



# **THE GREATER CLEVELAND HIV CARE CONTINUUM**

## **FINDINGS FROM THE GREATER CLEVELAND HIV HEALTH INFORMATION PROJECT (CHHIP)**

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# Objectives

1. Describe the local HIV care continuum
2. Understand trends and factors affecting HIV retention in care and viral suppression



# Disclosures

**Gilead- Participated in the Steering Committee for PrEP**

# HIV Continuum of Care

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

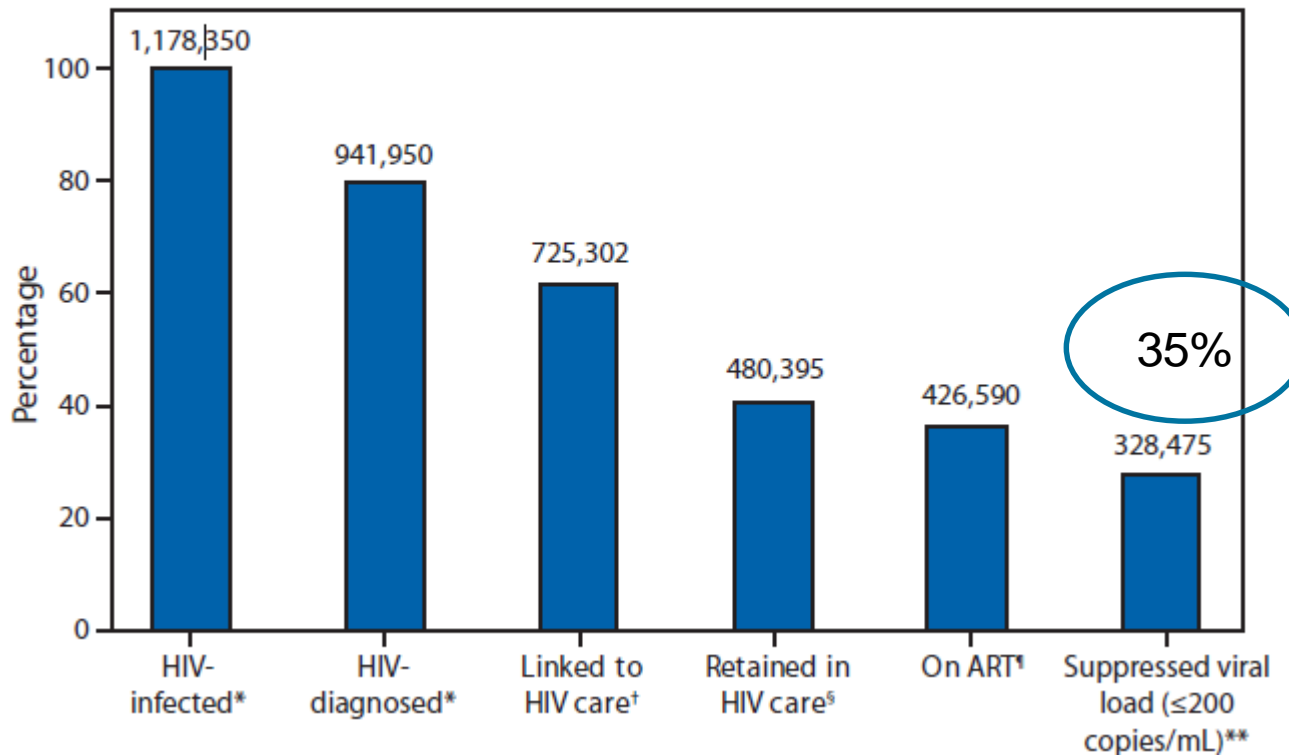
Entered HIV  
care but lost to  
follow-up

Cyclical or  
intermittent user  
of HIV care

Fully engaged  
in HIV care

# Test and Treat- and problems with the

FIGURE 3. Number and percentage of HIV-infected persons engaged in selected stages of the continuum of HIV care — United States





# National HIV/AIDS Strategy ( NHAS)

**Reducing New HIV infections (by 25%)**

**Increasing Access to Care and Improving Health Outcomes for  
People Living with HIV**

**Reducing HIV-Related Health Disparities**



# Challenges to a local Health Care Continuum (HCC)

- **Ohio Department of Health (ODH) does not provide data to care information ( though planned)**
- **Local Health Dept ( CDPH) data is different than ODH**
- **Ryan White data does not cover entire population**
- **Patients that move in or out of area and not necessarily accounted for by health department**
- **A single system would limit generalizability**
- **No one single source for desired information**



# **CHHIP GREATER CLEVELAND HIV HEALTH INFORMATION PROJECT**

**LEVERAGING EMRS TO  
IMPROVE HEALTH OF PATIENTS  
LIVING WITH HIV/AIDS (PLWHA)**



# The Goal

## Develop & pilot community-wide clinical information system

- Build data system that integrates quality metrics (i.e., CD4 count, viral load, treatment adherence) with patient characteristics & needs (i.e., demographics, risk factors, co-morbidities, food stamp use)

## Optimize individual and population health

- Coordination of intervention activities for all practices delivering care to PLWHA



# Electronic Medical Records (EMR)

Epic is used in most partner organizations, all have some type of EMR

- Labs
- Ambulatory visits
- Medical co-morbidities
- Utilization (hospital, ED)





# Outcome vs Process

## Process

-was the appropriate diagnostic or monitoring test completed or captured?

## Outcome

-what was the result?

# Better Health Greater Cleveland

## Independent, grant-funded 501(c)(3)

- Established in 2007
- Robert Wood Johnson Foundation's Aligning Forces for Quality initiative
- Leverages data to identify opportunities & best practices in improving care & outcomes within a peer network of *primary care* professionals
  - ❖ Diabetes
  - ❖ Hypertension
  - ❖ Heart failure



# Why Cleveland Rocks!

- **Comprehensive connection of HIV care providers**
  - Current CHHIP partners
    - UH, CCF, Care Alliance, Free Medical
  - Agreed upon HIV care standards & metrics
  - Maximize delivery impact on both individual & community
- **Dedicated manpower for population management**
- **Consistent identifier to track movement**





# CDPH participation for all reported cases

## Bi-directional sharing to determine:

1. people who are HIV+ but not reported to the health department
2. people who have died or moved out of the area
3. people who are HIV+ (tested by health department) but not linked to care



