



OCS  
OHTN COHORT STUDY

# Characterization of the HIV care continuum among persons in HIV care in Ontario in 2011

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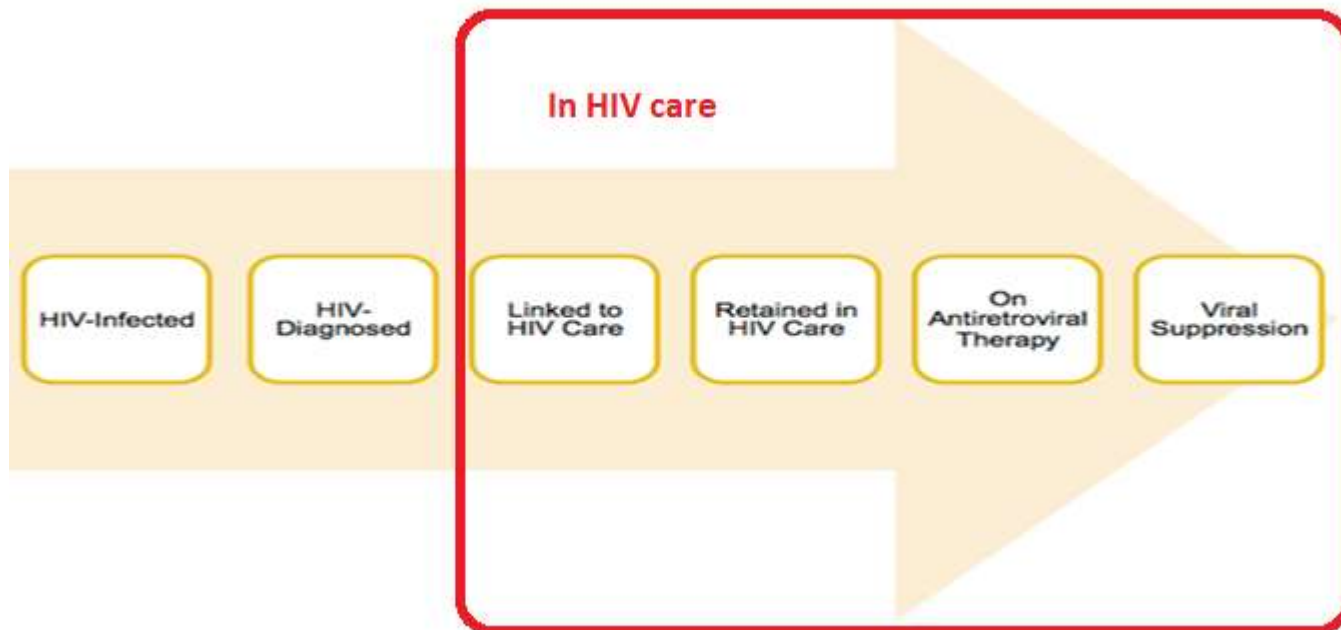


OHTN Conference, November 17-19, 2013

November 18, 2013: A Lifetime of Care? Factors that Influence Retention

# Continuum of HIV care

- The “treatment cascade” is a relatively new framework to depict the degree to which people infected with HIV are diagnosed in a timely fashion, become engaged in HIV care, and ultimately are successfully treated with antiretrovirals (ART).
- Also referred to as the “test, link to care, and treatment cascade”, “HIV care cascade”, or the “continuum of care engagement”.



# Background: Continuum of HIV care

## Many countries adopting the care continuum concept

- ❖ US Centers for Disease Control and Prevention<sup>1</sup>
  - ❖ <30% of all Americans with HIV are in care, treated, and virally suppressed
  
- ❖ British Columbia<sup>2</sup>
  - ❖ 35% of people with HIV had suppressed VL in 2011
  
- ❖ Ontario<sup>3</sup>
  - ❖ In 2007/08, 63% of people accessing VL testing had undetectable virus

