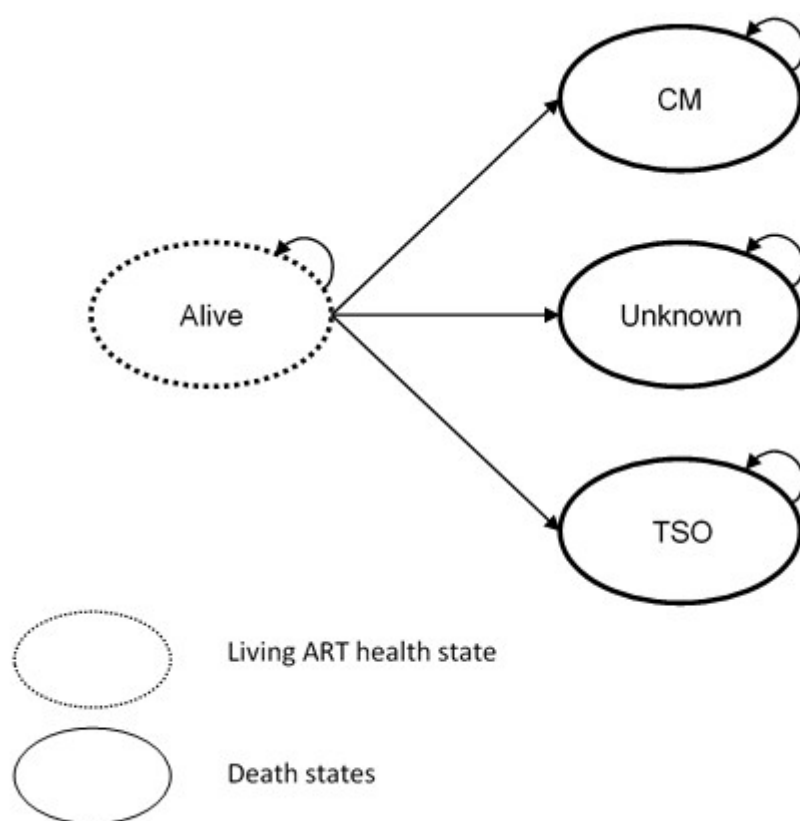


Appendix

Figure A1: Model structure



Note: CM: Cytococcal meningitis; TSO: Tuberculosis, serious bacterial infections and other known causes

Figure A2: Survival estimates based on the competing risk approach -REALITY trial

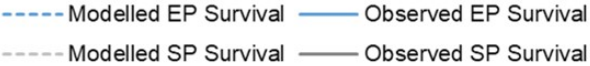
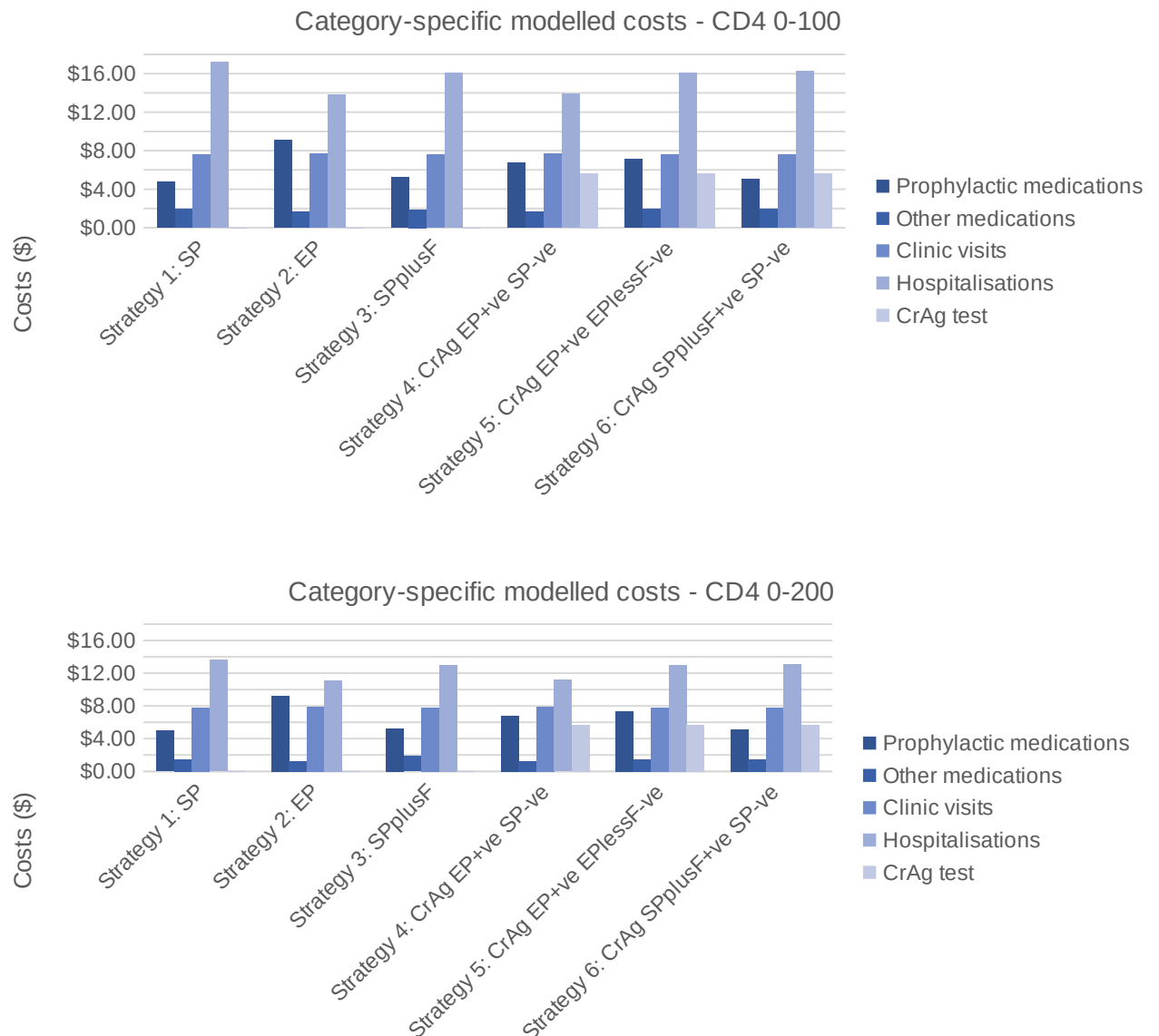


Figure A3: Estimated costs by resource use category per HIV-positive individual over the 48 week period for each of the strategies



Note: Pfx: Prophylactic medication; Non-Pfx: Non-prophylaxis medications; Clinic: Clinic visits; Hosp: Hospitalisations; EP: Enhanced-prophylaxis SP: Standard prophylaxis EPlessF: enhanced-prophylaxis less fluconazole SPplusF: Standard prophylaxis plus fluconazole. ART costs excluded from Figure.

Figure A4: Maximum prices for CrAg testing and CD4 testing for stratifying receipt of enhanced-prophylaxis

