



## Center for AIDS Research

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## Background

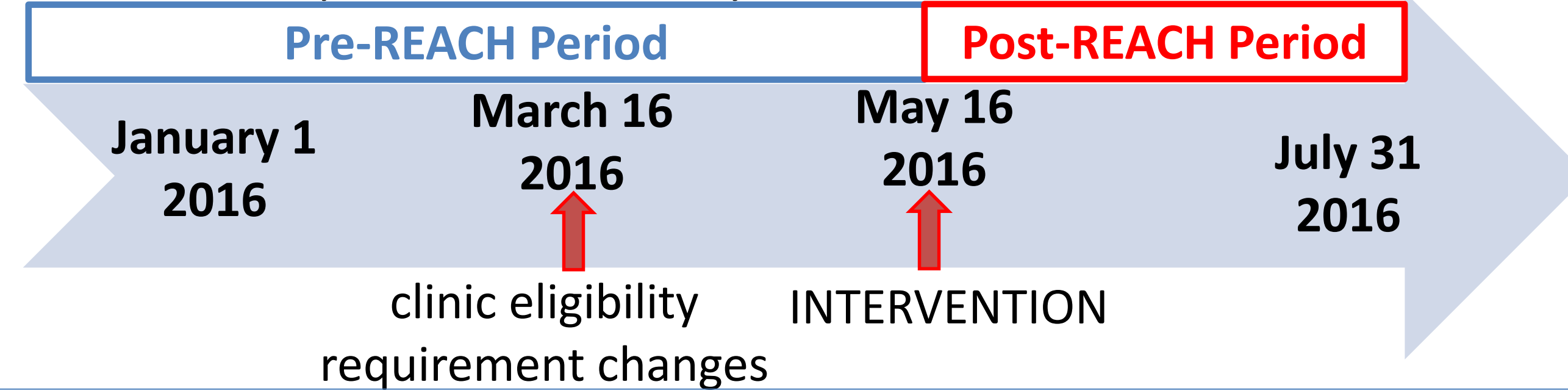
- Antiretroviral therapy is indicated for all people living with HIV (PLWH)
- Test and Treat or Rapid ART approaches improved linkage to care, rates of viral suppression and time to viral suppression in South Africa, Haiti and San Francisco
- Data from South Africa and Haiti suggest Rapid ART may lead to better retention in care
- In May 2016 a large Ryan White funded program in Atlanta, Georgia launched a Rapid Entry and ART Clinic for HIV (REACH) pilot program
  - Goal:** New patients to IDP would have first appointment and ART offered within 72 hours of presenting to clinic

## Objectives

- Evaluate the REACH model's effect on:
  - Achieving viral suppression
  - Time to viral suppression

## Methods

- Single Center, retrospective cohort study with historical controls: 6 month follow up

