

GBD PROFILE: MAURITIUS

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.

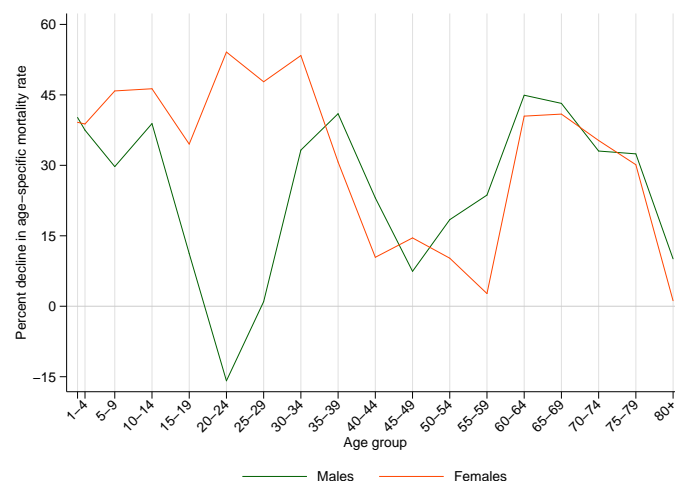
PROFILE OVERVIEW

- In terms of the number of years of life lost (YLLs) due to premature death in Mauritius, ischemic heart disease, diabetes mellitus, and HIV/AIDS were the highest ranking causes in 2010.
- Of the 25 most important causes of burden, as measured by disability-adjusted life years (DALYs), preterm birth complications showed the largest decrease, falling by 58% from 1990 to 2010.
- The leading risk factor in Mauritius 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 females aged 20-24 years (54%). Males aged 20-24 years saw the largest increase in mortality rate (16%).

