

Evaluating healthy aging among Canadian HIV-positive older adults in the CHANGE HIV cohort

A. Zhabokritsky^{1,2,3}, R. Clarke⁴, R. Rosenes⁵, S. Walmsley^{1,2,3,4}, CHANGE HIV (CTN 314) Study Team

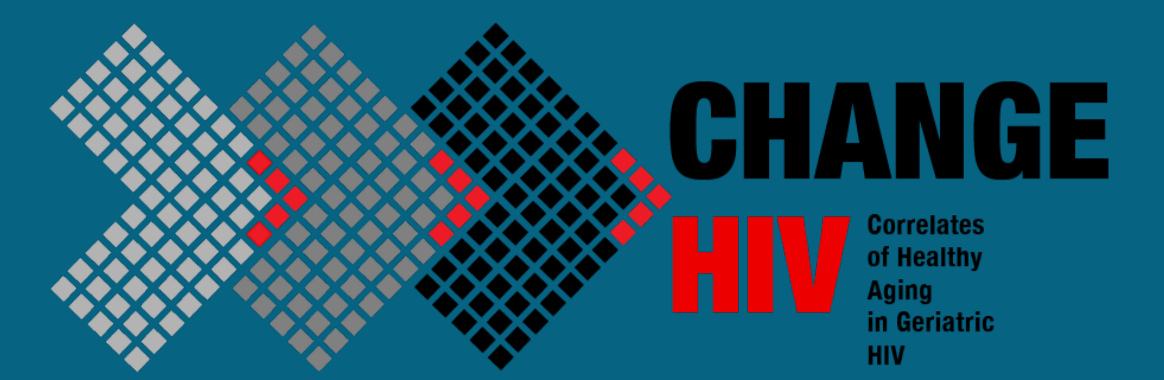
¹University of Toronto, Toronto, Canada

²University Health Network, Toronto, Canada

³CIHR Canadian HIV Trials Network, Vancouver, Canada

⁴Toronto General Hospital Research Institute, Toronto, Canada

⁵University Health Network, Community Health Advocate and Researcher, Toronto, Canada



Background

- Life expectancy among people living with HIV (PLWH) is approaching that of the general population, however, PLWH continue to experience greater burden and earlier onset of medical comorbidities.
- Important differences in clinical outcomes and quality of life persist.
- Examining healthy aging as a multidimensional state can guide development of preventative and management strategies that are appropriate for the complex social and healthcare needs of people aging with HIV.

