

Supplementary materials

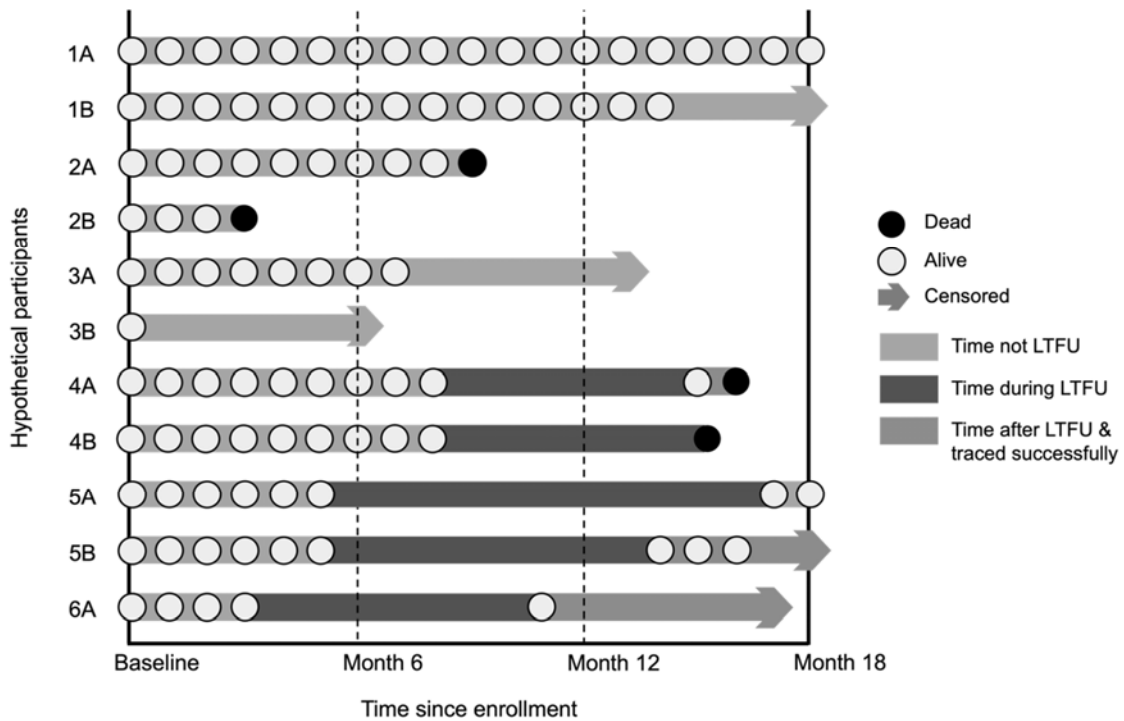


Figure S1. Swimmer plots illustrating the 18-month study timeline for vital status ascertainment, loss to follow-up (LTFU) classification, and person-time contribution of hypothetical participants in Siyaphambili study. The solid circle represents death occurrence. The hollow circle represents the visits in which the participants were ascertained to be alive. The arrow represents censoring after being classified as LTFU (i.e., absence from study or intervention visits for at least 6 months for the first time) or administrative censoring when reaching 18 months since enrollment. The participants who were alive and classified as not LTFU contributed 18 months of person-time if they were ascertained to be alive at the end of the study (1A) or if they had not met the 6-month LTFU definition and were administratively censored (1B). The participants who had died and were not LTFU contributed their person-time until death occurrence (2A and 2B). For LTFU

participants who were traced unsuccessfully, they contributed their person-time until meeting the 6-month LTFU definition before being censored (3A and 3B). For LTFU participants who were traced successfully, they contributed their person-time until death occurrence (4A and 4B), administrative censoring at 18 months if they were ascertained to be alive at the end of the study (5A) or if they had not met the 6-month LTFU definition for the second time (5B), or censoring after meeting the 6-month LTFU definition for the second time (6A).

Table S1. Observed baseline characteristics of loss to follow-up participants who were traced successfully and traced unsuccessfully (n=578).

