

Diet low in legumes—Level 3 risk

Summary In 2019, diet low in legumes was responsible for 24·3 million (95% UI 5·26–39·6) DALYs and 1·12 million (0·252–1·82) deaths. It was the fourth-leading dietary risk factor for attributable DALYs.

Definition Diet low in legumes is defined as average daily consumption (in grams per day) of less than of 90–100 grams of legumes and pulses, including fresh, frozen, cooked, canned, or dried legumes.

Total sources

Exposure	683
Relative risk	10

Table 1: Total sources used in GBD 2019 estimation

What is new in GBD 2019?

- To better characterise the dietary intake of fruit at the country level, we used data from FAO supply utilisation accounts in place of data from food balance sheets.
- The method of bias adjustment for non-dietary recall surveys was updated using MR-BRT.
- We updated the dose–response curve of relative risk for legumes and ischaemic heart disease based on the most recent epidemiological evidence and a newly developed method for characterising the risk curve.
- The legumes TMREL changed from 50–70 to 90–100 grams/day.

	Deaths		YLLs		YLDs		DALYs	
	Number (millions)	Rate (per 100 000)	Number (millions)	Rate (per 100 000)	Number (millions)	Rate (per 100 000)	Number (millions)	Rate (per 100 000)
2019								
Both sexes	1·12 (0·252 to 1·82)	14·3 (3·3 to 23·1)	23·6 (5·16 to 38·4)	289·4 (63·3 to 470·4)	0·663 (0·123 to 1·23)	8·1 (1·5 to 15·2)	24·3 (5·26 to 39·6)	297·5 (64·5 to 483·8)
Females	0·486 (0·111 to 0·790)	11·1 (2·5 to 18·0)	8·61 (1·88 to 14·0)	198·2 (43·3 to 323·8)	0·294 (0·0523 to 0·553)	6·7 (1·2 to 12·7)	8·90 (1·94 to 14·5)	204·9 (44·5 to 334·0)
Males	0·631 (0·140 to 1·02)	17·9 (4·1 to 29·1)	15·0 (3·29 to 24·4)	386·3 (84·4 to 625·3)	0·369 (0·0703 to 0·687)	9·7 (1·8 to 18·0)	15·4 (3·35 to 24·9)	396·0 (86·3 to 638·3)
Percentage change 2010–19								
Both sexes	15·4% (8·4 to 21·3)	–12·0% (–17·4 to –7·6)	10·4% (2·8 to 16·7)	–12·2% (–18·3 to –7·2)	24·8% (18·4 to 29·0)	–2·5% (–7·8 to 0·6)	10·8% (3·3 to 17·0)	–12·0% (–18·0 to –7·1)
Females	16·8% (8·3 to 24·0)	–11·9% (–18·4 to –6·5)	12·8% (3·4 to 21·3)	–11·5% (–19·0 to –4·7)	24·1% (17·0 to 28·9)	–3·1% (–9·0 to 0·5)	13·2% (3·9 to 21·4)	–11·2% (–18·7 to –4·7)
Males	14·3% (6·3 to 21·9)	–12·0% (–18·0 to –6·4)	9·1% (0·9 to 17·2)	–12·6% (–19·2 to –6·3)	25·4% (18·8 to 29·3)	–2·2% (–7·6 to 0·6)	9·4% (1·2 to 17·3)	–12·4% (–18·8 to –6·2)

Numbers in parentheses are 95% uncertainty intervals.

Table 2: Attributable global 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	18th	22nd	39th	24th
2010	18th	21st	38th	24th
2019	15th	20th	38th	22nd

Table 3: Rank among attributable Level 3 risks plus most detailed Level 2 risks of global deaths, YLLs, YLDs, and DALYs in 1990, 2010, and 2019 for both sexes combined

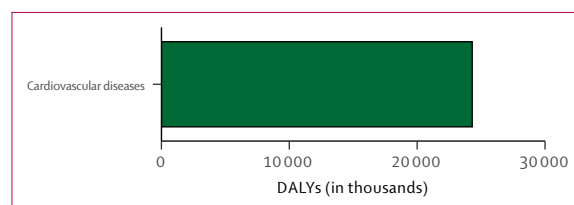


Figure 1: Composition of attributable global DALYs by constituent Level 2 causes for both sexes combined, 2019

