Assessing HIV Case Management Services in Palm Beach County

Weiwei Chen, PhD

Assistant Professor

Department of Health Policy and Management

Florida International University

wechen@fiu.edu

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Outline

- Scope of work
- Data
- Viral load tests
- Eligibility assessment
- Medical case management and non-medical case management activities
- Ambulatory care activities
- Summary
- Suggestions

Scope of work

- Evaluate HIV case management services provided by agencies funded by Ryan White Part A program in Palm Beach County
    - Client health outcomes (viral suppression)
    - Linkage to care
    - Retention in care
    - Medical and non-medical case management
    - Cost

Data

- Data extracted from Provide Enterprise (PE) system
  - For two consecutive grant years (Mar 1, 2017- Feb 28, 2019)
  - With shifted time intervals to mask real service dates
  - Covering over 3000 clients
  - Information from multiple forms and fields
    - Eligibility history
    - Service activities
    - Viral load test results
    - Vital status

Viral load tests

- Goals
  - Viral suppression:
    - Viral load (VL) < 200 copies/mL
      - First test
      - Last test of Year 1
      - Last test of Year 2
    - Durable viral suppression
      - Regular testing and all VLs <200 copies/mL
        - had at least 2 test results
        - the last test was more than 1 year apart from the first test
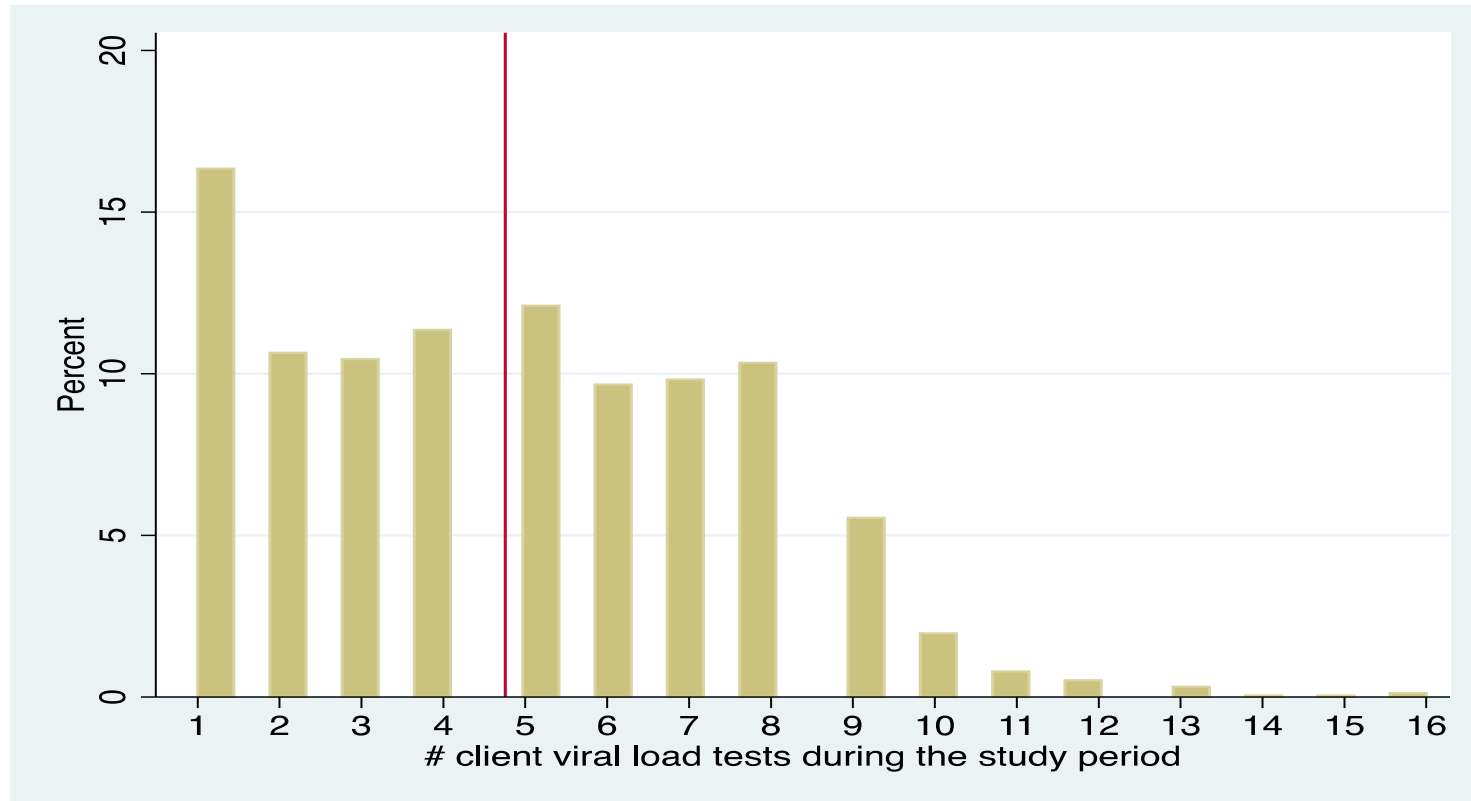
Number of viral load tests taken