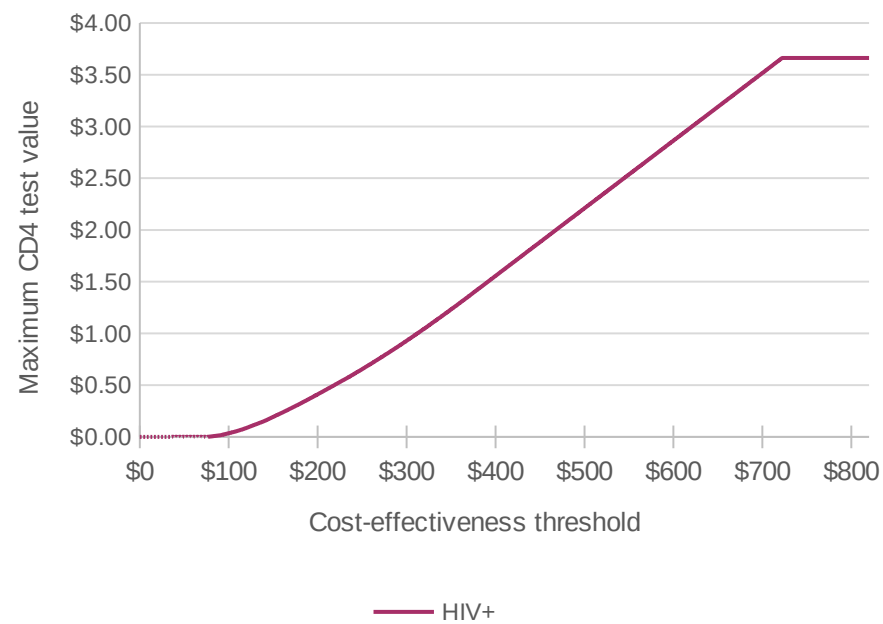
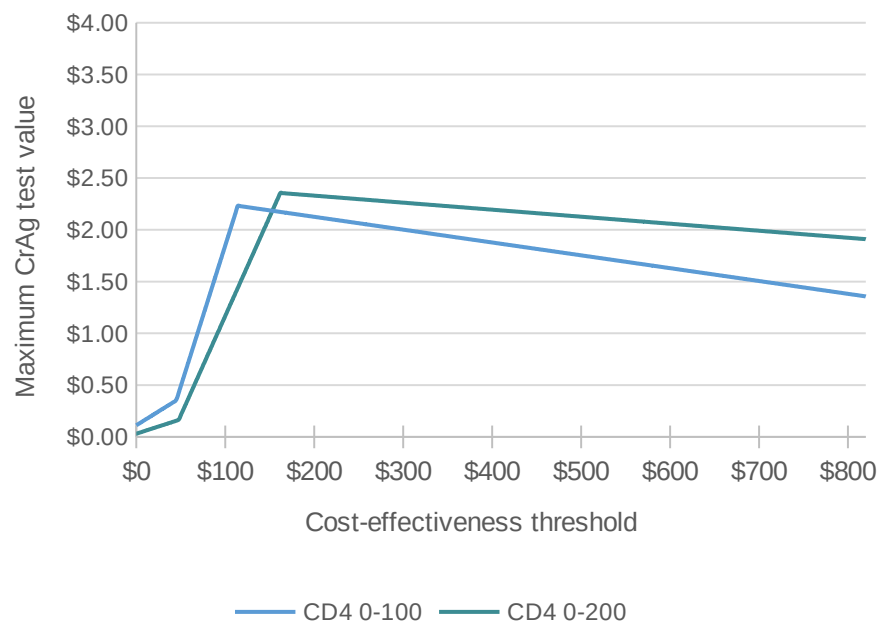


Table A1: Strategy details

Strategy	CrAg test result	Initial 12 weeks on ART	Post 12 weeks in countries where isoniazid prophylaxis is standard of care	Post 12 weeks in countries where isoniazid prophylaxis is not standard of care
Strategy 1- Standard prophylaxis	N/A	160mg trimethoprim/800mg sulfamethoxazole daily	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
Strategy 2: Enhanced-prophylaxis (including universal fluconazole)	N/A	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily, 100mg fluconazole daily, single-dose albendazole (400mg) and 5 days' azithromycin (500mg daily).	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
Strategy 3: Standard prophylaxis plus universal fluconazole	N/a	160mg trimethoprim/800mg sulfamethoxazole and 100mg fluconazole daily	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
Strategy 4: CrAg EP+ve SP-ve	+ve CrAg	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily, 100mg fluconazole daily, single-dose albendazole (400mg) and 5 days' azithromycin (500mg daily).	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
	-ve CrAg	160mg trimethoprim/800mg sulfamethoxazole daily	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
Strategy 5: CrAg EP+ve EpleessF-ve	+ve CrAg	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily, 100mg fluconazole daily, single-dose albendazole (400mg) and 5 days' azithromycin (500mg daily).	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
	-ve CrAg	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily, single-dose albendazole (400mg) and 5 days' azithromycin (500mg daily)	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
Strategy 6: CrAg SPplusF+ve SP-ve	+ve CrAg	160mg trimethoprim/800mg sulfamethoxazole and 100mg fluconazole daily	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily
	-ve CrAg	160mg trimethoprim/800mg sulfamethoxazole daily	FDC of trimethoprim-sulfmethoxazole, isoniazid (300mg) and pyridoxine (25mg) daily	160mg trimethoprim/800mg sulfamethoxazole daily

Note: EP=enhanced-prophylaxis, SP=standard-prophylaxis, EpleessF= enhanced-prophylaxis less fluconazole, SPplusF=standard-prophylaxis plus fluconazole.

Table A2: Patient-level covariate values by modelled CD4 bin

	CD4 0-10	CD4 10-20	CD4 20-30	CD4 30-40	CD4 40-50	CD4 50-60	CD4 60-70	CD4 70-80	CD4 80-90	CD4 90-100	CD4 100-200*
CrAg prevalence	13.03%	10.40%	9.05%	8.74%	6.84%	9.88%	6.40%	5.00%	6.74%	6.90%	2.67%
Baseline CD4	6.10	14.93	25.38	35.40	45.32	55.28	65.76	75.21	85.93	94.51	-
Age (years)	34.47	34.49	36.68	35.88	37.89	37.38	35.82	36.21	37.14	39.80	39.80
Sex (male %)	50.95%	54.85%	55.92%	53.14%	54.74%	54.55%	54.40%	45.39%	42.70%	63.79%	63.79%
EQ-5D baseline**	0.81	0.82	0.82	0.85	0.86	0.85	0.88	0.88	0.86	0.86	0.86

*The midpoint CD4 value was used for each bin in the CD4 100-200 range; CrAg prevalence (2.67%) was derived as 30.76923% [informed by Ford et al (2018)] of the observed CD4 0-100 REALITY prevalence; other covariates values were taken from the CD4 90-100 bin

**Base case baseline EQ-5D scoring where full-self reported health is assigned an EQ-5D score of 1

Table A3: Baseline CD4 distributions for each modelled HIV population

	Baseline CD4 distributions									
HIV population*	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
CD4 0-100	15.05%	17.11%	12.07%	11.84%	10.87%	9.44%	7.15%	8.07%	5.09%	3.32%
	100-110	110-120	120-130	130-140	140-150	150-160	160-170	170-180	180-190	190-200
CD4 100-200	11.32%	10.82%	8.90%	11.25%	11.67%	9.47%	9.68%	9.68%	9.25%	7.97%
	0-100					100-200				
CD4 0-200	51.14%					48.86%				
	0-100			100-200			200+			
HIV+	16.80%			16.10%			67.10%			

*CD4 0-100: Distribution informed by the REALITY trial; CD4 100-200: Distribution informed by the DART trial; CD4 0-200: Proportions in each respective advanced HIV population informed by Carmona et al (2018); Distribution across all HIV+ patients informed by Carmona et al (2018)

Table A4: Unit costs of resource use and average ART weekly costs (\$)

Costs (\$)	Zimbabwe	Uganda	Malawi	Kenya	Source
Clinic visit	1.082	1.067	0.606	1.572	WHO Choice [1]
Daily hospitalisation cost	5.333	5.299	2.504	8.196	WHO Choice* [1]
Average weekly cost of ART	2.18	2.08	2.20	2.07	International Drug Price Indicator Guide [2] and REALITY trial data
Concomitant medications	Various	Various	Various	Various	International Drug Price Indicator Guide [2]

Note: 2016 prices. See REALITY main trial publication for different ART regimens which were based on nucleoside reverse transcriptase inhibitor combinations of tenofovir/lamivudine, zidovudine/lamivudine and abacavir/lamivudine with either efavirenz or nevirapine as the third drug.

* WHO-CHOICE are estimates of the hotel component of the hospital costs, i.e. excluding drugs and diagnostic tests but including costs such as personnel, capital and food.

