

GBD PROFILE: VENEZUELA

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.

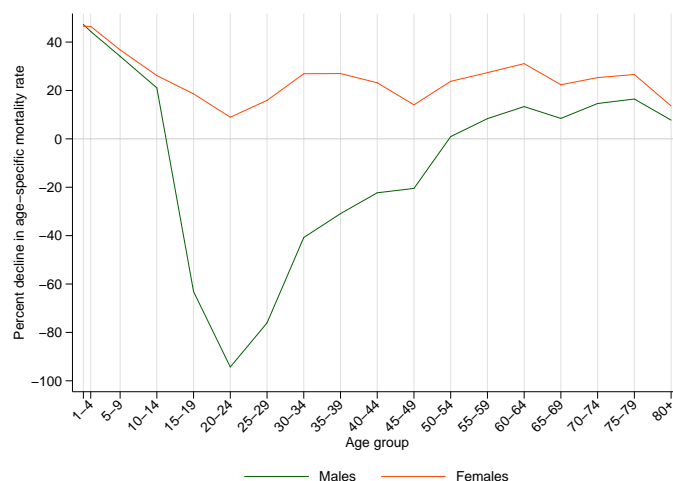
PROFILE OVERVIEW

- In terms of the number of years of life lost (YLLs) due to premature death in Venezuela, interpersonal violence, ischemic heart disease, and road injury were the highest ranking causes in 2010.
- Of the 25 most important causes of burden, as measured by disability-adjusted life years (DALYs), diarrheal diseases showed the largest decrease, falling by 58% from 1990 to 2010.
- The leading risk factor in Venezuela is dietary risks.

ALL-CAUSE MORTALITY RATE

- This chart shows the change in mortality rate at every age range. The points above 0 on the chart indicate positive declines in the all-cause mortality rate, while points below 0 indicate an increase in mortality rate between 1990 and 2010.
- The greatest reductions in all-cause mortality rate were experienced by males aged <1 year (47%). Males aged 20-24 years saw the largest increase in mortality rate (94%).