Figure. Distribution of the number of viral load tests taken by clients during the study period
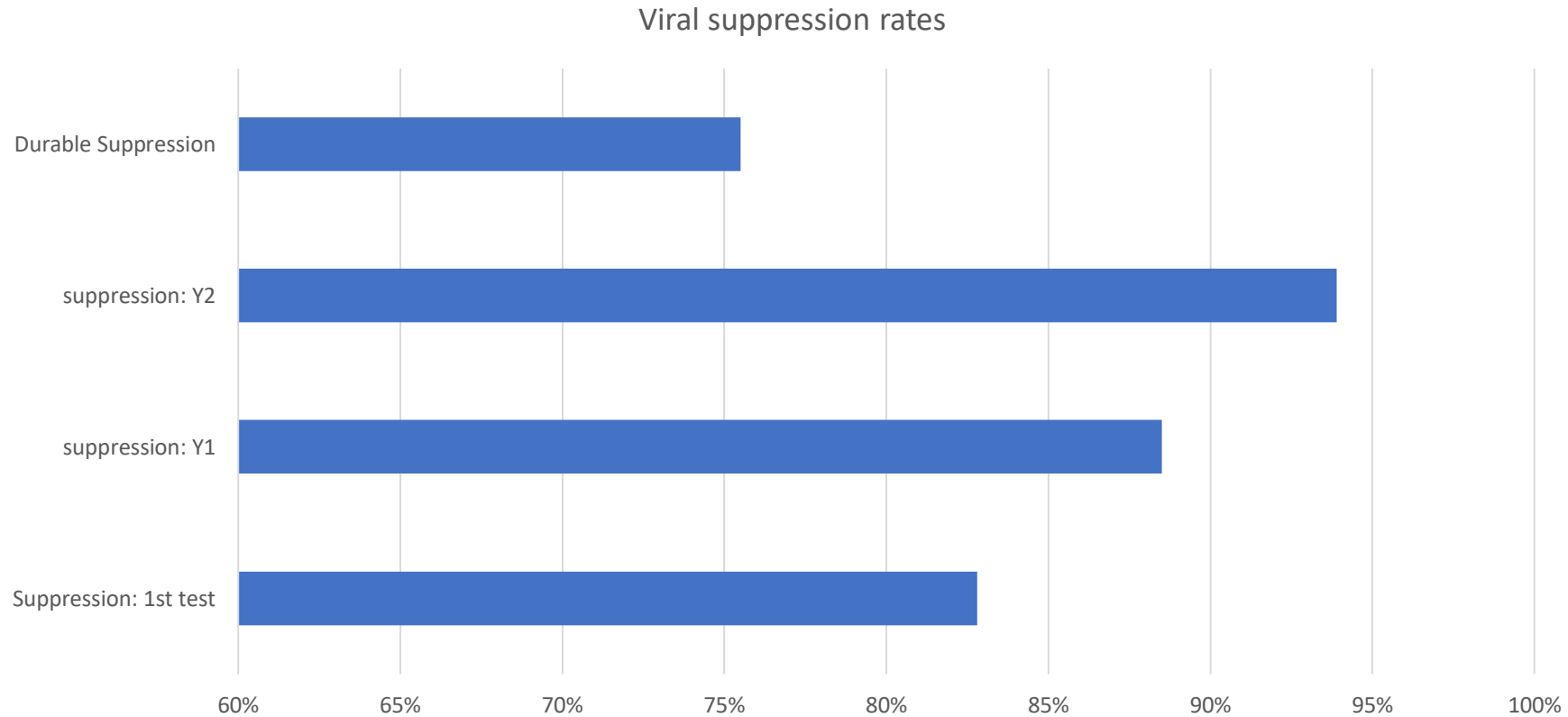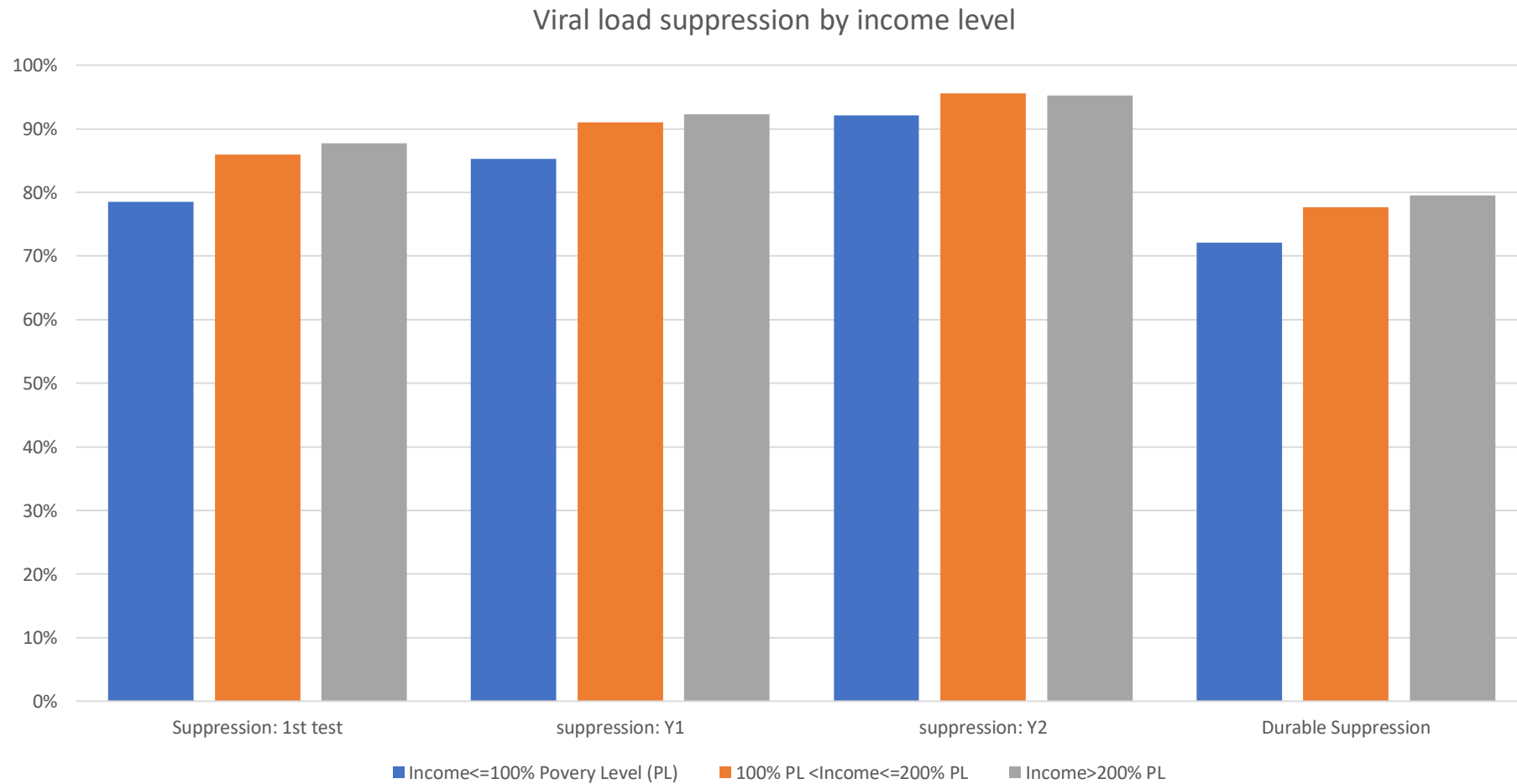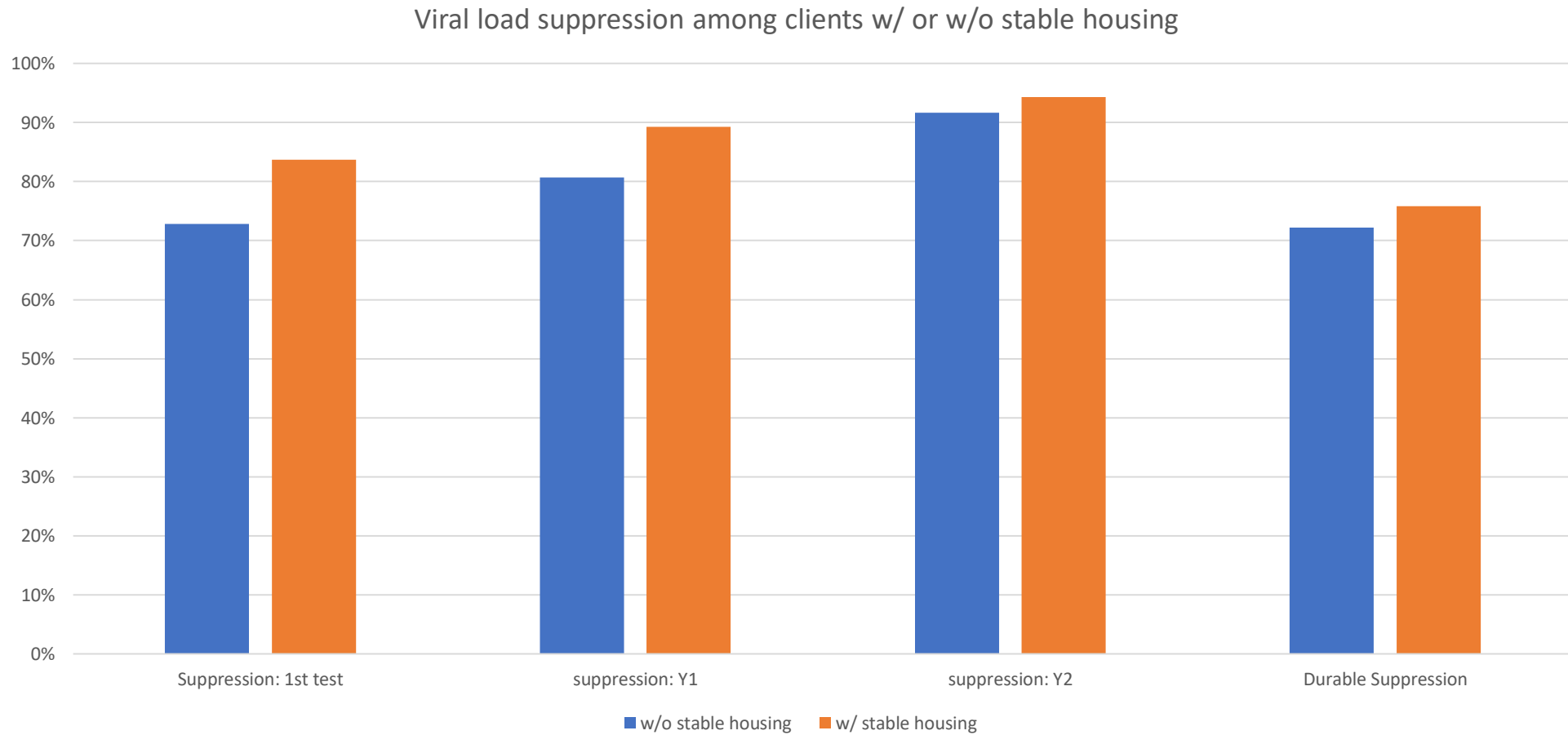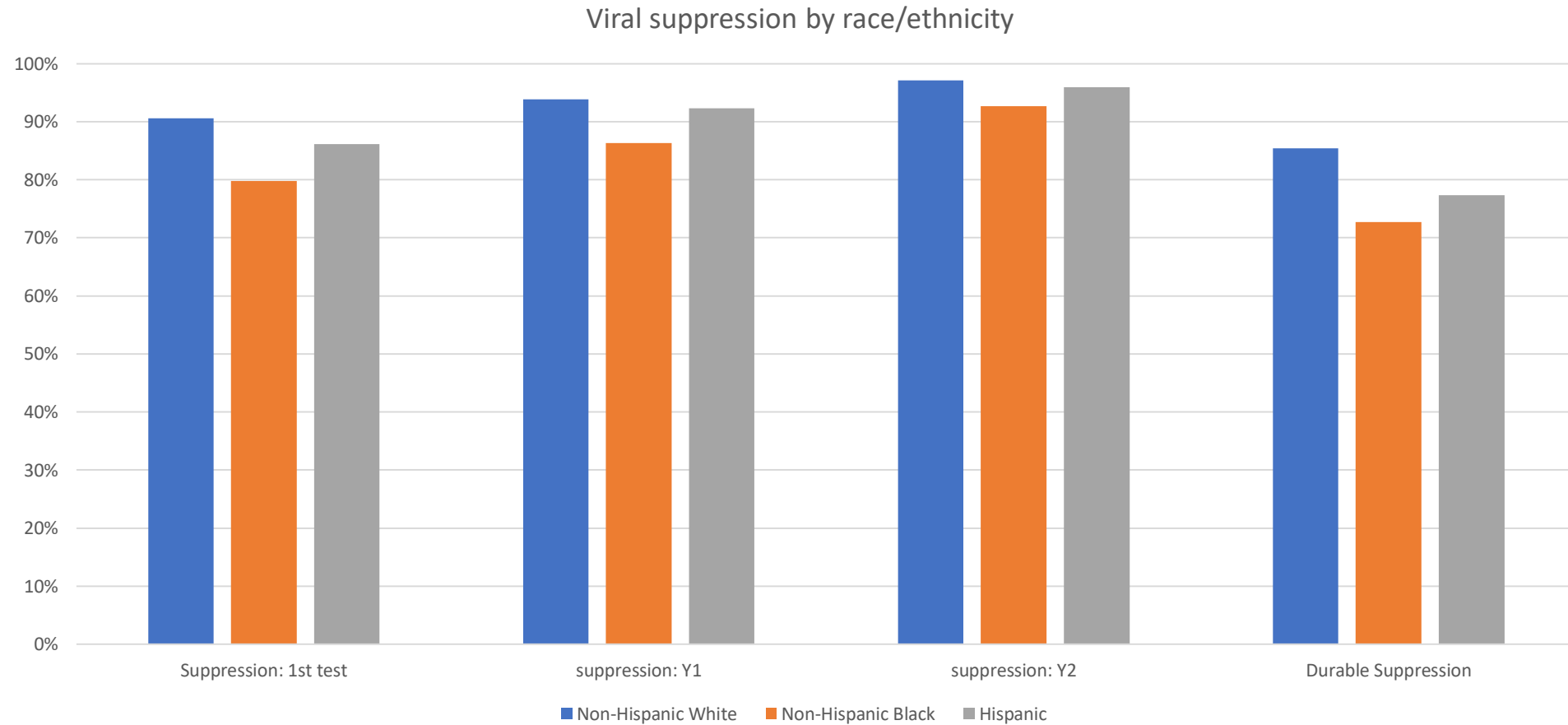
Viral suppression rates

Figure. Viral suppression rates
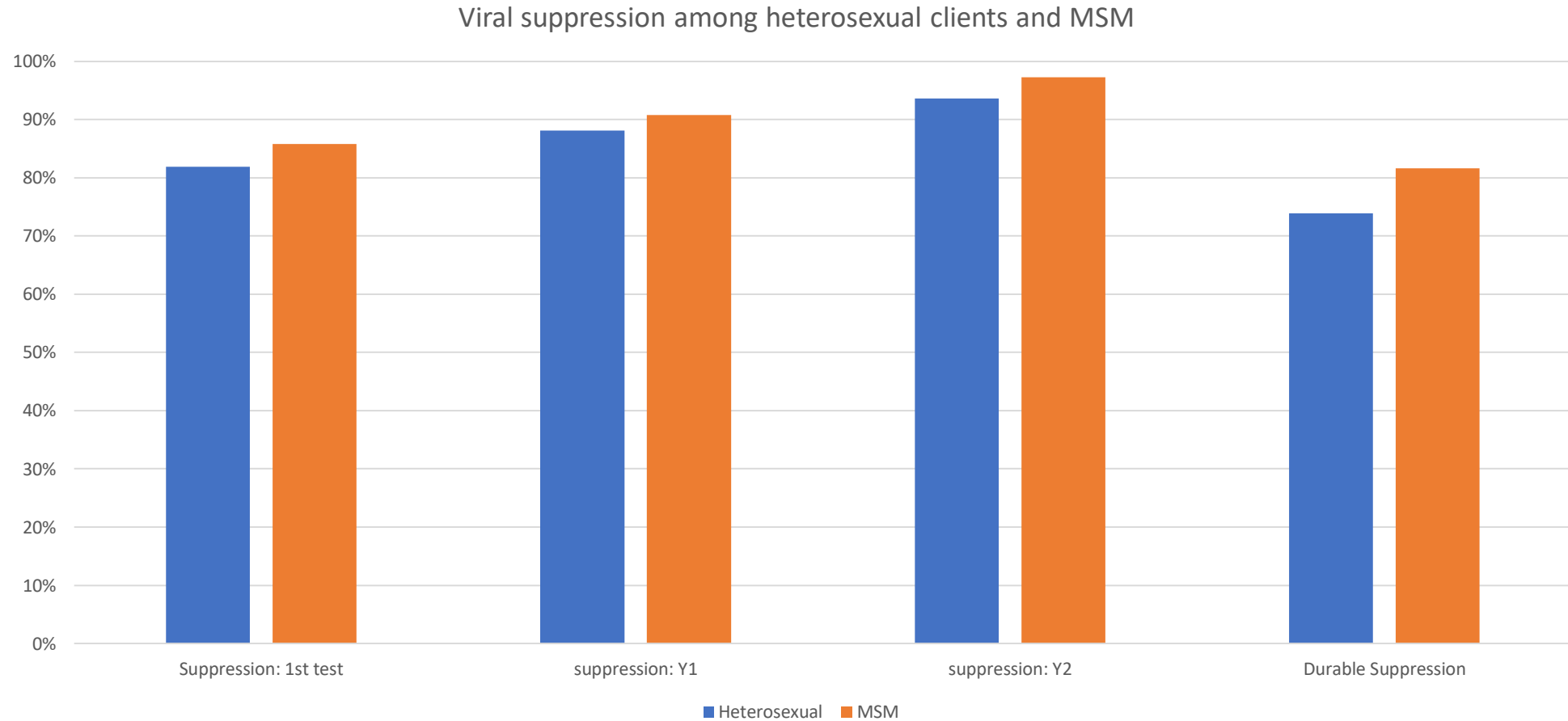
Viral suppression by income level

