

Web Table A

The following tables present detailed HIV prevalence estimates for men and women from 12 DHS surveys. The ‘complete case’ analysis estimate (‘Valid HIV’) is reported in the first row for comparison to the imputation results that appear below. Prevalence estimates for those who refused consent and for those who could not be contacted were imputed with either conventional probit regressions (‘Imputed’) or Heckman-type selection models (‘Heckman’). The ‘total’ estimate combines the three categories for a national estimate of adult HIV prevalence. Estimates of the selection model correlation parameter ρ are reported in the final column. Prevalence estimates are survey weighted but sample sizes (N) are unweighted. P-values testing if the ‘selection variables’ (i.e., interviewer identities or a variable indicating whether or not a survey team contacted a household on the first day the team visited a cluster) were associated with participation are reported under each table.

CotedIvoire2005

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	3893	0.028 (0.021, 0.036)	0.028 (0.021, 0.036)	
Predicted via consent	588	0.034 (0.030, 0.051)	0.163 (0.041, 0.403)	-0.59 (-0.86, -0.04)
Predicted via contact	663	0.035 (0.028, 0.050)	0.248 (0.034, 0.685)	-0.68 (-0.93, 0.02)
Total	5144	0.030 (0.024, 0.039)	0.084 (0.035, 0.184)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.115.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	4535	0.061 (0.052, 0.071)	0.061 (0.052, 0.071)	
Predicted via consent	620	0.072 (0.062, 0.092)	0.120 (0.019, 0.327)	-0.20 (-0.65, 0.36)
Predicted via contact	611	0.079 (0.068, 0.097)	0.097 (0.018, 0.264)	-0.08 (-0.52, 0.40)
Total	5766	0.065 (0.057, 0.075)	0.074 (0.050, 0.119)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.6.

Ethiopia2005

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5118	0.009 (0.006, 0.012)	0.009 (0.006, 0.012)	
Predicted via consent	905	0.017 (0.014, 0.029)	0.024 (0.000, 0.273)	-0.10 (-0.97, 0.95)
Predicted via contact	749	0.013 (0.010, 0.020)	0.107 (0.010, 0.453)	-0.66 (-0.93, 0.06)
Total	6772	0.010 (0.007, 0.014)	0.018 (0.008, 0.060)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.193.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5953	0.017 (0.013, 0.022)	0.017 (0.013, 0.022)	
Predicted via consent	843	0.029 (0.025, 0.041)	0.052 (0.003, 0.210)	-0.19 (-0.72, 0.48)
Predicted via contact	345	0.027 (0.022, 0.037)	0.021 (0.000, 0.141)	0.08 (-0.65, 0.73)
Total	7141	0.018 (0.014, 0.024)	0.020 (0.013, 0.037)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.237.

Ghana2003

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	4263	0.014 (0.011, 0.019)	0.014 (0.011, 0.019)	
Predicted via consent	753	0.016 (0.015, 0.029)	0.000 (0.000, 0.083)	0.69 (-0.88, 1.00)
Predicted via contact	321	0.014 (0.011, 0.023)	0.001 (0.000, 0.027)	0.48 (-0.28, 0.87)
Total	5337	0.015 (0.011, 0.020)	0.011 (0.009, 0.025)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.865.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5285	0.023 (0.019, 0.028)	0.023 (0.019, 0.028)	
Predicted via consent	410	0.028 (0.025, 0.039)	0.446 (0.008, 0.934)	-0.86 (-1.00, 0.32)
Predicted via contact	251	0.021 (0.018, 0.029)	0.041 (0.000, 0.460)	-0.16 (-0.94, 0.89)
Total	5946	0.024 (0.020, 0.028)	0.053 (0.021, 0.097)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.9.

Lesotho2004

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	2246	0.188 (0.170, 0.208)	0.188 (0.170, 0.208)	
Predicted via consent	553	0.205 (0.182, 0.239)	0.243 (0.064, 0.498)	-0.10 (-0.59, 0.45)
Predicted via contact	504	0.200 (0.180, 0.225)	0.145 (0.001, 0.615)	0.15 (-0.79, 0.88)
Total	3303	0.193 (0.175, 0.213)	0.191 (0.136, 0.297)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.966.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	3032	0.260 (0.242, 0.278)	0.260 (0.242, 0.278)	
Predicted via consent	514	0.269 (0.248, 0.295)	0.283 (0.096, 0.537)	-0.03 (-0.50, 0.45)
Predicted via contact	212	0.258 (0.239, 0.280)	0.314 (0.080, 0.629)	-0.11 (-0.58, 0.43)
Total	3758	0.261 (0.244, 0.279)	0.266 (0.225, 0.320)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.707.

