

The Rapid ART Program Initiative for HIV Diagnoses (RAPID) in San Francisco

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Susan Scheer, Susan Buchbinder, Susa Coffey, Diane Havlir**

Background

- 2017 WHO Guidelines: On basis of international randomized trials¹⁻⁶, immediate (within 7 days of diagnosis) ART initiation endorsed for all willing persons diagnosed with HIV⁷
- 2017 United States Treatment guidelines: Immediate ART initiation an investigational approach⁸
- 2015 San Francisco Getting to Zero (SFG2Z) Consortium: Citywide RAPID (accelerated ART initiation for newly HIV-diagnosed persons) prioritized, after a successful pilot⁹.

SFG2Z
S. Buchbinder
Abstract 87
Tues 10 am

Objectives

- Describe ART initiation in all persons newly diagnosed with HIV in San Francisco before and during early implementation of the RAPID initiative
- Examine RAPID outcomes stratified by gender, race/ethnicity, age, and housing status
- Examine RAPID uptake by different HIV care providers

Methods

Program Design and Implementation

Citywide RAPID Protocol:

All new confirmed HIV diagnoses linked to care \leq 5 working days;

At 1st care visit: Baseline labs collected, counseling, medical/psychosocial assessment, **ART started unless risk for fatal IRIS**

[TFV+FTC] + [INSTI *or* DRV/r] with option for 4-drug regimen if HIV infection suspected on PrEP

Dissemination:

HIV clinics identified using HIV surveillance data, trained on RAPID procedures by in-service (2015) and individual provider detailing (2016)

Linkage navigators used **RAPID Provider Directory** to identify optimal HIV clinic for each newly-diagnosed patient, by insurance coverage, psychosocial needs.

Full protocol and RAPID detailing brochure for clinicians disseminated electronically at <http://www.gettingtozerosf.org/rapid-committee/> and at open quarterly SFGTZ consortium meetings

Linkage:
S. Scheer
Abstract
1100
Tues 2:30pm

Pre-specified Outcomes, 2013-2016

Using HIV Case Registry Data from Surveillance Unit at SFDPH, including sex, age, race/ethnicity, housing status:

- Time (median days) from Diagnosis to VL<200 c/mL
 - Diagnosis to 1st Care Visit
 - 1st Care Visit to ART Initiation
 - ART to VL<200 c/mL
 - Kruskal-Wallis test for differences in medians 2013-2016
- Proportion of new cases linked ≤ 5 days AND started ART ≤ 1 day
- Rapid ART initiation by Care Site (public vs. private)
- INSTI use in 1st ART

Results

Study Population: New HIV Diagnoses 2016 -2013

Category	2013 N (%)	2016 N (%)
All	399 (100)	265
Male	361 (90)	229 (86)
Female	27 (7)	29 (11)
13-29 years old	130 (33)	96 (36)
White	178 (45)	97 (37)
Black	51 (13)	34 (13)
Latino	100 (25)	73 (28)
Asian/Pacific Islander	51 (13)	47 (18)
Homeless	30 (8)	29 (11)

Linkage to Care and ART Initiation Following HIV Diagnosis

Metric	2013	2014	2015	2016
Diagnosed (%)	399	329	295	265
In Care (%)	372 (93)	318 (97)	282 (96)	258 (97)
Started ART (%)	311 (78)	276 (84)	244 (83)	215 (81)
ART included INSTI (%)	145 (47)	203 (74)	195 (80)	159 (74)
Met RAPID definition (%)*	23 (6)	45 (14)	50 (17)	80 (30)

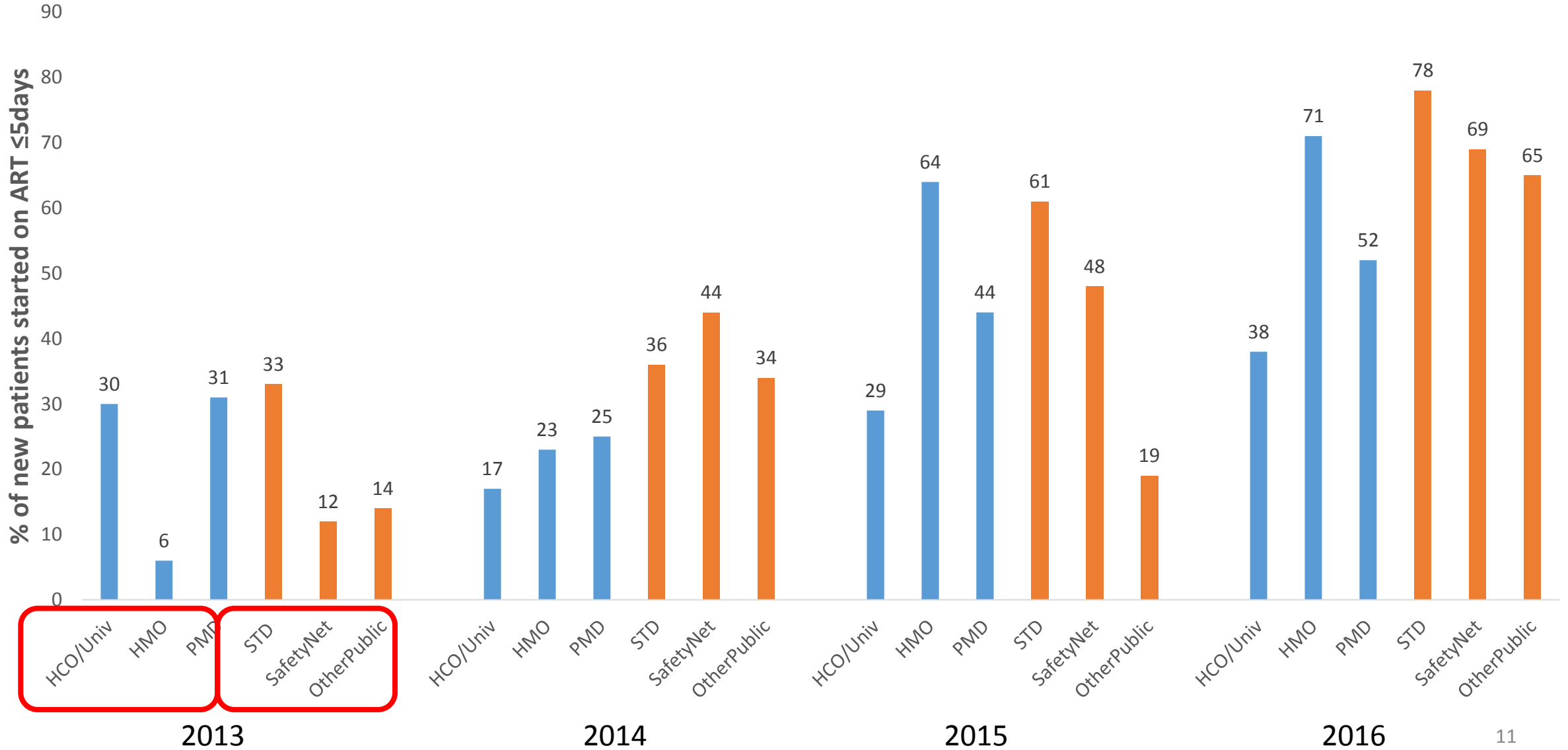
*Both diagnosis to care w/in 5 days AND ART w/in 1 day