1. Centers for Disease Control and Prevention. MMWR 2011; 60(No.47):1618.
2. B.Nosyk et al. "The cascade of HIV care in British Columbia, Canada, 1996-2011: a population-based retrospective cohort study. Lancet Infectious Diseases, published online September 27, 2013
3. R.S. Remis. Power Study Report, 2011



# Objective

- ❖ To estimate the proportion of people engaged in HIV care *following linkage to care*
- ❖ Key indicators include the proportion of people
  - In **continuous care**
  - That are **on ART**
  - With **suppressed** or **undetectable** viral load (VL)
- ❖ Comparisons between subpopulations to identify disparities



# Methods: OHTN Cohort Study (OCS)

- ❖ Ongoing observational, open dynamic cohort of persons in HIV care in Ontario

## Eligibility Criteria:

- Positive HIV-antibody test or other laboratory evidence of HIV infection
- Patients at a participating OCS clinic
- Aged 16 years or older
- Capable of providing informed consent

## Data:

- Collected from medical charts, electronic medical records, face-to face interviews
- Data linkage with Public Health Ontario Laboratories

**6,129 participants ever enrolled as of December 2012**



# HIV care engagement indicators

Among persons alive in 2011 with  $\geq 1$  HIV care visits

<b>Continuous care (retained in care)</b>	$\geq 2$ HIV care visit encounters in 2011 at least 3 months apart, measured by proxy using viral loads or CD4 cell counts
<b>On ART</b>	Initiated ART before or during 2011 with no evidence of having stopped
<b>Suppressed VL</b>	$< 200$ copies/mL at last measurement in 2011
<b>Undetectable VL</b>	$< 40$ copies/mL at last measurement in 2011