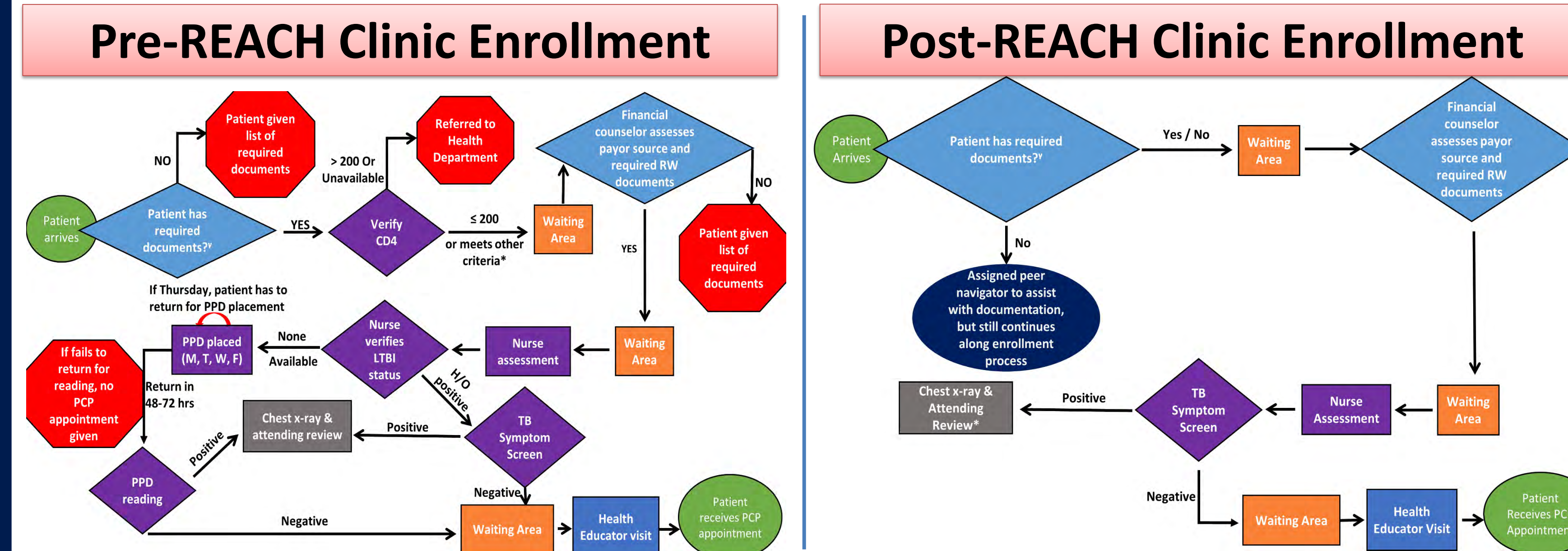


- Inclusion criteria:**
  - New patients to IDP
  - HIV-infected
  - ≥ 16 years old
- Exclusion criteria:**
  - HIV-RNA < 200 copies/mL at enrollment (64)
  - On ART at time of enrollment (14)
  - Admitted directly from enrollment (8)
  - Pregnant (2)
  - Enrolled in a clinical research study (2)
  - Moved, transferred care or died before end of follow-up (4)

- Primary outcome:** Time from presentation to clinic for enrollment to viral suppression
- Secondary outcomes:**
  - Viral suppression (< 200 c/mL)
  - Attending first scheduled provider visit
  - Time to scheduled provider visit
  - Time to first attended provider visit
  - Time to ART initiation
- Statistical analysis:**
  - For unadjusted time to viral suppression median survival times with 95% confidence intervals were estimated using Kaplan-Meier estimates and group comparisons were made using log-rank tests
  - Cox proportional hazard ratios estimated time to viral suppression in adjusted analyses
  - Logistic and linear regression analyses (both unadjusted and adjusted) used for secondary outcomes

## Systems-level Change

Action	Level
Remove eligibility restrictions for clinic enrollment	EMA Ryan White Office
Loosen administrative requirements for clinic enrollment	EMA Ryan White Office Hospital System
Remove TB skin test as requirement for clinic enrollment	Clinic Administration
Enhance access to 'New Patient' provider visits	Hospital System Clinic Administration
Enhanced provider education on Rapid Starts	Clinician
Enhanced support to access ART regardless of payer	Pharmacy Administration
Continued access to ongoing ART/adherence education	Nursing