# Who is missing from data?

**Veteran's Administration Medical Center ( VAMC)**

**AIDS Health Care Foundation**

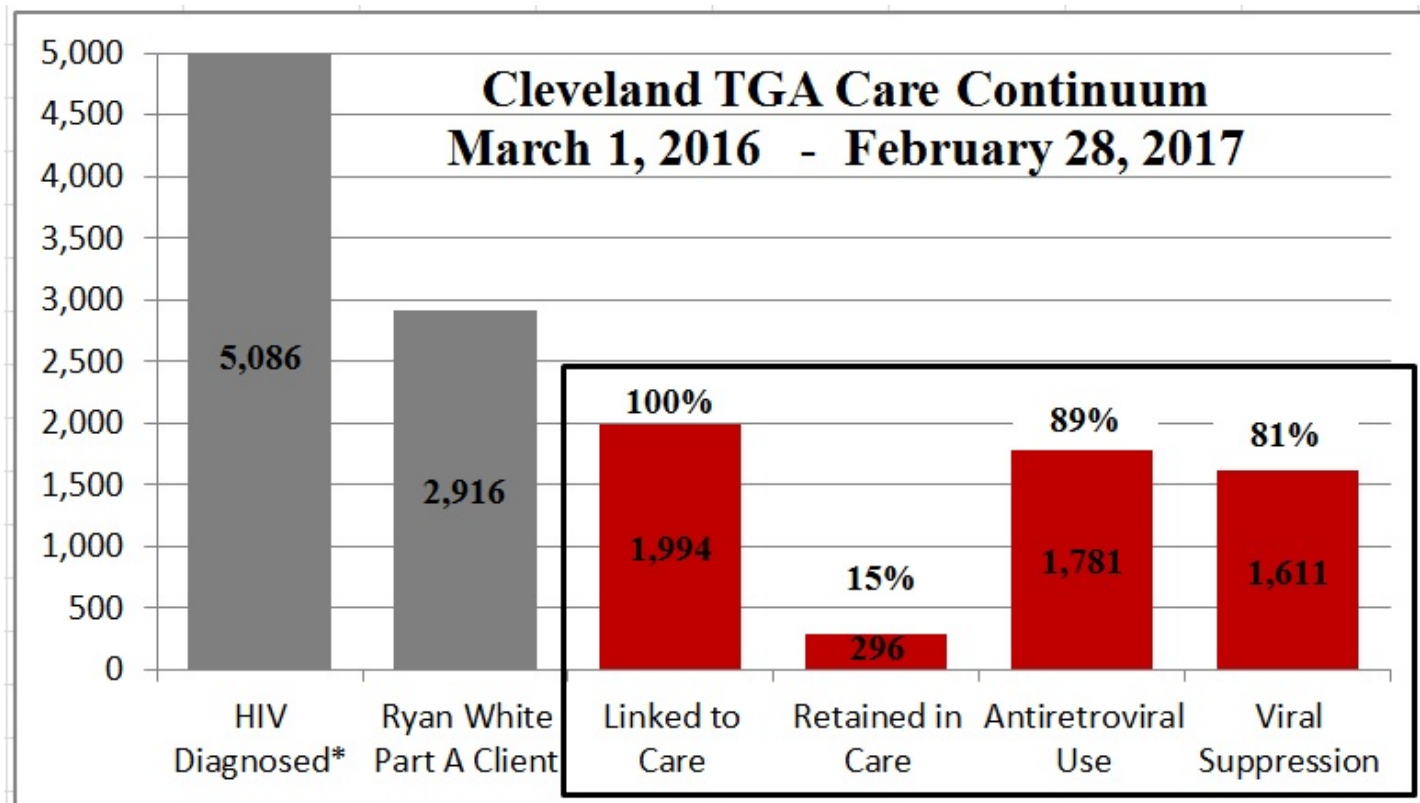
**St Vincent Charity**

**Some community CCF sites ( new in 2016)**

**Free Medical Clinic (missing only for 2015-16)**

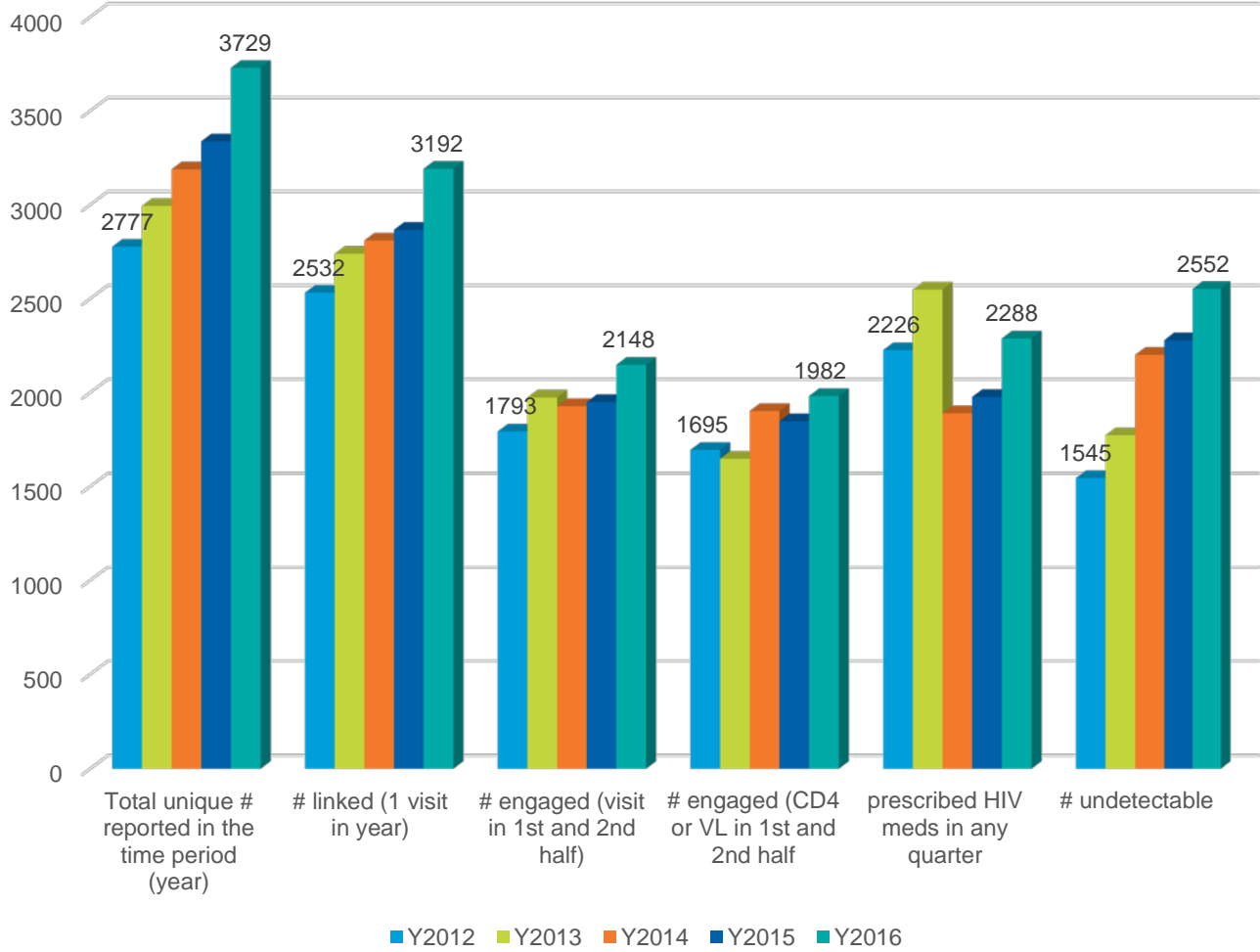
**Small non- affiliated providers**

# Ryan White HIV Care Continuum

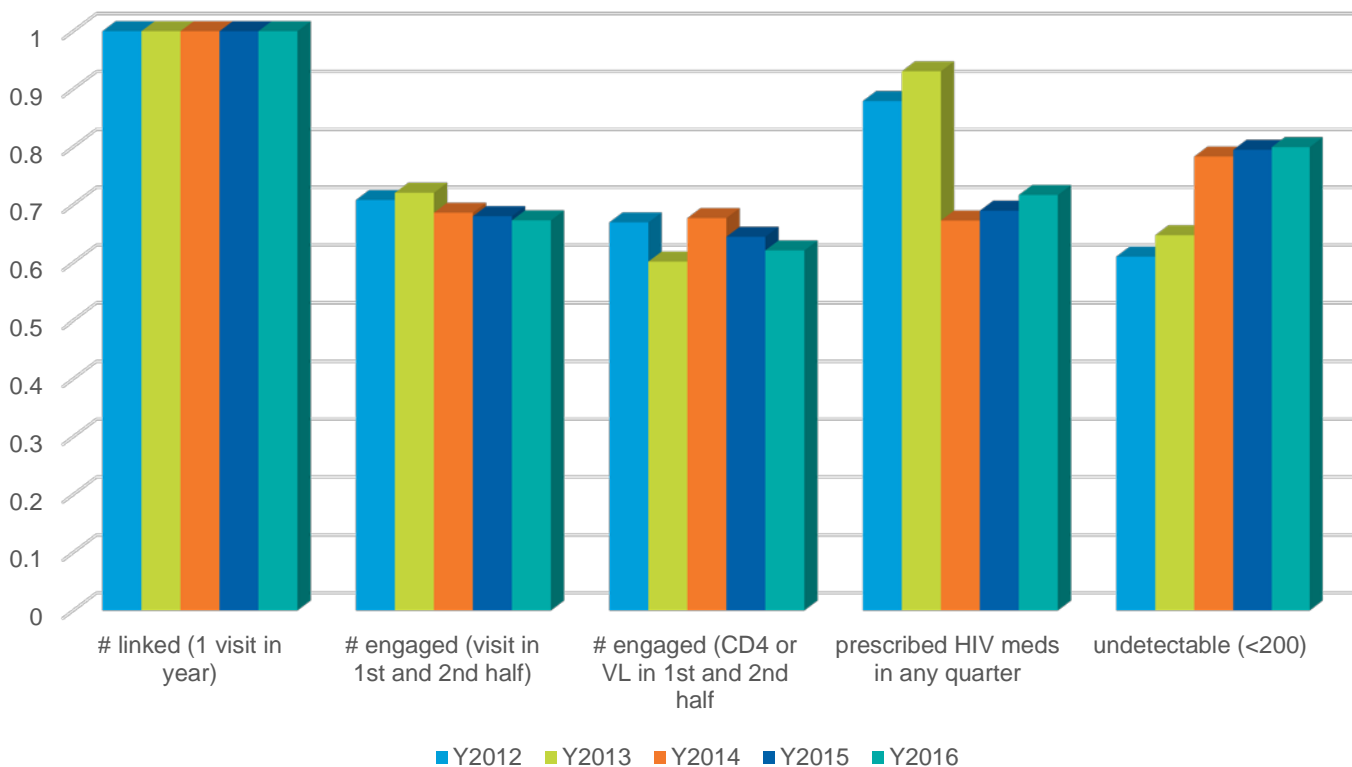




