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 Portugal, cerebrovascular disease, ischemic heart 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), road injury showed the largest decrease, falling by 51% from 1990 to 2010.
- The leading risk factor in Portugal 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 <1 year (76%). Males aged 80+ years saw the smallest decrease in mortality rate (14%).

CAUSES OF PREMATURE DEATH

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

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 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 Portugal 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 Portugal, the top three causes of DALYs in 2010 were low back pain, cerebrovascular disease, and ischemic heart disease. The causes that were in the 10 leading causes of DALYs in 2010 and not 1990 were trachea, bronchus, and lung cancers, neck pain, and colon and rectum cancers.

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.
Overall, the three risk factors that account for the most disease burden in Portugal 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 tobacco smoking and alcohol use, respectively, in 2010. Tobacco smoking as a risk factor for children is due to second-hand smoke exposure.

COUNTRY BENCHMARKING OF BURDEN OF DISEASE

Understanding the relative performance of Portugal against other comparator countries provides key insight into public health successes and areas where Portugal might be falling behind. The table identifies Portugal'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, Portugal ranked 3rd for age-standardized death rate and 3rd for age-standardized YLL rate.

<table>
<thead>
<tr>
<th>Country</th>
<th>Age-standardized death rate (per 100,000)</th>
<th>Life expectancy at birth</th>
<th>Health-adjusted life expectancy at birth</th>
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http://www.healthmetricsandevaluation.org
### Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 1990

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<th>Country</th>
<th>Stroke</th>
<th>Ischemic heart disease</th>
<th>Low back pain</th>
<th>Road injury</th>
<th>Major depressive disorder</th>
<th>Diabetes</th>
<th>Carcinoma</th>
<th>Falls</th>
<th>COPD</th>
<th>Stomach cancer</th>
<th>Neck pain</th>
<th>Lower respiratory infections</th>
<th>Self-harm</th>
<th>Other musculoskeletal</th>
<th>Lung cancer</th>
<th>Asthma</th>
<th>Congenital anomalies</th>
<th>Congenital disorders</th>
<th>Anxiety disorders</th>
<th>Breast cancer</th>
<th>Migraine</th>
<th>Chronic kidney disease</th>
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<th>Other cardio &amp; circulatory</th>
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Seattle, WA 98121 USA

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