## **Supplementary Online Content**

Braitstein P, DeLong A, Ayuku D, et al. Association of care environment with HIV incidence and death among orphaned, separated, and street-connected children and adolescents in western Kenya. *JAMA Netw Open.* 2021;4(9):e2125365. doi:10.1001/jamanetworkopen.2021.25365

**eTable 1.** Comparison of Participants in the Cohort Study I Enrollment by Care Environment for All Participants and for Participants Who Were HIV-Negative at Enrollment

eTable 2. Outcomes of Participants in the Cohort Study, Phase 1 and Phase 2

**eTable 3.** Results From Sensitivity Analysis Modifying the Year of Censor and Its Impact on the Proportional Hazards and Tests of Statistical Significance

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1.** Comparison of Participants in the Cohort Studyl Enrollment by Care Environment for All Participants and for Participants Who Were HIV-Negative at OSCAR I Enrollment

The analysis of death incudes all participants, which the analysis for HIV incidence and HIV-free survival includes those HIV-negative at enrollment.

		Cohort for all	l-cause mortali	ty outcome	Cohort for HIV acquisition and HIV or death outcomes			
Variable	Value	CCI	FBS	SCY	CCI	FBS	SCY	
		n=1230	n=1230	n=91	n=1177	n=1207	n=90	
Age (Years)	Mean (SD)	10.3 (4.8)	10.3 (4.8)	14.4 (3.3)	10.4 (4.8)	10.3 (4.8)	14.4 (3.3)	
Age Group								
	<=5	229 (18.6)	196 (15.9)	1 (1.1)	214 (18.2)	195 (16.2)	1 (1.1)	
	>5 & <=10	300 (24.4)	377 (30.7)	7 (7.7)	282 (24.0)	369 (30.6)	7 (7.8)	
	>10 & <=13	282 (22.9)	258 (21.0)	19 (20.9)	271 (23.0)	250 (20.7)	19 (21.1)	
	>13 & <=16	285 (23.2)	250 (20.3)	28 (30.8)	278 (23.6)	247 (20.5)	28 (31.1)	
	>16	134 (10.9)	149 (12.1)	36 (39.6)	132 (11.2)	146 (12.1)	35 (38.9)	
Gender								
	Female	568 (46.2)	641 (52.1)	21 (23.1)	539 (45.8)	629 (52.1)	20 (22.2)	
	Male	662 (53.8)	589 (47.9)	70 (76.9)	638 (54.2)	578 (47.9)	70 (77.8)	
Orphan Status								
	Double Orphan	1047 (85.1)	487 (39.6)	71 (78)	1000 (85)	479 (39.7)	70 (77.8)	
	Maternal Orphan	82 (6.7)	128 (10.4)	4 (4.4)	77 (6.5)	126 (10.4)	4 (4.4)	
	Paternal Orphan	101 (8.2)	615 (50.0)	16 (17.6)	100 (8.5)	602 (49.9)	16 (17.8)	
Time with caregiver								
	Less than 2 years	492 (40)	53 (4.3)	30 (33)	467 (39.7)	52 (4.3)	30 (33.3)	
	> 5 years	281 (22.8)	122 (9.9)	11 (12.1)	274 (23.3)	120 (9.9)	10 (11.1)	
	2-5 years	380 (30.9)	153 (12.4)	31 (34.1)	363 (30.8)	149 (12.3)	31 (34.4)	
	all his/her life	50 (4.1)	895 (72.8)	5 (5.5)	49 (4.2)	879 (72.8)	5 (5.6)	
	Missing	27 (2.2)	7 (0.6)	14 (15.4)	24 (2.0)	7 (0.6)	14 (15.6)	