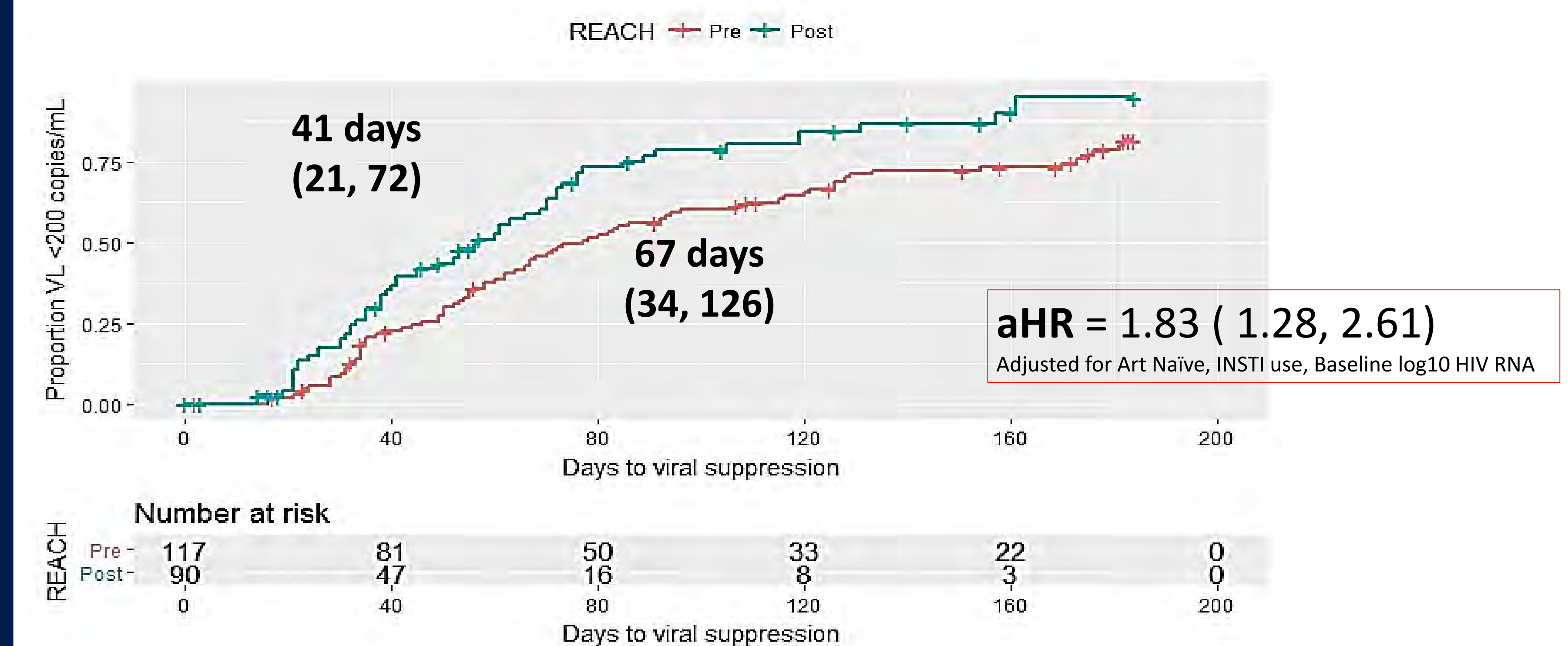
## Results: Patient Characteristics

Variable	Pre-REACH (n=117)	Post-REACH (n=90)	p
Age, median (IQR)	32 (23, 43)	38 (27, 47)	0.05
Males, n (%)	95 (81)	70 (78)	0.80
Black, n (%)	101 (86)	87 (97)	0.01
Payer source			0.24
Uninsured, n (%)	68 (58)	50 (55)	
Medicare/Medicaid, n (%)	31 (27)	33 (37)	
MSM, n (%)	71 (61)	53 (59)	0.59
Annual Income, median (IQR) \$US	\$8820 (0, 18668)	\$7800 (0, 15600)	0.06
Unstable Housing <sup>€</sup> , n (%)	78 (67)	48 (57)	0.14
Unemployed, n (%)	86 (74)	71 (79)	0.39
Recent Incarceration <sup>¥</sup> , n (%)	10 (9)	6 (7)	0.70
Active Substance Use <sup>*</sup> , n (%)	50 (43)	41 (46)	0.69
Mental Health Diagnosis <sup>#</sup> , n (%)	30 (26)	24 (27)	0.90
Baseline HIV RNA log <sub>10</sub> , median (IQR)	4.5 (4.0, 5.2)	4.6 (4.0, 5.3)	0.37
Baseline CD4+ cell count, median (IQR)	135 (33, 297)	152 (69, 309)	0.69
ART Naive, n (%)	70 (60)	54 (60)	0.98

<sup>€</sup> 1) answering 'non-permanently housed' to "do you have a fixed, regular, adequate nighttime residence?" or 2) reporting homelessness in the initial H&P  
<sup>¥</sup> released from jail/prison in previous 6 months; <sup>\*</sup> alcohol, marijuana, cocaine, amphetamine use within last 3 months;  
<sup>#</sup> includes anxiety, depression, bipolar and schizo-spectrum

## Results

### Primary Outcome: Time to Viral Suppression



### Secondary Outcomes

Outcomes	Pre-REACH (n=117)	Post-REACH (n=90)	p
Days to 1 <sup>st</sup> scheduled provider visit	14 (12, 16)	4 (1, 6)	< 0.0001
Days to 1 <sup>st</sup> attended provider visit	12 (6, 23)	2 (1, 4)	< 0.0001
Days to ART start	22 (13, 38)	4 (2, 8)	< 0.0001

Adjusted for age, race, sex and being ART Naive

Outcomes	Pre-REACH (n=117)	Post-REACH (n=90)	aOR (95% CI)
Attended 1 <sup>st</sup> scheduled appointment <sup>†</sup>	85 (73)	73 (81)	1.63 (0.82, 3.22)
Achieved viral suppression <sup>‡</sup>	87 (74)	61 (68)	0.77 (0.39, 1.52)

<sup>†</sup>Adjusted for age, race, sex and being ART Naive

<sup>‡</sup>Adjusted for age, race, baseline HIV RNA & INSTI use

### Details on ART

Outcomes	Pre-REACH (n=117)	Post-REACH (n=90)	p
Initiated ART	111 (95)	85 (94)	0.89
INSTI-based regimen	86 (74)	75 (84)	0.11

## Conclusions

- A rapid entry program decreased time to first provider appointment, time to initiation of ART and time to viral suppression but not the proportion of patients achieving viral suppression.
- Significant resources and effort (data not shown) were needed to implement this program, suggesting that more data are needed to determine which populations will benefit most from rapid start of ART in the US.

### Acknowledgements:

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