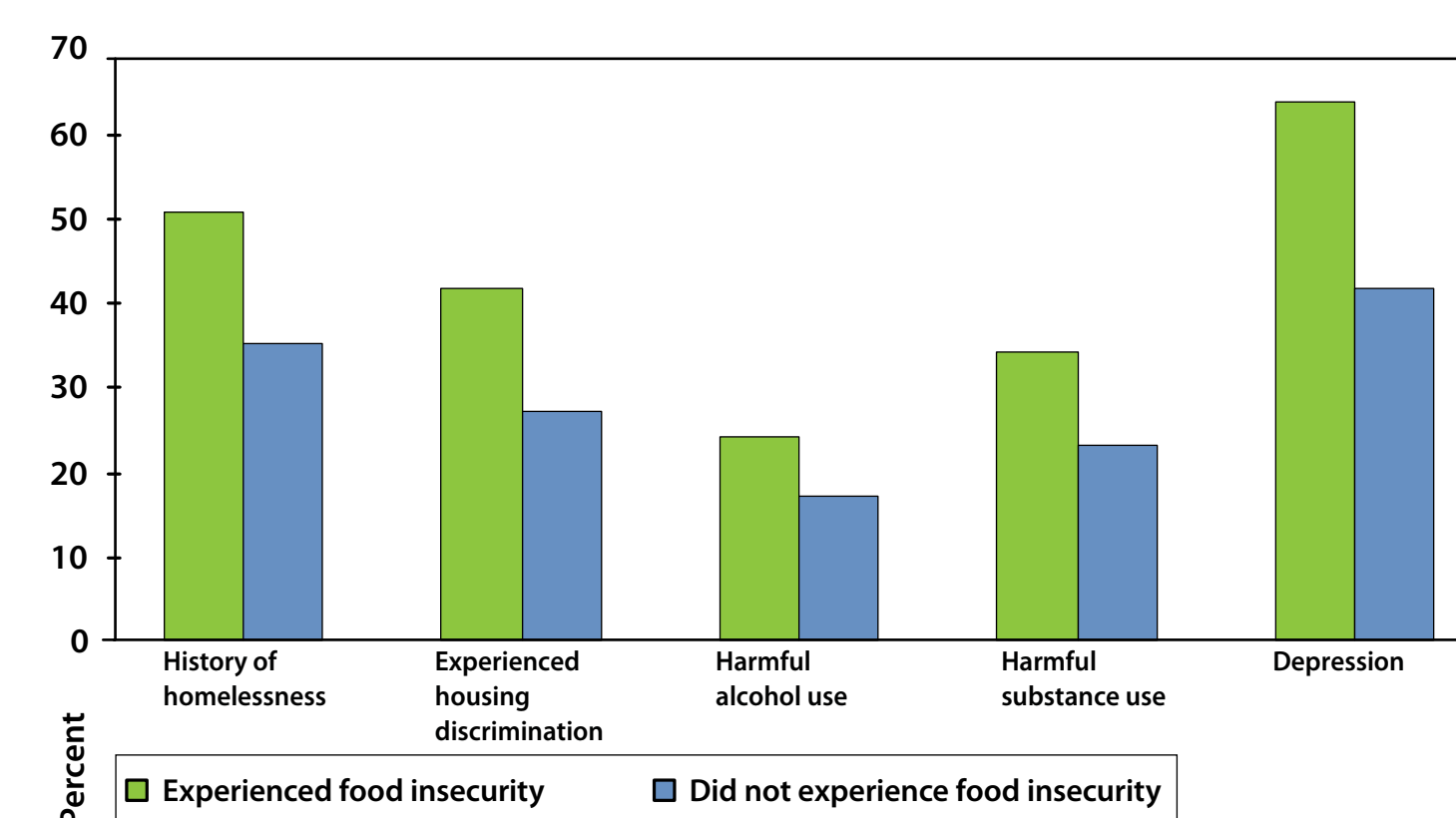


Figure 2. Addiction & Mental Health Factors associated with Food Insecurity



### Age, Living with Children, Unemployment, Housing Discrimination and Depression are Strong Predictors of Food Insecurity