Median Time to Care, ART, and Virologic Suppression

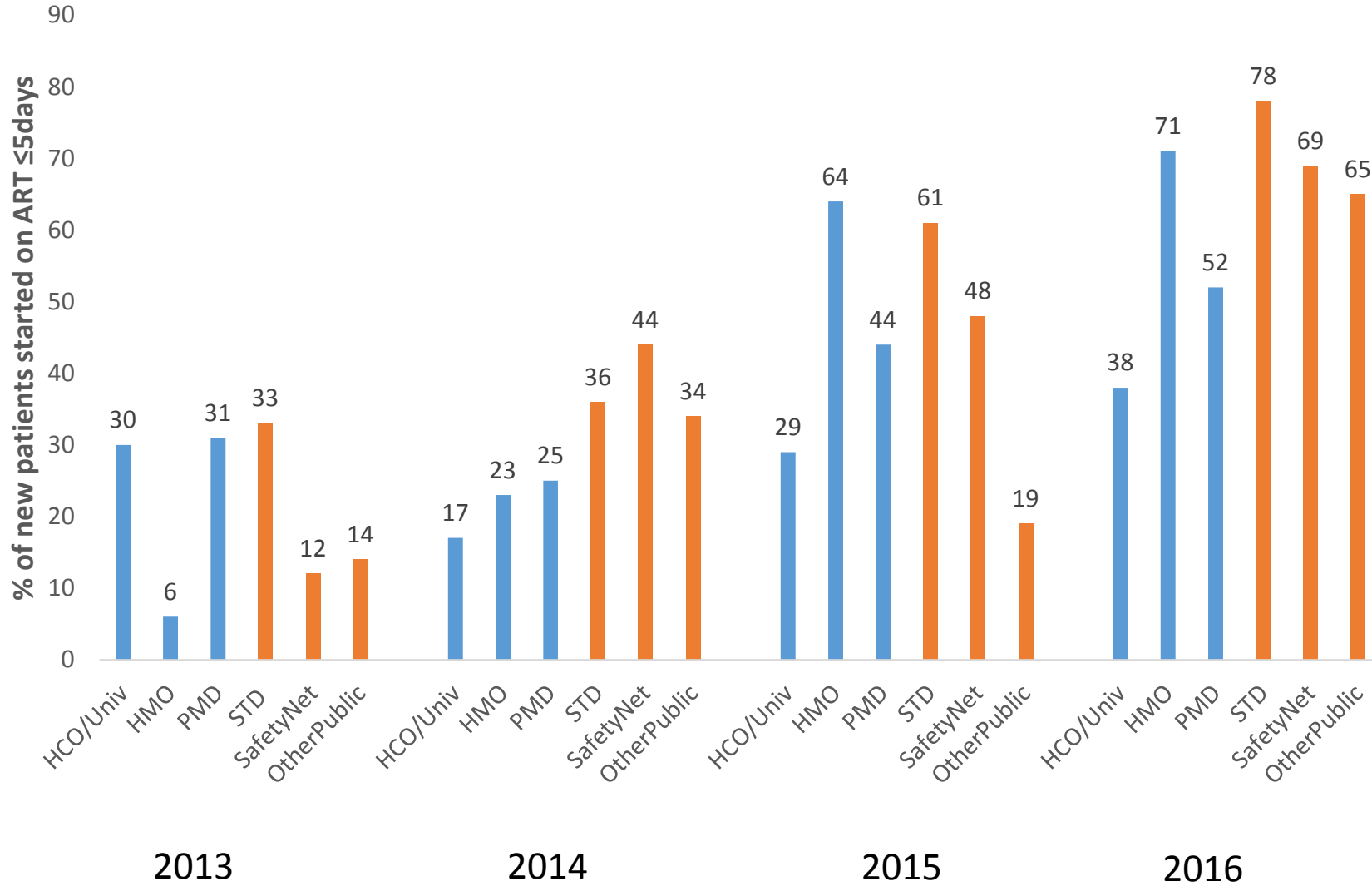
Metric	2013	2014	2015	2016	%Δ 2013-16
In Care within 1 year (%)	372 (93)	318 (97)	282 (96)	258 (97)	
Diagnosis to care (days)	8	7	7	5	-38%
1 st Care Visit to ART (days)	27	17	6	1	-96%
ART to VL<200c/mL (days)	70	53	50	38	-46%
Diagnosis to VL<200 c/mL (days)	134	92	77	61	-54%

