

GBD PROFILE: AUSTRIA

GLOBAL BURDEN OF DISEASES, INJURIES, AND RISK FACTORS STUDY 2010

The Global Burden of Disease Study 2010 (GBD 2010) is a collaborative project of nearly 500 researchers in 50 countries led by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. It is the largest systematic scientific effort in history to quantify levels and trends of health loss due to diseases, injuries, and risk factors. GBD serves as a global public good to inform evidence-based policymaking and health systems design.

PROFILE OVERVIEW

- In terms of the number of years of life lost (YLLs) due to premature death in Austria, ischemic heart disease, cerebrovascular disease, and trachea, bronchus, and lung cancers were the highest ranking causes in 2010.
- Of the 25 most important causes of burden, as measured by disability-adjusted life years (DALYs), cerebrovascular disease showed the largest decrease, falling by 46% from 1990 to 2010.
- The leading risk factor in Austria is dietary risks.

ALL-CAUSE MORTALITY RATE

- This chart shows the decline in mortality rate at every age range. The higher points on the chart indicate that declines in mortality rates were faster in those age groups between 1990 and 2010.
- The greatest reductions in all-cause mortality rate were experienced by males aged 5-9 years (59%). Females aged 80+ years saw the smallest decrease in mortality rate (22%).

Percent decline in age-specific mortality rate by sex from 1990-2010 in Austria



CAUSES OF PREMATURE DEATH

Years of life lost (YLLs) quantify premature mortality by weighting younger deaths more than older deaths.

