



# Making PrEP Equity Local: Examining PrEP Equity Metrics in US Cities

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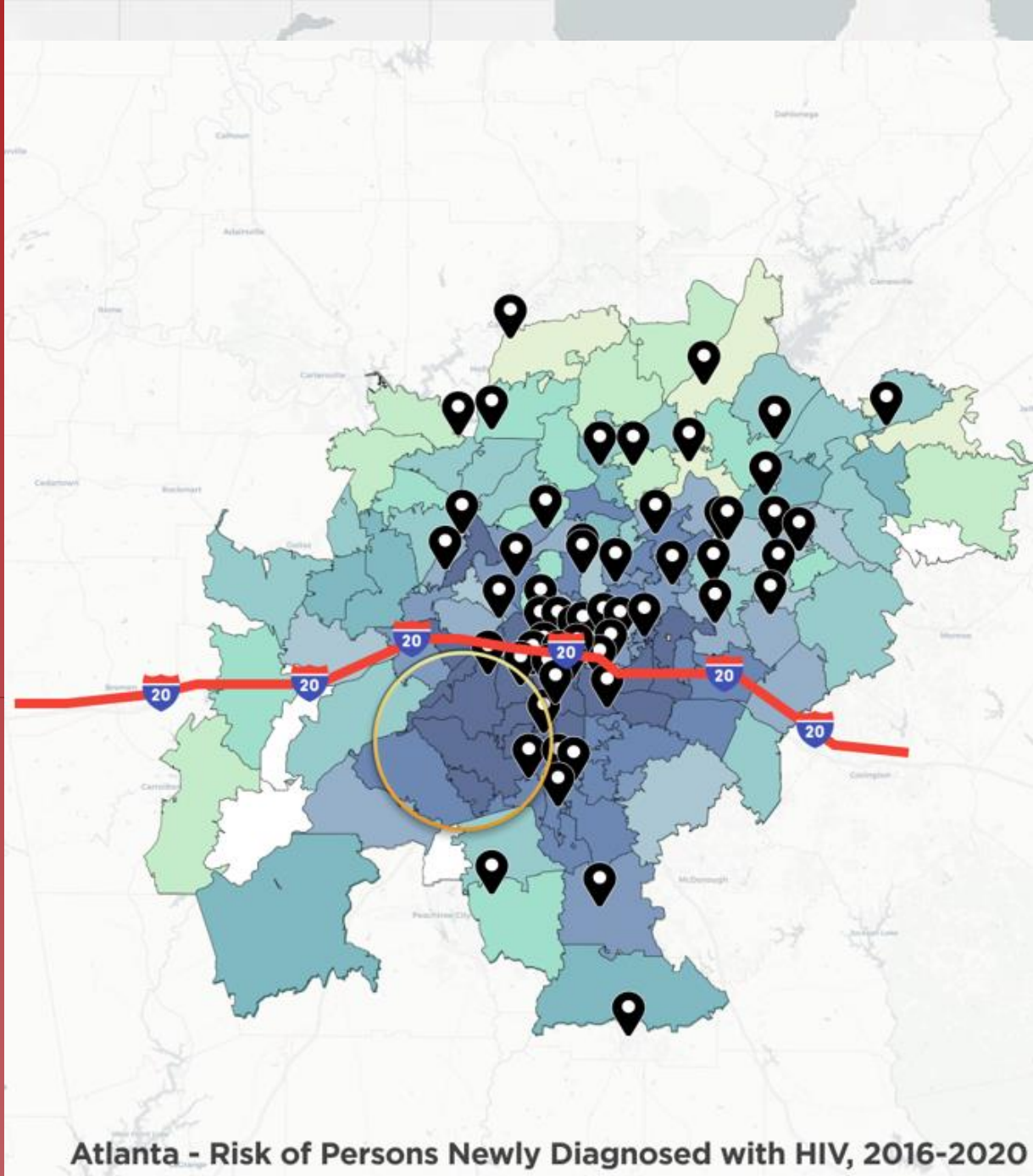
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# Introduction to AIDS Vu

- **Partnership since 2010** between Gilead and Emory University
- Online platform that **visualizes data and disseminate insights on the U.S. HIV epidemic**
- Mission to make data widely available, easily accessible, and locally relevant to **increase awareness and inform public health decision making**
- **Broad user base**, including public health officials, policymakers, advocates, researchers, people impacted by HIV, and general public

