Improvements in Retention in Care and Viral Suppression: Results from the First Year of the Medical Care Coordination Program in Los Angeles County

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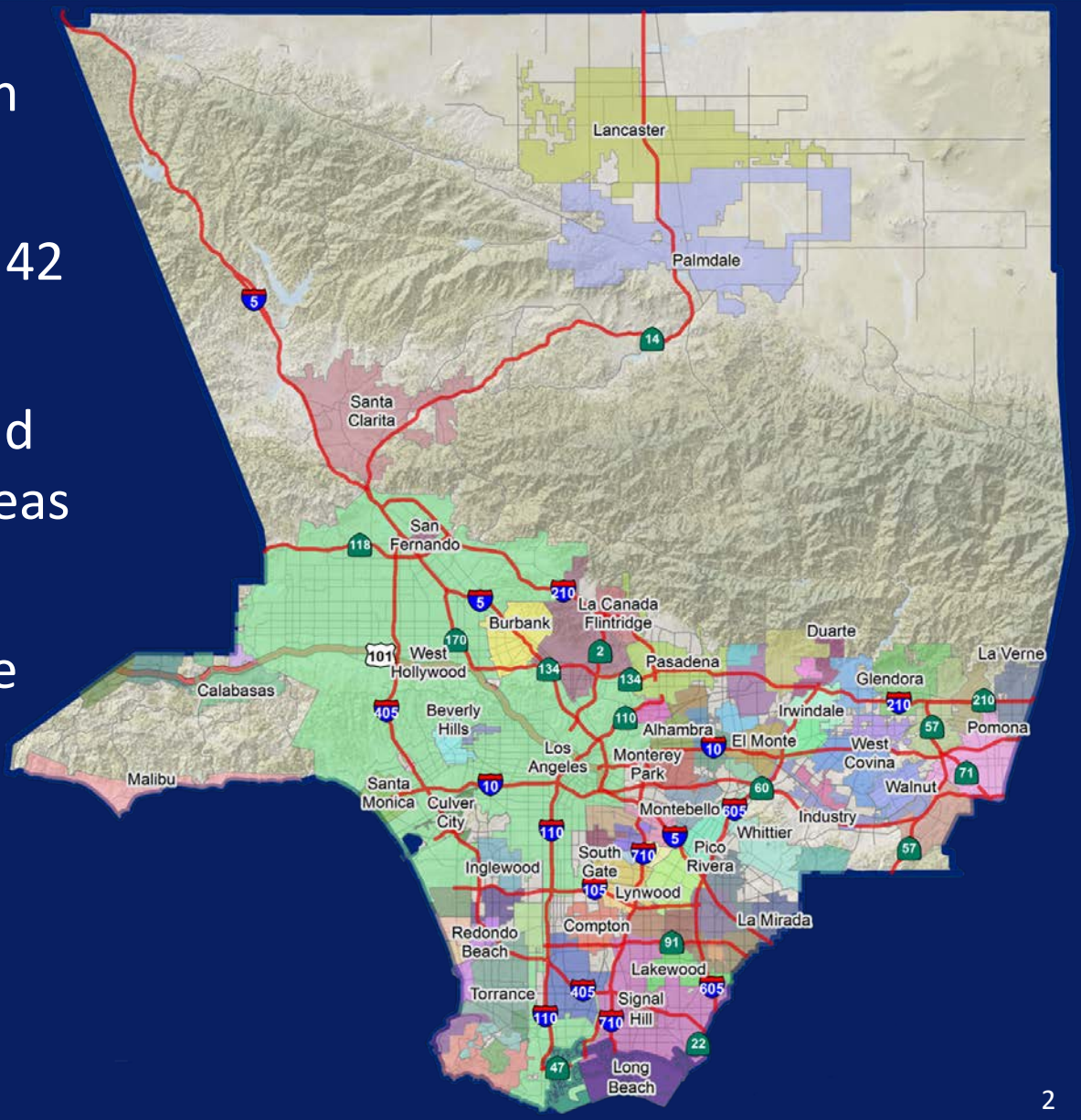
Los Angeles County

