

Disease burden: successes and challenges

Highlights

Since 2010, the world succeeded in:

Halving the burden of many diseases such as HIV/AIDS and diarrhea*

Slashing by a quarter the health loss from injuries*

The total rate of global disease burden dropped by 14.2% between 2010 and 2019, but the COVID-19 pandemic interrupted these downward trends.

Healthy life expectancy rose significantly in 59 countries and territories between 2010 and 2021.

Diabetes experienced the most rapid growth among causes of health loss after adjusting for age and population size.

What's new in this study?

First study to measure premature death and disability due to the COVID-19 pandemic globally and compare it to other diseases and injuries.

Utilized thousands of new data sources and improved statistical methods.

Added 12 new causes of disease burden and more detailed age groups.

Added 12 new causes of death and more detailed age groups.

Among the top causes of disease burden globally, diarrheal diseases, congenital birth defects, and HIV/AIDS dropped the most in the rankings between 2010 and 2021. COVID-19 was the single leading cause of disease burden in 2021.

Leading causes of disease burden worldwide in 2010, 2020, and 2021

Leading causes, 2010	Number of DALYs (millions), 2010		Leading causes, 2020	Number of DALYs (millions), 2020		Leading causes, 2021	Number of DALYs (millions), 2021
1 Neonatal disorders	236.3 (218.9 to 256.4)†		1 Neonatal disorders	192.6 (168.2 to 220.6)		1 COVID-19	212.0 (198.0 to 234.5)
2 Ischemic heart disease	159.9 (153.8 to 164.9)		2 Ischemic heart disease	185.1 (175.2 to 194.5)	7	2 Ischemic heart disease	188.3 (176.7 to 198.3)
3 Stroke	144.3 (137.3 to 150.3)		3 Stroke	158.2 (146.4 to 168.8)	1	3 Neonatal disorders	186.3 (162.3 to 214.9)
4 Lower respiratory infections	127.3 (115.4 to 140.0)	-	4 COVID-19	123.4 (116.3 to 132.5)	/	4 Stroke	160.4 (148.0 to 171.7)
5 Diarrheal diseases	104.1 (86.7 to 123.2)	-	5 Lower respiratory infections	88.2 (78.1 to 99.4)		5 Lower respiratory infections	82.5 (72.9 to 93.2)
6 Road injuries	74.3 (70.9 to 78.4)	A .	6 COPD*	78.4 (72.1 to 84.3)		6 COPD*	79.8 (74.0 to 86.0)
7 HIV/AIDS	67.8 (60.4 to 78.3)	W /	7 Diabetes	76.5 (64.9 to 92.2)		7 Diabetes	78.9 (66.8 to 94.5)
8 Congenital defects	67.5 (55.9 to 82.5)	M	8 Low back pain	69.3 (49.5 to 92.8)		8 Other COVID outcomes**	77.4 (59.7 to 101.9)
9 COPD*	67.0 (62.9 to 70.5)	<i>ii </i>	9 Road injuries	65.1 (61.0 to 69.8)		9 Low back pain	70.2 (50.2 to 94.1)
10 Malaria	66.4 (37.7 to 105.9)	1	10 Diarrheal diseases	61.6 (49.6 to 75.5)	Sec.	10 Road injuries	65.1 (60.7 to 69.8)
		1	11 Malaria	55.4 (21.5 to 110.5)	100	11 Diarrheal diseases	59.3 (47.4 to 73.2)
		- 1	i. V	ė.	The same		
Injuries			13 Congenital defects	54.5 (47.3 to 65.1)		13 Malaria	55.2 (22.6 to 108.7)
Non-communicable diseases			22 HIV/AIDS	42.3 (39.0 to 47.5)		14 Congenital defects	52.3 (45.2 to 62.6)
Communicable, materna	I neonatal and nutrition	al disa	2000		The same	- 1900	No. of the second secon
Communicable, materna	i, neonatai, and nutrition	ai 0156	4303			24 HIV/AIDS	40.3 (37.2 to 44.8)

 $^{\ \, \}dagger \, \text{Uncertainty intervals are a range of values that are likely to include } \, \, \text{the correct estimate of health loss for a given cause}.$

Source: https://bit.ly/DALYs21, The Lancet.

^{*}After accounting for differences in age and population size across countries.

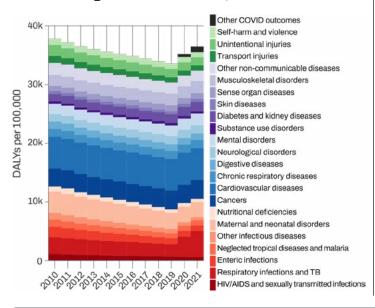
^{*} Chronic obstructive pulmonary disease.

^{**} Other pandemic-related mortality; includes excess mortality associated with the pandemic.



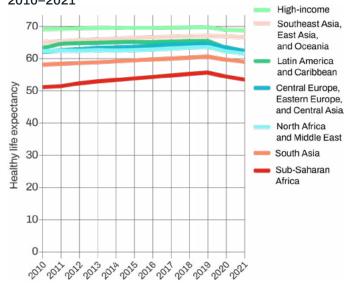
While disease burden fell between 2010 and 2019, it increased overall since 2019 amid the pandemic, rising by 4.1% in 2020 and by 7.2% in 2021.

Total rates of global disease burden, 2010-2021



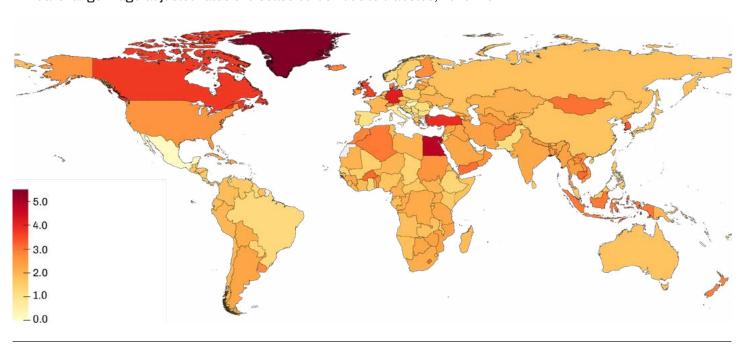
The largest improvements in healthy life expectancy occurred in countries ranking lowest on the Socio-demographic Index, a measure of income, fertility, and education.

Change in healthy life expectancy by GBD super-region, 2010–2021



Age-adjusted years lived with disability due to diabetes rose by 25.9% between 2010 and 2021, increasing in every country.

Annual change in age-adjusted rates of disease burden due to diabetes, 2010-2021



Source: https://bit.ly/DALYs21, The Lancet.