

# Impact of Health Risks and Protective Factors on Dimensions of Stigma and Overall Health in People Living with HIV: Results from the Ontario HIV Stigma Index

Sean B. Rourke<sup>1,2</sup>, Lynne Cioppa<sup>1</sup>, Jason Lo Hog Tian<sup>1,2</sup>, Billy Tran<sup>1,2</sup>, James Watson<sup>1</sup>, Apondi J. Odhiambo<sup>2</sup>, Adam Mcgee<sup>1</sup>, Anthony Boni<sup>1</sup>, Annette Fraleigh<sup>1</sup>, Francisco Ibanez-Carrasco<sup>1,2</sup>, George Da Silva<sup>1</sup>, James Gough<sup>1,3</sup>, Jasmine Cotnam<sup>4</sup>, Joanne Lindsay<sup>1</sup>, Keith Showers<sup>1,5</sup>, Mary Mwalwanda<sup>1</sup>, Michael Murphy<sup>1,6</sup>, Michelle Sumner-Williams<sup>1</sup>, Monisola Ajiboye<sup>1,7</sup>, Murray Hodge<sup>1</sup>, Sean LeBlanc<sup>8</sup>, Stephanie Smith<sup>1</sup>, Wayne Bristow<sup>1</sup>

1. Unity Health Toronto, Toronto, ON, Canada, 2. University of Toronto, Toronto, ON, Canada, 3. Réseau ACCESS Network, Sudbury, ON, Canada, 4. Canadian Aboriginal AIDS Network, Vancouver, BC, Canada, 5. Toronto People with AIDS Foundation, Toronto, ON, Canada, 6. AIDS Committee of Windsor, Windsor, ON, Canada, 7. International Community of Women Living with HIV, London, United Kingdom, 8. Drug User Advocacy League, Ottawa, ON, Canada



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# Introduction

- Experiences of HIV-related stigma and discrimination remains high in Canada, causing significant stress and negatively affecting the health and wellbeing of people living with HIV (PHAs)<sup>1</sup>
- Despite antiretroviral treatments allowing people with HIV to achieve almost normal lifespans<sup>2,3</sup>, HIV stigma still creates barriers for individuals to access healthcare and promote their own wellness<sup>4,5</sup>
- The HIV Stigma Framework<sup>6</sup> has three distinct dimensions: enacted stigma, internalized stigma, and anticipated stigma
- Our study aims to examine the relationship between HIV stigma and self-rated health (SRH). Also, to explore the cumulative impact of health risk factors such as substance use, depression and unemployment and protective factors such as social support, self-efficacy, and resiliency on the dimensions of HIV stigma

## Predictions

1. The relationship between enacted, internalized, and anticipated stigma may be significantly associated with self-rated health (SRH). With increasing levels of stigma, self-rated health will decrease.
2. Those who are impacted by a greater number of health risks will have greater levels of stigma.
3. Those who possess a greater number of protective factors will have lower levels of stigma.

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3. Jensen-Fangel S, Pedersen L, Larsen CS, et al. Low mortality in HIV-infected patients starting highly active antiretroviral therapy: a comparison with the general population. *AIDS*. 2004;18(1):89-97.

4. Sweeney SM, Vanable PA. The association of HIV-related stigma to HIV medication adherence: a systematic review and synthesis of the literature. *AIDS and Behavior*. 2016;20(1):29-50.  
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# Methods

**Table 1:** Participant demographics and variables of interest (N=711).

Variable	N or mean	% or SD
Age (Years)	47.82	11.50
Years Since HIV Diagnosis	14.95	9.48
<b>Gender</b>		
Male	447	63%
Female	237	33%
Transgender/Non-Binary	22	3%
<b>Ethnicity</b>		
Caucasian	393	56%
African/Caribbean/Black	165	24%
Indigenous	66	9%
Asia/Pacific	45	6%
Other	33	5%
<b>Sexual Orientation</b>		
Heterosexual	298	42%
Gay or Bisexual	373	53%
Other	36	5%
<b>Education</b>		
> High School	410	58%
High School	209	30%
< High School	83	12%
<b>Employment</b>		
Employed	241	34%
Unemployed	463	66%
<b>Dimensions of Stigma</b>		
Internalized	14.72	4.10
Enacted	27.63	7.61
Anticipated	37.87	7.17
<b>Self-Rated Overall Health (SRH)</b>		
Excellent	115	16%
Very Good	213	30%
Good	234	33%
Fair	113	16%
Poor	35	5%

