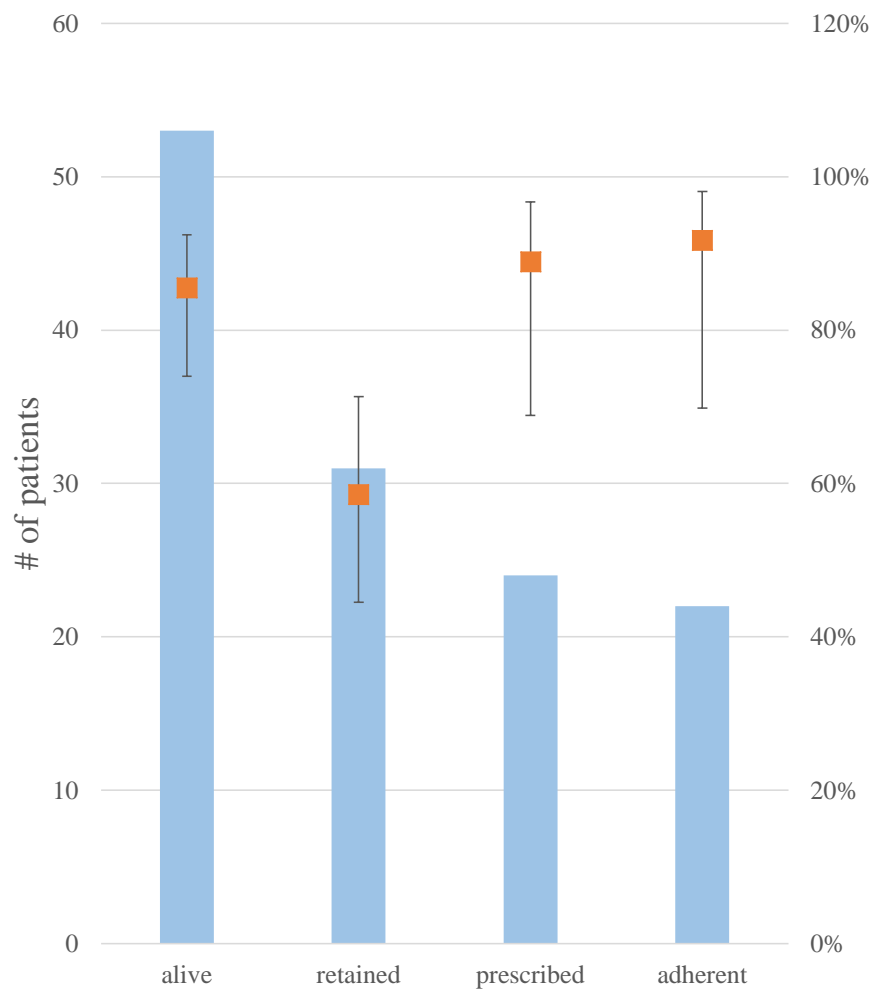# Supplemental Material

Supplemental Table 1: Retention in care and optimal adherence to penicillin among subjects with clinical RHD, by region. N is number of patients in the denominator category and the following percentage is the proportion of patients retained or optimally adherent, respectively, with associated 95% confidence interval.

	Alive (N)	Retained (%)	Prescribed (N)	Optimally Adherent (%)
Central	574	46% (42-50%)	244	91% (87-94%)
Eastern	104	45% (36-55%)	42	95% (83-99%)
Northern	87	75% (64-83%)	63	90% (80-96%)
Western	122	57% (48-65%)	56	93% (82-97%)

Supplemental Figure 1: RHD Cascade of care for HIV+ patients. The left axis and blue bars indicate the number of patients in each outcome category of the treatment cascade, while the right axis and orange points indicate the percentage of patients as a proportion of the parent (prior) category. Error bars reflect the 95% confidence interval. All patients in the registry were included to assess outcomes of "alive" and "retained", but patients with borderline RHD were excluded from assessing the outcomes of "prescribed" and "adherent".

	alive	retained	prescribed	adherent
Cascade category	53	31	24	22
% of parent category	86%	59%	89%	92%

Supplemental Table 2: Association of demographic and clinical variables with retention in care among all subjects with clinical disease (n=966). Bolded red: p<0.05. Hosmer-Lemeshow test for goodness of fit (p=0.96). AUROC curve 0.682 (95% CI 0.643-0.720).