# Cuyahoga County HIV HCC 2016

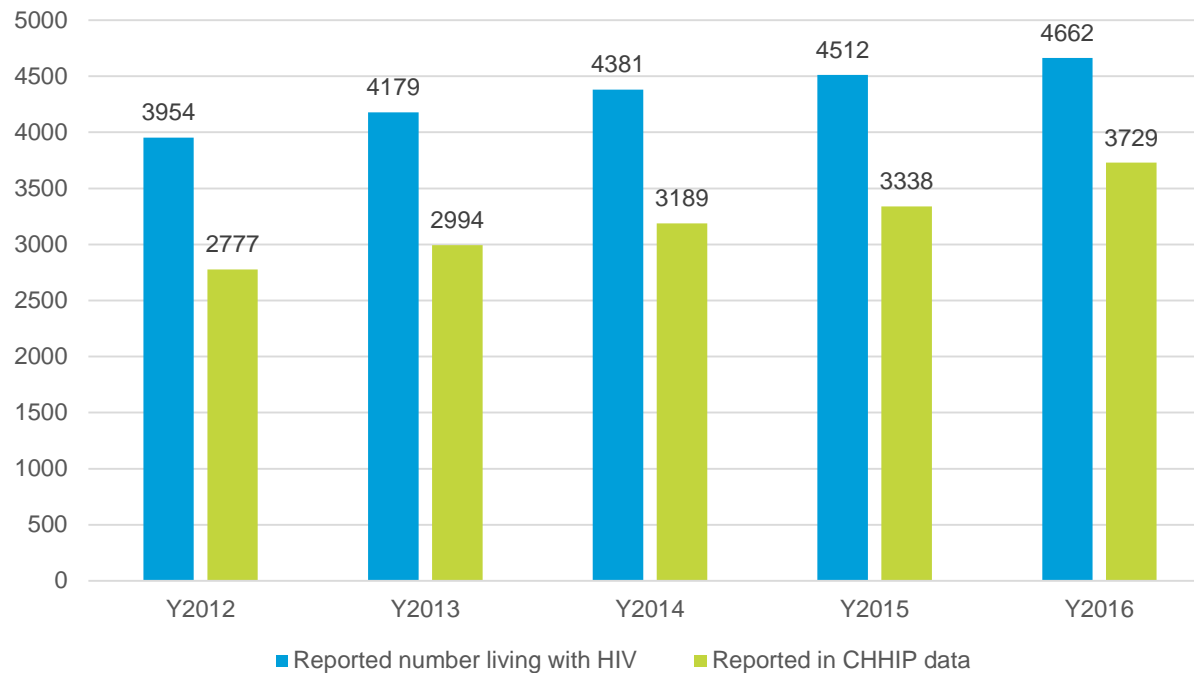


## Cuyahoga County HIV Care Continuum 2012-2016





## Reported HIV Prevalence in Cuyahoga County by ODH vs CHHIP data



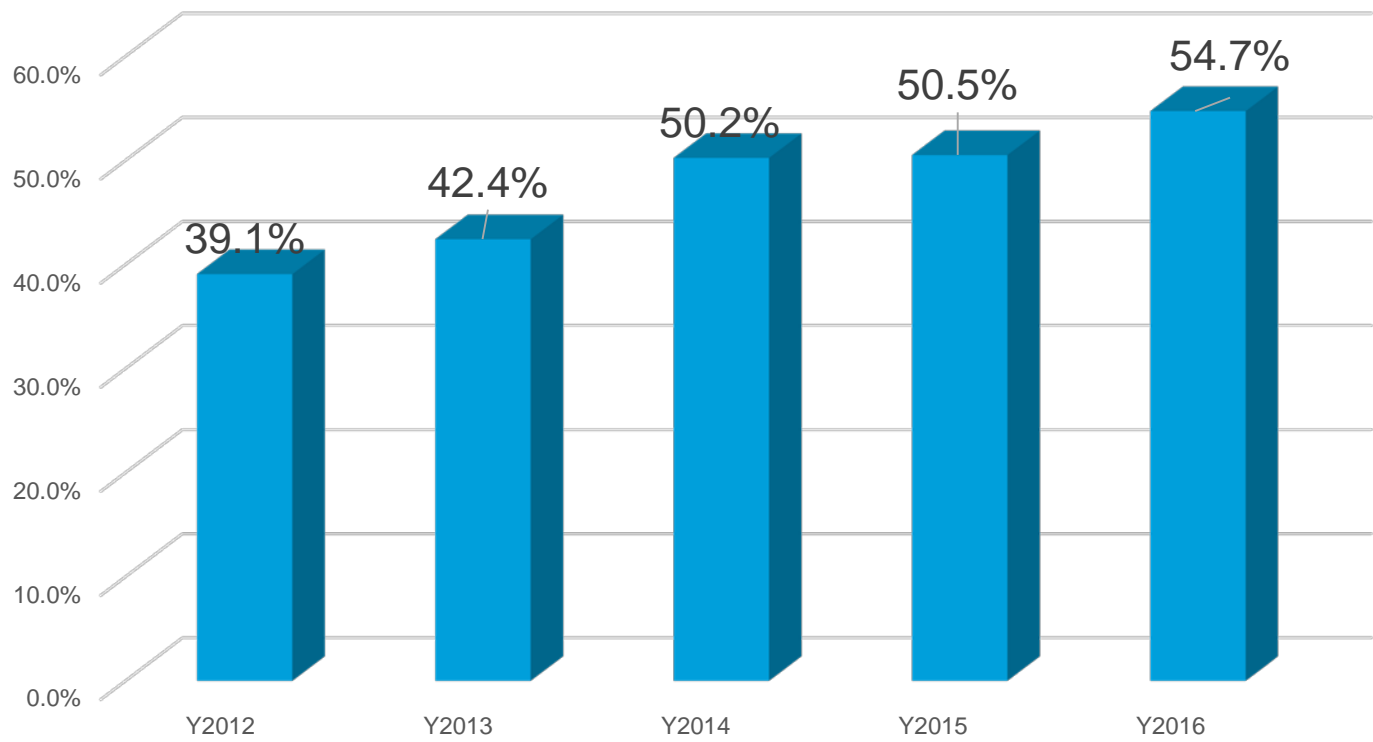
Source: Ohio Department of Health

Persons Living with a Diagnosis of HIV Infection Reported in Ohio

<https://www.odh.ohio.gov/-/media/ODH/ASSETS/Files/health-statistics---disease---hiv-aids/2016/Ohio2016.pdf?la=en>