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



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, Venezuela

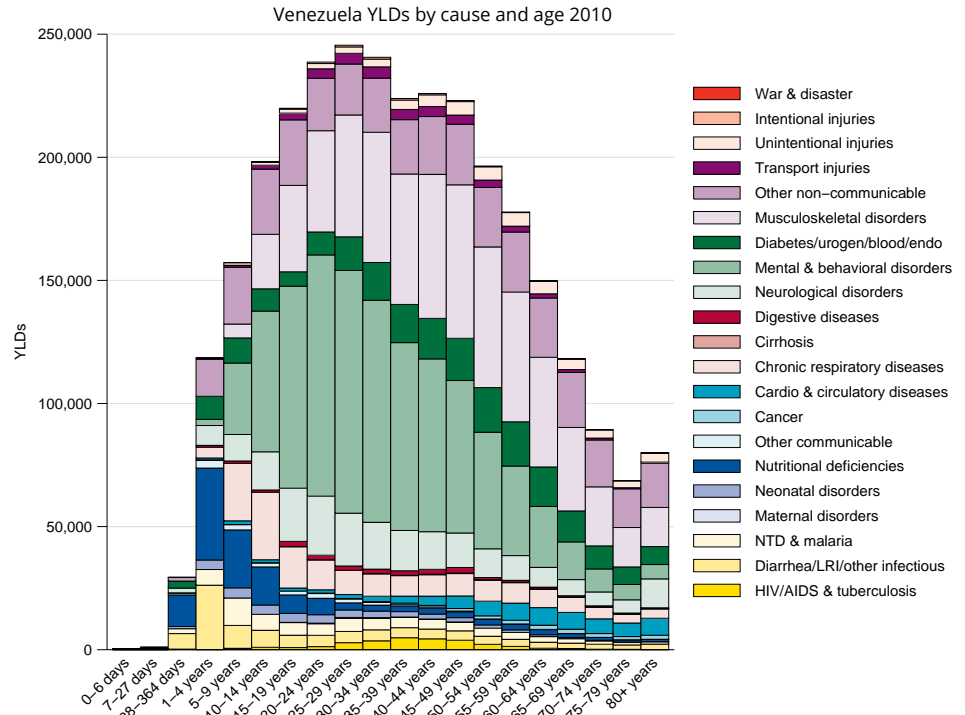
# YLLs in thousands (% of total)	Rank and disorder 1990	Rank and disorder 2010	# YLLs in thousands (% of total)	% change
289 (8.4%)	1 Preterm birth complications	1 Interpersonal violence	726 (15.7%)	365
272 (7.9%)	2 Ischemic heart disease	2 Ischemic heart disease	462 (10.0%)	70
252 (7.4%)	3 Diarrheal diseases	3 Road injury	374 (8.1%)	45
249 (7.3%)	4 Road injury	4 HIV/AIDS	258 (5.6%)	3,635
218 (6.4%)	5 Lower respiratory infections	5 Stroke	199 (4.3%)	34
191 (5.6%)	6 Interpersonal violence	6 Preterm birth complications	166 (3.6%)	-43
162 (4.7%)	7 Congenital anomalies	7 Lower respiratory infections	155 (3.4%)	-29
147 (4.3%)	8 Stroke	8 Congenital anomalies	143 (3.1%)	-8
116 (3.4%)	9 Neonatal encephalopathy	9 Diabetes	134 (2.9%)	73
87 (2.5%)	10 Neonatal sepsis	10 Chronic kidney disease	115 (2.5%)	343
76 (2.2%)	11 Diabetes	11 Self-harm	111 (2.4%)	78
60 (1.7%)	12 Self-harm	12 Cirrhosis	100 (2.2%)	93
54 (1.6%)	13 Protein-energy malnutrition	13 Lung cancer	81 (1.8%)	96
53 (1.5%)	14 Drowning	14 Diarrheal diseases	80 (1.7%)	-68
51 (1.5%)	15 Cirrhosis	15 Hypertensive heart disease	72 (1.6%)	55
46 (1.3%)	16 Hypertensive heart disease	16 Neonatal encephalopathy	70 (1.5%)	-39
46 (1.3%)	17 Meningitis	17 Neonatal sepsis	69 (1.5%)	-19
47 (1.4%)	18 Syphilis	18 COPD	64 (1.4%)	72
43 (1.3%)	19 Mechanical forces	19 Drowning	59 (1.3%)	3
43 (1.2%)	20 Stomach cancer	20 Stomach cancer	50 (1.1%)	15
41 (1.2%)	21 Lung cancer	21 Cervical cancer	47 (1.0%)	36
38 (1.1%)	22 Falls	22 Breast cancer	42 (0.9%)	76
38 (1.1%)	23 Leukemia	23 Leukemia	41 (0.9%)	7
37 (1.1%)	24 COPD	24 Colorectal cancer	39 (0.9%)	124
34 (1.0%)	25 Cervical cancer	25 Falls	39 (0.9%)	-14
	26 Chronic kidney disease	27 Protein-energy malnutrition		
	27 Breast cancer	28 Mechanical forces		
	34 Colorectal cancer	30 Meningitis		
	53 HIV/AIDS	38 Syphilis		

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 Venezuela are major depressive disorder, low back pain, neck pain, other musculoskeletal disorders, and anxiety disorders.