Ranks for top 25 causes of YLLs 1990-2010, Austria

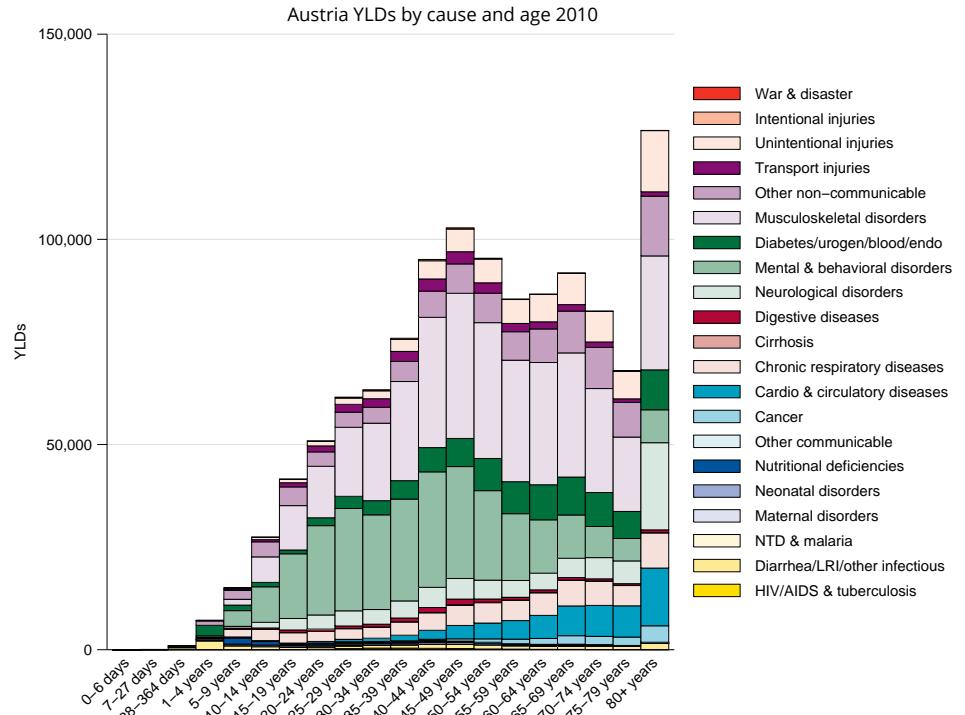
# YLLs in thousands (% of total)	Rank and disorder 1990	Rank and disorder 2010	# YLLs in thousands (% of total)	% change
323 (23.0%)	1 Ischemic heart disease	1 Ischemic heart disease	197 (17.9%)	-40
142 (10.1%)	2 Stroke	2 Stroke	73 (6.7%)	-53
70 (5.0%)	3 Self-harm	3 Lung cancer	70 (6.3%)	6
68 (4.9%)	4 Lung cancer	4 Self-harm	49 (4.5%)	-33
64 (4.5%)	5 Road injury	5 Cirrhosis	44 (4.0%)	-25
58 (4.1%)	6 Cirrhosis	6 Colorectal cancer	38 (3.4%)	-20
45 (3.2%)	7 Colorectal cancer	7 COPD	34 (3.1%)	24
37 (2.6%)	8 Breast cancer	8 Diabetes	30 (2.7%)	25
32 (2.3%)	9 Stomach cancer	9 Breast cancer	28 (2.6%)	-23
30 (2.1%)	10 Hypertensive heart disease	10 Road injury	28 (2.5%)	-58
29 (2.0%)	11 Other cardio & circulatory	11 Pancreatic cancer	24 (2.1%)	25
27 (1.9%)	12 COPD	12 Hypertensive heart disease	22 (2.0%)	-25
24 (1.7%)	13 Diabetes	13 Other cardio & circulatory	21 (1.9%)	-26
24 (1.7%)	14 Congenital anomalies	14 Falls	19 (1.7%)	-16
23 (1.6%)	15 Falls	15 Stomach cancer	18 (1.6%)	-48
23 (1.6%)	16 Preterm birth complications	16 Chronic kidney disease	17 (1.6%)	77
22 (1.6%)	17 Lower respiratory infections	17 Prostate cancer	17 (1.5%)	4
19 (1.4%)	18 Pancreatic cancer	18 Cardiomyopathy	16 (1.4%)	1,032
15 (1.1%)	19 Prostate cancer	19 Lower respiratory infections	15 (1.4%)	-32
14 (1.0%)	20 Leukemia	20 Liver cancer	15 (1.3%)	52
13 (0.9%)	21 Ovarian cancer	21 Leukemia	14 (1.3%)	2
12 (0.9%)	22 Brain cancer	22 Brain cancer	12 (1.1%)	6
11 (0.8%)	23 Chronic kidney disease	23 Kidney cancers	13 (1.2%)	17
10 (0.7%)	24 Liver cancer	24 Congenital anomalies	12 (1.1%)	-49
9 (0.7%)	25 Kidney cancers	25 Preterm birth complications	11 (1.0%)	-53
	69 Cardiomyopathy	27 Ovarian cancer		

This chart shows the change in the top 25 causes of YLLs due to premature mortality from 1990 to 2010. Solid lines indicate a cause has moved up in rank or stayed the same. Broken lines indicate a cause has moved down in rank. The causes are color coded by blue for non-communicable diseases, green for injuries, and red for communicable, maternal, neonatal, and nutritional causes of death.

YEARS LIVED WITH DISABILITY (YLDs)

Years lived with disability (YLDs) are estimated by weighting the prevalence of different conditions based on severity. The top five leading causes of YLDs in Austria are low back pain, major depressive disorder, falls, neck pain, and other musculoskeletal disorders.

The size of the colored portion in each bar represents the number of YLDs attributable to each cause. The height of each bar shows which age groups had the most YLDs in 2010. The causes are aggregated. For example, musculoskeletal disorders include low back pain and neck pain.