Viral load suppression by income level

Viral suppression by housing status

Viral load suppression among clients w/ or w/o stable housing

Viral suppression by race/ethnicity

Viral suppression by race/ethnicity

Viral suppression among heterosexual and MSM clients

Viral suppression among heterosexual clients and MSM

Viral suppression by MCM status

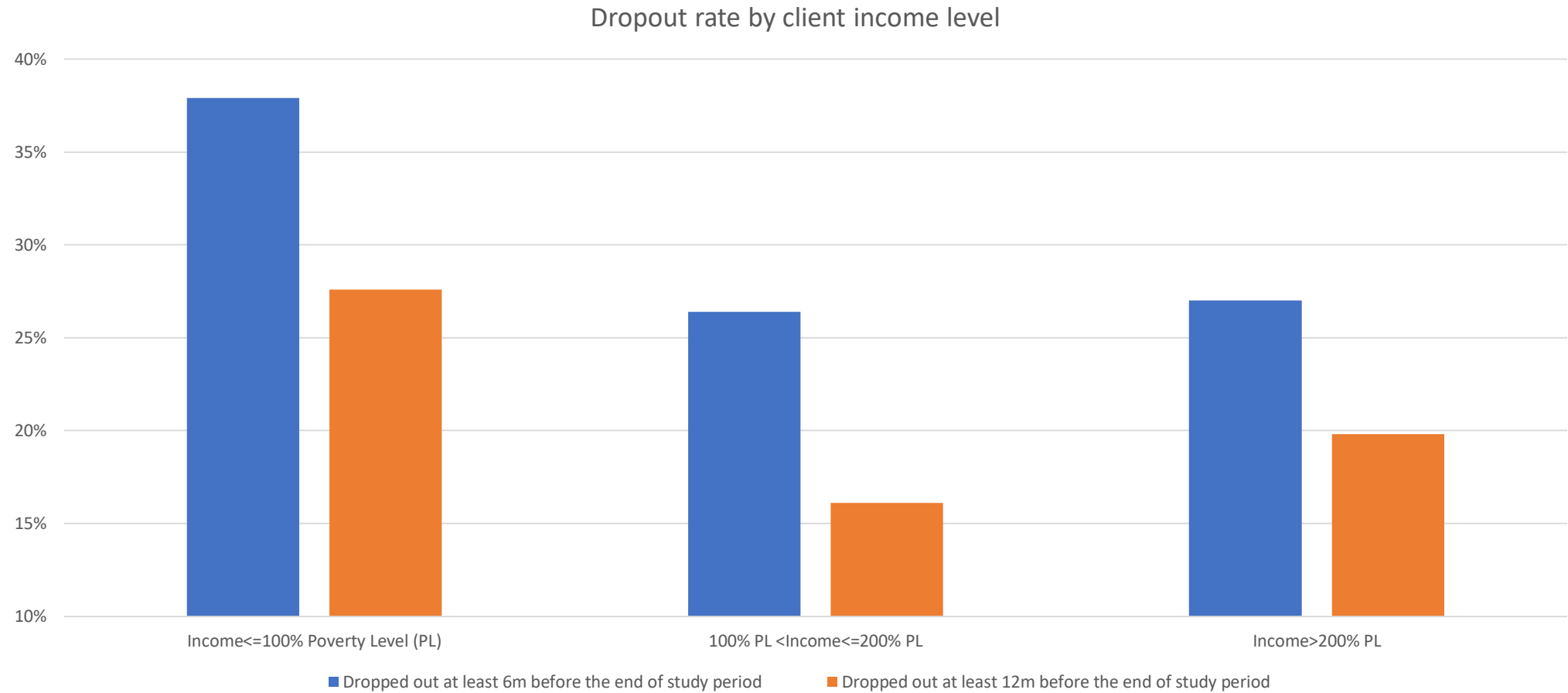Viral suppression among clients w/ or w/o MCM
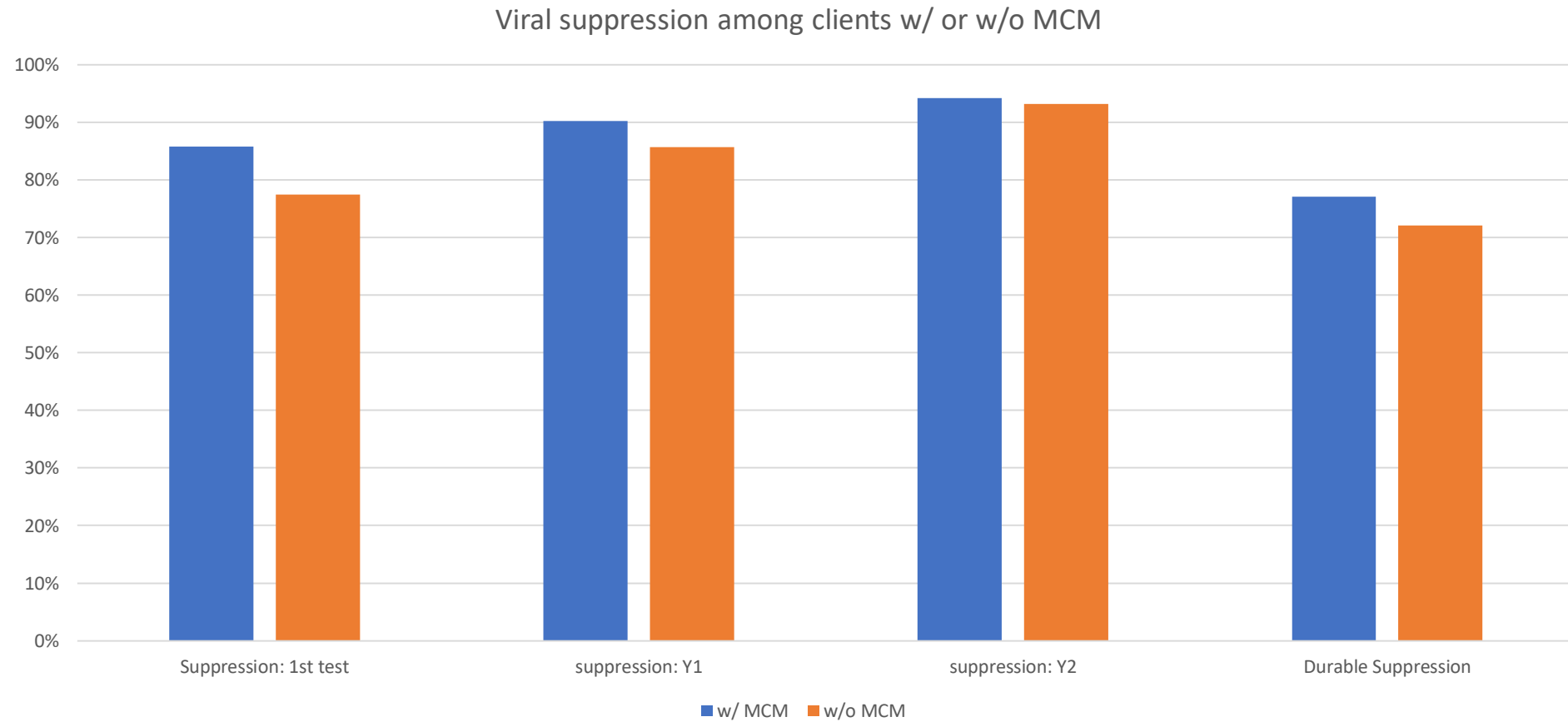
Eligibility assessment