		Unadjusted		Multivariable	
		OR (95%CI)	p	OR (95% CI)	p
Age					
	0-15 years	REF		REF	
	15-25 years	**0.52 (0.35-0.77)**	**0.001**	0.74 (0.44-1.24)	0.252
	25-40 years	**0.58 (0.39-0.86)**	**0.007**	0.80 (0.48-1.33)	0.394
	>40 years	**0.50 (0.34-0.74)**	**0.001**	0.85 (0.51-1.41)	0.528
Female (vs male)		0.84 (0.63-1.11)	0.213	0.91 (0.63-1.30)	0.598
Clinic site					
	UHI	REF		REF	
	Lubowa	**16.7 (3.93-70.7)**	**<0.001**	**16.7 (3.85-72.3)**	**<0.001**
	Mbarara	**23.1 (5.52-96.5)**	**<0.001**	**35.4 (4.6-271.0)**	**0.001**
	Gulu	**3.9 (2.23-6.90)**	**<0.001**	**5.55 (1.94-15.9)**	**0.001**
Distance to the nearest health centre (per km)		**0.93 (0.90-0.97)**	**<0.001**	**0.95 (0.92-0.99)**	**0.006**
Household size (per person)		**0.94 (0.91-0.98)**	**0.008**	--	--
Employed or Employed Caregiver (vs. not)		**1.38 (1.03-1.87)**	**0.033**	--	--
Limited Education (vs. more advanced education)		0.80 (0.62-1.03)	0.084	**0.57 (0.41-0.79)**	**0.001**
NYHA Class					
	NYHA I	REF			
	NYHA II	**1.61 (1.15-2.24)**	**0.005**	**1.62 (1.11-2.37)**	**0.013**
	NYHA III	1.32 (0.85-2.04)	0.214	0.91 (0.54-1.52)	0.708
	NYHA IV	**2.00 (1.05-3.80)**	**0.034**	1.38 (0.63-3.02)	0.413
History of Decompensated HF		0.94 (0.70-1.27)	0.707	--	--
History of Stroke		0.82 (0.41-1.60)	0.554	--	--

History of Atrial Fibrillation	0.98 (0.60-1.60)	0.936	--	--
History of Endocarditis	0.81 (0.25-2.67)	0.732	--	--
History of Prior Valve Surgery	1.13 (0.62-2.07)	0.693	--	--
HIV infected	1.41 (0.99-2.00)	0.058	--	--

Supplemental Table 3: Association of demographic and clinical variables with adherence to penicillin among all subjects with clinical disease who were retained in care (n=470).

Bolded red: p<0.05. Hosmer-Lemeshow test for goodness of fit (p=0.43). AUROC curve 0.693 (95% CI 0.632-0.754).

		Unadjusted		Multivariable	
		OR (95%CI)	p	OR (95% CI)	p
Age					
	0-15 years	REF		REF	
	15-25 years	1.08 (0.43-2.72)	0.863	1.55 (0.59-4.08)	0.374
	25-40 years	**0.37 (0.17-0.80)**	**0.012**	0.52 (0.22-1.22)	0.132
	>40 years	**0.37 (0.17-0.82)**	**0.014**	0.43 (0.18-1.00)	0.051
Female (vs male)		0.86 (0.49-1.50)	0.588	1.00 (0.55-1.82)	0.994
Clinic site					
	UHI	REF		REF	
	Lubowa	1.67 (0.49-5.74)	0.414	1.58 (0.43-5.81)	0.488
	Mbarara	1.89 (0.56-6.43)	0.308	0.85 (0.21-3.38)	0.819
	Gulu	2.05 (0.78-5.36)	0.143	1.19 (0.43-3.34)	0.735
Distance to the nearest health centre (per km)		1.00 (0.94-1.07)	0.995	--	--
Household size (per person)		1.06 (0.97-1.16)	0.200	--	--
Employed or Employed Caregiver (vs. not)		**0.51 (0.30-0.86)**	**0.011**	--	--
Limited Education (vs. more advanced education)		**2.26 (1.33-3.82)**	**0.002**	**2.20 (1.24-3.92)**	**0.007**
NYHA Class					
	NYHA I	REF		REF	
	NYHA II	1.16 (0.60-2.24)	0.662	--	--
	NYHA III	1.09 (0.45-2.63)	0.843	--	--
	NYHA IV	0.64 (0.22-1.89)	0.422	--	--
History of Decompensated HF		0.98 (0.55-1.73)	0.942	--	--

History of Stroke	0.67 (0.17-2.61)	0.568	--	--
History of Atrial Fibrillation	0.75 (0.30-1.87)	0.535	--	--
History of Endocarditis	1.48 (0.20-10.9)	0.701	--	--
History of Prior Valve Surgery	**0.28 (0.12-0.68)**	**0.005**	**0.32 (0.12-0.87)**	**0.026**
HIV infected	1.42 (0.76-2.64)	0.269	--	--

Supplemental Figure 2: Sensitivity analysis excluding patients recently enrolled (< 90 days). The left axis and blue bars indicate the number of patients in each outcome category of the treatment cascade, while the right axis and orange points indicate the percentage of patients as a proportion of the parent (prior) category. Error bars reflect the 95% confidence interval. All patients in the registry were included to assess outcomes of "alive" and "retained", but patients with borderline RHD were excluded from assessing the outcomes of "prescribed" and "adherent".

	alive	retained	prescribed	adherent
Cascade category	1,110	657	511	465
% of parent category	80%	59%	91%	92%