Communicable, maternal, neonatal, and nutritional diseases—Level 1 cause

Summary CMNN diseases caused 10·2 million (95% UI 9·19–11·4) deaths, 669 million (593–758) DALYs, and 104 million (77·1–137) YLDs in 2019 globally for all ages, which represented a 36·3% (29·1–42·3) decrease in deaths, a 44·4% (37·4–50·5) decrease in DALYs, and a 22·1% (18·2–26·8) increase in YLDs from 1990.

Definition This aggregate cause contains seven Level 2 causes: HIV/AIDS and sexually transmitted infections, respiratory infections and tuberculosis, enteric infections, neglected tropical diseases and malaria, other infectious diseases, maternal and neonatal disorders, and nutritional deficiencies.

	Total sources
Incidence	24948
Prevalence	8671
Remission	7
Causes of death	6303
Other	22449

Table 1: Total sources used in GBD 2019 estimation

What is new in GBD 2019?

- Where applicable, both-sex and wide-age-binned data were split before non-fatal modelling. Adjustment for alternative study methods and case definitions were applied to data before analysis in DisMod-MR 2.1.
- A systematic review found 81 new data sources for both maternal deaths and non-fatal outcomes.
- Clinical administrative data processing was revised to better account for the ratio of neonatal inpatient to outpatient visits.
- Improved redistribution of sepsis and jaundice garbage-coded deaths led to changes in cause-specific mortality assessment for neonatal disorders, especially in the post-neonatal period.
- Model-specific covariates were updated for both cause-of-death and non-fatal modelling for nutritional deficiencies.

	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	4540 (4420 to 4650)	58 287·4 (56 841·8 to 59 728·8)	26 400 (24 600 to 28 500)	346 347·1 (321 319·5 to 374 145·2)	10·2 (9·19 to 11·4)	140·7 (126·8 to 157·9)	564 (498 to 653)	8106·0 (7096·7 to 9392·4)	104 (77·1 to 137)	1377·3 (1016·8 to 1811·6)	669 (593 to 758)	9483·4 (8394·5 to 10 801·7)
Females	2350 (2290 to 2410)	60 553·8 (59 080·0 to 62 023·6)	13 000 (12 100 to 14 000)	342 135·6 (317 260·2 to 369 373·5)	4·85 (4·30 to 5·52)	130·7 (115·4 to 148·3)	263 (232 to 301)	7704·8 (6764·5 to 8858·5)	56·0 (41·1 to 74·1)	1484·6 (1088·9 to 1964·8)	319 (283 to 360)	9189·4 (8098·3 to 10 408·1)
Males	2180 (2120 to 2240)	56 034·1 (54 541·1 to 57 546·1)	13 500 (12 500 to 14 500)	350 854·1 (326 058·9 to 379 037·3)	5·34 (4·82 to 6·02)	152·7 (137·6 to 171·9)	301 (263 to 350)	8511·9 (7408·9 to 9950·5)	48·3 (35·8 to 63·4)	1272·5 (939·5 to 1668·3)	349 (309 to 399)	9784·5 (8628·8 to 11 226·3)
Percentage change 2010–19												
Both sexes	7·1% (6·3 to 7·9)	–3·5% (–4·3 to –2·8)	12·6% (11·5 to 13·7)	2·5% (1·6 to 3·4)	–19·3% (–25·1 to –12·6)	–27·6% (–33·0 to –21·5)	–27·8% (–34·8 to –19·5)	–30·9% (–37·8 to –22·8)	9·1% (7·2 to 11·6)	–0·3% (–2·0 to 1·9)	–23·8% (–30·1 to –16·4)	–27·7% (–34·0 to –20·4)
Females	8·0% (7·2 to 8·7)	–3·0% (–3·8 to –2·4)	12·6% (11·5 to 13·8)	2·4% (1·4 to 3·4)	–19·6% (–25·6 to –12·0)	–28·5% (–34·2 to –21·8)	–29·0% (–35·7 to –21·0)	–32·1% (–38·9 to –24·3)	9·2% (7·3 to 11·3)	–0·5% (–2·1 to 1·4)	–24·3% (–30·4 to –17·3)	–28·4% (–34·4 to –21·3)
Males	6·2% (5·3 to 7·1)	–4·1% (–4·9 to –3·3)	12·6% (11·5 to 13·7)	2·6% (1·6 to 3·5)	–19·0% (–25·4 to –12·1)	–26·9% (–32·5 to –20·6)	–26·7% (–34·2 to –18·2)	–29·8% (–37·1 to –21·2)	9·1% (6·8 to 12·0)	–0·2% (–2·3 to 2·4)	–23·2% (–30·0 to –15·7)	–27·0% (–33·6 to –19·4)