	Traced successfully (N=210)	Traced unsuccessfully (N=368)	p-value
Age (years)			
18-24	45 (21.4 %)	84 (22.8 %)	0.799 ^a
25-34	123 (58.6 %)	205 (55.7 %)	
35+	42 (20.0 %)	79 (21.5 %)	
Education			
< Secondary education	163 (77.6 %)	300 (81.5 %)	0.276 ^a
>= Secondary education	47 (22.4 %)	67 (18.2 %)	
Missing	0 (0%)	1 (0.3%)	
Relationship status			
Single	102 (48.6 %)	199 (54.1 %)	0.431 ^a
Steady partner living together	33 (15.7 %)	54 (14.7 %)	
Steady partner not living together	75 (35.7 %)	115 (31.2 %)	
Age at sex work initiation (years)			
<=18	19 (9.0%)	36 (9.8%)	0.893 ^a
>18	190 (90.5%)	331 (89.9%)	
Missing	1 (0.5%)	1 (0.3%)	
Employment outside sex work			
Sex work only	199 (94.8 %)	349 (94.8 %)	1.000 ^a
Employment outside of sex work	11 (5.2 %)	18 (4.9 %)	
Missing	0 (0%)	1 (0.3%)	
Monthly income (ZAR)			
<=1500	82 (39.0 %)	138 (37.5 %)	0.588 ^a
1501-3000	70 (33.3 %)	117 (31.8 %)	
>3000	51 (24.3 %)	105 (28.5 %)	
Missing	7 (3.3%)	8 (2.2%)	
Number of days selling sex per month			
<20	80 (38.1 %)	127 (34.5 %)	0.470 ^a
>=20	129 (61.4 %)	237 (64.4 %)	
Missing	1 (0.5%)	4 (1.1%)	
Number of new clients in the past month			
0	5 (2.4 %)	11 (3.0 %)	0.307 ^a
1-4	44 (21.0 %)	58 (15.8 %)	
5-9	60 (28.6 %)	98 (26.6%)	
10-29	77 (36.7 %)	140 (38.0%)	
>=30	24 (11.4 %)	61 (16.6 %)	
Number of regular clients in the past month			
0	10 (4.8 %)	15 (4.1 %)	0.516 ^a
1-4	41 (19.5 %)	65 (17.7 %)	

	Traced successfully (N=210)	Traced unsuccessfully (N=368)	p-value
5-9	55 (26.2 %)	93 (25.3%)	
10-29	81 (38.6 %)	134 (36.4 %)	
>=30	23 (11.0 %)	61 (16.6%)	
Primary sex work venue			
Indoor	158 (75.2 %)	261 (70.9 %)	0.383 ^a
Outdoor	52 (24.8 %)	104 (28.3 %)	
Missing	0 (0%)	3 (0.8%)	
Housing status			
Not homeless	133 (63.3 %)	231 (62.8 %)	0.997 ^a
Homeless	77 (36.7 %)	136 (37.0 %)	
Missing	0 (0%)	1 (0.3%)	
Travel outside Durban in the past 6 months			
No	181 (86.2 %)	326 (88.6 %)	0.476 ^a
Yes	29 (13.8 %)	42 (11.4 %)	
Heavy alcohol use (5+ drinks 2+ times weekly)			
No	131 (62.4 %)	208 (56.5 %)	0.198 ^a
Yes	79 (37.6 %)	160 (43.5 %)	
Marijuana use in the past 30 days			
No	128 (61.0 %)	222 (60.3%)	0.983 ^a
Yes	82 (39.0 %)	145 (39.4 %)	
Missing	0 (0%)	1 (0.3%)	
Cocaine and/or crack use in the past 30 days			
No	134 (63.8 %)	208 (56.5 %)	0.104 ^a
Yes	76 (36.2 %)	160 (43.5 %)	
Meth, ecstasy, and/or flakk use in the past 30 days			
No	199 (94.8 %)	351 (95.4 %)	0.895 ^a
Yes	11 (5.2 %)	17 (4.6 %)	
Heroin use in the past 30 days			
No	201 (95.7 %)	358 (97.3%)	0.332 ^a
Yes	9 (4.3 %)	9 (2.4 %)	
Missing	0 (0%)	1 (0.3%)	
Whoonga use in the past 30 days			
No	151 (71.9 %)	299 (81.2%)	0.010^a
Yes	59 (28.1 %)	68 (18.5 %)	
Missing	0 (0%)	1 (0.3%)	
Injection drug use in the past 6 months			
No	203 (96.7 %)	348 (94.6 %)	0.493 ^a
Yes	7 (3.3 %)	18 (4.9 %)	
Missing	0 (0%)	2 (0.5%)	
Physical violence in the past 6 months			
No	88 (41.9 %)	152 (41.3 %)	0.958 ^a