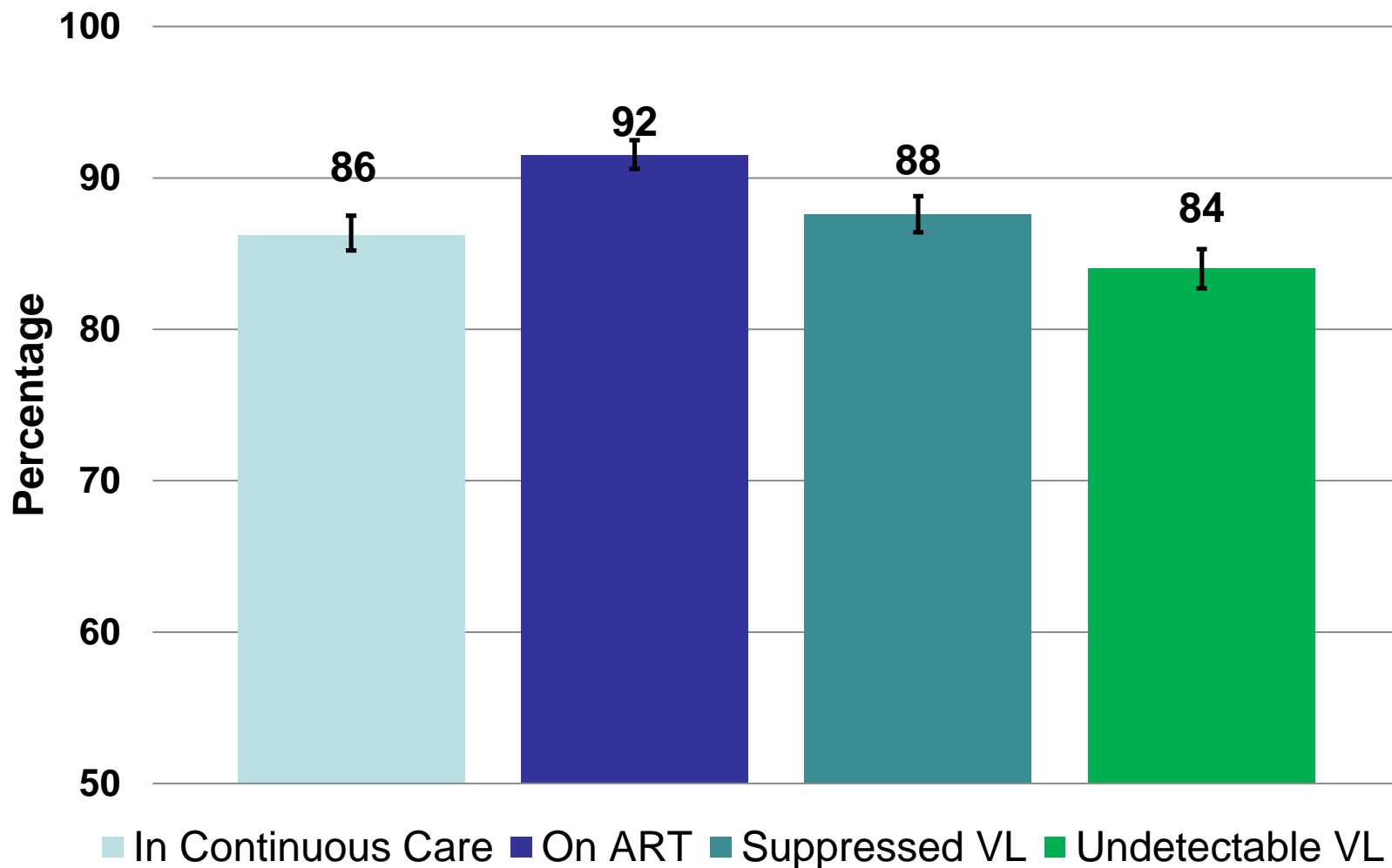


# Characteristics of participants (n=3273)

Variable	Level	%	Variable	Level	%
<b>Age</b>	<35	12	<b>Years Since HIV+</b>	<5	19
	35-49	50		5-9.9	23
	50+	38		10+	58
	Mean	47		Mean	13
<b>Sex</b>	MSM	66	<b>Drug Coverage (most recent)</b>	Employer	13
	Non-MSM male / unknown	15		ODB	22
	Female	19		Out of Pocket	2
<b>Risk Category</b>	MSM	61	Trillium	13	
	MSM-IDU	5	Multiple	5	
	IDU	6	Unknown	46	
	Hetero/Other	27	<b>Race/Ethnicity</b>	White	61
<b>Region</b>	Toronto	68		African/Caribbean/Black	17
	East/North	17		Aboriginal	9
	West	16		Other	13

