

Headache disorders—Level 3 cause

Summary Headache disorders was responsible for 46·6 million (95% UI 9·77–100) YLDs, or 5·4% (1·1–10·6) of total YLDs in 2019. Migraine headache made up 88·2% (60·7–97·7) of the burden of headache disorders.

Definition This aggregate cause incorporates disability resulting from migraine, tension-type headache (TTH), and their complication of medication overuse headache.

Total sources

Incidence	4
Prevalence	143
Remission	7
Causes of death	0
Other	1

Table 1: Total sources used in GBD 2019 estimation

What is new in GBD 2019?

- In GBD 2019, separate models for probable, definite, and total TTH were run. Probable and definite models were then adjusted to fit the burden of total TTH, making the modelling strategy consistent with that of migraine headache.
- MR-BRT was used to calculate duration of symptoms for probable and definite migraine and TTH directly, using individual-level data from 19 countries on the frequency and duration of episodes.
- Bias adjustments for alternative study methods were calculated in network analyses for studies using a recall period other than one year, low-quality sampling method, poor response rate, low-quality survey method, low-quality validation of the diagnostic instrument, low-quality diagnostic criteria, surveys of schoolchildren, and studies not explicitly stating headache type. This has led to substantial decreases in the prevalence of headache disorders.

	Prevalence		Incidence		Deaths		YLLs		YLDs		DALYs	
	Cases (millions)	Rate (per 100 000)	Cases (millions)	Rate (per 100 000)	Deaths (millions)	Rate (per 100 000)	Counts (millions)	Rate (per 100 000)	Counts (millions)	Rate (per 100 000)	Counts (millions)	Rate (per 100 000)
2019												
Both sexes	2600 (2400 to 2810)	32 716·8 (30 148·4 to 35 335·0)	794 (714 to 877)	10 110·7 (9070·7 to 11 167·1)	--	--	--	--	46·6 (9·77 to 100)	581·8 (119·6 to 1255·6)	46·6 (9·77 to 100)	581·8 (119·6 to 1255·6)
Females	1420 (1310 to 1530)	35 670·7 (32 965·1 to 38 391·6)	416 (376 to 459)	10 633·8 (9577·7 to 11 709·0)	--	--	--	--	29·0 (5·73 to 63·2)	724·6 (139·4 to 1587·8)	29·0 (5·73 to 63·2)	724·6 (139·4 to 1587·8)
Males	1180 (1080 to 1280)	29 760·5 (27 230·9 to 32 262·9)	378 (338 to 418)	9592·7 (8567·8 to 10 624·9)	--	--	--	--	17·7 (4·02 to 37·3)	439·8 (98·7 to 933·4)	17·7 (4·02 to 37·3)	439·8 (98·7 to 933·4)
Percentage change 2010–19												
Both sexes	12·4% (11·5 to 13·4)	0·6% (0·1 to 1·1)	11·6% (10·5 to 12·9)	0·5% (–0·1 to 1·1)	--	--	--	--	12·2% (10·8 to 14·2)	0·6% (–1·2 to 1·5)	12·2% (10·8 to 14·2)	0·6% (–1·2 to 1·5)
Females	12·2% (11·2 to 13·2)	0·3% (–0·4 to 0·9)	11·4% (10·0 to 12·7)	0·2% (–0·5 to 0·9)	--	--	--	--	11·7% (9·8 to 13·9)	0·0% (–1·7 to 1·3)	11·7% (9·8 to 13·9)	0·0% (–1·7 to 1·3)
Males	12·7% (11·6 to 13·8)	1·0% (0·4 to 1·8)	11·9% (10·6 to 13·3)	0·8% (0·0 to 1·7)	--	--	--	--	13·1% (11·4 to 15·3)	1·6% (–0·7 to 3·0)	13·1% (11·4 to 15·3)	1·6% (–0·7 to 3·0)

Numbers in parentheses are 95% uncertainty intervals.

