

# Testing the Health Care Empowerment Model Among Persons Living with HIV for Antiretroviral Therapy Adherence

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# Conflict of Interest - Disclosure

Jacob J. van den Berg, PhD, Torsten B. Neilands, PhD, Mallory O. Johnson, PhD, Bing Chen, MA, & Parya Saberi, PharmD, MAS

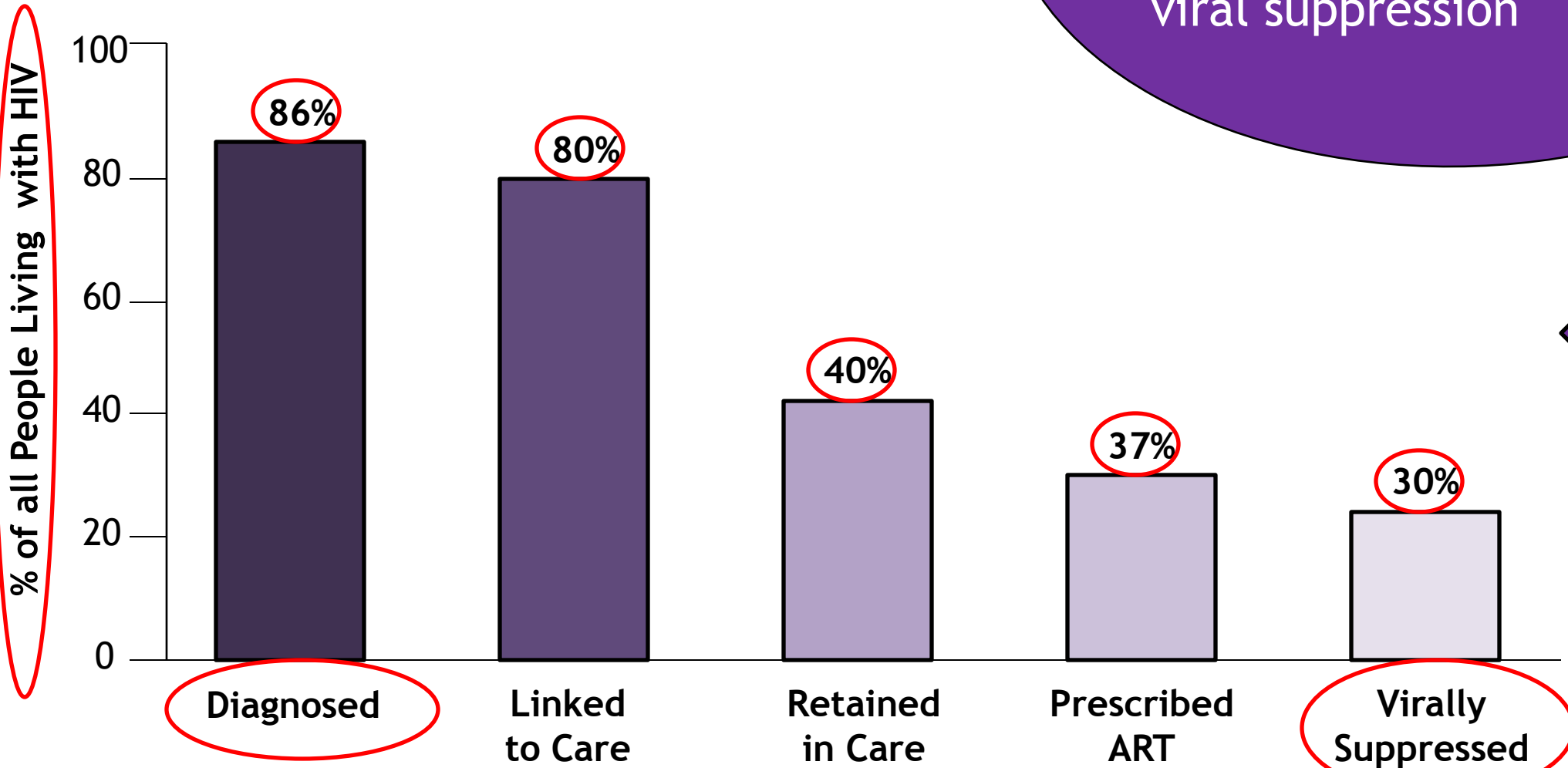
Have no real or apparent conflicts of interest to report