- Goals:
  - Assess eligibility every 6 months
    - Interval between two consecutive assessments ≤195 days (6.5 month)
    - Minimize drop out
      - Measure drop-out by checking the timing of the last eligibility assessment (EA)
        - No observed EA within the last 6 months of the study period
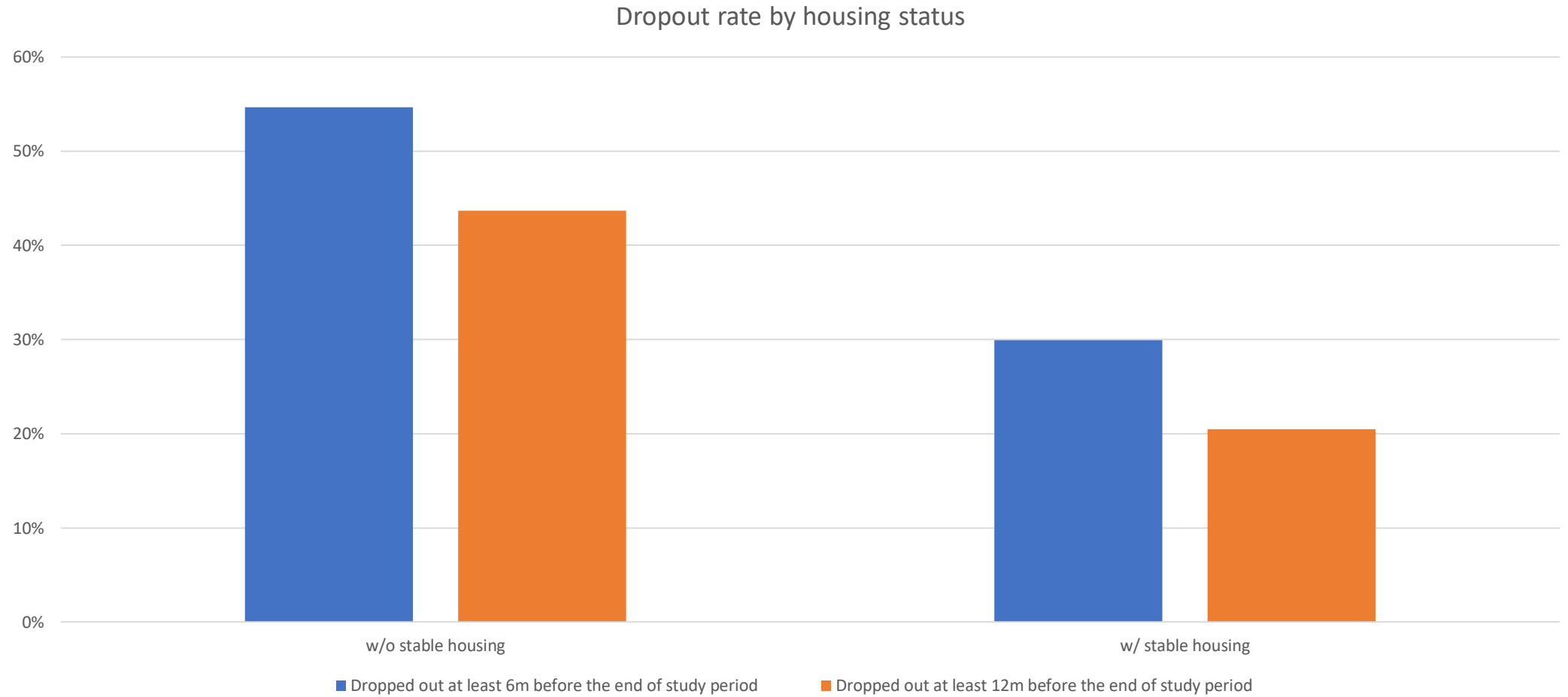   - No observed EA within the last 12 months of the study period

Eligibility assessment outcomes

	Observations	Mean
# Eligibility assessments per client	3,926	3.81
Avg. months between 2 assessments	3,166	6.21
Interval ≤ 195 days (or 6.5 months)	3,166	65.4% (or 2,072)
Dropped out at least 6m before the end of study period	3,683	32.3% (or 1,188)
Dropped out at least 12m before the end of study period	3,389	22.5% (or 764)

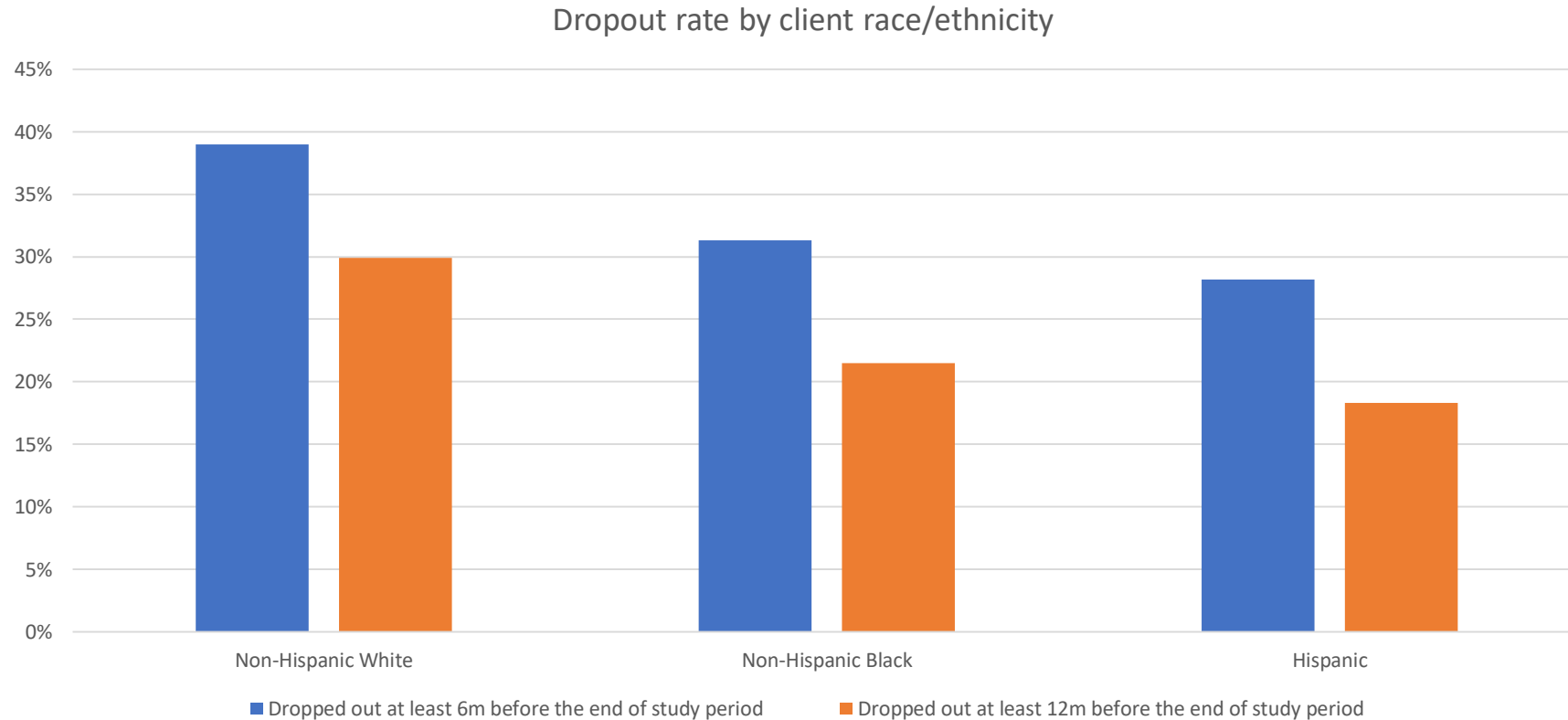# Dropout rate by income

Dropout rate by client income level

- Dropped out at least 6m before the end of study period
- Dropped out at least 12m before the end of study period