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	1st	2nd	1st
2010	2nd	2nd	2nd	2nd
2019	2nd	2nd	2nd	2nd

Table 3: Rank among Level 1 causes for global deaths, YLLs, YLDs, and DALYs in 1990, 2010, and 2019, for both sexes combined

- Neglected tropical diseases and malaria
- Nutritional deficiencies
- HIV/AIDS and sexually transmitted infections
- Respiratory infections and tuberculosis
- Enteric infections
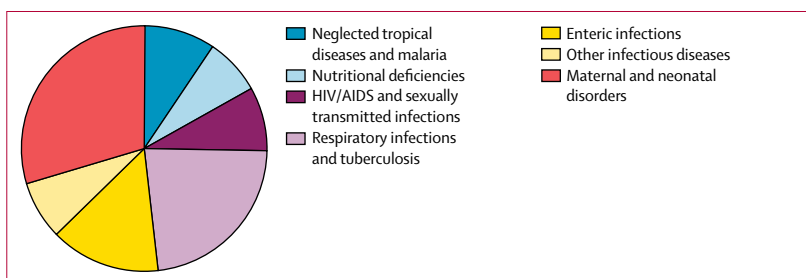- Other infectious diseases
- Maternal and neonatal disorders

Figure 1: Composition of DALYs by constituent Level 2 causes for both sexes combined, 2019
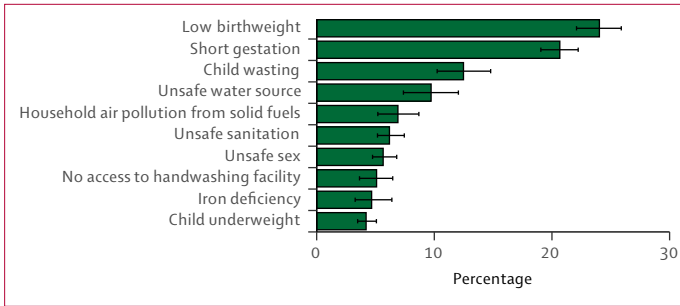
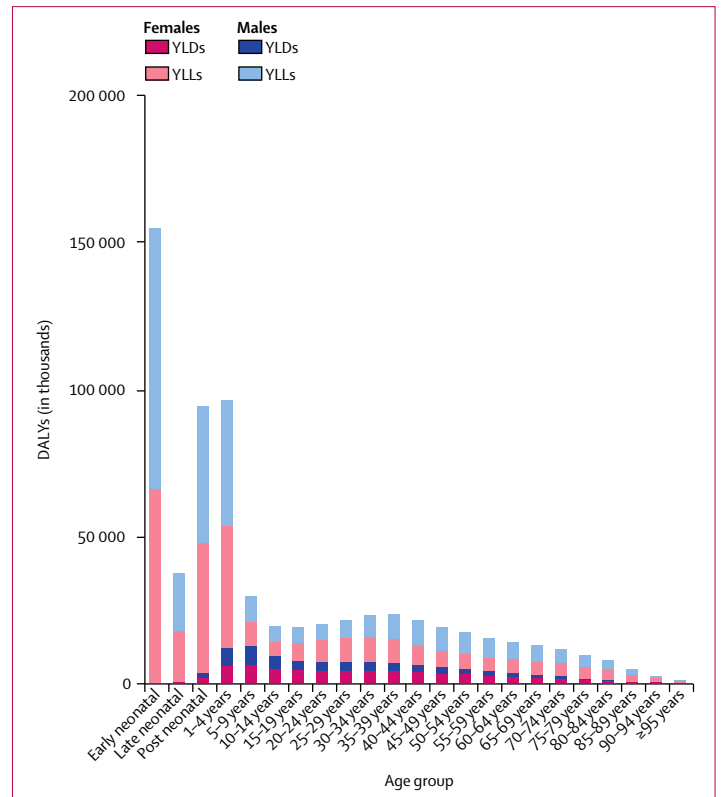*Figure 2:* Percentage of DALYs attributable to top risk factors for both sexes combined, 2019