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



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, Mauritius

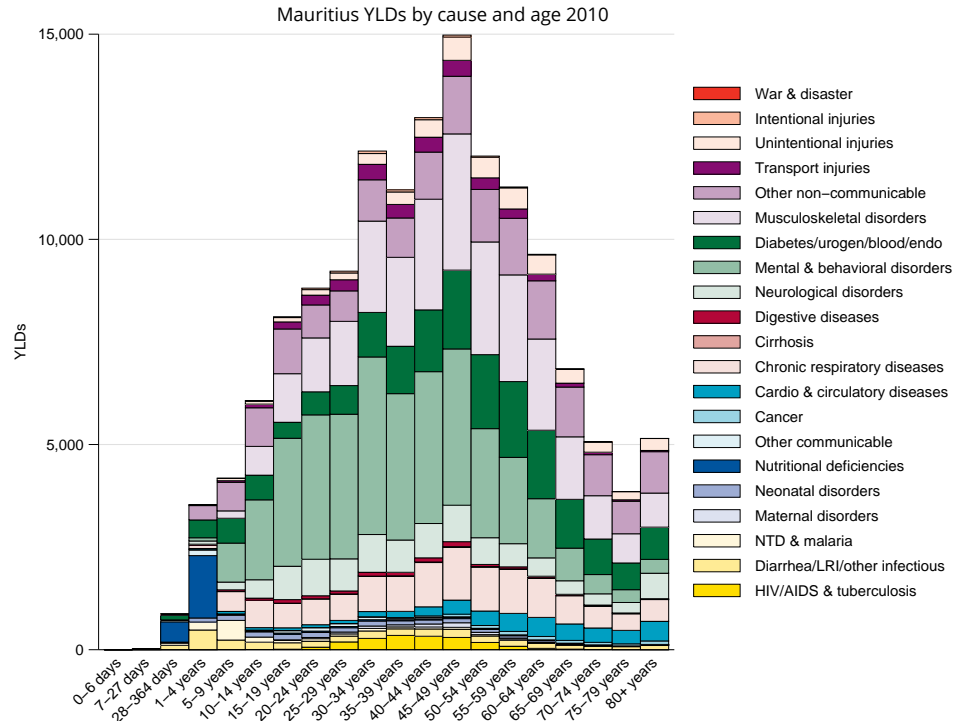
# YLLs in thousands (% of total)	Rank and disorder 1990	Rank and disorder 2010	# YLLs in thousands (% of total)	% change
35 (17.5%)	1 Ischemic heart disease	1 Ischemic heart disease	33 (14.8%)	-11
21 (10.2%)	2 Stroke	2 Diabetes	27 (12.2%)	213
15 (7.2%)	3 Preterm birth complications	3 HIV/AIDS	22 (10.1%)	158
9 (4.4%)	4 Lower respiratory infections	4 Stroke	18 (8.2%)	-19
9 (4.4%)	5 Diabetes	5 Chronic kidney disease	15 (6.8%)	188
6 (3.1%)	6 Cirrhosis	6 Cirrhosis	8 (3.7%)	29
6 (3.1%)	7 Self-harm	7 Lower respiratory infections	6 (2.6%)	-36
6 (3.0%)	8 Congenital anomalies	8 Preterm birth complications	6 (2.6%)	-61
6 (2.7%)	9 Chronic kidney disease	9 Hypertensive heart disease	5 (2.3%)	34
5 (2.4%)	10 Road injury	10 Road injury	5 (2.1%)	-2
5 (2.3%)	11 Asthma	11 Congenital anomalies	4 (1.9%)	-31
7 (3.4%)	12 HIV/AIDS	12 Self-harm	4 (1.8%)	-42
4 (2.2%)	13 Neonatal encephalopathy	13 Asthma	3 (1.4%)	-32
4 (1.8%)	14 Hypertensive heart disease	14 Lung cancer	3 (1.3%)	44
3 (1.6%)	15 COPD	15 Breast cancer	3 (1.3%)	159
3 (1.6%)	16 Diarrheal diseases	16 COPD	3 (1.1%)	-21
3 (1.5%)	17 Other cardio & circulatory	17 Typhoid fevers	3 (1.4%)	-13
4 (1.7%)	18 Typhoid fevers	18 Colorectal cancer	2 (1.0%)	173
3 (1.4%)	19 Fire	19 Other cardio & circulatory	2 (1.0%)	-26
2 (1.0%)	20 Drowning	20 Alcohol use disorders	2 (0.9%)	2
2 (1.0%)	21 Neonatal sepsis	21 Interpersonal violence	2 (0.8%)	45
2 (1.0%)	22 Lung cancer	22 Drowning	2 (0.8%)	-16
2 (0.9%)	23 Stomach cancer	23 Neonatal encephalopathy	2 (0.8%)	-63
2 (0.9%)	24 Protein-energy malnutrition	24 Cardiomyopathy	2 (0.7%)	47
2 (1.0%)	25 Measles	25 Stomach cancer	2 (0.7%)	-15
	26 Alcohol use disorders	29 Fire		
	29 Interpersonal violence	33 Neonatal sepsis		
	32 Breast cancer	39 Diarrheal diseases		
	33 Cardiomyopathy	44 Protein-energy malnutrition		
	37 Colorectal cancer	68 Measles		

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 Mauritius are major depressive disorder, low back pain, diabetes mellitus, chronic obstructive pulmonary disease, and neck pain.

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.

