

Leading Causes of Death in Spain Are Ischaemic Heart Disease, Dementia and Stroke

The Global Burden of Disease study in Spain reveals a substantial decline in deaths due to traffic accidents and diabetes as well as a considerable reduction in smoking.

Barcelona, 26 July 2018.- In Spain, 418,516 people died in 2016, 80% of whom were aged 70 years or older. **Non-communicable diseases were the cause in 92.8% of cases**, accidents in 3.6%, and infectious diseases in 3.5%. These were just some of the findings of the Global Burden of Disease (GBD) study in Spain, which has just been [published in the journal Medicina Clínica](#). The Spanish arm of the GBD, a study undertaken with the participation of 23 hospitals in Spain, was coordinated by researchers from the Autonomous University of Madrid, Hospital la Princesa and the Barcelona Institute for Global Health (ISGlobal), an institute supported by the "la Caixa" Banking Foundation.

The **five main causes of death** in Spain are, in descending order, **ischaemic heart disease**, which accounted for 14.6% of all deaths, **Alzheimer disease and other dementias** (13.6%), **stroke** (7.1%), **chronic obstructive pulmonary disease (COPD)** (6.9%) and **lung cancer** (5%).

The GBD, which is the only comprehensive and peer-reviewed annual evaluation of global health trends, provides global and national estimates for over 330 diseases, injuries, and causes of death in 195 countries and regions worldwide. The project, which is coordinated by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington in Seattle (USA), involves almost 4,000 collaborators in 130 countries and regions, including **more than 30 professionals working in 21 hospitals and research institutes in Spain**. The Spanish GBD study is the most updated and exhaustive "check-up" of Spain's performance in health, and the global framework provided by the GBD facilitates the comparison of our results with those of other countries.

According to the latest study, **traffic accidents fell to 32nd place on the list of causes of death in 2016. This is a significant change from 1990, when these accidents were in 8th position on the list**. This improvement could be due to a number of different factors, including legislation obliging drivers and passengers to wear safety belts (outside of urban areas since 1974 and within urban areas since 1992) and obliging all motorcyclists to wear helmets irrespective of the cylinder capacity of their vehicle and the type of road. Tax incentives for renewing older cars, improvements in roads, and a reduction in traffic due to the economic recession of 2008 may also have contributed to this decline.

Another significant change in the list of causes of death was the **shift of diabetes from 6th to 10th place** during the same period, with a decrease of over 26% in relative rates.

The study findings also reveal a substantial decrease in **smoking in the Spanish population between 1980 and 2016**. This was greater among men (from 41% to 26%) than women (from 21% to 17%). In the case of women, the decline stopped in 2005.

Dr. Joan B Soriano, associate professor at the Autonomous University of Madrid and Hospital La Princesa and coordinator of the GBD study in Spain, comments, "These results

offer us a global view of health in Spain and allow us to compare the situation here with that of other similar countries. By collaborating with colleagues from 23 hospitals and research centres we can make the most of this data and prioritise health interventions. The good results obtained in traffic accidents, diabetes and smoking are excellent news.”

The **comparison of the data for Spain in 2016 with those of neighbouring countries**, such as Portugal, France and other Western Europe countries, **confirms that the 10 leading causes of disease are very similar**, with the exception of Alzheimer and other dementias, which is the 3rd cause of death in Spain but occupies 6th place in Western Europe, Portugal and France. In fact, between 1990 and 2006, the trends in the 10 main causes of death were similar in Spain and the countries mentioned above.

The five leading causes of morbidity and mortality in terms of disability-adjusted life years (DALYS) were **low back and neck pain, ischaemic heart disease, Alzheimer, sense organ disorders and lung cancer**. Josep M. Haro, Director of Research, Innovation and Teaching at Parc Sanitari Sant Joan de Déu and co-author of the study, explains, “Compared with the results from a decade ago, the rise of low back and neck pain to the first cause of disability in Spain, and the appearance of migraine in 6th place and depressive disorders in 9th place, indicate an epidemiological shift in chronic non-communicable diseases. It is also interesting to note that suicide has fallen to 23rd position, with an adjusted decrease of 12% since 2006.”