Methods

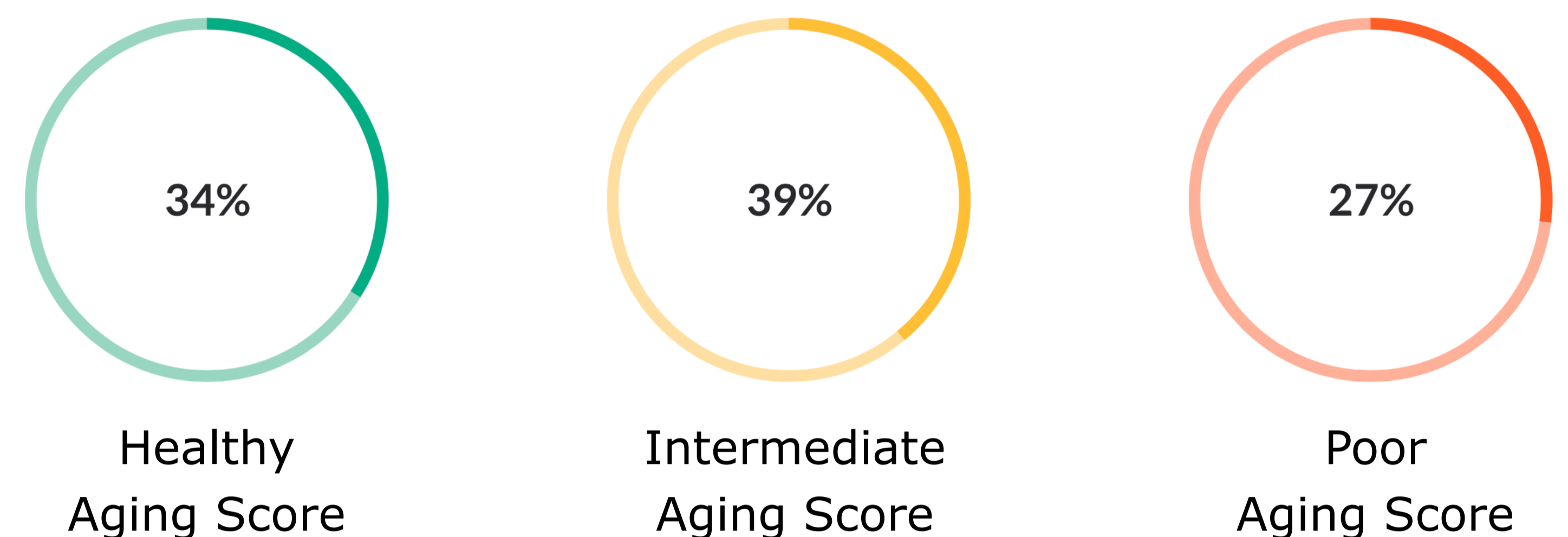
- The CHANGE HIV (Correlates of Healthy Aging in Geriatric HIV) study is a Canadian cohort of PLWH age 65 or older.
- In this cohort, healthy aging is assessed using the Rotterdam Healthy Aging Score (HAS), calculated across 7 domains of health (chronic disease, mental health, pain, social support, quality of life, cognitive and physical function).
- We report on the HAS for the first 227 participants in the cohort and determine the proportion of those with:
 - Healthy aging scores (13-14)
 - Intermediate aging scores (11-12)
 - Poor aging scores (0-10)
- Scores were compared based on sociodemographic and HIV-related factors using Kruskal-Wallis and Fisher's exact tests.

Figure 1. Rotterdam Healthy Aging Score (HAS)

Domains of Health	Measurement Tool	Score	Description
Quality of Life	Life Satisfaction Questionnaire	0 Low	Low QoL on 5-8 items
		1 Moderate	Low QoL on 1-4 items
		2 High	High QoL on all 8 items
Social Support	Questionnaire	0 Low	"Agree" with 0-2 statements
		1 Moderate	"Agree" with 3-4 statements
		2 High	"Agree" with all 5 statements
Pain	Self-rate	0 Low	Very severe pain for ≥1 activity
		1 Moderate	Everything in between
		2 High	No or mild pain for all activities
Physical Function	Basic Activities of Daily Living (bADL) Instrumental Activities of Daily Living (iADL)	0 Low	Severe disability on bADL or iADL
		1 Moderate	Everything in between
		2 High	Mild disability on bADL and iADL
Cognitive function	Mini Mental State Examination (MMSE)	0 Low	Score of 0 to 20
		1 Moderate	Score of 21 to 25
		2 High	Score of 26 to 30
Mental Health	Center for Epidemiologic Studies Depression Scale (CES-D)	0 Low	Score of 23 to 60
		1 Moderate	Score of 17 to 22
		2 High	Score of 0 to 16
Chronic Disease	Number of Chronic Diseases	0 Low	>1 disease "multimorbidity"
		1 Moderate	1 disease
		2 High	0 diseases