eTable 2. Outcomes of Participants in the Cohort Study, Phase 1 and Phase 2

	Active**			Transitioned Out*		Dead		Lost to follow-up				
	CCI	FBS	SCY	CCI	FBS	SCY	CCI	FBS	SCY	CCI	FBS	SCY
##Enrollment	1230	1230	91	-	-	-	-	-	-	-	-	-
End of phase 1	982	1198	88	137	13	0	1	7	3	110	12	0
###Eligible for Enrollment in phase 2	887	1198	88	-	-	-	1	-	-	-	-	-
Visit 1 in phase 2	508	1022	54	125	128	0	1	7	6	254	41	28
End of phase 2	371	810	52	92	133	1	0	2	0	45	77	1
Total (Cumulative transitions, deaths and LTFU)				354	274	1	3	16	9	409	130	29

<sup>\*</sup> Transitioned out includes repatriated home, adopted, aged out, married, moved away, expelled, employed elsewhere, run-away.

<sup>\*\*</sup> Active includes completed study visit or missed the visit because they were temporarily unavailable (e.g. at school, on a trip, etc).

<sup>\*\*</sup> This is every participant who got enrolled and was part of our analysis.

<sup>\*\*\*</sup> This number excludes those who died at the end of phase 1 or before enrollment into phase 2 and those who were either lost to follow-upU or had transitioned out and did not participate in phase 2 of the study.

**eTable 3.** Results From Sensitivity Analysis Modifying the Year of Censor and Its Impact on the Proportional Hazards and Tests of Statistical Significance

Comparison	Year of Censor	Death	HIV Acquisition*	Death or HIV Acquisition*		
CCI** vs FBS***	4	0.12 (0.01, 1.06) p=0.06	0.59 (0.16, 2.21) p=0.43	0.77 (0.31, 1.92) p=0.57		
CCI vs FBS	5	0.12 (0.01, 1.00) p=0.05	0.75 (0.2, 2.73) p=0.66	0.74 (0.30, 1.82) p=0.51		
CCI vs FBS	6	0.12 (0.01, 0.95) p=0.04	1.26 (0.29, 5.51) p=0.76	0.81 (0.30, 2.18) p=0.68		
CCI vs FBS	7	0.29 (0.07, 1.17) p=0.08	1.24 (0.29, 5.31) p=0.77	0.73 (0.28, 1.92) p=0.53		
CCI vs FBS	8	0.26 (0.07, 1.04) p=0.06	1.94 (0.57, 6.61) p=0.29	0.77 (0.30, 1.96) p=0.59		
CCI vs FBS	9	0.26 (0.07, 1.04) p=0.06	1.49 (0.46, 4.83) p=0.50	0.74 (0.29, 1.87) p=0.52		
SCY**** vs FBS	4	2.13 (0.48, 9.46) p=0.32	16.65 (4.17, 66.53) p<0.01	8.19 (3.12, 21.53) p<0.01		
SCY vs FBS	5	2.99 (0.79, 11.29) p=0.11	19.52 (4.97, 76.67) p<0.01	7.70 (2.98, 19.94) p<0.01		
SCY vs FBS	6	5.99 (2.21, 16.25) p<0.01	24.5 (7.46, 80.45) p<0.01	1.81(4.12, 23.34) 1.82p<0.01		
SCY vs FBS	7	4.96 (1.90, 12.98) p<0.01	27.07 (8.09, 90.62) p<0.01	8.61 (3.71, 19.97) p<0.01		
SCY vs FBS	8	5.83 (2.43, 13.99) p<0.01	33.97 (10.85, 106.31) p<0.01	8.89 (3.99, 19.81) p<0.01		
SCY vs FBS	9	5.83 (2.43, 13.99) p<0.01	17.3 (5.84, 51.23) p<0.01	8.40 (3.75, 18.81) p<0.01		

<sup>\*</sup>Excludes those HIV-positive at enrolment

<sup>\*\*</sup>CCI: Charitable Children's Institutions

<sup>\*\*\*</sup>FBS: Family-based settings

<sup>\*\*\*\*</sup>SCY: Street-connected children and youth