PrEP Uptake and Persistence among Incarcerated People in Zambia: Early Results from a Cohort Study

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BACKGROUND

- Incarcerated persons and other people involve with the criminal justice systems have limited access to effective HIV prevention.
- In 2019, Zambia began offering HIV pre-exposure prophylaxis (PrEP) in correctional facilities.
- In August 2023, we launched a cohort study enrolling PrEP users and non-users in three correctional facilities in Lusaka, Zambia.

We report early results from one of the first longitudinal studies of PrEP uptake and persistence among incarcerated and justice-involved people in sub-Saharan Africa.

METHODS

- HIV-negative incarcerated persons were offered PrEP by the corrections health system, and were then approached by study staff for participation.
- Consenting participants were followed from incarceration through release into the community for PrEP outcomes, including uptake, persistence, and adherence.
- A subset of participants on PrEP underwent urine tenofovir (TFV) screening for adherence.
- Another subset of both PrEP users and non-users were consented to participate in qualitative interviews in October 2023.

Table 1. Baseline Characteristics

	Initiated on PrEP at Enrollment (N=230, 49.7%)	Not Initiated on PrEP at Enrollment (N=233, 50.3%)	Total (N=463)	p-value
Sex				
Male	214 (93.0%)	220 (94.4%)	434 (93.7%)	0.675
Female	16 (7.0%)	13 (5.6%)	29 (6.3%)	
Age				
Median [Min, Max]	27.0 [18.0, 52.0]	28.0 [18.0, 56.0]	27.0 [18.0, 56.0]	0.023
Facility				
Central Facility	106 (46.1%)	151 (64.8%)	257 (55.5%)	<0.001
Open Air Facility	35 (15.2)	21 (9.0%)	56 (12.1%)	
Remand 1	22 (9.6%)	4 (1.7%)	26 (5.6%)	
Remand 2	67 (29.1)	57 (24.5%)	124 (26.8%)	
Incarcerated Type				
Remandee	89 (38.7%)	121 (51.9%)	210 (45.4%)	0.005
Sentenced	141 (61.3%)	111 (47.6%)	252 (54.4%)	
Prior Incarceration				
Yes	13 (5.7%)	14 (6.0%)	27 (5.8%)	1
No	211 (91.7%)	213 (91.4%)	424 (91.6%)	
Heard of PrEP Previously				
Yes	192 (83.5%)	154 (66.1%)	346 (74.7%)	<0.001
No	36 (15.7%)	78 (33.5%)	114 (24.6%)	
Interested in learning more about PrEP				
Yes	228 (99.1%)	230 (98.7%)	458 (98.9%)	<0.486
No	0 (0%)	2 (0.9%)	2 (0.4%)	

Note: Any column that does not sum to 'N' reflects missing data"

ADDITIONAL KEY INFORMATION

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Early results suggest high demand for PrEP and early PrEP persistence among justice-involved people in Zambia, but poor PrEP adherence based on a urine TFV biomarker.

RESULTS

- From August 2023 to February 2024, 491 incarcerated persons were screened; 463 (99.1%) were eligible and consented (Figure 1).
- Participants reported several HIV risk factors at enrollment (Figure 2), and those who initiated PrEP were statistically more likely to report prior STIs (p=0.01).
- Participants who had heard of PrEP previously were more likely to initiate (Table 1).
- Participants highlighted reasons for PrEP initiation or decline (Figure 3).
- Of the 141 participants initiated on PrEP, 166 (82%) were still on PrEP at 1 month (Figure 4).
- Of the 61 individuals who initiated PrEP at enrollment, were assigned to the adherence sub-cohort, and had urine TFV screening at one month follow-up:
  - 31/61 (50.8%) tested positive (poor adherence)
  - 30/61 (49.2%) tested negative (good adherence)

Figure 1. Enrollment and Follow-up Flow Chart

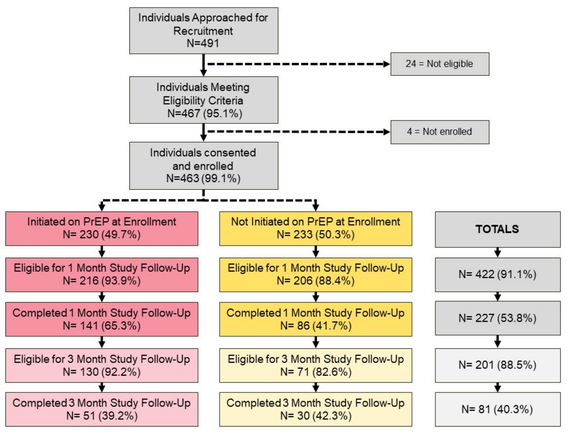


Figure 2. Risk Factors Reported at Enrollment (N=463)

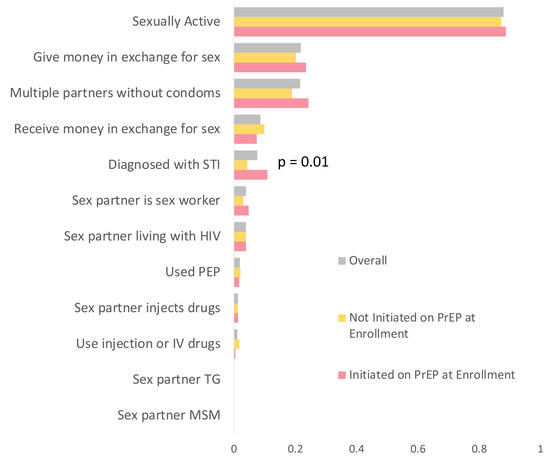
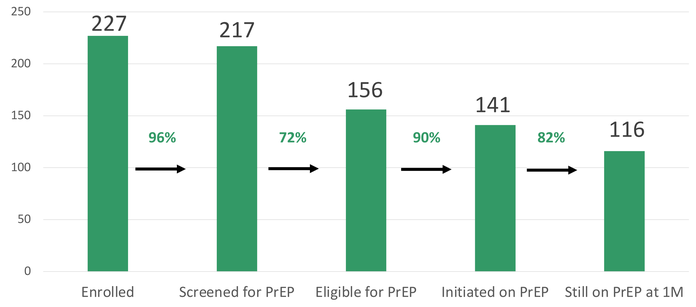


Figure 4. PrEP Cascade among Participants with 1 Follow-up Completed (N=227)



CONCLUSIONS

Early results suggest high demand for PrEP and early PrEP persistence among justice-involved people in Zambia, but poor PrEP adherence based on a urine TFV biomarker. Future results from this ongoing study will describe alignment between perceived HIV acquisition risk and PrEP persistence and adherence in this key population

Figure 3. Reasons for PrEP Initiation or Decline



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