Results. Of 500 participants, 81(16%) endorsed TS, the majority of whom were HIV+ (51, 63%) and used drugs daily or more (57,70%; see Table 1). PLWH with TS were more likely to be Black (44, 86%, p= 0.05) and Trans female (17, 33%, p<0.01) than HIV- participants with TS. In the TS cohort, PLWH were more likely to engage in anal sex (38, 75%, p< 0.01), have sex weekly or more (46, 90%; p< 0.01), have sex with more than 2 partners (27, 77%, p=0.03), and have a history of syphilis (14, 27% p= 0.04) compared to HIV- participants. Only 21% and 35% of PLWH and 17% and 22% of HIV- always used condoms in vaginal sex and anal sex, respectively (p >0.05). Though 41 (80%) PLWH took ART, only 19 (41%) reported viral suppression. Of HIV-participants, 59% had interest in starting Pre-Exposure Prophylaxis (PrEP), but few had been offered (3,10%), or ever taken PrEP (2,7%).

Table 1: Participant Characteristics and Associations with Transactional Sex and HIV Status

	Total Transactional Sex (N=81)	Transactional Sex HIV+ (N=51)	Transactional Sex HIV- (N=30)	P-value
Cis-gender male	30, 37%	22, 43%	8,27%	P=0.1597
Cis-gender female	33, 41%	12, 24%	21, 70%	P=0.0001
Trans-gender female	18, 22%	17, 33%	1, 3%	P=0.0017
Median age, (IQR) years	44, (34, 54)	39, (33, 50)	53, (43, 58)	
Black/African American race	64, 79%	44, 86%	20, 67%	P=0.0492
White race	13, 16%	4,8%	9, 30%	P=0.0127
Unstable housing	51, 63%	33, 65%	18,60%	P=0.3126
Hx of incarceration	61, 75%	34, 67%	27, 90%	P= 0.031
Living with HCV	42, 52%	12, 24%	30, 100%	P=0.0001
Sex 1 times or more per week†	64, 79%	46, 90%	18,60%	P=0.002
Sex with more than 2 partners†	40, 66% (N=61*)	27, 77% (N=35*)	13, 50% (N=26*)	P=0.0333
Uses condoms/barriers, always during				
anal sex†	19, 33%, (N=57*)	17, 35% (N=48*)	2, 22% (N=9*)	P=0.7026
Uses condoms/barriers, always during				
vaginal sex†	11, 19% (N=57*)	6, 21% (N=28*)	5, 17% (N=29*)	P=0.747
Anal sex, any†	43, 53%	38, 75%	5, 17%	P= 0.0001
Hx of syphilis	16, 20%	14, 27%	2,7%	P=0.0405
Hx of chlamydia	21, 26%	15, 29%	6, 20%	P=0.4360
Hx of gonorrhea	30, 37%	20, 39%	10, 33%	P=0.6408
Drug use, any†	72, 89%	44, 86%	28,93%	P=0.473
Drug use, daily or more frequently†	57, 70%	34.67%	23.77%	P=0.4515
Heroin use†	32, 40%	8, 16%	24, 80%	P=0.0001
Crack use†	51, 63%	32, 63%	19, 63%	P=1
K2/Synthetic marijuana use*	24, 30%	21, 41%	3, 10%	P=0.0028
Meth/Amphetamine use†	17, 21%	14, 27%	3, 10%	P=0.09
Injection drug use†	30, 37%	10.20%	20.67%	P=0.0001
Takes antiretroviral therapy (ART)		41.80%		
HIV viral load suppressed**		19, 41% (N=46*)		
Considers self at high risk for contracting HIV			16 53%	
Heard of PrEP			10.33%	
Has been offered PrEP			3 10%	
Has taken PrEP			2.7%	
Currently taking PrEP			2.7%	
Interested in taking PrEP, "maybe" or "yes"			16, 59% (N=27*)	

**At time of most recent HIV viral load labwork, checked within the past 12 months †Within the past 12 months

Conclusion. In this cohort of people with TS, there were high rates of HIV and racial, sexual, and gender minorities. Notably, PLWH had higher rates of frequent sex, multiple partners, and anal sex, as well as suboptimal viral suppression and condom use during anal sex. As such, PLWH +TS may be a consequential part of HIV transmission networks. While those without HIV also had frequent sex and suboptimal condom use, PrEP experience was limited. As the majority had interest in PrEP, targeted strategies to initiate and maintain PrEP in people with TS may be critical in preventing HIV acquisition. Interventions to identify TS, address high-risk behaviors, achieve and maintain viral suppression amongst +TS PLWH, and connect +TS HIV-individuals to PrEP are key to a comprehensive strategy to end the HIV epidemic.

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845. Impact of the COVID-19 Pandemic on Routine HIV Screening in an Emergency Department

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Session: P-47. HIV: Epidemiology and Screening

Background. The Emergency Department (ED) at Memorial Hermann Hospital (MHH) - Texas Medical Center (TMC), Houston, Texas has a long established screening program targeted at detection of HIV infections. The impact of the COVID-19 pandemic on this screening program is unknown.

