

GBD PROFILE: PHILIPPINES

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.

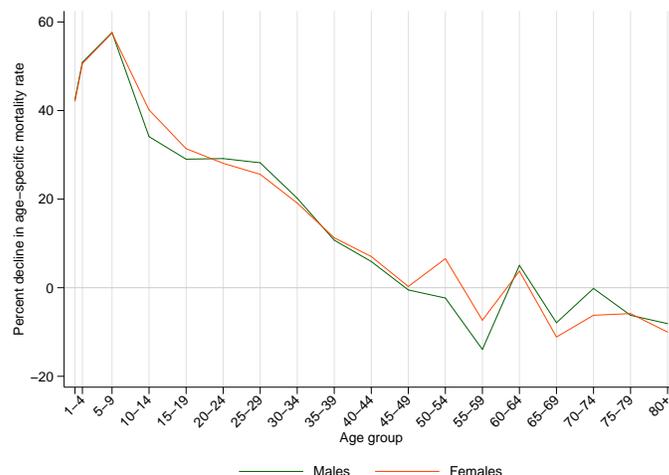
PROFILE OVERVIEW

- In terms of the number of years of life lost (YLLs) due to premature death in the Philippines, lower respiratory infections, ischemic heart disease, and cerebrovascular disease were the highest ranking causes in 2010.
- Of the 25 most important causes of burden, as measured by disability-adjusted life years (DALYs), lower respiratory infections showed the largest decrease, falling by 47% from 1990 to 2010.
- The leading risk factor in the Philippines 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 5-9 years (58%). Males aged 55-59 years saw the largest increase in mortality rate (14%).