- **Time from diagnosis to VL<200** decreased significantly in all groups
- **Time from diagnosis to first care visit** decreased significantly for males, whites, Latinos, youth (13-29) and the housed
- **Time from first care visit to ART** decreased significantly in all groups
- **Time from ART to VL<200** decreased significantly for males, under 40 y.o., whites, Latinos, Asian/Pacific Islanders, and the housed

ART Initiation Within 5 days of 1st visit, by Care Site

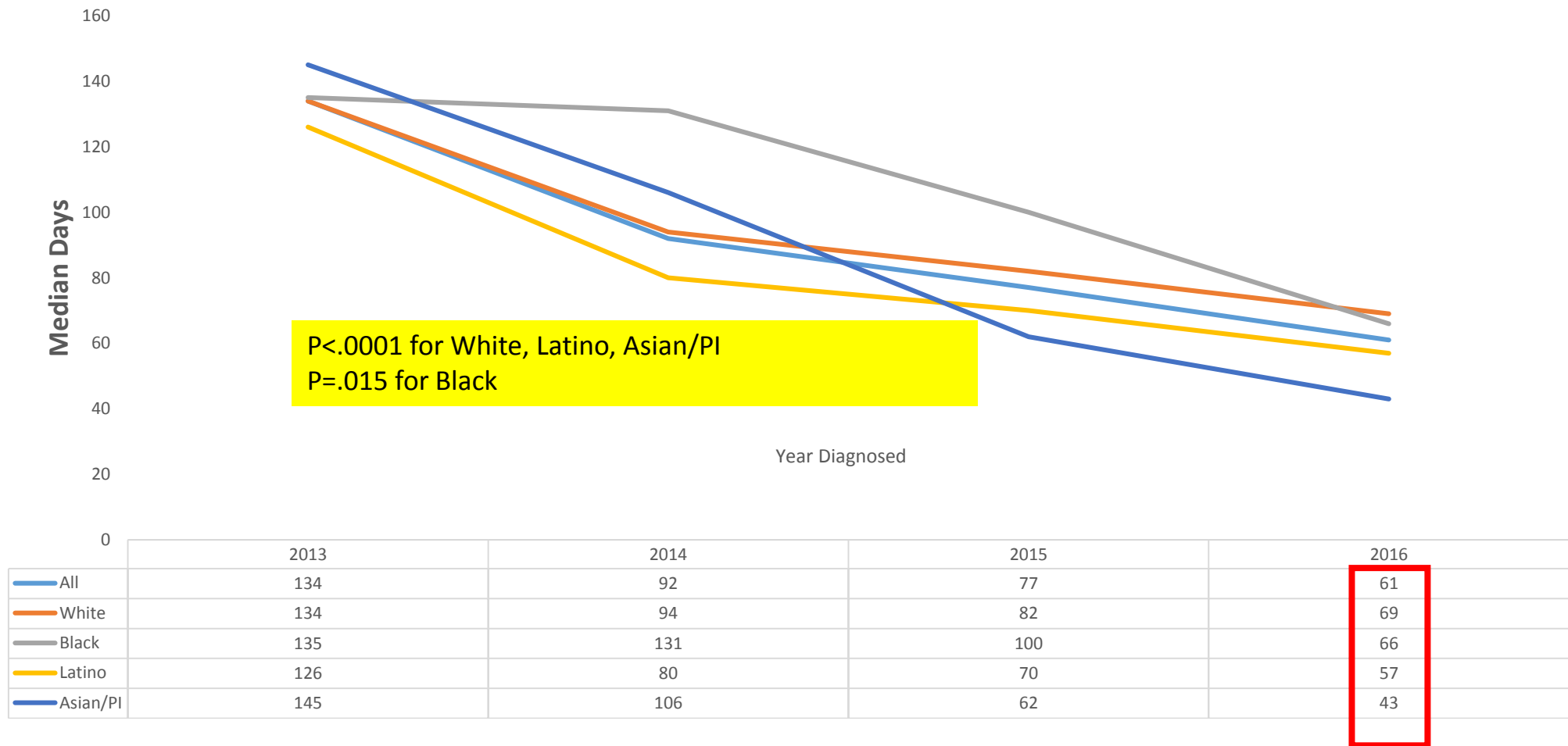


ART Initiation Within 5 days of 1st visit, by Care Site

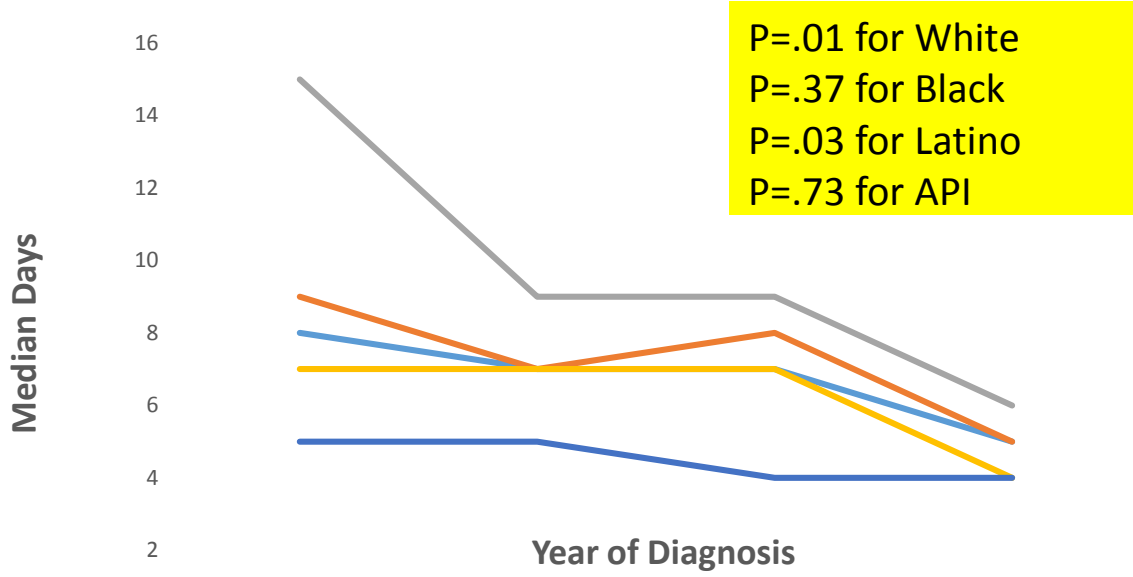


Proportion of ART starts by Site, 2016	
Site	ART Starts(%)
All	215
HCO/Univ	24 (11)
HMO	35 (16)
PMD	29 (13)
STD	18(8)
Safety Net	83(39)
Other Public	17(8)
Out of Jurisdiction	9 (4)