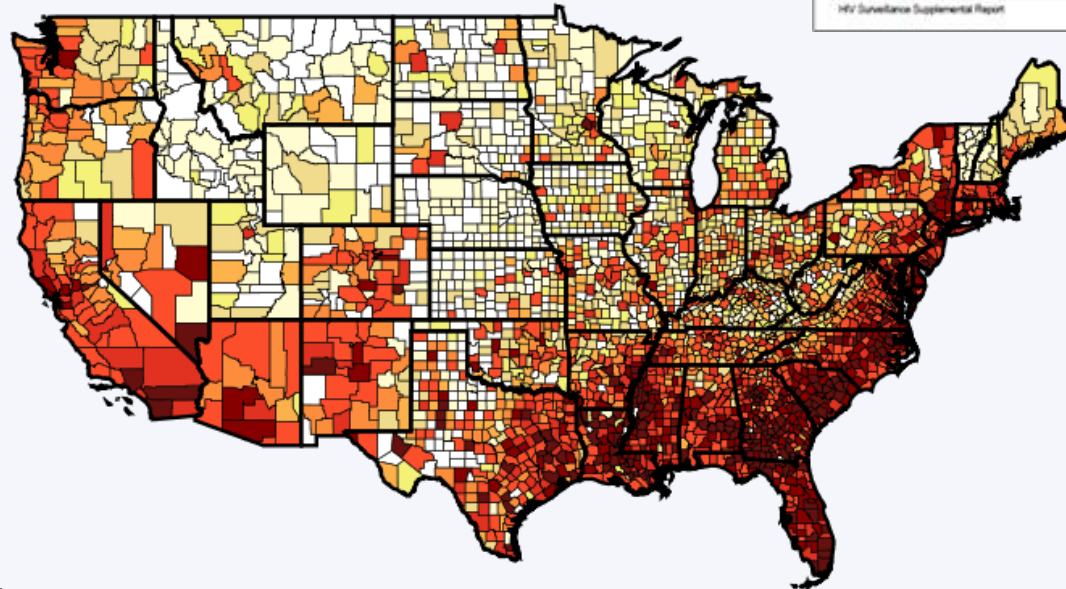


Table 1a. Diagnoses of HIV infection, 2014, and persons living with diagnosed HIV infection (prevalence), year-end 2013, adults and adolescents, by metropolitan statistical area of residence—United States and Puerto Rico

