Session:
Poster Number:

Challenges to HIV care engagement among mobile populations in rural Kenya and Uganda

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Background

- Population mobility may negatively impact care engagement for people living with HIV by disrupting continuity and this may portend poor treatment outcomes for patients while increasing the risk of onward disease transmission.
- The study *Understanding Mobility and Risk in SEARCH Communities* sought to identify the challenges mobility imposes on vital aspects of care engagement (enrollment in HIV care, being on ART, and treatment interruptions).

Methods

- We conducted an analysis of survey data collected in 2016 among the sub-sample of 1,119 adults living with HIV, from a stratified random sample of mobile and non-mobile adults within 12 communities across three regions (South West Uganda, East Uganda and West Kenya), of the 32 communities participating in the SEARCH HIV test-and-treat cluster randomized trial (NCT:01864603).
- The 12 communities were matched by trial intervention with individuals sampled on baseline residential stability and HIV status.
- We evaluated self-reported challenges to HIV care engagement across multiple metrics of mobility with specific attention to sex differences.
- Multivariate logistic regression adjusting for age, educational level, marital status, household wealth and region was used to identify factors associated with poor engagement in HIV care.

Results :

- **A total of 1,119 adult participated in the survey**
- **595(53.2%) were Female.**

Table 1: Participant characteristics of the 1,119 adults

Characteristic	Overall		Men		Women	
	n	%	n	%	n	%
Region						
Kenya-Western	600	53.6	288	55.0	312	52.4
Uganda-Eastern	241	21.5	100	19.1	141	23.7
Uganda-South Western	278	24.8	136	26.0	142	23.9
Age (Median(IQR))	38(31-37)		42(36-51)		39(32-48)	
10 year age band						
16 to 24	76	6.8	19	3.6	57	9.6
25 to 34	338	30.2	139	26.5	199	33.5
35 to 44	374	33.4	188	35.9	186	31.3
45 to 54	189	16.9	102	19.5	87	14.6
55 to 64	107	9.6	58	11.1	49	8.3
65 and older	35	3.1	18	3.4	17	2.9
Sex (Women (%))	595	53.2	0	0.0	595	100.0
Marital status(%)						
Divorced, Separated ,Widowed,missing	257	23.0	34	6.5	223	37.5
Currently married	817	73.0	475	90.7	342	57.5
Currently single	45	4.0	15	2.9	30	5.0
Education Level(%)						
No Schooling	156	14.0	49	9.4	107	18.0
Primary/Secondary	926	82.8	452	86.3	474	79.8
Post -Secondary	36	3.2	23	4.4	13	2.2
Household wealth: Middle to higher quantiles	908	81.1	421	80.34	487	81.85
Household wealth: Poorest quantile	211	18.9	103	19.66	108	18.15
Occupation risk Categories						
Informal low risk	830	74.2	362	69.1	468	78.7
Formal	57	5.1	32	6.1	25	4.2
Informal high risk	186	16.6	114	21.8	72	12.1

- **Of the 1,119 persons living with HIV (PLHIV), 106 reported missing clinic appointments. 33 (31%) of these were female.**
- **Median duration of missed appointment was 0.5(IQR(0.25-2)months.**

Table 2: Reasons for failure to honor clinic visits, HIV medication interruption and change of clinics

Characteristic	Overall		Men		Women	
	n	%	n	%	n	%
Reasons for failure to honor clinic appointments/ART interruption						
Can't afford transport to clinic	30	**26.5**	18	24.7	12	40
Visits to clinic interfere with work / wait times are too long/ Away for other engagement	28	**24.8**	26	35.6	2	6.7
Tired of taking ARVs / Don't want to have to take pills for the rest of his/her life	2	1.8	0	0	2	6.7
Not enough food to continue ARVs/ afraid to start because food insecure	1	0.9	0	0	1	3.3
Treated poorly by clinic staff in the past	7	6.2	4	5.5	3	10
HIV/AIDS stigma: fear of disclosure at clinic/at home	3	2.7	1	1.4	2	6.7
Feels well and does not think s/he needs HIV care	3	2.7	1	1.4	2	6.7
Seeking a spiritual alternative/ traditional medicine / prayer	1	0.9	0	0	1	3.3
Other	28	24.8	23	31.5	5	16.7

Table 3 : Migration and impact on regular care engagement and treatment

	Total population		Men		Women	
Measures of mobility at baseline and year 3	Adj OR	*P-value*	Adj OR	*P-value*	Adj OR	*P-value*
	Currently on regular care and treatment					
Any Migration	1.05(0.5,2.24)	0.89	1.1(0.34,3.54)	0.87	1.03(0.38,2.76)	0.96
Past 5 year migration	0.71(0.37,1.39)	0.32	0.24(0.09,0.61)	0.003	0.84(0.33,2.14)	0.71
Past 2 year migration	0.5(0.24,1.03)	0.06	0.43(0.15,1.23)	0.12	0.6(0.22,1.69)	0.34
Past 1 year migration	0.42(0.19,0.95)	**0.04***	0.31(0.1,1.00)	**0.05***	0.57(0.18,1.86)	0.35

*p ≤0.05

- **Past 1 tear migration, younger age and poverty were associated with poor care engagement (failure to receive regular care and treatment)**

Conclusions

- **Population mobility may hamper the gains made in controlling the HIV epidemic if challenges to care engagement faced by mobile persons remain unaddressed.**
- **Attention to different forms of mobility and differences by sex are warranted.**

Acknowledgments

Acknowledgement: Research reported in this poster was supported by the National Institute of Mental Health (NIMH), of the National Institutes of Health under award number R01MH104132. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH. The Mobility in SEARCH study gratefully acknowledges the Ministries of Health of Uganda and Kenya, our research team, collaborators and participants.