Dropout rate by housing status

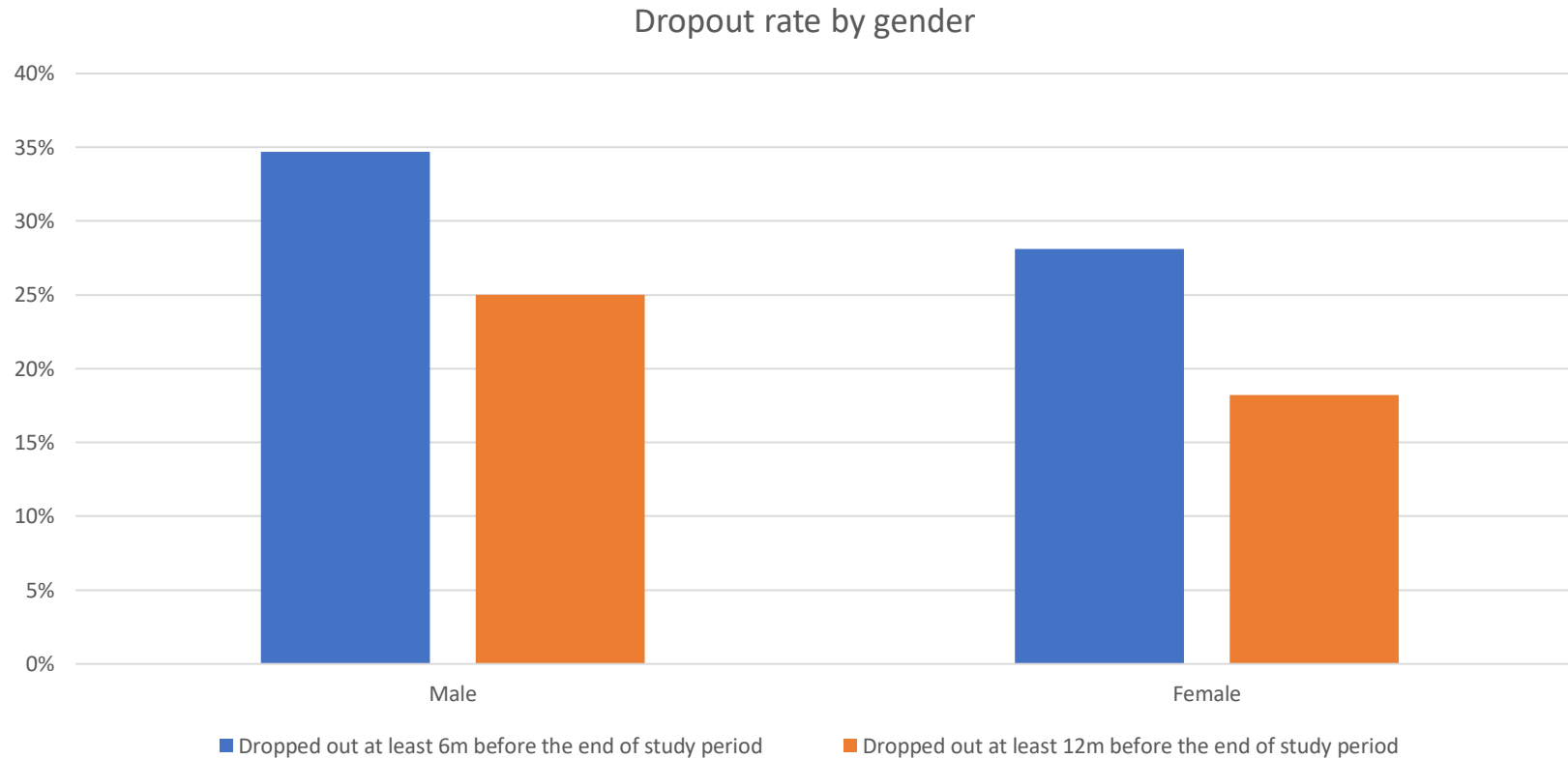
Dropout rate by housing status

Dropout rate by race/ethnicity

Dropout rate by client race/ethnicity

■ Dropped out at least 6m before the end of study period   ■ Dropped out at least 12m before the end of study period
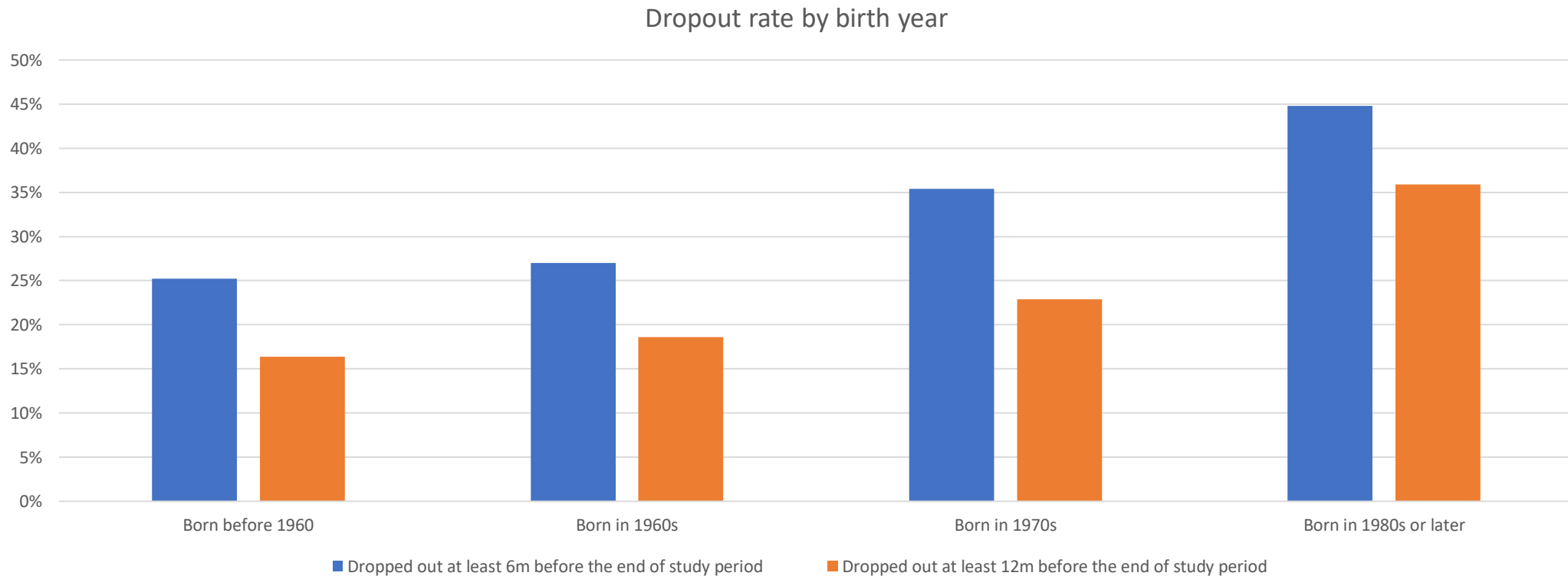
Dropout rate by gender

Dropout rate by gender

Dropout rate by birth year

Dropout rate by birth year

Dropout rate among heterosexual and MSM clients

Dropout rate among heterosexual and MSM clients

Legend: ■ Dropped out at least 6m before the end of study period   ■ Dropped out at least 12m before the end of study period
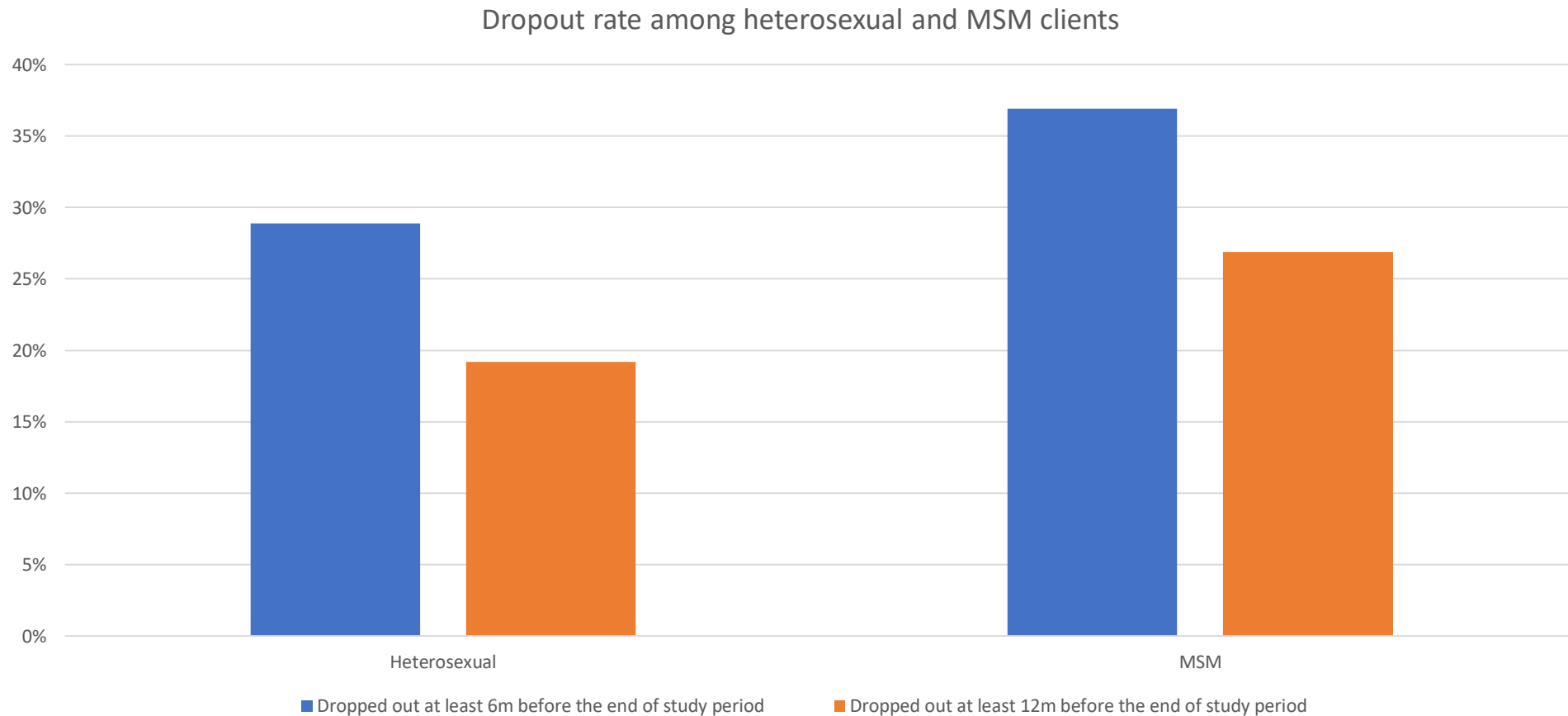
Dropout rate by MCM status

Dropout rate among clients w/ or w/o MCM

Legend: ■ Dropped out at least 6m before the end of study period ■ Dropped out at least 12m before the end of study period
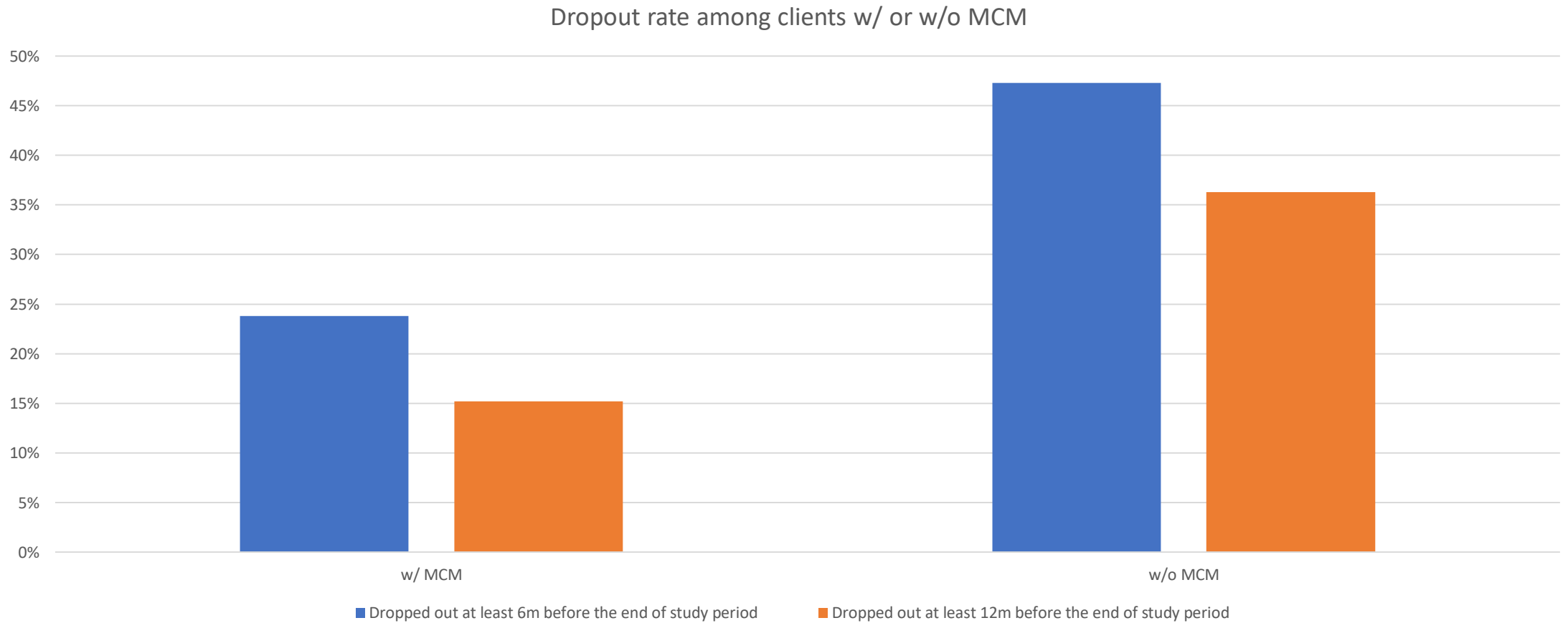
Eligibility assessment and VL outcomes

- Goal:
  - Link to care: start monitoring VL after initial eligibility assessment
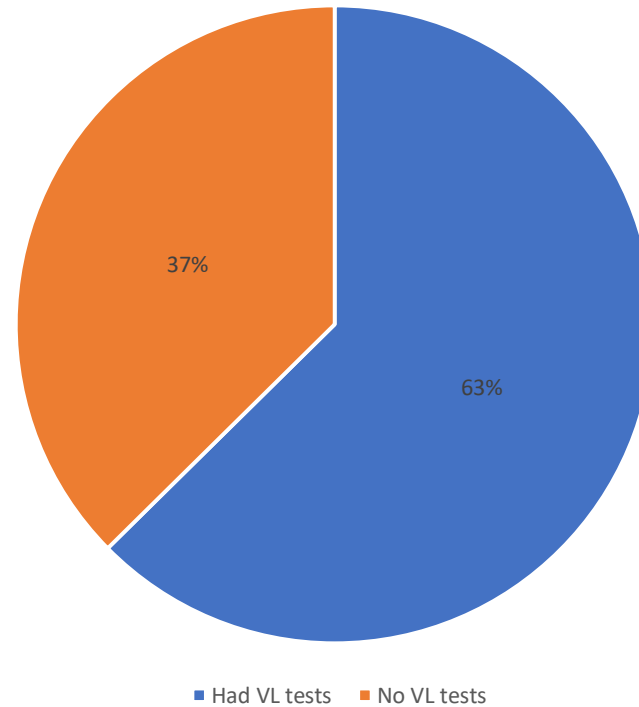   - Clients with regular eligibility assessment history would have VL test results