MSA of residence	Diagnoses, 2014				Prevalence of diagnosed HIV infection, year-end 2013			
	No.	No.	Rate	Rate <sup>a</sup>	No.	No.	Rate	Rate <sup>a</sup>
Alaska, AK	47	82	8.3	38	807	902	141.9	141.9
Albany-Denver/Orlando-Troy, NY	84	27	7.0	32	2,242	2,044	276.2	276.2
Albuquerque, NM	88	79	9.2	42	1,538	1,349	176.7	176.7
Anderson-Bethlehem-Easton, PA-NJ	29	82	8.8	38	1,480	1,493	228.9	228.9
Atlanta-Sandy Springs-Roswell, GA	1,242	1,452	31.4	7	27,289	27,404	416.9	416.9
Aurora-Richmond County, SC-NC	77	89	20.9	28	2,176	2,161	448.7	448.7
Aspen-Round Rock, TX	302	332	29.9	24	4,836	4,834	314.4	314.4
Bakersfield, CA	111	122	17.9	34	1,778	1,778	281.8	281.8
Baltimore-Columbia-Towson, MD	347	478	24.8	11	18,227	18,771	468.8	468.8
Baton Rouge, LA	344	368	33.4	1	4,840	4,870	473.7	473.7
Birmingham-Huntsville, AL	162	188	17.4	38	3,824	3,797	468.8	468.8
Birmingham-Turkey Creek, AL	18	18	3.0	104	498	487	88.8	88.8
Boston-Cambridge-Quincy, MA-NH	408	583	13.7	54	12,838	13,345	332.8	332.8
Boston-Cambridge-Quincy, MA-NH	244	359	18.7	14	7,710	7,343	478.8	478.8
Cambridge-Quincy, MA-NH	168	224	10.8	11	4,838	4,807	284.2	284.2
Chattanooga, TN-GA	88	101	12.8	40	2,713	2,899	343.0	343.0
Chattanooga, TN-GA	108	119	11.4	38	3,310	3,313	284.2	284.2
Chesapeake-Norfolk, VA	98	102	11.2	40	1,888	1,888	284.2	284.2
Chickasha-North Charleston, SC	108	147	24.2	18	2,389	2,389	387.1	387.1
Charlotte-Concord-Statesville, NC-SC	423	447	23.4	22	7,033	5,167	374.2	374.2
Chattanooga, TN-GA	88	82	13.0	38	1,184	1,148	248.1	248.1
Chicago-Naperville-Elgin, IL-IN-WI	1,341	1,827	19.3	33	35,442	35,662	398.2	398.2
Chicago Division	1,188	1,367	22.3	11	27,741	27,694	498.8	498.8
Elgin Division	81	88	10.8	11	627	629	123.0	123.0
Elgin Division	88	84	10.8	11	1,238	1,238	289.8	289.8
Elgin County Division	41	48	6.9	11	880	882	118.8	118.8
Greenville, SC	207	219	12.3	42	2,884	3,023	351.9	351.9
Greenville-Spartanburg, SC	121	244	19.8	13	4,327	4,944	351.9	351.9
Greenville-Spartanburg, SC	38	41	7.3	33	810	888	148.8	148.8
Greenville, SC	78	203	26.8	8	4,223	4,227	627.3	627.3
Greenville, SC	243	257	18.4	48	3,281	3,221	321.4	321.4
Greenville-Fairfax-Asheville, TN	1,308	1,498	28.7	18	22,484	22,749	414.8	414.8
Greenville Division	1,288	1,229	23.1	11	17,887	18,128	620.8	620.8
Fairfax County Division	343	287	16.1	11	4,827	4,821	248.1	248.1
Greenville, SC	67	79	10.4	79	1,479	1,480	218.8	218.8
Greenville-Oakdale Beach-Greenville Beach, FL	108	114	21.4	23	1,492	1,489	281.8	281.8
Greenville-Spartanburg, SC	262	238	12.1	38	3,888	4,208	428.8	428.8
Greenville-Hickory-Das Salinas, VA	34	38	7.2	38	818	817	128.7	128.7
Greenville-Hickory-Das Salinas, VA	628	688	19.2	47	10,888	10,881	274.1	274.1
Greenville Division	382	284	28.2	11	7,528	7,278	428.8	428.8
Greenville Division	168	174	8.1	11	2,772	2,779	138.2	138.2
Durham-Chapel Hill, NC	82	84	18.4	13	2,543	2,528	481.4	481.4
Durham, NC	108	118	17.8	23	1,873	1,877	281.7	281.7
Fayetteville-Springdale-Rogers, AR-MO	18	21	8.1	100	828	838	134.8	134.8
Fayetteville, AR	102	121	18.9	44	1,821	1,827	218.8	218.8
Grand Rapids-Lansing, MI	88	89	8.1	88	1,887	1,887	128.8	128.8
Greenville-Hickory, NC	114	132	19.2	31	2,429	2,398	398.2	398.2
Greenville-Anderson-Hickory, SC	102	108	10.2	48	1,876	1,878	238.8	238.8
Harrisburg-Carlisle, PA	48	52	10.9	71	1,361	1,354	282.7	282.7
Harrisburg-Lancaster-Hershey, PA	82	88	9.2	82	1,482	1,483	133.8	133.8
Harrisburg-Carlisle, PA	77	81	9.0	79	1,876	1,878	222.8	222.8

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# AIDSVu 101: Maps

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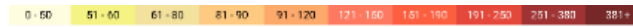
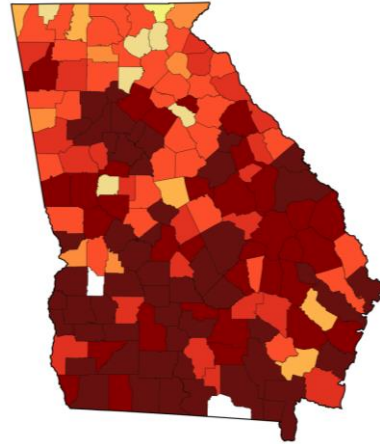
# Maps by State, County, City

