

# Social Support has Measurable Impact on Health-related Quality of Life for People with HIV

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## Our Approach

### Who Did We Study?

605 people with HIV were interviewed face-to-face by peer research assistants and asked about their education, income, housing, HIV disease and any addiction or mental health issues:

- 3 of 4 were male and white
- 3 of 5 self-identified as gay
- 3 of 4 were on antiretroviral treatment
- more than 3 out of 4 had more than a high school education – but only 1 in 5 was employed
- average monthly income was \$1,507
- 4 of 10 had been homeless at least once
- 1 of 2 reported harmful substance use
- 1 of 2 had significant depression

### What Methods and Measures Did We Use?

- We used self-reported data from the Positive Spaces, Healthy Places (PSHP), a community-based prospective study to examine the association between housing and HRQOL. Participants were eligible if they were HIV-positive, able to provide informed consent, and lived in Ontario.
- We used the following measures:
  - the Center for Epidemiological Depression Scale (CESD) to assess the level of depression
  - the MOS-HIV Social Support Survey (MOH-HIV-SSS) to assess perceived availability of social support
  - the Medical Outcomes Study HIV Health Survey (MOS-HIV-35) to measure health-related quality of life. For the purpose of this study, only two summary scores were used: Mental Health Summary (MHS) and Physical Health Summary (PHS).
- We fitted two separate sets of multivariate regression models to estimate the total and direct effects of social support on physical and mental health while controlling for sociodemographic, housing, and clinical variables.
- We calculated the indirect effects of social support by subtracting direct effects from total effects.

## The Challenge

People living with HIV experience very high rates of depression. Research has shown that depression has a negative impact on health-related quality of life and social support reduces the negative impacts of depression. But how does social support influence health? Is it possible to measure and understand how social support affects the health-related quality of life (HRQOL) of people with HIV? Can this information be used to develop more effective treatment and support programs?

## Our Findings

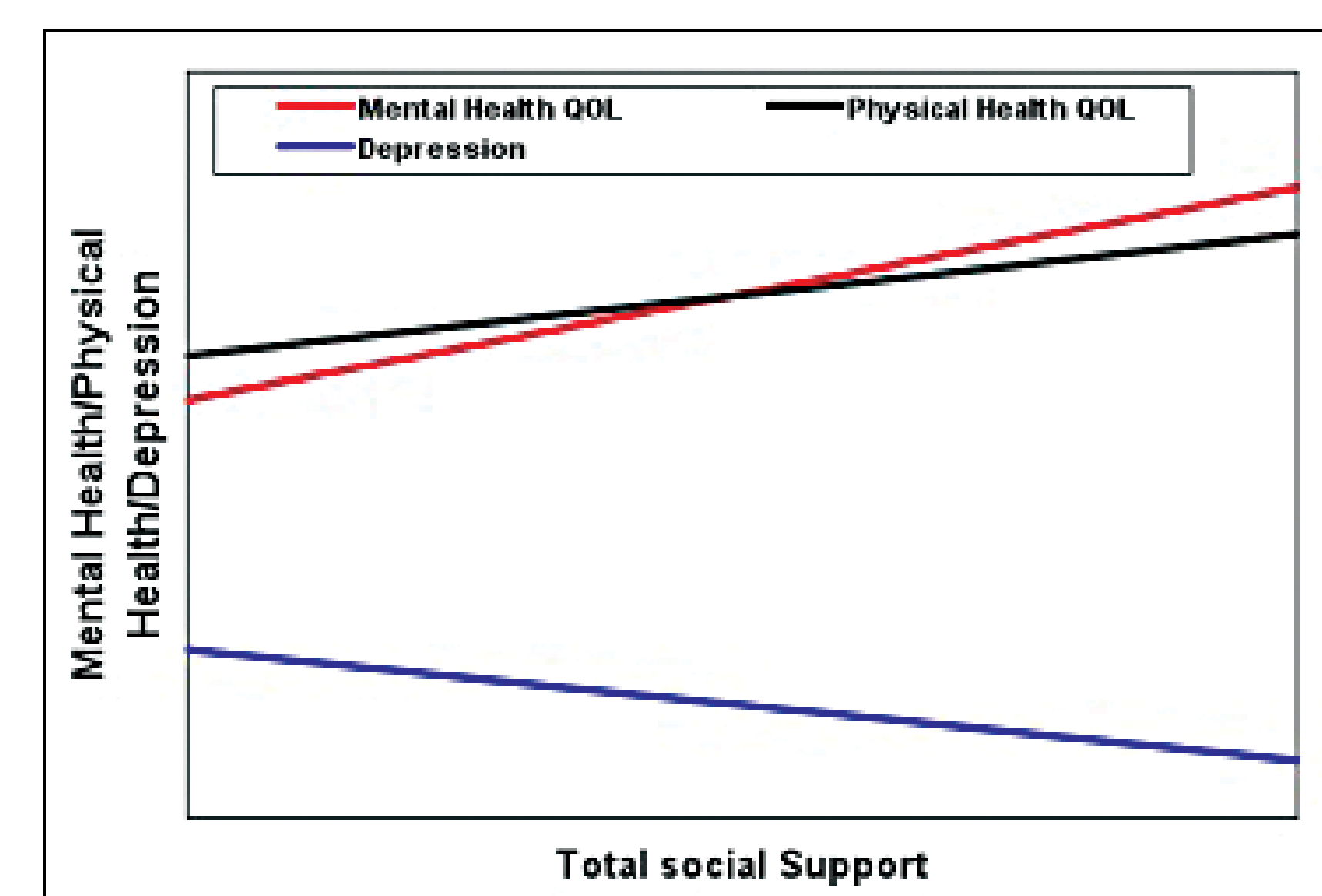
People with HIV who receive higher levels of social support have significantly higher health-related quality of life.

