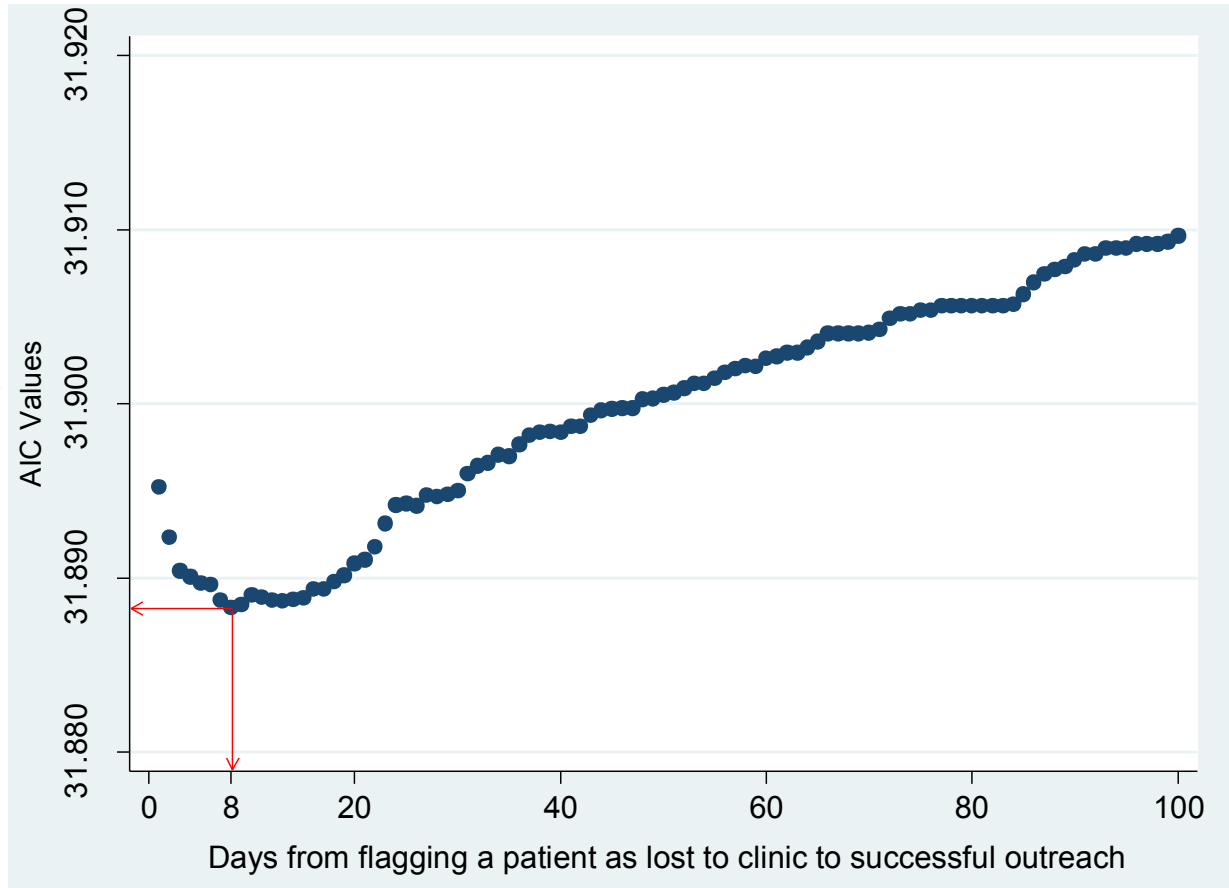**Supplementary Figure 1.** Depiction of a grid search to identify the optimal timing of "early" successful outreach efforts, locating a cut-point based on the number of days from flagging a patient as lost to clinic to successful outreach that achieved the smallest Akaike Information Criterion (AIC) value (Y-axis values). All times from 1 day to 100 days until the outcome of successful outreach were evaluated.

Supplementary Table 1. Effect of early outreach on the hazard of returning to care. Results from a naïve complete-case analysis among N=24,093 individuals included in a multivariable Cox proportional hazards model, excluding N=6,838 lost patients with missing vital status (or equivalently missing true gap in care status).

	HR	95% CI	p-value
Age at beginning of gap in care (years)			
18-24.9	1		
25-34.9	1.145	(1.076, 1.218)	<0.001
35-44.9	1.262	(1.184, 1.346)	<0.001
45+	1.361	(1.272, 1.456)	<0.001
Gender			
Male	1		
Female & non-pregnant	1.055	(1.020, 1.092)	0.002
Female & pregnant	1.132	(1.060, 1.210)	<0.001
Successful outreach within 8 days			
No	1		
Yes	1.089	(1.056, 1.122)	<0.001
On ART			
No	1		
Yes	1.500	(1.444, 1.557)	<0.001
HIV status disclosed			
No	1		
Yes	1.025	(0.993, 1.058)	0.132
Initial CD4			
<350	1		
350+	0.959	(0.923, 0.997)	0.034
WHO stage 3/4			
1/2	1		
3/4	1.018	(0.985, 1.052)	0.296
Travel time to clinic			
0'-60'	1		
>60'	0.988	(0.957, 1.020)	0.450