Clients had eligibility assessment but no VL test

Clients with eligibility assessment history

Had VL tests   No VL tests

Among 3,926 clients that had eligibility assessment history, 1468 (or 37%) did not have VL test records

Months between 1ˢᵗ EA and VL test
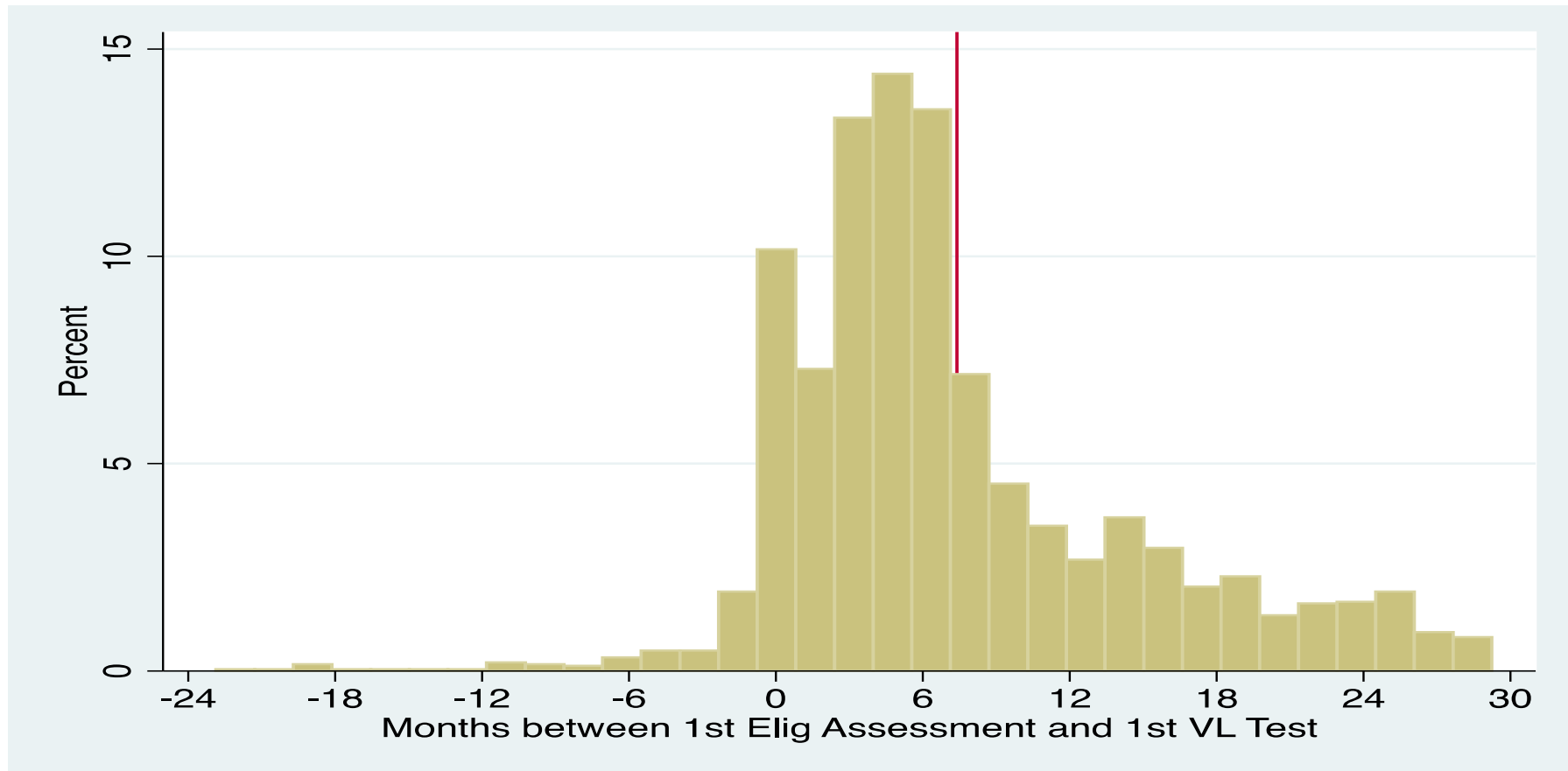
Average months between 1ˢᵗ eligibility assessment record and 1ˢᵗ VL test record is 7.4 months

EA and VL outcomes by MCM status

% had VL test among those had EA

Months between 1ˢᵗ EA and VL test

% had VL test among those had EA
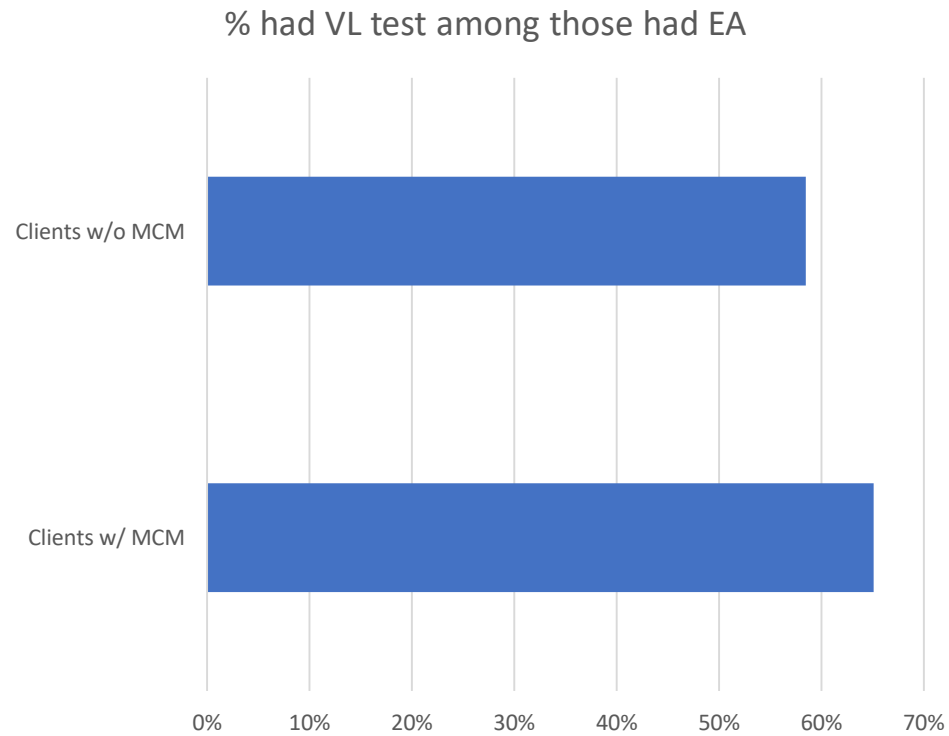
Months between 1st EA and 1st VL test
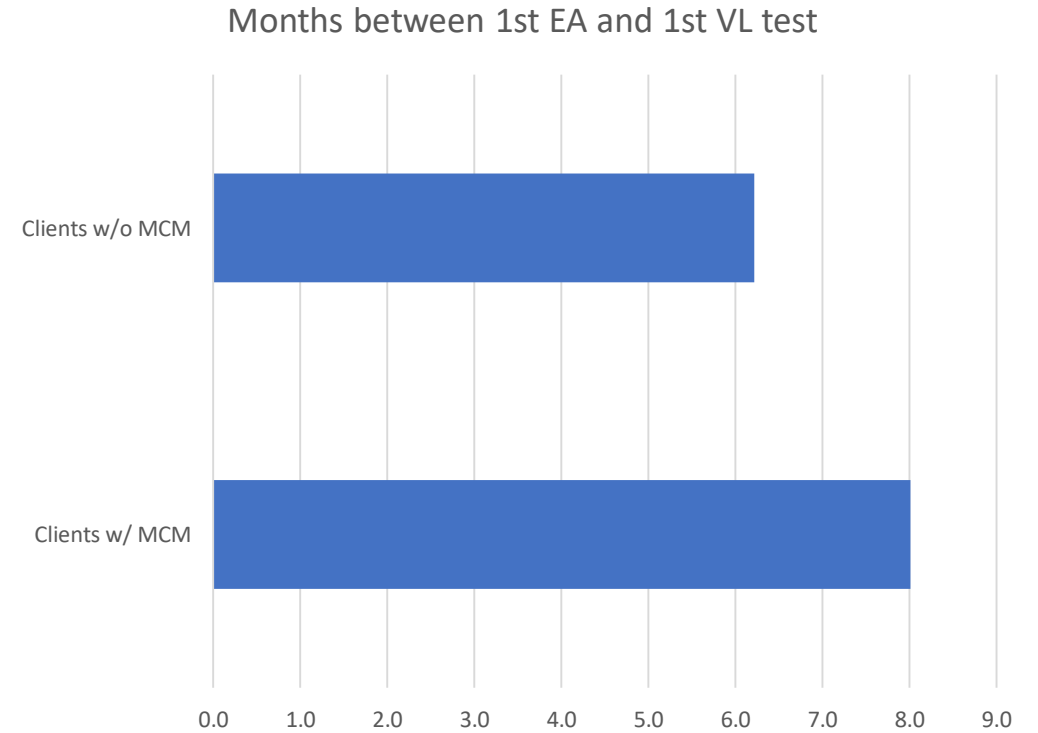
Medical case management and non-medical case management activities

- Goal:
  - Engage in case management:
    - have regular MCM and NMCM activities

Who had MCM or NMCM services?

63% of clients with EA records had MCM

- Who were more likely to receive MCM services?
  - Older people
  - Females
  - People with unstable housing
  - Native-born
  - MSM and people infected from mother-to-child transmission

18% of clients with EA records had NMCM

- Who were more likely to receive NMCM services?
  - People above the 100% poverty line
  - Older people
  - Females and transgender people
  - Non-Hispanic
  - People infected from mother-to-child transmission

MCM and NMCM activities

	Mean	Std. Dev.
MCM		
# activities per client	**38.0**	35.5
Avg. service unit per activity	**3.1**	1.4
# activities per month per client	**2.4**	2.1
NMCM		
# activities per client	**14.8**	20.2
Avg. service unit per activity	**3.6**	1.9
# activities per month per client	**1.9**	2.0

Top 3 types of activities

	MCM activities	NMCM activities
Most common type	Telephone encounter (34%)	Telephone encounter (33%)
2nd most common type	Other encounter (27%)	Face-to-face encounter (25%)
3rd most common type	Face-to-face encounter (20%)	Other encounter (25%)

Note: service type is self-defined/input by agency staff and could be inconsistent by staff and by agency.

