

Engagement as (treatment and) Prevention: The Evolution of the HIV Care Cascade

Measuring the HIV Care Cascade—A Foundation for Action

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Conflict of Interest Disclosure Statement

- No financial relationships to disclose

Objectives

- To understand the foundations of the HIV care cascade
- To investigate the U.S. HIV care cascade broken down by sub-populations
- To explore the HIV care cascade over time
- To understand the potential impact of health care systems on the HIV care cascade

The HIV Care Cascade

HIV Care Continuum

Not in HIV Care



Engaged in HIV Care

Unaware of
HIV infection

Aware of
HIV infection
(not in care)

Receiving some
medical care but
not HIV care

Entered HIV
care but lost to
follow-up

Cyclical or
intermittent user
of HIV care

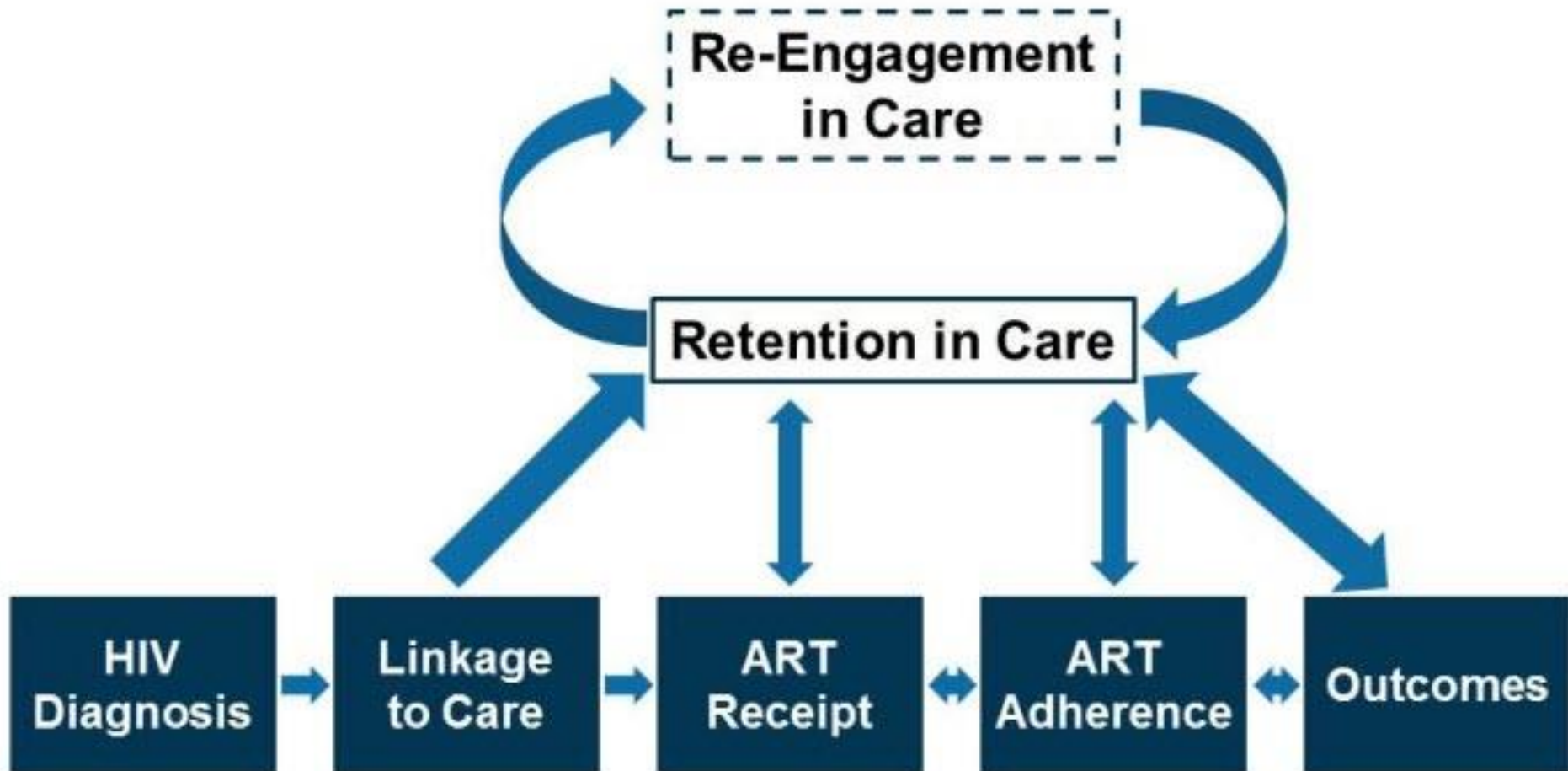
Fully engaged
in HIV care

Adapted from

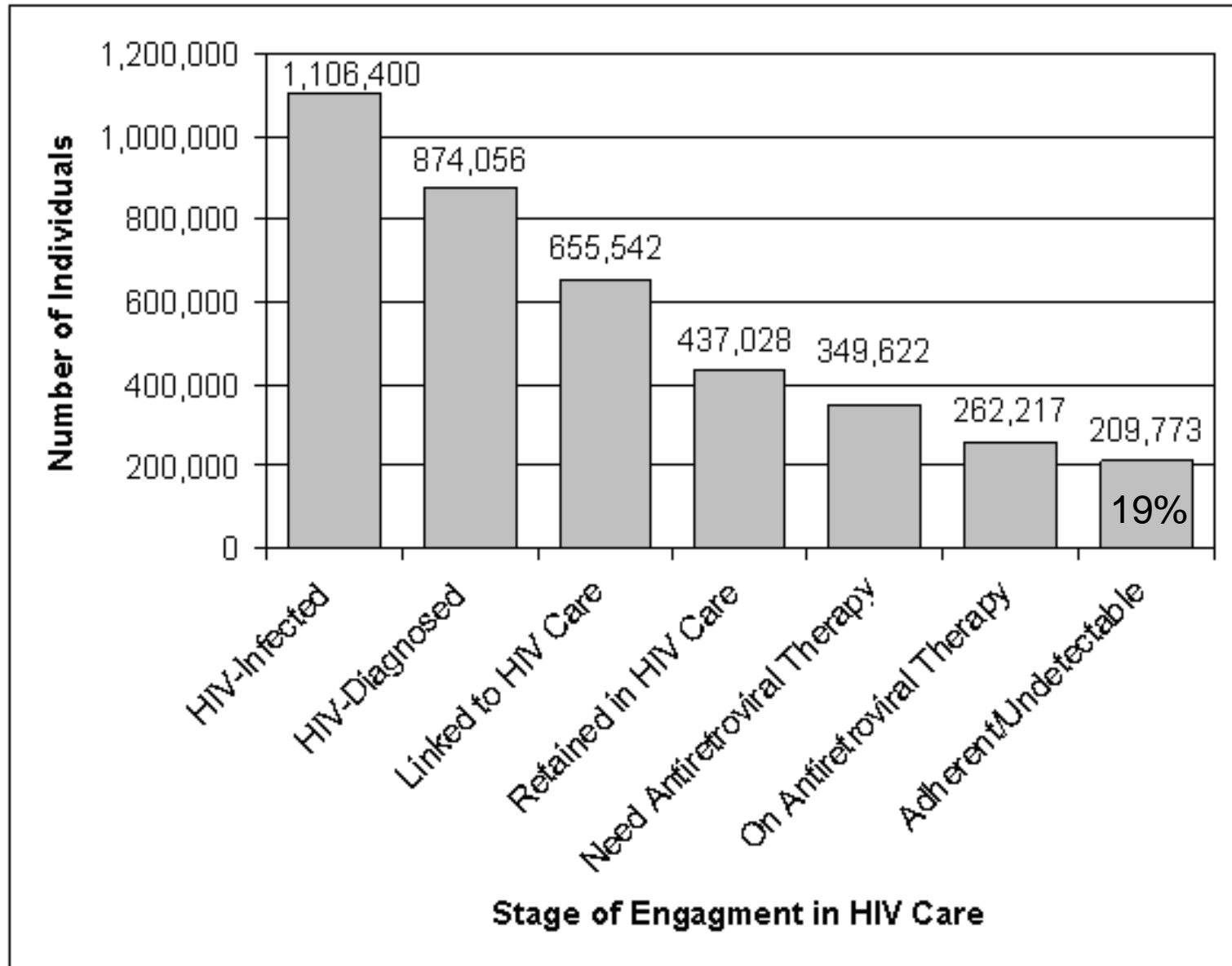
Eldred et al AIDS Patient Care STDs 2007;21(Suppl1):S1-S2