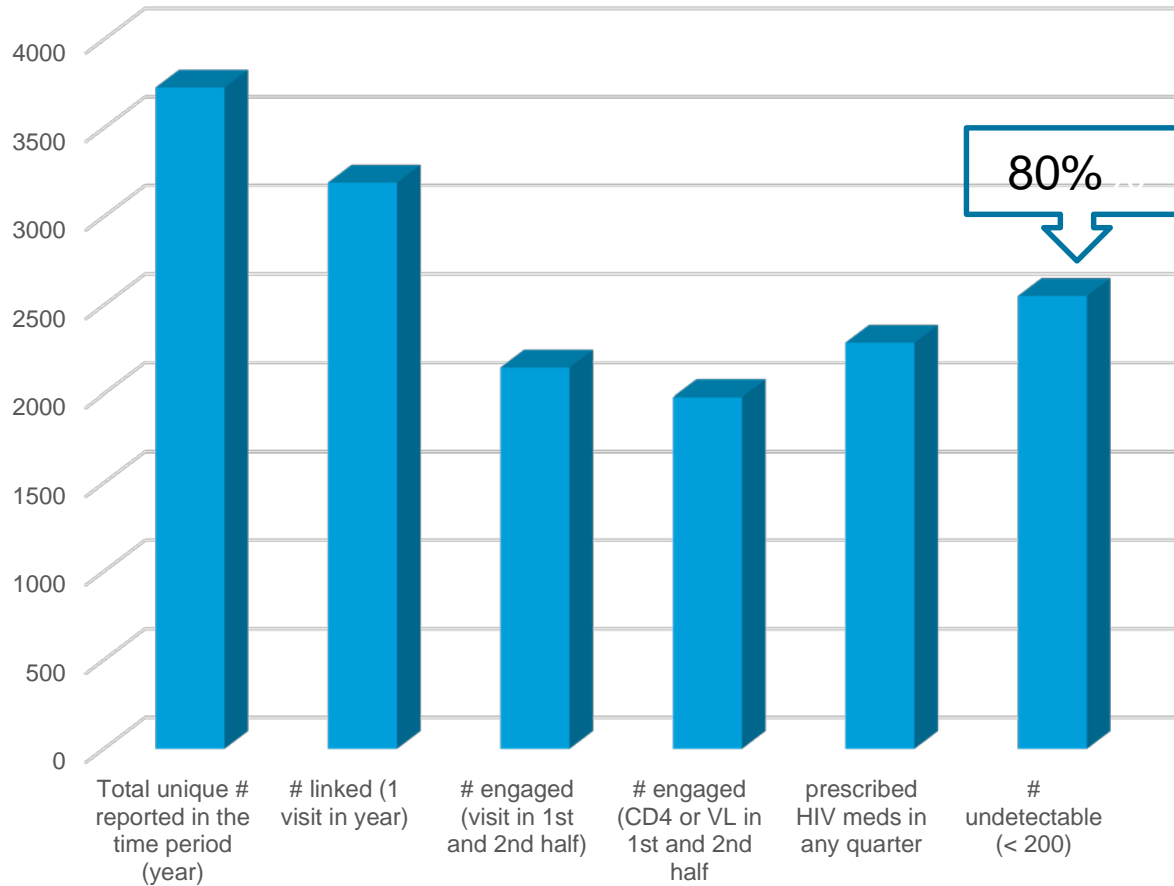


## Cuyahoga County undetectable (<200)



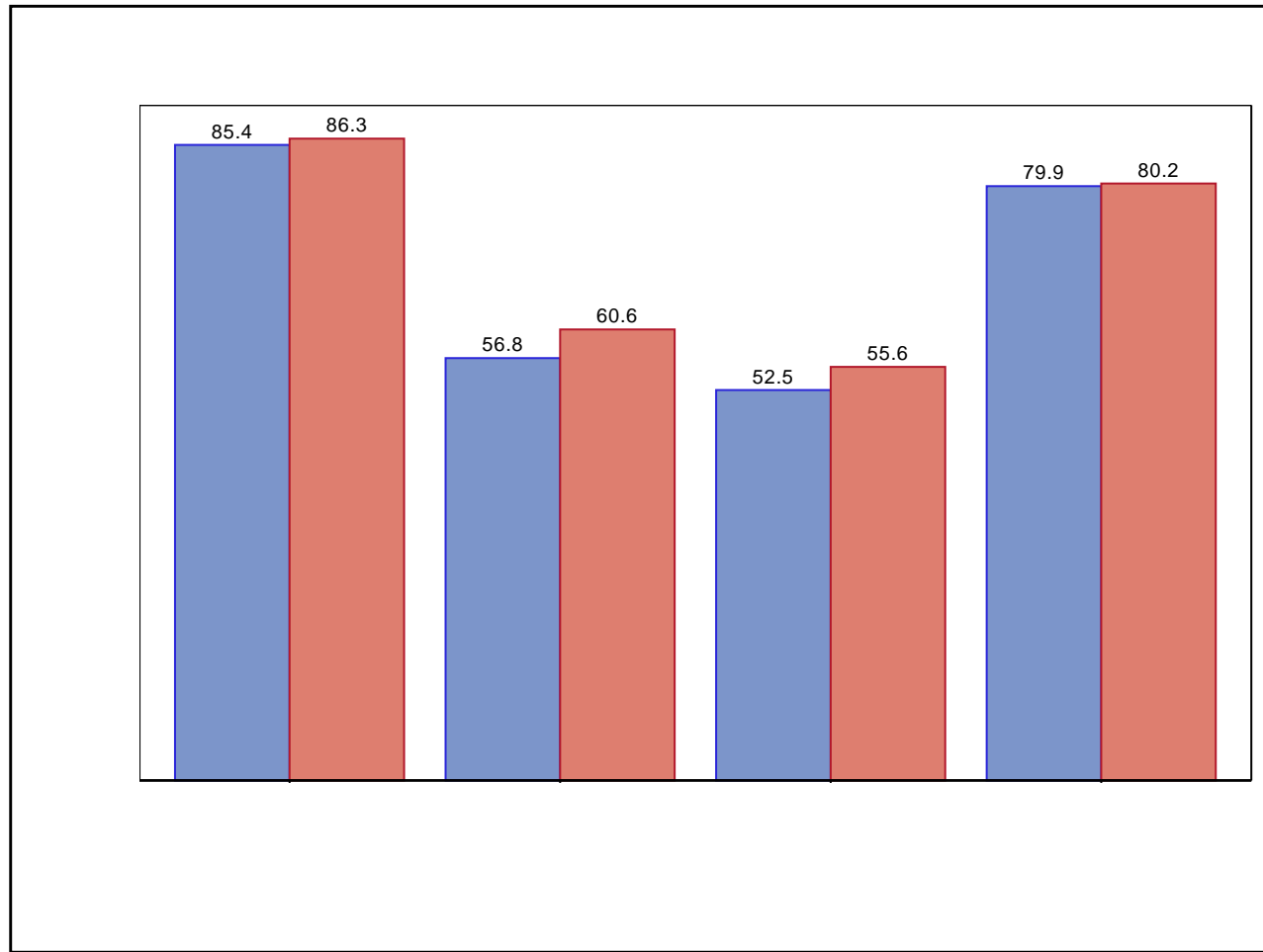
Uses CHHIP data 2016 and reported prevalence from ODH for denominator