Table A5: Cause-specific piecewise exponential regression competing risk model (REALITY data)

-	CM-specific Hazard ratio (95% CI)	Unknown-specific Hazard ratio (95% CI)	TSO-specific Hazard ratio (95% CI)
Enhanced prophylaxis	0.29999** (0.09779, 0.92029)	0.61859** (0.40272, 0.95016)	-
CrAg-positive	42.62415** (12.17535, 149.221)		0.63460 (0.29522, 1.36413)
CD4 (per cell/mm ³)	0.97455** (0.95106, 0.99861)	0.98744** (0.97937, 0.99558)	0.99221** (0.98567, 0.99879)
Weeks since initiation 8-24	0.30639** (0.10267, 0.91429)	0.37233** (0.23563, 0.58832)	0.22620** (0.14659, 0.34903)
Weeks since initiation 24-48	0.13178** (0.03567, 0.48682)	0.10133** (0.05360, 0.19156)	0.11464** (0.07033, 0.18684)
Baseline hazard	0.00007** (0.00002, 0.00026)	0.00092** (0.00060, 0.00141)	0.00101** (0.00072, 0.00141)
AIC	198.633	1041.515	1332.913

Note: CM cryptococcal meningitis mortality; TSO tuberculosis, specific infections and other known mortality; CrAg: cryptococcal antigen positive at baseline;

*p<0.1, **p<0.05

Table A6: Clinic visits and ART costing regressions (REALITY data)

	Clinic visit costs (95% CI)	ART costs (95% CI)
Age (per year)	0.00086** (0.00012, 0.00159)	0.00105** (0.00005, 0.00205)
Country		
Uganda	-0.11594** (-0.13560, -0.09629)	-0.05096** (-0.07630, -0.02561)
Malawi	-0.68964** (-0.73172, -0.64756)	0.00542 (-0.02658, 0.03741)
Kenya	0.27968** (0.26131, 0.29805)	-0.05436** (-0.08423, -0.02449)
Weeks since initiation 12-24	-0.63279** (-0.66615, 0.59943)	-
Weeks since initiation 24-48	-1.30852** (-1.34937, -1.26767)	-
_const†	-0.96490** (-0.98260, -0.94719)	0.78358** (0.76579, 0.80137)

8-24: 8-24 weeks post baseline; 24-48: 24-48 weeks post baseline; _cons: constant
GEE panel regression with a log transformation of the dependent variable (long link) and a Gaussian family form.

† the constant has the interpretation of a 36 year old individual from Zimbabwe for ART costs and the interpretation of a 36 year old individual from Zimbabwe 0-12 weeks post baseline for clinic visits (age is a centred covariate)

*p<0.1, **p<0.05

Table A7: Hospitalisation and concomitant medication regressions (REALITY data)

	Other hospitalisations model coefficients (95% CI)		Cryptococcal hospitalisations model coefficients (95% CI)		Concomitant drug costs model coefficients (95% CI)	
	Part 1 [†]	Part 2 [‡]	Part 1 [†]	Part 2 [‡]	Part 1 [†]	Part 2 [‡]
EP	0.84356 (0.67404, 1.05573)	-	0.55576 ** (0.32861, 0.93994)	-	-	-0.15897* (-0.33598, 0.01804)
CrAg	0.43836** (0.25244, 0.76120)	-	99.21507** (44.64673, 220.47820)	-	-	1.20250** (0.87009, 1.53491)
EP*CrAg	-	-		-	-	-
CD4 (per cell/mm ³)	0.99576** (0.99182, 0.99971)	-	0.97722** (0.96545, 0.98913)	-	0.99788* (0.99549, 1.00027)	-0.00371** (-0.00665, -0.00077)
Sex	-	0.07195** (0.00720, 0.13670)	-	-	0.77534** (0.67440, 0.89139)	-
Age (per year)	-	-0.00267 (-0.00609, 0.00074)	-	-	1.01028** (1.00342, 1.01718)	-0.00986** (-0.01914, -0.00057)
Country						
Uganda	1.65119** (1.25130, 2.17888)	0.06200 (-0.02340, 0.14740)	-	0.11674 (-0.06136, 0.29483)	1.62611** (1.37877, 1.91783)	0.47159** (0.27915, 0.66403)
Malawi	0.89145 (0.58155, 1.36650)	-0.75490** (-1.00839, -0.50142)	-	-0.79143** (-1.20931, -0.37355)	0.27162** (0.18975, 0.38881)	1.44046** (0.93618, 1.94474)
Kenya	1.13270 (0.80315, 1.59747)	0.55517** (0.46803, 0.64230)	-	0.30837** (0.029978, 0.58676)	1.32668** (1.09257, 1.61095)	0.82487** (0.57833, 1.07141)

	Other hospitalisations model coefficients (95% CI)		Cryptococcal hospitalisations model coefficients (95% CI)		Concomitant drug costs model coefficients (95% CI)	
	Part 1 [†]	Part 2 [‡]	Part 1 [†]	Part 2 [‡]	Part 1 [†]	Part 2 [‡]
Time						
Weeks since initiation	0.95874** (0.95341, 0.96410)	-	-		-	-
2-4	-	-	-		0.98044 (0.87740, 1.09558)	-
4-8	-	-	-		0.53852** (0.48455, 0.59850)	-
8-18	-	-	0.39792** (0.25724, 0.61552)		0.28531** (0.25735, 0.31630)	-
18-48	-	-	0.12600** (0.07545, 0.21041)		0.18841** (0.17009, 0.20870)	-
Weeks prior to mortality						
0-4	6.32757** (4.79751, 8.34562)	0.12886** (0.04769, 0.21004)	12.30492** (6.78732, 22.30796)		1.94164** (1.55550, 2.42363)	0.49798** (0.04279, 0.95318)
4-8	3.24993** (2.15663, 4.89746)	0.09765 (-0.02474, 0.22005)	-		1.41959** (1.07149, 1.88078)	-
8-12	2.17281** (1.21314, 3.89165)	-	-			-

	Other hospitalisations model coefficients (95% CI)		Cryptococcal hospitalisations model coefficients (95% CI)		Concomitant drug costs model coefficients (95% CI)	
	Part 1 [†]	Part 2 [‡]	Part 1 [†]	Part 2 [‡]	Part 1 [†]	Part 2 [‡]
Constant term	0.02805** (0.02178, 0.03611)	3.09090** (3.01177, 3.17003)	0.00045** (0.00020, 0.00103)	3.28335** (3.13548, 3.43123)	0.23494** (0.20065, 0.27510)	-1.08793** (-1.25170, -0.92416)

EP: enhanced prophylaxis; crag: cryptococcal antigen positive at baseline; 2-4: 2-4 weeks post baseline; 4-8: 4-8 weeks post baseline; 8-18 weeks post baseline; 18-48 weeks post baseline; week: continuous weekly covariate 0-48 weeks;

† Part 1: Weekly probability of a positive resource specific cost (e.g. probability that CM-specific hospitalisation costs are positive in a given week) modelled with GEE panel regression with a logit transformation of the dependent variable (logit link) and a binomial family form. Showing beta coefficients on the natural odds ratio scale.

‡ Part 2: Weekly category-specific cost conditional on the cost having been incurred (e.g. expected CM-specific hospitalisation cost conditional on having a CM-specific hospitalisation) modelled with GEE panel regression with a log transformation of the dependent variable (log link) and a Gaussian family form. Showing beta coefficients

† age and baseline CD4 are centred covariates with the constant interpretable as a Zimbabwe 36 year female (when sex is included) individual with a baseline CD4 count of 36 (when CD4 is included) on standard prophylaxis (when EP is included) who is CrAg -ve at baseline (when crag is included).

*p<0.1, **p<0.05

Table A8: HRQoL weights regression analyses (REALITY data)

	Model (95% CI)
Enhanced prophylaxis	0.00721 (-0.00185, 0.01627)
CD4 (per cell/mm ³)	0.00021** (0.00006, 0.00036)
EQ-5D baseline	-
Age (per year)	-0.01027** (-0.01798, -0.00256)
Country	
Uganda	0.00191 (-0.00920, 0.01301)
Malawi	0.06176** (0.04731, 0.07621)
Kenya	0.05912** (0.04609, 0.07215)
Time	
Week 2-4	0.01660** (0.00883, 0.02437)
Week 4-8	0.04024** (0.03245, 0.04803)
Week 8-12	0.05346** (0.04560, 0.06131)
Week 12-18	0.05756** (0.04969, 0.06542)
Week 18-24	0.06397** (0.05609, 0.07185)
Week 24-36	0.06786** (0.05999, 0.07572)
Week 36-48	0.07155** (0.06362, 0.07948)
Weeks prior to mortality	
Weeks 0-4	-0.35907** (-0.38193, -0.33620)
Weeks 4-8	-0.19342** (-0.21751, -0.16933)

	Model (95% CI)
Weeks 8-12	-0.16388** (-0.19256, -0.13520)
Constant	0.87605** (0.86147, 0.89064)