Cheever LW Clin Infect Dis 2007;44:1500-2

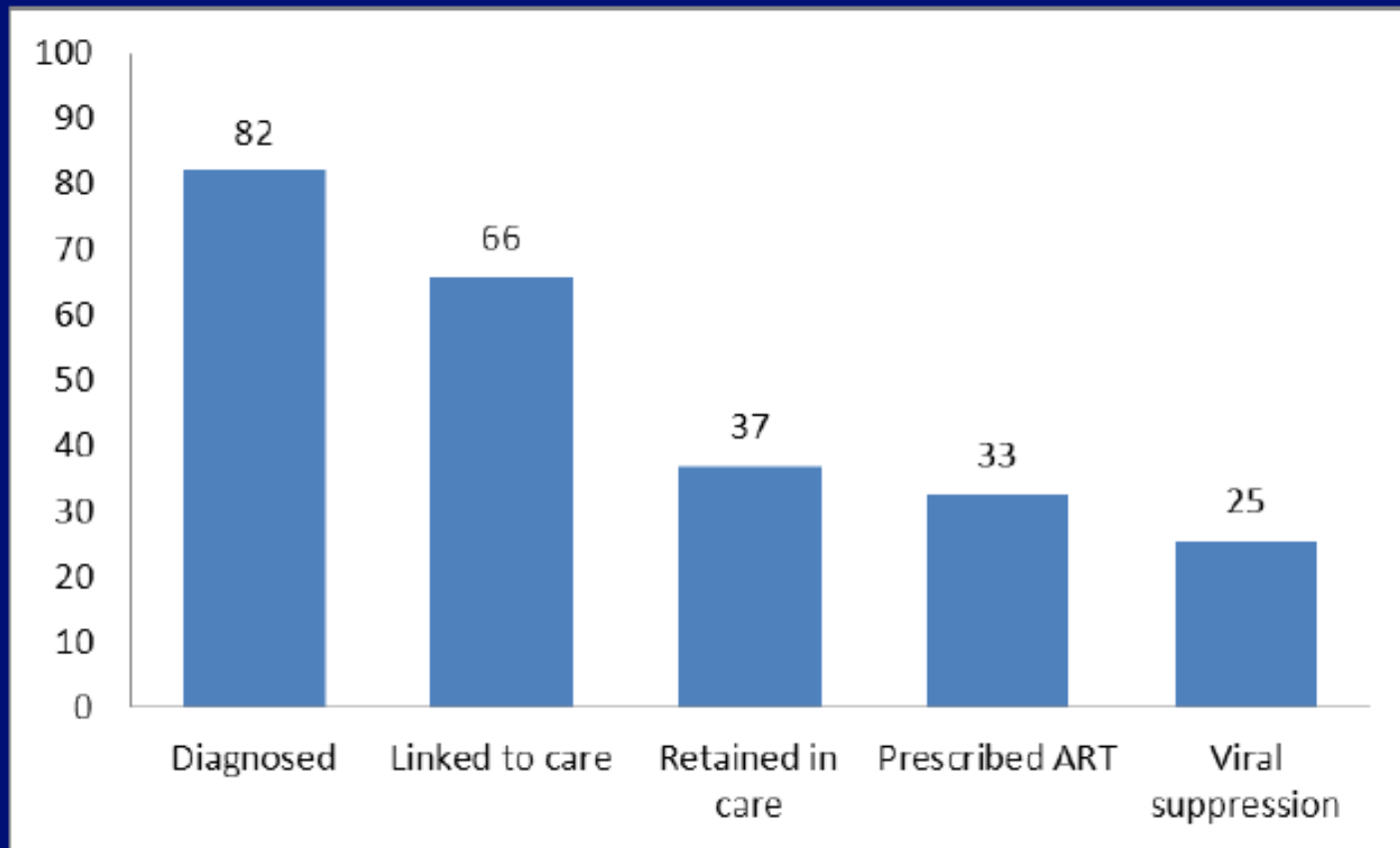
The Continuum Updated

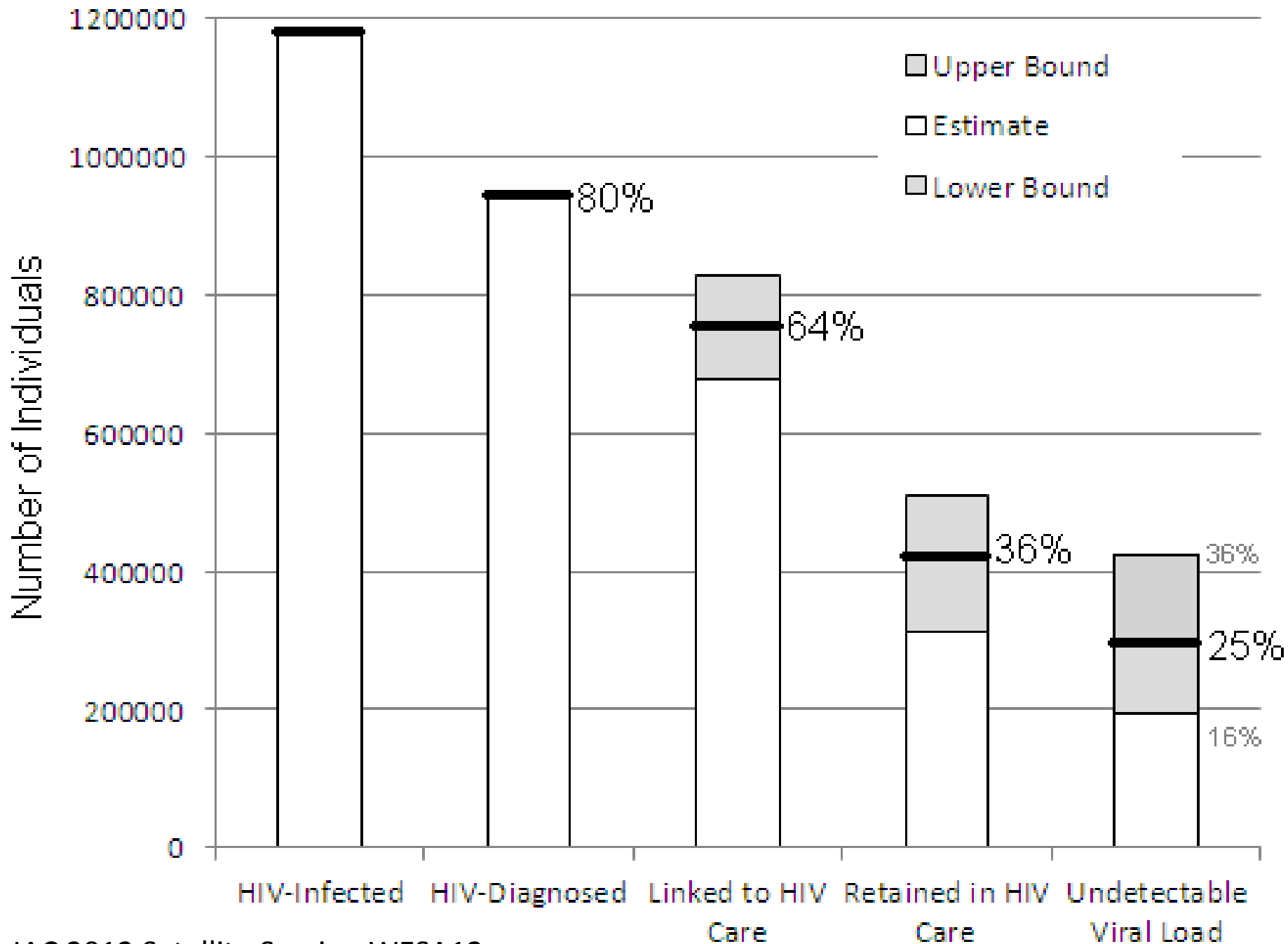


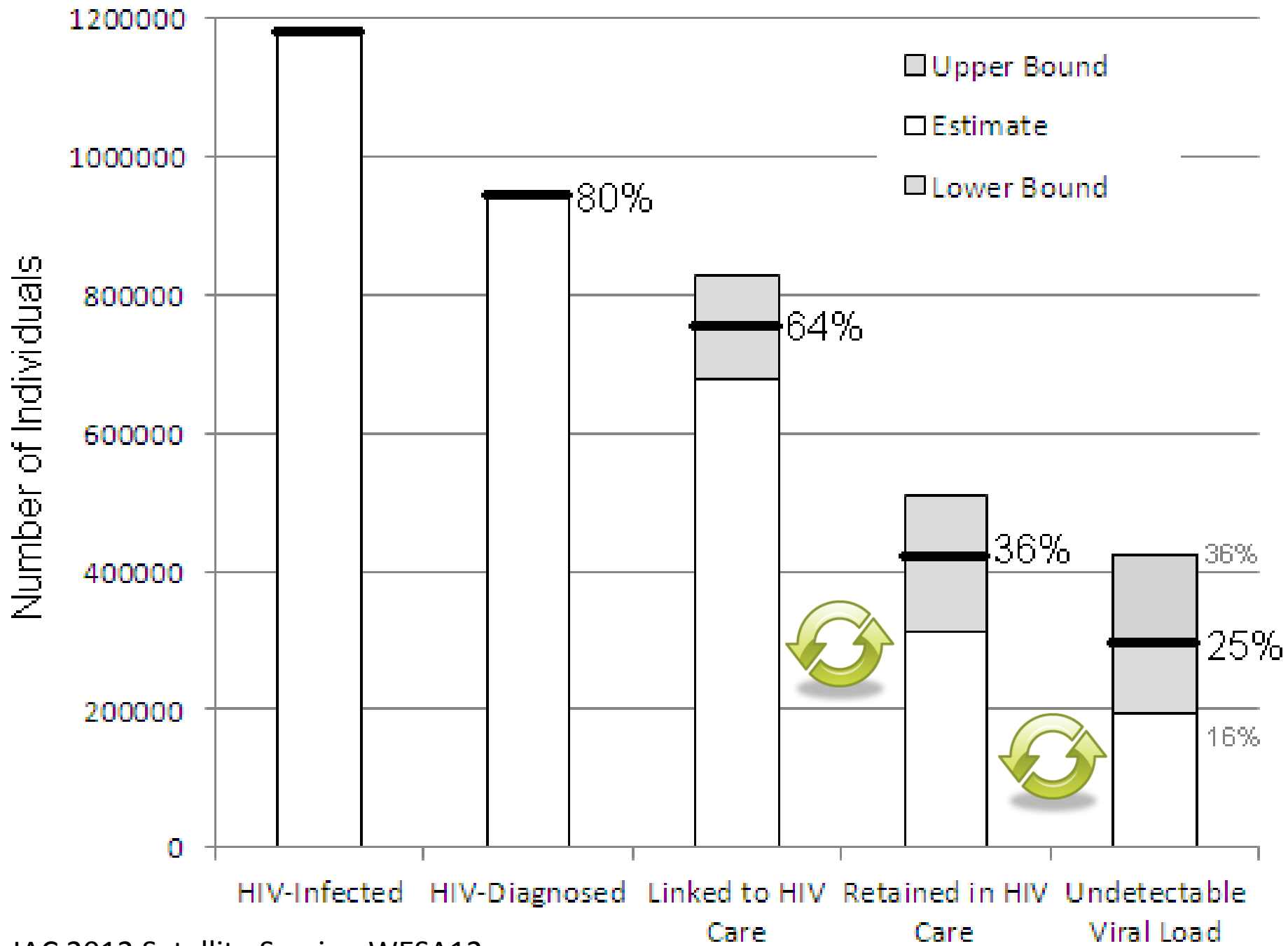
The Spectrum of Engagement in HIV Care in the United States



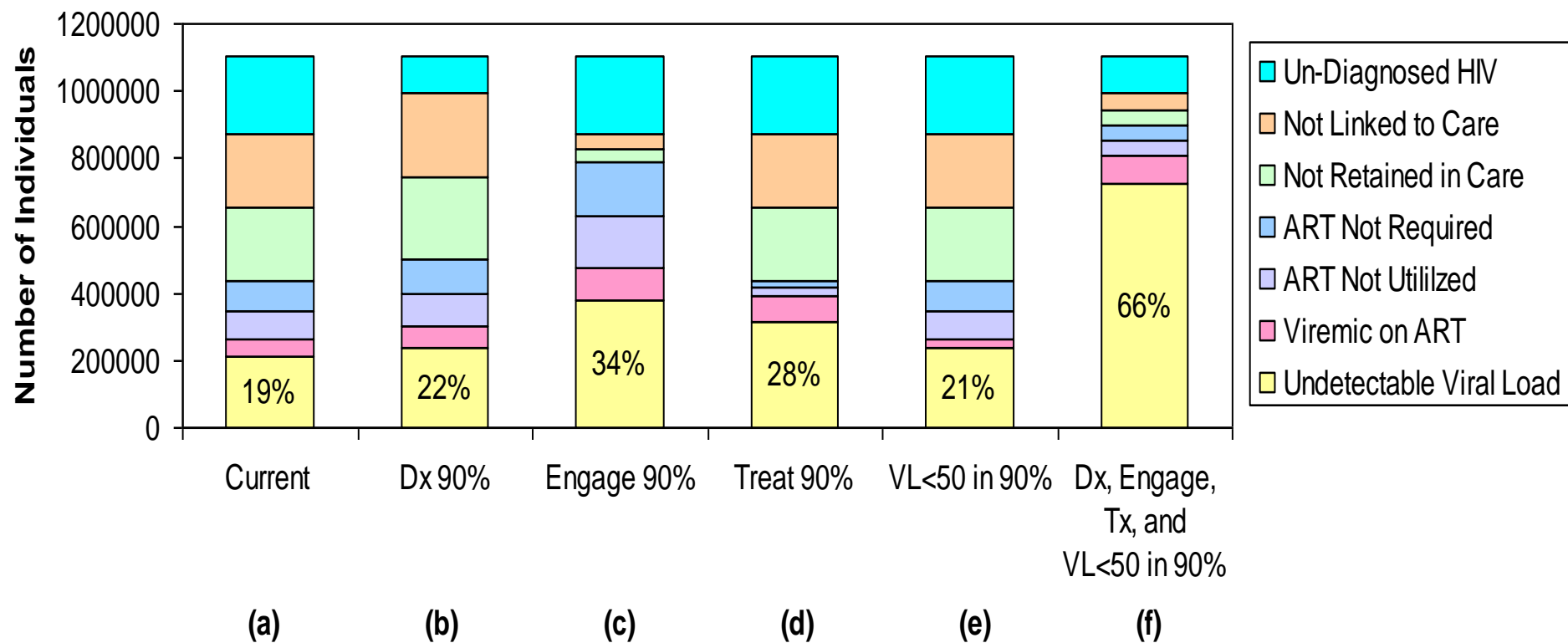
Percentage of persons with HIV engaged in selected stages of the continuum of care – United States