Table 1: Association\* between Social Support, HRQOL, and Depression

Types of Social Support	HRQOL Domain/Depression		
	MHS	PHS	Depression
Emotional & Informational	0.31**	0.17**	-0.24**
Tangible	0.31**	0.15**	-0.27**
Affectionate	0.32**	0.17**	-0.30**
Positive Social Interaction	0.35**	0.22**	-0.33**
Total social support	0.37**	0.24**	-0.33**

\* Association measured by Pearson correlation coefficient  
\*\* P<0.01

Figure 1.



Of the four types of social support – tangible support, affection, emotional support and positive social interactions – positive social interaction is strongly linked or associated with HRQOL, particularly with mental health (see Table 1). However, because of the strong association between the four types of social support, we used overall or total social support in our analysis.

As Figures 1 and 2 illustrate, social support has a significant positive effect on both physical health ( $\beta = 0.23$ ,  $p < 0.05$ ) and mental health ( $\beta = 0.39$ ,  $p < 0.05$ ).

The direct effect of social support on both physical and mental health is similar ( $\beta = 0.14$ ,  $p < 0.05$ ); however, the indirect effect of social support on mental health quality of life ( $\beta = 0.25$ ) is almost three times greater than its indirect effect on physical health quality of life ( $\beta = 0.09$ ).