Random effects panel regression

Table A9: Base-case cost-effectiveness results by CD4 subgroup for base-case

				Incremental net health benefit (probability of being CE)			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
100≤CD4 <200 cells/mm³								
Strategy 1: SP	\$122.92	0.83802	0.88383	(1)	(0.441)	(0.162)		
Strategy 3: SPplusF	\$125.32	0.83821	0.88402	-0.02382 (0)	-0.00781 (0)	-0.00461 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.10	0.84953	0.88889	-0.02035 (0)	0.00089 (0.559)	0.00514 (0.838)	\$276.81	\$628.66
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.63	0.83812	0.88393	-0.05699 (0)	-0.01893 (0)	-0.01131 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.66	0.83843	0.88406	-0.05703 (0)	-0.01874 (0)	-0.01108 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.21	0.84944	0.88881	-0.05148 (0)	-0.00955 (0)	-0.00116 (0)	Dominated	Dominated
CD4 <10 cells/mm³								
Strategy 1: SP	\$123.29	0.75133	0.77926	(0.154)	(0)	(0)		
Strategy 3: SPplusF	\$124.98	0.76597	0.79345	-0.00224 (0.002)	0.00901 (0.001)	0.01126(0.003)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.55	0.79445	0.81532	0.01058 (0.844)	0.03228 (0.999)	0.03661(0.997)	\$75.46	\$90.22
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.58	0.76379	0.79134	-0.04041 (0)	-0.00517 (0)	0.00188(0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.84	0.76738	0.79410	-0.0394 (0)	-0.00243 (0)	0.00496(0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.94	0.79219	0.81315	-0.02564 (0)	0.01869 (0)	0.02755(0)	Dominated	Dominated
10≤CD4 <20 cells/mm³								
Strategy 1: SP	\$122.85	0.76930	0.79534	(0.326)	(0)	(0)		
Strategy 3: SPplusF	\$124.73	0.77939	0.80509	-0.00869 (0)	0.00383 (0.001)	0.00633(0.003)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.14	0.80587	0.82491	0.00368 (0.674)	0.0256 (0.999)	0.02999(0.997)	\$89.94	\$111.20
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.26	0.77757	0.80333	-0.04585 (0)	-0.00977 (0)	-0.00256(0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.46	0.78026	0.80535	-0.04511 (0)	-0.00773 (0)	-0.00026(0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.47	0.80398	0.82311	-0.03151 (0)	0.01262 (0)	0.02144(0)	Dominated	Dominated
20≤CD4 <30 cells/mm³								
Strategy 1: SP	\$122.87	0.76801	0.80993	(0.621)	(0.002)	(0)		
Strategy 3: SPplusF	\$124.87	0.77501	0.81683	-0.01306 (0)	0.00032 (0)	0.00299(0.003)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.16	0.79893	0.83445	-0.00199 (0.379)	0.01995 (0.998)	0.02434(0.997)	\$106.44	Ext Dominated
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.37	0.77361	0.81545	-0.04946 (0)	-0.01275 (0)	-0.00541(0)	Dominated	Dominated

				Incremental net health benefit (probability of being CE)			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 4: CrAg EP+ve SP-ve	\$128.53	0.77574	0.80535	-0.04895 (0)	-0.01116 (0)	-0.0036(0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.45	0.79748	0.83304	-0.03641 (0)	0.00751 (0)	0.0163(0)	Dominated	Dominated
30≤CD4 <40 cells/mm³								
Strategy 1: SP	\$122.85	0.78805	0.82130	(0.793)	(0.004)	(0)		
Strategy 3: SPplusF	\$124.93	0.79351	0.82663	-0.0153 (0)	-0.00146 (0)	0.00131 (0.003)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.10	0.81574	0.84237	-0.00476 (0.207)	0.01688 (0.996)	0.0212 (0.997)	\$117.17	\$154.04
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.42	0.79240	0.82554	-0.05131 (0)	-0.0142 (0)	-0.00678 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.57	0.79433	0.82691	-0.05087 (0)	-0.01277 (0)	-0.00515 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.39	0.81459	0.84126	-0.0388 (0)	0.00476 (0)	0.01348 (0)	Dominated	Dominated
40≤CD4 <50 cells/mm³								
Strategy 1: SP	\$122.90	0.78347	0.83180	(0.957)	(0.01)	(0.004)		
Strategy 3: SPplusF	\$125.09	0.78700	0.83530	-0.01831 (0)	-0.00375 (0)	-0.00084 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.17	0.80731	0.84937	-0.0088 (0.043)	0.01296 (0.99)	0.01731 (0.996)	\$136.90	\$185.72
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.53	0.78612	0.83443	-0.05361 (0)	-0.0161 (0)	-0.0086 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.64	0.78751	0.83539	-0.05334 (0)	-0.01509 (0)	-0.00743 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.41	0.80641	0.84849	-0.0421 (0)	0.00126 (0)	0.00993 (0)	Dominated	Dominated
50≤CD4 <60 cells/mm³								
Strategy 1: SP	\$123.14	0.79717	0.83930	(0.951)	(0.012)	(0.004)		
Strategy 3: SPplusF	\$125.28	0.80089	0.84296	-0.01776 (0)	-0.00344 (0)	-0.00058 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.30	0.81983	0.85554	-0.009 (0.049)	0.01211 (0.988)	0.01633 (0.996)	\$139.73	\$195.00
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.80	0.80022	0.84230	-0.05354 (0)	-0.01581 (0)	-0.00827 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.95	0.80209	0.84354	-0.05322 (0)	-0.01446 (0)	-0.00671 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.62	0.81914	0.85487	-0.04286 (0)	0.00036 (0)	0.00901 (0)	Dominated	Dominated
60≤CD4 <70 cells/mm³								
Strategy 1: SP	\$122.88	0.82156	0.84811	(0.992)	(0.033)	(0.01)		
Strategy 3: SPplusF	\$125.15	0.82367	0.85014	-0.02051 (0)	-0.00543 (0)	-0.00242 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.07	0.84144	0.86133	-0.01195 (0.008)	0.00927 (0.967)	0.01351 (0.99)	\$160.10	\$240.69

				Incremental net health benefit (probability of being CE)			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.57	0.82313	0.84962	-0.0553 (0)	-0.01739 (0)	-0.00981 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.67	0.82427	0.85034	-0.05512 (0)	-0.01657 (0)	-0.00886 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.29	0.84089	0.86080	-0.04476 (0)	-0.00204 (0)	0.00651 (0)	Dominated	Dominated
70≤CD4 <80 cells/mm³								
Strategy 1: SP	\$122.84	0.82654	0.85454	(0.998)	(0.068)	(0.015)		
Strategy 3: SPplusF	\$125.15	0.82794	0.85589	-0.02169 (0)	-0.0063 (0)	-0.00322 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.03	0.84457	0.86596	-0.01385 (0.002)	0.0074 (0.932)	0.01166 (0.985)	\$176.79	\$279.01
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.54	0.82750	0.85547	-0.056 (0)	-0.01803 (0)	-0.01043 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.61	0.82833	0.85597	-0.05589 (0)	-0.01744 (0)	-0.00975 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.22	0.84413	0.86554	-0.04615 (0)	-0.00366 (0)	0.00484 (0)	Dominated	Dominated
80≤CD4 <90 cells/mm³								
Strategy 1: SP	\$122.96	0.82649	0.86055	(0.999)	(0.101)	(0.019)		
Strategy 3: SPplusF	\$125.26	0.82781	0.86184	-0.02171 (0)	-0.00636 (0)	-0.00329 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.12	0.84325	0.87079	-0.01484 (0.001)	0.00623 (0.899)	0.01045 (0.981)	\$188.51	\$308.70
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.69	0.82748	0.86152	-0.05629 (0)	-0.0181 (0)	-0.01046 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.78	0.82853	0.86213	-0.05619 (0)	-0.01737 (0)	-0.0096 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.35	0.84292	0.87047	-0.04746 (0)	-0.00486 (0)	0.00366 (0)	Dominated	Dominated
90≤CD4 <100 cells/mm³								
Strategy 1: SP	\$123.26	0.80916	0.86503	(0.999)	(0.159)	(0.026)		
Strategy 3: SPplusF	\$125.58	0.81022	0.86609	-0.02211 (0)	-0.00667 (0)	-0.00358 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.41	0.82467	0.87424	-0.01599 (0.001)	0.00501 (0.841)	0.0092 (0.974)	\$203.13	\$341.97
Strategy 6: CrAg SPplusF+ve SP-ve	\$129.01	0.80997	0.86583	-0.05664 (0)	-0.01834 (0)	-0.01069 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$129.10	0.81097	0.86640	-0.05659 (0)	-0.01766 (0)	-0.00987 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.64	0.82441	0.87398	-0.04856 (0)	-0.00602 (0)	0.00248 (0)	Dominated	Dominated
100≤CD4 <110 cells/mm³								
Strategy 1: SP	\$123.20	0.81618	0.87010	(1)	(0.256)	(0.054)		
Strategy 3: SPplusF	\$125.58	0.81662	0.87054	-0.02331 (0)	-0.00747 (0)	-0.00431 (0)	Ext Dominated	Ext Dominated