Time from Diagnosis to VL<200 c/mL, by Race/Ethnicity

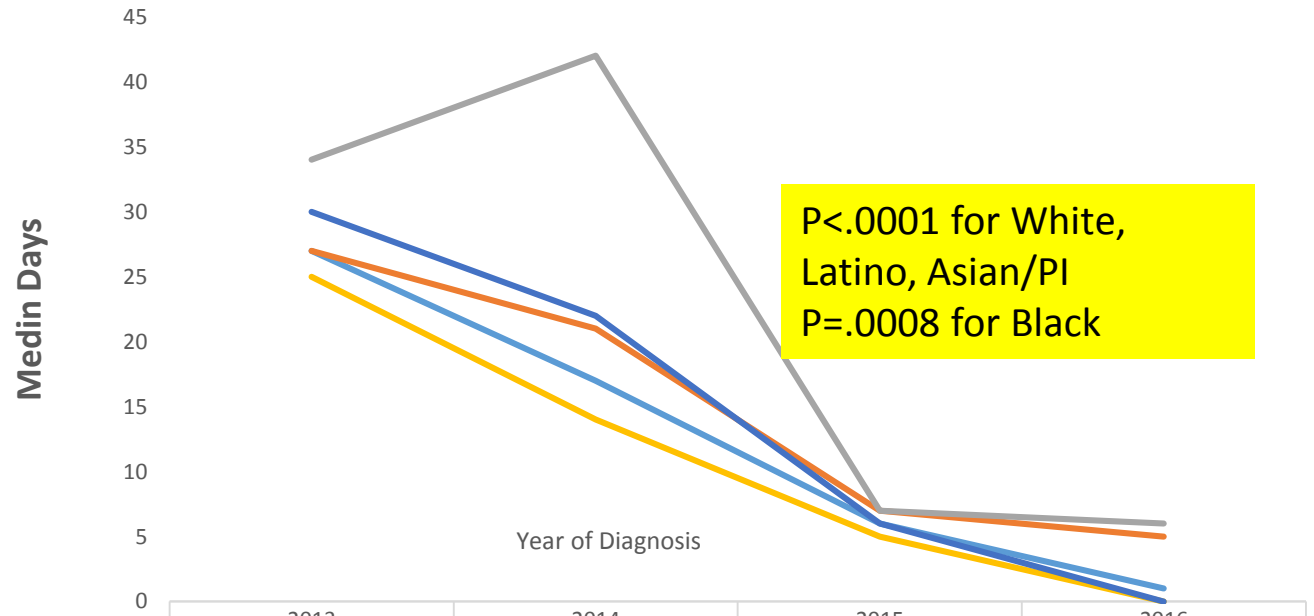


Time from Diagnosis to First Care Visit, by Race/Ethnicity



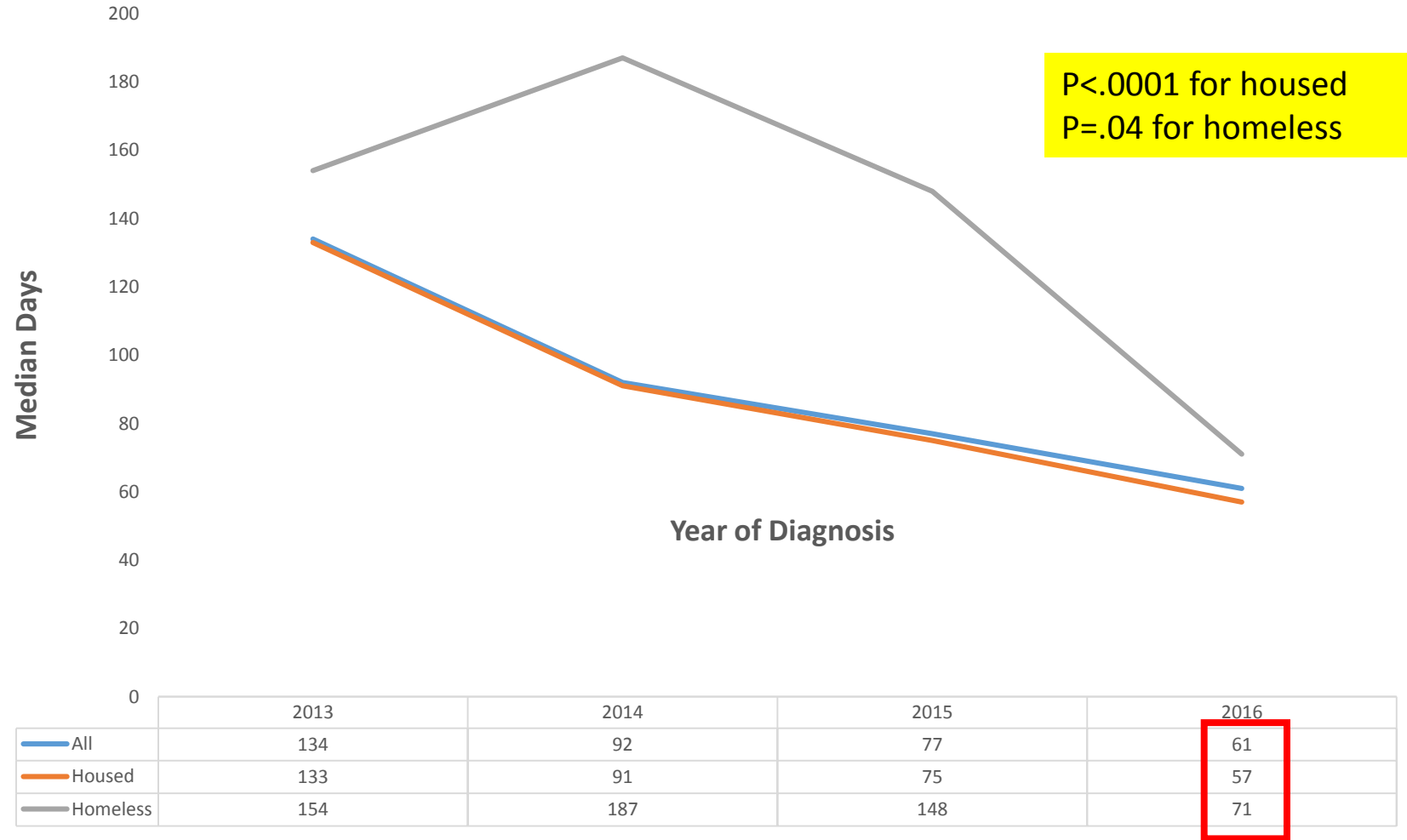
	2013	2014	2015	2016
All	8	7	7	5
White	9	7	8	5