Table 2: Global prevalence, incidence, deaths, YLLs, YLDs, and DALYs in counts and age-standardised rates for both sexes combined, females, and males, 2019, with percentage change between 2010 and 2019

	Deaths	YLLs	YLDs	DALYs
1990	--	--	2nd	18th
2010	--	--	2nd	15th
2019	--	--	3rd	14th

Table 3: Rank among Level 3 causes for global deaths, YLLs, YLDs, and DALYs in 1990, 2010, and 2019, for both sexes combined

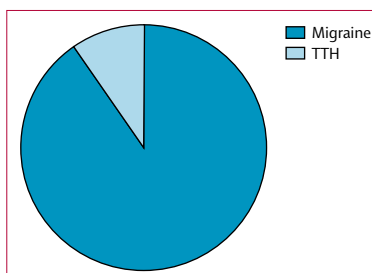


Figure 1: Composition of DALYs by constituent Level 4 causes for both sexes combined, 2019

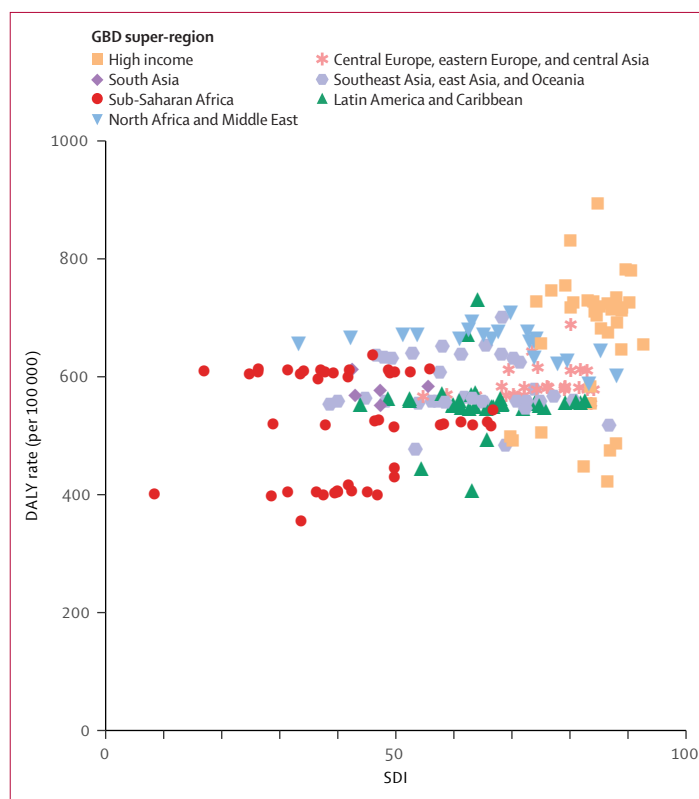


Figure 2: Age-standardised DALY rates for each location by SDI, both sexes combined, 2019