				Incremental net health benefit (probability of being CE)			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 2: EP	\$126.36	0.83023	0.87782	-0.01756 (0)	0.00352 (0.744)	0.00773 (0.946)	\$224.94	\$409.48
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.90	0.81642	0.87034	-0.05674 (0)	-0.01875 (0)	-0.01116 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.93	0.81678	0.87054	-0.05673 (0)	-0.01851 (0)	-0.01086 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.48	0.83002	0.87762	-0.04894 (0)	-0.00708 (0)	0.00129 (0)	Dominated	Dominated
110≤CD4 <120 cells/mm³								
Strategy 1: SP	\$123.17	0.82213	0.87419	(1)	(0.295)	(0.073)		
Strategy 3: SPplusF	\$125.55	0.82248	0.87454	-0.02349 (0)	-0.0076 (0)	-0.00442 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.33	0.83539	0.88108	-0.01831 (0)	0.00273 (0.705)	0.00694 (0.927)	\$238.13	\$458.41
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.87	0.82232	0.87438	-0.05683 (0)	-0.01882 (0)	-0.01122 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.91	0.82267	0.87455	-0.05684 (0)	-0.01859 (0)	-0.01094 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.44	0.83523	0.88092	-0.04961 (0)	-0.00781 (0)	0.00055 (0)	Dominated	Dominated
120≤CD4 <130 cells/mm³								
Strategy 1: SP	\$123.12	0.82769	0.87787	(1)	(0.347)	(0.097)		
Strategy 3: SPplusF	\$125.51	0.82796	0.87814	-0.02363 (0)	-0.0077 (0)	-0.00451 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.28	0.84025	0.88403	-0.01902 (0)	0.00203 (0.653)	0.00624 (0.903)	\$251.46	\$512.91
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.83	0.82784	0.87802	-0.0569 (0)	-0.01887 (0)	-0.01126 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.86	0.82817	0.87817	-0.05692 (0)	-0.01866 (0)	-0.011 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.39	0.84012	0.88390	-0.05025 (0)	-0.00846 (0)	-0.00011 (0)	Dominated	Dominated
130≤CD4 <140 cells/mm³								
Strategy 1: SP	\$123.06	0.83290	0.88118	(1)	(0.386)	(0.123)		
Strategy 3: SPplusF	\$125.46	0.83311	0.88139	-0.02375 (0)	-0.00778 (0)	-0.00458 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.22	0.84484	0.88670	-0.01968 (0)	0.0014 (0.614)	0.00562 (0.877)	\$264.83	\$573.44
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.77	0.83301	0.88130	-0.05697 (0)	-0.01891 (0)	-0.0113 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.80	0.83333	0.88144	-0.057 (0)	-0.01871 (0)	-0.01106 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.33	0.84474	0.88660	-0.05085 (0)	-0.00906 (0)	-0.0007 (0)	Dominated	Dominated
140≤CD4 <150 cells/mm³								
Strategy 1: SP	\$122.98	0.83779	0.88417	(1)	(0.431)	(0.154)		

				Incremental net health benefit (probability of being CE)			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 3: SPplusF	\$125.38	0.83796	0.88433	-0.02386 (0)	-0.00784 (0)	-0.00464 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.15	0.84919	0.88912	-0.02031 (0)	0.00083 (0.569)	0.00506 (0.846)	\$278.17	\$640.46
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.69	0.83788	0.88426	-0.05701 (0)	-0.01895 (0)	-0.01133 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.73	0.83818	0.88439	-0.05705 (0)	-0.01876 (0)	-0.0111 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.26	0.84912	0.88905	-0.05143 (0)	-0.00959 (0)	-0.00123 (0)	Dominated	Dominated
150≤CD4 <160 cells/mm³								
Strategy 1: SP	\$122.89	0.84241	0.88687	(1)	(0.481)	(0.178)		
Strategy 3: SPplusF	\$125.30	0.84253	0.88699	-0.02394 (0)	-0.0079 (0)	-0.00469 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.08	0.85333	0.89133	-0.02091 (0)	0.00031 (0.519)	0.00456 (0.822)	\$291.41	\$714.48
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.61	0.84247	0.88694	-0.05705 (0)	-0.01897 (0)	-0.01136 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.64	0.84276	0.88705	-0.0571 (0)	-0.0188 (0)	-0.01113 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.18	0.85327	0.89127	-0.05198 (0)	-0.01008 (0)	-0.0017 (0)	Dominated	Dominated
160≤CD4 <170 cells/mm³								
Strategy 1: SP	\$122.80	0.84677	0.88931	(1)	(0.512)	(0.21)		
Strategy 3: SPplusF	\$125.21	0.84687	0.88941	-0.02402 (0)	-0.00794 (0)	-0.00472 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$125.99	0.85727	0.89333	-0.02147 (0)	-0.00016 (0.488)	0.00411 (0.79)	\$304.48	\$795.99
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.51	0.84682	0.88936	-0.05709 (0)	-0.01899 (0)	-0.01137 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.55	0.84710	0.88947	-0.05715 (0)	-0.01883 (0)	-0.01116 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.09	0.85722	0.89328	-0.05251 (0)	-0.01053 (0)	-0.00214 (0)	Dominated	Dominated
170≤CD4 <180 cells/mm³								
Strategy 1: SP	\$122.69	0.85091	0.89153	(1)	(0.561)	(0.24)		
Strategy 3: SPplusF	\$125.11	0.85099	0.89160	-0.02408 (0)	-0.00798 (0)	-0.00475 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$125.91	0.86104	0.89516	-0.02201 (0)	-0.00059 (0.439)	0.0037 (0.76)	\$317.33	\$885.51
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.41	0.85095	0.89157	-0.05711 (0)	-0.01901 (0)	-0.01139 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.44	0.85122	0.89166	-0.05718 (0)	-0.01885 (0)	-0.01119 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.00	0.86100	0.89512	-0.05301 (0)	-0.01094 (0)	-0.00253 (0)	Dominated	Dominated
180≤CD4 <190 cells/mm³								

				Incremental net health benefit (probability of being CE)			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 1: SP	\$122.58	0.85485	0.89353	(1)	(0.598)	(0.263)		
Strategy 3: SPplusF	\$125.00	0.85491	0.89359	-0.02413 (0)	-0.00801 (0)	-0.00478 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$125.81	0.86465	0.89682	-0.02252 (0)	-0.00098 (0.402)	0.00333 (0.737)	\$329.90	\$983.56
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.30	0.85488	0.89357	-0.05714 (0)	-0.01902 (0)	-0.0114 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.33	0.85515	0.89365	-0.05721 (0)	-0.01888 (0)	-0.01121 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$128.91	0.86462	0.89679	-0.05349 (0)	-0.01132 (0)	-0.00288 (0)	Dominated	Dominated
190≤CD4 <200 cells/mm³								
Strategy 1: SP	\$122.47	0.85862	0.89536	(1)	(0.637)	(0.284)		
Strategy 3: SPplusF	\$124.89	0.85866	0.89541	-0.02418 (0)	-0.00803 (0)	-0.0048 (0)	Ext Dominated	Ext Dominated
Strategy 2: EP	\$125.72	0.86812	0.89834	-0.02301 (0)	-0.00134 (0.363)	0.003 (0.716)	\$342.15	\$1,090.65
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.19	0.85864	0.89538	-0.05715 (0)	-0.01903 (0)	-0.01141 (0)	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.22	0.85890	0.89546	-0.05724 (0)	-0.01889 (0)	-0.01122 (0)	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$128.81	0.86810	0.89832	-0.05395 (0)	-0.01166 (0)	-0.0032 (0)	Dominated	Dominated

