

TRENDS IN SUICIDE-RELATED EMERGENCY DEPARTMENT VISITS AMONG PEOPLE WITH AND WITHOUT HIV IN BRONX, NY

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BACKGROUND

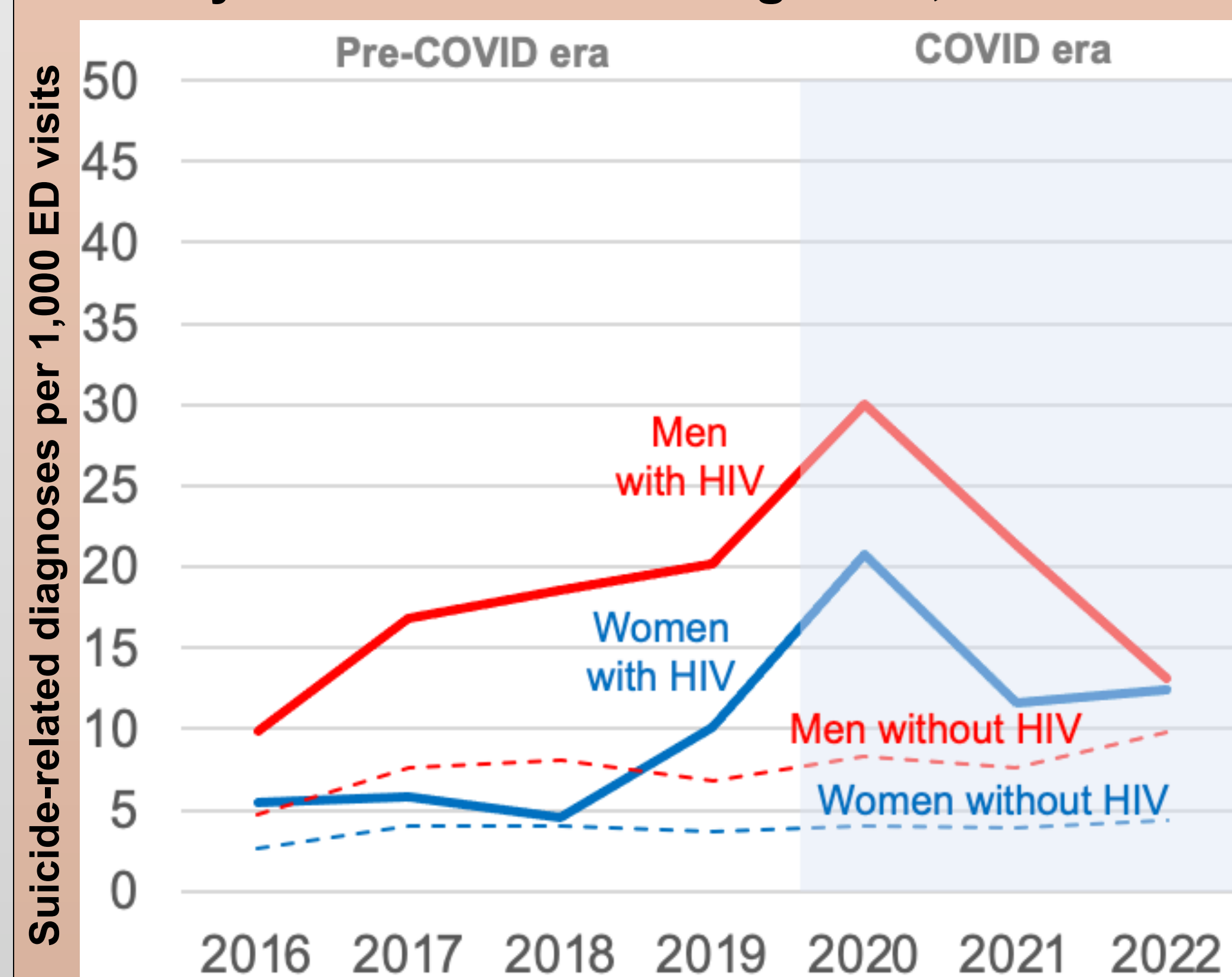
- People with HIV (PWH) are at elevated risk for suicidality (i.e., suicidal ideation, plans, attempts), though little is known about population-specific factors driving potential disparities in Emergency Department (ED) visits in the context of suicide

METHODS

- Using the **Einstein-Rockefeller-CUNY CFAR's Clinical Cohort Database**, we identified all **ED visits** among patients age 17+ years at 4 EDs in the Montefiore Health System between 2016 and 2022
- **Suicide-related visits** were determined using ICD-10-CM diagnosis codes for suicidal ideation/behavior
- We **measured rates of suicide-related ED visits by HIV serostatus**

RESULTS

Figure 1: Annualized rates of suicide-related ED visits by HIV serostatus and gender, 2016-2022



Figures 1 and 2: Before 2021, the rate of suicide-related ED visits increased steadily over time among PWH. Temporal increases in suicidality ideation were less pronounced among people without HIV.

