

SUPPLEMENTAL MATERIAL

Trend Analysis of Stroke Subtypes Mortality Attributable to High Body-mass Index in China from 1990 to 2019

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Figure S1: ASMR for stroke and subtypes attributable to high body-mass index in China and globally from 1990 to 2019.

IS indicates ischemic stroke; ICH indicates intracerebral hemorrhage; and SAH indicates subarachnoid hemorrhage.

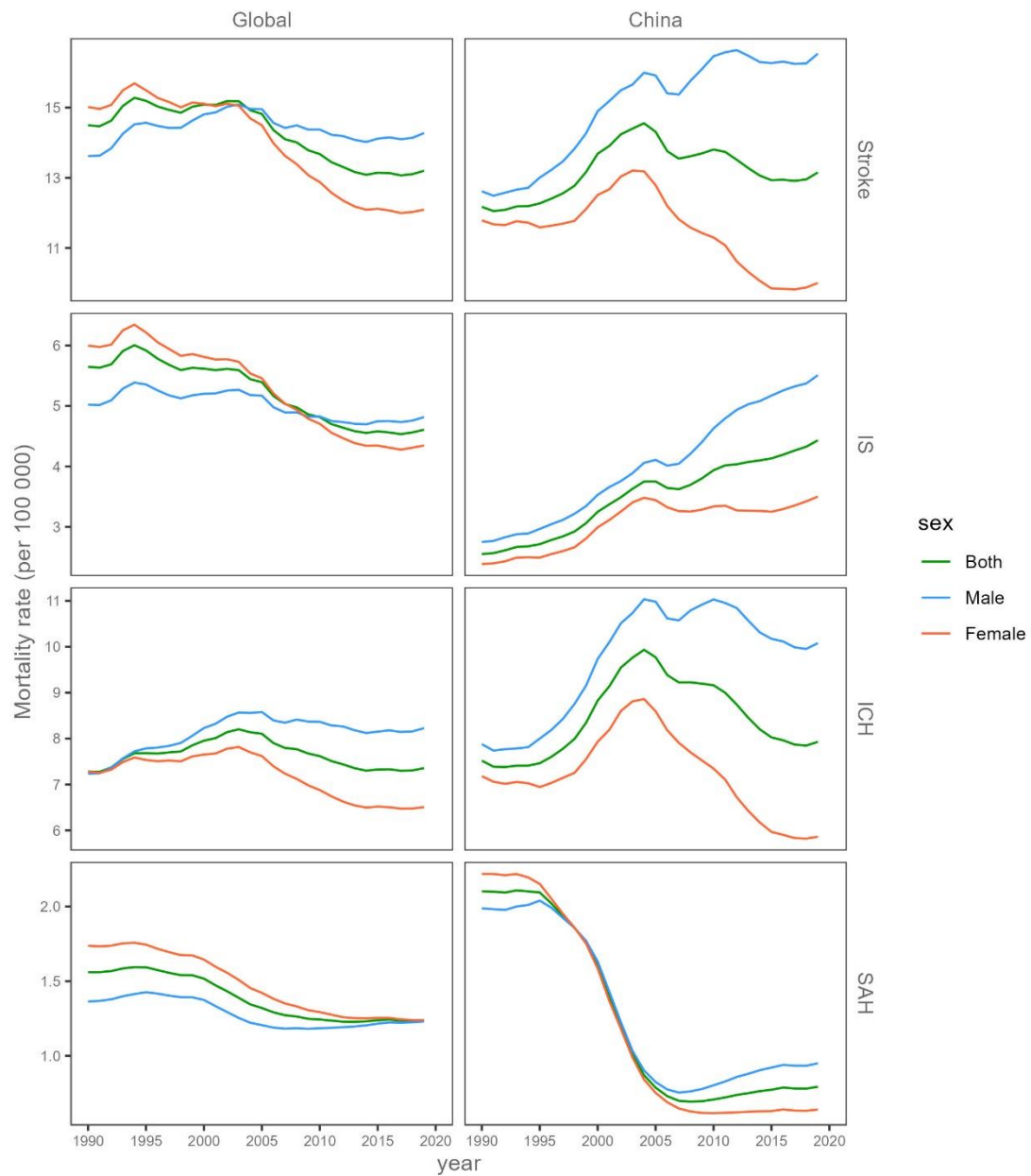


Table S1: The disease burden of stroke and subtypes attributable to high BMI in China and the global in 1990 and 2019.

No. number, ASMR age-standardized mortality rate, EAPC estimated annual percentage change, UI uncertainty interval, CI confidence interval