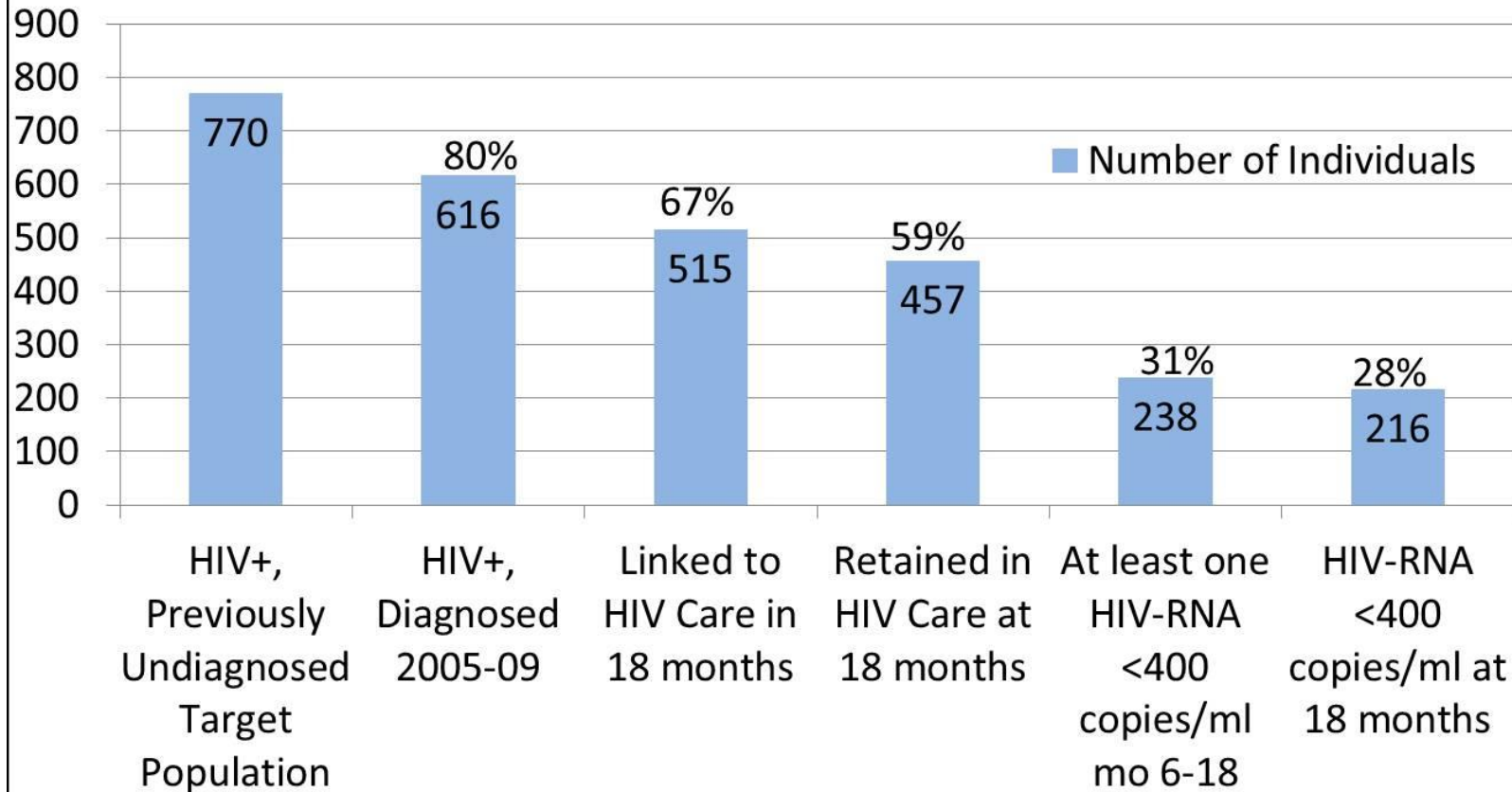




Simulations of the Engagement in HIV Care Spectrum to Account for Inaccuracy in Engagement Estimates

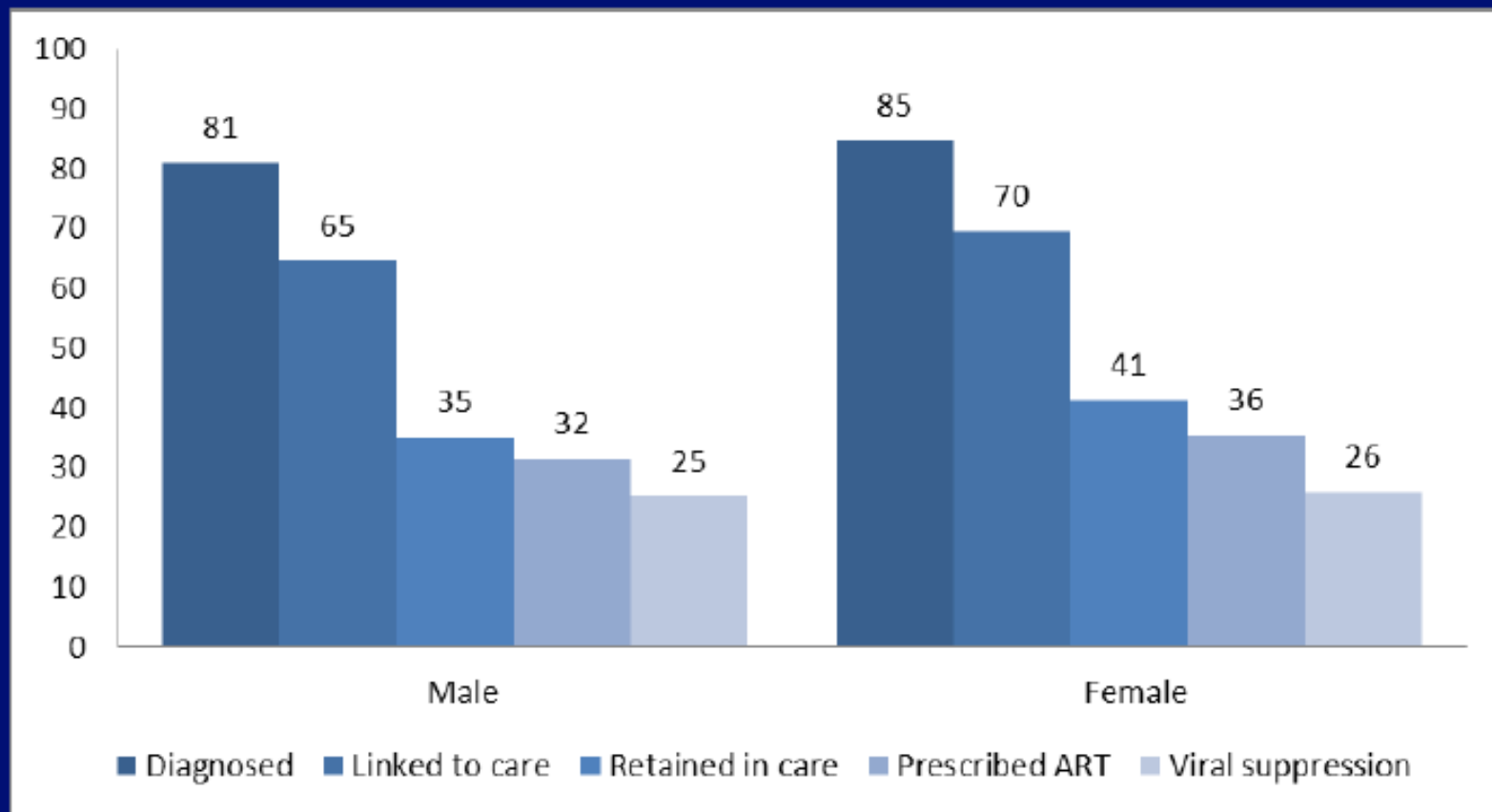


The HIV Engagement in Care Cascade for HIV-Infected Individuals, Denver, CO, 2005-2009