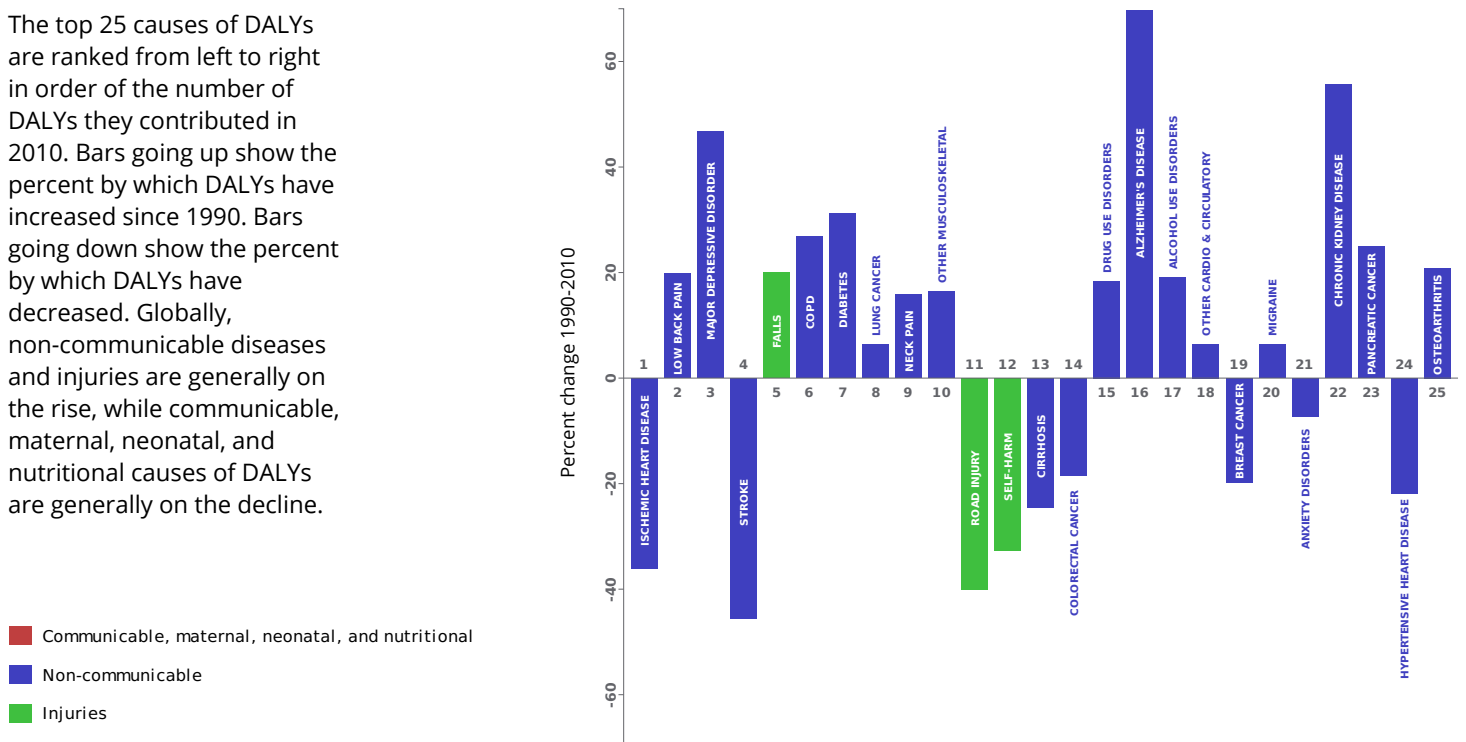


DISABILITY-ADJUSTED LIFE YEARS (DALYs)

Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population. In Austria, the top three causes of DALYs in 2010 were ischemic heart disease, low back pain, and major depressive disorder. The causes that were in the 10 leading causes of DALYs in 2010 and not 1990 were diabetes mellitus, neck pain, and other musculoskeletal disorders.

The top 25 causes of DALYs are ranked from left to right in order of the number of DALYs they contributed in 2010. Bars going up show the percent by which DALYs have increased since 1990. Bars going down show the percent by which DALYs have decreased. Globally, non-communicable diseases and injuries are generally on the rise, while communicable, maternal, neonatal, and nutritional causes of DALYs are generally on the decline.