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



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, Philippines

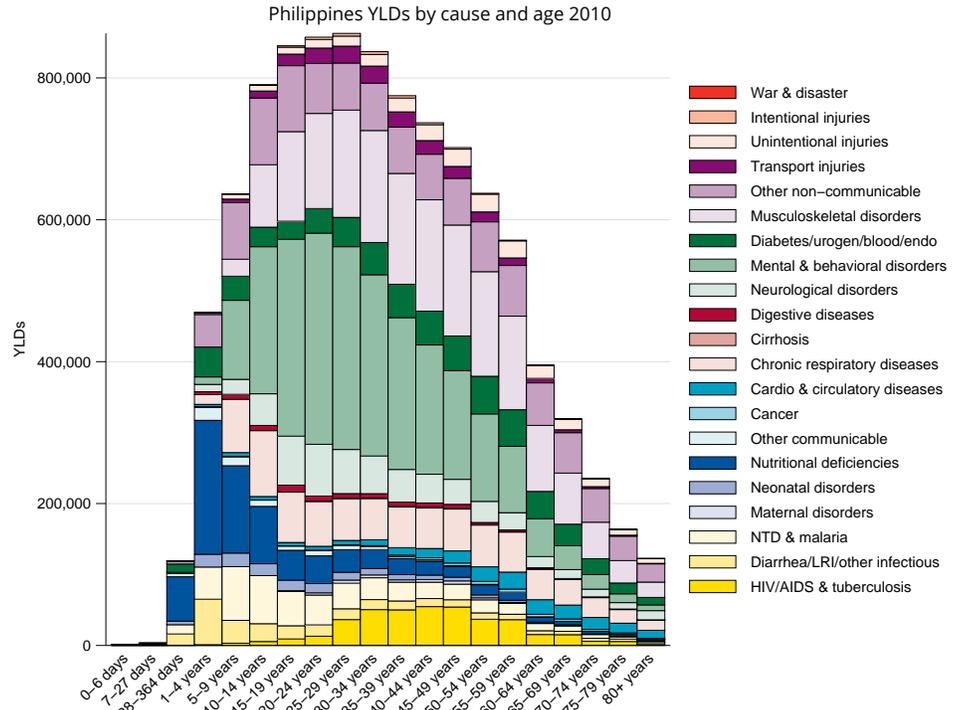
# YLLs in thousands (% of total)	Rank and disorder 1990	Rank and disorder 2010	# YLLs in thousands (% of total)	% change
3,690 (21.4%)	1 Lower respiratory infections	1 Lower respiratory infections	2,000 (11.1%)	-47
1,106 (6.4%)	2 Preterm birth complications	2 Ischemic heart disease	1,642 (9.1%)	92
948 (5.5%)	3 Tuberculosis	3 Stroke	1,185 (6.6%)	102
852 (4.9%)	4 Ischemic heart disease	4 Preterm birth complications	1,088 (6.0%)	-1
698 (4.0%)	5 Protein-energy malnutrition	5 Tuberculosis	846 (4.7%)	-11
642 (3.7%)	6 Congenital anomalies	6 Interpersonal violence	813 (4.5%)	135
593 (3.4%)	7 Stroke	7 Congenital anomalies	753 (4.2%)	27
483 (2.8%)	8 Measles	8 Diabetes	456 (2.5%)	404
374 (2.2%)	9 Interpersonal violence	9 Neonatal encephalopathy	454 (2.5%)	39
327 (1.9%)	10 Diarrheal diseases	10 Diarrheal diseases	430 (2.4%)	38
321 (1.9%)	11 Neonatal encephalopathy	11 Road injury	416 (2.3%)	81
290 (1.7%)	12 Meningitis	12 Chronic kidney disease	385 (2.1%)	175
301 (1.7%)	13 Self-harm	13 Hypertensive heart disease	368 (2.0%)	152
272 (1.6%)	14 Asthma	14 Cirrhosis	302 (1.7%)	162
247 (1.4%)	15 COPD	15 Typhoid fevers	379 (2.1%)	37
235 (1.4%)	16 Road injury	16 Lung cancer	275 (1.5%)	17
230 (1.3%)	17 Drowning	17 Drowning	253 (1.4%)	11
272 (1.6%)	18 Typhoid fevers	18 Asthma	245 (1.4%)	-9
202 (1.2%)	19 Lung cancer	19 Meningitis	235 (1.3%)	-19
186 (1.1%)	20 Maternal disorders	20 Liver cancer	213 (1.2%)	20
169 (1.0%)	21 Liver cancer	21 COPD	208 (1.1%)	-16
161 (0.9%)	22 Rheumatic heart disease	22 Breast cancer	181 (1.0%)	195
153 (0.9%)	23 Peptic ulcer	23 Measles	207 (1.1%)	-57
154 (0.9%)	24 Mechanical forces	24 Leukemia	167 (0.9%)	46
147 (0.9%)	25 Hypertensive heart disease	25 Neonatal sepsis	229 (1.3%)	55
	26 Chronic kidney disease	26 Rheumatic heart disease		
	27 Cirrhosis	27 Self-harm		
	29 Leukemia	28 Peptic ulcer		
	30 Diabetes	29 Protein-energy malnutrition		
	37 Breast cancer	32 Maternal disorders		
	38 Neonatal sepsis	44 Mechanical forces		

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 the Philippines are low back pain, major depressive disorder, iron-deficiency anemia, chronic obstructive pulmonary disease, and tuberculosis.