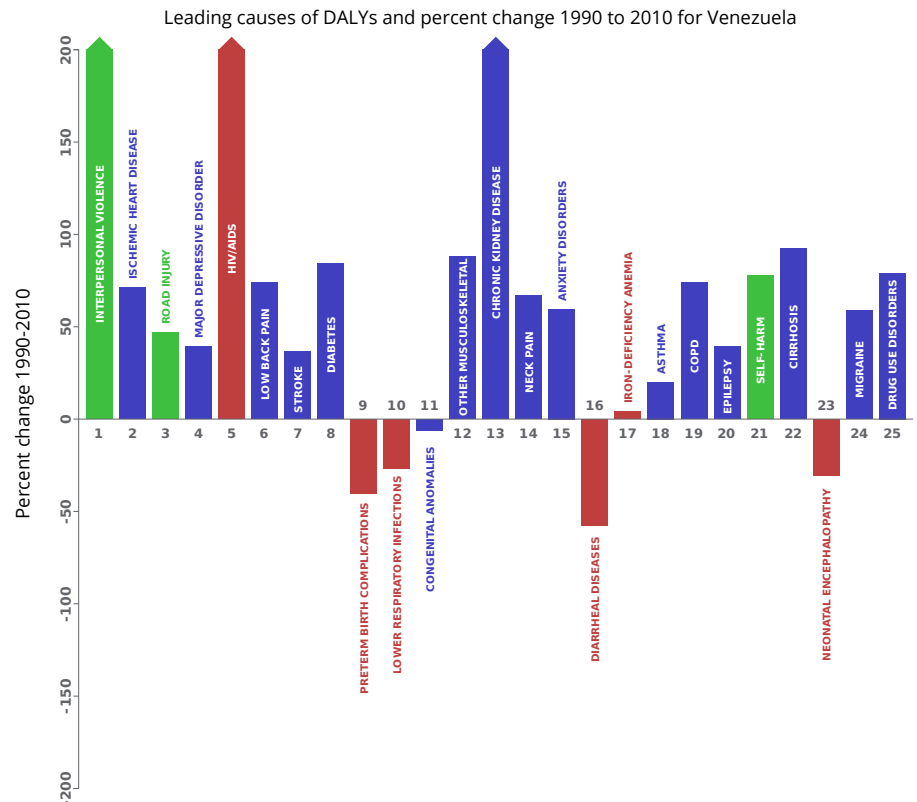
The size of the colored portion in each bar represents the number of YLDs attributable to each cause. The height of each bar shows which age groups had the most YLDs in 2010. The causes are aggregated. For example, musculoskeletal disorders include low back pain and neck pain.



DISABILITY-ADJUSTED LIFE YEARS (DALYs)

Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population. In Venezuela, the top three causes of DALYs in 2010 were interpersonal violence, ischemic heart disease, and road injury. Two causes that appeared in the 10 leading causes of DALYs in 2010 and not 1990 were HIV/AIDS and diabetes mellitus.

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.

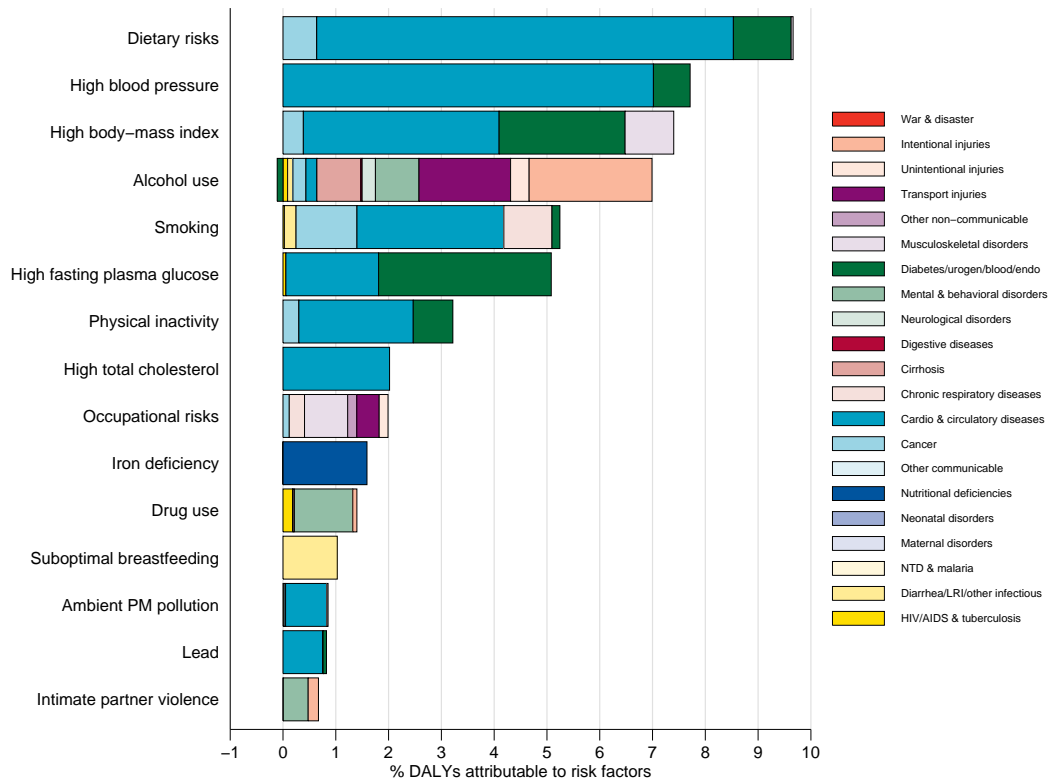


RISK FACTORS

Overall, the three risk factors that account for the most disease burden in Venezuela are dietary risks, high blood pressure, and high body-mass index. The leading risk factors for children under 5 and adults aged 15-49 years were suboptimal breastfeeding and alcohol use, respectively, in 2010.