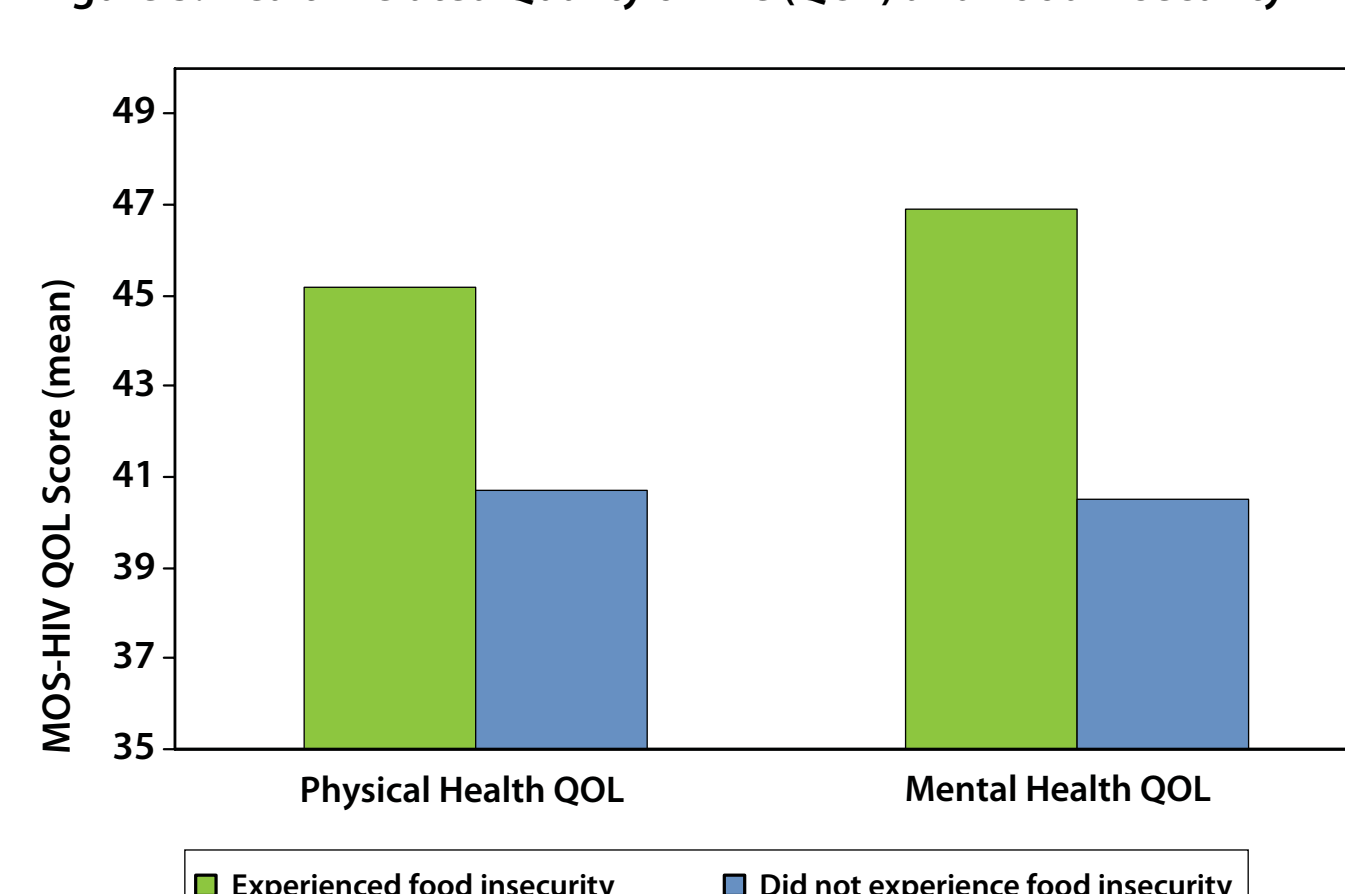
We conducted a multivariate logistic regression to identify strong predictors of food insecurity. The 10 determinants that were associated with food insecurity (presented here) were included in the model. Based on the Adjusted Odds Ratio (AOR), strong (P<0.05) predictors of food insecurity included:

- Age** – those younger than 43 years were twice [AOR=1.8] more likely to report food insecurity;
- Living with Children** – people who reported having children living at home were two and half times [AOR=2.4] more likely to face food shortage;
- Unemployment** - unemployed individuals were one and a half times [AOR=1.7] more likely to face food insecurity;
- Housing-related discrimination** - those who reported perceived housing-related discrimination were twice [AOR=1.8] more likely to experience food insecurity;
- Depression** – those who reported significant level of depression were twice [AOR=1.9] more likely to also report food insecurity.

### Food Insecurity is Associated with Low Health-Related Quality of Life

People living with HIV and who reported food insecurity had a significantly (P<0.05) lower overall physical and mental health related quality of life than those who did not experience food insecurity (see Figure 3).

Figure 3. Health-related Quality of Life (QOL) and Food Insecurity



### People Living with HIV Use Food Bank Services

Nearly half (46%) of participants reported accessing Food Bank Services.

### Demographic, Housing, Addiction, and Mental Health factors are Associated with Use of Food Bank Services

We conducted univariate logistic regressions to identify determinants of health significantly associated (P<0.05) with the Use of Food Bank Services and identified 9 factors (see Figures 4 and 5).

Compared to people who reported not accessing Food Bank Services, those who used Food Bank Services in the 3-month period were:

- Twice [OR=2.0] more likely to identify themselves as Aboriginal;
- Twice [OR=2.0] more likely to have less than high school education;
- One and a half times [OR=1.7] more likely to be unemployed;
- One and a half times [OR=1.7] more likely to have low annual income (i.e. less than \$13,700 CAD);
- Three times [OR=3.1] more likely to report a history of incarceration;
- Two and a half times [OR=2.3] more likely to have experienced homelessness;
- Twice [OR=1.8] more likely to report experiencing housing-related discrimination;
- Two and half times [OR=2.7] more likely to use alcohol and substances in a harmful manner; and;
- One and half times [OR=1.6] more likely to report significant depression.