SD Standard deviation

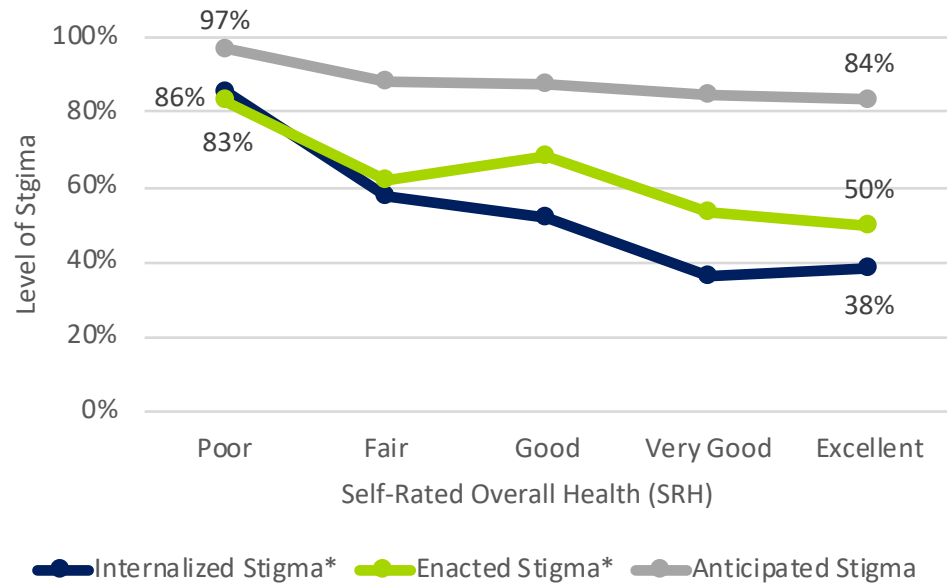
- The Canadian HIV Stigma Index<sup>7</sup> is a global survey tool developed by and for people living with HIV to measure stigma and discrimination
- In Ontario, 16 peer research associates (PRAs) living with HIV were hired and trained to recruit 724 HIV+ respondents to the Canadian HIV Stigma Index
- HIV stigma was measured using a shortened version of the HIV Stigma Scale<sup>8</sup> consisting of 32 items with a 4-point Likert response option scale ranging from “strongly disagree” to “strongly agree”
- Overall health was measured using a one-item self-report health question with 1-5 response options scale ranging from “poor” to “excellent”
- Health risks included measures of substance use, depression, income, employment, and lack of basic needs. Protective factors included measures of social support, self-efficacy, and resiliency
- Chi-square test of independence was conducted to examine the relationship between overall health, health risks, and protective factors and the effect on dimensions of stigma
- Table 1 shows the breakdown of participant demographics and variables of interest including dimensions of stigma and self-rated health