## CHHIP Cuyahoga County 2016



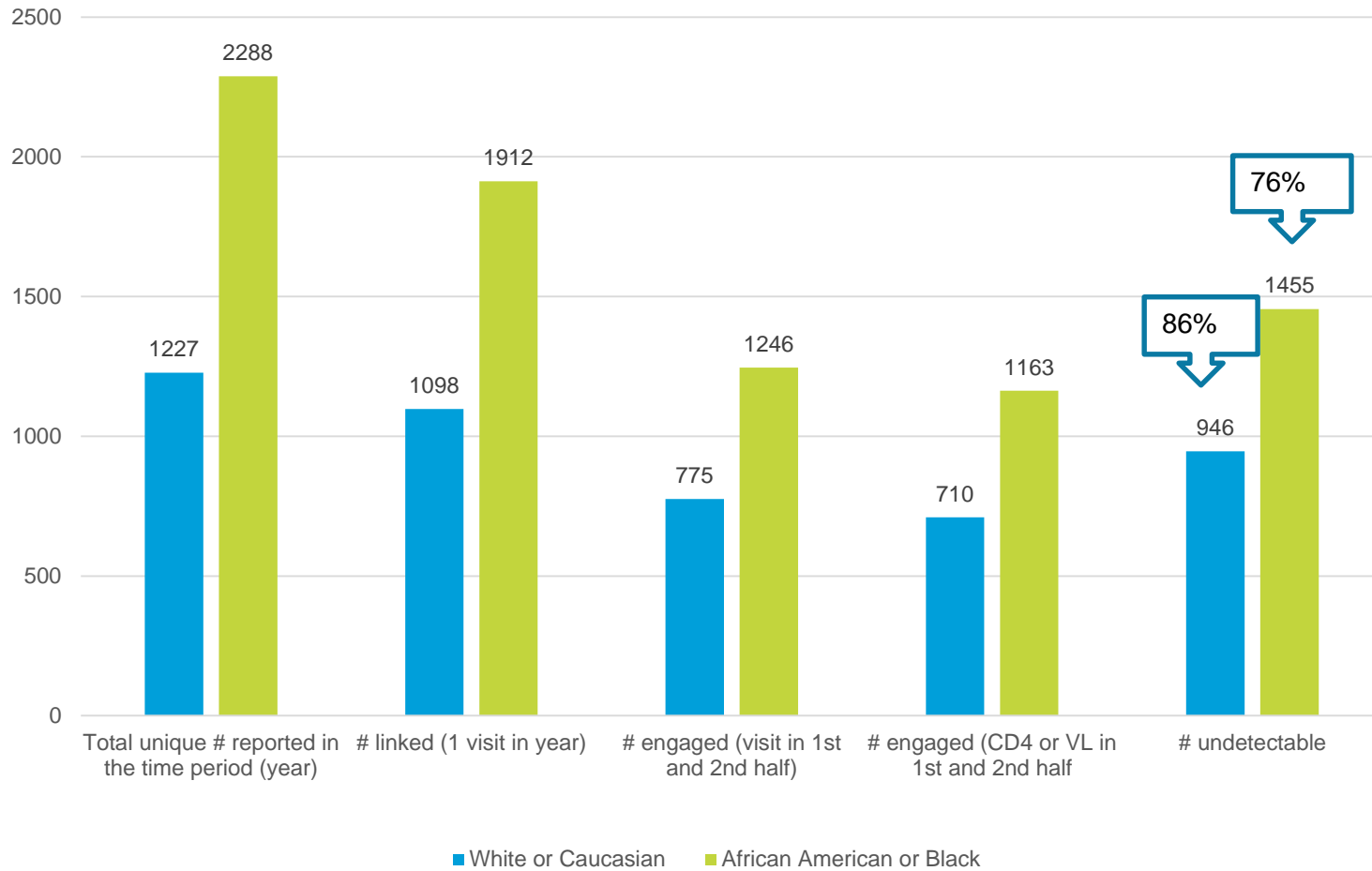
Data from MHS, UH, Care Alliance and Cleveland Clinic