Liberia2007

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5241	0.012 (0.009, 0.015)	0.012 (0.009, 0.015)	
Predicted via consent	768	0.014 (0.014, 0.024)	0.018 (0.001, 0.091)	-0.06 (-0.56, 0.48)
Predicted via contact	461	0.013 (0.011, 0.019)	0.011 (0.000, 0.071)	0.05 (-0.52, 0.59)
Total	6470	0.012 (0.010, 0.016)	0.012 (0.009, 0.023)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.581.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	6533	0.019 (0.016, 0.023)	0.019 (0.016, 0.023)	
Predicted via consent	561	0.023 (0.021, 0.031)	0.074 (0.010, 0.237)	-0.34 (-0.72, 0.20)
Predicted via contact	351	0.022 (0.019, 0.028)	0.047 (0.004, 0.169)	-0.21 (-0.65, 0.34)
Total	7445	0.019 (0.016, 0.023)	0.024 (0.017, 0.038)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.098.

Malawi2004

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	2404	0.100 (0.087, 0.116)	0.100 (0.087, 0.116)	
Predicted via consent	837	0.098 (0.086, 0.128)	0.071 (0.001, 0.341)	0.14 (-0.74, 0.84)
Predicted via contact	553	0.119 (0.105, 0.143)	0.024 (0.000, 0.183)	0.53 (-0.37, 0.92)
Total	3794	0.102 (0.090, 0.120)	0.082 (0.058, 0.161)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.205.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	2864	0.139 (0.126, 0.153)	0.139 (0.126, 0.153)	
Predicted via consent	975	0.111 (0.102, 0.137)	0.254 (0.050, 0.598)	-0.41 (-0.83, 0.31)
Predicted via contact	231	0.129 (0.118, 0.148)	0.152 (0.019, 0.428)	-0.08 (-0.64, 0.55)
Total	4070	0.131 (0.120, 0.147)	0.170 (0.109, 0.272)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.799.

Mali2006

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	3946	0.011 (0.007, 0.016)	0.011 (0.007, 0.016)	
Predicted via consent	303	0.012 (0.011, 0.026)	0.032 (0.000, 0.342)	-0.26 (-0.93, 0.82)
Predicted via contact	384	0.011 (0.009, 0.022)	0.177 (0.053, 0.442)	-0.76 (-0.92, -0.41)
Total	4633	0.011 (0.007, 0.016)	0.027 (0.014, 0.065)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.946.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	4804	0.015 (0.011, 0.021)	0.015 (0.011, 0.021)	
Predicted via consent	225	0.017 (0.014, 0.028)	0.366 (0.000, 0.990)	-0.86 (-1.00, 0.96)
Predicted via contact	124	0.016 (0.013, 0.024)	0.184 (0.015, 0.539)	-0.67 (-0.93, 0.00)
Total	5153	0.015 (0.011, 0.020)	0.035 (0.013, 0.069)	

Consent regression p-value for interviewers = 0.002.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.114.

Rwanda2005

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	4742	0.022 (0.018, 0.027)	0.022 (0.018, 0.027)	
Predicted via consent	90	0.034 (0.028, 0.052)	0.138 (0.000, 0.811)	-0.46 (-1.00, 0.98)
Predicted via contact	122	0.031 (0.026, 0.042)	0.010 (0.000, 0.403)	0.24 (-0.97, 0.99)
Total	4954	0.022 (0.018, 0.027)	0.024 (0.018, 0.043)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers = 0.043.

Contact regression p-value for first day in cluster = 0.847.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5677	0.036 (0.031, 0.041)	0.036 (0.031, 0.041)	
Predicted via consent	65	0.055 (0.047, 0.069)	0.268 (0.002, 0.784)	-0.58 (-0.98, 0.80)
Predicted via contact	93	0.039 (0.034, 0.047)	0.209 (0.000, 0.840)	-0.54 (-0.99, 0.89)
Total	5835	0.036 (0.031, 0.041)	0.042 (0.032, 0.058)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.546.