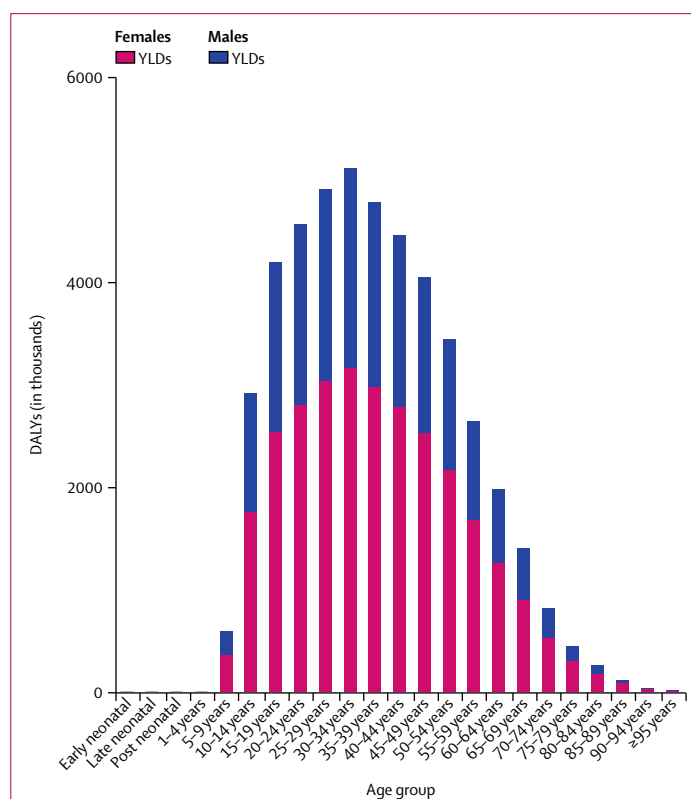


Figure 3: Composition of YLDs by age group and sex, 2019

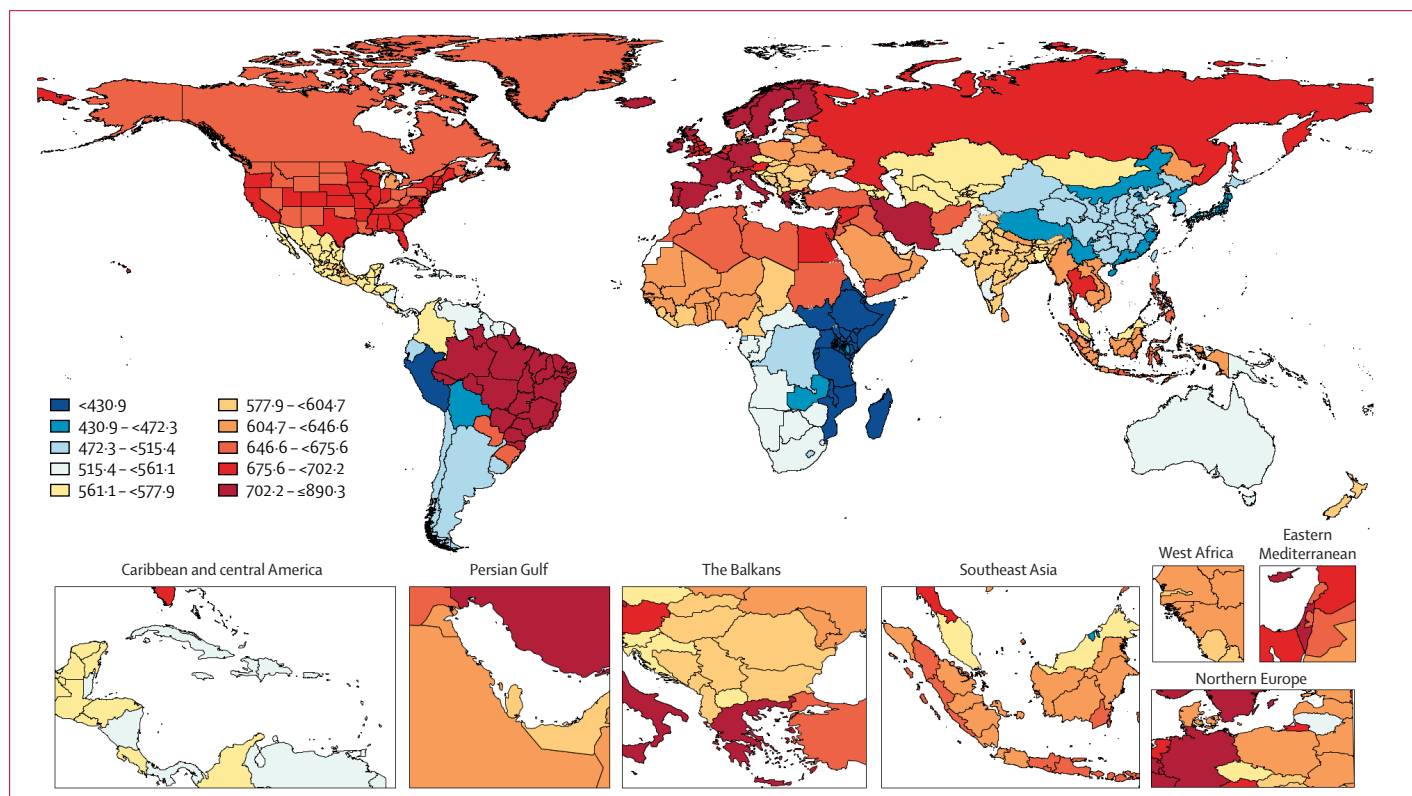


Figure 4: Age-standardised DALY rates (per 100 000) by location, both sexes combined, 2019