# Overview

- HIV Care Continuum
- Health Care Empowerment
- Methods
- Results
- Discussion
- Acknowledgments
- Questions/Comments

# HIV Care Continuum, 2011

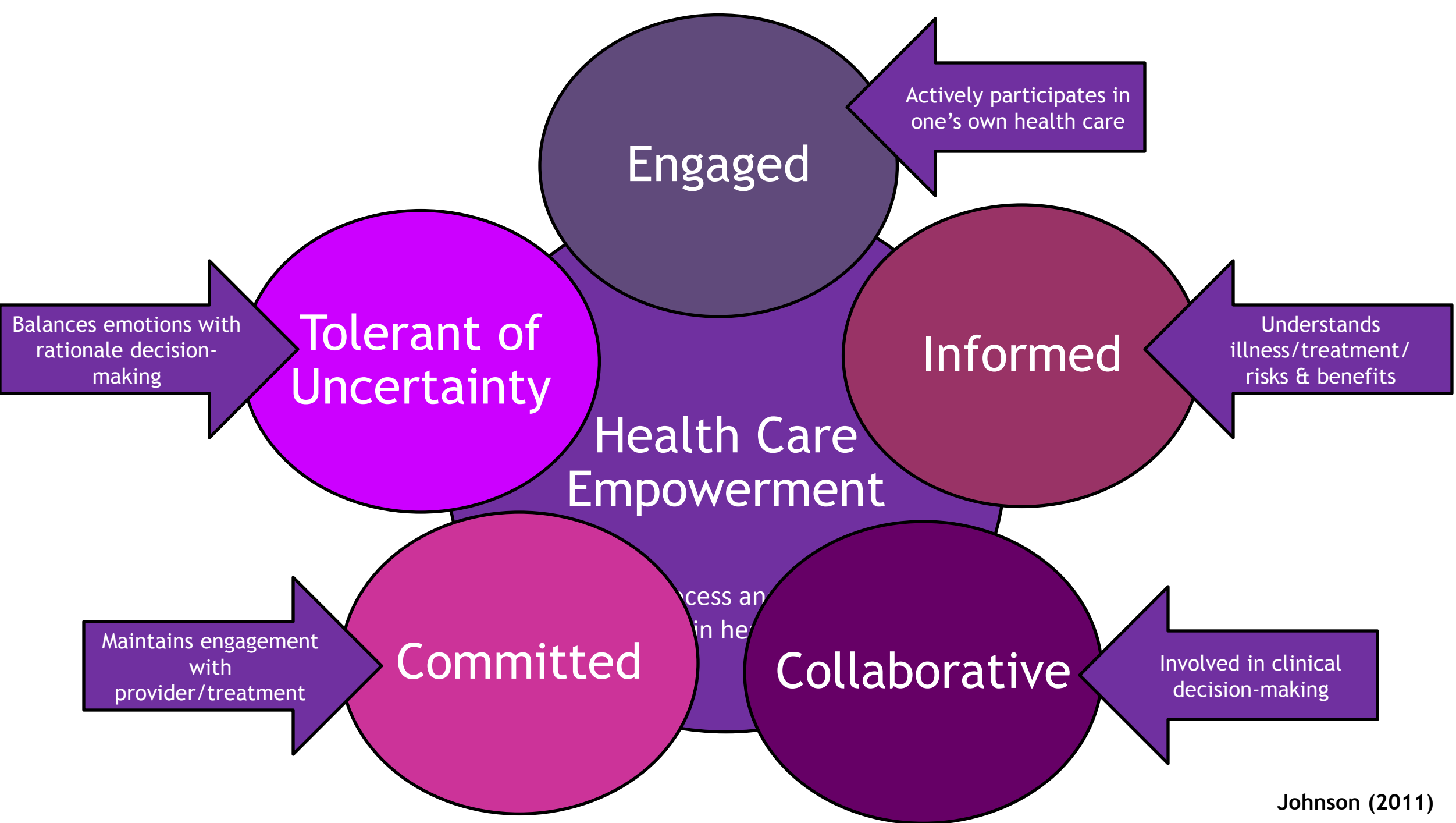
Overall: Of the 1.2 million Americans living with HIV, only 30% have achieved viral suppression