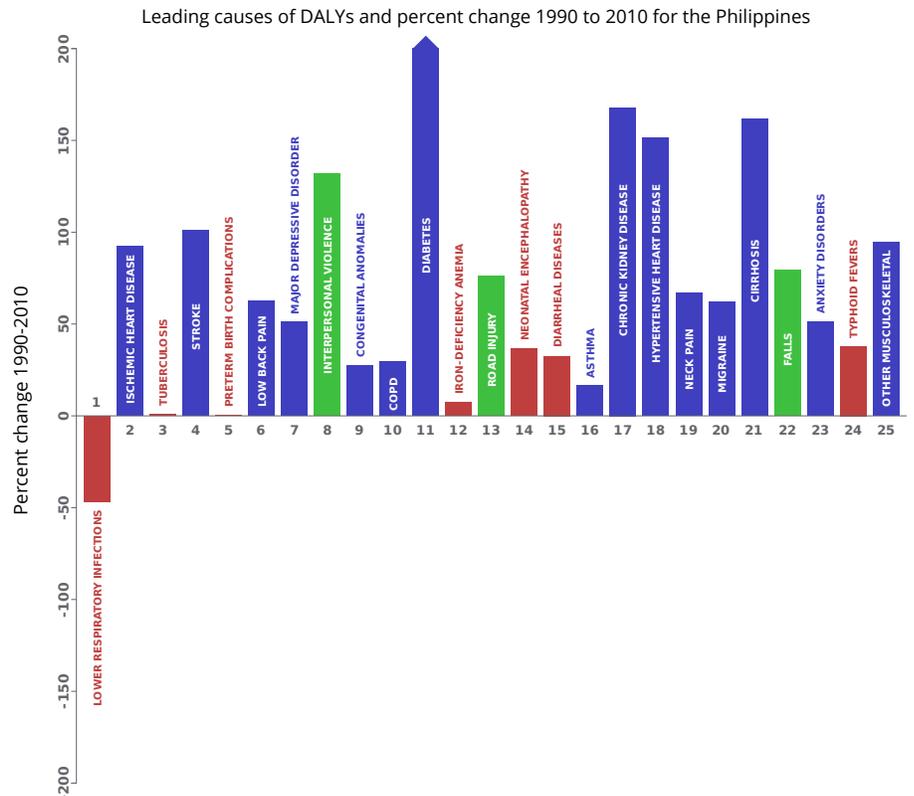
The size of the colored portion in each bar represents the number of YLDs attributable to each cause. The height of each bar shows which age groups had the most YLDs in 2010. The causes are aggregated. For example, musculoskeletal disorders include low back pain and neck pain.



DISABILITY-ADJUSTED LIFE YEARS (DALYs)

Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population. In the Philippines, the top three causes of DALYs in 2010 were lower respiratory infections, ischemic heart disease, and tuberculosis. Two causes that appeared in the 10 leading causes of DALYs in 2010 and not 1990 were interpersonal violence and chronic obstructive pulmonary disease.

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.

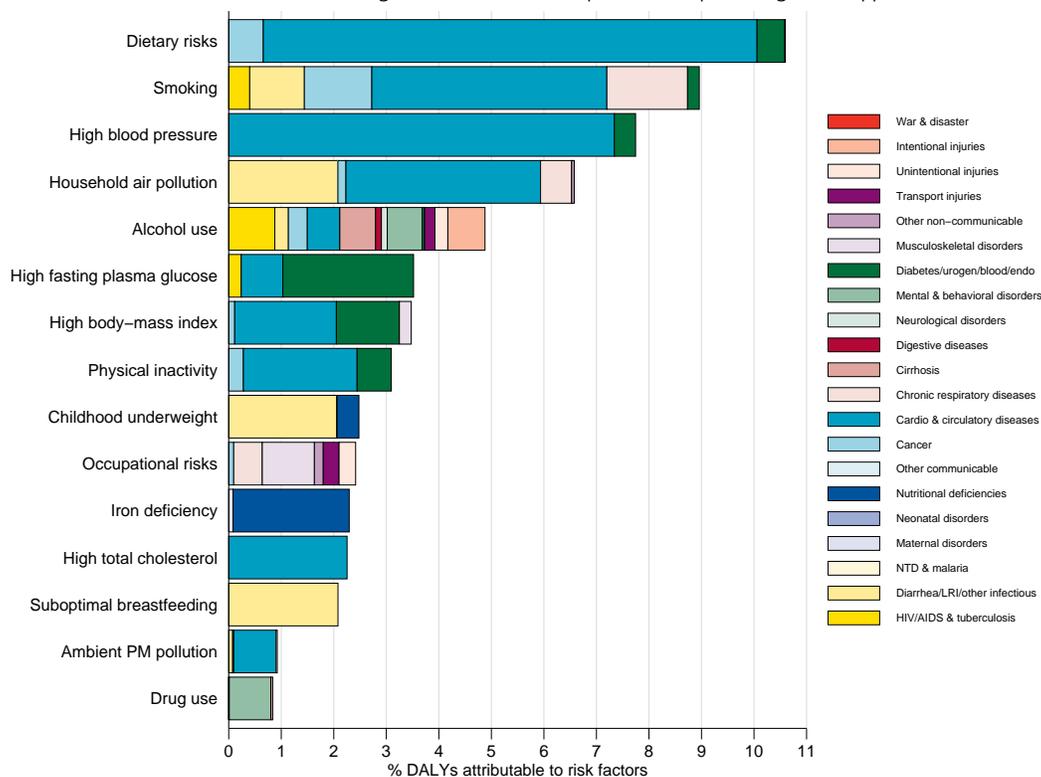


RISK FACTORS

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

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

The graph shows the top 15 risk factors for the Philippines. 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 the Philippines against other comparator countries provides key insight into public health successes and areas where the Philippines might be falling behind. The table identifies the Philippines' 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, the Philippines ranked 7th for life expectancy and 9th for health-adjusted life expectancy.