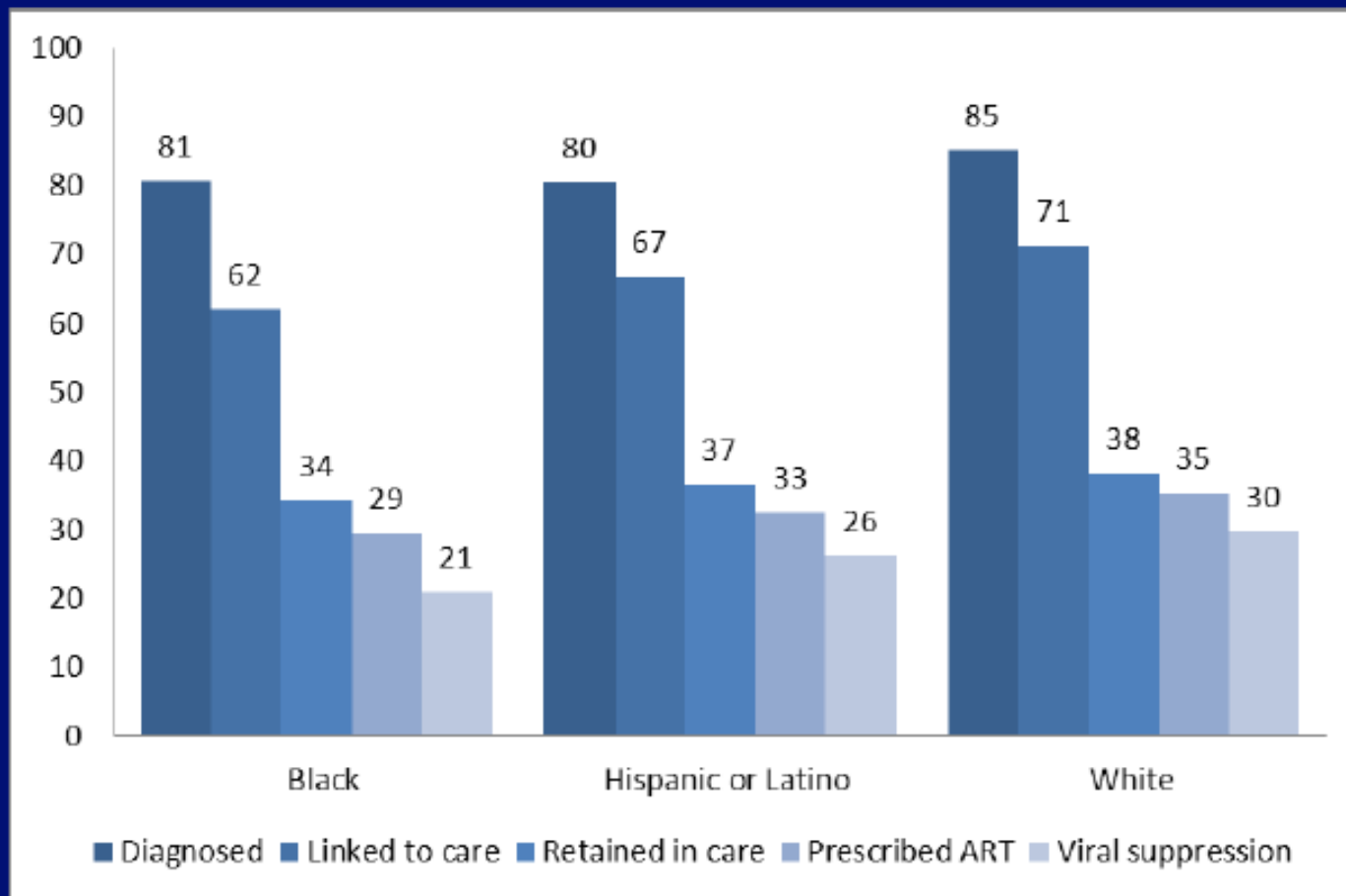


The Cascade By Demographics

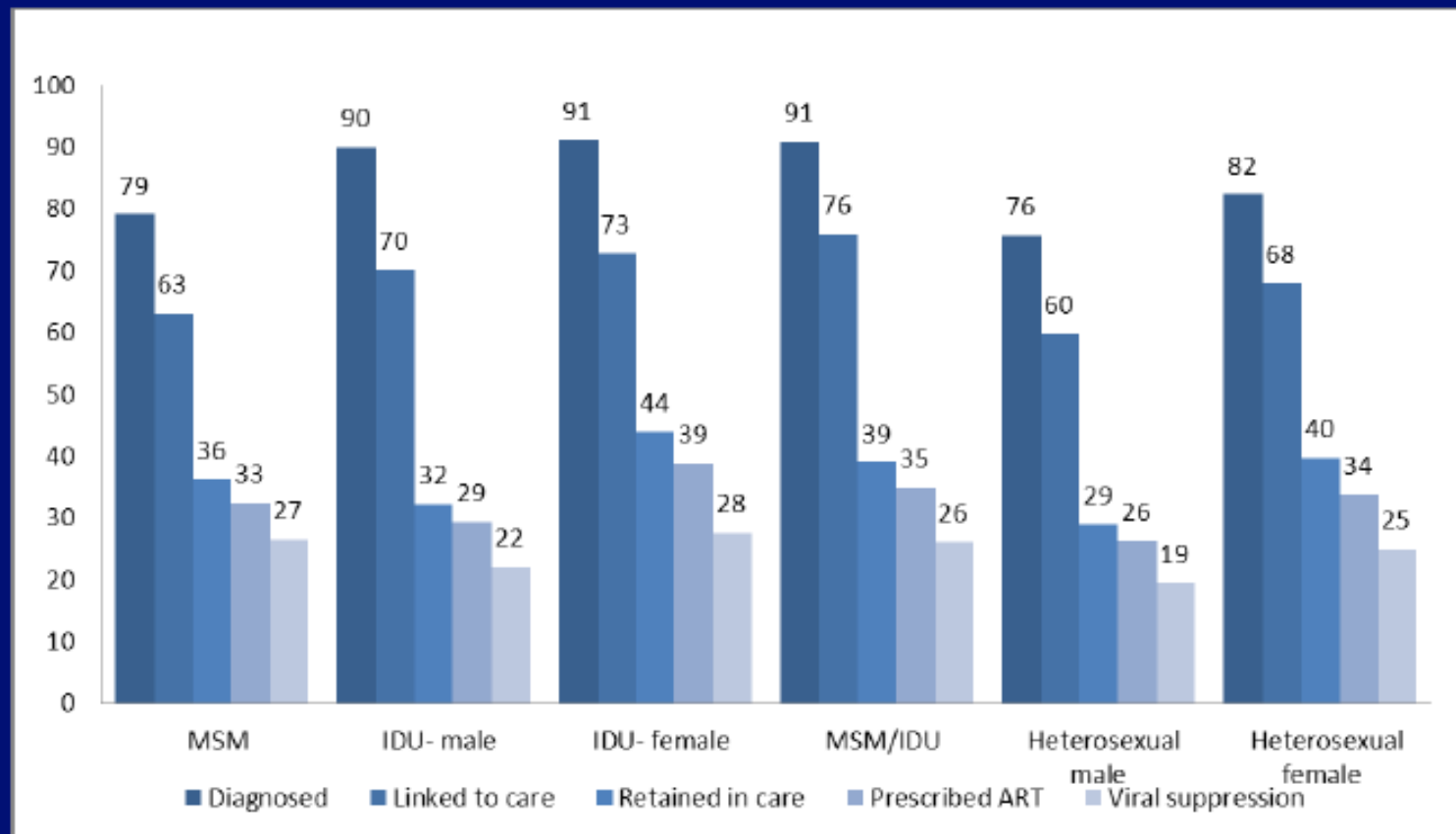
Percentage of persons with HIV engaged in selected stages of the continuum of care, by sex – United States



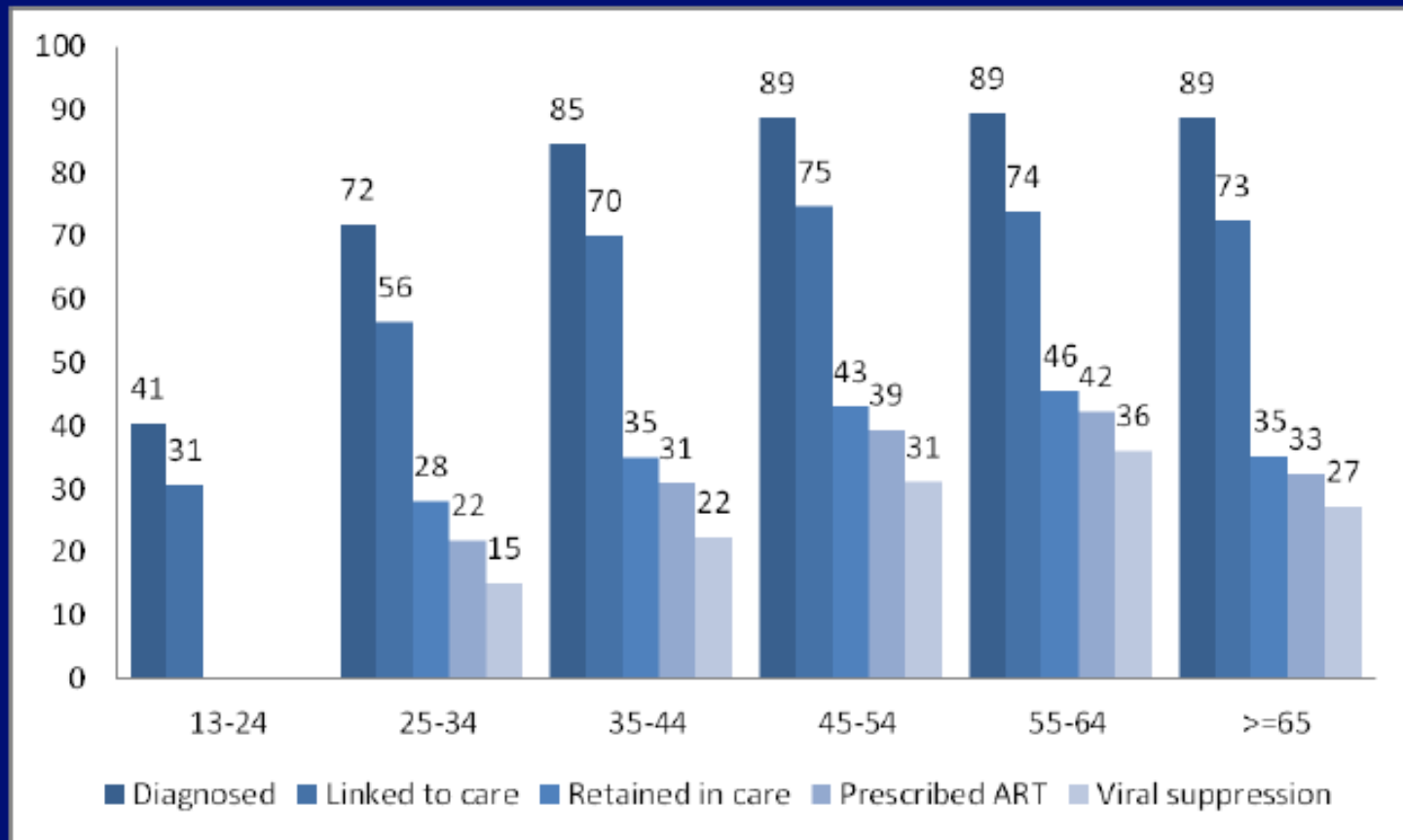
Percentage of persons with HIV engaged in selected stages of the continuum of care, by race/ethnicity – United States



Percentage of persons with HIV engaged in selected stages of the continuum of care, by transmission category – United States

