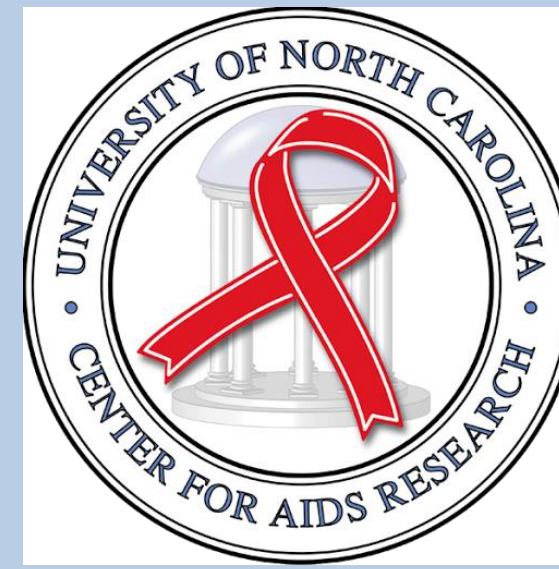


EMERGENCY DEPARTMENT USE AMONG PERSONS WITH HIV BEFORE AND DURING THE COVID-19 PANDEMIC

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Background

- Substantial changes in access and delivery of primary HIV care occurred during the COVID-19 pandemic, often resulting in gaps in care
- Emergency department (ED) utilization may be associated with inadequate or fragmented access to care.
- To assess how care access changed during the COVID-19 pandemic, we estimated ED use among people with HIV (PWH)

Methods

Study population

- Participants in the University of North Carolina Center for AIDS Research HIV Clinical Cohort from 2017 to 2021.
- Participants considered “in care” (defined as having a clinic visit in the current year or prior year).

Statistical analysis

- We estimated the percent of patients with ≥1 ED visit in a given year, overall, and by age, gender, race/ethnicity, HIV viral load (VL) and CD4 count.
- Poisson regression models with general estimating equations were used to estimate risk ratios and 95% confidence intervals (CI) comparing patient characteristics and years 2020-2021 vs 2017-2019.

Results

Figure 1. Percent of patients with ≥ 1 Emergency Department visit among 2129 patients in the UNC CFAR HIV Clinical Cohort between 2017-2021; overall (A) and by patient characteristics (B-F).