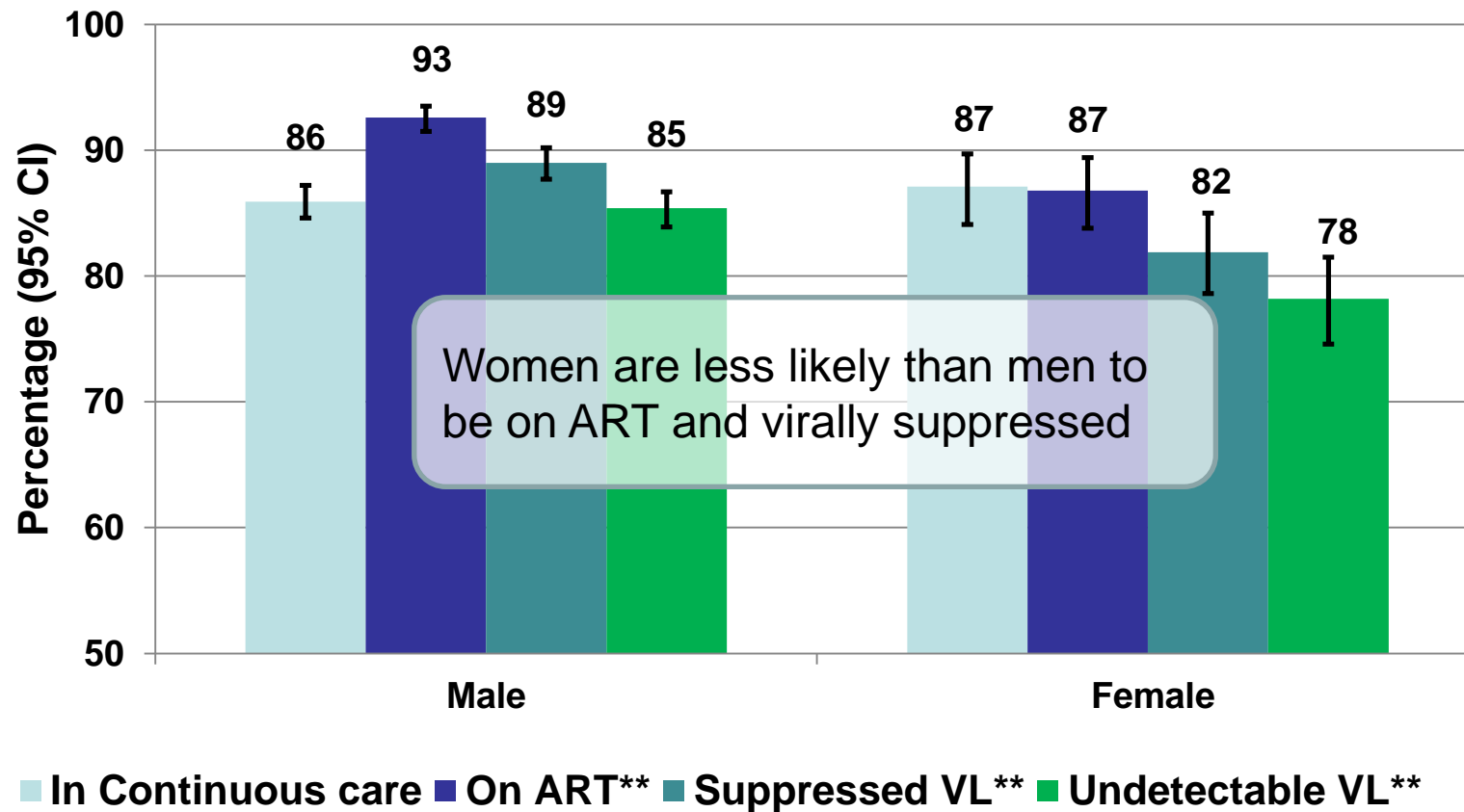


# Engagement in HIV care (95%CI)





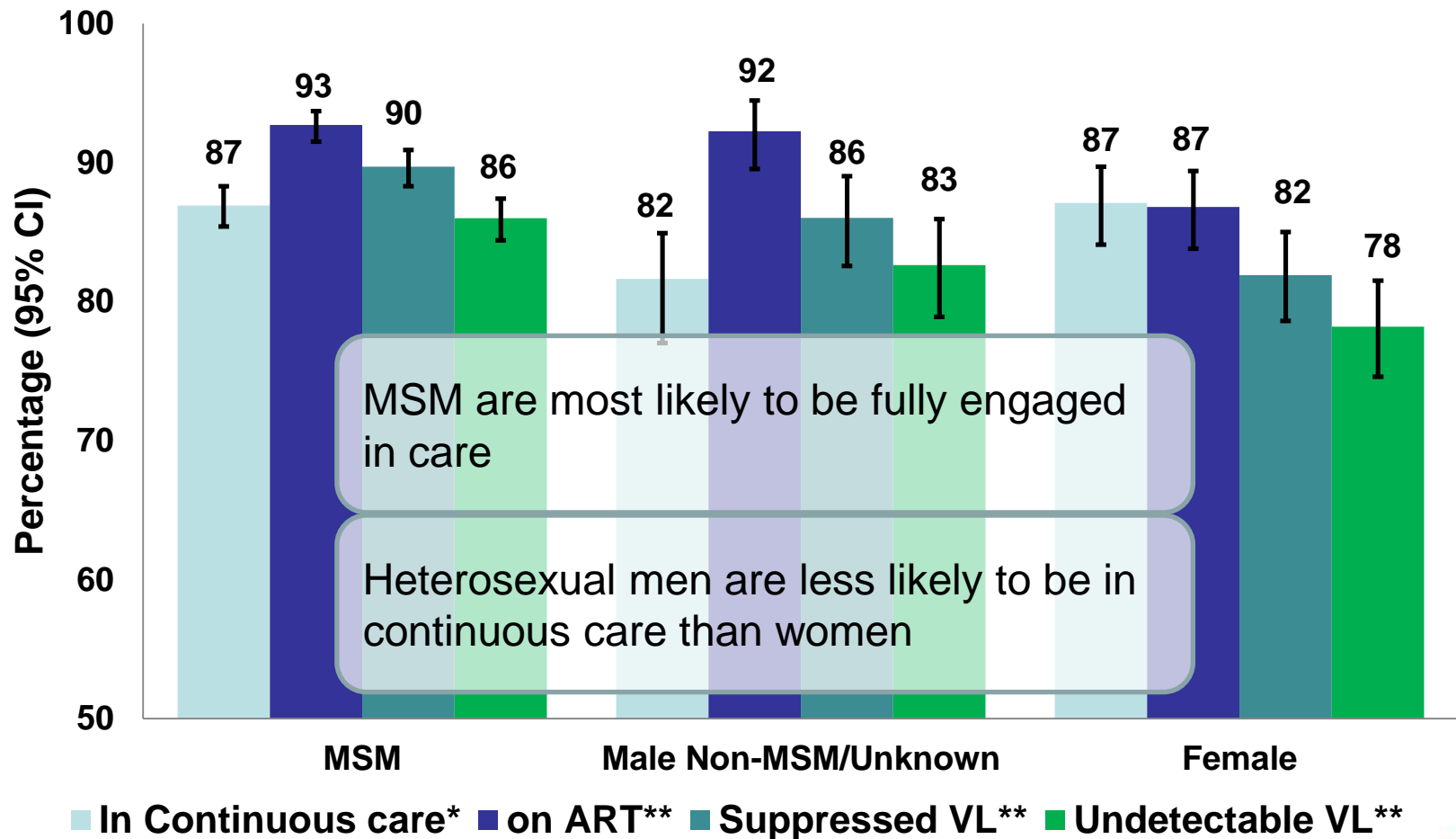
