

**Household economic impact of HIV-associated cryptococcal meningitis in five countries
in Southern and Eastern Africa**

SUPPLEMENTARY MATERIAL

The AMBITION Study Group

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Table S1: Summary of economic data collected from AMBITION-cm trial participants

BASELINE	Participant Demographics
	Gender
	Age
	Years in education
	Highest qualification
	Occupation
	If participant was main earner in the household
	If not, education level and occupation of main earner
	Household Expenditure
	Weekly food expenditure
	Monthly rent and utilities expenditure
	Annual large item expenditures (e.g. furniture, electronics, vehicles)
	Direct costs of illness prior to enrolment
WEEK 10	Personal expenditure in four weeks up to hospitalisation
	Expenditure of others in four weeks prior to hospitalisation
	Previous healthcare interactions (maximum of three)
	<ul style="list-style-type: none"> • Location • Provider • Cost of consultation, medication, travel • Time taken
	Indirect costs of illness prior to enrolment
	Duration of illness
	Primary activity missed due to illness
	Lost income
	Time others had taken off work to provide care
	Payment strategies prior to enrolment
	Access to and use of private medical insurance
	Borrowing money
	Selling possessions
	Costs from enrolment to end of trial
	Duration of illness
	Primary activity missed due to illness
	Lost income
	Out-of-pocket expenditure during trial
	Payment strategies

Table S2: Direct and indirect costs incurred due to cryptococcal meningitis during the ten-week trial period

In the ten weeks during the trial:	Overall	Botswana	Malawi	South Africa	Uganda	Zimbabwe
	n = 581	n = 60	n = 163	n = 81	n = 229	n = 48
Duration of illness in days during trial 10 weeks						
Median (IQR)						
Mean (SD)	70 (42-70) 56 (19.9)	62 (42-70) 54.1 (19.5)	70 (30-70) 52.8 (23.4)	70 (70-70) 66.6 (12.3)	70 (49-70) 57.5 (17.2)	47 (25-70) 44.3 (21.3)
Primary activity missed due to illness (n(%))						
Working	455 (78.3%)	49 (81.7%)	125 (76.7%)	34 (42.0%)	206 (90.0%)	41 (85.4%)
Studying	16 (2.8%)	0 (0%)	9 (5.5%)	1 (1.2%)	5 (2.2%)	1 (2.1%)
Maintaining the House	15 (2.6%)	1 (1.7%)	4 (2.5%)	3 (3.7%)	5 (2.2%)	2 (4.2%)
Caring for Children	23 (4.0%)	1 (1.7%)	12 (7.4%)	3 (3.7%)	6 (2.6%)	1 (2.1%)
Nothing	72 (12.4%)	9 (15.0%)	13 (8.0%)	40 (49.4%)	7 (3.1%)	3 (6.3%)
If working, days spent off work during trial	n=455	n=49	n=125	n=34	n=206	n=41
Median (IQR)	63 (38-70)	60 (42-70)	70 (28-70)	70 (50-70)	70 (40-70)	45 (21-67)
Mean (SD)	52.8 (20.8)	53 (18.4)	50.1 (23.9)	56.1 (21.1)	55.9 (18.2)	42.2 (22.5)
If working, lost income during trial (n(%))	n=455	n=49	n=125	n=34	n=206	n=41
Yes	326 (71.7%)	25 (51%)	58 (46.4%)	22 (64.7%)	191 (92.7%)	30 (73.2%)
No	129 (28.3%)	24 (49%)	67 (53.6%)	12 (35.3%)	15 (7.3%)	11 (26.8%)
If lost income, income lost during trial (Mean (SD)) USD	n=326 558.97 (2064.25)	n=25 720.01 (715.72)	n=58 967.25 (4639.61)	n=22 580.65 (516.78)	n=191 383.36 (505.25)	n=30 737.56 (1600.71)
Days others spent providing care during trial Median (IQR) USD	n=581	n=60	n=163	n=81	n=229	n=48
Mean (SD) USD	14 (0-20) 17.8 (21.2)	0 (0-2) 3.0 (10.5)	20 (10-42) 27.7 (24.4)	0 (0-0) 0.3 (1.7)	14 (14-21) 22.4 (20.5)	10 (7-14) 11.1 (5.7)
Additional out of pocket expenditure during trial (Mean (SD)) USD	n=581 72.81 (126.30)	n=60 28.59 (82.89)	n=163 125.17 (136.53)	n=81 6.97 (25.68)	n=229 73.79 (139.59)	n=48 56.70 (139.59)
Overall out of pocket expenditure plus lost income (Mean (SD)) USD	n=581 386.45 (1592.38)	n=60 328.59 (593.38)	n=163 469.34 (2818.93)	n=81 164.67 (373.66)	n=229 393.54 (528.35)	n=48 517.68 (1318.01)