Black	15	9	9	6
Latino	7	7	7	4
Asian/PI	5	5	4	4

Time from First Care Visit to ART Initiation, by Race/Ethnicity

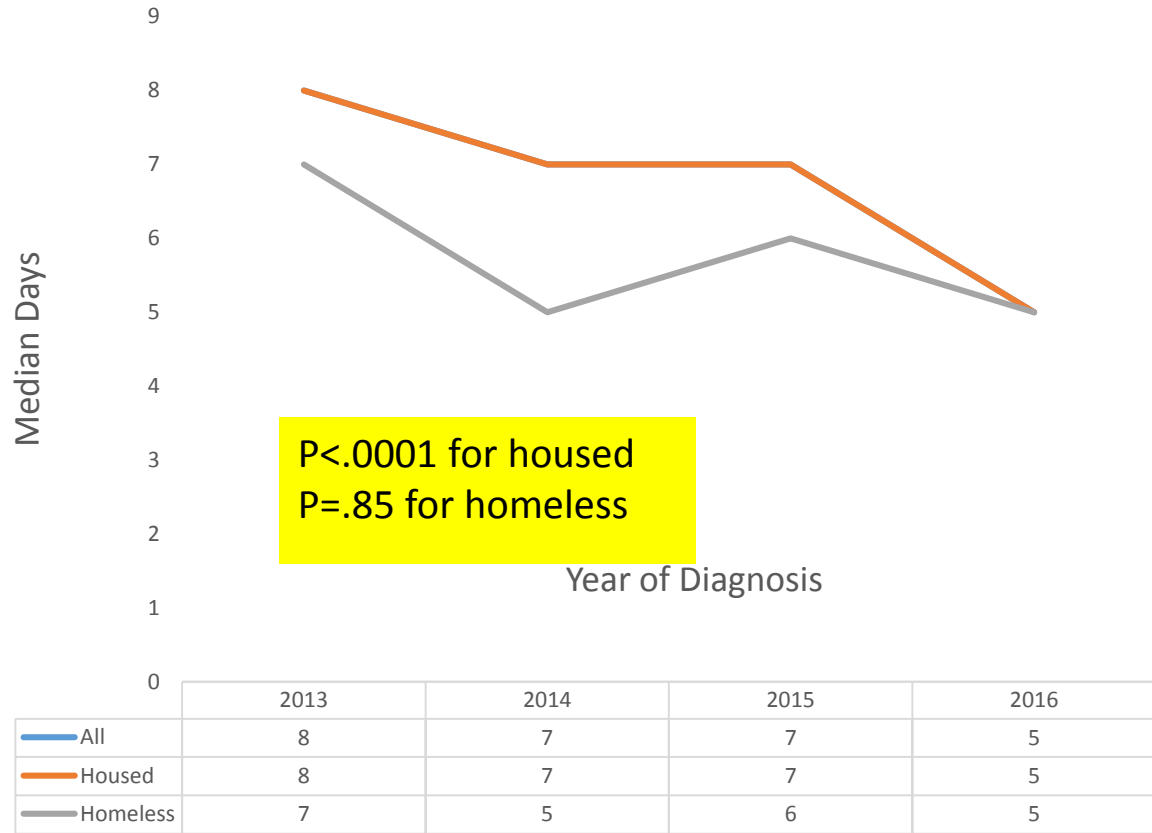


	2013	2014	2015	2016
All	27	17	6	1
White	27	21	7	5
Black	34	42	7	6
Latino	25	14	5	0
Asian/PI	30	22	6	0

