Supplementary Material

Information about the WHO sampling strategies

Sample setting, population, sampling strategy, survey methods and creation of sampling weights followed broadly the same approach across countries, with stratification specific to the country's geography. Across countries, data collection followed a multi-stage, stratified cluster sampling method, and each is nationally representative. China stratified by eight provinces. Ghana stratified by administrative region and urban-rural locality, with 18 strata in total. India's sample was stratified by the state and urban-rural locality. Mexico was stratified by urban-rural-metropolitan locality. The Russian sampling stratified at a federal district level. The South African sample was stratified by provinces, urban-rural locality and race. Across surveys, individual-level post-stratification weights were created using population projections and country censuses (1).

The WHO reports on the response rate (the percentage of eligible household members interviewed as a percentage of all eligible members including those who did not complete interviews or who were not successfully contacted) per country survey as 93% in China, 80% in Ghana, 68% in India, 51% in Mexico, 83% in the Russian Federation, and 77% in South Africa.

Table S1: Decomposition of current tobacco consumption for female population, per country

		China	Ghana	India	Mexico	Russia	South Africa
Depressed Mood	Beta		0.01	0.02		-0.01	
	Contribution		-0.000498*	-0.00220***		0.00	
	Contribution %		0.72	1.18		-1.37	
Had a drink in the last 30 days	Beta		0.0687***	0.362***		0.0311***	
	Contribution		-0.00611***	-0.000338*		0.00329***	
	Contribution %		8.88	0.18		-8.17	
Wealth quintile 1 (versus quintile 5)	Beta		0.0677***	0.170***		0.0654***	
	Contribution		-0.0372***	-0.0799***		-0.0295***	
	Contribution %		54.11	42.99		73.13	
Wealth quintile 2 (versus quintile 5)	Beta		0.0370*	0.0987***		0.02	
	Contribution		-0.00970***	-0.0263***		-0.00494***	
	Contribution %		14.09	14.18		12.24	
Wealth quintile 3 (versus quintile 5)	Beta		0.0474**	0.120***		-0.02	
	Contribution		0.00175**	0.00		0.00	
	Contribution %		-2.55	1.09		0.48	
Wealth quintile 4 (versus quintile 5)	Beta		0.01	0.0866***		0.00	
	Contribution		0.00226***	0.0160***		0.000125***	
	Contribution %		0.36	0.25		0.29	
Less than primary school (No formal education)	Beta	CCI not statistically significant	-0.03	-0.04	CCI not statistically significant	0.34	CCI not statistically significant
	Contribution		0.00	-0.00101***		0.00	
	Contribution %		0.61	0.55		0.90	
Primary school completed (No formal education)	Beta		-0.03	-0.0755***		0.36	
	Contribution		-0.000541***	-0.00388***		-0.00337**	
	Contribution %		0.79	2.09		8.36	
Secondary school completed (No formal education)	Beta		-	-0.06		0.32	
	Contribution		0.00	-0.000858***		-0.0335**	

	Contribution %	0.00	0.46	83.18
High school (or equivalent) completed (No formal education)	Beta	0.01	-0.06	0.30
	Contribution	0.000970***	-0.000369***	0.00
	Contribution %	-1.41	0.20	6.67
College/university completed (No formal education)	Beta	-	-0.316***	0.27
	Contribution	0.00	-0.000810***	0.0356***
	Contribution %	0.00	0.44	-88.22
Rural (reference urban)	Beta	0.00	0.101***	-0.0356***
	Contribution	-0.00229***	-0.0661***	0.00
	Contribution %	3.33	35.57	1.47
Married (versus non-married)	Beta	0.01	-0.0510***	-0.0166*
	Contribution	0.00151***	-0.0197***	-0.00888***
	Contribution %	-2.20	10.62	22.02
Age 60-69 (Reference age 50-59)	Beta	0.0300**	0.0477**	-0.0637***
	Contribution	0.00	0.00	0.00
	Contribution %	0.34	0.40	3.29
Age 70-79	Beta	0.0506***	0.02	-0.147***
	Contribution	-0.00372***	0.00	0.0223***
	Contribution %	5.41	0.30	-55.27
Aged 80 and older	Beta	0.02	0.01	-0.175***
	Contribution	0.00	0.00	0.00676***
	Contribution %	0.25	0.00	-16.75
Observations		1,922	3,234	2,348

*Note: Calculated using a population weight; *** p<0.01, ** p<0.05, * p<0.1*
Source: Calculations from WHO SAGE (2008-2010)