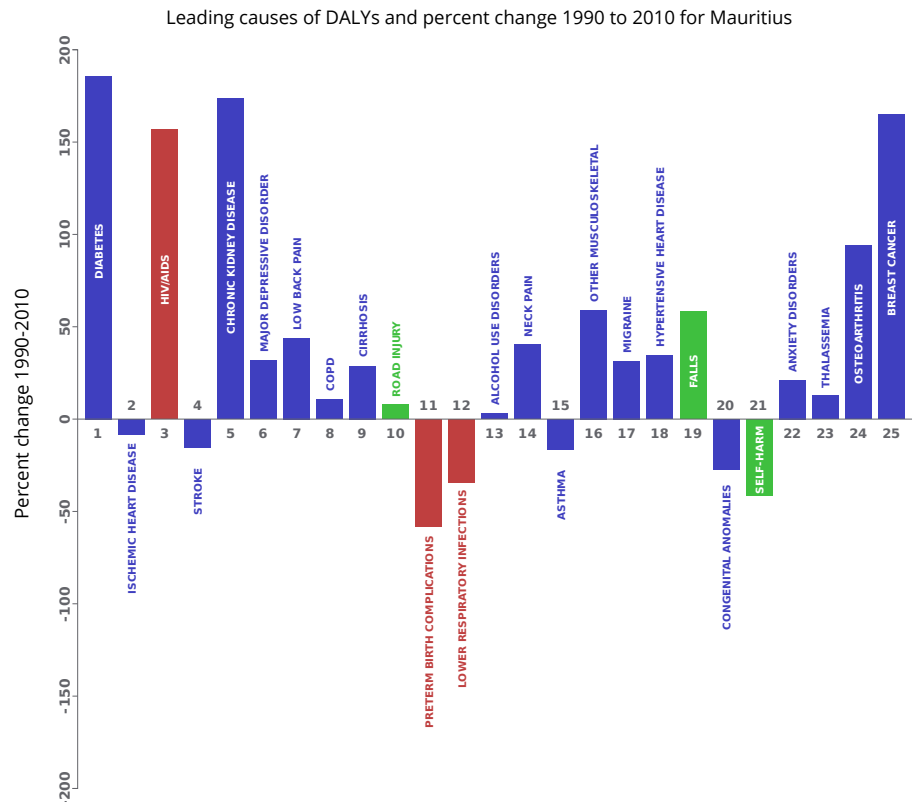


DISABILITY-ADJUSTED LIFE YEARS (DALYs)

Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population. In Mauritius, the top three causes of DALYs in 2010 were diabetes mellitus, ischemic heart disease, and HIV/AIDS. The causes that were in the 10 leading causes of DALYs in 2010 and not 1990 were HIV/AIDS, chronic kidney diseases, and cirrhosis of the liver.

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.

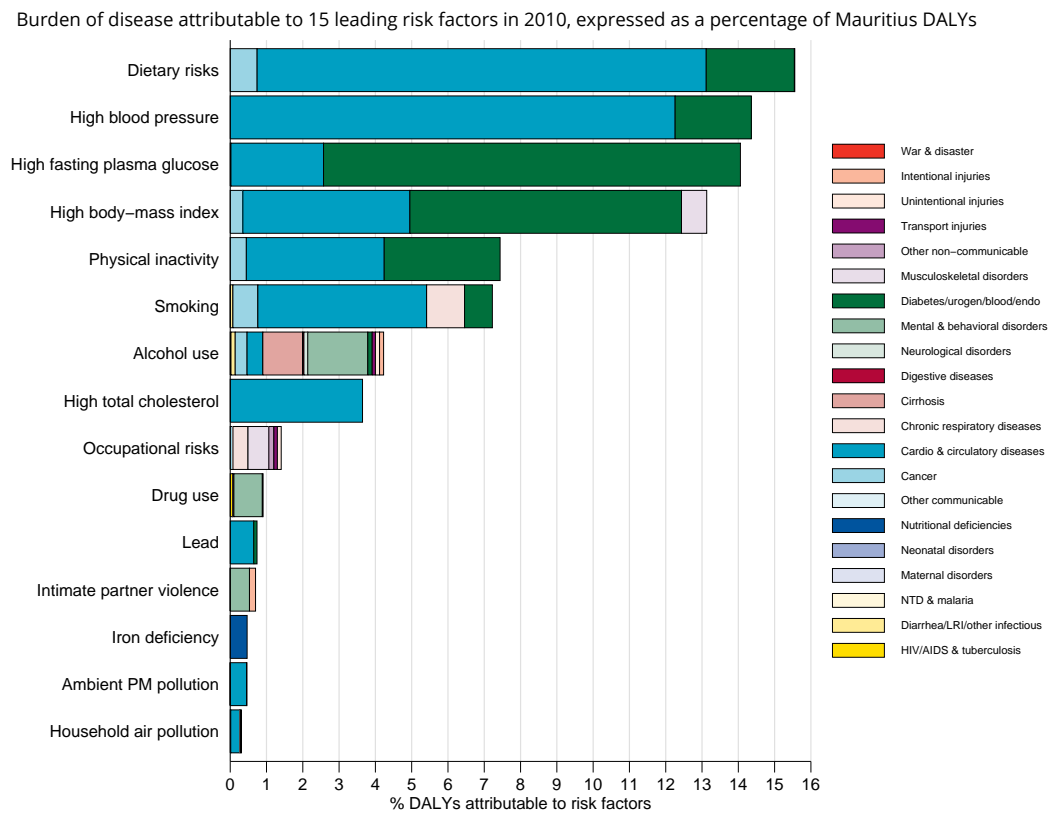
- Communicable, maternal, neonatal, and nutritional
- Non-communicable
- Injuries



RISK FACTORS

Overall, the three risk factors that account for the most disease burden in Mauritius are dietary risks, high blood pressure, and high fasting plasma glucose. The leading risk factors for children under 5 and adults aged 15-49 years were childhood underweight and dietary risks, respectively, in 2010.