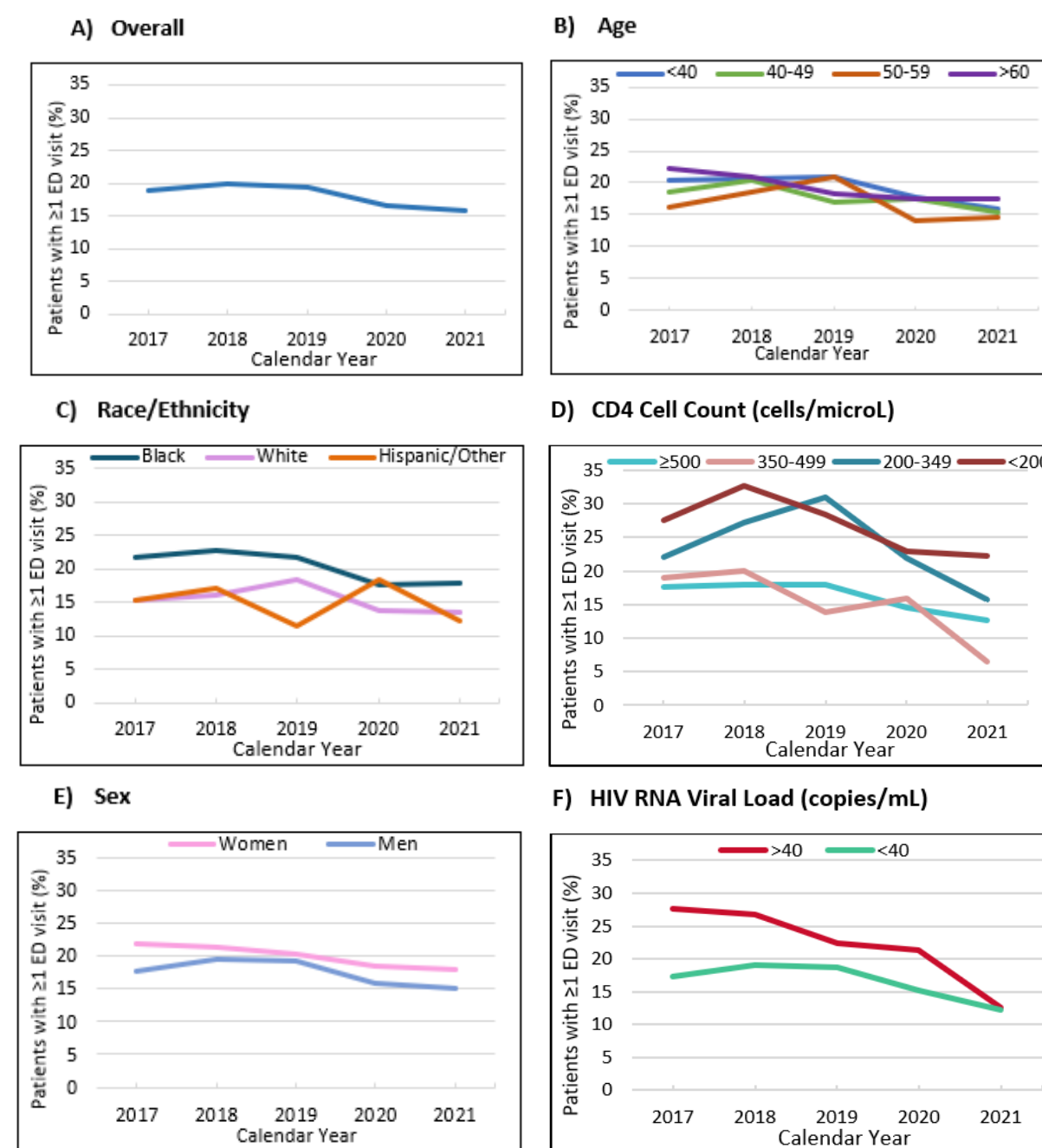


Table 1. Characteristics of patients in care, in years 2017 and 2021

Characteristic	2017 N (%)	2021 N (%)
Overall	1810	1702
Age, years		
<40	473 (26%)	406 (24%)
40-49	398 (22%)	294 (17%)
50-59	610 (34%)	503 (30%)
>60	329 (18%)	499 (29%)
Race/ethnicity		
Black	1045 (58%)	999 (59%)
White	568 (31%)	501 (29%)
Hispanic	144 (8%)	150 (9%)
Sex		
Women	511 (28%)	463 (27%)
Men	1299 (72%)	1239 (73%)
CD4 Cell Count(cells/microL)		
≥500	1208 (67%)	197 (73%)
350-499	105 (6%)	46 (17%)
200-349	204 (11%)	19 (7%)
<200	105 (6%)	9 (3%)
HIV RNA VL (copies/mL)		
>40	283 (16%)	38 (15%)
<40	1515 (84%)	218 (85%)

Table 2. Unadjusted risk ratios and 95% of ED visit.

Characteristic	RR (95% CI)
Age, years	
<40	1 (ref.)
40-49	0.93 (0.78, 1.12)
50-59	0.88 (0.74, 1.04)
>60	0.99, (0.83, 1.18)
Race/ethnicity	
Black	1.31 (1.13-1.52)
White	1 (ref.)
Hispanic	1.07 (0.83, 1.38)
Sex	
Women	1.14 (0.99-1.32)
Men	1 (ref.)
CD4 Cell Count (cells/microL)	
≥500	1 (ref.)
350-499	0.99 (0.83, 1.19)
200-349	1.50 (1.25, 1.79)
<200	1.66 (1.32, 2.09)
HIV RNA VL (copies/mL)	
>40	1.40 (1.20, 1.64)
<40	1 (ref.)
Calendar Year	
Years 2017-2019	1 (ref.)
Years 2020-2021	0.95 (0.92, 0.98)

Conclusions

- Among PWH in HIV care, ED use was higher among women, Black PWH, and PWH with detectable VL.
- ED use decreased from 2020 to 2021 in most groups, suggesting that PWH in our sample may have delayed seeking care for acute conditions or accessed care in other ways during the COVID-19 pandemic.
- Work is ongoing to characterize reasons for ED visits across calendar years and examine the impact of reduced ED utilization among PWH. Efforts to link and retain vulnerable patients in HIV care is essential.

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- There were 2,129 PWH in care from 2017-2021 (N≈1700-1800 in each year), who were 57% Black, 31% White, 74% male, and a median of 47 years old at the start of follow-up.
- PLWH in care in 2021 were demographically similar to those in care in 2017 (Table 1). However, PWH in care in 2021 were less likely to have an available CD4 or VL measurement.
- During the study period, there were 3,645 ED visits over 8,813 person-years, a rate of 41.4 ED visits per 100 person-years (95% CI 36.8-46.5). The 845 PWH with at least one ED visit during the study period contributed a median of 2 visits each (IQR 1-5).
- From 2017 to 2021, the unadjusted probability of having ≥1 ED visit decreased overall and among most patient groups (Figure 1).
- The unadjusted probability of having ≥1 ED visit in a given year was higher among women vs. men (RR=1.14, 95% CI 0.99-1.32), Black vs. White PWH (1.31, 1.13-1.52), with VL ≥ 40 copies/mL (1.40, 1.20-1.64), and with CD4 < 200 (1.66, 1.32-2.09) or 200-349 (1.50, 1.25-1.79) vs. ≥ 500 cells/μL; age was not associated with ED use.