Outpatient ambulatory health service activities

- Goal
  - Short term: meet clients' medical needs
  - Long term: manage health conditions and reduce health service use

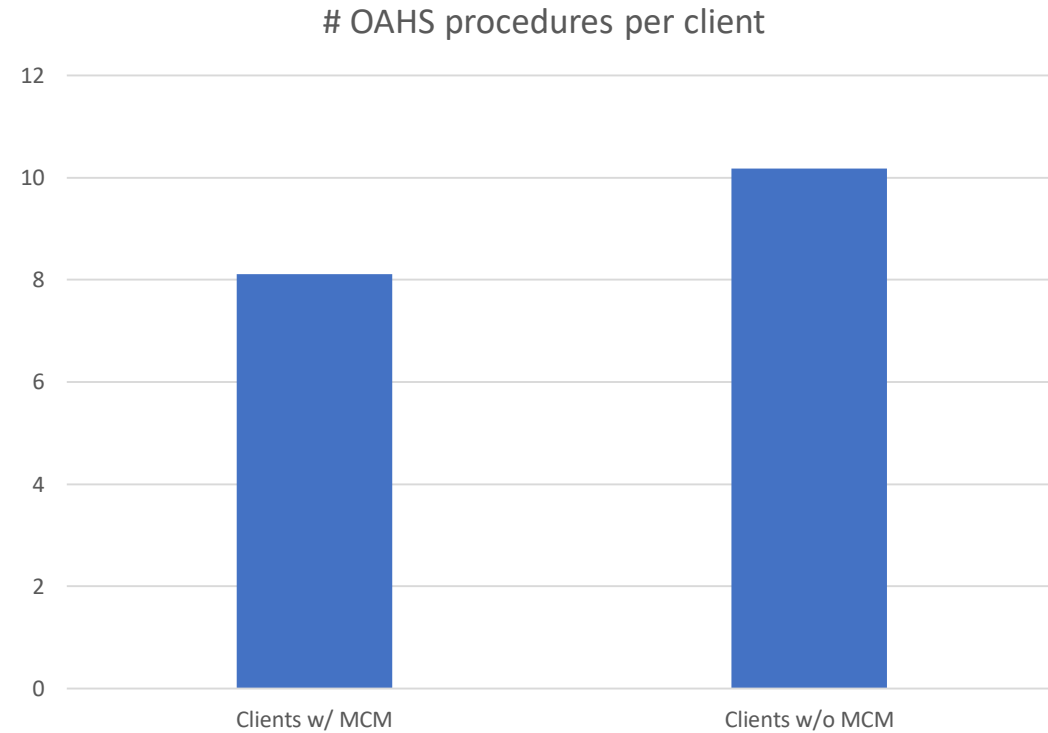# Outpatient ambulatory health service activities

- 84% of clients with EA records had outpatient ambulatory health service (OAHS) activities

- OAHS activities include
  - Procedures (for medical services)
    - 62% of clients with EA records had procedures
  - Care action
    - Including adherence counseling, substance abuse evaluation, mental health evaluation, oral health exam, HIV risk counseling, alcohol counseling, tobacco cessation counseling, etc.
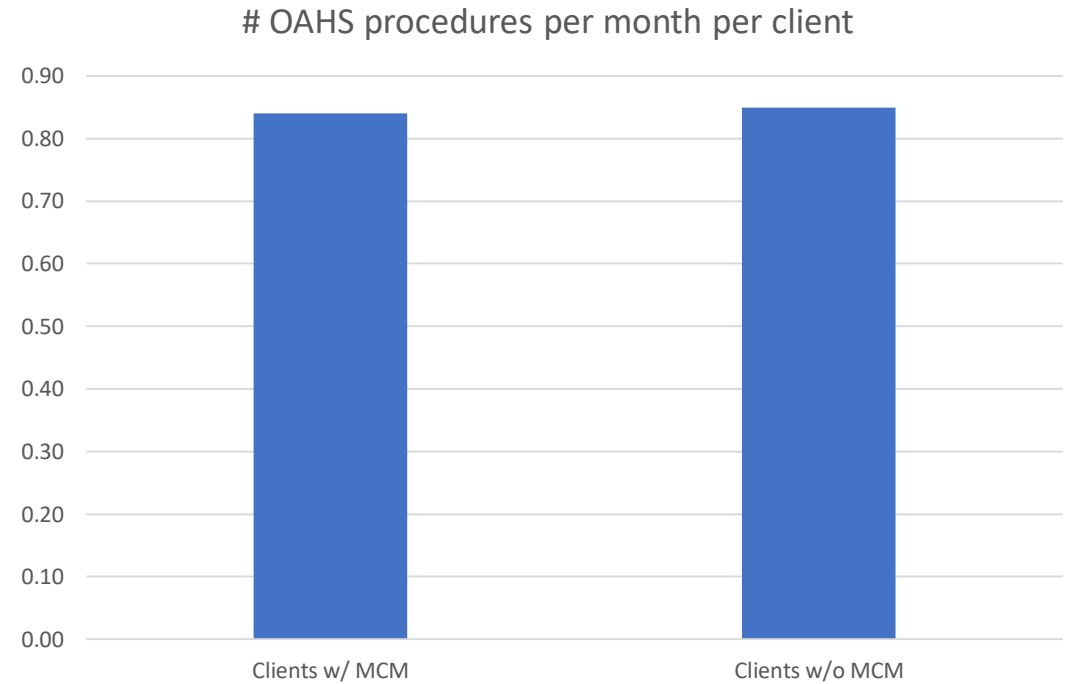   - 75% of clients with EA records had care action activities

OAHS procedures

	Mean	Std. Dev.
# activities per client	9.3	5.8
# activities per month per client	0.8	0.6

OAHS procedures by clients MCM status

procedures per client

 # OAHS procedures per client

(Bar chart comparing Clients w/ MCM at approximately 8.1 and Clients w/o MCM at approximately 10.2, y-axis from 0 to 12)

procedures per month per client

 # OAHS procedures per month per client

(Bar chart comparing Clients w/ MCM at approximately 0.84 and Clients w/o MCM at approximately 0.85, y-axis from 0.00 to 0.90)

OAHS Care Action

	Mean	Std. Dev.
# activities per client	7.9	7.0
# activities per month per client	1.1	1.2

Care action by MCM status

 # care action activities per client

Care action activities per client
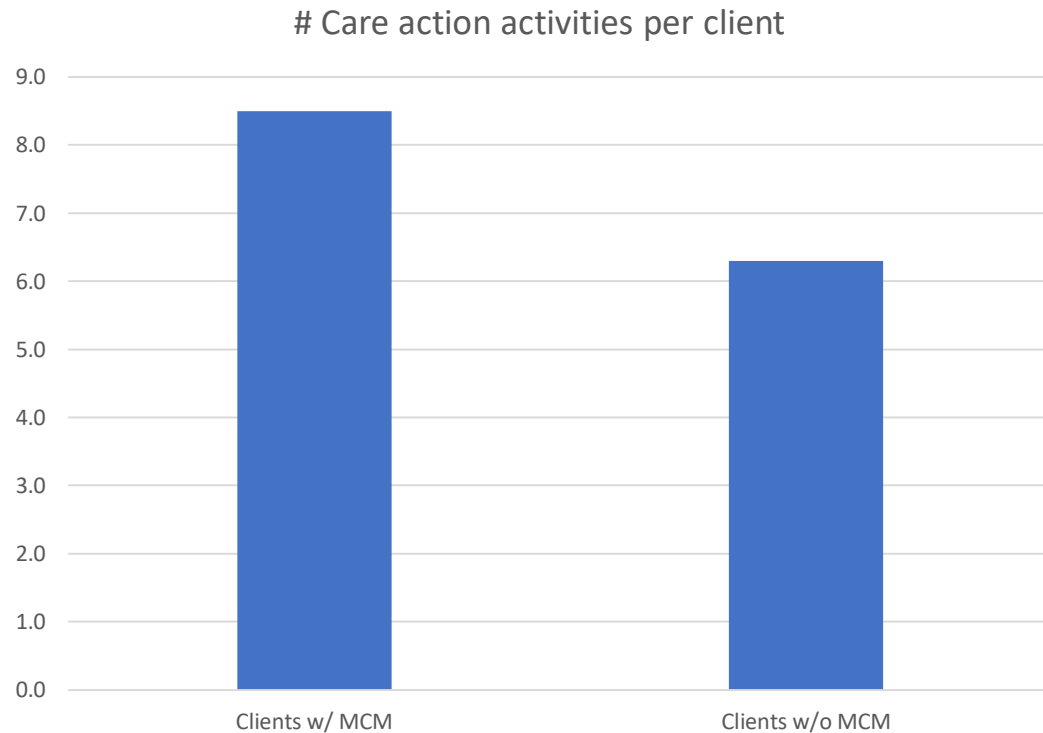
 # care action activities per month per client