# Engagement in HIV care, by sex



\*\* - p < .0001 Pearson Chi-square test



# Engagement in HIV care: MSM versus other males and females

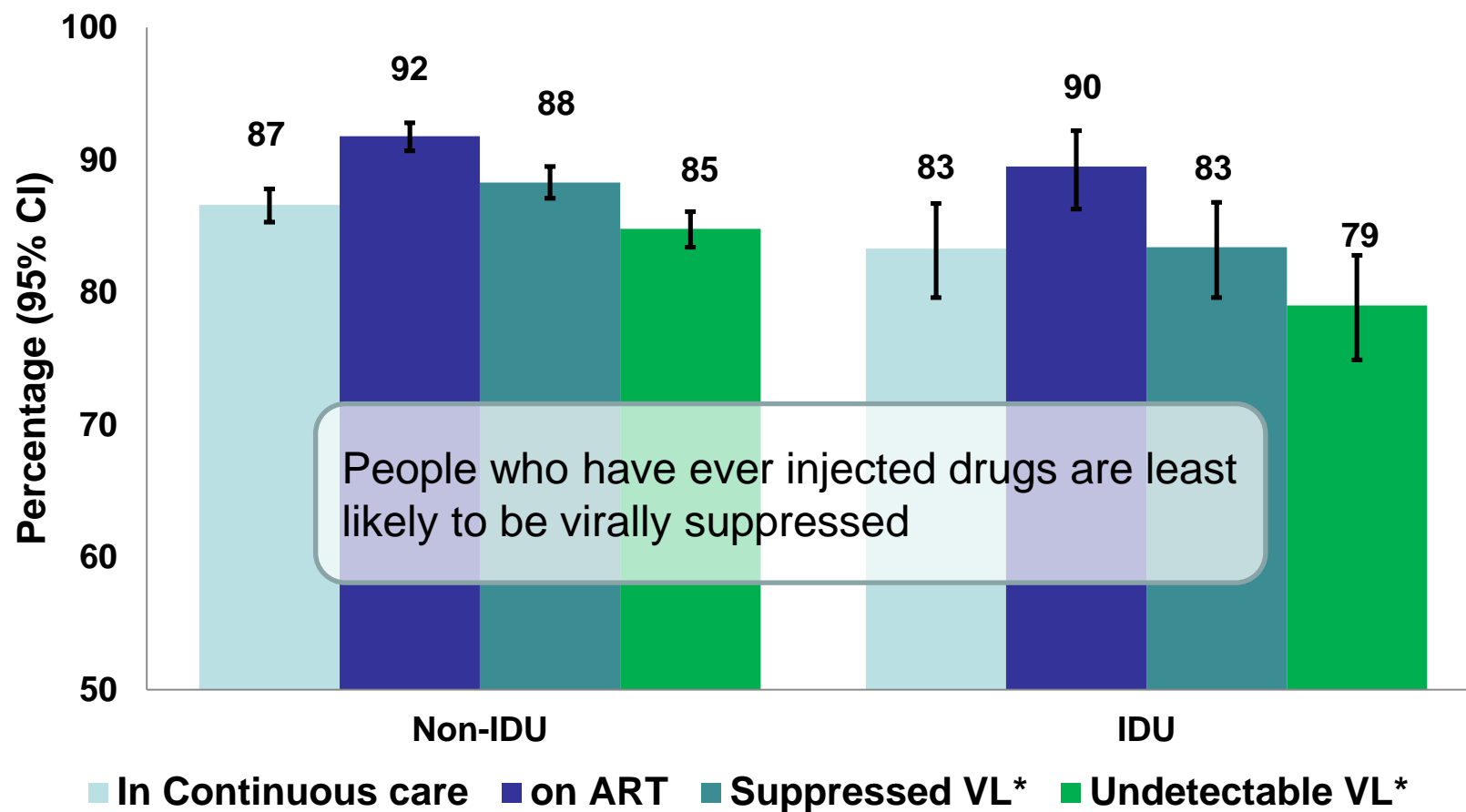


\* - p < 0.05 Pearson Chi-square test

\*\* - p < .0001