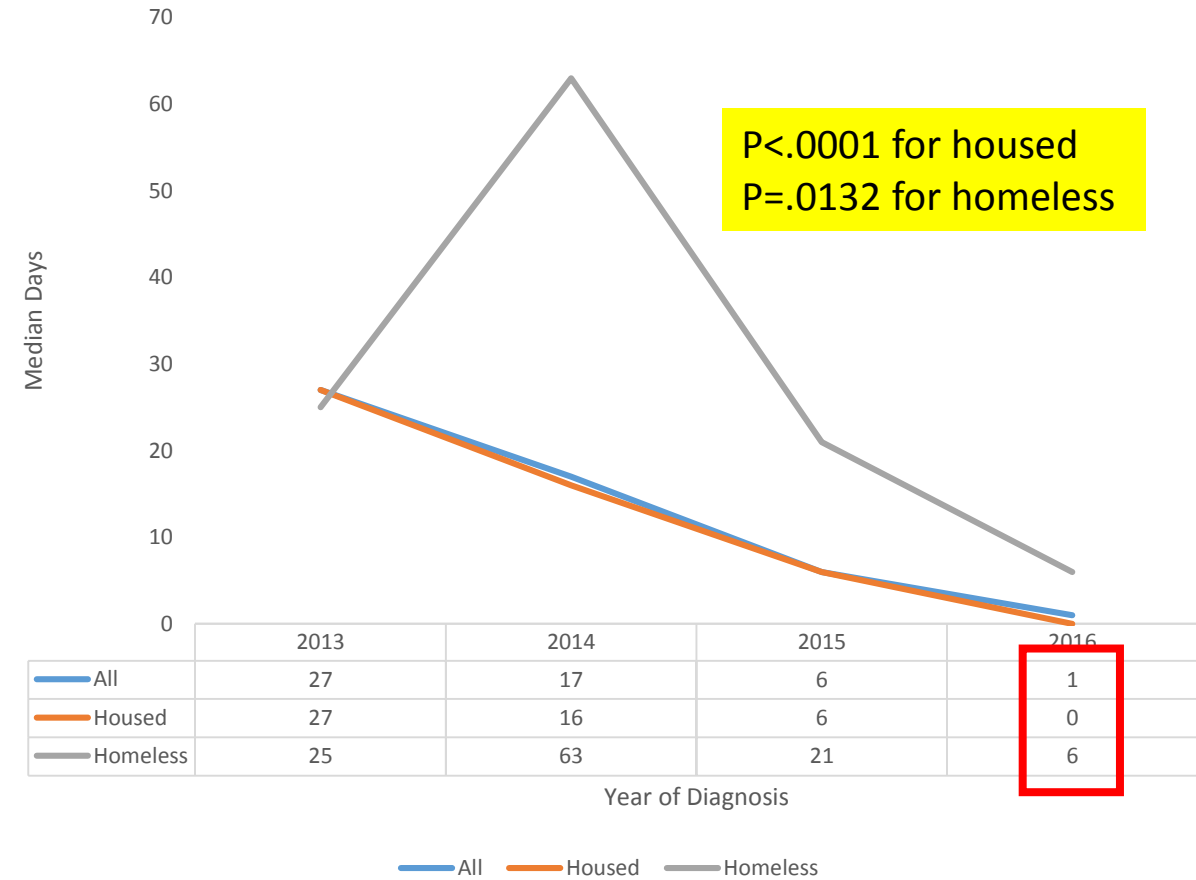
Time from Diagnosis to VL<200, by Housing Status



Time from Diagnosis to First Care Visit, by Housing Status



First Care Visit to ART Initiation, by Housing Status



Summary and Limitations

- During a citywide, multisector initiative to optimize ART initiation, time to first virologic suppression was cut by more than half from 134 days to 61 days.
- Median time from care to ART cut 96% from 27 days to 1 day.
- **Significant improvement in time to ART initiation and first virologic suppression in traditionally vulnerable populations, including racial and ethnic minorities and the homeless.** Disparities remain in some groups.
- 30% of new HIV diagnoses in 2016 met strictest RAPID start definition, vs. 6% in 2013.
- RAPID uptake by care providers improved in the public and private health care sectors.
- 16% of persons diagnosed with HIV in 2016 were not started on ART; no notable sociodemographic differences vs. ART starters (data not shown).
- Durability of virologic suppression not addressed in this analysis.

Conclusions and Future Directions

- Time from HIV diagnosis to first virologic suppression can be shortened citywide using collaborative multisector approach
- Routinely collected HIV surveillance data, plus case-based review (ART start date), central to map care pathway and identify areas for improvement
- Increase individual detailing to make immediate ART standard of care among all HIV providers
- Role of ARV choice in longer time to suppression in certain groups?
- Ongoing studies evaluating the impact of RAPID initiation of ART on retention and durable viral suppression
- Need different data to understand ART non-starters