- Most populous county in the U.S.
- Greater population than 42 individual states
- 88 incorporated cities and many unincorporated areas
- One of the most racially/ethnically diverse in the U.S.
- Urban, suburban, and rural areas



County of Los Angeles Public Health
Division of HIV and STD Programs

Background

- 58% of 47K PLWHIV in LA County are retained in care
- 56% have suppressed viral load (<200 copies/mL)

- In 2013, the LAC Division of HIV and STD Programs (DHSP) implemented the "Medical Care Coordination" program in its Ryan White (RW)-funded HIV medical homes to identify and manage patients' medical and psychosocial needs
  - Provide clinics with additional support
  - Shift from stand alone case management services
  - Roll-out coincided with early ACA implementation in CA

Overview of Medical Care Coordination (MCC)

- MCC designed to be an **integrated approach** to combine medical and psychosocial support services **to improve retention in care and viral suppression**
- Delivered by a clinic-based, **multidisciplinary team**:
  - Registered nurse
  - Licensed social worker (MSW)
  - Case worker (BA/BS)

Key MCC Activities

- **Screen** clinic's HIV patient panel to identify patients with poor outcomes
  - Not in HIV care (≥6 months)
  - Patients not on ART
  - On ART with viral load >200 copies/mL
  - Diagnosed with an STD in the past 6 months
  - Multiple medical and/or psychosocial co-morbidities
  - Referred by medical care provider
- **Assess and identify** medical and psychosocial needs at least every 6 months
- **Link** patients with identified need to support services or deliver brief interventions

MCC Assessment and Patient Acuity

- Assessment identifies medical and psychosocial factors that may affect patient's health across 12 domains

-Health status	- Quality of Life
-Adherence	- Access to Care
-Housing	- Financial
-Legal/End of Life	- Transportation
-Risk Behaviors	- Alcohol/Drug Use
-Mental health	- Support Systems