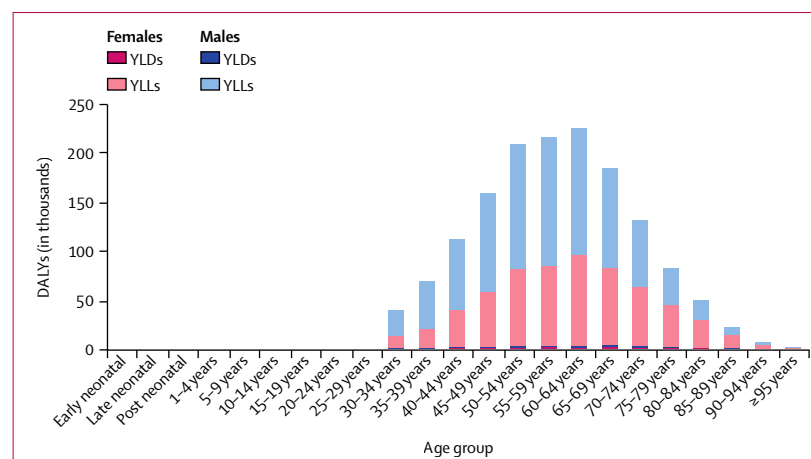


Figure 2: Composition of attributable global DALYs by YLLs and YLDs, age group, and sex, 2019