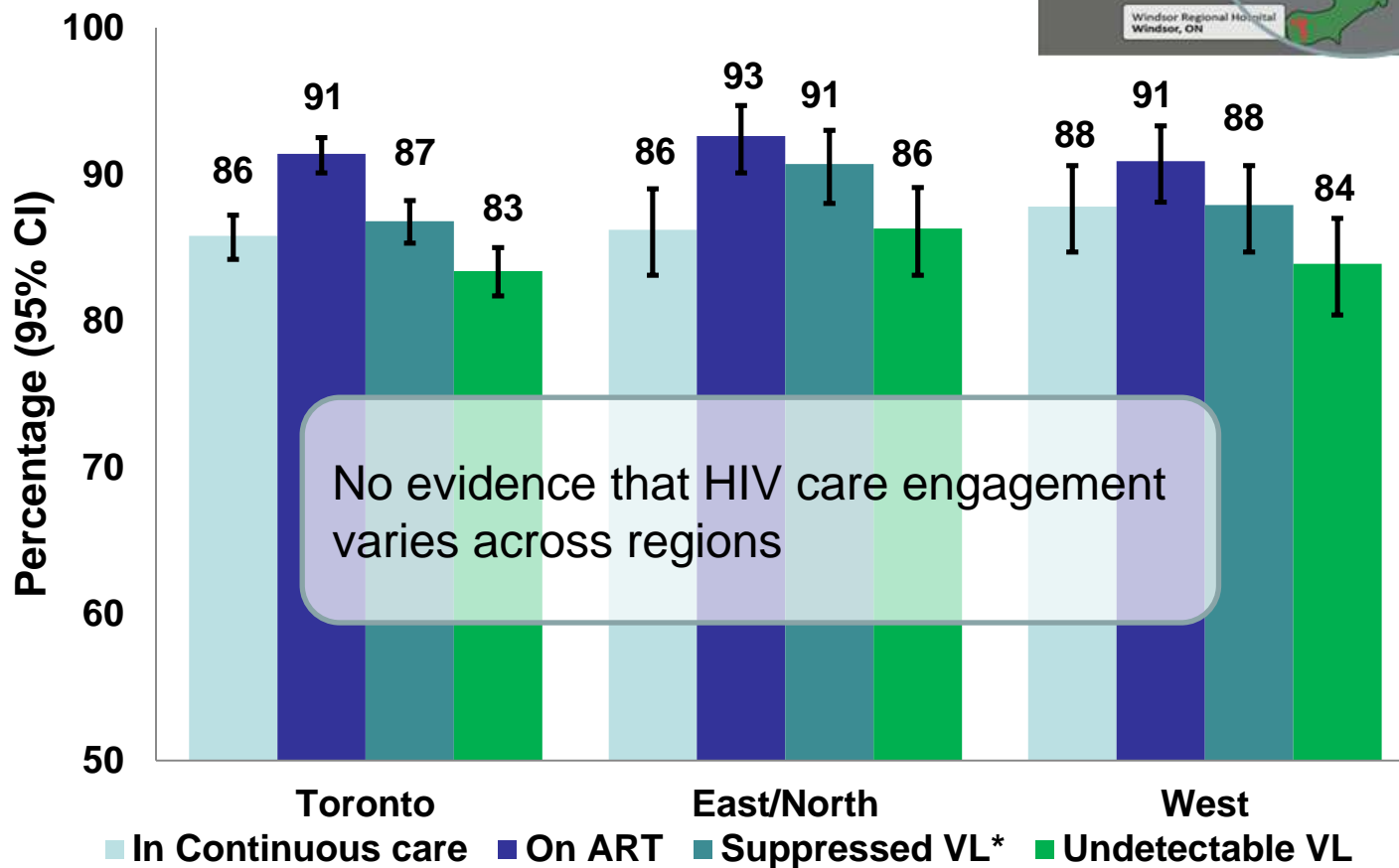
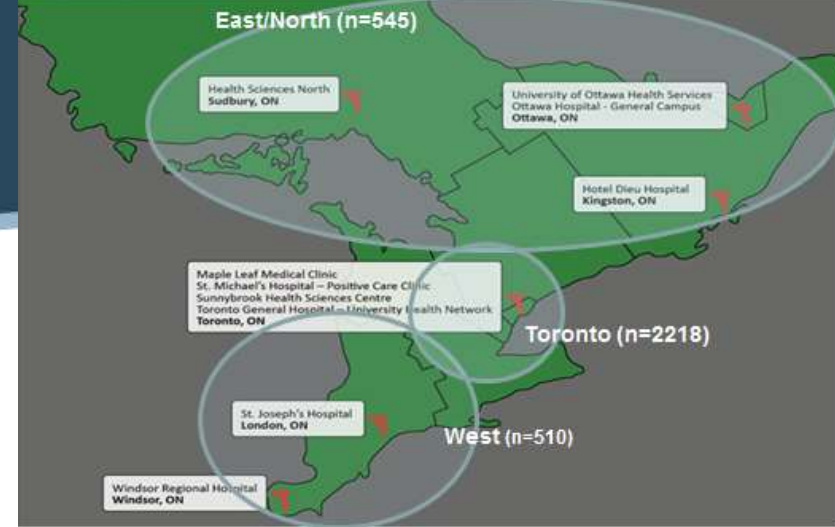
# Engagement in HIV care: Injection drug use (ever)