The graph shows the top 15 risk factors for Mauritius. 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.



COUNTRY BENCHMARKING OF BURDEN OF DISEASE

Understanding the relative performance of Mauritius against other comparator countries provides key insight into public health successes and areas where Mauritius might be falling behind. The table identifies Mauritius' 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, Mauritius ranked 4th for age-standardized YLD rate and 12th for age-standardized death 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
Argentina	731	4	597	5	19,400	4	14,343	5	11,154	3	10,843	2	72.5	5	76	5	63.2	4	66.1	5
Botswana	951	13	715	9	31,563	15	26,692	14	13,528	15	14,557	15	66.7	14	71	13	56.6	15	59.2	14
Lebanon	775	6	514	2	21,908	7	11,877	2	11,630	8	11,150	8	71.2	7	77.5	2	61.4	7	66.7	3
Turkey	942	12	628	6	30,025	13	16,760	8	12,442	12	11,885	12	67.1	13	74.4	7	57.6	13	63.9	10
Uruguay	731	5	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	8	22,829	13	11,589	7	11,578	10	70.4	8	70	14	61.2	8	60.9	12
Bulgaria	864	7	747	11	20,104	6	16,486	7	10,860	1	11,095	7	71.4	6	73.5	10	62.5	6	64.1	8
Mauritius	1,014	14	766	12	24,451	10	17,273	10	11,333	5	10,953	4	68.9	10	73.2	11	60.3	10	63.9	9
Saint Lucia	891	9	722	10	25,875	11	17,785	11	13,328	14	14,233	14	68.9	11	73.7	9	58.6	12	61.6	11
Venezuela	716	3	630	7	19,688	5	17,271	9	11,583	6	10,994	5	72.6	4	74.5	6	62.8	5	64.9	6
Grenada	904	11	850	13	25,983	12	21,313	12	13,149	13	13,076	13	68.9	12	71	12	58.7	11	59.6	13
Kazakhstan	1,043	15	1,043	15	31,524	14	29,881	15	11,955	10	11,587	11	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	9	10,948	3	76.6	1	79.4	1	66	1	68.9	1
Romania	895	10	712	8	23,494	9	16,325	6	11,261	4	11,043	6	69.9	9	73.8	8	60.9	9	64.4	7
Panama	634	2	545	3	16,812	2	14,027	4	12,186	11	11,151	9	74.5	2	76.7	3	63.9	2	66.5	4