			1990	2019	EAPC
			No. (95% UI) per 10 ⁵	No. (95% UI) per 10 ⁵	No. (95% CI)
China	Stroke	Both	12.17 (2.91 to 26.65)	13.15 (5.84 to 22.76)	0.29 (0.07 to 0.5)
		Male	12.62 (2.72 to 29)	16.54 (7.08 to 28.94)	1.08 (0.91 to 1.25)
		Female	11.79 (3.04 to 25.09)	10 (4.33 to 17.92)	-0.69 (-0.98 to -0.41)
	IS	Both	2.55 (0.58 to 5.68)	4.43 (1.82 to 8.06)	2.04 (1.86 to 2.21)
		Male	2.75 (0.58 to 6.44)	5.51 (2.12 to 10.32)	2.66 (2.54 to 2.77)
		Female	2.39 (0.58 to 5.21)	3.5 (1.45 to 6.48)	1.33 (1.05 to 1.62)
	ICH	Both	7.52 (1.78 to 16.82)	7.93 (3.56 to 13.7)	0.36 (-0.03 to 0.75)
		Male	7.88 (1.68 to 18.53)	10.08 (4.37 to 17.66)	1.15 (0.79 to 1.5)
		Female	7.18 (1.84 to 15.39)	5.86 (2.56 to 10.69)	-0.67 (-1.13 to -0.2)
	SAH	Both	2.1 (0.47 to 4.8)	0.79 (0.34 to 1.42)	-4.62 (-5.44 to -3.78)
		Male	1.99 (0.33 to 5.02)	0.95 (0.38 to 1.76)	-3.7 (-4.54 to -2.85)
		Female	2.22 (0.56 to 4.9)	0.64 (0.28 to 1.13)	-5.64 (-6.43 to -4.84)
Global	Stroke	Both	14.49 (7.32 to 23.31)	13.2 (7.93 to 19.32)	-0.57 (-0.69 to -0.44)
		Male	13.62 (6.25 to 23.06)	14.27 (8.2 to 21.52)	-0.01 (-0.12 to 0.1)
		Female	15.02 (8.1 to 23.41)	12.09 (7.49 to 17.39)	-1.05 (-1.2 to -0.9)
	IS	Both	5.65 (2.77 to 9.15)	4.61 (2.5 to 7.29)	-1.06 (-1.19 to -0.92)
		Male	5.02 (2.29 to 8.55)	4.82 (2.52 to 7.71)	-0.42 (-0.53 to -0.31)
		Female	6 (3.1 to 9.52)	4.35 (2.41 to 6.82)	-1.53 (-1.69 to -1.36)
	ICH	Both	7.28 (3.58 to 12.22)	7.36 (4.42 to 10.76)	-0.12 (-0.27 to 0.04)
		Male	7.23 (3.23 to 12.88)	8.23 (4.71 to 12.18)	0.35 (0.2 to 0.51)
		Female	7.28 (3.87 to 11.74)	6.51 (4.07 to 9.58)	-0.61 (-0.77 to -0.44)
	SAH	Both	1.56 (0.75 to 2.76)	1.24 (0.79 to 1.74)	-1.14 (-1.29 to -0.99)
		Male	1.36 (0.57 to 2.64)	1.23 (0.73 to 1.8)	-0.67 (-0.84 to -0.51)
		Female	1.74 (0.91 to 2.88)	1.24 (0.83 to 1.72)	-1.52 (-1.66 to -1.38)

GATHER statement: GATHER checklist of information that should be included in reports of global health estimates

The Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) define best reporting practices for studies that calculate health estimates for multiple populations (in time or space) using multiple information sources. GATHER comprises a checklist of 18 items that are essential for best reporting practice.

Item number	Checklist item	Position in the article
Objectives and funding		
1	Define the indicator(s), populations (including age, sex, and geographic entities), and time period(s) for which estimates were made.	Lines 88-97, Pages 4-5; Lines 114-129, Page 5-6
2	List the funding sources for the work.	Lines 287-289, Page 12
Data inputs		
For all data inputs from multiple sources that are synthesised as part of the study:		
3	Describe how the data were identified and how the data were accessed.	Lines 71-74, Page 4
4	Specify the inclusion and exclusion criteria. Identify all ad-hoc exclusions.	Lines 125-128, Page 6
5	Provide information about all included data sources and their main characteristics. For each data source used, report reference information or contact name/institution, population represented, data collection method, year(s) of data collection, sex and age range, diagnostic criteria or measurement method, and sample size, as relevant.	Lines 78-87, Page 4
6	Identify and describe any categories of input data that have potentially important biases (eg, based on characteristics listed in item 5).	https://ghdx.healthdata.org/gbd-2019/data-input-sources
For data inputs that contribute to the analysis but were not synthesised as part of the study:		
7	Describe and give sources for any other data inputs.	Lines 78-80, Page 4
For all data inputs:		
8	Provide all data inputs in a file format from which data can be efficiently extracted (eg, a spreadsheet rather than a PDF), including all relevant meta-data listed in item 5. For any data inputs that cannot be shared because of ethical or legal reasons, such as third-party ownership, provide a contact name or the name of the institution that retains the right to the data.	https://vizhub.healthdata.org/gbd-results/

Data analysis		
9	Provide a conceptual overview of the data analysis method. A diagram may be helpful.	Lines 99-103 and 106-108, Page 5
10	Provide a detailed description of all steps of the analysis, including mathematical formulae. This description should cover, as relevant, data cleaning, data pre-processing, data adjustments and weighting of data sources, and mathematical or statistical model(s).	Lines 99-108, Page 5
11	Describe how candidate models were evaluated and how the final model(s) were selected.	Lines 108-129, Page 5-6
12	Provide the results of an evaluation of model performance, if done, as well as the results of any relevant sensitivity analysis.	Lines 107-113 and 103-105, Page 5
13	Describe methods of calculating uncertainty of the estimates. State which sources of uncertainty were, and were not, accounted for in the uncertainty analysis.	Lines 101-103, Page 5
14	State how analytical or statistical source code used to generate estimates can be accessed.	Analysis codes can be obtained by contacting the corresponding author
Results and discussion		
15	Provide published estimates in a file format from which data can be efficiently extracted.	Pages 16-20
16	Report a quantitative measure of the uncertainty of the estimates (eg, uncertainty intervals).	NA
17	Interpret results in light of existing evidence. If updating a previous set of estimates, describe the reasons for changes in estimates.	Pages 9-11
18	Discuss limitations of the estimates. Include a discussion of any modelling assumptions or data limitations that affect interpretation of the estimates.	Lines 259-277, Page 11

Figure S2. Analytical flowchart of the comparative risk assessment for the estimation of population attributable fractions by geography, age, sex, and year for GBD 2019.