Leading causes of DALYs and percent change 1990 to 2010 for Austria

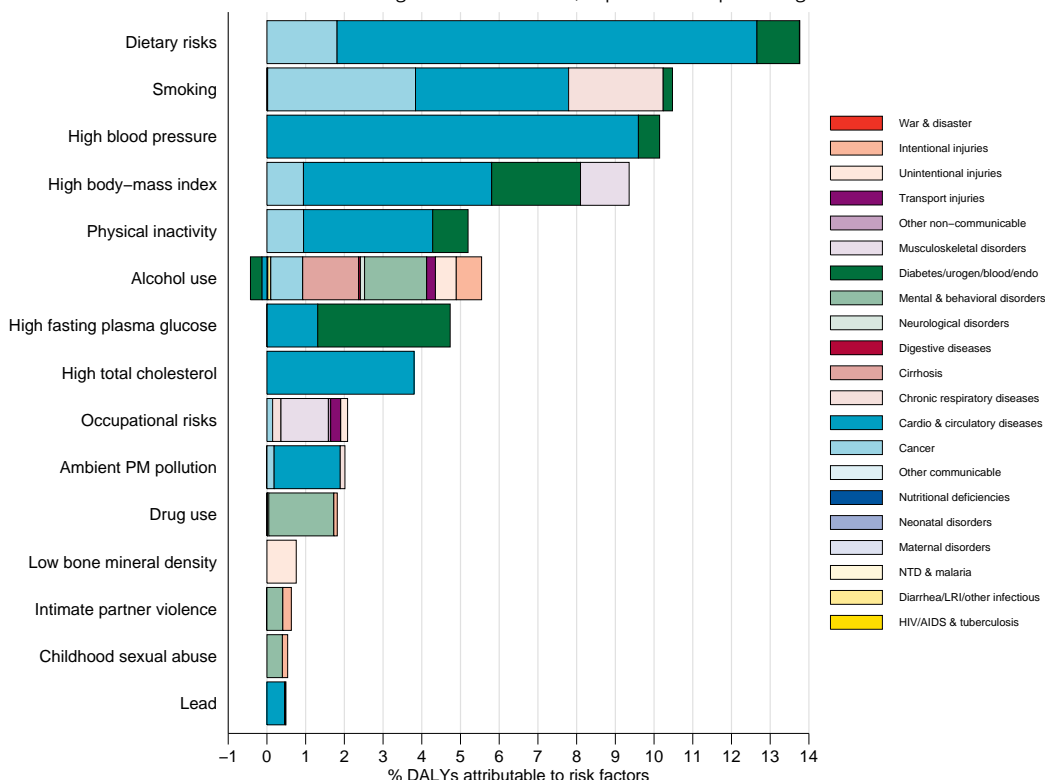


RISK FACTORS

Overall, the three risk factors that account for the most disease burden in Austria are dietary risks, tobacco smoking, and high blood pressure. The leading risk factors for children under 5 and adults aged 15-49 years were tobacco smoking and alcohol use, respectively, in 2010. Tobacco smoking as a risk factor for children is due to second-hand smoke exposure.

The graph shows the top 15 risk factors for Austria. The colored portion of each bar represents the specific diseases attributable to that risk factor while bar size represents the percentage of DALYs linked to specific risk factors.

Burden of disease attributable to 15 leading risk factors in 2010, expressed as a percentage of Austria DALYs



COUNTRY BENCHMARKING OF BURDEN OF DISEASE

Understanding the relative performance of Austria against other comparator countries provides key insight into public health successes and areas where Austria might be falling behind. The table identifies Austria's rank across 14 other comparator countries, selected and ordered by income per capita, for five metrics of interest, with 1 indicating the best rank and 15 indicating the worst rank.

- Age-standardized rates are used to make meaningful comparisons across time by adjusting for changes in population size and age structure.
- Life expectancy incorporates mortality, and health-adjusted life expectancy further incorporates years lived in less than ideal health.
- In 2010, Austria ranked 6th for health-adjusted life expectancy and 12th for age-standardized YLD rate.