Table S3: Catastrophic healthcare expenditure

	Overall	Botswana	Malawi	South Africa	Uganda	Zimbabwe
All prior to trial enrolment	n=810	n=73	n=230	n=106	n=330	n=71
Estimated annual household expenditure USD	1716.93 (1939.14)	2713.10 (2072.41)	1561.05 (1918.62)	2863.13 (2744.96)	1414.08 (1516.95)	894.04 (810.42)
Out of pocket expenditure plus lost income USD	132.44 (250.02)	114.87 (280.04)	123.53 (231.25)	59.81 (134.97)	174.84 (291.38)	90.74 (147.07)
Out of pocket expenditure as proportion of annual household expenditure (%)	7.71	4.23	7.91	2.09	12.36	10.15
Catastrophic Healthcare Expenditure (10%) n(%)	265 (32.72)	9 (12.33)	71 (30.87)	5 (4.72)	156 (47.27)	24 (33.80)
Catastrophic Healthcare Expenditure (20%) n(%)	145 (17.90)	3 (4.11)	39 (16.96)	1 (0.94)	90 (27.27)	12 (16.90)
Survived to 10 weeks	n = 581	n = 60	n = 163	n = 81	n = 229	n = 48
Estimated annual household expenditure USD	1775.31 (1948.48)	2369.31 (1576.40)	1573.98 (1721.80)	3019.25 (2958.75)	1501.73 (1666.96)	922.54 (876.06)
Out of pocket expenditure plus lost income USD	516.08 (1633.16)	396.58 (646.44)	589.97 (2834.74)	230.15 (488.37)	579.99 (682.53)	592.12 (1349.98)
Out of pocket expenditure as proportion of annual household expenditure (%)	29.07	16.74	37.48	7.62	38.62	64.19
Catastrophic Healthcare Expenditure (10%) n(%)	395 (67.99)	23 (38.33)	116 (71.17)	21 (25.93)	197 (86.03)	38 (79.17)
Catastrophic Healthcare Expenditure (20%) n(%)	296 (50.95)	18 (30.00)	82 (50.31)	13 (16.05)	156 (68.12)	27 (56.25)
GDP per capita (2022)		7726.11	643.43	6766.48	964.35	1676.82
Prior to trial expenditure and lost income as proportion of GDP (%)		1.49	19.20	0.88	18.13	5.41
Survived to 10 weeks expenditure and lost income as proportion of GDP (%)		5.13	91.69	3.40	60.14	35.31

Table S4: Catastrophic healthcare expenditure, by gender

	Overall	Overall Male	Overall Female	P value
All prior to trial enrolment	n=810	n=491	n=319	
Estimated annual household expenditure USD	1716.93 (1939.14)	1758.79 (1837.34)	1652.51 (2087.48)	p=0.4463
Out of pocket expenditure plus lost income USD	132.44 (250.02)	140.03 (255.69)	120.77 (240.95)	p=0.2843
Catastrophic Healthcare Expenditure (10%) n(%)	265 (32.72)	173 (35.23)	92 (28.84)	p=0.0582
Catastrophic Healthcare Expenditure (20%) n(%)	145 (17.90)	93 (18.95)	52 (16.30)	p=0.3389
Survived to 10 weeks	n = 581	n=354	n=227	
Estimated annual household expenditure USD	1775.31 (1948.48)	1821.95 (1840.93)	1702.57 (2107.41)	p=0.4717
Out of pocket expenditure plus lost income USD	516.08 (1633.16)	633.06 (2041.13)	333.65 (531.73)	p=0.0310*
Catastrophic Healthcare Expenditure (10%) n(%)	395 (67.99)	252 (71.19)	143 (63.00)	p=0.0390*
Catastrophic Healthcare Expenditure (20%) n(%)	296 (50.95)	205 (54.80)	102 (44.93)	p=0.0202*

Table S5: Catastrophic healthcare expenditure, by treatment arm

	Overall	AMBITION-cm Regimen	Control	P value
All prior to trial enrolment	n=810	n=413	n=397	
Estimated annual household expenditure USD	1716.93 (1939.14)	1690.18 (2004.78)	1744.76 (1870.53)	p=0.6891
Out of pocket expenditure plus lost income USD	132.44 (250.02)	145.32 (272.85)	119.05 (223.37)	p=0.1350
Catastrophic Healthcare Expenditure (10%) n(%)	265 (32.72)	155 (37.53)	110 (27.71)	p=0.0029
Catastrophic Healthcare Expenditure (20%) n(%)	145 (17.90)	90 (21.79)	55 (13.85)	p=0.0032
Survived to 10 weeks	n = 581	n=298	n=283	
Estimated annual household expenditure USD	1775.31 (1948.48)	1788.61 (2030.82)	1761.30 (1861.33)	p=0.8660
Out of pocket expenditure plus lost income USD	516.08 (1633.16)	458.22 (670.16)	577.01 (2237.29)	p=0.3813
Catastrophic Healthcare Expenditure (10%) n(%)	395 (67.99)	205 (68.79)	190 (67.14)	p=0.6699
Catastrophic Healthcare Expenditure (20%) n(%)	296 (50.95)	160 (53.69)	136 (48.06)	p=0.1751