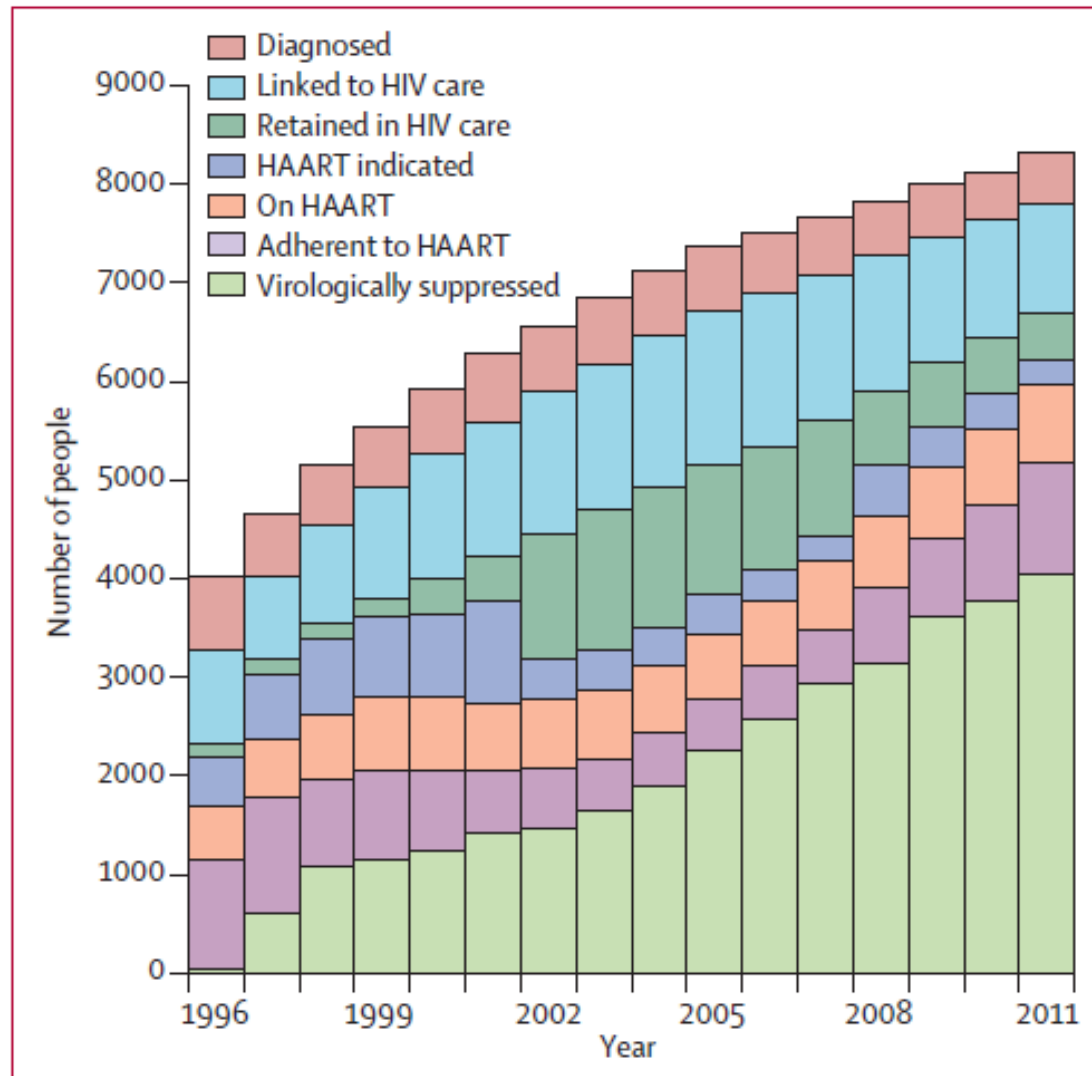


Percentage of persons with HIV engaged in selected stages of the continuum of care, by age – United States

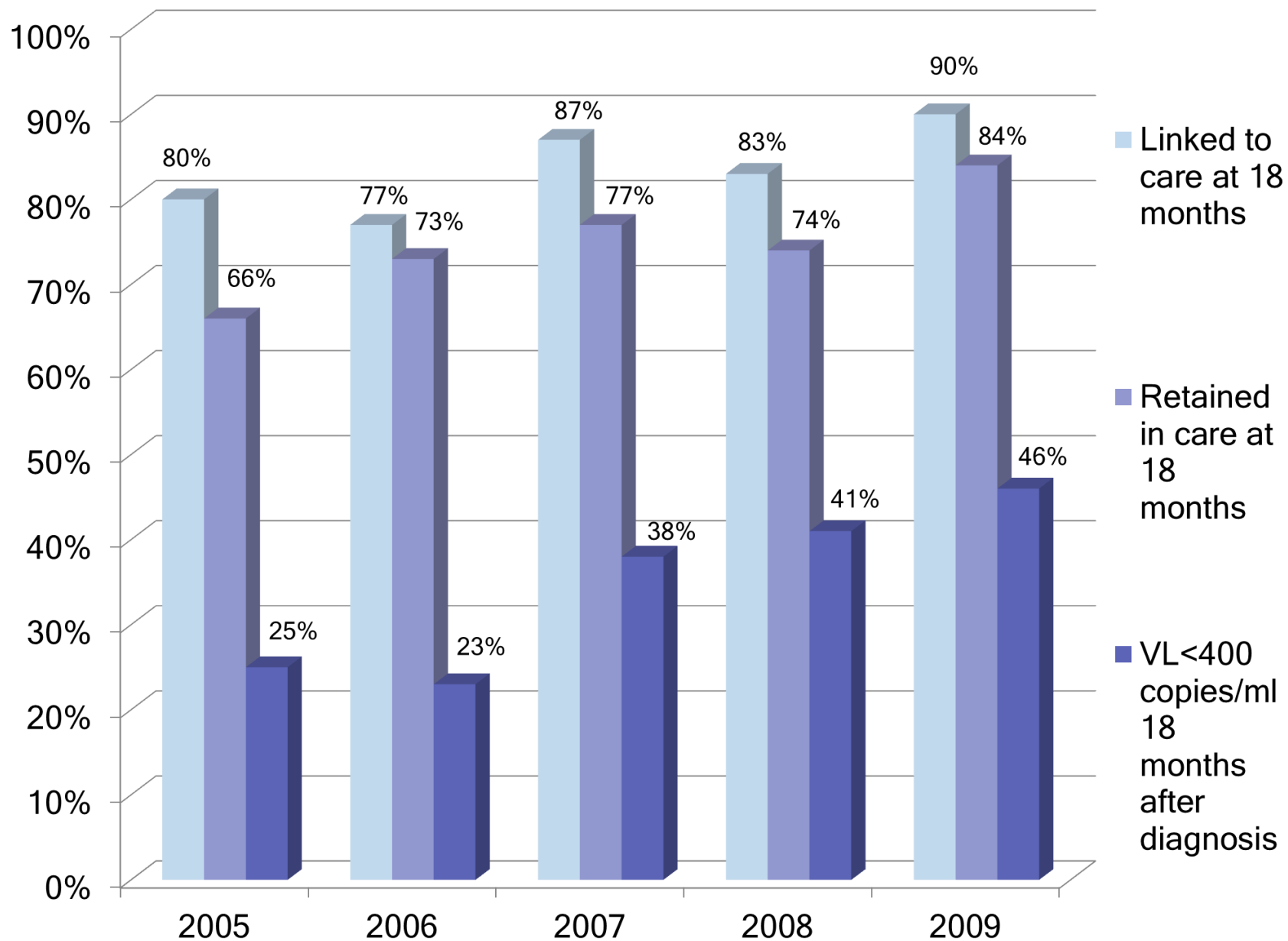


The HIV Care Cascade Over Time

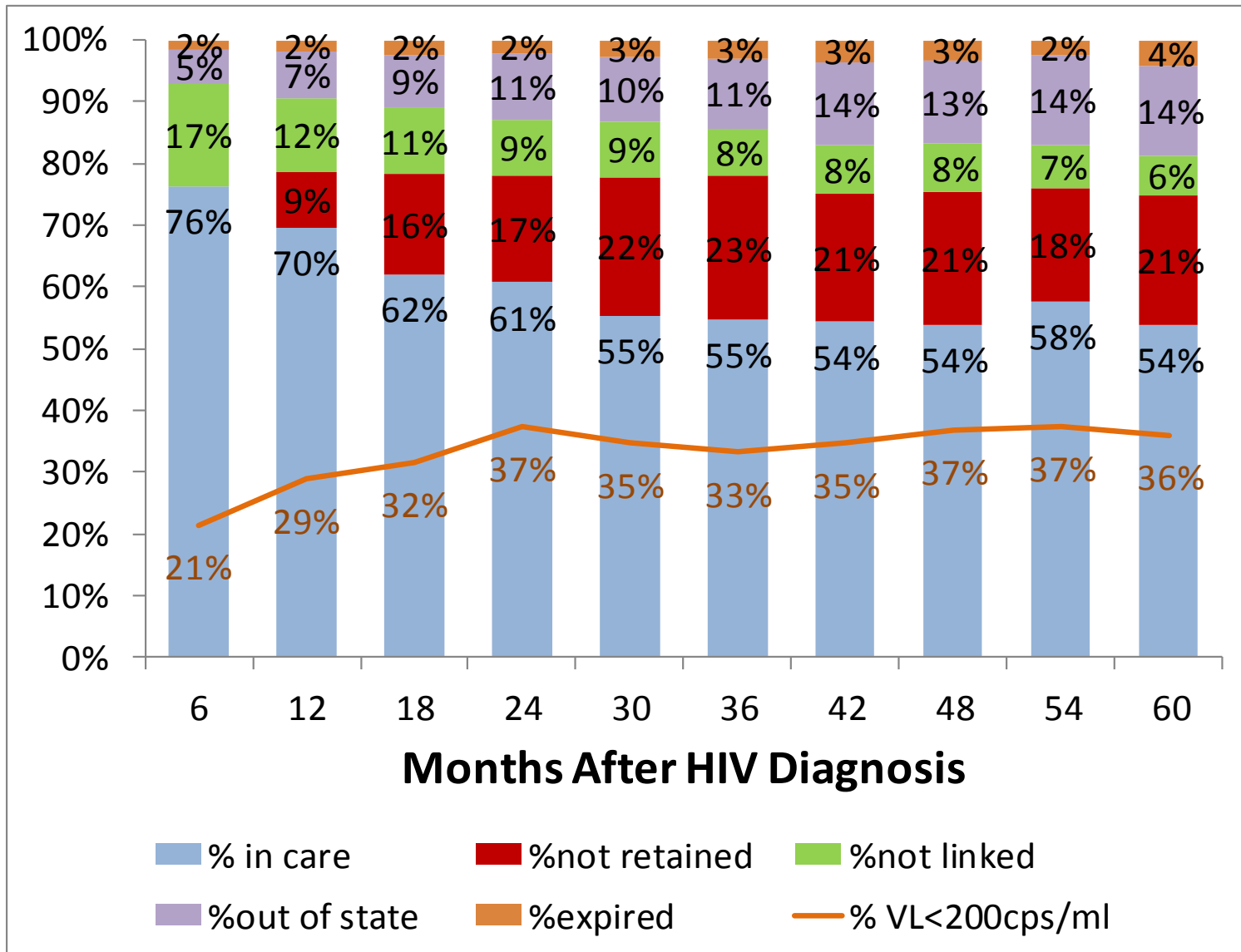
The Cascade of HIV Care in British Columbia, Canada, 1996-2011