## State



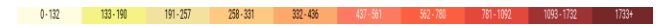
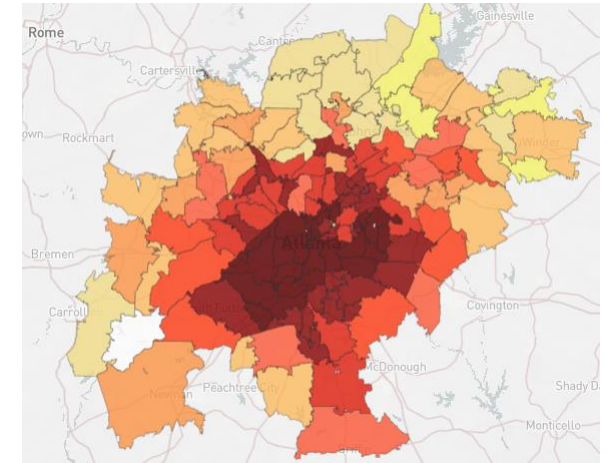
Georgia - Rates of Persons Living with HIV, 2020

## County



Georgia - Rates of Persons Living with HIV, 2020

## City



Atlanta - Rates of Persons Living with HIV, 2020

# HIV Data by ZIP Code for 53 Cities



# AIDSVu Data at City-, County-, and State-Levels

Level	HIV Prevalence	New HIV Diagnoses	HIV Care Continuum <sup>1</sup>	PrEP	PrEP-to-Need Ratio <sup>2</sup>	HIV Testing	HIV Mortality
City	✓	✓	✓				
County	✓	✓	✓	✓	✓		
State	✓	✓	✓	✓	✓	✓	✓

Data Stratifications by Race/Ethnicity, Age, Sex and Transmission Category

<sup>1</sup> HIV Care Continuum indicators on AIDSVu include: Late HIV Diagnoses, Linkage to Care, Receipt of Care, and Viral Suppression

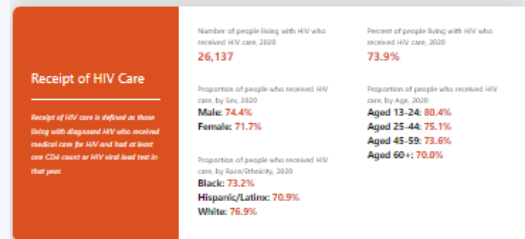
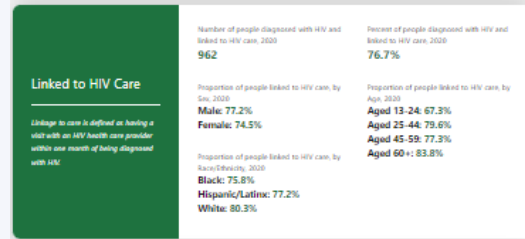
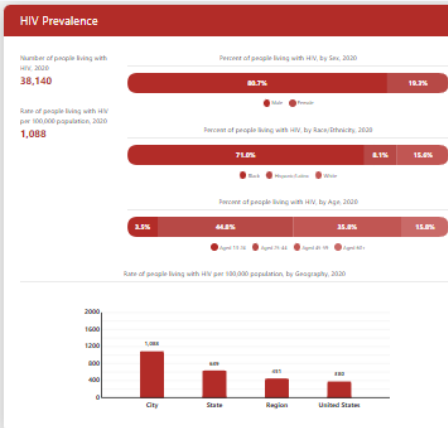
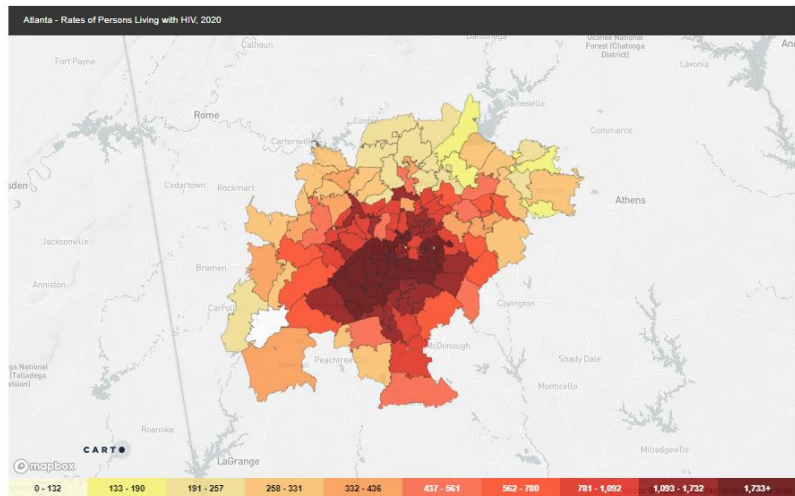
<sup>2</sup> PrEP-to-Need Ratio is the ratio of the number of PrEP users to the number of new HIV diagnoses



# City Data: Atlanta

## Local Data: Atlanta

In 2020, there were 38,140 people living with HIV in Atlanta.  
In 2020, 1,254 people were newly diagnosed with HIV.