# Cuyahoga County HCC by gender

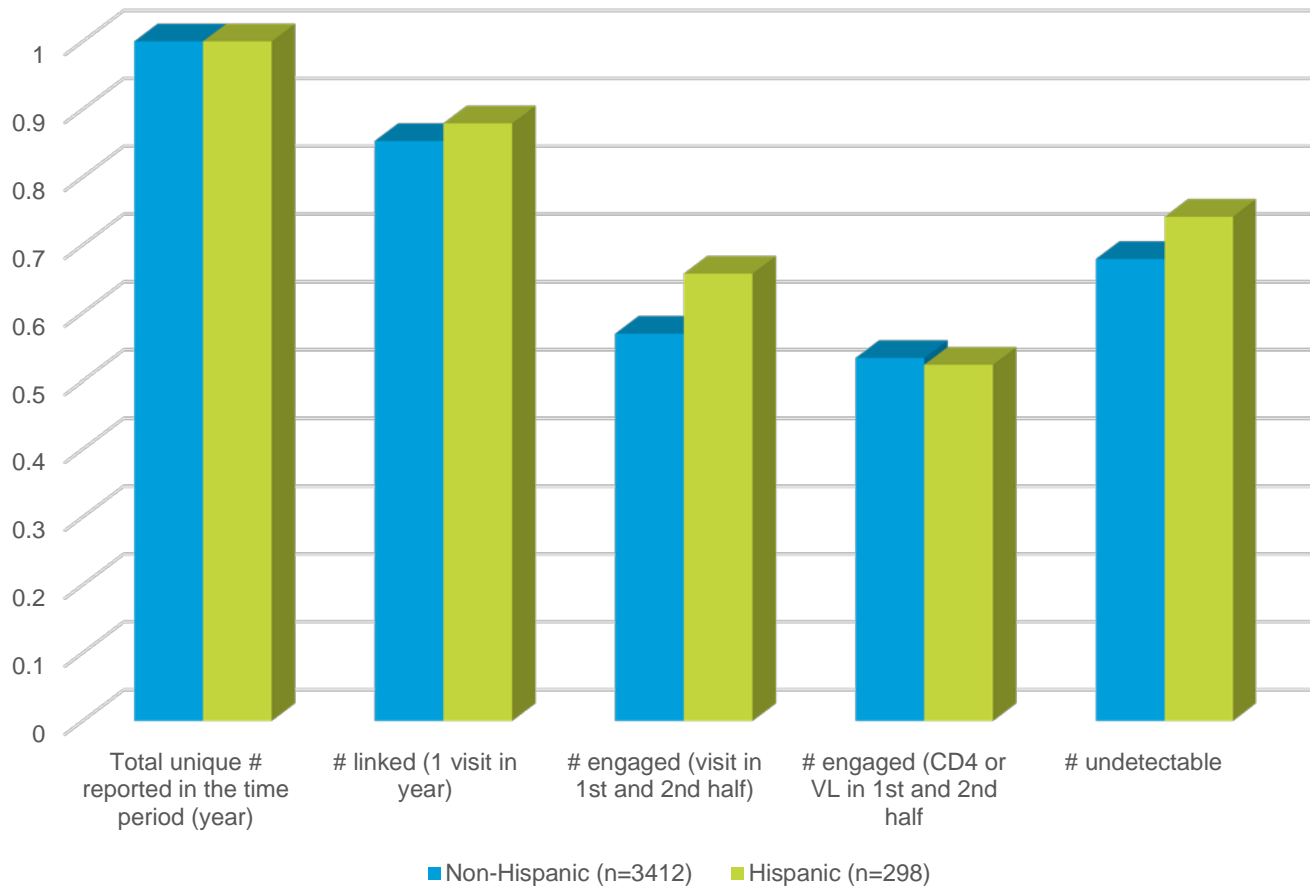


Males n=2914, Females n=815

## 2016 Cuyahoga County HCC AA vs White

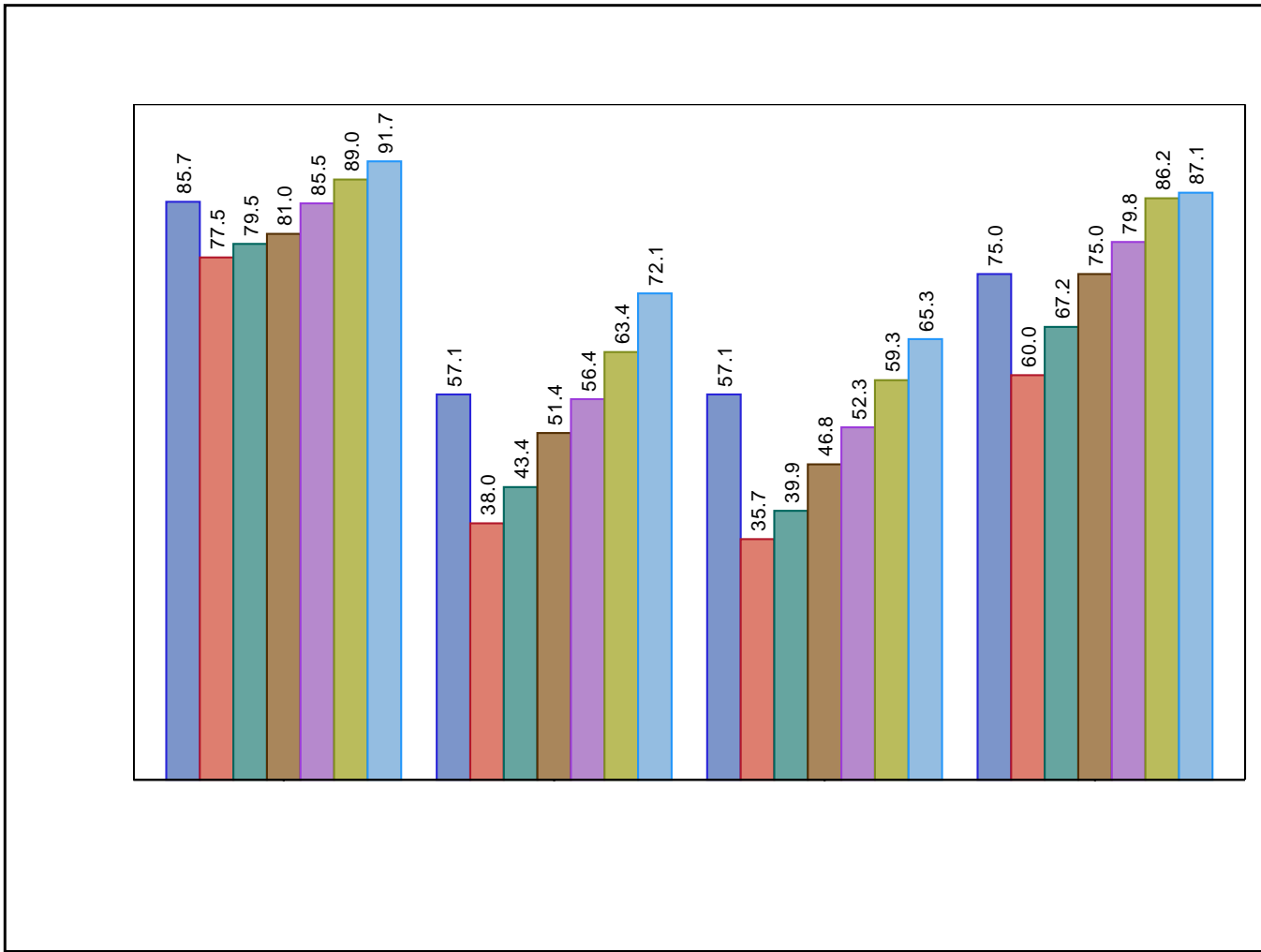


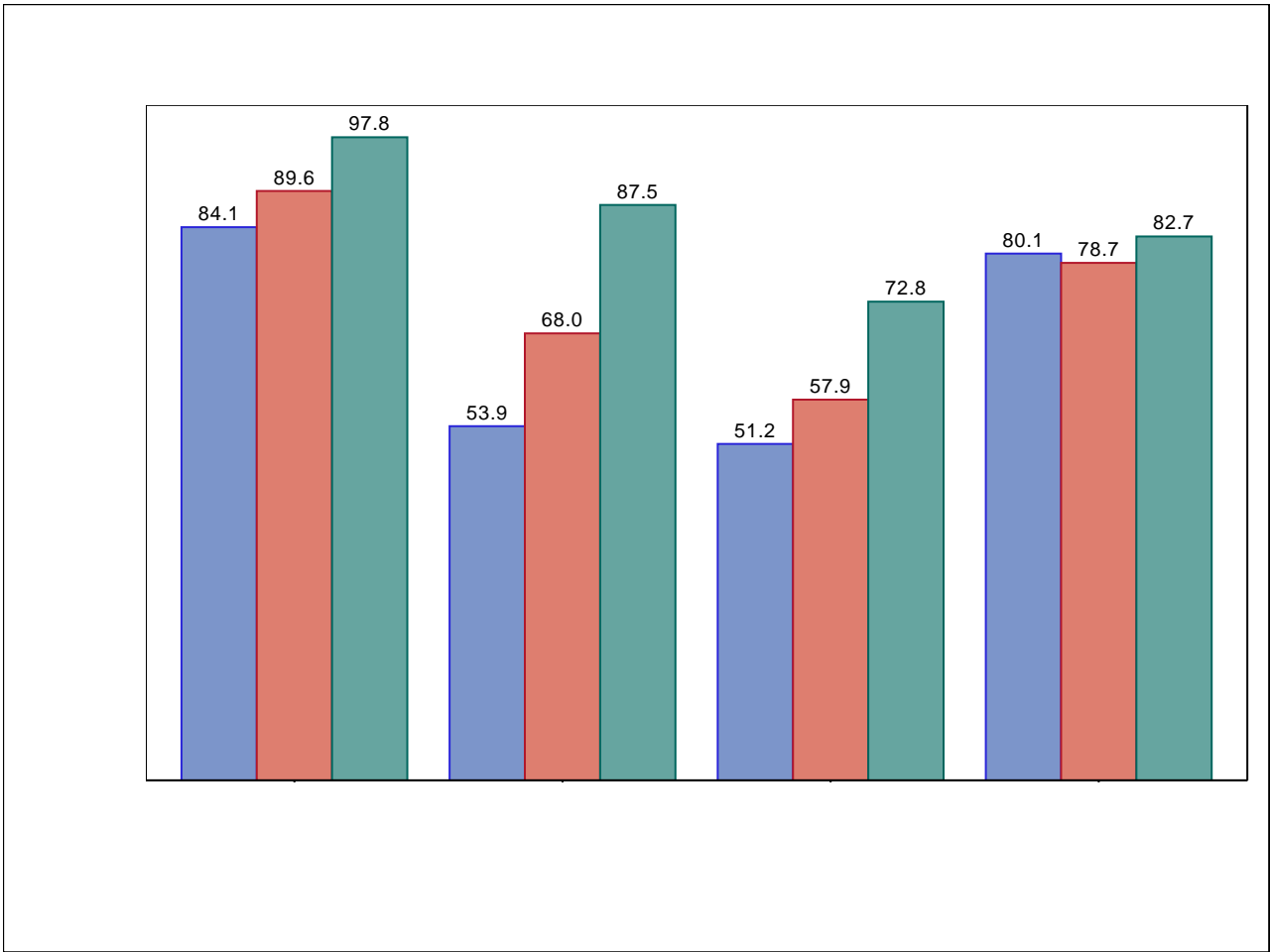
## HCC 2016 Ethnicity





## 2016 HCC by age group



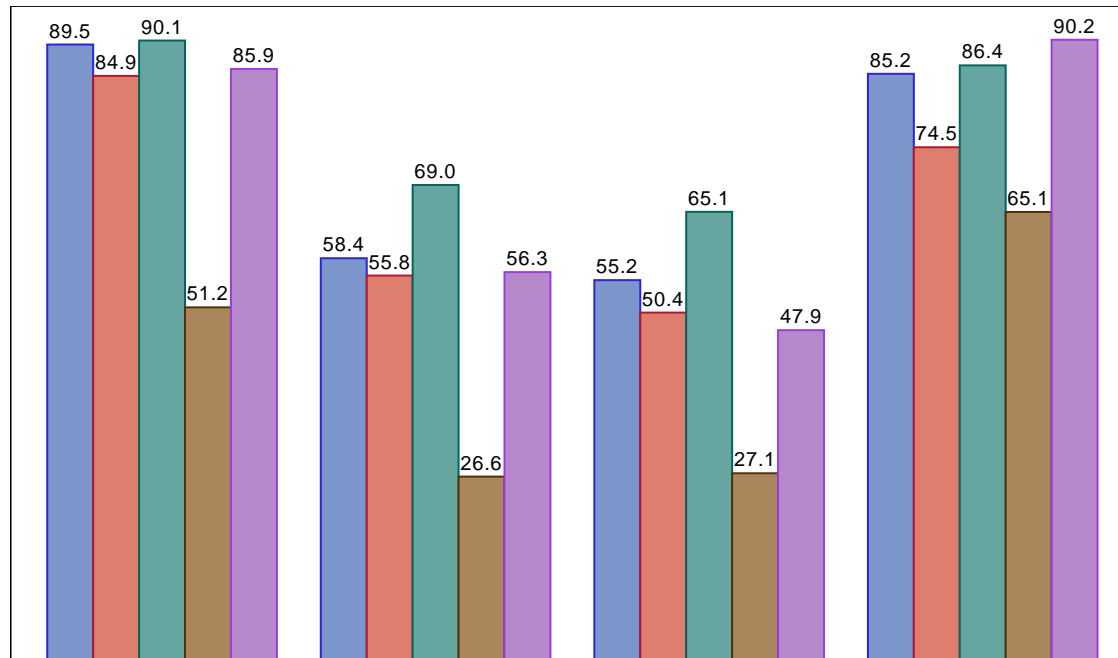


Depression/Psych Status 2	Total unique # reported in the time period (year)	# linked (1 visit in year)	# engaged (visit in 1st and 2nd half)	# engaged (CD4 or VL in 1st and 2nd half)	# prescribed HIV meds in any quarter	medical visit within period	# undetectable
None	2928	2463	1577	1498	1558	2463	1973
Yes, < 2 Psych Visits	665	596	452	385	599	596	469