Engagement in HIV care in Denver by year of Diagnosis

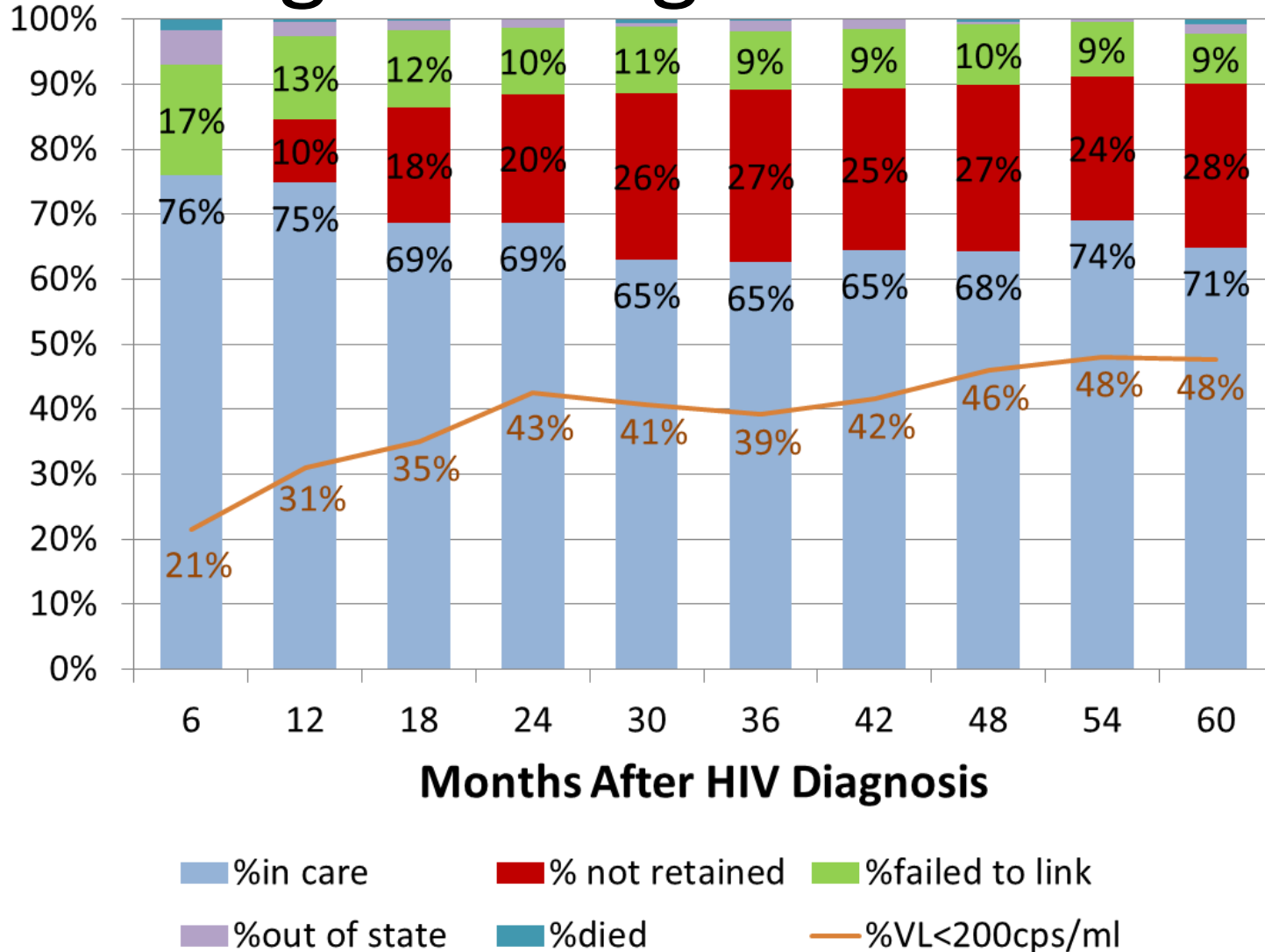


Denver Cascade over Time



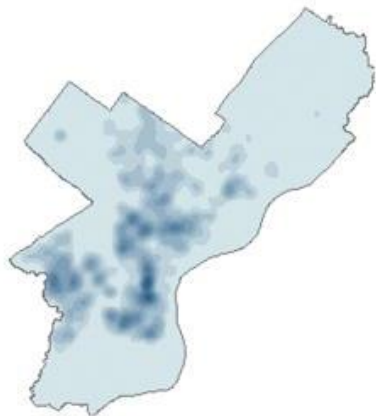
Denver Cascade over Time

Censoring Out-Migration and Death

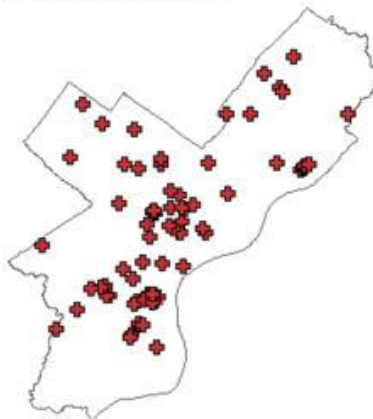


Mapping Engagement in Care

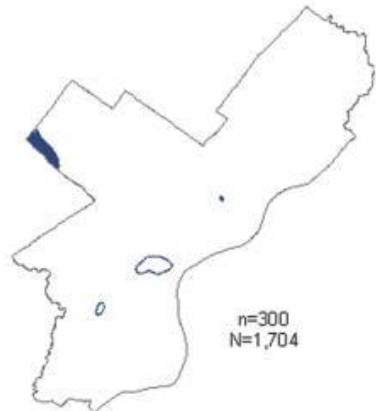
Geographic Pattern Analysis of HIV Medical Care Engagement,
2008-2009 Diagnoses (excluding prison cases), Philadelphia, PA



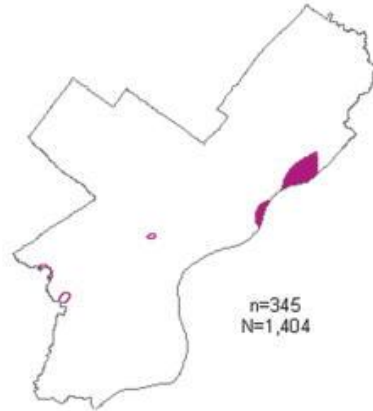
A1. Kernel Density of Cases Diagnosed in 2008 and 2009



A2. HIV/AIDS Medical Care Sites



A3. Persons Not Linked to Care



A4. Persons Not Linked to Care w/in 90 Days



A5. Persons Not Retained in Care



A6. Persons Not Virally Suppressed

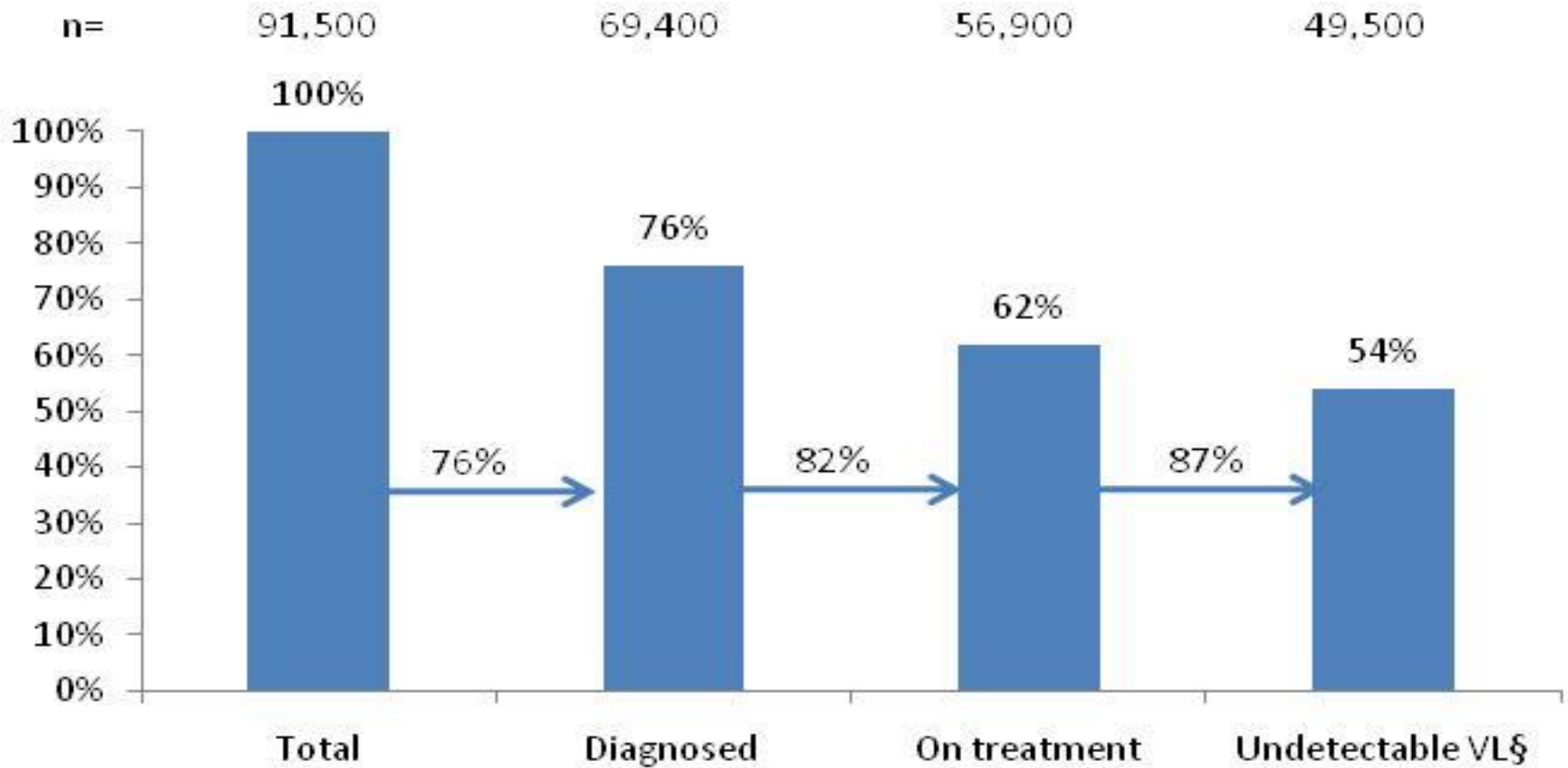
Case Density, Care Location
and Pattern Analyses in
Philadelphia 2008-09