\* -  $p < 0.05$  Pearson Chi-square test



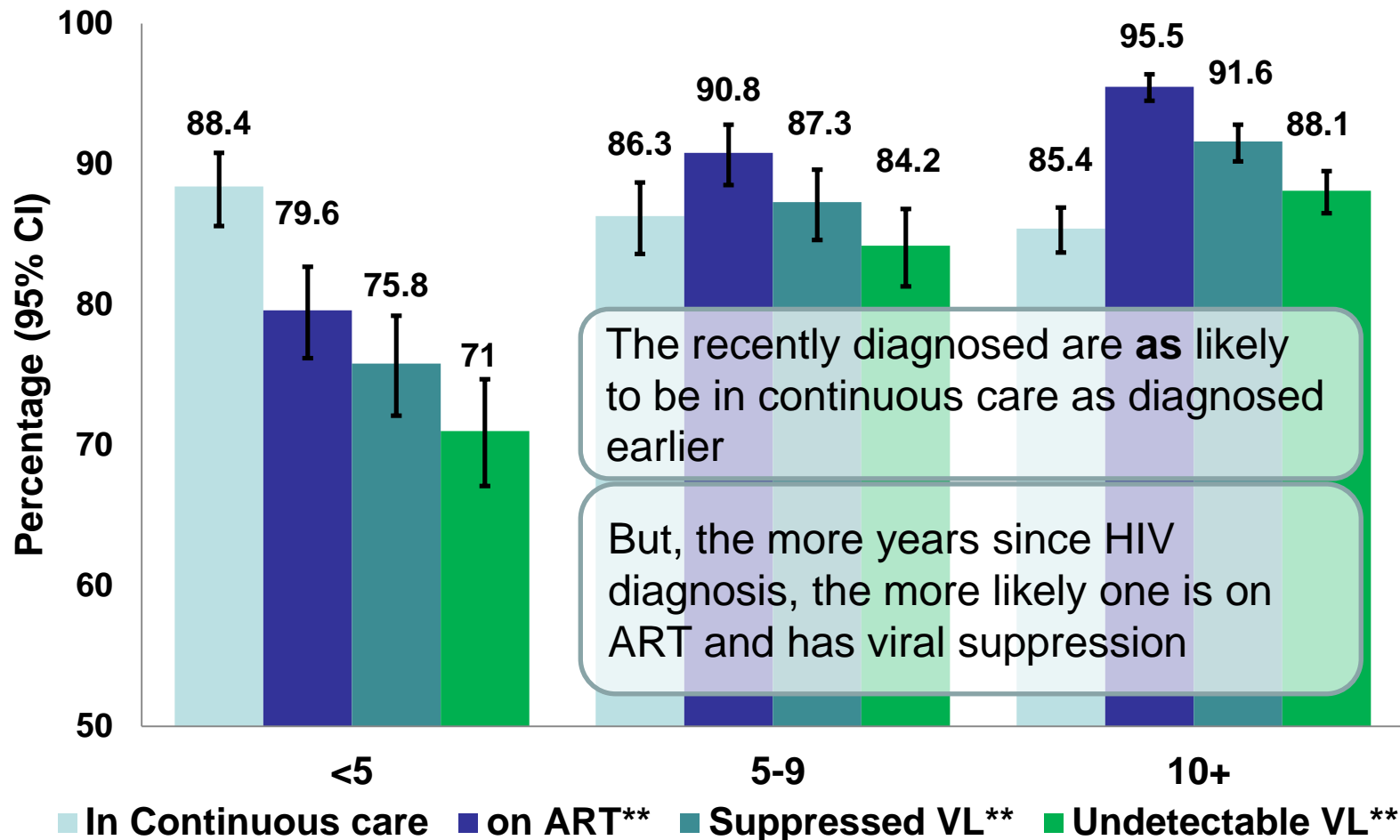
# Engagement in HIV care: Region



\* - p < 0.05 Pearson Chi-square test



# Engagement in HIV care: Years since HIV diagnosis



\* - p < 0.05 Pearson Chi-square test

\*\* - p < .0001



# Limitations

- OCS participants represent persons in HIV care, not necessarily all with HIV in Ontario
- CD4 cell counts & HIV viral loads used as proxy measures for HIV care visit encounters



# Conclusions

- ❖ In 2011, high proportion of people in specialty HIV care were in continuous care and successfully suppressed
- ❖ Further exploration of Ontario data using cascade framework, including those who have not entered care, can identify 'leaky' steps along the continuum that require additional study to understand barriers and facilitators for successful care engagement



# Acknowledgements

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## Data Linkage

Public Health Ontario Laboratories





**Thank you**