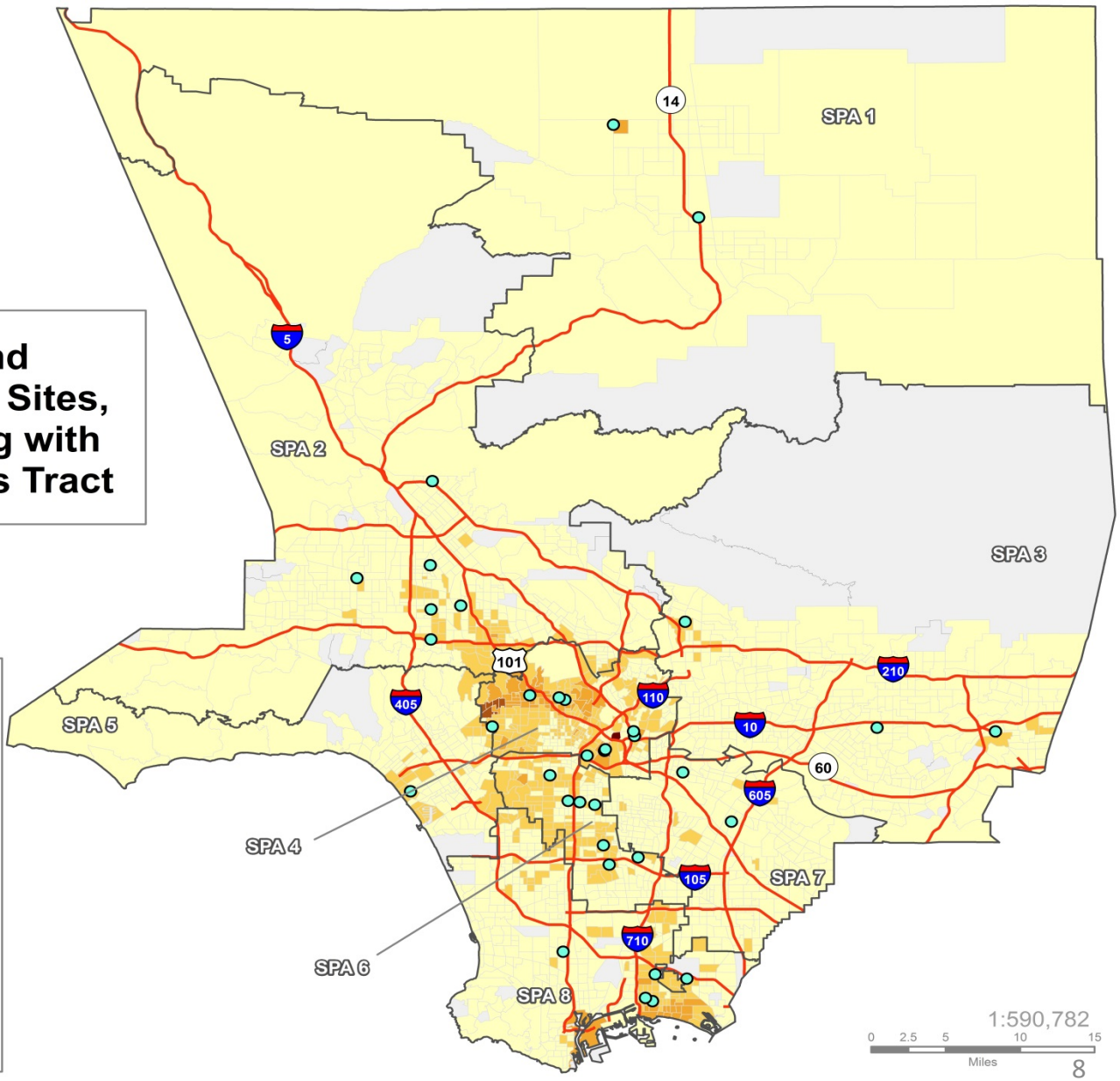
- Assessment performed at least every 6 months
  - Calculates patient acuity
  - Guides service plan development and use of interventions
  - Intensity of follow-up based on patient acuity

Population

- 25 RW-funded medical homes managed by 19 agencies in LAC
- All patients, regardless of insurance status, are eligible for MCC services
- 1,204 patients enrolled in MCC from January 1, 2013 through December 31, 2013
  - Enrolled=an initial assessment reported in DHSP RW data system during the evaluation study period

Revised 11/24/14

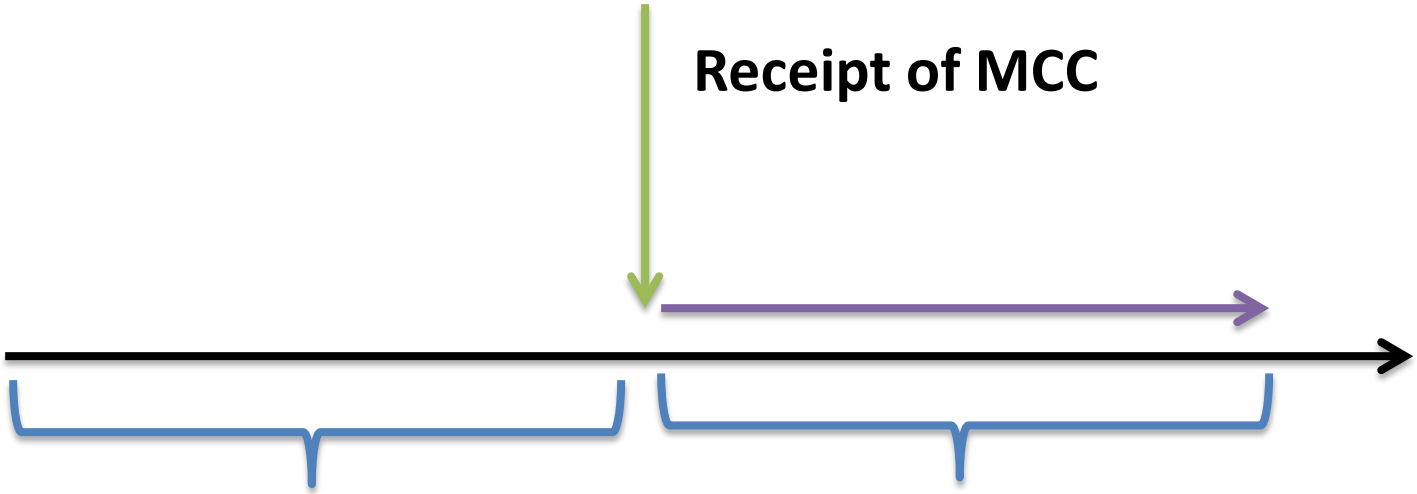
Medical Care and Coordination (MCC) Sites, 2013 Persons Living with HIV/AIDS by Census Tract