The graph shows the top 15 risk factors for Venezuela. 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 Venezuela DALYs



COUNTRY BENCHMARKING OF BURDEN OF DISEASE

Understanding the relative performance of Venezuela against other comparator countries provides key insight into public health successes and areas where Venezuela might be falling behind. The table identifies Venezuela'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, Venezuela ranked 4th for age-standardized YLD rate and 9th for age-standardized YLL 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
Lebanon	775	5	514	2	21,908	6	11,877	2	11,630	7	11,150	7	71.2	6	77.5	2	61.4	6	66.7	3
Turkey	942	13	628	5	30,025	14	16,760	7	12,442	12	11,885	12	67.1	14	74.4	7	57.6	13	63.9	9
Uruguay	731	4	585	4	18,332	3	13,126	3	11,007	2	10,540	1	73	3	76.5	4	63.8	3	67	2
Belarus	877	8	914	14	22,551	7	22,829	14	11,589	6	11,578	9	70.4	7	70	14	61.2	7	60.9	13
Bulgaria	864	7	747	11	20,104	5	16,486	6	10,860	1	11,095	6	71.4	5	73.5	11	62.5	5	64.1	7
Mauritius	1,014	14	766	12	24,451	9	17,273	10	11,333	4	10,953	3	68.9	10	73.2	12	60.3	9	63.9	8
Saint Lucia	891	9	722	10	25,875	10	17,785	12	13,328	15	14,233	15	68.9	11	73.7	10	58.6	12	61.6	12
Venezuela	716	3	630	6	19,688	4	17,271	9	11,583	5	10,994	4	72.6	4	74.5	5	62.8	4	64.9	5
Grenada	904	11	850	13	25,983	11	21,313	13	13,149	13	13,076	14	68.9	12	71	13	58.7	11	59.6	14
Kazakhstan	1,043	15	1,043	15	31,524	15	29,881	15	11,955	9	11,587	10	66.2	15	66.7	15	57.3	14	58.2	15
Costa Rica	556	1	462	1	13,705	1	10,447	1	11,672	8	10,948	2	76.6	1	79.4	1	66	1	68.9	1
Romania	895	10	712	9	23,494	8	16,325	5	11,261	3	11,043	5	69.9	8	73.8	9	60.9	8	64.4	6
Panama	634	2	545	3	16,812	2	14,027	4	12,186	11	11,151	8	74.5	2	76.7	3	63.9	2	66.5	4
Iran	934	12	640	7	29,033	13	16,780	8	13,288	14	12,619	13	67.5	13	74.4	6	57.2	15	63.2	11
Brazil	854	6	670	8	26,370	12	17,580	11	12,016	10	11,637	11	69.1	9	74.1	8	59.4	10	63.8	10