**Behind the Cascade:
Analyzing Spatial
Patterns Along the HIV
Care Continuum**

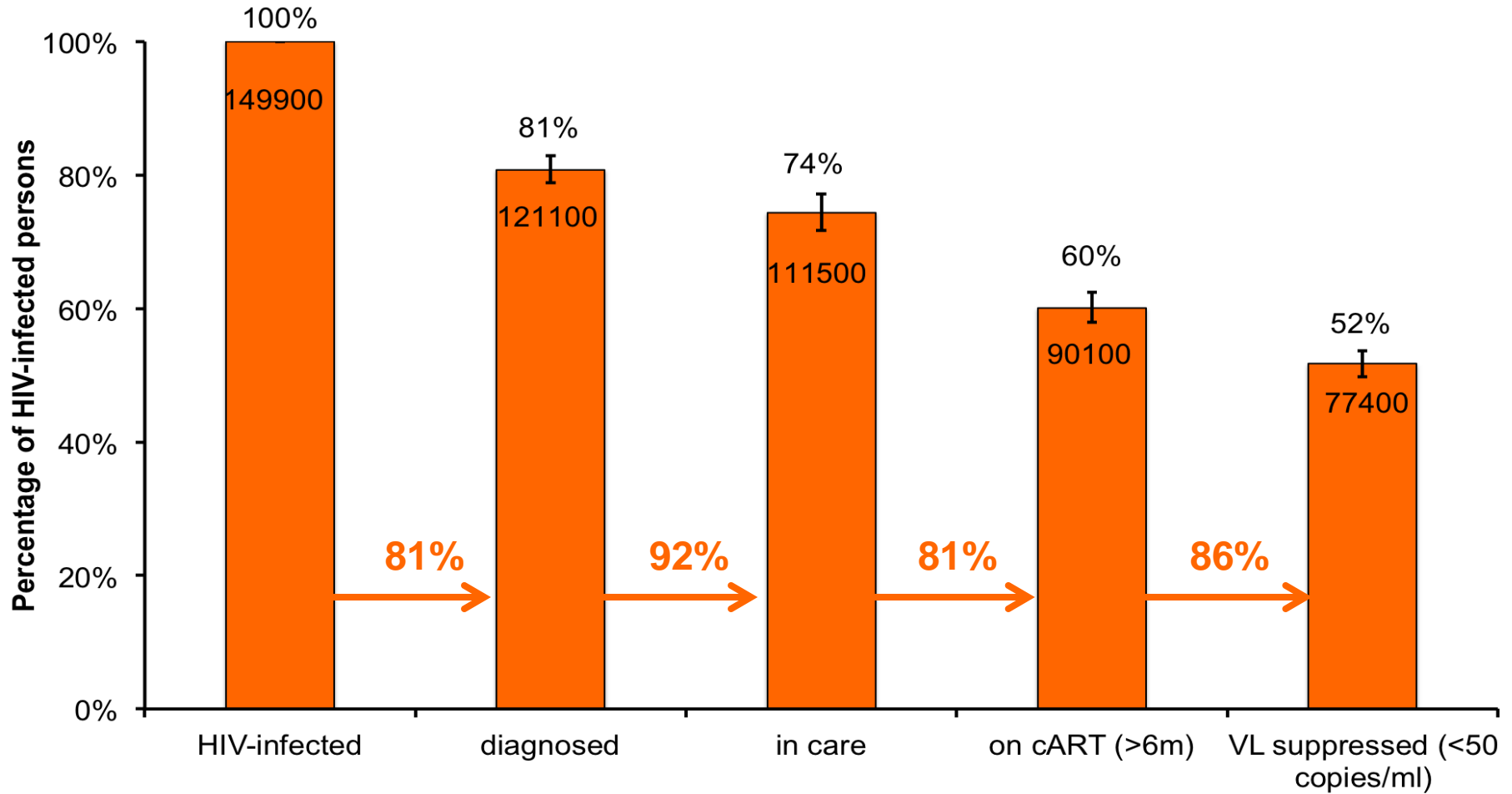
JAIDS 2013;64:S42-51.

The Cascade in Different Health Care Systems

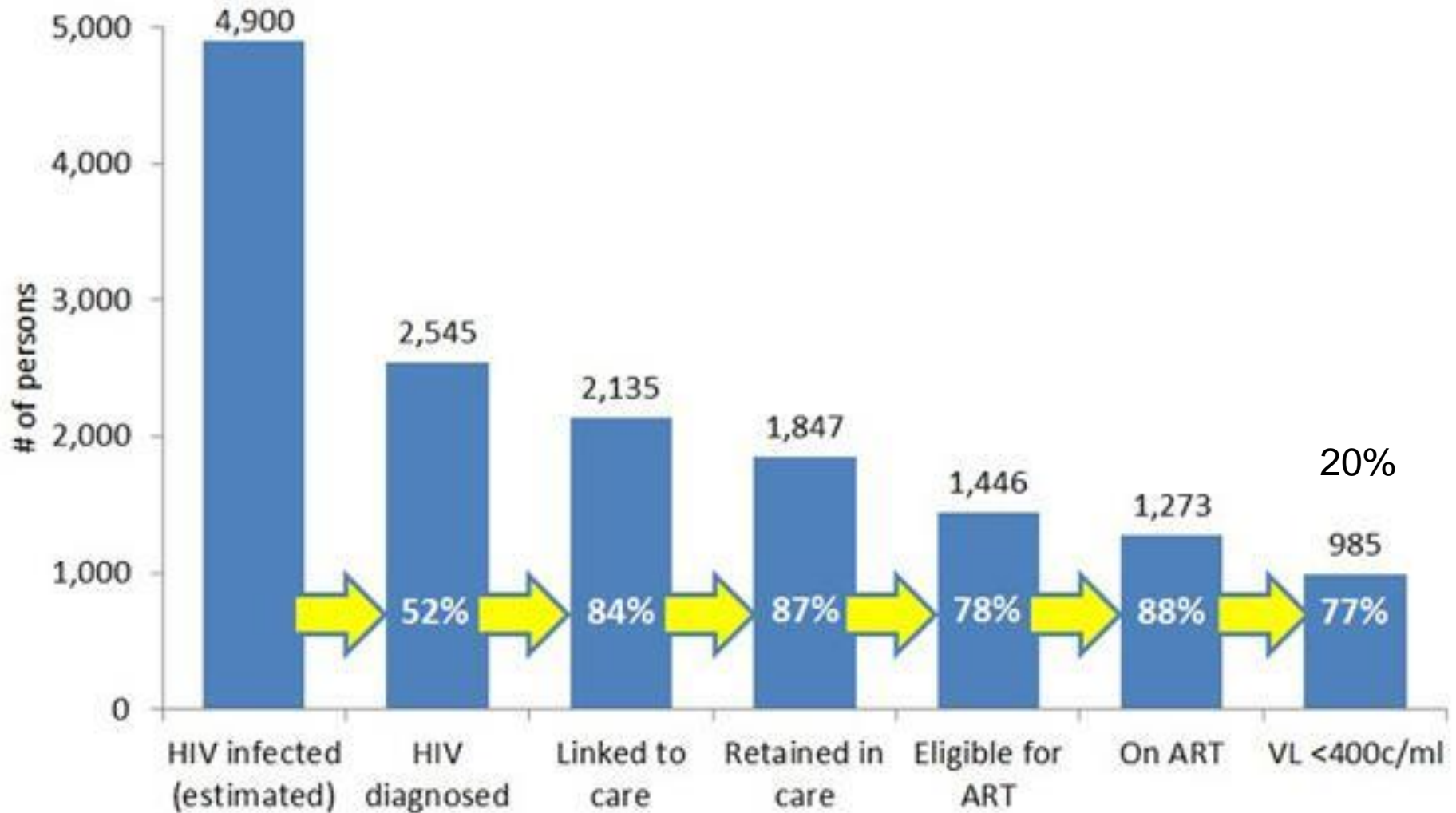
The treatment cascade among HIV positive people in the UK:2010



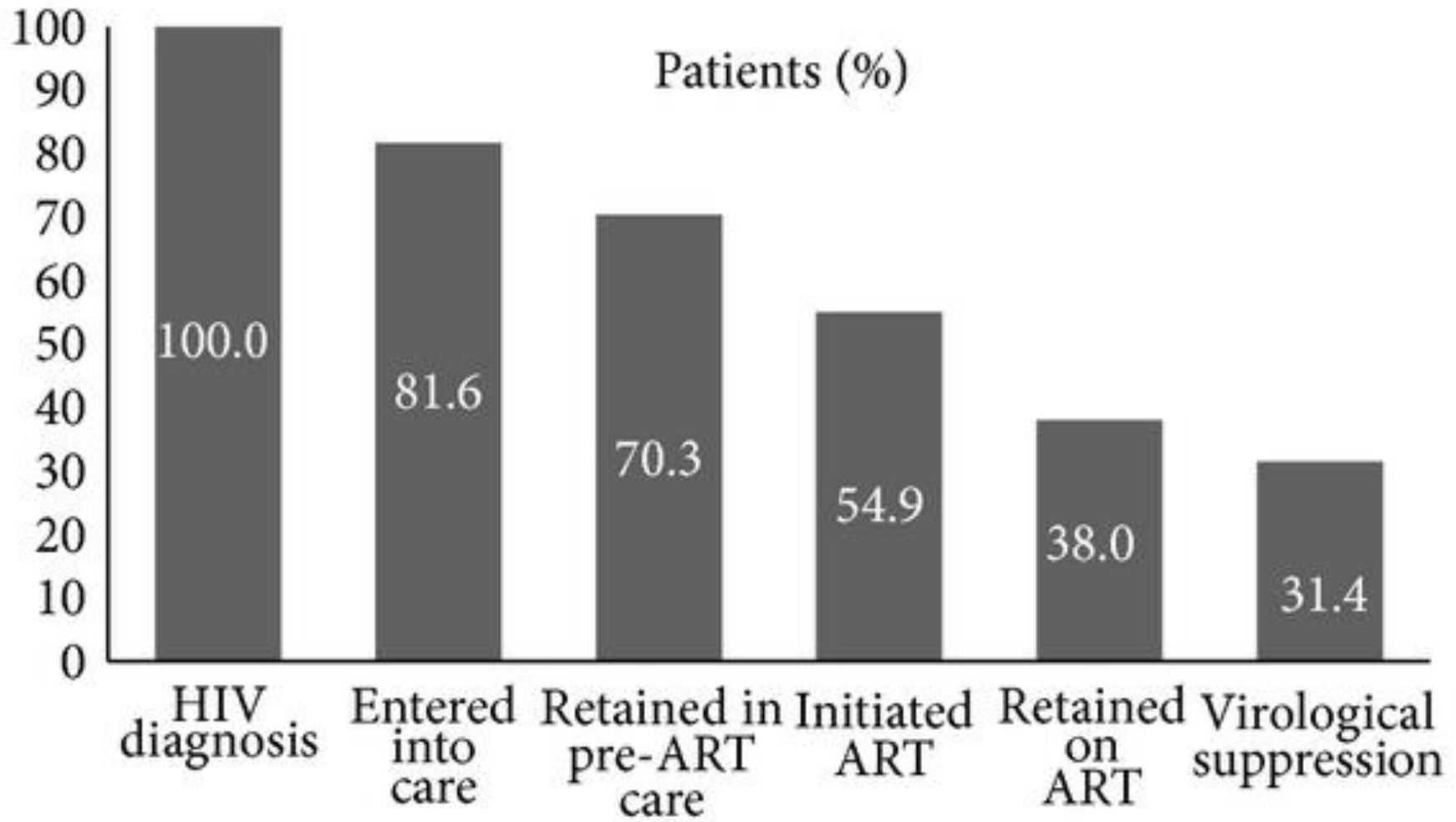
Engagement in HIV Care in France in 2010