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
Indonesia	1,033	9	867	7	34,584	9	24,178	9	12,101	3	11,107	2	65	9	69.7	9	56.2	9	60.9	7
Honduras	869	5	784	6	26,454	6	20,507	5	12,940	9	12,485	9	68.9	6	71.8	5	58.8	7	61.6	5
Iraq	809	4	783	5	24,631	2	22,488	6	12,166	4	11,933	6	69.9	3	70.9	6	59.8	3	60.8	8
Federated States of Micronesia	1,476	13	1,258	13	42,732	11	31,526	10	13,632	12	12,681	12	61.1	11	65.6	11	52.3	12	56.7	10
Kiribati	1,879	15	1,528	15	58,098	14	43,508	14	15,513	15	14,585	15	56	14	61	14	47.2	14	51.8	14
Congo	1,696	14	1,401	14	60,756	15	49,063	15	15,443	14	14,357	14	54.7	15	58.8	15	46	15	49.9	15
Cape Verde	785	2	586	1	25,843	4	16,730	2	13,500	11	12,947	13	69.8	4	75.1	2	59.1	6	63.7	3
Philippines	909	7	868	8	28,515	8	23,262	8	13,334	10	12,483	8	67.8	8	70.1	7	57.8	8	60.3	9
Mongolia	1,283	11	1,218	12	44,720	12	34,325	13	11,523	1	11,482	4	60.5	12	64.6	13	52.8	11	56.5	12
India	1,447	12	1,097	11	50,084	13	33,366	11	13,727	13	12,494	10	58.3	13	65.2	12	49.8	13	56.2	13
Vietnam	876	6	595	2	26,230	5	15,123	1	12,188	5	10,909	1	68.9	5	75.6	1	59.5	4	65.8	1
Moldova	1,000	8	912	9	26,698	7	22,769	7	11,653	2	11,362	3	68.1	7	70	8	59.3	5	61	6
Nicaragua	762	1	652	3	25,101	3	16,911	3	12,459	6	11,835	5	70.3	2	74.4	3	60.1	1	64	2
Palestine	794	3	694	4	23,225	1	18,413	4	12,827	7	12,639	11	70.6	1	73.2	4	59.9	2	62.2	4
Pakistan	1,120	10	982	10	41,231	10	33,518	12	12,877	8	12,323	7	62.3	10	65.7	10	53.3	10	56.5	11