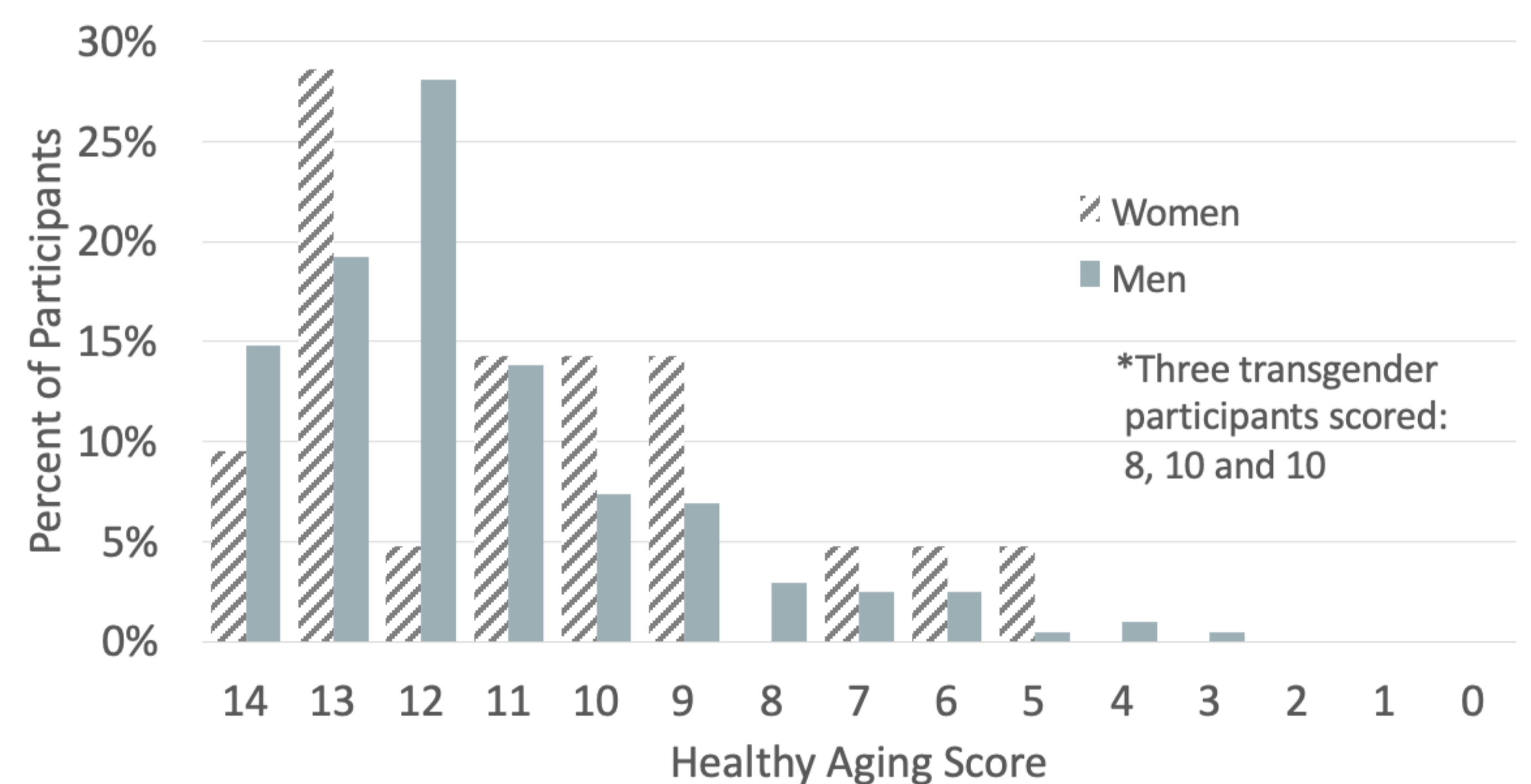
Results

Figure 2. HAS distribution in the CHANGE HIV cohort



- Median [IQR] age was 70 [68,74], majority of participants were men (89%), white (77%), born in Canada (66%) and retired (77%).
- Median [IQR] HAS was 12 [10,13].
- Women and transgender participants had lower median [IQR] HAS (10.5 [9,13] compared to 12 [11,13] among men) and higher proportion of poor aging scores (50% compared to 24% among men, p=0.015).

Figure 3. Gender differences in HAS distribution



- Women had fewer comorbidities compared to men (p=0.024), but worse cognitive function scores (p=0.002) and more pain (p<0.001).
- HAS scores were lower among retired individuals compared to those employed or engaged in volunteer activities (p=0.013) but did not differ by age (p=0.641), race (p=0.698), country of birth (p=0.887), CD4 count nadir (p=0.510), or duration of HIV infection (p=0.066).

Conclusions

- Gender seems to have an important impact on the aging experience of PLWH, especially across comorbidity, cognitive function and pain domains of health.
- Using a multidimensional score like the HAS can identify individuals at risk of poor clinical outcomes and direct interventions that support their healthy aging.