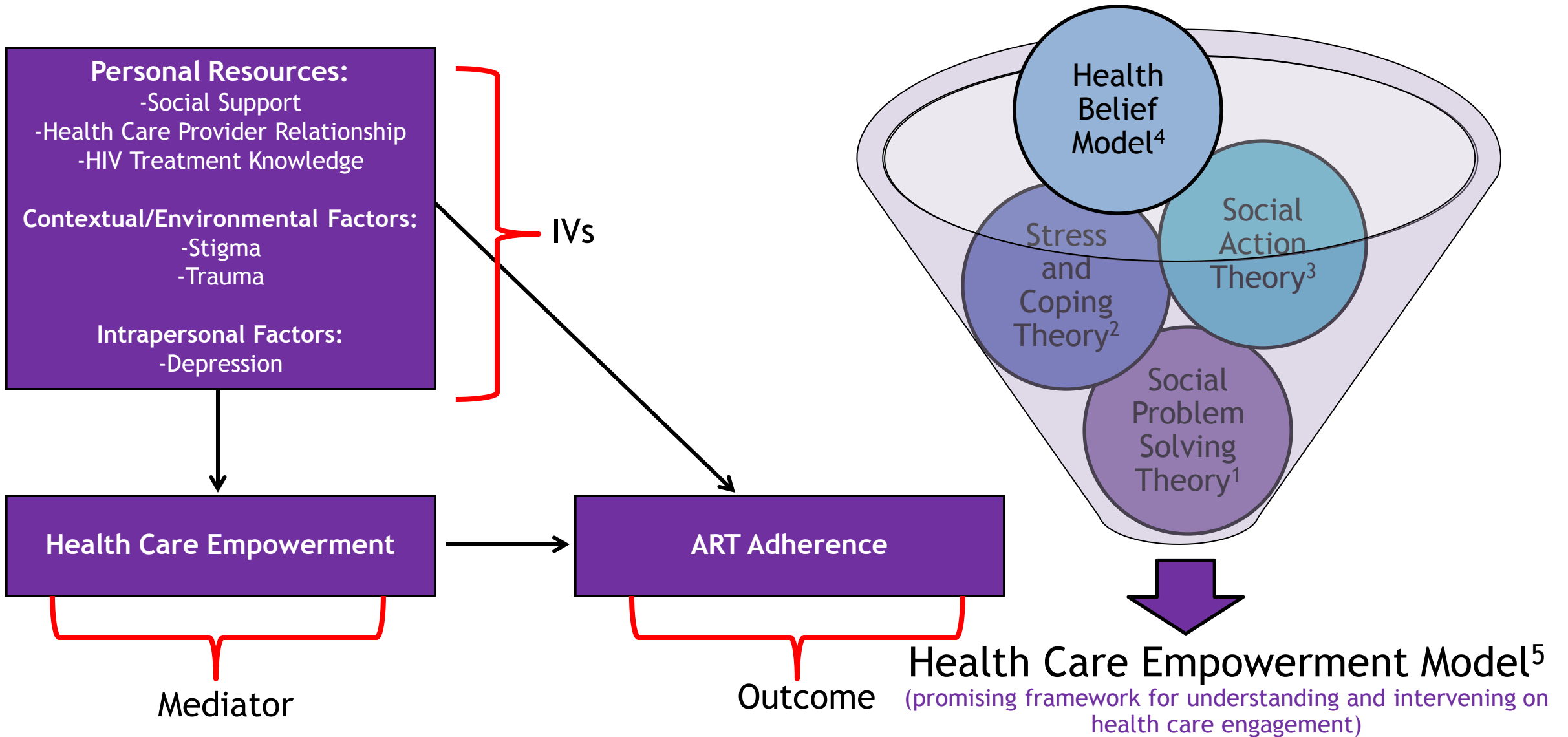
Sequential stages of HIV Care

3/10 had virus under control

**How might we directly impact  
the HIV Care Continuum?**



# Theoretical Framework



<sup>1</sup>Ewart, 2004; <sup>2</sup>Lazarus & Folkman, 1984; <sup>3</sup>D’Zurilla & Goldfried, 1971; <sup>4</sup>Janz & Becker, 1984; <sup>5</sup>Johnson et al., 2012

