Clinical and HIV Surveillance Data to Determine Care Status for People with HIV in Washington, DC

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BACKGROUND

- Poor retention in HIV care is associated with adverse clinical outcomes
- We sought to understand barriers to care and factors related to being out of care (OOC) in the DC Cohort, a longitudinal cohort of persons with HIV (PWH) in Washington, DC using data from clinical care sites and linked to surveillance data from DC Health

METHODS

- We evaluated DC Cohort participants enrolled from 01/01/2011 to 12/31/2023 and used data from the DC Cohort database, manual chart review, and the DC Health Enhanced HIV/AIDS Reporting System (eHARS) to classify participants into one of the following categories (See Figure 1):

  Active; Out of Care; Evidence of Care Elsewhere; Died; Transferred; Withdrew; Undetermined
- Logistic regression models were used to compare Active vs. Out of Care participants and evaluate associations between participant characteristics and being Out of Care

RESULTS

- Based on data in the DC Cohort database **6,557 participants were active in care and 2,101 participants were assumed to be Inactive**
- **1,893 participants were found to have transferred to another HIV clinic,** the majority of which were found to be virally suppressed (81%) with CD4 ≥ 500 cells/μ/L (64%)
- Of those assumed to be out of care, **1,353 were found to have evidence of care elsewhere**. These participants were mostly virally suppressed (82%) and had CD4 ≥ 500 cells/μ/L (64%) based on their eHARS labs and most labs were from non-DC Cohort sites
- Older age, non-Hispanic white ethnicity, male sex, longer time since HIV diagnosis, non-viral suppression, low CD4 and no history of AIDS were significantly associated with being OOC

CONCLUSIONS

- By linking clinical and DC Health surveillance data we were able to more accurately assess PWH's care status in the Cohort
- While 24% of participants were thought to be OOC, 64% of those were found to have transferred and most had evidence of VS after transfer
- Interventions aimed at addressing these individual level factors may help improve sustained engagement in care

Of the 6,006 inactive participants, 5,258 were found to have died, transferred, withdrew, were undetermined, or had evidence of care elsewhere – leaving only 6% of DC Cohort participants out of care.

Older age, non-Hispanic white ethnicity, male sex, longer time since HIV diagnosis, non-viral suppression, low CD4, and no history of AIDS were associated with being out of care.