Figure 3: Age-standardised DALY rates for each location by SDI, both sexes combined, 2019

Figure 4: Composition of DALYs by YLLs and YLDs, age group, and sex, 2019

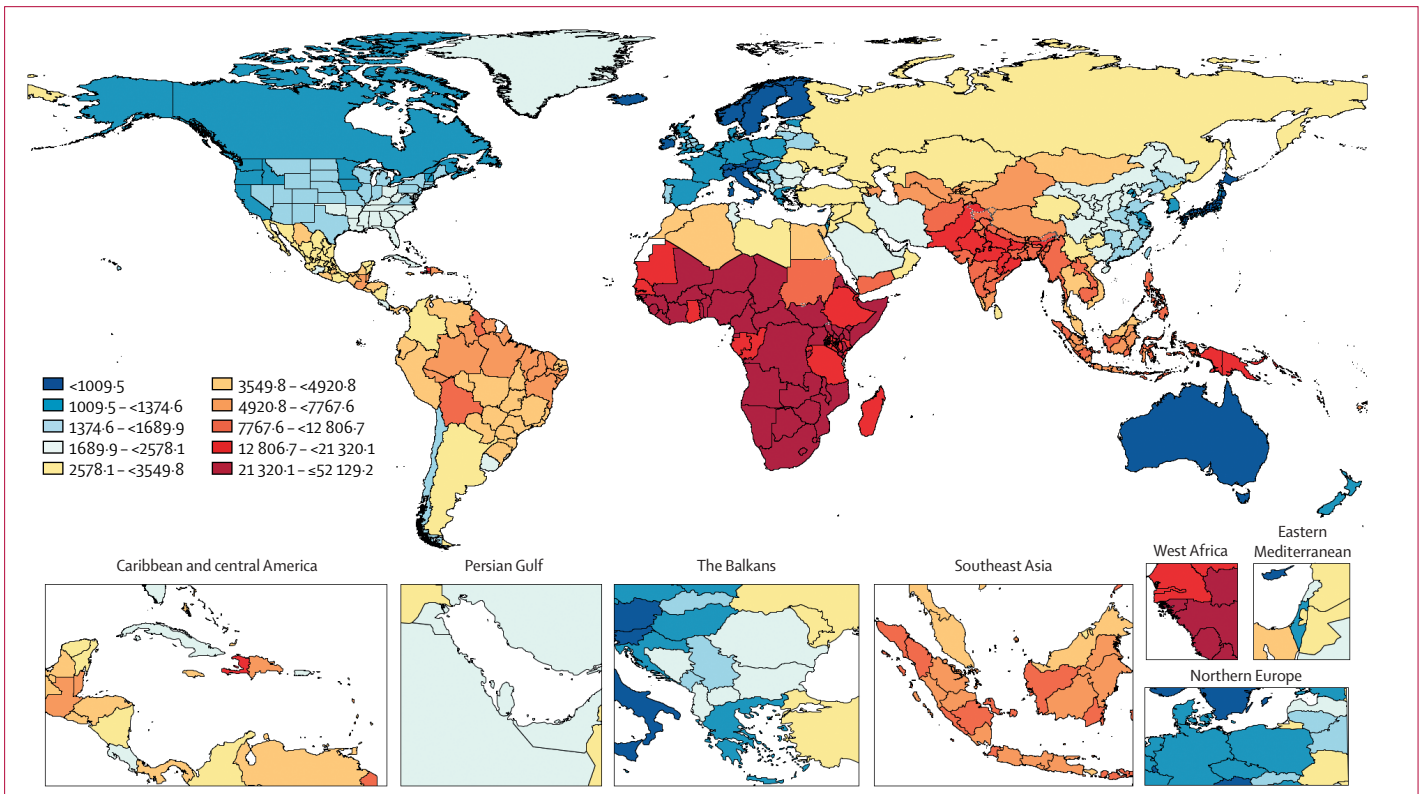*Figure 5:* Age-standardised DALY rates (per 100 000) by location, both sexes combined, 2019