

Table S1: Odds ratios from ancillary and secondary analyses of efficiency and effectiveness of Chagas disease vector control campaign, Arequipa, Peru, 2015

	Treated during earlier vs. later stage of Cycle 2, among households treated in Cycle 2.	Treated during Cycle 2, among household that refused in Cycle 1
	aOR [95% CI]	aOR [95% CI]
Study Arm (Ref: Control)		
Advanced Planning	0.94 [0.76,1.15]	2.50 [1.41,4.43]
Block leader recruitment	0.68 [0.55,0.83]	1.25 [0.73,2.14]
Contingent group lottery	1.19 [0.96,1.47]	1.35 [0.79,2.30]
Cycle 1 Household Status: (Ref.: Closed)		
Cycle 1: Sprayed, Positive	3.37 [1.98,5.73]	
Cycle 1: Sprayed, Negative	1.92 [1.44,2.57]	
Cycle 1: Uninhabited	0.58 [0.28,1.20]	
Cycle 1: Refused	2.54 [0.54,11.93]	
Cycle 1: Public lot	0.85 [0.18,3.94]	
Cycle 1: Vacant lot	0.64 [0.44,0.93]	
Constant	1.94 [1.43,2.63]	0.88 [0.59,1.32]
N (Households)	4038	445

aOR = Adjusted odds ratios from logistic regressions of the odds of households being treated (sprayed with insecticide) during the earlier vs. later stage Cycle 2 (first column), or being treated during Cycle 2 (second column) of the Chagas disease vector control campaign in Arequipa, Peru. Regression models are estimated using generalized estimating equations with robust standard errors. Confidence intervals are adjusted for clustering of households within clusters. All covariates included in the model are shown in table above. Unadjusted mean proportion in Control group treated during earlier vs. later stage of Cycle 2 (among households treated in Cycle 2 = 77.1%. Unadjusted mean proportion in Control group treated during Cycle 2 (among households that refused in Cycle 1) = 46.9%.

Table S2: Reported reasons for refusing participation (receipt of insecticide treatment) during Cycle 2 of Chagas disease vector control campaign, Arequipa, Peru, 2015, by treatment arm.

	Control (N=63)	Advanced planning (N=57)	Block leader recruitment (N=59)	Contingent group lottery (N=51)	Total (N=230)
Don't have time to wait at home, have to work	27.0%	17.5%	30.5%	17.7%	23.5%
Concerned about allergies	14.3%	14.0%	10.2%	9.8%	12.2%
Don't want strangers in the house, fear of theft	7.9%	7.0%	10.2%	7.8%	8.3%
Tenants/renters, can't decide for landlord	9.5%	8.8%	6.8%	7.8%	8.3%
Don't want to move furniture	3.2%	1.8%	3.4%	5.9%	3.5%
Locked rooms can't be sprayed	0.0%	1.8%	3.4%	7.8%	3.0%
Insecticide will stain walls	4.8%	1.8%	1.7%	3.9%	3.0%
Other stated reasons (including no reason)	38.1%	50.9%	37.3%	41.2%	41.7%

Reasons for refusal were collected from households by campaign staff during the second cycle of the attack phase of the vector control campaign and coded using a standardized structured instrument developed during a prior study of the campaign in a different district (see Buitenen et al. 2014).