# Methods

- ▶ Participants ( $N = 1,494$ ) were recruited from social networking sites and completed an online survey through Qualtrics
- ▶ Inclusion criteria:
  - ▶ 18 years or older
  - ▶ Self-reported HIV+ serostatus
  - ▶ Currently live in the U.S.
- ▶ Study reviewed and approved by UCSF IRB
- ▶ No monetary incentive provided



# Fun Facts

- ▶ “Did you know that your tongue has a unique print similar to your fingerprints?”
- ▶ “Did you know that your eyes can see about ten million different colors?”
- ▶ “Do you know of a natural substance that can be potentially effective against HIV?” (prior to survey)

Bee venom as a potential drug to treat HIV



Washington University School of Medicine

# Measures

Factor	Measure	Scale
Demographics: age, gender, race/ethnicity, sexual orientation, educational level, student status, employment status, and perceived financial stability		
Trauma (ever)	1 question	“Yes/No” response: 1 = “Yes”; 2 = “No”
HIV stigma (ever)	5-item	0 = “Not at all” to 4 = “Often”
Depression (two weeks)	PHQ-9	0 = “Not at all” to 3 = “Every single day”
Social support	1-item	1 = “Strongly disagree” to 5 = “Strongly agree”
Provider relationship	1-item	1 = “Strongly disagree” to 5 = “Strongly agree”
Health care empowerment	8-item	0 = “Strongly disagree” to 4 = “Strongly agree”
HIV treatment knowledge	HTKS	“True”, “False”, or “Don’t Know”
ART adherence (30-day)	1-item	0 = “Very poor” to 6 = “Excellent”

# Analyses

- ▶ Descriptive and zero-order correlation analyses were conducted using SPSS 20.0.0
- ▶ Significant zero-order correlations were examined between IVs and outcome, as well as b/t the outcome and mediator
- ▶ SEM analysis conducting using *Mplus*, Version 7.4
- ▶ 5,000 bootstrap replications were used