The results reveal gender differences in risk factors. **Among men, smoking is the leading risk factor**, followed by drug and alcohol consumption, high blood pressure and dietary disorders. **Among women, obesity** is the top risk factor, followed by high blood pressure, dietary disorders, high fasting blood sugar, drug and alcohol consumption, and smoking. Air pollution is the 10th highest risk factors in both men and women.

Josep M Antó, scientific director of the Barcelona Institute for Global Health (ISGlobal) and co-author of the study, makes the point that “the GBD and these results represent an exceptional contribution to our understanding of health trends and the impact of different problems in Spain. By measuring the impact of health problems and by integrating data on risk factors and the frequency of each disease in Spain into a comparative international framework, this study represents an improvement in the information available to inform and assess public policies. Spain should incorporate the BDG into existing state information systems and disaggregate the data by region as other countries are doing.”

Among other positive results, **mortality in children under 5 years**, already one of the lowest in the world in 2006, **has since then fallen by 3% annually**. In 2016 there were 208,900 deaths in men and 209,600 deaths in women. Life expectancy in Spain in 2016 was 80.3 years in men and 85.6 years in women, the 4th highest in the world, and healthy life expectancy was 71 and 74 years, respectively.

Dr. **Soriano** concludes with the following comment: “In a universal and free healthcare system like we have in Spain, these findings indicate that the patient (in this case Spain) enjoys relatively good health, with some of the best figures in Europe in terms of longevity and the efficiency of the health system. Nevertheless, to improve our WHO Sustainable Development Goals index by 2030, more work needs to be done to control risk factors such as alcohol abuse and to further reduce smoking, particularly among adolescents, and overweight and obesity in children. Furthermore, all the Spanish GBD collaborators unanimously agree on the need to work with Spain’s regional governments to achieve results in each of the country’s 17 autonomous communities.”

Professor Christopher Murray, Director of the IHME in Seattle and co-founder of the GBD study, comments on another aspect. “Spain has an excellent cause of death registry, which the GBD has awarded 4 stars out of a maximum of 5. The Spanish population, like people in many other countries, face significant health risks due to non-communicable diseases as well as a series of risk factors, including smoking, high blood pressure and obesity.”

Reference

Joan B. Soriano, David Rojas-Rueda, Jordi Alonso, Josep M. Antó, Pere-Joan Cardona, et al. La carga de enfermedad en España: resultados del Estudio de la Carga Global de las Enfermedades 2016. *Medicina Clínica*. 2018 Jul 20. pii: S0025-7753(18)30331-2. [doi: 10.1016/j.medcli.2018.05.011](https://doi.org/10.1016/j.medcli.2018.05.011). [Epub ahead of print]

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About ISGlobal

The Barcelona Institute of Global Health (ISGlobal) is the result of an innovative alliance between the “la Caixa” Foundation and academic and government institutions. The Institute was set up to contribute to the work undertaken by the international community to address global health challenges. ISGlobal has consolidated a hub of excellence in research and medical care that has its roots in work first started in the world of health care by the Hospital Clínic and the Mar Health Park and in the academic sphere by the University of Barcelona and Pompeu Fabra University. The pivotal mechanism of its work model is the transfer of knowledge generated by scientific research to practice, a task undertaken by the Institute's Education and Policy and Global Development departments. ISGlobal is a member of CERCA, the Catalan Government's network of research centres.

About the Institute of Health Metrics and Evaluation (IHME)

The Institute of Metrics and Health Evaluation (IHME) is an independent health research institute located in Seattle at the University of Washington. It provides a rigorous and comparative evaluation of the most important health problems in the world and the strategies used to address them. IHME also makes this information widely available to ensure that legislators have the evidence they need to make informed decisions about the allocation of resources aimed at improving the health of the population.

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