COUNTRY BENCHMARKING OF BURDEN OF DISEASE, CONTINUED

This figure shows the rank of Mauritius 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 Mauritius 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	Stroke	Preterm birth complications	Diabetes	Major depressive disorder	Lower respiratory infections	Low back pain	COPD	Road injury	Congenital anomalies	Asthma	Self-harm	Cirrhosis	Chronic kidney disease	Alcohol use disorders	HIV/AIDS	Neonatal encephalopathy	Diarrheal diseases	Neck pain	Migraine	Hypertensive heart disease	Other musculoskeletal	Other cardio & circulatory	Falls	Fire		
Argentina	6	7	12	5	5	4	5	6	14	4	1	12	3	3	5	5	15	12	15	13	4	15	7	11	1	14	
Botswana	1	6	9	11	6	11	6	14	4	1	12	3	3	5	5	15	12	15	13	4	15	7	11	1	14		
Lebanon	10	4	10	10	8	6	10	9	10	14	8	1	1	2	1	7	3	9	2	3	8	3	6	15	8		
Turkey	13	15	14	7	13	13	12	11	9	11	9	2	4	1	2	1	6	14	1	6	13	2	12	10	7		
Uruguay	5	5	6	6	3	3	4	4	5	7	6	11	6	8	7	10	8	4	14	2	3	14	7	8	5		
Belarus	14	8	2	2	10	2	13	10	13	15	4	14	2	3	15	5	11	2	9	11	2	10	1	11	10		
Bulgaria	11	14	1	8	1	9	15	8	7	8	1	12	9	4	4	2	2	1	12	15	9	5	10	13	4		
Mauritius	15	13	11	15	7	8	1	12	2	2	15	13	14	15	13	14	9	7	3	12	14	1	8	4	15		
Saint Lucia	4	9	15	14	9	10	3	7	12	5	14	7	13	13	14	12	13	10	5	10	12	6	13	5	11		
Venezuela	7	2	8	12	12	7	9	2	14	3	7	8	11	11	6	6	10	13	8	5	11	13	4	7	3		
Grenada	8	10	13	13	14	12	2	1	1	4	11	4	7	14	12	13	14	8	6	9	7	9	15	6	13		
Kazakhstan	12	11	7	4	4	15	11	15	15	13	2	15	12	7	8	3	15	12	10	13	5	11	2	12	12		
Costa Rica	2	1	4	3	11	1	8	3	6	10	13	6	10	9	9	8	4	5	7	7	4	12	5	3	1		
Romania	9	12	3	1	2	14	14	13	11	12	3	10	15	6	10	4	1	3	11	14	10	4	14	14	9		
Panama	3	3	5	9	15	5	7	5	8	6	10	5	5	10	3	11	7	11	4	8	1	8	3	2	2		
Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 2010																											
Country	Diabetes	Ischemic heart disease	HIV/AIDS	Stroke	Chronic kidney disease	Major depressive disorder	Low back pain	COPD	Cirrhosis	Road injury	Preterm birth complications	Lower respiratory infections	Alcohol use disorders	Neck pain	Asthma	Other musculoskeletal	Migraine	Hypertensive heart disease	Falls	Congenital anomalies	Self-harm	Anxiety disorders	Thalassemia	Osteoarthritis	Breast cancer		
Argentina	4	6	8	4	9	10	5	8	7	5	12	12	10	15	5	14	1	6	7	12	12	14	4	2	13		
Botswana	9	1	15	6	6	15	6	14	3	11	10	9	9	13	10	6	4	13	1	1	2	13	1	6	1		
Lebanon	10	10	6	3	5	11	10	6	2	4	7	1	1	2	7	3	3	5	15	9	1	8	14	1	15		
Turkey	7	11	1	11	2	14	12	13	1	2	13	5	2	1	11	2	6	8	8	14	7	15	13	15	7		
Uruguay	5	5	9	7	7	6	4	10	5	3	4	4	6	14	6	13	2	2	6	3	13	10	8	3	14		
Belarus	3	15	2	12	4	13	13	9	13	13	2	3	15	9	3	8	11	3	12	11	14	4	10	5	11		
Bulgaria	8	13	3	14	3	4	14	12	8	8	3	11	3	12	1	5	14	15	13	6	10	3	11	11	10		
Mauritius	15	9	14	9	15	9	1	11	12	1	11	6	11	3	9	1	12	11	5	7	5	2	15	4	5		
Saint Lucia	13	3	10	8	8	1	2	2	6	12	15	10	12	4	14	7	10	7	9	5	4	9	3	7	6		
Venezuela	12	7	12	2	14	8	7	5	10	14	9	7	5	5	8	11	5	9	4	8	9	11	6	10	4		
Grenada	14	8	11	10	12	12	3	1	11	7	6	13	13	6	13	15	9	12	10	2	3	5	2	9	9		
Kazakhstan	6	14	7	15	10	2	11	15	15	15	14	15	14	11	2	10	13	10	11	15	15	12	12	14	12		
Costa Rica	1	2	5	1	11	7	8	4	9	6	5	2	8	7	15	12	8	4	3	10	8	6	9	12	3		
Romania	2	12	4	13	1	3	15	7	14	9	1	14	7	10	4	4	15	14	14	4	11	1	5	13	8		
Panama	11	4	13	5	13	5	9	3	4	10	8	8	4	8	12	9	7	1	2	13	6	7	7	8	2		
Ranking Legend	1 - 3			4 - 7			8 - 11			12 - 15																	