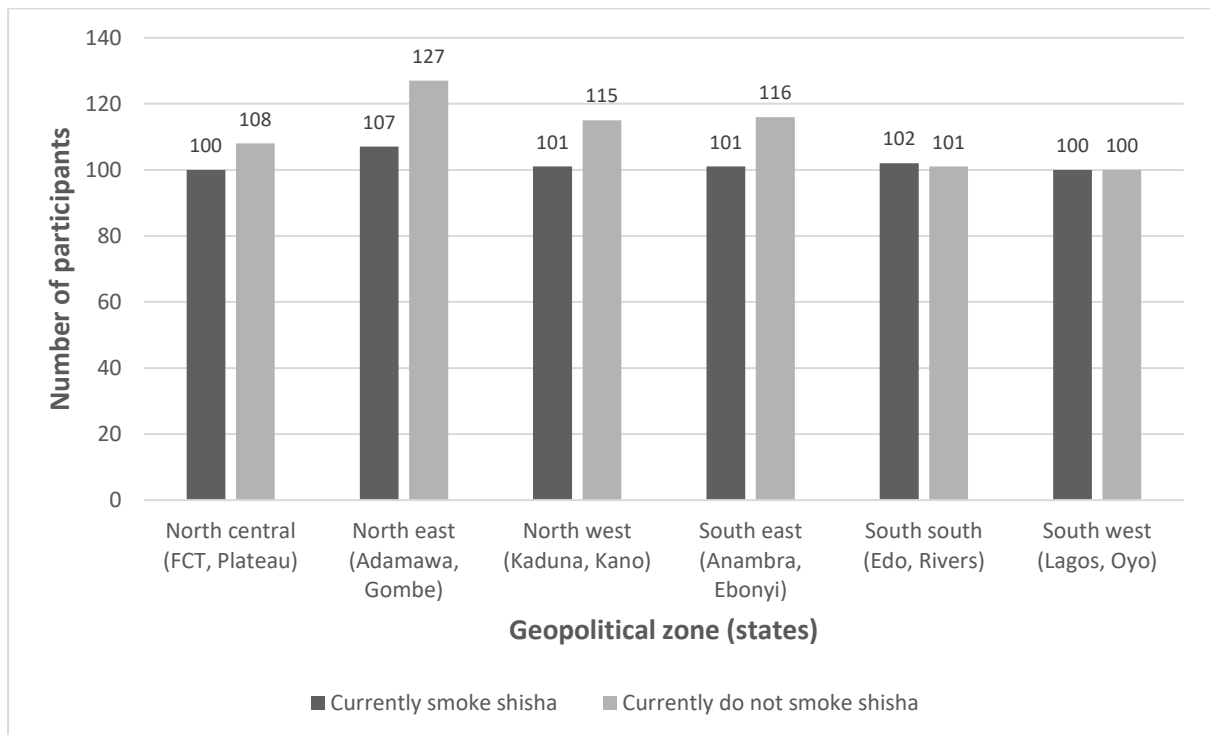


Supplementary figure: Number of participants by current shisha smoking status and geopolitical zone



Supplementary table: Factors associated with shisha smoking by sex

Variable	Males		Females	
	^a cOR (95% CI)	^b aOR (95% CI)	^a cOR (95% CI)	^b aOR (95% CI)
Age	0.90 (0.88 to 0.93)	0.92 (0.90 to 0.95)	0.89 (0.85 to 0.93)	0.90 (0.82 to 0.98)
Urban/rural				
Rural	1	1	1	1
Urban	1.64 (0.89 to 3.02)	1.17 (0.59 to 2.31)	1.70 (0.86 to 3.38)	2.30 (0.39 to 13.68)
Level of education				
No education	1	1	1	1
Primary	0.83 (0.18 to 3.89)	0.32 (0.05 to 2.13)	2.53 (0.24 to 26.78)	0.93 (0.10 to 8.91)
≥ Secondary	9.04 (2.64 to 30.87)	0.46 (0.20 to 1.06)	10.86 (1.43 to 82.73)	0.37 (0.02 to 6.71)
Religion				
Christianity	1	1	1	1
Islam	0.68 (0.50 to 0.94)	0.91 (0.65 to 1.27)	0.32 (0.16 to 0.65)	0.85 (0.35 to 2.04)
None	0.75 (0.28 to 2.00)	0.75 (0.18 to 3.22)	1.70 (0.12 to 24.17)	0.68 (0.06 to 7.41)
Wealth quintile				
Poorest	1	1	1	1
Poorer	0.49 (0.36 to 0.68)	0.83 (0.44 to 1.60)	0.62 (0.39 to 0.98)	0.78 (0.26 to 2.39)
Middle	0.48 (0.28 to 0.81)	0.68 (0.34 to 1.37)	0.20 (0.03 to 1.52)	0.37 (0.11 to 1.22)
Richer	0.25 (0.16 to 0.39)	0.39 (0.17 to 0.88)	0.12 (0.05 to 0.33)	0.43 (0.07 to 2.60)
Richest	0.10 (0.06 to 0.17)	0.35 (0.11 to 1.12)	0.17 (0.08 to 0.38)	1.85 (0.12 to 27.69)

Employment status

Unemployed	1	1	1	1
Employed	1.63 (0.54 to 4.89)	2.53 (1.09 to 5.89)	2.02 (0.94 to 4.34)	0.79 (0.09 to 6.71)
Student	3.73 (1.22 to 11.38)	3.85 (1.43 to 10.41)	5.13 (1.76 to 14.98)	0.84 (0.18 to 4.06)
Apprentice	1.38 (0.75 to 2.54)	2.77 (0.77 to 9.96)	1.47 (0.86 to 2.50)	0.09 (0.00 to 4.27)

At least one family member smokes shisha

No	1	1	1	1
Yes	9.40 (4.02 to 22.01)	2.23 (1.16 to 4.29)	13.58 (6.31 to 29.25)	4.91 (0.88 to 27.26)

Number of shisha smokers among closet friends

0	1	1	1	1
1	12.85 (4.15 to 39.79)	10.81 (4.17 to 28.00)	176.40 (46.68 to 666.52)	289.38 (34.94 to 2396.71)
2+	114.98 (34.74 to 380.55)	64.17 (21.68 to 189.97)	327.47 (42.01 to 2552.79)	226.58 (20.12 to 2552.09)
Don't know	2.45 (0.28 to 21.39)	3.59 (0.27 to 47.66)	1.05 (0.04 to 27.35)	1.98 (0.09 to 44.70)

Currently smoke cigarettes

No	1	1	N/A	N/A
Yes	7.20 (3.16 to 16.42)	4.62 (2.24 to 9.51)	N/A	N/A

Currently consumes alcohol

No	1	1	1	1
Yes	4.49 (3.27 to 6.16)	2.82 (1.47 to 5.40)	16.73 (7.84 to 35.71)	8.88 (2.93 to 26.95)

PSS-4	0.83 (0.77 to 0.89)	0.85 (0.72 to 0.99)	0.91 (0.83 to 1.01)	1.10 (0.93 to 1.30)
PHQ-2				
Negative	1	1	1	1
Positive	0.66 (0.47 to 0.92)	0.85 (0.46 to 1.56)	0.68 (0.46 to 1.00)	0.36 (0.17 to 0.81)
GAD-2				
Negative	1	1	1	1
Positive	0.54 (0.42 to 0.70)	0.61 (0.32 to 1.14)	0.66 (0.44 to 0.99)	0.42 (0.15 to 1.15)

^acrude/unadjusted odds ratios

^bAdjusted odds ratios