Yes, >= 2 Psych Visits	136	133	119	99	131	133	110

Data from CHHIP 2016



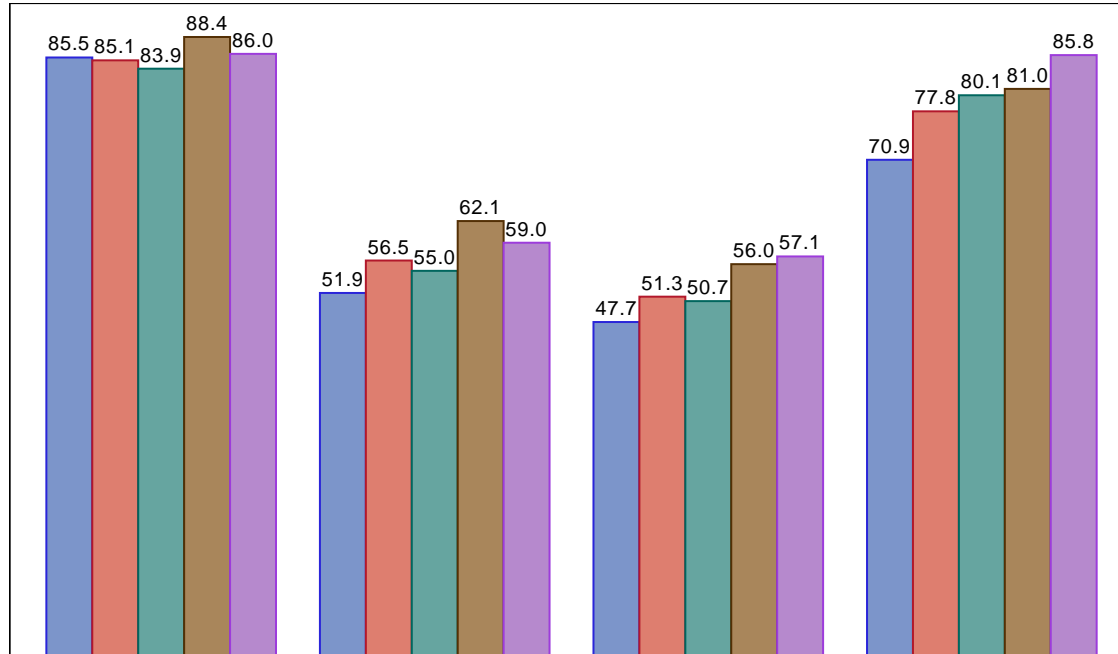
## Cuyahoga County HCC by Insurance Status



Primary Insurance Class	Total unique # reported in the time period (year)	linked (1 visit in year)	# engaged (visit in 1st and 2nd half)	# engaged (CD4 or VL in 1st and 2nd half)	prescribed HIV meds in any quarter	medical visit within period	# undetectable
Missing or Unavailable	46	46	21	9	37	46	24
Commercial or Private	1035	926	604	571	608	926	789
Medicaid	1576	1338	880	795	992	1338	997
Medicare	794	715	548	517	513	715	618
Uninsured or Self-Pay	207	106	55	56	74	106	69
Other Class	71	61	40	34	64	61	55