RESULTS

Table 1: Number and rate of suicide-related ED visits, by demographic characteristics

	PERSONS WITH HIV (N=7932)					PERSONS WITHOUT HIV (N=560,974)				
	Suicide-related diagnosis (N=246)		No suicide-related diagnosis (N=7686)		Rate of suicide-related ED visits*	Suicide-related diagnosis (N=5733)		No suicide-related diagnosis (N=555,241)		Rate of suicide-related ED visits*
	N	%	N	%	Rate (95% CI)	N	%	N	%	Rate (95% CI)
Median age (median, IQR)	44 (33, 53)	-	52 (39, 59)	-	-	33 (23, 50)	-	43 (28, 60)	-	-
Overall rate of suicide-related diagnoses, 2016-2022	-	-	-	-	14.8 (13.3-16.3)	-	-	-	-	5.2 (5.1-5.3)
Age categories, years										
17-39	101	41.1	1923	25.0	25.6 (22.3-28.9)	3453	60.2	250,302	45.1	6.7 (6.5-6.9)
40-49	54	22	1378	17.9	12.8 (10.1-15.6)	812	14.2	78,863	14.2	6.1 (5.7-6.4)
50-59	72	29.3	2556	33.3	10.4 (8.8-12.1)	851	14.8	85,310	15.4	5.3 (5.0-5.6)
60+	19	7.7	1829	23.8	3.5 (2.4-4.7)	617	10.8	140,766	25.4	1.7 (1.6-1.8)
Race/ethnicity										
Black (non-Hispanic)	119	48.4	3636	47.3	15.5 (13.3-17.6)	1853	32.3	175,194	31.6	5.2 (5.0-5.4)
Hispanic (any race)	96	39	3106	40.4	13.4 (11.0-15.8)	2641	46.1	242,486	43.7	5.0 (4.8-5.2)
White (non-Hispanic)	10	4.1	314	4.1	17.3 (10.5-24.1)	569	9.9	48,313	8.7	9.6 (8.9-10.2)
Other/Unknown	21	8.5	630	8.2	14.4 (8.6-20.1)	670	11.7	89,248	16.0	4.0 (3.7-4.2)
Gender										
Cisgender man	168	68.3	4412	57.4	18.4 (16.2-20.5)	2734	47.7	236,811	42.7	7.5 (7.3-7.7)
Cisgender woman	59	24.0	3122	40.6	6.6 (5.0-8.2)	2978	51.9	318,155	57.3	3.8 (3.6-3.9)
Non-cisgender	15	7.7	152	2.0	31.6 (17.5-45.6)	21	0.4	257	0.05	13.7 (8.3-19.1)

Table 2: Number and rate of suicide-related ED visits, by HIV-related characteristics