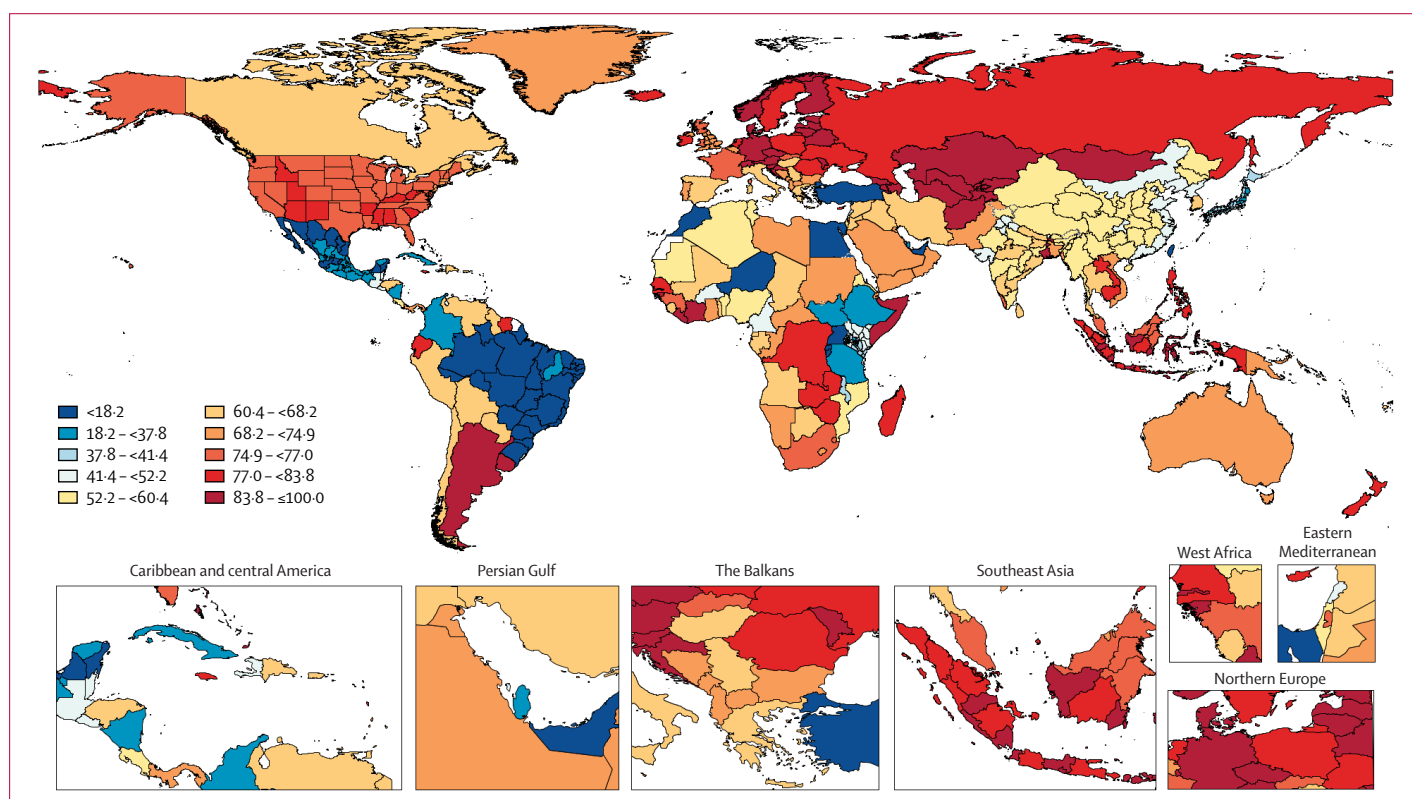


Figure 3: Age-standardised all-cause SEV by location, both sexes combined, 2019

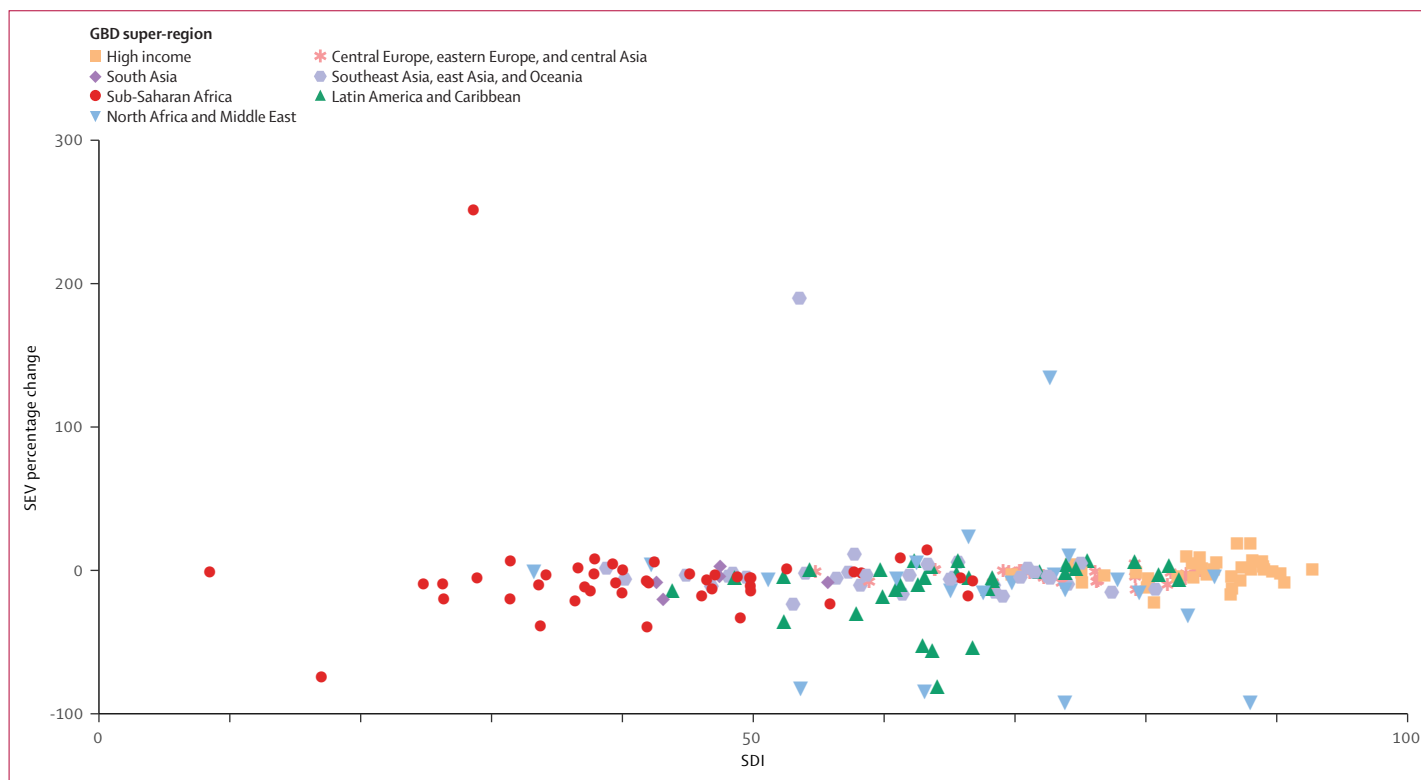


Figure 4: Percentage change in all-cause age-standardised SEV by SDI, both sexes combined, 1990-2019

Taiwan (province of China) SEV percentage change from 1990 to 2019 was 1034.2% (61.9-805.5). It has been omitted for figure readability.