# Examining PrEP Equity Metrics in US Cities



# Background

- It is critical to monitor not only the number of US PrEP users, but also whether PrEP use is *equitable* along critical dimensions (e.g., age, sex).
- The PrEP-to-Need Ratio (PnR) is a PrEP equity metric that has been evaluated in US regions, states and counties, but has not been promoted for monitoring PrEP uptake in US cities.

$$\text{PnR} = \frac{\text{Number of PrEP Users}}{\text{Number of New HIV Diagnoses}}$$

# Methods

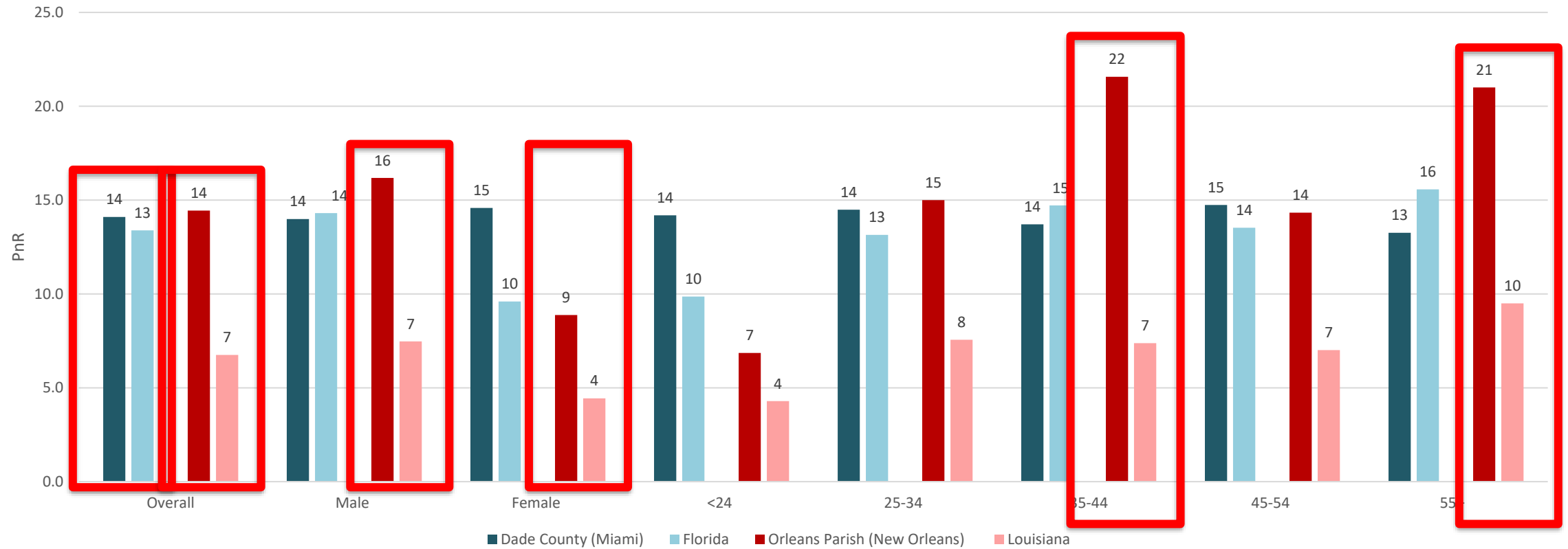
- We used county data as a surrogate for city data for two select cities for which county boundaries approximate city boundaries
- We compared PnR by sex and age in city/state pairs:
  - Miami (approximated by data from Dade County) and Florida
  - New Orleans (approximated by data from Orleans Parish) and Louisiana