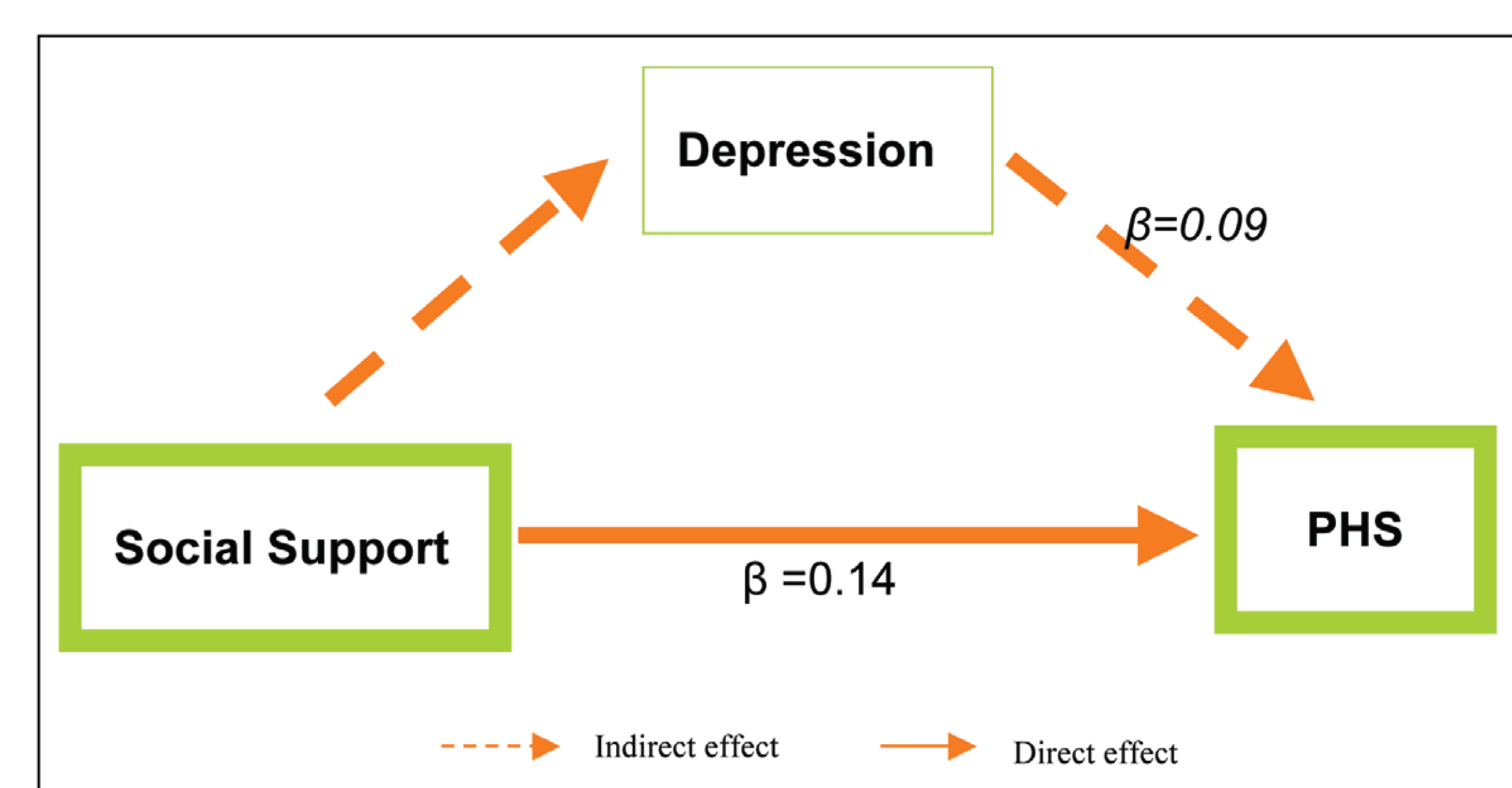
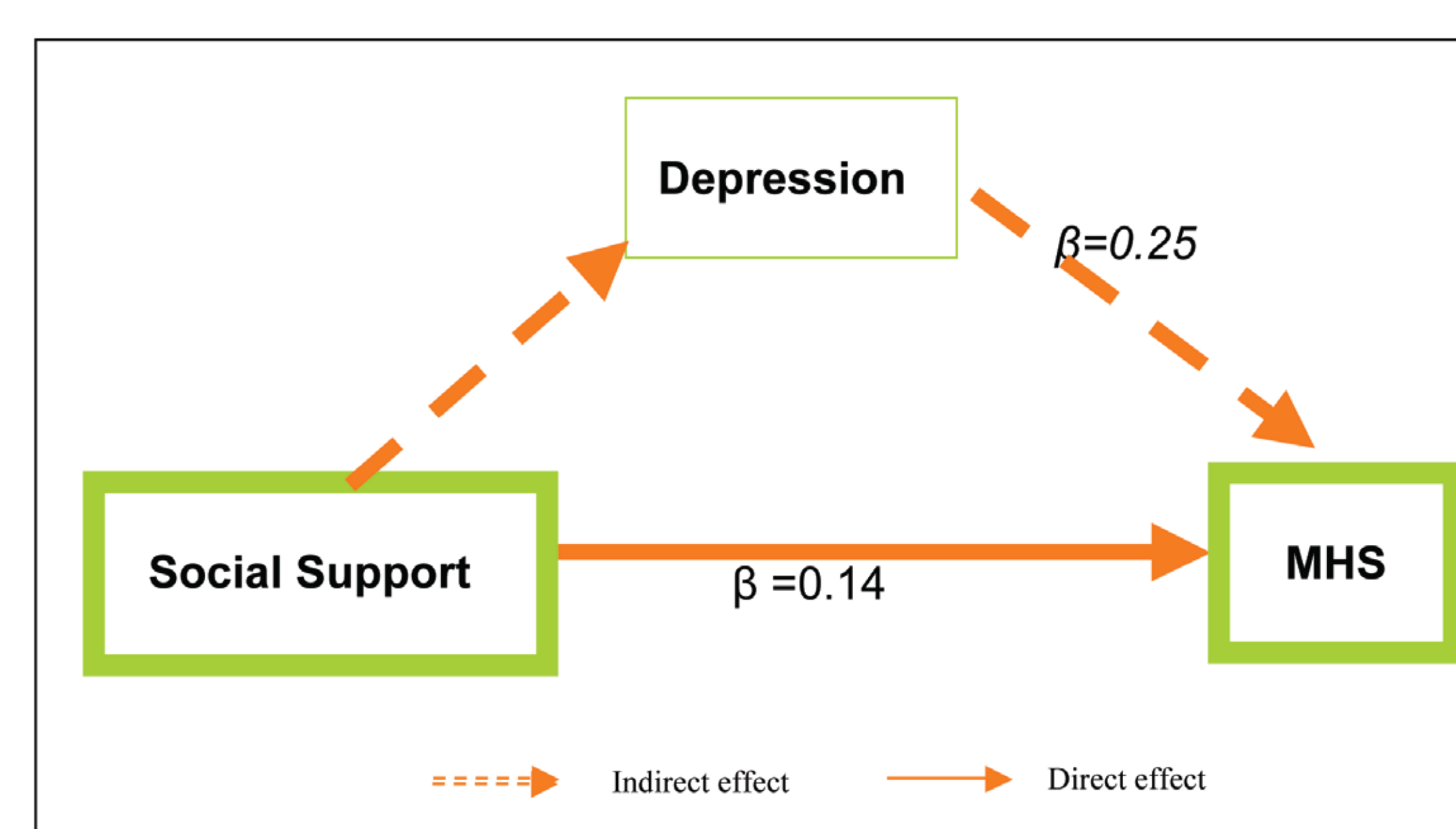


Figure 2. Direct and Indirect Effects of Social Support on Physical Health (PHS)

Figure 3. Direct and Indirect Effects of Social Support on Mental Health (MHS)



## Implications for Policy and Practice

Social support for people with HIV reduces depression which, in turn, significantly improves health-related quality of life.

These findings reinforce the important role of community-based AIDS organizations and other social support programs in the health and well-being of people with HIV.

Enhancing social support programs and services will have a positive impact of people's mental and physical health.

To improve the overall health-related quality of life for people with HIV, it is important to:

- invest in services that identify and manage depression
- ensure that all interventions include social support and other psychosocial factors.

## Limitations

- All data, including clinical measures such as CD4 count, are self-reported and collected through face-to-face interviews. As such, data may be subject to recall and socially desirable response biases.
- Due to the cross-sectional nature of the study, we were unable to draw conclusion about the temporal association between social support and HRQOL.
- Participants were recruited through local AIDS service organizations and may not be representative of all persons living with HIV in Ontario.