12-Month Evaluation Design

- A pre-and post-test design was used to evaluate the impact of MCC on viral suppression and retention after 12 months

Enrollment (Jan-Dec 2013)



MCC Data Sources

- **Casewatch:**

  Required data reporting system for Ryan White Part A contracted providers

  - Demographic, assessment and service data
  - Laboratory data for those patients missing data in surveillance

- **HIV Surveillance Laboratory Data (iHARS):**

  Laboratory data reported to DHSP for HIV surveillance in LAC

  - Viral load, CD4 and resistance testing dates and results

Outcomes and Methods

- **Outcome Measures:**
  - Viral Suppression: Most recent viral load <200 copies/mL in the second half of each 12-month observation period
  - Retention in care: Estimated as 2 or more CD4, viral load or resistance tests at least 90 days apart in the 12-month observation period

- **Statistical Methods:**
  - Analysis of outcome measures conducted using intent-to-treat approach in which missing values=failure
  - Comparison of outcomes measures pre-and post 12 months were performed using McNemar's tests for paired data

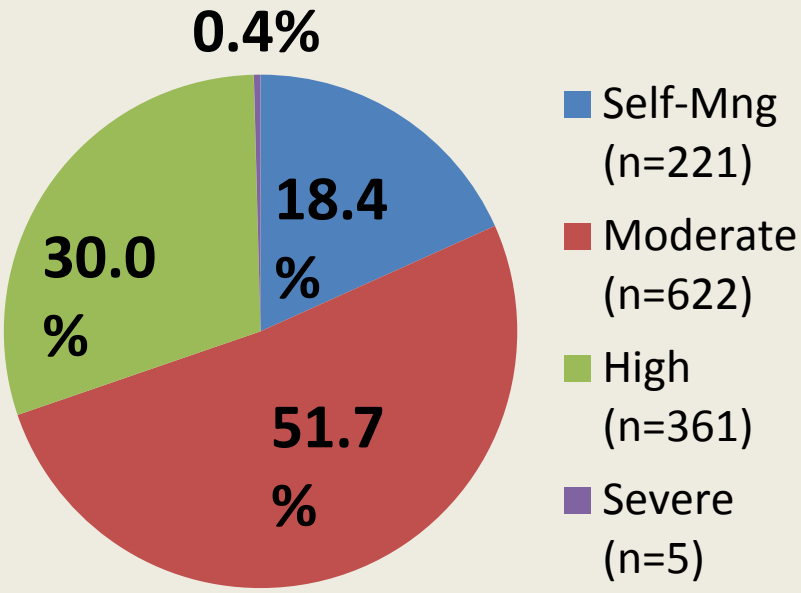
Patient Characteristics at Enrollment (n=1,204)

