Lower respiratory infections—Level 3 cause

Summary In 2019, 489 million (95% UI 458–523) incident cases and $11 \cdot 0$ million ($10 \cdot 3-11 \cdot 6$) prevalent cases of lower respiratory infections (LRI) contributed to $2 \cdot 49$ million ($2 \cdot 27-2 \cdot 74$) deaths and $97 \cdot 2$ million ($84 \cdot 9-113$) DALYs. $1 \cdot 23$ million ($1 \cdot 06-1 \cdot 32$) deaths were in people aged 70 and older.

Definition This cause incorporates death and disability resulting from LRI, including clinician-diagnosed and self-reported cases of pneumonia, bronchiolitis, respiratory syncytial virus (RSV), and influenza-like illness.

	Total sources				
Incidence	0				
Prevalence	918				
Remission	0				
Causes of death	4023				
Other	253				
<i>Table 1:</i> Total sources used in GBD 2019 estimation					

What is new in GBD 2019?

- Odds ratios of LRI given the presence of the pathogen were incorporated for adults aged 65 years and older for influenza and RSV.
- Before modelling in DisMod-MR, data were adjusted to the reference case definition—pneumonia or bronchiolitis as diagnosed by a clinician. Clinical inpatient, clinical claims, hospitalised incidence from the literature, clinical visit incidence from the literature, and self-reported or survey data were adjusted to the reference definition.
- Non-age-specific data were split by age on the basis of population and a modelled age-curve using age-specific data as inputs.

	Prevalence		Incidence		Deaths		YLLs		YLDs		DALYs	
	Cases	Rate (per	Cases	Rate (per	Deaths	Rate (per	Counts	Rate (per	Counts	Rate (per	Counts	Rate (per
	(millions)	100 000)	(millions)	100 000)	(millions)	100 000)	(millions)	100 000)	(millions)	100 000)	(millions)	100 000)
2019												
Both sexes	11·0	141·8	489	6295·0	2·49	34·3	96·5	1377·6	0·653	8.5	97·2	1386∙1
	(10·3 to	(133·4 to	(458 to	(5887·4 to	(2·27 to	(31·1 to	(84·2 to	(1195·3 to	(0·437 to	(5.6 to	(84·9 to	(1203∙5 to
	11·6)	150·3)	523)	6737·3)	2·74)	37·9)	112)	1612·6)	0·925)	12.0)	113)	1622∙8)
Females	5·20	131·6	232	5837·3	1·20	30·5	45∙5	1311·6	0·308	7·8	45∙8	1319·4
	(4·89 to	(123·7 to	(217 to	(5450·4 to	(1·07 to	(27·2 to	(39∙6 to	(1126·8 to	(0·206 to	(5·2 to	(39∙9 to	(1135·4 to
	5·50)	139·7)	248)	6245·7)	1·33)	34·0)	52∙7)	1528·1)	0·433)	11·0)	53∙1)	1537·9)
Males	5·77	153·8	257	6832·0	1·30	39·7	51·1	1459∙1	0·345	9·2	51·4	1468-2
	(5·42 to	(144·7 to	(240 to	(6393·8 to	(1·18 to	(36·0 to	(44·5 to	(1267∙4 to	(0·231 to	(6·1 to	(44·8 to	(1277-3 to
	6·12)	163·1)	275)	7313·1)	1·42)	43·6)	59·5)	1706∙6)	0·493)	13·1)	59·9)	1716-1)
Percentage	Percentage change 2010–19											
Both sexes	11·2%	-4·1%	11·8%	-4·0%	-2·1%	-18·4%	-23·6%	–28·9%	10·4%	-4·4%	-23·5%	-28·8%
	(9·1 to	(-5·8 to	(9·7 to	(-5·7 to	(-8·5 to	(-23·6 to	(-32·2 to	(–37·2 to	(8·2 to	(-6·3 to	(-32·0 to	(-37·0 to
	13·6)	-2·2)	14·2)	-2·2)	4·7)	-12·4)	-13·2)	–18·6)	13·0)	-2·3)	-13·2)	-18·6)
Females	10·5%	-5·0%	10·8%	-5·1%	-0·7%	–18·5%	-23·4%	–28·9%	9·7%	-5·3%	-23·3%	-28·8%
	(8·5 to	(-6·6 to	(8·7 to	(-6·8 to	(-8·3 to	(–25·1 to	(-32·7 to	(–37·8 to	(7·2 to	(-7·3 to	(-32·5 to	(-37·7 to
	12·8)	-3·2)	13·1)	-3·4)	6·6)	–11·8)	-13·1)	–18·8)	12·4)	-3·2)	-13·0)	-18·7)
Males	11·8%	-3·2%	12·6%	-3·0%	-3·4%	–18·3%	–23·8%	–28·8%	11·0%	-3·5%	–23·6%	-28·6%
	(9·6 to	(-5·0 to	(10·3 to	(-4·8 to	(-9·9 to	(–23·2 to	(−32·0 to	(−36·5 to	(8·5 to	(-5·7 to	(-31·8 to	(-36·4 to
	14·5)	-1·2)	15·3)	-1·0)	3·7)	–12·8)	–13·6)	–19·0)	13·9)	-1·3)	–13·5)	-18·9)