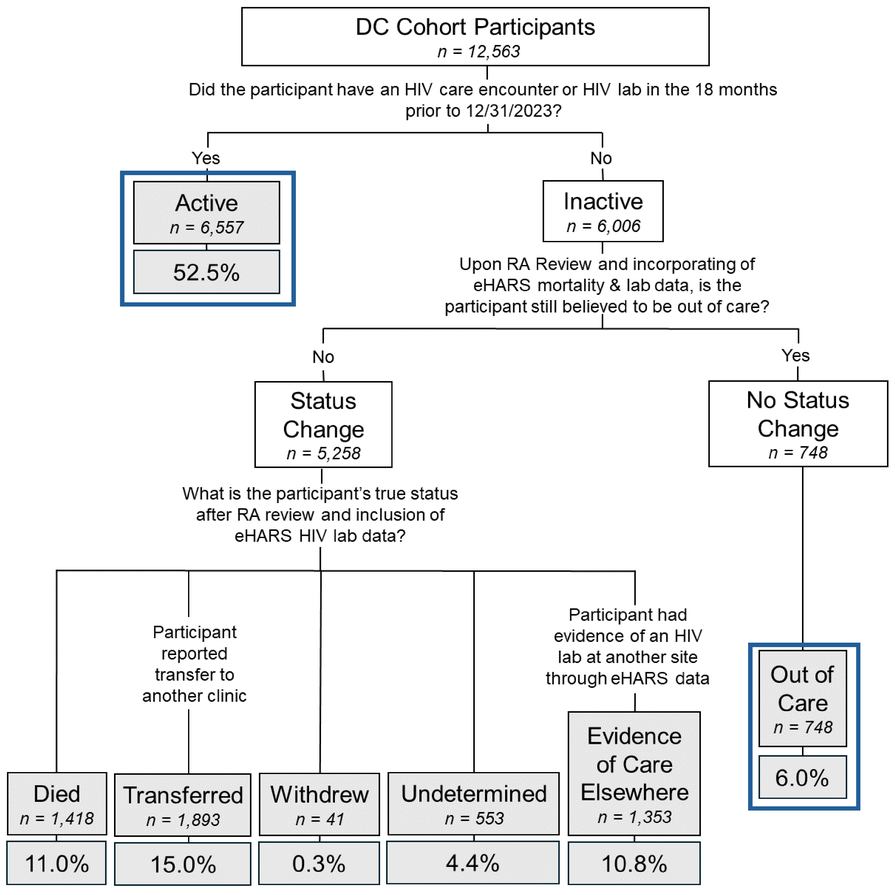


Figure 1. Flow chart of Out of Care review and outcomes

Table 2. Association between demographic characteristics and being OOC, DC Cohort.

Variable	Active in Care (N = 6,557)	Out of Care (N = 748)	Adjusted Odds Ratio (95% CI)[c]
Age[a] [per 10 years]*	53.5 (13.3)	52.0 (13.0)	**1.15 (1.06, 1.25)**
Race/Ethnicity*			
Non-Hispanic Black	5057 (77.1)	480 (64.2)	REF
Non-Hispanic White	780 (11.9)	152 (20.3)	**1.80 (1.44, 2.27)**
Hispanic	454 (6.9)	47 (6.3)	1.11 (0.79, 1.56)
Other	91 (1.4)	15 (2.0)	1.70 (0.94, 3.07)
Unknown	175 (2.7)	54 (7.2)	**3.02 (2.11, 4.34)**
Sex*			
Male	4670 (71.2)	601 (80.4)	REF
Female	1876 (28.6)	147 (19.7)	**0.66 (0.54, 0.82)**
Unknown	11 (0.2)	0 (0.0)	-
Years since HIV Diagnosis*			
0-5 years	413 (6.3)	30 (4.0)	REF
6-10 years	795 (12.1)	108 (14.4)	**1.99 (1.28, 3.10)**
11+ years	5325 (81.2)	609 (81.4)	**2.22 (1.46, 3.38)**
Unknown	24 (0.4)	1 (0.1)	0.58 (0.07, 4.96)
Virally Suppression (copies/mL)[b]*			
Virally Suppressed (< 200)	5958 (90.9)	558 (74.6)	REF
Not Virally Suppressed (≥ 200)	485 (7.4)	161 (21.5)	**3.45 (2.72, 4.38)**
Unknown	114 (1.7)	29 (3.9)	0.75 (0.42, 1.33)
CD4 [cells/uL][b]*			
< 200	316 (4.8)	71 (9.5)	REF
200 – 499	1599 (24.4)	223 (29.8)	0.73 (0.51, 1.03)
500+	4609 (70.3)	430 (57.5)	**0.51 (0.36, 0.73)**
Unknown	33 (0.5)	24 (3.2)	**4.17 (1.90, 9.13)**
Site Type*			
Does not attend a Ryan White Clinic	3087 (47.1)	382 (51.1)	REF
Attends a Ryan White Clinic	3470 (52.9)	366 (48.9)	1.06 (0.85, 1.31)
HIV Transmission Factor*			
Sexual	4991 (76.1)	566 (75.7)	REF
People who inject drugs	324 (4.9)	26 (3.5)	0.96 (0.61, 1.52)
Perinatal	121 (1.9)	10 (1.3)	0.49 (0.23, 1.06)
Other	1114 (17.0)	146 (19.5)	1.07 (0.86, 1.32)
Unknown	7 (0.1)	0 (0.0)	-
AIDS*			
AIDS Diagnosis	2590 (39.5)	246 (32.9)	REF
No AIDS Diagnosis	3967 (60.5)	502 (67.1)	**1.70 (1.39, 2.08)**

[a] As of 12/31/2023; [b] Based on most recent lab prior to 12/31/2023; [c] Adjusted for race/ethnicity, sex, age, HIV transmission factor, time since HIV diagnosis, viral load, CD4, history of AIDS, substance use, employment status, site type, and comorbidities; *p < 0.05 when comparing participants who are active versus out of care

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