- **Race[1]:** **49% Latino**, 26% African-American, 21% White, 4% other
- **Gender[1]**: **85% male**, 13% female, 2% transgender
- **Age[1]:** 51% age 40 years and older
- **Income[1]:** **78% at or below federal poverty level**
- **Language[1]:** 23% Spanish-speaking
- **Sexual Risk[1]:** **23% diagnosed with an STD in past 6 months**
- **HIV History and Care[1]:**
  - **7.7 mean years since HIV diagnosis[1] (SD=7.3 years)**
  - **31% most recent viral load <200 copies/mL[2]**
  - **73% currently prescribed ART[1]**
- **Psychosocial[3]**
  - **64% current drug/alcohol use**
  - **40% met screening criteria for depressive disorder (PHQ-9)**

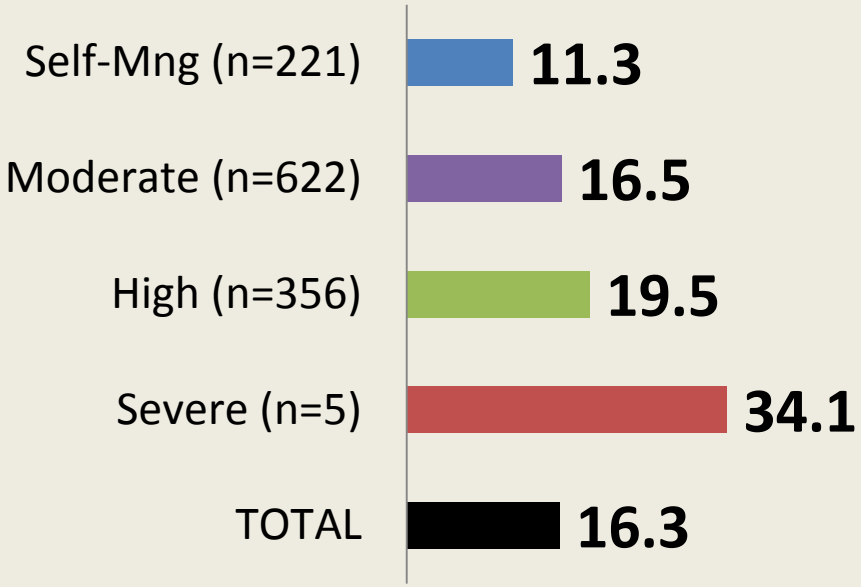
[1]Provider reported; [2]laboratory report [3]patient self-report

Patient Acuity Level and Service Delivery Hours (n=1,204)