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		
	Deatils	TLLS	TLDS	DALIS		
1990	3rd	2nd	89th	2nd		
2010	4th	3rd	96th	4th		
2019	4th	4th	96th	4th		
Table 2: Pank among Lovel 2 causes for global deaths VI Ls VI Ds and						

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

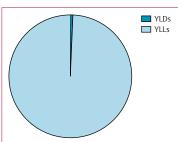


Figure 1: Composition of DALYs by YLLs and YLDs for both sexes combined, 2019

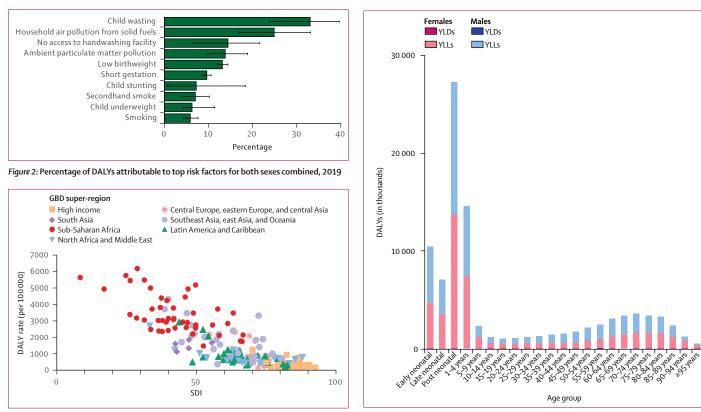


Figure 3: Age-standardised DALY rates for each location by SDI, both sexes combined, 2019

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

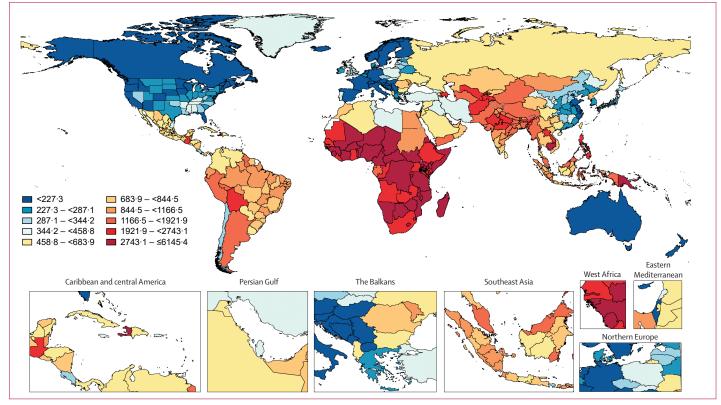


Figure 5: Age-standardised DALY rates (per 100 000) by location, both sexes combined, 2019