Note: CE cost-effective; QALY quality adjusted life year; LY life-year; EP=enhanced-prophylaxis, SP=standard-prophylaxis, EPlessF= enhanced-prophylaxis less fluconazole, SPplusF=standard-prophylaxis plus fluconazole, Ext Dominated=extendedly dominated

Table A10: Scenario analyses CD4 0-100 cells/mm³

CD4 <100 cells/mm ³				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Country-specific drug costs								
Strategy 1: SP	\$125.98	0.78716	0.82176					
Strategy 6: CrAg SPplusF+ve SP-ve	\$132.00	0.79251	0.82697	-0.05487	-0.01472	-0.00669	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$133.00	0.79454	0.82842	-0.06290	-0.01605	-0.00668	Ext Dominated	Ext Dominated
Strategy 3: SPplusF	\$133.13	0.79372	0.82814	-0.06503	-0.01731	-0.00776	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$142.23	0.81436	0.84232	-0.13535	-0.02698	-0.00531	\$597.64	\$790.52
Strategy 2: EP	\$143.76	0.81560	0.84352	-0.09453	-0.01612	-0.00044	\$1,233.36	\$1,278.95
Zimbabwe-specific drug costs								
Strategy 1: SP	\$124.81	0.78716	0.82176					
Strategy 6: CrAg SPplusF+ve SP-ve	\$130.74	0.79251	0.82697	-0.05397	-0.01442	-0.00651	Ext Dominated	Ext Dominated
Strategy 3: SPplusF	\$131.05	0.79372	0.82814	-0.05586	-0.01425	-0.00593	\$952.43	\$978.81
Strategy 4: CrAg EP+ve SP-ve	\$133.25	0.79454	0.82842	-0.07706	-0.02077	-0.00951	Ext Dominated	Ext Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$157.64	0.81436	0.84232	-0.30114	-0.08225	-0.03847	Ext Dominated	Ext Dominated
Strategy 2: EP	\$158.49	0.81560	0.84352	-0.25442	-0.06942	-0.03242	\$1,253.88	\$1,784.08
Uganda-specific drug costs								
Strategy 1: SP	\$126.71	0.78716	0.82176					
Strategy 3: SPplusF	\$130.16	0.79372	0.82814	-0.02796	-0.00495	-0.00035	Ext Dominated	Ext Dominated
Strategy 6: CrAg SPplusF+ve SP-ve	\$132.41	0.79251	0.82697	-0.05162	-0.01364	-0.00604	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$132.78	0.79454	0.82842	-0.05334	-0.01286	-0.00477	Ext Dominated	Ext Dominated
Strategy 2: EP	\$133.76	0.81560	0.84352	-0.04208	0.00493	0.01433	\$247.99	\$324.13
Strategy 5: CrAg EP+ve EPlessF-ve	\$135.54	0.81436	0.84232	-0.03315	0.00271	0.00989	Dominated	Dominated
Malawi-specific drug costs								
Strategy 1: SP	\$123.72	0.78716	0.82176					
Strategy 6: CrAg SPplusF+ve SP-ve	\$131.29	0.79251	0.82697	-0.07035	-0.01988	-0.00979	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$131.80	0.79454	0.82842	-0.07338	-0.01954	-0.00877	Ext Dominated	Ext Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$134.32	0.81436	0.84232	-0.07879	-0.00813	0.00600	\$389.70	\$515.47

CD4 <100 cells/mm ³				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 3: SPplusF	\$148.42	0.79372	0.82814	-0.24040	-0.07576	-0.04284	Dominated	Dominated
Strategy 2: EP	\$153.49	0.81560	0.84352	-0.19887	-0.05090	-0.02130	\$15,456.14	\$16,027.50
Kenya-specific drug costs								
Strategy 1: SP	\$126.28	0.78716	0.82176					
Strategy 3: SPplusF	\$128.38	0.79372	0.82814	-0.01440	-0.00043	0.00236	Ext Dominated	Ext Dominated
Strategy 2: EP	\$130.90	0.81560	0.84352	-0.01770	0.01306	0.01921	\$162.22	\$212.03
Strategy 6: CrAg SPplusF+ve SP-ve	\$131.86	0.79251	0.82697	-0.05038	-0.01323	-0.00579	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$132.14	0.79454	0.82842	-0.05113	-0.01213	-0.00432	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$134.18	0.81436	0.84232	-0.03735	0.00131	0.00905	Dominated	Dominated
FDC costs \$12 per year								
Strategy 1: SP	\$123.73	0.78716	0.82176					
Strategy 3: SPplusF	\$124.96	0.79372	0.82814	-0.00573	0.00246	0.00410	Ext Dominated	Ext Dominated
Strategy 2: EP	\$127.32	0.81560	0.84352	-0.00738	0.01650	0.02127	\$125.95	\$164.62
Strategy 6: CrAg SPplusF+ve SP-ve	\$129.21	0.79251	0.82697	-0.04945	-0.01292	-0.00561	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$129.48	0.79454	0.82842	-0.05004	-0.01176	-0.00411	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$130.60	0.81436	0.84232	-0.03574	0.00185	0.00937	Dominated	Dominated
200mg fluconazole dosage								
Strategy 1: SP	\$122.90	0.78716	0.82176					
Strategy 3: SPplusF	\$127.35	0.79372	0.82814	-0.03792	-0.00827	-0.00234	Ext Dominated	Ext Dominated
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.66	0.79251	0.82697	-0.05226	-0.01385	-0.00617	Dominated	Dominated
Strategy 2: EP	\$128.69	0.81560	0.84352	-0.02943	0.00915	0.01686	\$203.49	\$265.97
Strategy 4: CrAg EP+ve SP-ve	\$128.83	0.79454	0.82842	-0.05195	-0.01240	-0.00449	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.66	0.81436	0.84232	-0.00246	0.01294	0.01602	Dominated	Dominated
Full-health EQ-5D score 0.9								
Strategy 1: SP	\$122.90	0.71475	0.82176					
Strategy 3: SPplusF	\$124.96	0.72064	0.82814	-0.01475	-0.00099	0.00177	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.14	0.73984	0.84352	-0.00735	0.01428	0.01861	\$129.28	\$149.13

CD4 <100 cells/mm ³				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.45	0.71956	0.82697	-0.05067	-0.01368	-0.00628	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.60	0.72134	0.82842	-0.05047	-0.01243	-0.00482	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.43	0.73873	0.84232	-0.02658	0.00320	0.00915	Dominated	Dominated
Alternate specification for CM survival								
Strategy 1: SP	\$122.90	0.78718	0.82178					
Strategy 3: SPplusF	\$124.96	0.79371	0.82814	-0.01406	-0.00033	0.00241	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.14	0.81560	0.84352	-0.00397	0.01762	0.02194	\$113.98	\$149.01
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.50	0.79297	0.82741	-0.05017	-0.01287	-0.00541	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.66	0.79500	0.82886	-0.04972	-0.01137	-0.00369	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.48	0.81483	0.84277	-0.02410	0.00604	0.01207	Dominated	Dominated
WHO pre-emptive therapy CrAg +ve								
Strategy 1: SP	\$122.90	0.78716	0.82176					
Strategy 2: EP	\$126.14	0.81560	0.84352	-0.00401	0.01762	0.02195	\$114.09	\$149.13
CrAg SP & WHO+ve SP-ve	\$128.39	0.79547	0.82983	-0.04663	-0.01000	-0.00268	Dominated	Dominated
CrAg EP & WHO+ve SP-ve	\$128.44	0.79721	0.83099	-0.04535	-0.00842	-0.00103	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.60	0.79454	0.82842	-0.04968	-0.01164	-0.00403	Dominated	Dominated
CrAg EP & WHO+ve EPlessF-ve	\$129.26	0.81703	0.84489	-0.03378	0.00865	0.01714	\$2,177.73	\$2,268.84

Note: CE cost-effective; QALY quality adjusted life year; LY life-year; EP=enhanced-prophylaxis, SP=standard-prophylaxis, EPlessF= enhanced-prophylaxis less fluconazole, WHO=World Health Organization recommended fluconazole regimen, SPplusF=standard-prophylaxis plus fluconazole, Ext Dominated=extendedly dominated