Table S2: Decomposition of current tobacco consumption for Male population, per country
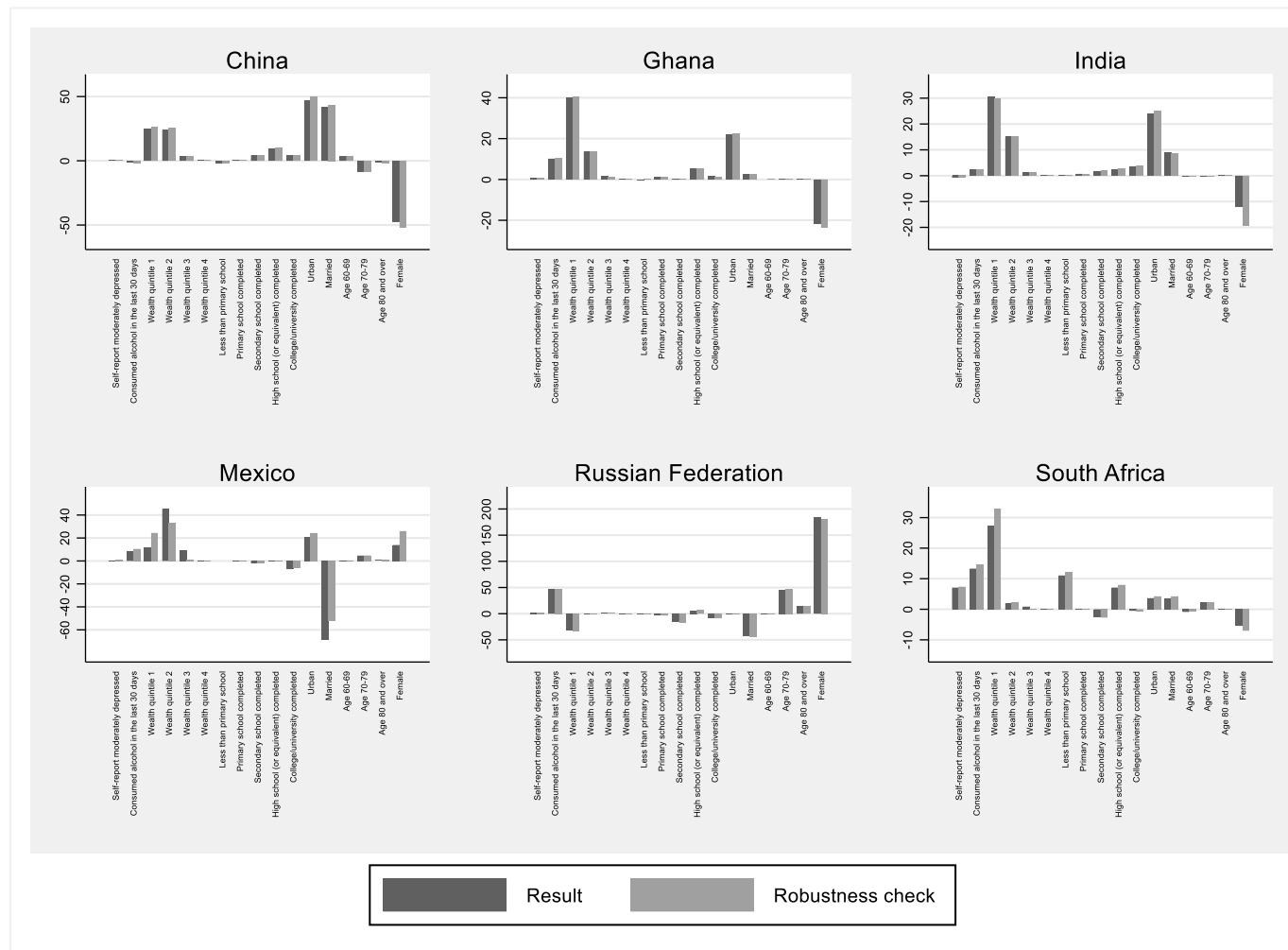
		China	Ghana	India	Mexico	Russia	South Africa
Depressed Mood	Beta	0.0916***	0.0234	-0.0384**	-0.150***		0.0697***
	Contribution	0.00000858	-0.000621*	0.00525***	0.0128		-0.0041
	Contribution %	-0.00584029	0.3446114	-2.4920454	7.0597839		4.5649056
Had a drink in the last 30 days	Beta	0.208***	0.128***	0.307***	0.127***		0.393***
	Contribution	-0.00763	-0.0288***	-0.0129***	0.0541*		-0.0174
	Contribution %	5.1908291	15.967644	6.1177738	29.970604		19.431595
Wealth quintile 1 (versus quintile 5)	Beta	0.100***	0.141***	0.0922***	-0.037		0.0343
	Contribution	-0.0321***	-0.0484***	-0.0367***	0.00418***		-0.0179***
	Contribution %	21.826187	26.841633	17.443388	2.3149421		19.934721
Wealth quintile 2 (versus quintile 5)	Beta	0.130***	0.0809***	0.115***	-0.217***		0.00103
	Contribution	-0.0318***	-0.0194***	-0.0308***	0.119**		-0.000263***
	Contribution %	21.66237	10.786842	14.613395	66.013444		0.29282653
Wealth quintile 3 (versus quintile 5)	Beta	0.0721***	0.0458*	0.0233	-0.00627		-0.0567
	Contribution	-0.00692***	-0.00404***	-0.00111***	0.000328		0.001
	Contribution %	4.7110537	2.2410283	0.52690564	0.18131453		-1.1184779
Wealth quintile 4 (versus quintile 5)	Beta	0.0674***	0.0427*	-0.0116	-0.062		-0.01
	Contribution	0.0158***	0.00895***	-0.00248***	-0.0064		-0.00179***
	Contribution %	0.25382983	0.24175607	0.25586621	0.11656248		0.22150949
Less than primary school (No formal education)	Beta	-0.0182	-0.0213	-0.0188	0		0.0947***
	Contribution	0.00175***	0.000506***	0.000558***	0		-0.0149***
	Contribution %	-1.1912051	-0.28088412	-0.26480617	0		16.567154
Primary school completed (No formal education)	Beta	-0.0823***	-0.0841***	-0.0204	0.0124		0.05
	Contribution	0.00280*	-0.00127*	0.000287	0.00105		-0.00164
	Contribution %	-1.9049231	0.70383629	-0.13610342	0.58010002		1.8292529
Secondary school completed (No formal education)	Beta	-0.0305	-0.0243	-0.0975***	0.262***		0.142***
	Contribution	-0.00246***	-0.000832***	-0.00540***	0.000553	CCI not statistically significant	0.0116***
	Contribution %	1.671638	0.46187492	2.5648973	0.30595886		-12.959115
High school (or equivalent) completed (No formal education)	Beta	-0.0840***	-0.0867***	-0.122***	-0.194***		-0.0488
	Contribution	-0.00671***	-0.0114***	-0.0119***	0.000581		-0.00466***
	Contribution %	4.5643708	6.3234074	5.6505459	0.32133333		5.1977778