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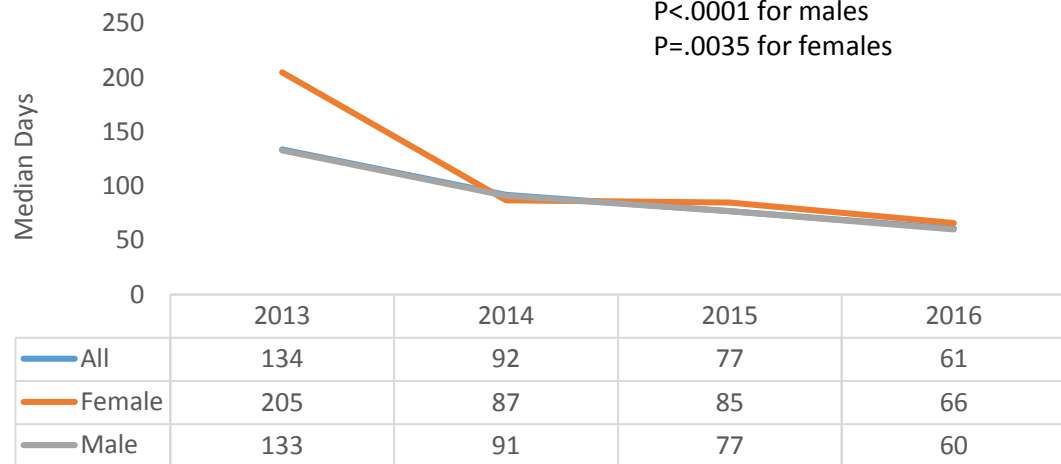
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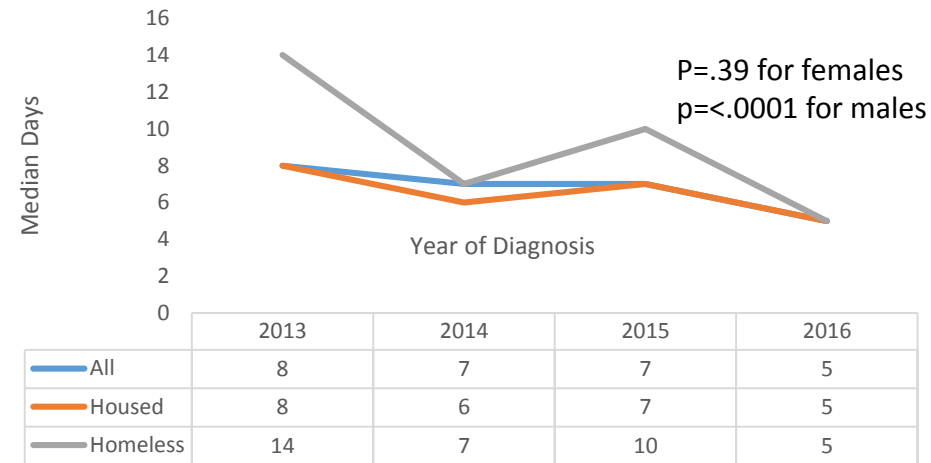
Extra Slides