Senegal2005

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	3303	0.005 (0.003, 0.008)	0.005 (0.003, 0.008)	
Predicted via consent	487	0.005 (0.004, 0.016)	0.035 (0.003, 0.193)	-0.52 (-0.86, 0.12)
Predicted via contact	564	0.005 (0.003, 0.012)	0.014 (0.000, 0.157)	-0.28 (-0.84, 0.57)
Total	4354	0.005 (0.003, 0.008)	0.009 (0.003, 0.040)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.127.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	4520	0.009 (0.007, 0.013)	0.009 (0.007, 0.013)	
Predicted via consent	577	0.008 (0.007, 0.016)	0.052 (0.003, 0.252)	-0.52 (-0.87, 0.18)
Predicted via contact	245	0.010 (0.007, 0.020)	0.033 (0.001, 0.218)	-0.31 (-0.80, 0.42)
Total	5342	0.009 (0.007, 0.013)	0.015 (0.008, 0.041)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.333.

Swaziland2006-7

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	3630	0.195 (0.178, 0.212)	0.195 (0.178, 0.212)	
Predicted via consent	526	0.229 (0.215, 0.248)	0.669 (0.133, 0.964)	-0.73 (-0.98, 0.34)
Predicted via contact	509	0.228 (0.212, 0.247)	0.447 (0.001, 0.989)	-0.42 (-0.98, 0.91)
Total	4665	0.202 (0.186, 0.218)	0.274 (0.173, 0.364)	

Consent regression p-value for interviewers = 0.069.

Contact regression p-value for interviewers = 0.037.

Contact regression p-value for first day in cluster = 0.383.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	4624	0.309 (0.292, 0.326)	0.309 (0.292, 0.326)	
Predicted via consent	383	0.294 (0.279, 0.313)	0.057 (0.000, 0.923)	0.54 (-1.00, 1.00)
Predicted via contact	283	0.327 (0.310, 0.344)	0.343 (0.001, 0.942)	-0.03 (-0.90, 0.89)
Total	5290	0.309 (0.292, 0.325)	0.293 (0.262, 0.388)	

Consent regression p-value for interviewers = 0.163.

Contact regression p-value for interviewers = 0.033.

Contact regression p-value for first day in cluster = 0.801.

Zambia2007

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5163	0.121 (0.110, 0.133)	0.121 (0.110, 0.133)	
Predicted via consent	1318	0.117 (0.110, 0.131)	0.520 (0.219, 0.825)	-0.75 (-0.94, -0.23)
Predicted via contact	653	0.153 (0.141, 0.167)	0.248 (0.014, 0.697)	-0.24 (-0.83, 0.60)
Total	7134	0.123 (0.114, 0.134)	0.210 (0.137, 0.297)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.236.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5713	0.159 (0.145, 0.173)	0.159 (0.145, 0.173)	
Predicted via consent	1400	0.158 (0.148, 0.173)	0.245 (0.075, 0.501)	-0.22 (-0.65, 0.30)
Predicted via contact	283	0.172 (0.158, 0.188)	0.172 (0.013, 0.514)	0.00 (-0.64, 0.64)
Total	7396	0.159 (0.147, 0.172)	0.176 (0.137, 0.235)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster < 0.001.

Zimbabwe2005-6

Men	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	5555	0.145 (0.133, 0.158)	0.145 (0.133, 0.158)	
Predicted via consent	1604	0.153 (0.142, 0.169)	0.197 (0.053, 0.420)	-0.12 (-0.57, 0.37)
Predicted via contact	1585	0.172 (0.158, 0.188)	0.193 (0.014, 0.558)	-0.06 (-0.69, 0.63)
Total	8744	0.151 (0.141, 0.164)	0.163 (0.109, 0.253)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.118.

Women	N	Imputed	Heckman	
		HIV (95% CI)	HIV (95% CI)	ρ (95% CI)
Valid HIV	7494	0.213 (0.200, 0.226)	0.213 (0.200, 0.226)	
Predicted via consent	1390	0.203 (0.194, 0.214)	0.333 (0.062, 0.677)	-0.27 (-0.76, 0.41)
Predicted via contact	970	0.212 (0.202, 0.224)	0.119 (0.000, 0.840)	0.24 (-0.93, 0.97)
Total	9854	0.211 (0.200, 0.223)	0.221 (0.170, 0.327)	

Consent regression p-value for interviewers < 0.001.

Contact regression p-value for interviewers < 0.001.

Contact regression p-value for first day in cluster = 0.817.