Methods. The Routine HIV screening program includes opt-out testing of all adults 18 years and older with Glasgow score > 9. HIV 4th generation Ag/Ab screening, with reflex to Gennius confirmatory tests are used. Pre-pandemic (March 2019 to February 2020) to Pandemic period (March 2020 to February 2021) intervals were compared.

Results. 72,929 patients visited MHH_ED during the pre-pandemic period and 57,128 in the pandemic period, a 22% decline. The number of patients tested for HIV pre-pandemic was 9433 and 6718 pandemic, a 29% decline. When the pandemic year was parsed into first and last 6 months interval and compared to similar intervals in the year pre pandemic, 39% followed by 16% declines in HIV testing were found. In total, 354 patients were HIV positives, 209, (59%) in the pre-pandemic and 145 (41%) in the pandemic period. The reduction in new HIV infections found was directly proportional to the decline in patients visiting the MHH-ED where the percent of patients HIV positive was constant across the compared intervals.

Conclusion. The COVID -19 pandemic reduced detection of new HIV infections by screening in direct proportion to the reduction in MHH-ED patient visits. The impact of COVID-19 pandemic decreased with duration of the pandemic.

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846. Trend Analysis of Cause-Specific Mortality among HIV-Infected Veterans: A 35-Year Study

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Session: P-48. HIV: Pathogenesis

Background. The aims are to estimate the rates for, and examine the trends of, all-cause and cause-specific mortality since the beginning of the epidemic, in an effort to better forecast future mortality patterns and potentially prevent premature death.

Methods. All patients in the HIV Atlanta VA Cohort Study (HAVACS), an ongoing, open cohort of all HIV-infected veterans who ever sought or are seeking care at the Atlanta VA Medical Center, with a documented HIV diagnosis between January 1982 and December 2016 are included. All-cause and cause-specific mortality rates are calculated annually and for the study period, and age-adjusted to the 2000 U.S. standard population. Join-point regression analyses are performed to calculate annual percent changes (APC) and 95% CIs during periods of time when significant changes in trends are observed.

Results. The analytic sample consisted of 4,674 patients; of whom 1,752 (36.8%) died. The age-adjusted all-cause mortality rate per 100 PY (95% CI) is 19.0 (9.9, 28.2); this rate decreased 45.2% annually from 1983 to 1987, and thereafter became relatively stable. The age-adjusted mortality rates for AIDS-opportunistic infection (aIR=19.0, 95% CI=17.0, 21.0), cardiovascular (aIR=16.2, 95% CI=9.2, 23.1; APC=-2.0), infection (aIR=20.7, 95% CI=10.3, 31.1), liver (aIR=13.8, 95% CI=9.7, 18.0; APC=-0.6), pulmonary (aIR=24.6, 95% CI=3.4, 45.8; APC=-0.3), renal (aIR=17.6, 95% CI=11.1, 24.1; APC=-1.3), and violence (aIR=14.7, 95% CI=9.2, 20.2; APC=-2.8) have all decreased since the beginning of the epidemic, most markedly for AIDS-opportunistic infection (APC=-18.0; 95% CI=-3.1.9, -1.4) and infection (APC=-3.4; 95% CI=-6.5, -0.3). In contrast, the age-adjusted mortality rates for AIDS-opportunistic malignancy (aIR=32.4, 95% CI=15.9, 48.9; APC=-1.5), malignancy (aIR=13.2, 95% CI=-6.2, 20.2; APC=-1.1), and sudden death (aIR=9.6, 95% CI=-6.1, 13.1; APC=32.2) have increased since the beginning of the epidemic.

Figure 1. Joinpoint regression analysis of age-adjusted mortality rates in the HAVACS cohort, 1982-2016 (n=4,674).



AIDS, acquired immune deficiency syndrome; APC, annual percent change; HAVACS, HIV Atlanta VA Cohort Study; HIV, human immunodeficiency virus; PY, person-years. *Statistically significant at α =0.05. 1. 2000 U.S. standard population; excludes deaths for which the date is unknown (n=46). 2. Coding Causes of Death in HIV (CoDe) protocol adapted to classify causes of death; AIDS-related illnesses refers to an appended list of AIDS-defining illnesses (1993 definition). 3. Pulmonary infections included in pulmonary, not infection. 4. Hepatocellular carcinoma included in liver, not malignancy.

Conclusion. HIV-infected veterans are experiencing decreasing mortality rates due to almost all causes of death, principally infections; however, increasing mortality rates due to malignancies and sudden death are observed. Identifying risk factors for those causes on the rise may help realign resources and mitigate disease burden in this population.

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847. A Qualitative Exploration of New and Existing HIV PrEP Modalities Among Men Who Have Sex with Men in Philadelphia

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Session: P-49. HIV: Prevention

Background. Daily oral pre-exposure prophylaxis (PrEP) is highly effective at preventing HIV when used as directed among men who have sex with men (MSM). However, challenges with uptake and adherence to daily oral PrEP have prompted the