Table A11: Scenario analyses CD4 100-200 cells/mm³

100≤CD4 <200 cells/mm ³				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Country-specific drug costs								
Strategy 1: SP	\$126.23	0.84129	0.88715					
Strategy 6: CrAg SPplusF+ve SP-ve	\$132.09	0.84139	0.88726	-0.05845	-0.01941	-0.01161	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$132.37	0.84168	0.88737	-0.06102	-0.02008	-0.01189	Ext Dominated	Ext Dominated
Strategy 3: SPplusF	\$133.87	0.84148	0.88734	-0.07624	-0.02529	-0.01509	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$141.87	0.85212	0.89150	-0.14557	-0.04131	-0.02045	\$1,444.35	\$5,811.65
Strategy 2: EP	\$144.05	0.85221	0.89159	-0.10886	-0.02908	-0.01312	\$24,214.40	\$24,645.88
Zimbabwe-specific drug costs								
Strategy 1: SP	\$124.94	0.84129	0.88715					
Strategy 6: CrAg SPplusF+ve SP-ve	\$130.77	0.84139	0.88726	-0.05820	-0.01933	-0.01156	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$131.51	0.84168	0.88737	-0.06529	-0.02150	-0.01274	Ext Dominated	Ext Dominated
Strategy 3: SPplusF	\$131.65	0.84148	0.88734	-0.06690	-0.02217	-0.01323	Dominated	Ext Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$157.30	0.85212	0.89150	-0.31278	-0.09704	-0.05389	\$2,988.40	\$9,122.32
Strategy 2: EP	\$158.74	0.85221	0.89159	-0.26893	-0.08243	-0.04513	\$16,016.47	\$20,168.07
Uganda-specific drug costs								
Strategy 1: SP	\$127.03	0.84129	0.88715					
Strategy 3: SPplusF	\$130.84	0.84148	0.88734	-0.03791	-0.01251	-0.00743	Ext Dominated	Ext Dominated
Strategy 6: CrAg SPplusF+ve SP-ve	\$132.79	0.84139	0.88726	-0.05742	-0.01907	-0.01140	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$132.88	0.84168	0.88737	-0.05812	-0.01911	-0.01131	Ext Dominated	Ext Dominated
Strategy 2: EP	\$134.00	0.85221	0.89159	-0.05874	-0.01230	-0.00301	\$637.93	\$1,569.25
Strategy 5: CrAg EP+ve EPlessF-ve	\$135.45	0.85212	0.89150	-0.03538	-0.00470	0.00143	Dominated	Dominated
Malawi-specific drug costs								
Strategy 1: SP	\$123.76	0.84129	0.88715					
Strategy 6: CrAg SPplusF+ve SP-ve	\$130.10	0.84139	0.88726	-0.06330	-0.02103	-0.01258	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$130.24	0.84168	0.88737	-0.06439	-0.02120	-0.01256	Ext Dominated	Ext Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$132.55	0.85212	0.89150	-0.07701	-0.01845	-0.00674	\$811.20	\$2,019.32

100≤CD4 <200 cells/mm3				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 3: SPplusF	\$149.53	0.84148	0.88734	-0.25748	-0.08570	-0.05134	Dominated	Dominated
Strategy 2: EP	\$154.14	0.85221	0.89159	-0.22953	-0.06930	-0.03725	\$239,501.60	\$243,719.22
Kenya-specific drug costs								
Strategy 1: SP	\$126.57	0.84129	0.88715					
Strategy 3: SPplusF	\$128.98	0.84148	0.88734	-0.02395	-0.00785	-0.00464	Ext Dominated	Ext Dominated
Strategy 2: EP	\$131.06	0.85221	0.89159	-0.03396	-0.00404	0.00194	\$411.01	\$1,011.04
Strategy 6: CrAg SPplusF+ve SP-ve	\$132.29	0.84139	0.88726	-0.05705	-0.01895	-0.01133	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$132.36	0.84168	0.88737	-0.05745	-0.01889	-0.01118	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$134.16	0.85212	0.89150	-0.04107	-0.00660	0.00029	Dominated	Dominated
FDC costs \$12 per year								
Strategy 1: SP	\$123.79	0.84129	0.88715					
Strategy 3: SPplusF	\$125.29	0.84148	0.88734	-0.01481	-0.00481	-0.00281	Ext Dominated	Ext Dominated
Strategy 2: EP	\$127.29	0.85221	0.89159	-0.02417	-0.00078	0.00390	\$321.39	\$790.59
Strategy 6: CrAg SPplusF+ve SP-ve	\$129.48	0.84139	0.88726	-0.05680	-0.01886	-0.01128	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$129.54	0.84168	0.88737	-0.05719	-0.01880	-0.01112	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$130.39	0.85212	0.89150	-0.04043	-0.00639	0.00042	Dominated	Dominated
200mg fluconazole dosage								
Strategy 1: SP	\$122.87	0.84129	0.88715					
Strategy 3: SPplusF	\$127.75	0.84148	0.88734	-0.04854	-0.01605	-0.00955	Ext Dominated	Ext Dominated
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.65	0.84139	0.88726	-0.05770	-0.01916	-0.01146	Dominated	Dominated
Strategy 2: EP	\$128.68	0.85221	0.89159	-0.04712	-0.00843	-0.00069	\$531.55	\$1,307.56
Strategy 4: CrAg EP+ve SP-ve	\$128.69	0.84168	0.88737	-0.05780	-0.01900	-0.01125	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.23	0.85212	0.89150	-0.00421	0.00569	0.00767	Dominated	Dominated
Full-health EQ-5D score 0.9								
Strategy 1: SP	\$122.87	0.77180	0.88715					
Strategy 3: SPplusF	\$125.29	0.77198	0.88734	-0.02396	-0.00787	-0.00465	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.06	0.78114	0.89159	-0.02255	-0.00129	0.00296	\$341.49	\$718.56

100≤CD4 <200 cells/mm3				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.59	0.77190	0.88726	-0.05705	-0.01895	-0.01133	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.62	0.77215	0.88737	-0.05715	-0.01882	-0.01116	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.16	0.78106	0.89150	-0.02966	-0.00383	0.00133	Dominated	Dominated
Alternate specification for CM survival								
Strategy 1: SP	\$122.87	0.84130	0.88717					
Strategy 3: SPplusF	\$125.28	0.84147	0.88733	-0.02394	-0.00787	-0.00465	Ext Dominated	Ext Dominated
Strategy 2: EP	\$126.06	0.85219	0.89158	-0.02097	0.00027	0.00452	\$292.51	\$721.95
Strategy 6: CrAg SPplusF+ve SP-ve	\$128.59	0.84141	0.88728	-0.05705	-0.01894	-0.01132	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$128.62	0.84170	0.88739	-0.05710	-0.01877	-0.01110	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$129.16	0.85214	0.89152	-0.02811	-0.00226	0.00291	Dominated	Dominated
WHO pre-emptive therapy CrAg +ve								
Strategy 1: SP	\$122.87	0.84129	0.88715					
Strategy 2: EP	\$126.06	0.85221	0.89159	-0.02098	0.00029	0.00454	\$292.11	\$718.56
Strategy 4: CrAg EP+ve SP-ve	\$128.62	0.84168	0.88737	-0.05710	-0.01877	-0.01111	Dominated	Dominated
CrAg EP & WHO+ve SP-ve	\$128.82	0.84173	0.88742	-0.05906	-0.01939	-0.01146	Dominated	Dominated
CrAg SP & WHO+ve SP-ve	\$128.83	0.84144	0.88730	-0.05944	-0.01971	-0.01177	Dominated	Dominated
CrAg EP & WHO+ve EPlessF-ve	\$129.36	0.85216	0.89155	-0.05400	-0.01075	-0.00210	Dominated	Dominated

Note: CE cost-effective; QALY quality adjusted life year; LY life-year; EP=enhanced-prophylaxis, SP=standard-prophylaxis, EPlessF= enhanced-prophylaxis less fluconazole, WHO=World Health Organization recommended fluconazole regimen, SPplusF=standard-prophylaxis plus fluconazole, Ext Dominated=extendedly dominated.