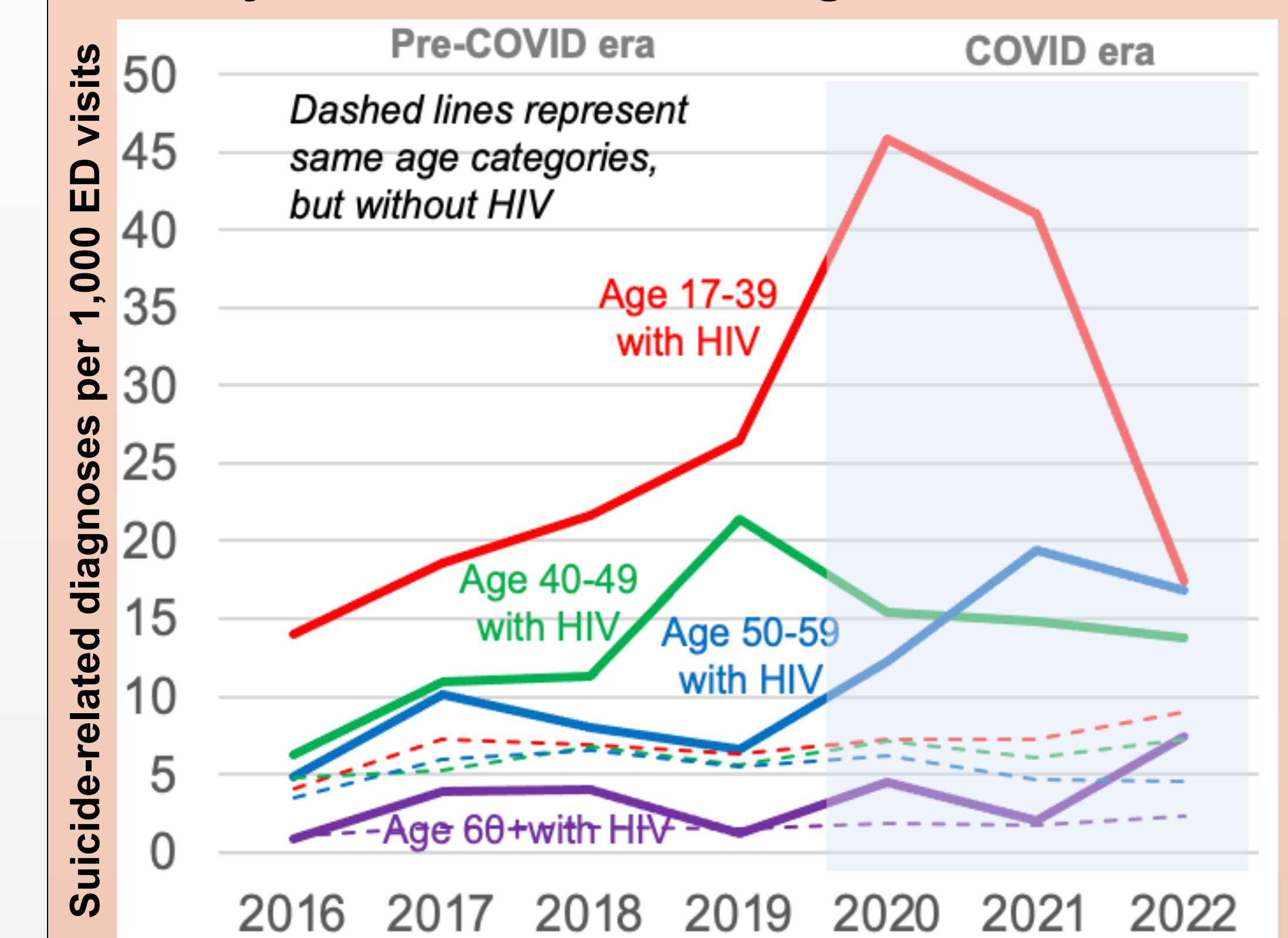
	Suicide-related diagnosis (N=246)		No suicide-related diagnosis (N=7686)		Rate of suicide-related ED visits*
	N	%	N	%	
HIV transmission risk factor					
Men who have sex with men	60	24.4	1305	17	14.4 (11.6-17.1)
Injection drug use history	31	12.6	916	11.9	22.1 (8.1-36.0)
Heterosexual/other transmission	155	63.0	5465	71.1	14.6 (12.5-16.7)
CD4 T-cell count					
Median (IQR)	407 (191, 709)	-	440 (218, 699)	-	-
500+ cells/uL	60	42.0	1771	43.1	13.7 (10.8-16.5)
200-499 cell/uL	47	32.9	1402	34.1	17.2 (13.4-20.9)
<200 cells/uL	36	25.2	940	22.8	12.2 (9.5-15.0)
Missing	103	-	3573	-	15.4 (12.7-18.0)
HIV viral load (RNA copies/mL)					
Undetectable (<40)	81	50.6	3255	68.8	9.2 (7.0-11.3)
Suppressed but detectable (40 - 199)	15	9.4	384	8.1	11.4 (5.3-17.6)
Unsuppressed (200+)	64	40.0	1095	23.1	23.0 (19.3-26.6)
Missing	86	-	2952	-	17.1 (14.3-19.9)
Length of HIV diagnosis					
<1 year	58	23.6	1810	23.5	16.9 (12.8-20.9)
1-2 years	15	6.1	412	5.4	21.7 (16.5-26.9)
3-5 years	25	10.2	643	8.4	20.9 (16.1-25.6)
6-10 years	39	15.8	1035	13.5	8.5 (5.8-11.1)
Over 10 years	109	44.3	3786	49.3	12.1 (9.7-14.4)

Number of suicide-related ED visits

- **PWH:** 40,578 total ED visits; 506 (**1.2%**) suicide-related visits
- **PWoH:** 1,710,558 total ED visits; 8,488 (**0.4%**) suicide-related visits
- **Rates** were annualized per 1,000 ED visits and age-standardized to the 2000 US population, except in age categories which are age-specific

RESULTS

Figure 2: Annualized rates of suicide-related ED visits by HIV serostatus and age, 2016-2022



CONCLUSIONS

- Suicide-related visits were nearly 3-fold higher among PWH compared to PWoH in this large, urban ED setting
- Suicide-related visits increased differentially over time, even after accounting for temporal changes associated with the COVID-19 pandemic.
- **Younger PWH and transgender individuals may be at particular risk for suicidality**

LIMITATIONS AND NEXT STEPS

- ED visits in our sample may underrepresent the full scope of suicidality in this population
- ED work-ups may not be comprehensive, leading to missing data in patient history
- Limited data on social determinants of health
- **Multivariable analyses will further characterize the factors most strongly associated with suicide ideation/behavior in this population**

Tables 1 and 2:

- **Suicide-related ED visits were nearly 3-fold higher among PWH**, compared with people without HIV (PWoH)
- **Highest rates of suicide-related ED visits among PWH:**
 - Age 17-39
 - Cisgender men
 - Transgender individuals
 - With a history of injection drug use
 - With unsuppressed viral loads
- PWH with **undetectable viral loads** had a **lower rate** of suicide-related ED visits