COUNTRY BENCHMARKING OF BURDEN OF DISEASE, CONTINUED

This figure shows the rank of the Philippines 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 the Philippines 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	Lower respiratory infections	Tuberculosis	Preterm birth complications	Ischemic heart disease	Protein-energy malnutrition	Congenital anomalies	Stroke	Low back pain	Major depressive disorder	Iron-deficiency anemia	COPD	Asthma	Diarrheal diseases	Measles	Interpersonal violence	Neonatal encephalopathy	Meningitis	Road injury	Self-harm	Drowning	Lung cancer	Maternal disorders	Neck pain	Typhoid fevers	Migraine		
Indonesia	14	15	4	2	9	5	11	6	7	11	5	4	8	13	1	11	9	12	3	3	9	11	7	15	11		
Honduras	2	4	9	12	7	1	5	4	15	8	7	11	11	6	15	7	2	6	5	6	2	6	10	5	7		
Iraq	4	3	2	13	3	14	6	12	4	7	3	5	6	5	6	4	6	3	1	2	6	10	3	8	2		
Federated States of Micronesia	8	9	6	10	12	4	12	8	6	6	10	14	7	7	9	5	13	9	14	12	8	9	9	3	5		
Kiribati	10	14	8	11	14	3	15	9	10	5	12	15	15	9	7	10	15	11	15	14	10	13	8	4	4		
Congo	9	10	12	6	15	10	10	3	13	13	13	9	13	14	11	8	14	15	8	8	5	15	14	9	3		
Cape Verde	5	6	3	3	10	2	7	11	8	14	9	10	9	8	5	3	10	4	4	4	3	8	15	11	14		
Philippines	13	12	7	7	11	6	4	13	9	9	11	12	3	10	14	1	5	1	11	7	14	7	5	14	10		
Mongolia	15	7	11	14	4	11	14	10	1	1	6	2	4	2	8	14	12	14	10	13	13	5	13	1	12		
India	11	13	15	9	13	7	2	7	3	15	15	13	14	15	2	13	11	10	12	10	4	14	1	12	13		
Vietnam	6	8	5	1	5	8	8	2	2	10	8	6	5	12	3	2	7	7	7	15	12	3	6	10	9		
Moldova	3	2	1	15	1	13	9	15	11	2	4	1	1	1	12	9	1	13	13	11	15	1	12	2	8		
Nicaragua	7	5	10	5	6	9	3	5	12	3	2	8	10	3	10	12	4	5	6	5	1	4	11	6	6		
Palestine	1	1	14	8	2	15	13	14	14	4	1	3	2	4	13	6	3	8	2	1	11	2	2	7	1		
Pakistan	12	11	13	4	8	12	1	1	5	12	14	7	12	11	4	15	8	2	9	9	7	12	4	13	15		
Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 2010																											
Country	Lower respiratory infections	Ischemic heart disease	Tuberculosis	Stroke	Preterm birth complications	Low back pain	Major depressive disorder	Interpersonal violence	Congenital anomalies	COPD	Diabetes	Iron-deficiency anemia	Road injury	Neonatal encephalopathy	Diarrheal diseases	Asthma	Chronic kidney disease	Hypertensive heart disease	Neck pain	Migraine	Cirrhosis	Falls	Anxiety disorders	Typhoid fevers	Other musculoskeletal		
Indonesia	7	3	15	13	9	6	8	1	5	7	12	11	14	13	12	5	8	11	6	10	9	3	7	15	4		
Honduras	3	10	3	4	8	4	15	15	1	6	4	4	8	7	11	12	4	7	10	7	5	1	12	6	12		
Iraq	8	13	2	7	7	12	5	12	14	3	13	10	3	9	6	8	10	14	3	2	1	5	4	8	5		
Federated States of Micronesia	9	9	9	12	2	11	3	6	3	8	14	7	6	2	8	14	12	5	9	5	10	11	5	3	14		
Kiribati	11	7	11	14	4	10	12	10	6	11	15	5	11	10	10	15	14	4	8	4	13	13	14	4	15		
Congo	15	8	14	10	12	3	13	13	15	13	8	13	15	11	15	10	6	12	14	3	12	12	13	9	10		
Cape Verde	4	2	5	5	3	9	9	4	2	9	5	14	9	3	9	9	2	2	15	12	2	6	3	11	9		
Philippines	12	12	13	8	11	13	11	14	9	10	10	9	2	5	5	13	9	15	5	9	4	4	9	13	3		
Mongolia	13	15	8	15	10	7	6	8	10	12	2	2	13	14	4	2	11	13	13	13	14	9	8	1	11		
India	10	11	10	2	15	8	2	3	7	15	6	15	12	12	13	11	3	8	2	14	7	15	6	12	1		
Vietnam	2	1	6	6	5	2	1	2	4	5	1	1	10	1	3	4	5	1	7	11	6	7	1	10	6		
Moldova	5	14	7	9	1	15	4	7	8	4	3	6	7	4	1	1	1	3	12	8	15	10	2	2	8		
Nicaragua	6	4	4	1	6	5	10	9	12	2	9	3	1	8	7	7	15	9	11	6	8	2	11	5	13		
Palestine	1	6	1	11	13	14	14	11	11	1	11	8	5	6	2	3	13	6	1	1	3	8	15	7	7		
Pakistan	14	5	12	3	14	1	7	5	13	14	7	12	4	15	14	6	7	10	4	15	11	14	10	14	2		
Ranking Legend	1 - 3			4 - 7			8 - 11			12 - 15																	