Table A12: Scenario analyses all HIV-positive

All individuals with HIV, regardless of CD4 count				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Country-specific drug costs								
Strategy 1: SP	\$48.24	0.88708	0.90027					
Strategy 6: CrAg SPplusF+ve SP-ve	\$53.99	0.88799	0.90116	-0.05661	-0.01826	-0.01059	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$54.21	0.88838	0.90143	-0.05837	-0.01859	-0.01063	Ext Dominated	Ext Dominated
Strategy 3: SPplusF	\$59.07	0.88821	0.90137	-0.10711	-0.03495	-0.02052	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$63.98	0.89339	0.90443	-0.15108	-0.04615	-0.02517	\$2,493.23	\$3,788.21
Strategy 2: EP	\$69.18	0.89361	0.90464	-0.14627	-0.04501	-0.02476	\$23,343.79	\$24,176.77
Zimbabwe-specific drug costs								
Strategy 1: SP	\$48.02	0.88708	0.90027					
Strategy 6: CrAg SPplusF+ve SP-ve	\$53.75	0.88799	0.90116	-0.05641	-0.01819	-0.01055	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$54.29	0.88838	0.90143	-0.06144	-0.01961	-0.01125	\$4,816.12	\$5,439.73
Strategy 3: SPplusF	\$54.99	0.88821	0.90137	-0.06863	-0.02212	-0.01282	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$79.84	0.89339	0.90443	-0.31195	-0.09978	-0.05734	\$5,100.32	Ext Dominated
Strategy 2: EP	\$81.27	0.89361	0.90464	-0.26956	-0.08611	-0.04942	\$6,392.15	\$6,620.24
Uganda-specific drug costs								
Strategy 1: SP	\$51.89	0.88708	0.90027					
Strategy 3: SPplusF	\$56.01	0.88821	0.90137	-0.04008	-0.01261	-0.00711	Ext Dominated	Ext Dominated
Strategy 6: CrAg SPplusF+ve SP-ve	\$57.57	0.88799	0.90116	-0.05593	-0.01803	-0.01045	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$57.65	0.88838	0.90143	-0.05630	-0.01790	-0.01022	Ext Dominated	Ext Dominated
Strategy 2: EP	\$60.72	0.89361	0.90464	-0.08186	-0.02293	-0.01114	\$1,352.47	\$2,022.72
Strategy 5: CrAg EP+ve EPlessF-ve	\$63.93	0.89339	0.90443	-0.07407	-0.02124	-0.01067	Dominated	Dominated
Malawi-specific drug costs								
Strategy 1: SP	\$42.74	0.88708	0.90027					
Strategy 6: CrAg SPplusF+ve SP-ve	\$48.83	0.88799	0.90116	-0.05999	-0.01939	-0.01127	Ext Dominated	Ext Dominated
Strategy 4: CrAg EP+ve SP-ve	\$48.94	0.88838	0.90143	-0.06067	-0.01936	-0.01109	Ext Dominated	Ext Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$55.65	0.89339	0.90443	-0.12274	-0.03671	-0.01950	\$2,044.40	\$3,106.25

All individuals with HIV, regardless of CD4 count				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 3: SPplusF	\$69.64	0.88821	0.90137	-0.26784	-0.08853	-0.05266	Dominated	Dominated
Strategy 2: EP	\$77.14	0.89361	0.90464	-0.27752	-0.08876	-0.05101	\$96,472.26	\$99,914.71
Kenya-specific drug costs								
Strategy 1: SP	\$51.23	0.88708	0.90027					
Strategy 3: SPplusF	\$53.72	0.88821	0.90137	-0.02375	-0.00716	-0.00384	Ext Dominated	Ext Dominated
Strategy 6: CrAg SPplusF+ve SP-ve	\$56.89	0.88799	0.90116	-0.05563	-0.01793	-0.01039	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$56.94	0.88838	0.90143	-0.05582	-0.01774	-0.01012	Ext Dominated	Ext Dominated
Strategy 2: EP	\$57.56	0.89361	0.90464	-0.05678	-0.01457	-0.00613	\$968.78	\$1,448.88
Strategy 5: CrAg EP+ve EPlessF-ve	\$60.66	0.89339	0.90443	-0.06426	-0.01797	-0.00871	Dominated	Dominated
FDC costs \$12 per year								
Strategy 1: SP	\$46.21	0.88708	0.90027					
Strategy 3: SPplusF	\$48.41	0.88821	0.90137	-0.02082	-0.00619	-0.00326	Ext Dominated	Ext Dominated
Strategy 2: EP	\$51.59	0.89361	0.90464	-0.04727	-0.01140	-0.00423	\$823.26	\$1,231.24
Strategy 6: CrAg SPplusF+ve SP-ve	\$51.85	0.88799	0.90116	-0.05543	-0.01787	-0.01035	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$51.90	0.88838	0.90143	-0.05559	-0.01766	-0.01008	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$54.69	0.89339	0.90443	-0.05768	-0.01577	-0.00739	Dominated	Dominated
200mg fluconazole dosage								
Strategy 1: SP	\$44.93	0.88708	0.90027					
Strategy 3: SPplusF	\$48.21	0.88821	0.90137	-0.03166	-0.00980	-0.00543	Ext Dominated	Ext Dominated
Strategy 2: EP	\$50.50	0.89361	0.90464	-0.04915	-0.01203	-0.00460	\$852.02	\$1,274.27
Strategy 6: CrAg SPplusF+ve SP-ve	\$50.62	0.88799	0.90116	-0.05605	-0.01807	-0.01048	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$50.66	0.88838	0.90143	-0.05601	-0.01780	-0.01016	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$52.80	0.89339	0.90443	-0.04074	-0.01013	-0.00400	Dominated	Dominated
Full-health EQ-5D score 0.9								
Strategy 1: SP	\$44.93	0.86372	0.90027					
Strategy 3: SPplusF	\$47.41	0.86474	0.90137	-0.02381	-0.00726	-0.00395	Ext Dominated	Ext Dominated
Strategy 2: EP	\$49.65	0.86944	0.90464	-0.04148	-0.01001	-0.00372	\$825.22	\$1,080.21

All individuals with HIV, regardless of CD4 count				Incremental net health benefit			Incremental cost-effectiveness ratios	
	Costs (US\$)	QALY	LY	K=\$100	K=\$300	K=\$500	Cost per QALY	Cost per LY
Strategy 6: CrAg SPplusF+ve SP-ve	\$50.58	0.86455	0.90116	-0.05568	-0.01801	-0.01048	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$50.61	0.86489	0.90143	-0.05566	-0.01778	-0.01020	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$52.75	0.86924	0.90443	-0.04889	-0.01330	-0.00618	Dominated	Dominated
Alternate specification for CM survival								
Strategy 1: SP	\$44.93	0.88708	0.90028					
Strategy 3: SPplusF	\$47.41	0.88821	0.90137	-0.02369	-0.00715	-0.00384	Ext Dominated	Ext Dominated
Strategy 2: EP	\$49.65	0.89361	0.90464	-0.04066	-0.00920	-0.00291	\$722.93	\$1,081.79
Strategy 6: CrAg SPplusF+ve SP-ve	\$50.59	0.88807	0.90124	-0.05559	-0.01787	-0.01033	Dominated	Dominated
Strategy 4: CrAg EP+ve SP-ve	\$50.62	0.88846	0.90150	-0.05553	-0.01759	-0.01000	Dominated	Dominated
Strategy 5: CrAg EP+ve EPlessF-ve	\$52.76	0.89347	0.90451	-0.04822	-0.01257	-0.00543	Dominated	Dominated
WHO pre-emptive therapy CrAg +ve								
Strategy 1: SP	\$44.93	0.88708	0.90027					
CrAg SP & WHO+ve SP-ve	\$47.97	0.88850	0.90165	-0.02903	-0.00873	-0.00467	Ext Dominated	Ext Dominated
Strategy 2: EP	\$49.65	0.89361	0.90464	-0.04067	-0.00920	-0.00291	\$722.27	\$1,080.21
Strategy 4: CrAg EP+ve SP-ve	\$50.61	0.88838	0.90143	-0.05552	-0.01764	-0.01006	Dominated	Dominated
CrAg EP & WHO+ve SP-ve	\$52.48	0.88883	0.90186	-0.07373	-0.02340	-0.01334	Dominated	Dominated
CrAg EP & WHO+ve EPlessF-ve	\$54.62	0.89384	0.90487	-0.09011	-0.02553	-0.01261	\$21,260.50	\$22,166.32

Note: CE cost-effective; QALY quality adjusted life year; LY life-year; EP=enhanced-prophylaxis, SP=standard-prophylaxis, EPlessF= enhanced-prophylaxis less fluconazole, WHO=World Health Organization recommended fluconazole regimen, Ext Dominated=extendedly dominated