Age-standardized death rates, YLL rates, YLD rates, and life expectancy at birth and health-adjusted life expectancy at birth for 1990 and 2010, both sexes combined																				
Country	Age-standardized death rate (per 100,000)				Age-standardized YLL rate (per 100,000)				Age-standardized YLD rate (per 100,000)				Life expectancy at birth				Health-adjusted life expectancy at birth			
	1990		2010		1990		2010		1990		2010		1990		2010		1990		2010	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	LE	Rank	LE	Rank	HALE	Rank	HALE	Rank
United States	639	11	516	15	15,130	15	11,447	15	10,503	2	10,509	2	75.2	12	78.2	15	65.6	9	67.9	13
Switzerland	532	2	369	3	11,825	4	7,071	3	10,663	3	10,807	3	77.5	4	82.2	3	67.5	2	70.8	2
Netherlands	572	7	426	8	11,847	5	7,988	6	11,355	13	11,492	15	77	6	80.6	8	66.5	5	69.1	7
Ireland	692	15	453	11	14,298	12	8,764	10	11,024	6	11,138	9	74.8	15	79.9	11	65.2	14	68.9	9
Iceland	548	4	365	2	11,310	3	6,675	1	10,763	4	11,108	8	77.6	2	82.2	2	65.5	10	68.4	12
Australia	568	6	389	4	12,381	7	7,722	5	11,153	10	10,979	6	76.9	7	81.5	4	66.4	6	70.1	3
Canada	558	5	422	7	12,079	6	8,546	9	10,806	5	10,845	4	77.2	5	80.6	6	67	3	69.6	5
Austria	622	9	418	6	13,732	10	8,401	7	11,052	7	11,381	12	75.7	9	80.6	7	65.8	7	69.1	6
Sweden	539	3	403	5	11,196	2	7,296	4	11,378	14	11,250	11	77.6	3	81.4	5	66.8	4	69.6	4
Denmark	656	14	504	14	14,383	13	9,592	14	11,209	12	11,456	14	75.2	13	78.9	14	65.3	13	67.9	14
Belgium	615	8	460	13	13,458	9	9,381	13	11,119	9	10,933	5	75.9	8	79.5	13	65.7	8	68.5	11
United Kingdom	638	10	455	12	13,452	8	8,949	11	11,453	15	11,435	13	75.7	10	79.9	12	65.4	11	68.6	10
Germany	644	12	433	9	14,032	11	8,512	8	11,165	11	11,015	7	75.4	11	80.2	9	65.3	12	69	8
Finland	655	13	437	10	14,467	14	9,050	12	11,092	8	11,248	10	75.1	14	80.1	10	63.8	15	67.3	15
Japan	469	1	352	1	9,658	1	6,827	2	9,406	1	9,094	1	79.1	1	82.6	1	70.1	1	73.1	1

COUNTRY BENCHMARKING OF BURDEN OF DISEASE, CONTINUED

This figure shows the rank of Austria relative to the same comparator countries for the leading causes of DALYs in 1990 (top) and 2010 (bottom).

- The columns are ordered by the absolute number of DALYs in Austria for that particular year, with greatest burden on the left.
- The numbers indicate the rank across countries for each cause in terms of age-standardized DALY rates, with 1 as the best performance and 15 as the worst.

Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 1990																									
Country	Ischemic heart disease	Low back pain	Stroke	Road injury	Self-harm	Lung cancer	Falls	Major depressive disorder	COPD	Cirrhosis	Diabetes	Neck pain	Other musculoskeletal	Colorectal cancer	Breast cancer	Stomach cancer	Drug use disorders	Other cardio & circulatory	Anxiety disorders	Alcohol use disorders	Hypertensive heart disease	Migraine	Congenital anomalies	Preterm birth complications	Lower respiratory infections
United States	12	1	3	13	4	14	1	9	13	12	15	14	15	6	5	1	13	9	15	10	14	2	7	15	10
Switzerland	2	2	4	11	14	4	14	11	11	8	10	12	6	5	9	6	8	5	7	8	9	12	13	2	4
Netherlands	4	6	7	4	2	11	4	15	8	3	8	8	11	8	12	9	2	12	13	2	6	6	12	7	3
Ireland	15	11	11	7	3	9	9	2	15	2	7	11	10	14	10	10	5	11	9	3	8	8	14	10	14
Iceland	7	8	2	5	7	7	7	6	4	1	1	13	5	2	11	12	9	2	4	9	4	9	1	6	11
Australia	6	3	5	12	5	6	5	3	10	5	3	3	13	12	4	3	15	3	12	5	2	15	5	13	1
Canada	5	7	1	8	8	10	2	5	7	7	11	6	14	7	6	2	10	1	5	6	1	5	6	8	6
Austria	9	10	14	14	12	5	13	8	6	15	12	10	8	9	7	14	12	10	8	11	15	7	11	14	2
Sweden	8	13	6	3	11	1	6	14	2	4	6	1	4	3	2	4	4	6	10	14	3	13	9	3	9
Denmark	11	14	10	9	13	13	12	7	14	13	13	2	9	15	14	5	11	4	6	15	7	4	15	5	5
Belgium	3	5	9	15	10	15	10	10	9	10	9	9	3	10	13	7	6	15	2	7	11	10	4	9	8
United Kingdom	13	12	12	2	1	12	8	4	12	6	2	5	1	11	15	8	14	7	14	4	5	14	3	11	15
Germany	10	15	8	10	9	8	11	12	5	14	14	7	7	13	8	13	7	14	11	13	13	3	8	12	7
Finland	14	9	15	6	15	3	15	13	3	11	5	15	2	1	3	11	1	8	3	12	10	11	10	4	12
Japan	1	4	13	1	6	2	3	1	1	9	4	4	12	4	1	15	3	13	1	1	12	1	2	1	13
Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 2010																									
Country	Ischemic heart disease	Low back pain	Major depressive disorder	Stroke	Falls	COPD	Diabetes	Lung cancer	Neck pain	Other musculoskeletal	Road injury	Self-harm	Cirrhosis	Colorectal cancer	Drug use disorders	Alzheimer's disease	Alcohol use disorders	Other cardio & circulatory	Breast cancer	Migraine	Anxiety disorders	Chronic kidney disease	Pancreatic cancer	Hypertensive heart disease	Osteoarthritis
United States	15	1	7	10	2	15	15	12	14	15	14	7	12	4	15	14	10	12	7	2	15	15	11	15	12
Switzerland	3	2	14	3	14	12	10	5	13	1	8	12	5	3	3	4	5	2	8	10	7	4	3	5	8
Netherlands	2	7	15	8	6	10	5	14	6	8	4	2	2	14	1	8	3	13	13	6	11	6	8	6	1
Ireland	13	10	5	9	11	9	7	8	11	9	10	8	7	13	10	5	7	8	11	9	8	10	6	8	5
Iceland	5	8	8	1	5	3	2	6	12	2	2	3	1	2	8	13	6	4	2	8	14	5	2	3	10
Australia	4	4	2	2	4	7	6	4	4	12	13	5	3	12	13	7	2	5	6	15	12	7	1	2	2
Canada	8	5	6	4	1	6	13	11	10	14	6	9	6	8	12	12	4	3	10	5	3	12	5	1	14
Austria	11	11	11	7	13	8	12	7	8	4	12	11	14	5	11	2	12	11	5	7	5	11	13	14	6
Sweden	6	13	9	5	7	4	8	1	1	3	3	10	4	6	4	10	13	6	3	13	9	1	9	4	13
Denmark	7	14	12	14	10	14	14	15	2	11	11	6	11	15	9	9	14	7	12	4	6	9	14	10	4
Belgium	9	6	4	12	12	11	9	13	9	7	15	13	9	11	7	11	8	15	15	11	4	8	7	11	9
United Kingdom	10	12	3	11	8	13	1	10	5	10	5	1	10	10	14	6	9	10	14	14	13	3	4	7	11
Germany	12	15	10	6	9	5	11	9	7	6	7	4	13	9	5	3	11	14	9	3	10	14	12	13	7
Finland	14	9	13	13	15	2	4	3	15	5	9	15	15	1	6	15	15	9	4	12	2	2	15	12	3
Japan	1	3	1	15	3	1	3	2	3	13	1	14	8	7	2	1	1	1	1	1	1	13	10	9	15
Ranking Legend	1 - 3	4 - 7	8 - 11	12 - 15																					