The cascade of care in the eastern European country of Georgia



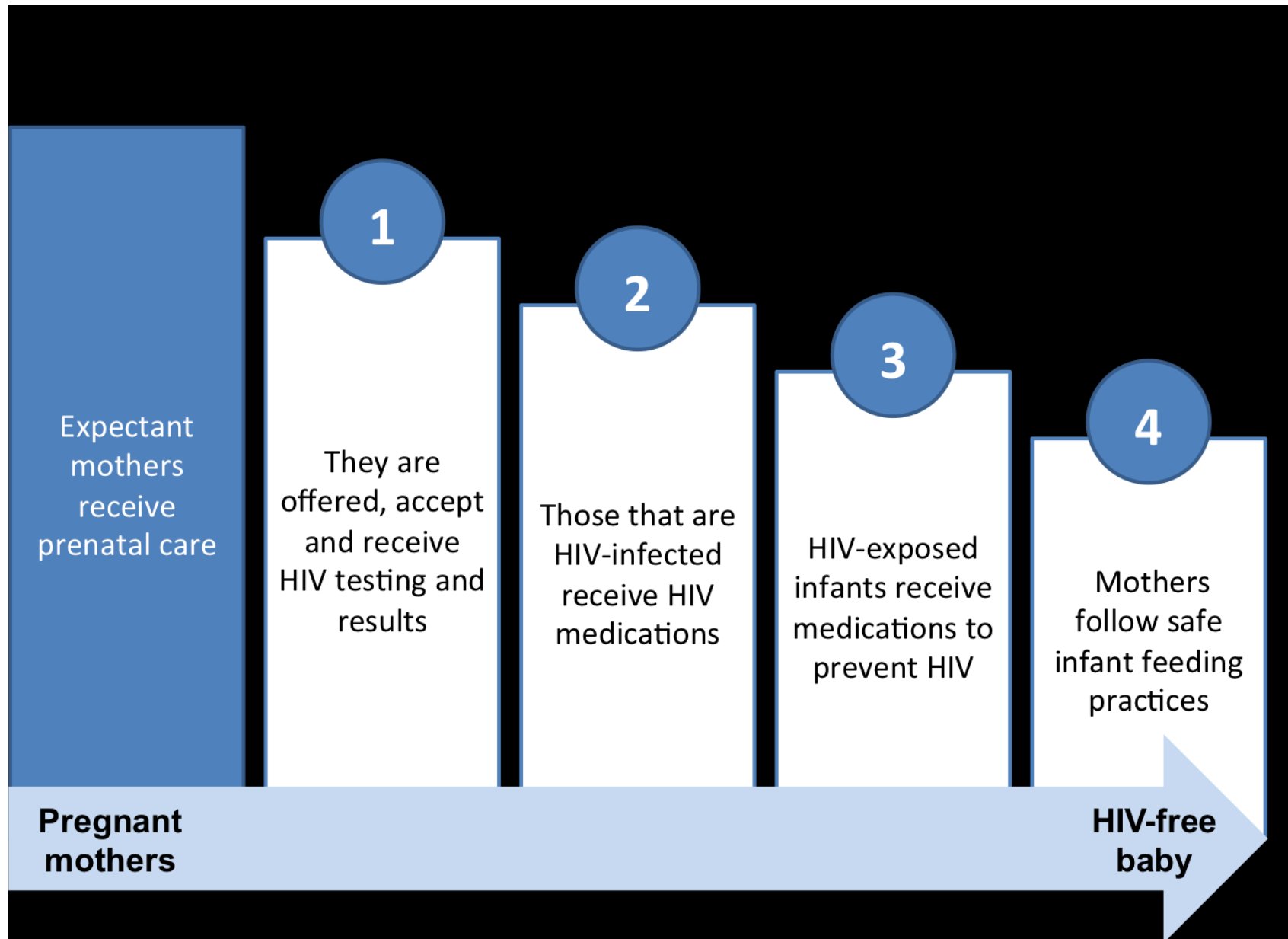
India Cascade of Care after HIV Diagnosis



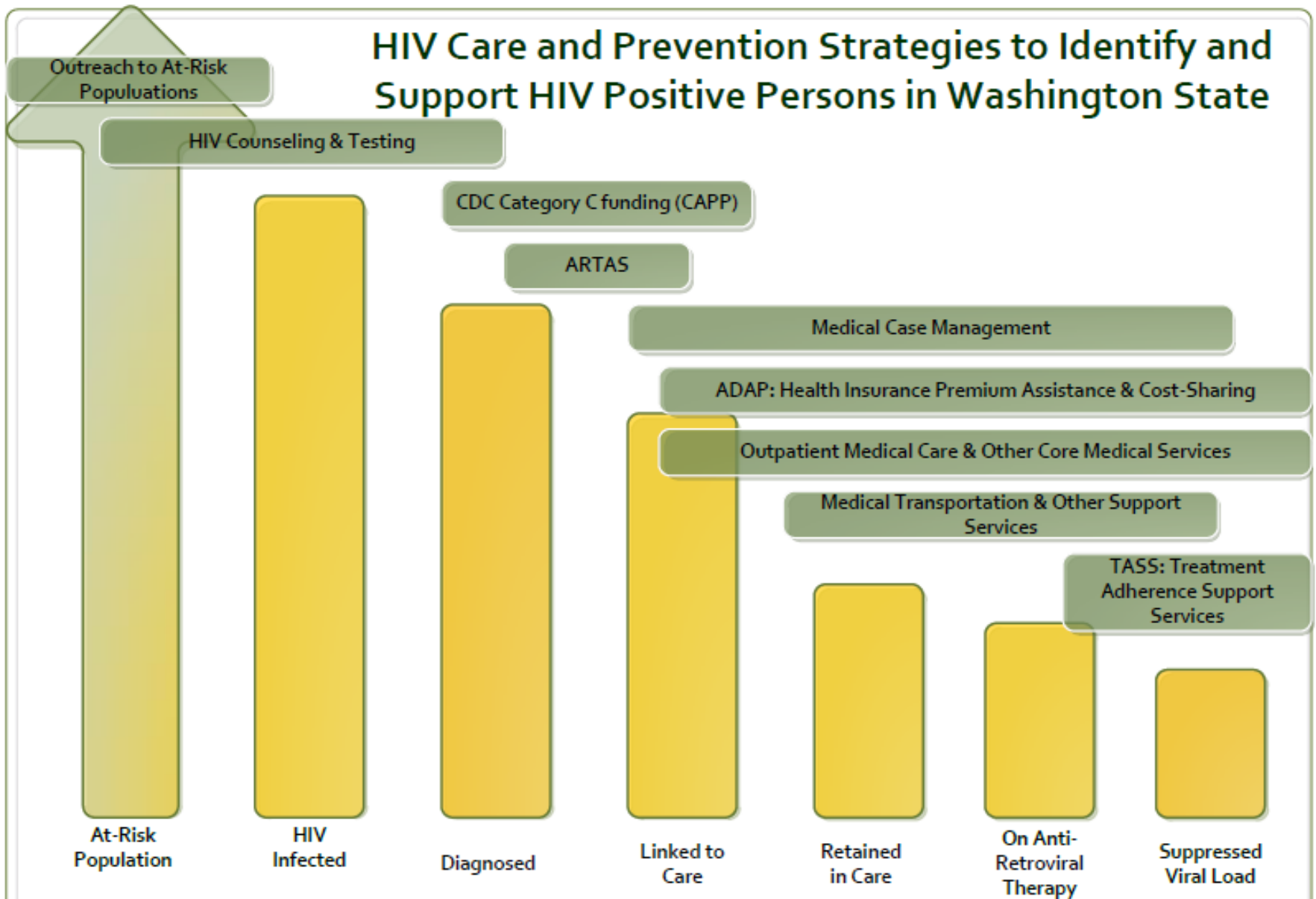
ART, antiretroviral therapy.

Other HIV Care Cascade Uses

UPENN: PMTCT Cascade of HIV Care



HIV Care and Prevention Strategies to Identify and Support HIV Positive Persons in Washington State

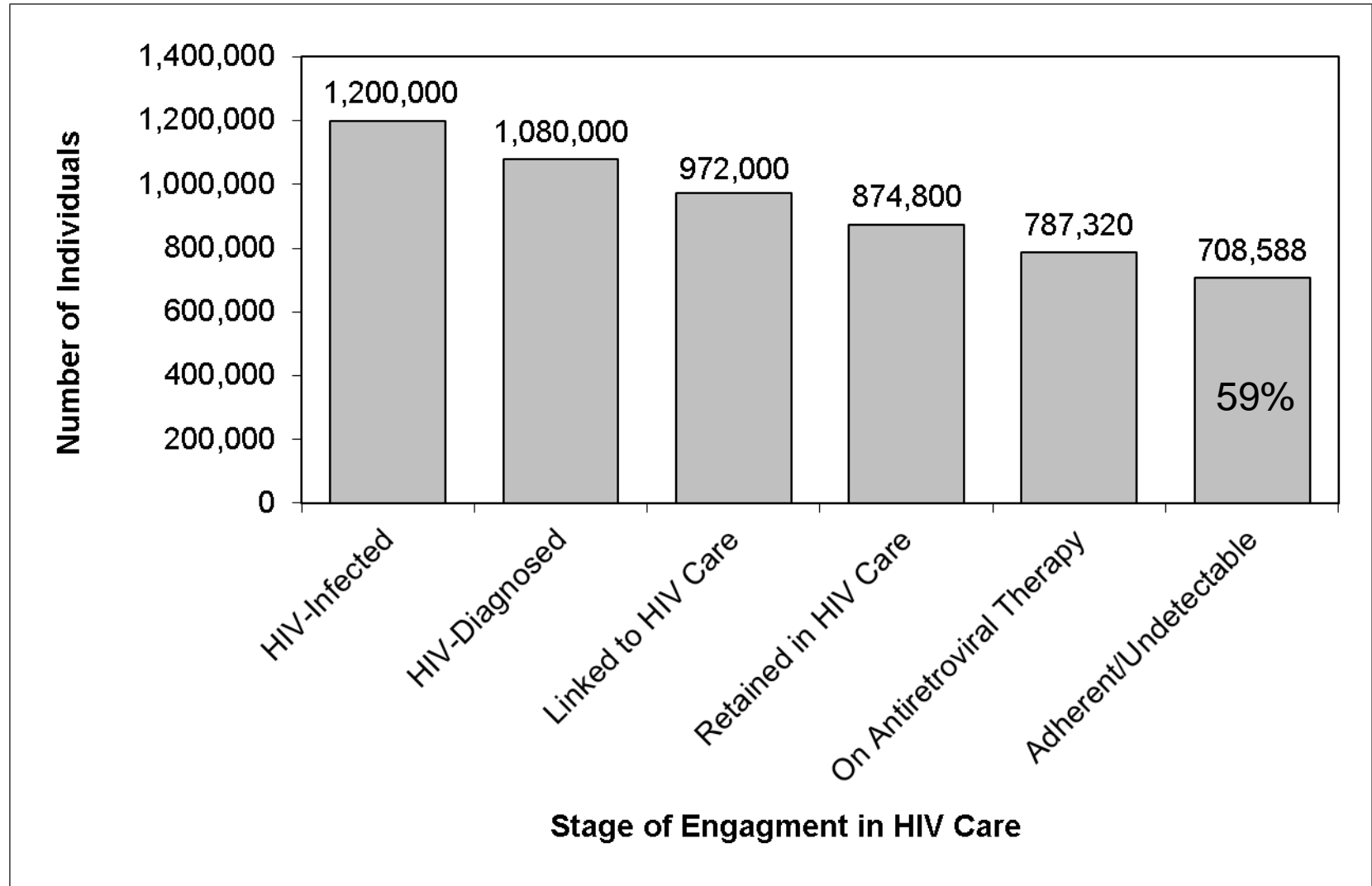


Source: Adapted from CDC "HIV in the United States – Strategy of Care" July 2012; Kaiser Report "Updating the Ryan White HIV/AIDS Program for A New Era: Key Issues & Questions from the Future" April 2013; Service Definitions from HRSA, HAB, 2012 Annual Ryan White HIV/AIDS Program Services Report (RSR) Instruction Manual.

Conclusions

- Engagement in HIV care is critical for individual and population level HIV outcomes
- HIV Care cascades give a snapshot view of engagement in HIV care
- HIV Care cascades allow jurisdictions to understand where to focus resources for intervention
 - Steps in the cascade
 - Sub-populations
 - Geographic locations
- HIV Care cascades over time help jurisdictions understand the effectiveness of interventions

The United States 90% HIV Care Cascade



Thank You

Questions?