COUNTRY BENCHMARKING OF BURDEN OF DISEASE, CONTINUED

This figure shows the rank of Venezuela 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 Venezuela 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	Preterm birth complications	Diarrheal diseases	Ischemic heart disease	Road injury	Lower respiratory infections	Major depressive disorder	Interpersonal violence	Congenital anomalies	Low back pain	Stroke	Neonatal encephalopathy	Iron-deficiency anemia	Diabetes	Asthma	Neonatal sepsis	Epilepsy	Other musculoskeletal	Neck pain	Anxiety disorders	COPD	Falls	Self-harm	Protein-energy malnutrition	Migraine	Drowning		
Lebanon	10	8	9	8	5	7	9	13	9	4	4	8	11	8	8	1	4	3	5	9	15	1	5	3	2		
Turkey	13	14	13	7	13	12	6	10	11	15	6	12	7	10	11	6	3	2	15	12	9	2	10	5	1		
Uruguay	6	4	4	3	3	3	5	7	4	5	8	4	6	5	9	2	15	15	12	4	8	11	7	2	6		
Belarus	2	2	14	12	2	9	10	14	12	8	11	6	2	4	5	5	11	11	3	10	11	14	2	10	14		
Bulgaria	1	1	10	5	9	1	3	8	14	14	3	2	8	1	1	3	7	14	4	8	13	12	1	15	4		
Mauritius	11	6	15	2	8	6	1	1	1	13	9	1	15	15	7	7	1	4	2	13	4	13	13	11	3		
Saint Lucia	15	9	3	10	10	8	11	4	3	9	13	15	14	14	13	12	8	6	7	7	5	8	9	9	12		
Venezuela	9	13	6	13	7	11	14	2	7	2	10	7	12	7	12	14	14	9	10	2	7	9	11	4	5		
Grenada	12	7	7	1	12	13	2	3	2	10	14	14	13	12	14	11	10	7	13	1	6	4	8	8	13		
Kazakhstan	8	12	12	14	15	4	13	12	10	11	15	11	4	2	6	10	12	12	11	15	12	15	6	13	15		
Costa Rica	4	5	1	4	1	10	8	9	6	1	5	3	3	13	4	13	13	8	8	3	2	7	4	6	7		
Romania	3	3	8	9	14	2	4	11	13	12	2	5	1	3	2	4	5	13	1	14	14	10	3	14	10		
Panama	5	11	2	6	4	14	12	6	5	3	7	9	9	11	10	15	9	5	9	5	1	6	14	7	11		
Iran	7	10	11	15	6	15	7	15	15	6	1	13	5	6	3	8	2	1	14	6	10	3	15	1	9		
Brazil	14	15	5	11	11	5	15	5	8	7	12	10	10	9	15	9	6	10	6	11	3	5	12	12	8		
Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 2010																											
Country	Interpersonal violence	Ischemic heart disease	Road injury	Major depressive disorder	HIV/AIDS	Low back pain	Stroke	Diabetes	Preterm birth complications	Lower respiratory infections	Congenital anomalies	Other musculoskeletal	Chronic kidney disease	Neck pain	Anxiety disorders	Diarrheal diseases	Iron-deficiency anemia	Asthma	COPD	Epilepsy	Self-harm	Cirrhosis	Neonatal encephalopathy	Migraine	Drug use disorders		
Lebanon	7	9	4	10	7	8	3	10	7	1	8	4	6	3	8	6	10	7	7	2	1	3	4	3	5		
Turkey	1	10	2	14	1	11	11	6	11	6	13	3	3	2	15	10	11	11	14	6	8	2	5	5	10		
Uruguay	6	4	3	6	9	4	5	4	4	4	2	14	7	15	10	5	2	5	10	1	13	5	2	2	9		
Belarus	9	15	11	13	2	12	12	3	2	3	10	9	5	11	4	3	7	3	9	5	14	13	9	10	14		
Bulgaria	2	13	7	4	3	13	14	7	3	11	5	6	4	14	3	1	4	1	13	3	11	7	3	14	2		
Mauritius	3	8	1	9	15	1	9	15	10	7	6	2	15	4	2	4	1	9	11	7	6	12	8	12	1		
Saint Lucia	12	2	10	1	11	2	8	13	15	10	4	8	8	5	9	9	14	14	2	9	3	6	14	9	12		
Venezuela	15	6	13	8	13	5	2	12	9	8	7	12	14	6	12	15	6	8	5	14	10	9	11	4	4		
Grenada	8	7	6	11	12	3	10	14	6	13	1	15	12	7	5	11	15	13	1	12	2	10	12	8	15		
Kazakhstan	11	14	14	2	8	10	15	5	14	15	11	9	13	13	12	13	2	15	11	15	15	15	13	6	7		
Costa Rica	10	1	5	7	6	6	1	1	5	2	9	13	11	8	6	7	3	15	4	13	9	8	6	7	7		
Romania	4	11	8	3	4	14	13	2	1	14	3	5	2	12	1	2	5	4	8	4	12	14	1	15	3		
Panama	13	3	9	5	14	7	4	11	8	9	12	10	13	9	7	14	9	12	3	15	7	4	10	6	8		
Iran	5	12	15	15	5	15	6	8	12	5	14	1	1	1	14	8	12	6	6	10	4	1	7	1	13		
Brazil	14	5	12	12	10	9	7	9	13	12	11	7	10	10	11	13	8	10	12	8	5	11	13	11	11		
Ranking Legend	1 - 3			4 - 7			8 - 11			12 - 15																	