# Results - Demographics

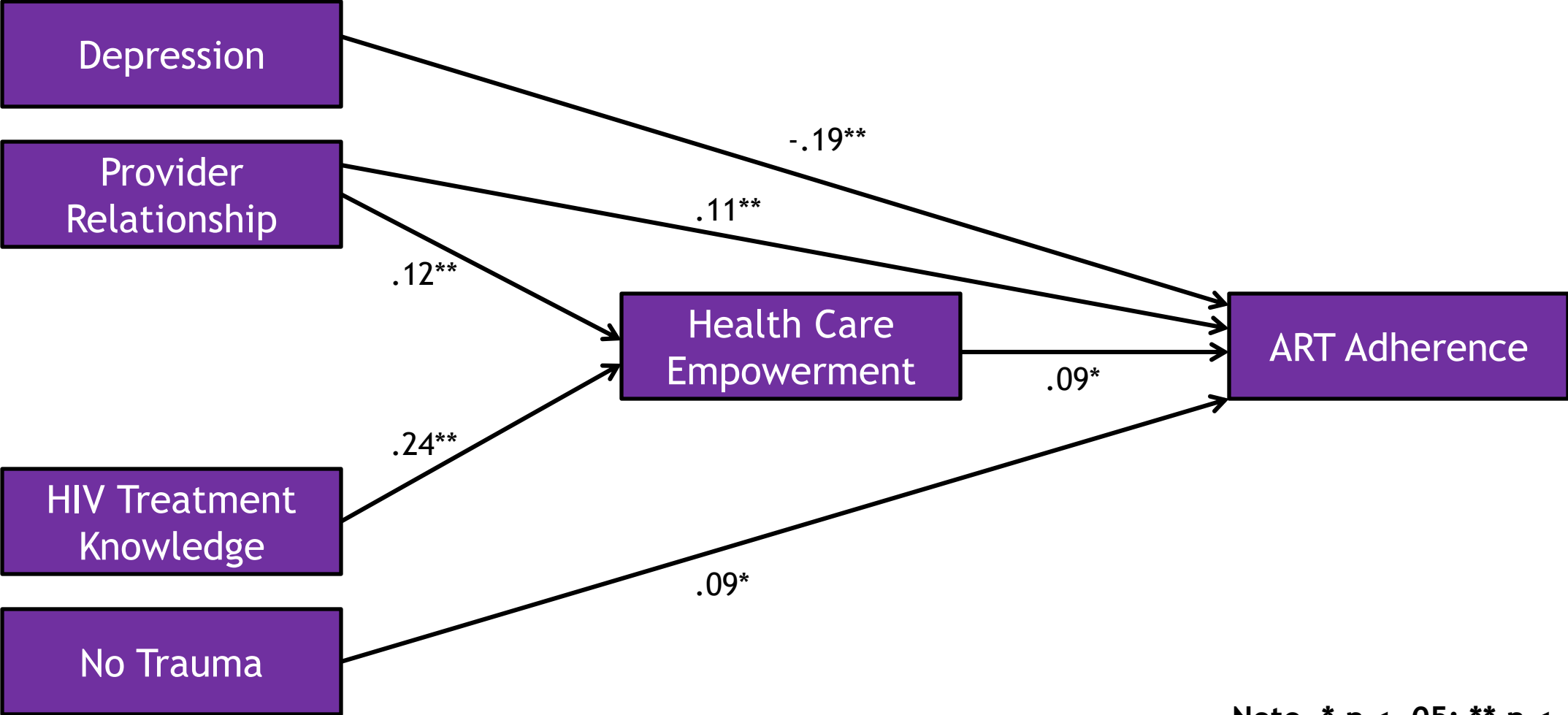
- Age:  $M = 45.6$ ;  $SD = 11.4$
- 93.1% Male
- 71.1% Non-Hispanic White
- 86.8% Gay
- 51.5% had some college
- 87.6% not currently enrolled in school
- 45.9% working full-time
- 46.9% “Barely getting by”

# Results - *rs*, *Ms*, *SDs*, alphas for study variables

Variables	1	2	3	4	5	6	7	8
1. Adherence	--							
2. Trauma	.071*	--						
3. Health care empowerment	.090**	-.021	--					
4. Stigma	-.080**	-.147***	-.060*	--				
5. Depression	-.195***	-.208***	-.021	.377***	--			
6. Provider relationship	.114***	.000	.177***	-.173***	-.196***	--		
7. Social support	.061*	.066*	.099***	-.322***	-.331***	.274***	--	
8. HIV treatment knowledge	.072*	-.080**	.255***	-.035	-.069*	.214***	.104***	--
<i>N</i>	1219	1107	1152	1159	1156	1162	1161	1162
<i>M</i>	N/A	N/A	4.05	1.97	1.86	2.19	N/A	0.85
<i>SD</i>	N/A	N/A	0.74	0.75	0.77	1.27	N/A	0.15
$\alpha$	N/A	N/A	0.82	0.75	0.93	N/A	N/A	0.74

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ; N/A = not applicable

# Results - Structural Equation Modeling



Note. \*  $p < .05$ ; \*\*  $p < .01$

# Discussion - Implications

- ▶ Multilevel interventions are urgently needed among:
  - ▶ PLWH to increase knowledge about current HIV treatment options, decrease mental health concerns related to depression and trauma, and encourage health care empowerment
  - ▶ Providers to teach them how to promote health care empowerment among PLWH

# Discussion - Limitations

- ▶ Generalizability
- ▶ Possibility of duplicate or false participant responses
- ▶ Social desirability or other reporting biases
- ▶ Cross-sectional design



# Discussion - Future Directions

- ▶ Determine if higher health care empowerment scores among PLWH may predict improved long-term engagement and retention in care
- ▶ Evaluate our model longitudinally and with different populations of PLWH to replicate and confirm our findings

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# Thank you!



## Questions or comments?

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