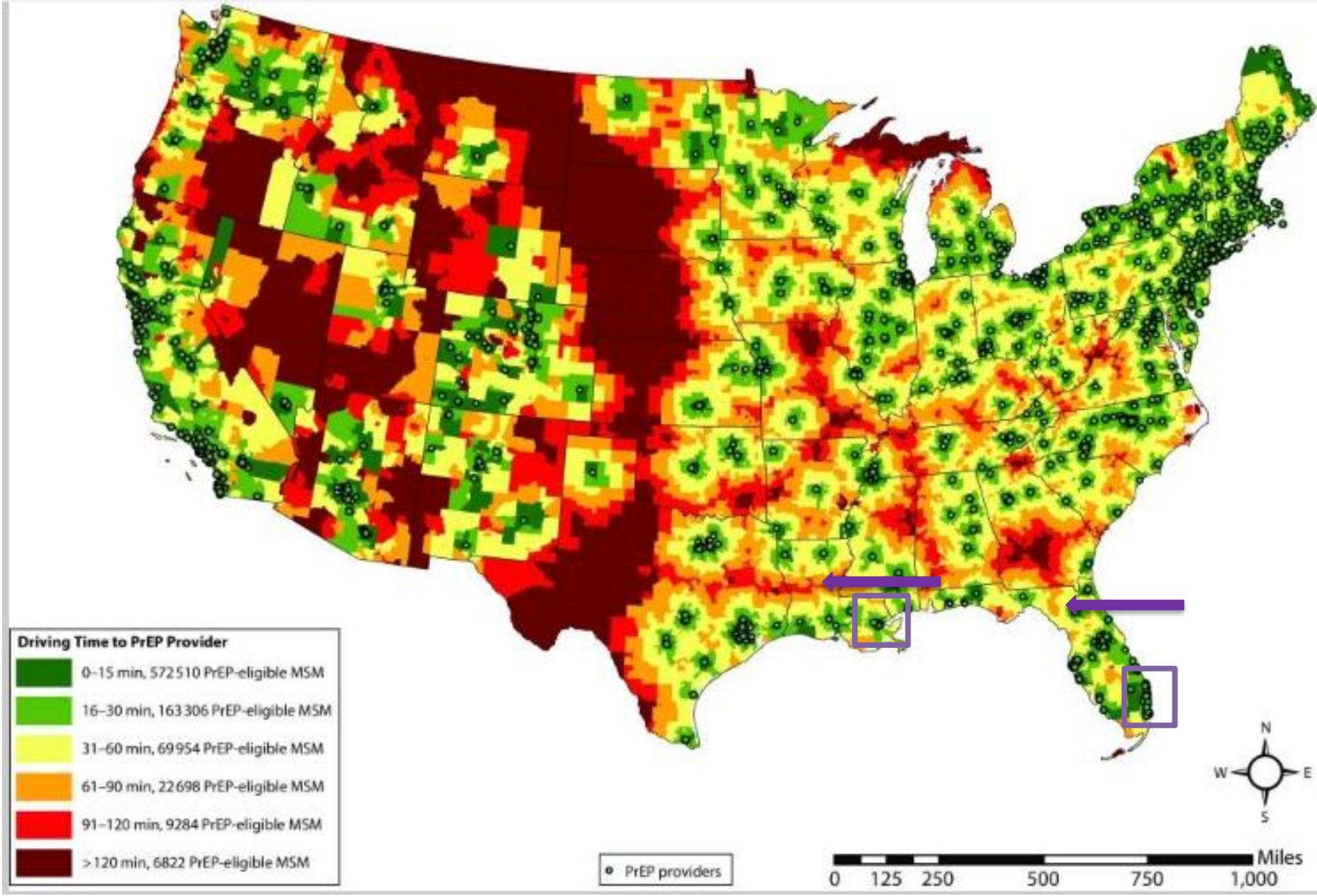
# Results

Lower PnR =

- More unmet need
- Less Equitable PrEP use

PrEP-to-Need Ratios (PnRs) by Sex, Age  
Dade County (proxy for Miami) and Florida; Orleans Parish (proxy for New Orleans) and Louisiana, 2022





# Conclusions

- These cities outperform their states in terms of equitable PrEP access
  - Even considering that Miami and New Orleans have more people with PrEP indications than do other parts of their states, their equitable provision of PrEP is higher.
- The differences might be attributable to social determinants, such as a higher density of PrEP providers and corresponding lower commute times to PrEP care
- PrEP equity metrics should be promoted as critical components of prevention effort evaluation.
- Additionally, further evaluation should be conducted to identify why PrEP equity is higher in these cities than in their host states and what city strategies might be exportable to state programs.

# Key Takeaways & Potential Next Steps

- We need more granular data to consider the special needs of cities
- However, there are challenges:
  - PrEP data is not readily available at the city level and county data may not be a good representation if a city is comprised of several different counties
- Possible opportunities to obtain or estimate city level data:
  - Consider county as a surrogate for city when county boundaries approximate city boundaries
  - When city and county boundaries differ, sum counties to estimate city counts, using partial allocations where appropriate
  - Consider sources/funding for more granular PrEP data, at the zip code level



# Thank you

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