Data from CHHIP 2016

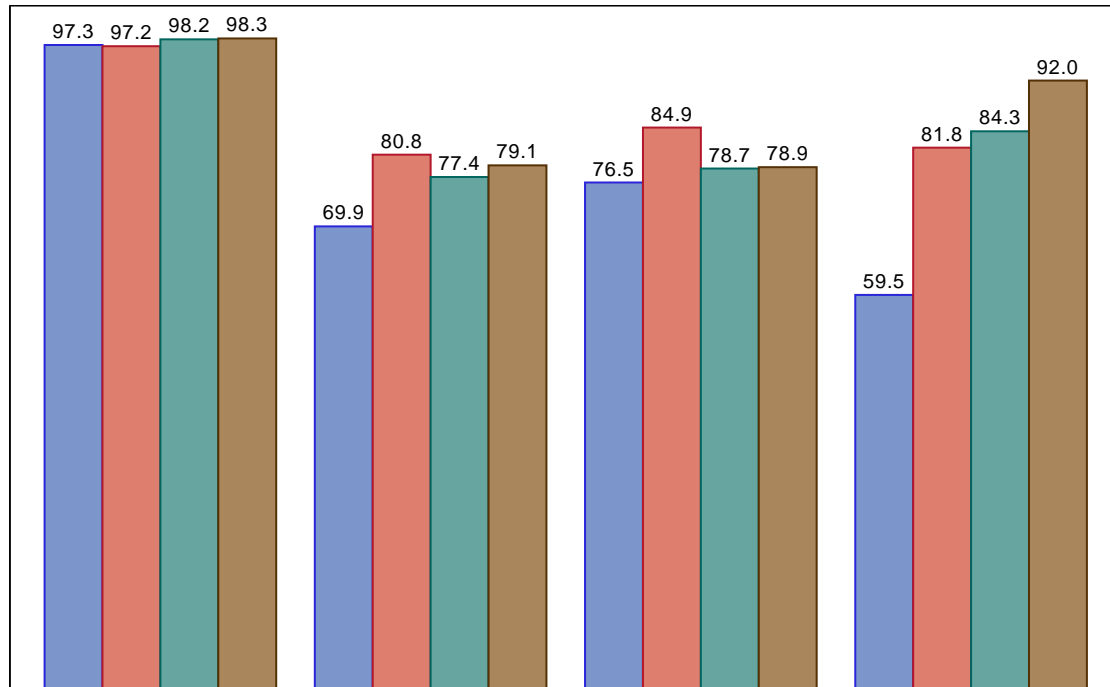
## Cuyahoga County 2016 HCC by Neighborhood Income



Neighborhood Income	Total unique # reported in the time period (year)	linked (1 visit in year)	engaged (visit in 1st and 2nd half)	(CD4 or VL in 1st and 2nd half)	prescribed HIV meds in any quarter	medical visit within period	# undetectable
(\$0K, \$20K]	215	183	108	95	188	183	129
(\$20K, \$30K]	850	701	447	373	707	701	523
(\$30K, \$40K]	753	607	391	340	618	607	483
(\$40K, \$50K]	734	641	441	367	613	641	497
(\$50K, ]	585	515	329	286	499	515	427

Data from CHHIP 2016

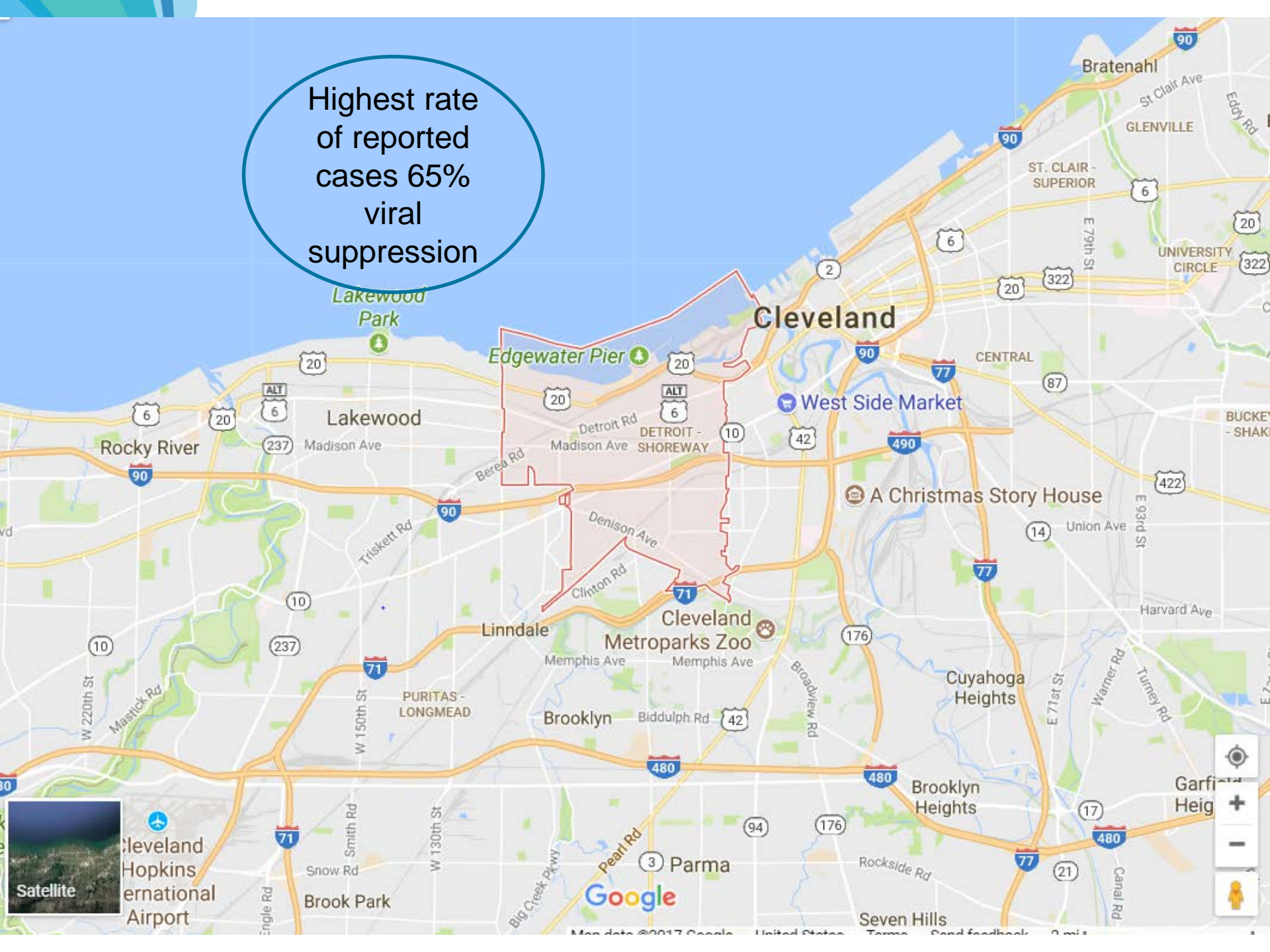
## Cuyahoga County 2016 HCC by Immune Status



TCell Category	Total unique # reported in the time period (year)	# linked (1 visit in year)	# engaged (visit in 1st and 2nd half)	# engaged (CD4 or VL in 1st and 2nd half)	prescribed HIV meds in any quarter	medical visit within period	# undetectable
0 - 200	186	182	132	139	174	182	113
201 - 350	258	253	211	214	236	253	205
351 - 500	312	308	236	233	302	308	256
501+	1057	1041	835	789	991	1041	946

Data from CHHIP 2016

Highest rate  
of reported  
cases 65%  
viral  
suppression

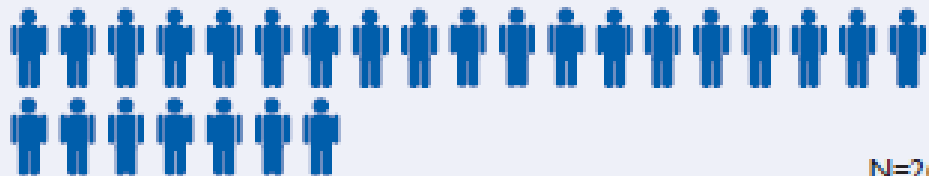




2<sup>nd</sup> highest  
rate of  
reported  
cases 70%  
viral  
suppression



**ESTIMATED NUMBER OF NEW HIV INFECTIONS PER 100 PERSON-YEARS AMONG HETEROSEXUAL SERODISCORDANT COUPLES BY SERUM VIRAL LOAD OF HIV PARTNER'**



N=26\*

50,000 or more copies/ml



N=15\*

10,000–49,999 copies/ml



N=13\*

3,500–9,999 copies/ml



N=2\*

<3,500 copies/ml





# Conclusion

**Viral suppression is excellent among patients who engage in the care system- even if just once in a year**

**Efforts should be coordinated and target to address disparities**

**Priority groups are youth, poverty and those with advanced disease**



# Acknowledgements

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# Discussion and Questions

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