# Which women are in continuous HIV care? An examination of women participating in the OHTN Cohort Study (OCS)

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## The Challenge

The spectrum of engagement in HIV care ranges from becoming aware of HIV infection via HIV antibody testing, entering HIV care, and becoming fully engaged in ongoing, continuous HIV care.<sup>1,2,3,4</sup> Once patients have entered HIV care, irregular visits pose barriers to achieving treatment success, preventing disease progression, and the development of co-morbidites.<sup>3</sup> Patients in continuous HIV care are more likely to achieve treatment success and viral suppression, thereby minimizing the risk of secondary HIV transmission to partners.<sup>1</sup>

## Our Findings

At first interview women were 41 years old, living with HIV for 8.8 years, and 82% were on antiretroviral therapy. (Table 1) The proportion of women in continuous care was relatively constant across time, and was on average 88% (Figure 1)

#### Table 1. Socio-demographic and Clinical characteristics of Women at First Interview

Age Factors	Mean (SD)	Race/Ethnicity	%	Last CD4
	41.0 (10.3)	White	37.0	<200 cells/ mm3
nen diagnosed	31.6 (9.7)	Black/African	39.7	>=200 cells/ mm3
iving with HIV	8.7 (6.1)	Aboriginal	11.3	
		Multiple Race	12.1	Last VL
tion	%			Undetectable (<50)
an post-secondary	62.8	HIV Risk Category	%	Supressed (50- 200)
ted post-secondary	38.2	Heterosexual	37.3	High (> 200)
		IDU	14.4	
e	%	HIV-Endemic	42.6	ON ARV
000	43.5	Other	5.8	No
0-\$39,999	28.6			Yes
)00+	27.9			





In Ontario, 25% of people diagnosed with HIV are women. As women have specific needs, they may have unique barriers to accessing regular HIV care.

## Our Approach

### **Objectives**

To describe the proportion and characteristics of HIV-positive women in continuous care, and to identify predictors of continuous care.

- The proportions in continuous care in 2011 are shown in Figure 3, stratified by socio-demographic and clinical characteristics.
- Independent predictors of being in continuous care in a given year were: being in continuous care in previous year, not being a person who injects drugs, older age, and having been diagnosed with HIV more recently. Women whose nadir CD4<200 cells/mm3 was ≤5 years ago were less likely to be in continuous care.
- Continuous HIV care was not statistically-significantly associated with family/marital status, socio-economic status, region, or other clinical and psychological factors.
- Our findings are consistent with similar analysis on aboriginal and non-aboriginal participants in OCS (Poster P135).

### Interpretation

- Most women who had contact with specialized HIV care in
- preceding year received continuous care in the next.
- It is troubling that, on average, 12% were in discontinuous care.

Figure 1. Proportion and 95% Confidence Intervals of Women in Continuous Care in 2007-2011



#### Methods

We analyzed data from women participating in the OHTN Cohort Study (OCS), an ongoing, anonymous, open dynamic cohort of persons in HIV care in Ontario. Participants are 16 years of age or older and had given informed consent to participate in the study.<sup>5</sup> Data were obtained from medical chart abstractions, interviews, and linkage with databases at the Ontario Public Health Laboratories.

### **Definition of Continuous Care**

We adapted the Institute of Medicine measure of continuous HIV care<sup>2</sup> and defined it as  $\geq$ 2 HIV care visits  $\geq$  90 days apart in a given calendar year, among women who had at least one care visit in the preceding year. We use viral load or CD4 tests as a proxy for HIV care visits.

Analyses included 669 women who completed an interview in 2007-2011. Each calendar year was considered a unique observation, such that women could contribute up to five years to the analysis. There were 3007 women-years included in the analysis.

We believe that the proportion who are in discontinuous care is likely to be greater among all women diagnosed with HIV in Ontario, because OCS participants are likely to represent the upper spectrum of those receiving optimal HIV care by experienced physicians.

### **Implications for Policy** and Practice

Greater efforts are needed to understand barriers to continuous HIV care for development of interventions to retain women in regular care.

### References

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2. http://www.iom.edu/~/media/Files/Report%20Files/2012/Monitoring-HIV-Care-in-the-

### Figure 2. Proportion of Women in Continuous Care in 2007-2011



We identified predictors for being in continuous HIV care using longitudinal logistic regression within a generalized estimating equation framework with autoregressive correlation structure to account for repeated measures per subject.

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4. Rebeiro P, Horberg MA, Gebo K, Brooks JT, Buchacz K, Silverberg MJ, Gill MJ, Moore RD, Althoff KN. No meaningful difference between retention indicators from US government agencies within the largest HIV cohort collaboration in North America. CROI 2013. 5. http://www.ohtncohortstudy.ca/study\_overview.php

Table 2. Independent Risk Factors for Continuous Care in 2007-2011

Independent Risk Factors	OR (95% CI)		
Being in continuous care in previous year	6.4 (4.6-9.8)		
Non-IDU	1.9 (1.3-2.6)		
Age (per 10+years)	1.2 (1.04-1.44)		
Time (per year) since HIV diagnosis	0.97 (0.95-0.99)		
Nadir CD4<200 cells/mm3 <= 5 years ago	0.7 (0.5-0.9)		

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