7. Global Network of People Living with HIV (GNP+). The People Living with HIV Stigma Index. 2017.

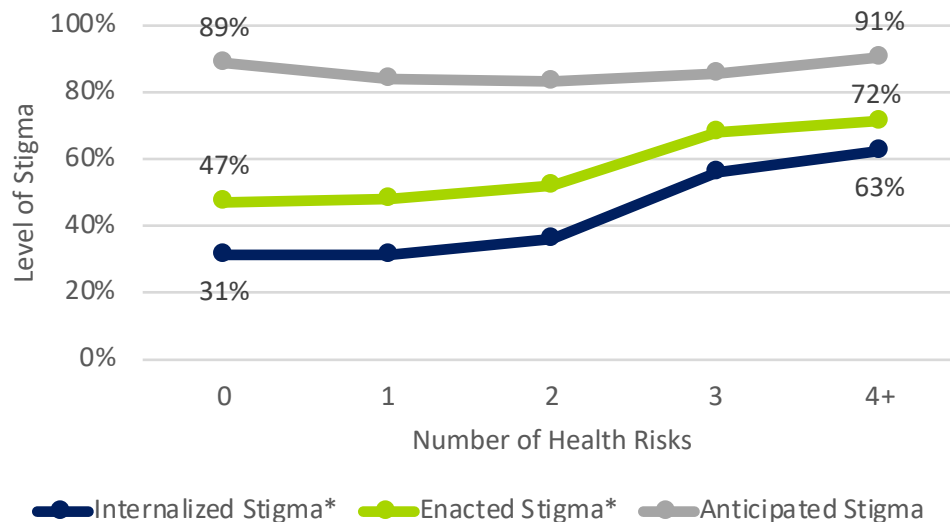
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# Results

**Figure 1:** Self-rated overall health and dimensions of stigma (n=711)  
\*p<0.0001

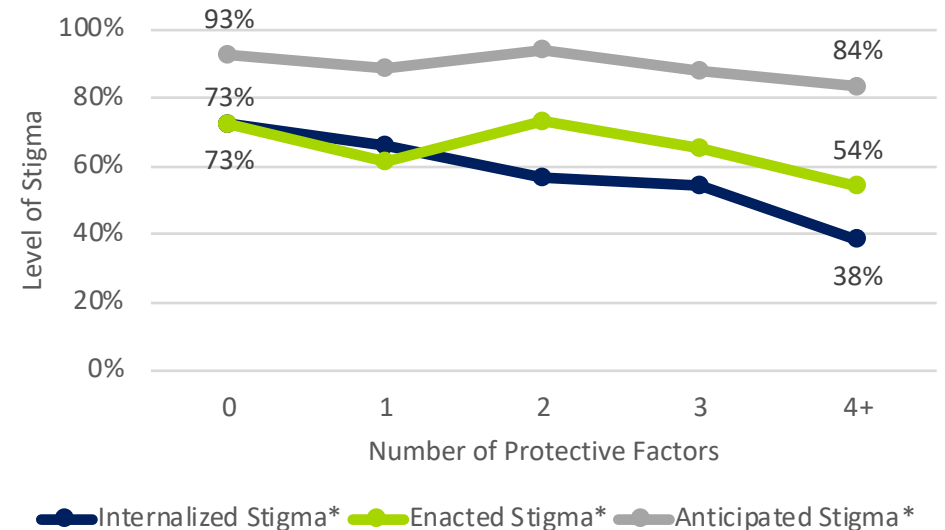


**Figure 2:** The relationship between number of health risks and dimensions of stigma (n=710)  
\*p<0.0001



- Internalized stigma and enacted stigma were significantly associated with self-ratings of overall health (p<0.0001)
- With each additional health risk, internalized stigma and enacted stigma increased significantly in stepwise fashion (p<0.0001)
- With each additional protective factor, all dimensions of stigma decreased significantly in stepwise fashion (p<0.0001)

**Figure 3:** The relationship between number of protective factors and dimensions of stigma (n=710)  
\*p<0.0001



## Conclusions

- This study contributes to the growing body of research utilizing the HIV Stigma Framework to examine types of stigma and how they interact to affect the lives of people living with HIV.
- The relationship between internalized stigma and enacted stigma were significantly associated with self-rated health. This may suggest that both experiences of stigma and internalization of those experiences contribute to individuals negatively rating their overall health.
- Health risks and protective factors were significantly associated with dimensions of stigma. With increasing number of health risks, internalized stigma and enacted stigma decreased. With increasing number of protective factors, all dimensions of stigma increased.

## Recommendations

- External support systems and internal resources may help Canadians living with HIV to improve their medical and physical health including increased access to mental health resources and support services.
- Future longitudinal research should be conducted in order to examine if any temporal relationships between each type of stigma, individual and collective protective factors affect self-reported health.