	Traced successfully (N=210)	Traced unsuccessfully (N=368)	p-value
Yes	122 (58.1 %)	216 (58.7 %)	
Sexual violence in the past 6 months			
No	119 (56.7 %)	208 (56.5 %)	1.000 ^a
Yes	91 (43.3 %)	159 (43.2 %)	
Missing	0 (0%)	1 (0.3%)	
Depression symptoms			
Minimal	47 (22.4 %)	88 (23.9 %)	0.768 ^a
Mild and above	160 (76.2 %)	276 (75.0 %)	
Missing	3 (1.4%)	4 (1.1%)	
Suicide attempt in the past 6 months			
No	180 (85.7 %)	330 (89.7 %)	0.198 ^a
Yes	30 (14.3 %)	38 (10.3 %)	
Number of health services received in the past 6 months			
<=2	100 (47.6 %)	193 (52.4 %)	0.335 ^a
>2	107 (51.0 %)	172 (46.7 %)	
Missing	3 (1.4%)	3 (0.8%)	
Hospitalization in the past 6 months			
No	194 (92.4 %)	332 (90.2 %)	0.470 ^a
Yes	16 (7.6 %)	36 (9.8 %)	
TB testing and/or diagnosis in the past 6 months			
Not tested	79 (37.6 %)	160 (43.5 %)	0.329 ^b
Tested negative	98 (46.7 %)	155 (42.1 %)	
Tested positive	31 (14.8 %)	45 (12.2 %)	
Tested unknown	2 (1.0 %)	8 (2.2 %)	
Duration on ART (years)			
0	47 (22.4 %)	70 (19.0 %)	0.059 ^a
>0-<1	47 (22.4 %)	65 (17.7 %)	
1-<5	70 (33.3 %)	165 (44.8 %)	
>=5	46 (21.9 %)	68 (18.5 %)	
CD4 cell count (cells/mm³)			
<200	46 (21.9 %)	58 (15.8 %)	0.011^a
200-<500	72 (34.3 %)	179 (48.6 %)	
>=500	74 (35.2 %)	121 (32.9 %)	
Missing	18 (8.6%)	10 (2.7%)	
Viral load (copies/mL)			
50-1000	50 (23.8 %)	80 (21.7 %)	0.638 ^a
>1000	160 (76.2 %)	288 (78.3 %)	

Note: Values with p-value <0.05 are bolded.

Antiretroviral therapy, ART; tuberculosis, TB.

^aChi-squared test

^bFisher's exact test

Table S2. The weights used in the quantitative bias analysis and the weighted 18-month mortality risks of female sex workers with HIV who enrolled into the Siyaphambili trial, which evaluated strategies for improved viral suppression in Durban, South Africa, 2018-2021, allowing the outcomes of the LTFU participants who were traced successfully to stand in for the outcomes of those who we could not trace using the tracing weight and assuming 5-30% of the LTFU participants being deceased within 18 months.

Assumed probability of LTFU participants being deceased	Weight assigned to the deceased participants who were LTFU and traced successfully ^a	Weight assigned to the alive participants who were LTFU and traced successfully ^b	% 18-month mortality risk (95% confidence interval)
5%	4.8	2.7	5.4 (2.4-9.0)
10%	9.6	2.6	9.4 (3.9-15.8)
15%	14.5	2.4	13.5 (5.4-22.2)
20%	19.3	2.3	17.4 (6.9-28.3)
25%	24.1	2.1	21.4 (8.5-34.0)
30%	28.9	2.0	25.3 (10.3-39.2)

^aThe weights assigned to the deceased participants who were LTFU and traced successfully were the product of tracing weight (578/210), the inverse of the observed probability of being deceased given that the participant was LTFU (210/6), and the assumed probability of LTFU participants being deceased.

^bThe weights assigned to the alive participants who were LTFU and traced successfully were the product of tracing weight (578/210), the inverse of the observed probability of being alive given that the participant was LTFU (210/204), and the assumed probability of LTFU participants being alive (1-assumed probability of LTFU participants being deceased).