Patients by Acuity Level

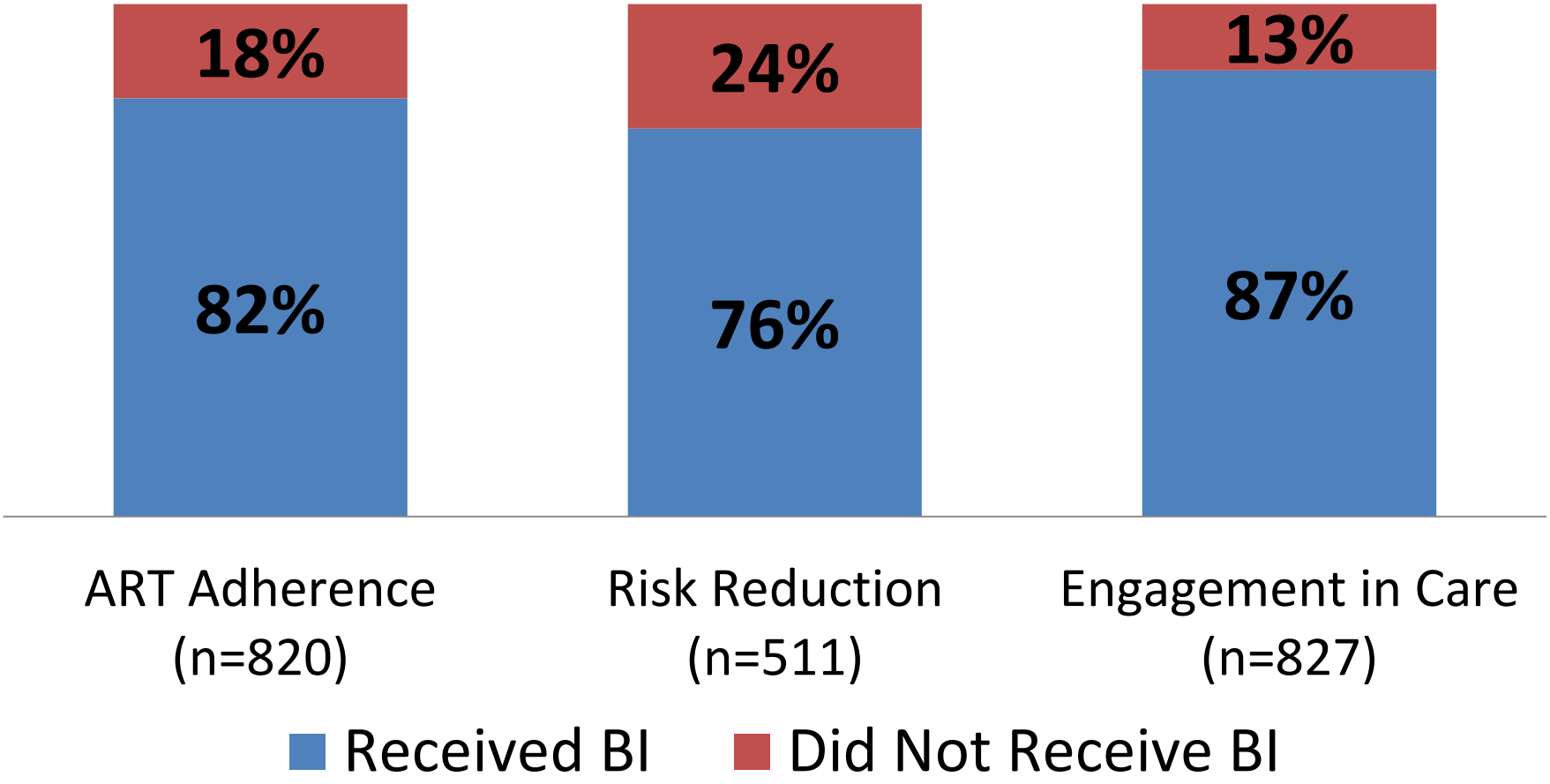


Median Service Hours per Patient by Acuity Level



Data source: *DHSP, Casewatch, Years 23-24 and MCC Assessment, Jan 2013-December 2013*