Care action activities per month per client

35

Care Action service types

Care Action Service Types

Mental Health Evaluation	33.3%
Substance Abuse Evaluation	26.6%
Adherence Counseling	16.8%
Oral Health Education	10.3%
Other	13.1%
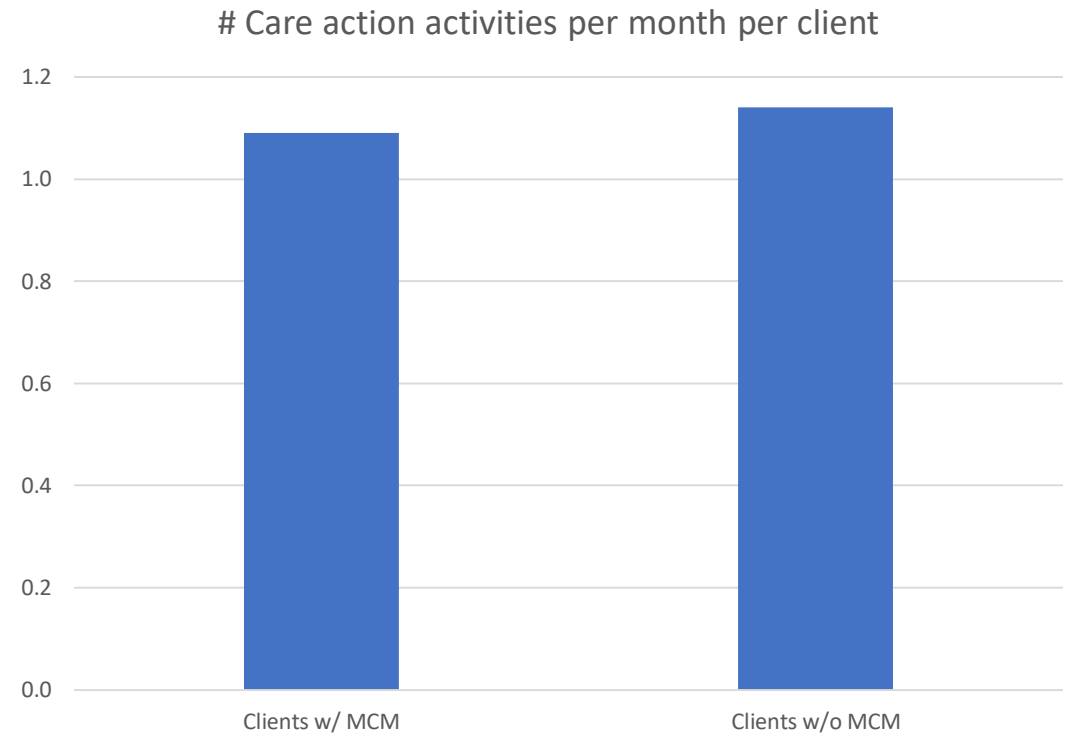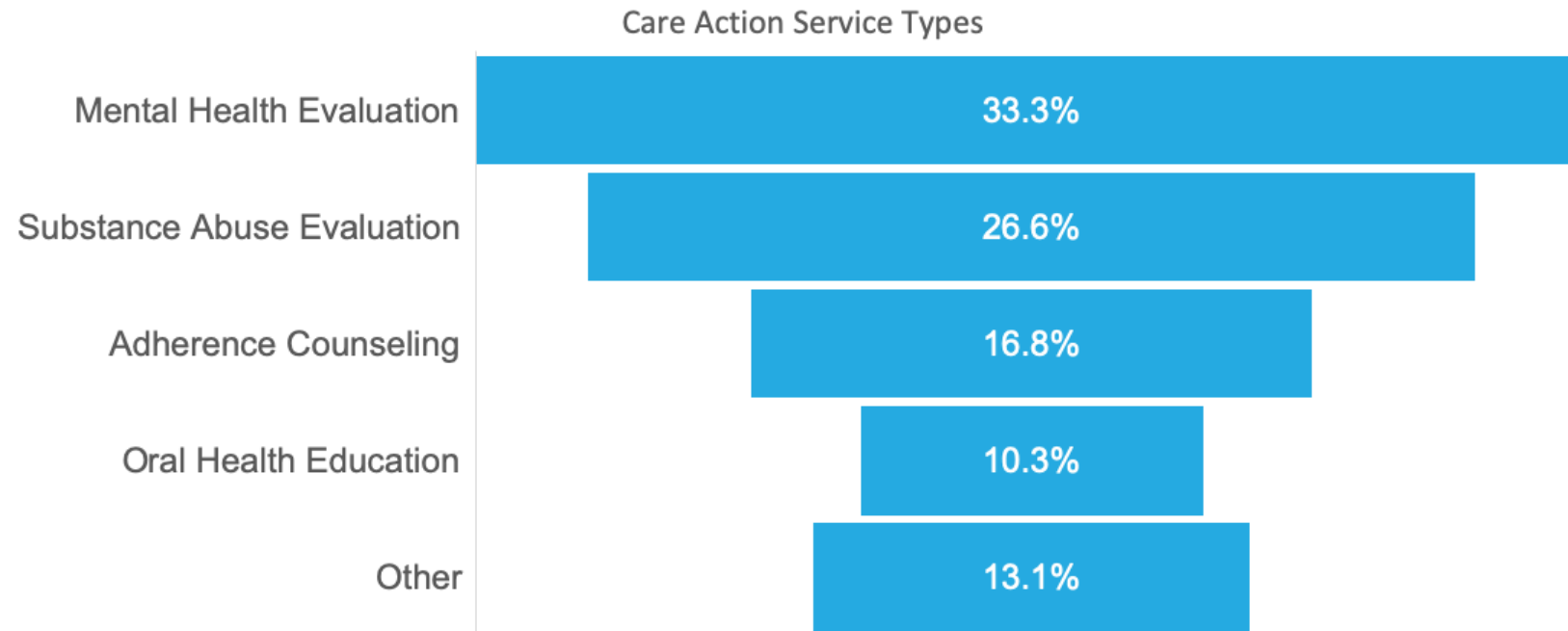
Adherence counseling by MCM status

Adherence counseling per client

Adherence counseling per client by MCM status

Adherence counseling per month per client

Adherence counseling per month per client among clients w/ or w/o MCM
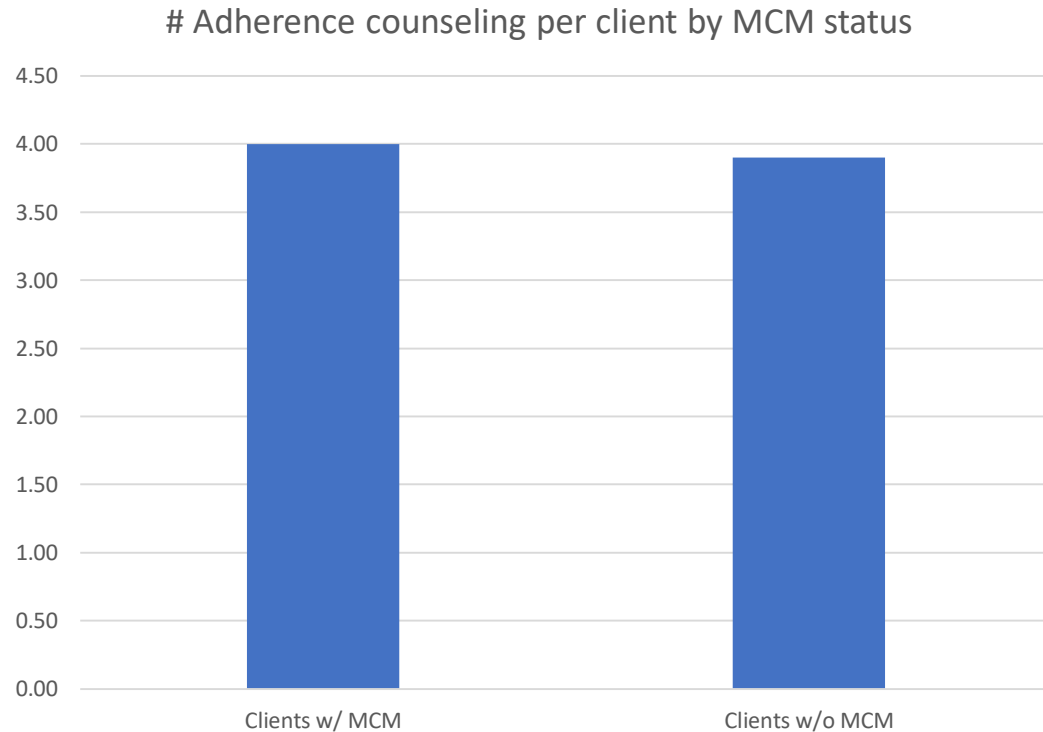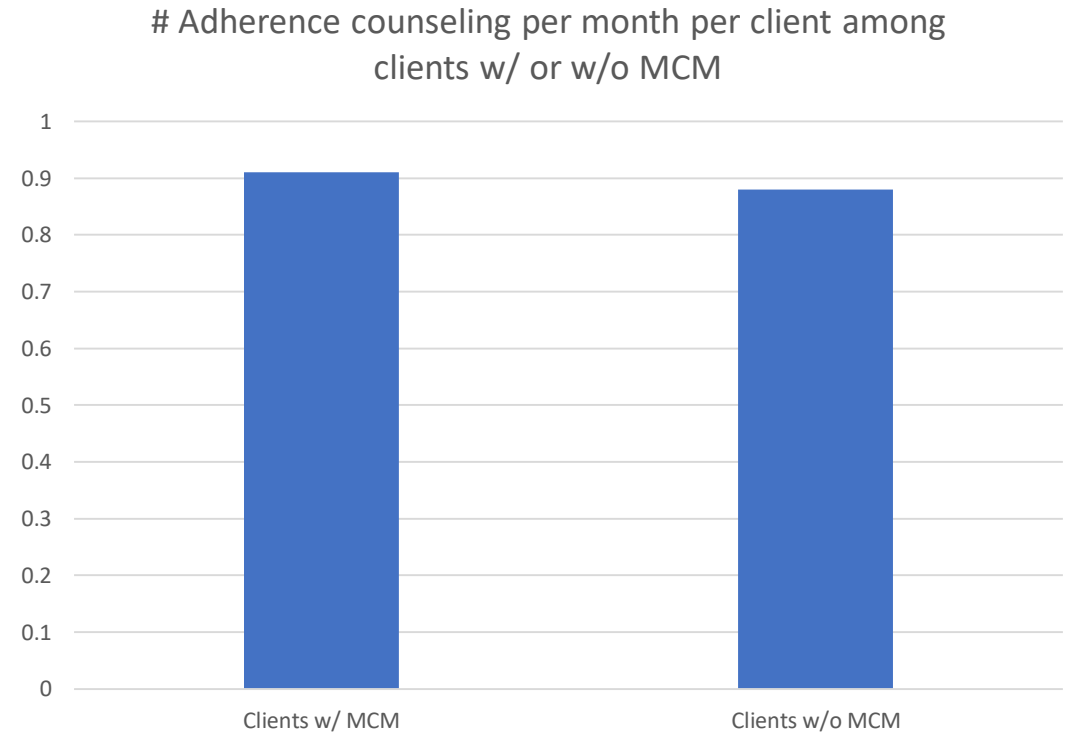
Summary

- Viral suppression in Y2: over 90%
- Interval between two EA: over 65% clients had the interval <=6.5 months
- Over 1/3 clients with EA history did not have VL test results
- Interval between 1st EA test and the 1st VL: 7.4 months
- Most common type of activities in MCM and NMCM activities: telephone encounter
- Average # of MCM or NMCM activities : 2 per month
- Average service unit of MCM or NMCM activities: 3
- Average # of OAHS: 1 per month
- Most common care action types: mental health evaluation, substance abuse evaluation, and adherence counseling

Summary

- Disparities in viral suppression and maintaining regular EA by income, race/ethnicity, gender, age, and risk type
- MCM's effect:
  - Could help reach viral suppression quicker but might have no effect on VL tests by the end of a 2-year period
  - Reduce dropout
  - Increase % with VL results on file but also increase the interval between 1st EA and 1st VL test
  - Reduce OAHS medical services and increase care action activities but no effect on per month per client activities
  - No effect on # adherence counseling activities

Suggestions

- Efforts can be put on
  - reducing delays in eligibility assessment and dropout
    - target groups can be clients under poverty line, with unstable housing, males, non-Hispanic white, MSM, IDU, and young clients (born in 1980s or later)
      - two groups (non-Hispanic white and MSM clients) had higher viral suppression rate but also higher dropout rate
  - following up with clients after eligibility assessment on viral load tests
  - adopting acuity tools in screening clients for MCM and NMCM services
  - standardizing care action activities to be offered under MCM and NMCM services