Figure 4. Use of Food Bank by Sociodemographic Factors

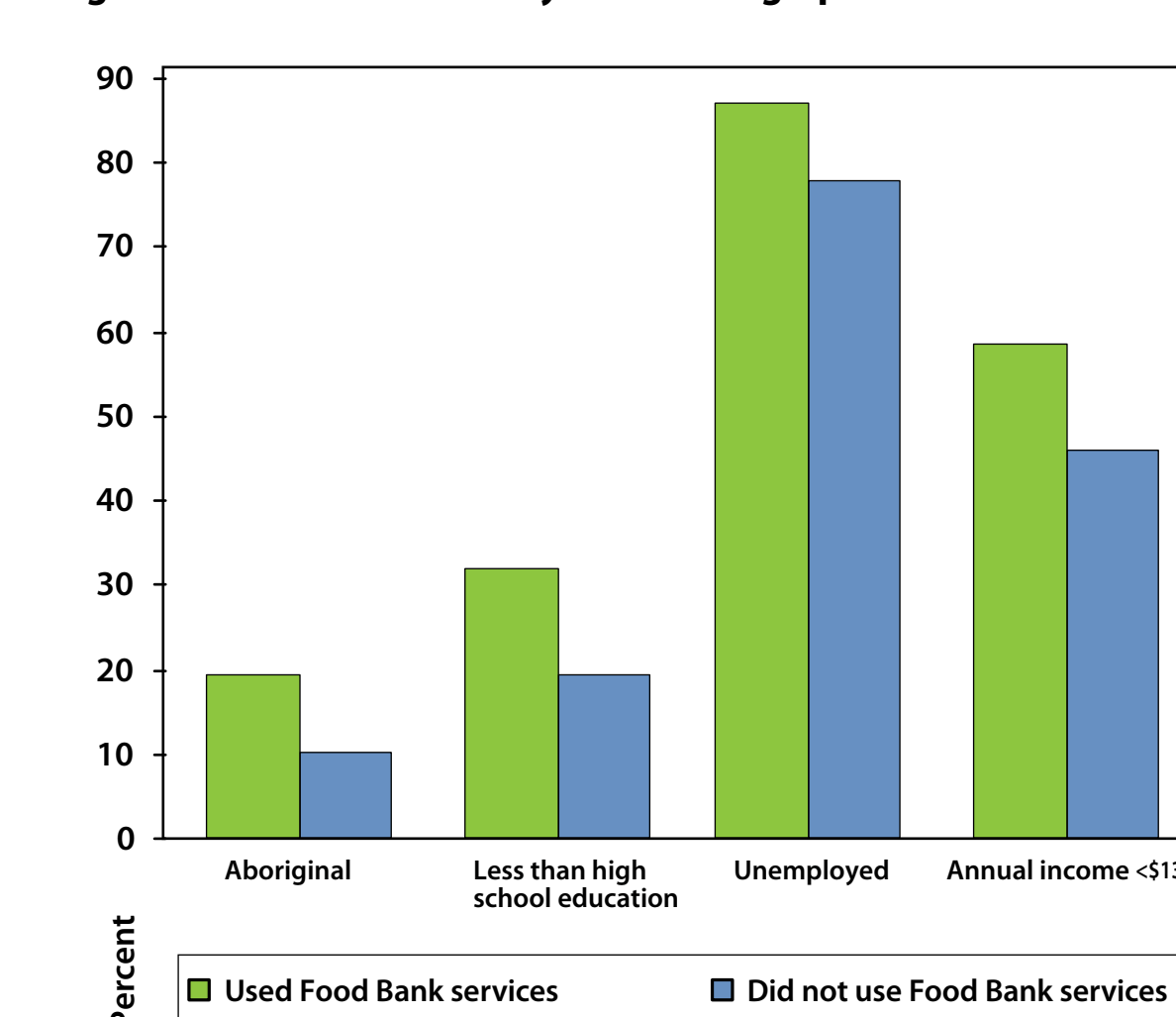
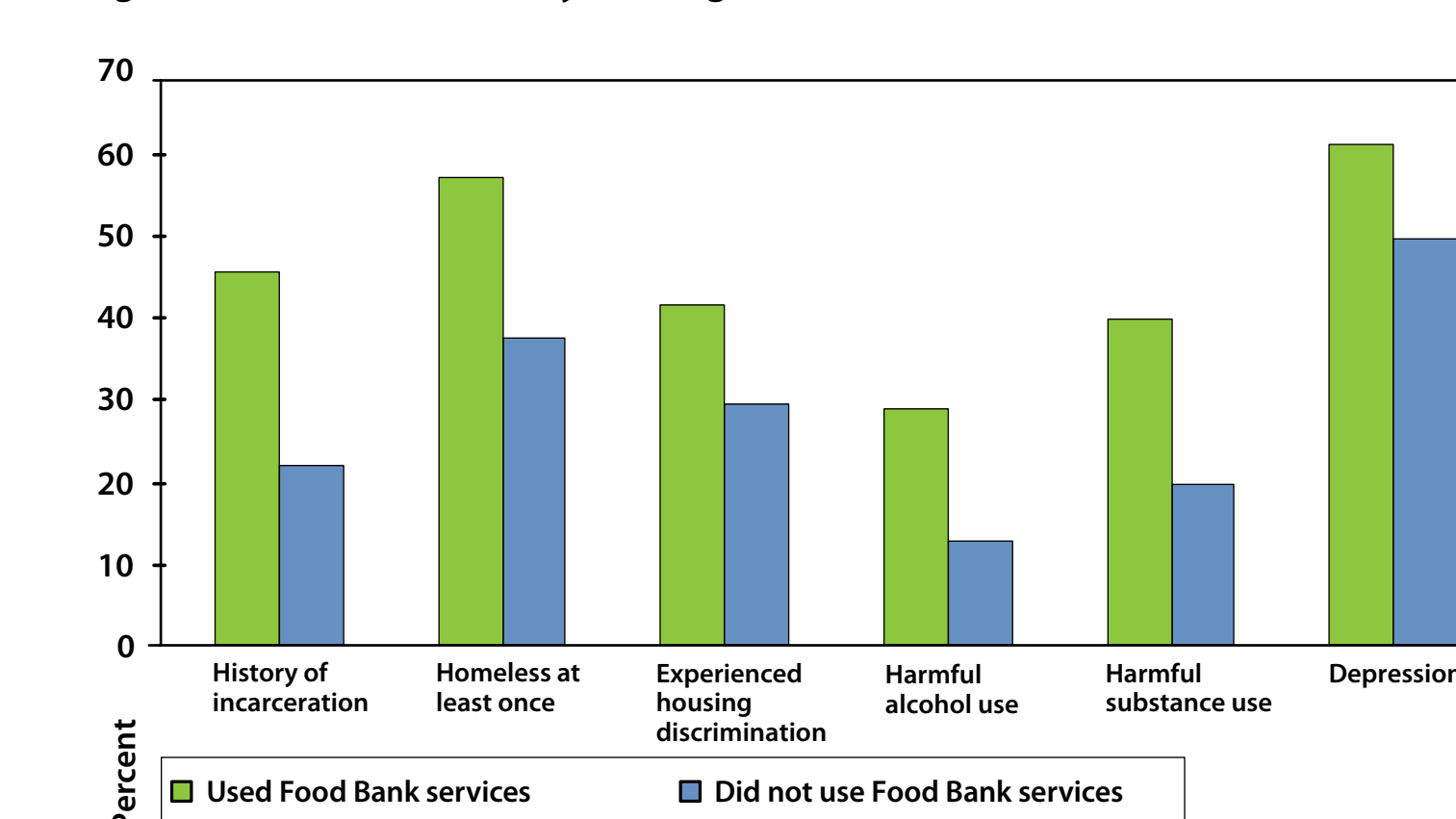