Receipt of Brief Interventions (BI) among Patients with Identified Needs



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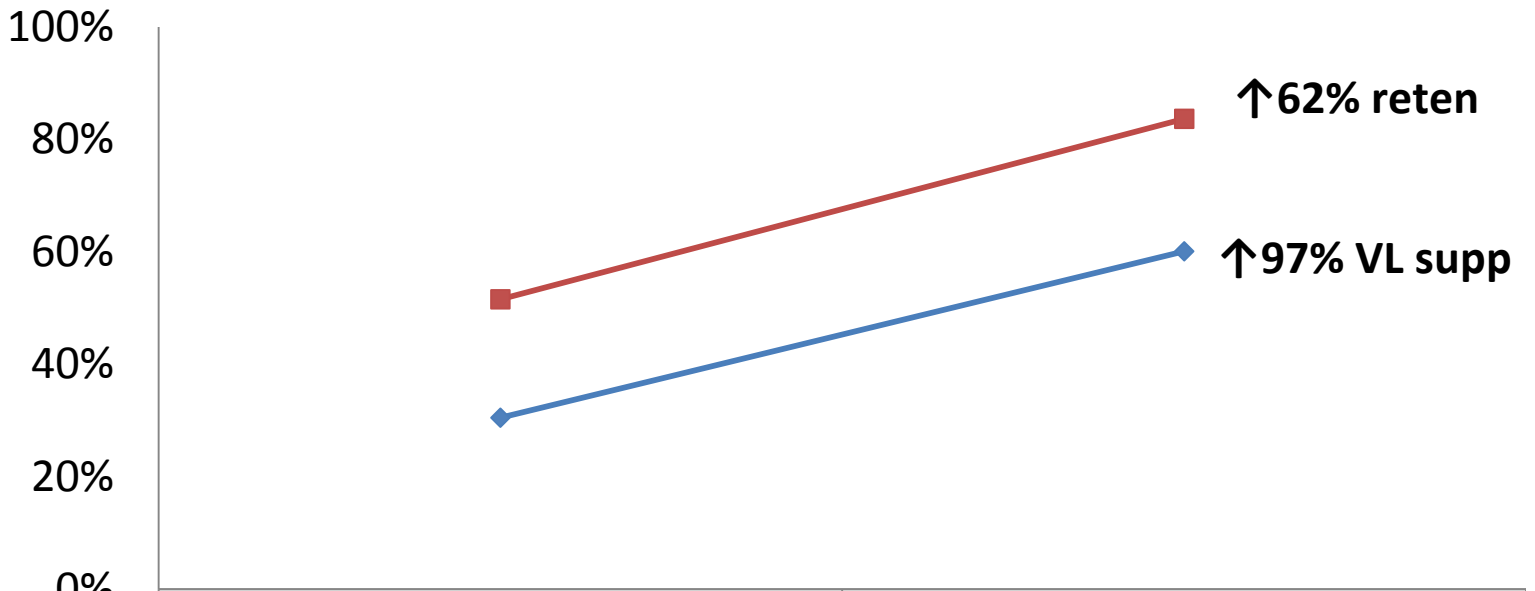
12-Month Outcomes for All MCC Patients

Changes in Viral Suppression and Retention 12m Pre- and Post-MCC (N=1,204)



	12m Pre-MCC	12m Post-MCC*
Viral Suppression	31%	60%
Retention in Care	52%	84%

Data source: DHSP, Casewatch, Years 22-24; DHSP, HIV Surveillance data 2012-2014, as of March 2015

*Significant difference from Pre- to Post-MCC ($p<0.001$)

12-Month Outcomes for Vulnerable Populations

- **Transgender (n=26)**
  - 112% improvement in viral suppression (31% to 65%)*
  - 110% improvement in retention (39% to 81%)*
- **Youth Aged 12-24 (n=125)**
  - 132% improvement in viral suppression (25% to 58%)*
  - 138% improvement in retention (34% to 80%)*
- **Previously Incarcerated (n=461)**
  - 73% improvement in viral suppression (32% to 55%)*
  - 45% improvement in retention (56% to 81%)*
- **Homeless at Enrollment (n=110)**
  - 50% improvement in viral suppression (31% to 65%)*
  - 110% improvement in retention (29% to 44%)*

Data source: DHSP, Casewatch, Years 22-24; DHSP, HIV Surveillance data 2012-2014, as of March 2015
*Significant difference from Pre- to Post-MCC ($p<0.01$)

Limitations

- Intent-to-treat approach may underestimate true effect size
- Relies on data reported by contracted providers which may be subject to reporting delay or incomplete reporting
- Individual HIV medical homes may implement additional retention in care strategies outside of MCC

Conclusions

- A clinic-based integrated care coordination program improved 12 month retention and viral suppression for all patients, including youth, homeless, previously incarcerated, and transgender persons

- MCC is a promising service that can be funded with Ryan White funds to support safety net HIV clinics to address the complex needs of their patients to improve their health outcomes

Acknowledgements

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MCC Service Guidelines and Assessment available at:
http://publichealth.lacounty.gov/dhsp/MCC.htm

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- Delivered by a clinic-based, **multidisciplinary team**:
  - Registered nurse
  - Licensed social worker (MSW)
  - Case worker (BA/BS)
- Patients are assessed to **determine acuity** – level of medical and psychosocial service need
- **Acuity drives service delivery** to support retention in HIV care:
  - **Brief interventions:** ART adherence, risk reduction, engagement in care
  - **Linked referrals:** Mental health and addiction treatment, housing, partner services