Time from Diagnosis to VL<200, by Sex

P<.0001 for males
P=.0035 for females

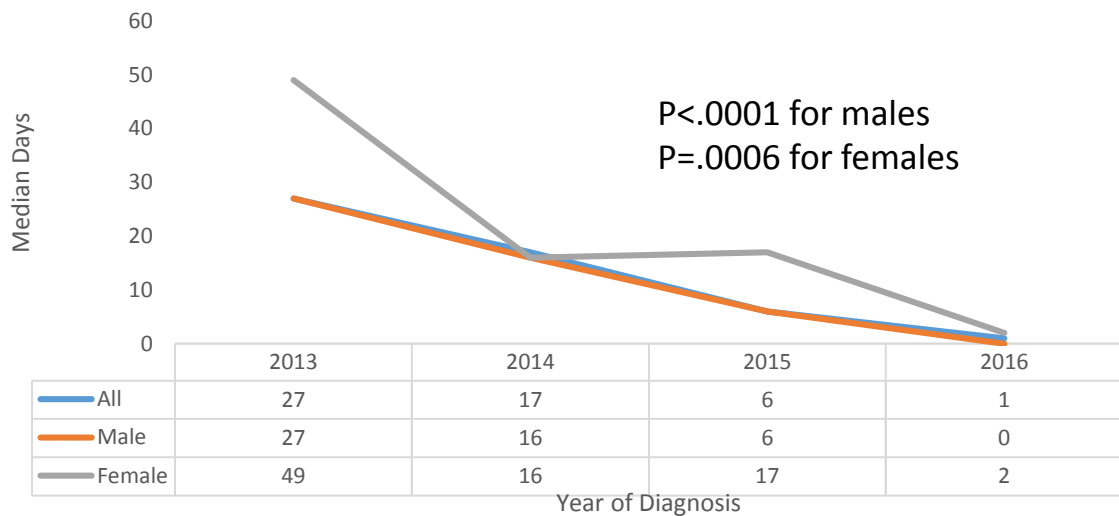


Time from Diagnosis to First Care Visit, by Sex

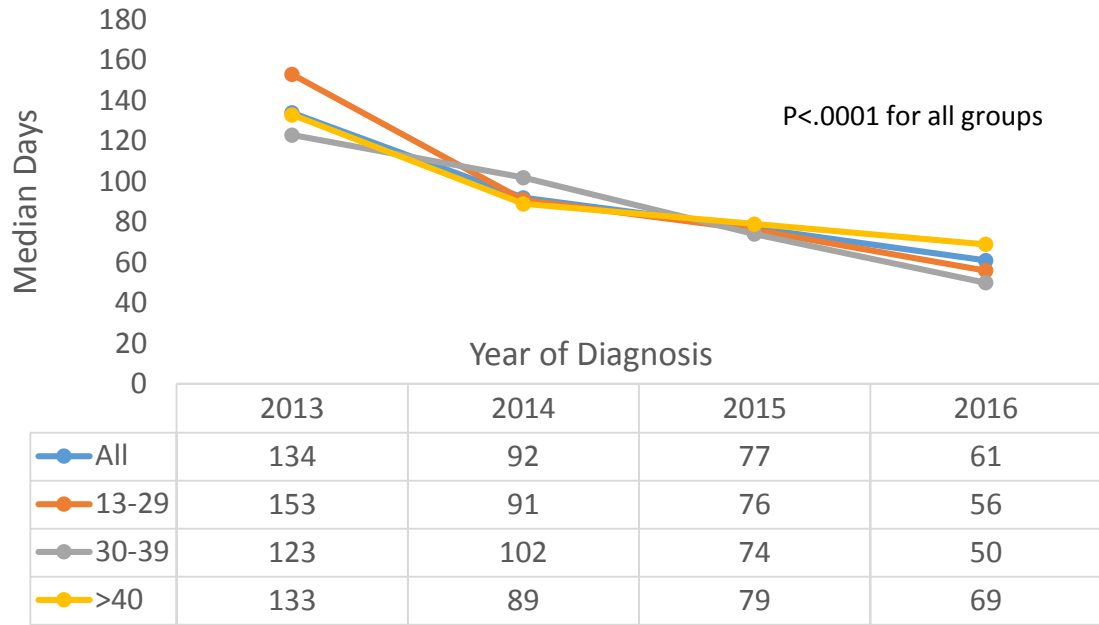


First Care Visit to ART Initiation, by Sex

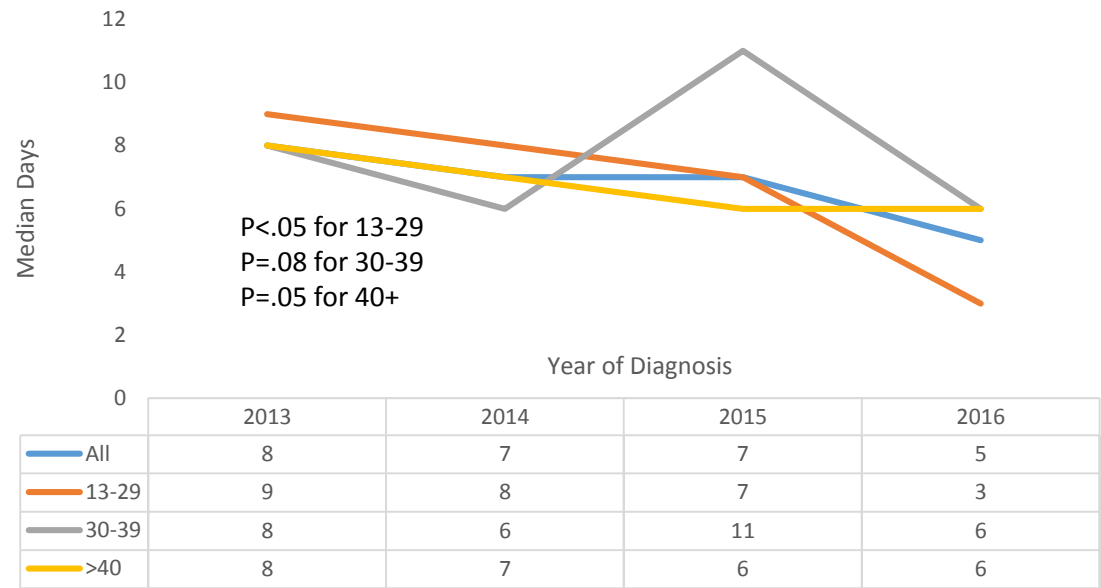
P<.0001 for males
P=.0006 for females



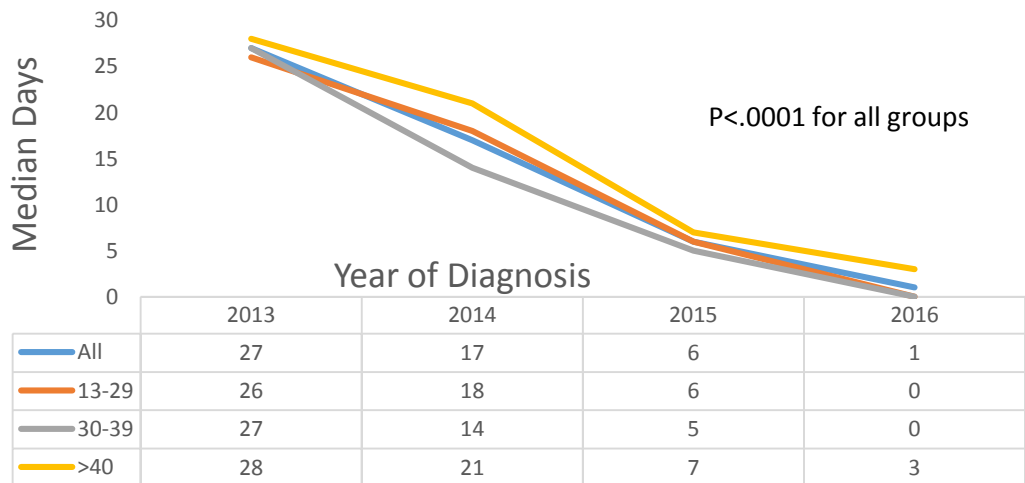
Time from Diagnosis to VL<200, by Age



Time from Diagnosis to First Care Visit, by Age (years)



First Care Visit to ART Initiation, by Age (Years)



Milestones in Citywide HIV Diagnosis and Care, pre-RAPID

Written consent for HIV testing dropped: 2006
 Expansion of HIV testing and universal ART: 2010
 Citywide Navigation-to-Care Team (LINCS): 2011
 SFGH/UCSF RAPID Pilot: 2013-14

Diagnosed site (2013):	%	Linked to Care by	Linked to Care at (2013): %
Community Site(DPH)	28	Internal/LINCS backup	SFGH and Network Clinics: 29
SFGH and Network Clinics	15	Internal/LINCS backup	Private MD: 24
City STD Clinic	14	LINCS	KP-Large HMO: 14
Private MD	13	Internal/ LINCS backup	University/Private Hospital: 10
University/Private Hospital	9	Internal/LINCS backup	City STD Clinic: 4
KP- Large HMO	9	Internal/LINCS backup	Other: 8
Community site (non-DPH)	9	Internal/LINCS backup	Not in Care: 3

Citywide RAPID built on existing resources (2015)