College/university completed (No formal education)	Beta	-0.186***	-0.156***	-0.278***	-0.175***	-0.0692
	Contribution	-0.00534***	-0.00424***	-0.0189***	-0.0221	-0.00434***
	Contribution %	3.6350596	2.3523162	8.9786886	-12.246377	4.8381418
Rural (versus urban) locality	Beta	0.0887***	0.0452***	0.0377**	-0.0317	0.00148
	Contribution	-0.0826***	-0.0491***	-0.0259***	0.0462*	-0.000655***
	Contribution %	56.209482	27.263131	12.297021	25.581029	0.73038517
Married (versus non-married)	Beta	-0.0633***	-0.0179	-0.0117	0.110***	-0.0136
	Contribution	-0.0251***	-0.00650***	-0.00136**	-0.0127**	-0.0105***
	Contribution %	17.093249	3.6075625	0.64653704	-7.0317716	11.66603
Age 60-69 (Reference age 50-59)	Beta	-0.0944***	-0.0161	-0.0298	0.0262	-0.0265
	Contribution	0.00490*	0.0000392	0.00121	-0.000503	-0.000102
	Contribution %	-3.3351969	-0.0217666	-0.57580003	-0.27861879	0.11322767
Age 70-79	Beta	-0.204***	-0.0304	-0.0586***	-0.0421	-0.0868**
	Contribution	0.00869***	-0.0000737	0.000106	-0.000629	-0.00382***
	Contribution %	-5.9134735	0.04088098	-0.05052782	-0.34803225	4.2614308
Aged 80 and older	Beta	-0.258***	-0.0381	-0.119***	0	-0.0271
	Contribution	0.00159***	0.000461	0.000216	0.000726*	0.0000859
	Contribution %	-1.0816487	-0.25568083	-0.10250344	0.4017294	-0.0956746
Observations		6,185	2,233	3,301	730	1,491

Note: Calculated using a population weight; *** p<0.01, ** p<0.05, * p<0.1
Source: Calculations from WHO SAGE (2008-2010)

Figure S1: Robustness check: Contribution % of each independent variable to wealth-related CTC inequality, per country

Note: Calculated using a population weight
Source: Calculations from WHO SAGE (2008-2010)

1. He W, Muenchrath MN, Kowal PR, U.S. Census Bureau. Shades of Gray: A Cross-Country Study of Health and Well-Being of the Older Populations in SAGE Countries, 2007–2010. U.S. Government Printing Office; 2012. International Population Reports. Accessed March 18, 2021. https://www.census.gov/content/dam/Census/library/publications/2012/demo/p95-12-01.pdf