Figure 5. Use of Food Bank by Housing Status, Addiction, and Mental Health



### Homelessness is a Strong Predictor of Using Food Bank Services

We conducted a multivariate logistic regression to identify strong predictors of use of food bank services. The nine (9) factors that were associated (presented here) with accessing Food Bank Services were included in the model. Based on the Adjusted Odds Ratio (AOR), the only strong (P<0.05) predictor of use of food bank services was:

**History of homelessness** - people with a history of homelessness were twice [AOR=1.8] more likely to report accessing Food Bank Services.

## Implications for Policy and Practice

Improving housing stability has the potential to reduce food bank use and improve food security and the overall health of people with HIV in Ontario. Policy makers, housing providers, and community support service workers need to understand the interplay between food insecurity and social determinants of health among people with HIV to develop policies and programs to improve housing stability for people with HIV.

Because unemployment and housing are the factors most associated with food insecurity for people with HIV, policy makers and service providers will want to ensure that they offer access to adequate employment and housing services for people with HIV.

Because having children and being younger are factors associated with food insecurity for people with HIV, policy makers and service providers will want to ensure that they offer adequate employment and housing services for people with HIV who are younger and have children.

Because depression is a factor associated with food insecurity, policy makers and service providers will want to ensure access to adequate treatment for depression for their clients.

Policy makers and service providers may want to partner with food bank programs to deliver employment and housing services to people with HIV accessing food banks.

## Funding Agencies



## Partners

