

# Depressive disorders were the fourth leading cause of global disease burden in the year 2000

Üstün TB, Ayuso-Mateos JL, Chatterji S, *et al.* Global burden of depressive disorders in the year 2000. *Br J Psychiatry* 2004;**184**:386–92.



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## Q What is the contribution of depressive disorders to the global burden of disease in the year 2000?

### METHODS

**Design:** Systematic review.

**Setting:** The six WHO regions (Africa, America, Eastern Mediterranean, Europe, South-East Asia, and Western Pacific).

**Population:** World population in the year 2000: 6 045 170 000 (males: 3 045 370 000; females: 2 999 800 000).

**Analysis:** Disability adjusted life years (DALYs) were calculated from estimates of mortality rates, prevalence, incidence, average age of onset, severity, and duration of depressive episodes. Depressive episodes were defined by ICD-10, DSM-IV, and DSM-III-R codes. The duration of depressive episodes was taken as six months and was established from data sources including the National Comorbidity Survey and the NEMESIS study in the Netherlands. Prevalence estimates were based on a systematic review of published and unpublished studies and a multicountry WHO survey (2000–01). Incidence was estimated from cross sectional population prevalence surveys and calculated using the formula  $P = I \times D$ , where P is prevalence, I is incidence, and D is duration. Years lived with disability (YLD) and severity estimates were based on three different severity levels: mild, moderate, severe, with a Dutch disability weighting of 0.14, 0.35, and 0.76 respectively.

**Outcomes:** Disability adjusted life years (DALYs); years lived with disability (YLD).

### MAIN RESULTS

Unipolar depressive disorders accounted for 4.46% of total worldwide disability adjusted life years (DALYs) in the year 2000 (see <http://www.ebmentalhealth.com/supplemental> for table). Depression accounted for 12% of the total number of years lived with disability (YLD), worldwide. The global incidence of depressive disorders in the year 2000 was estimated to be higher for women than men (women: 4930 per 100 000/year; men: 3199 per 100 000/year). Globally, depressive disorders are the fourth most common cause of disease burden in women and the seventh most common cause in men (5.6% for women *v* 3.4% in men).

### CONCLUSIONS

In the year 2000, depressive disorders were a leading cause of global disease burden in developed and developing countries, representing a major public health problem.

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### NOTES

The authors acknowledge that the estimates for the Global Burden of Disease 2000 (GBD 2000) analysis may still be lower than the actual prevalence of depression due to the lack of data from some regions of the world.

### Commentary

As a result of the 1990 Global Burden of Disease Study (GBD) it became obvious that depressive disorders constitute one of the leading causes of disease burden worldwide.<sup>1</sup> A major methodological advance was the introduction of a comprehensive measure of disease burden, allowing the comparison of all relevant diseases and injuries. In contrast to previous studies that had been restricted to mortality, the measure of disability adjusted life years (DALYs) used in the GBD additionally reflects non-fatal health outcomes of various dimensions, which are by far the most prominent share of the burden caused by depression.

The study presented by Üstün and colleagues provides a methodological update primarily based on the growing knowledge in psychiatric epidemiology. The major improvement of these new estimates is a more solid empirical database. When interpreting this study it is important to keep the following points in mind: firstly, although demographic changes have been considered, this update was not designed to reflect epidemiological trends over the past decade. Secondly, in psychiatric epidemiology, case definition is crucial especially for the comparison of data from various cultural settings. In the past decade, after the pioneering Epidemiological Catchment Area Study had established standardised psychiatric instruments,<sup>2</sup> reliable and valid case identification became possible in large general population studies across many countries. Thirdly, although the year 2000 figures represent the best possible estimate, they still involve a multitude of assumptions that are based on expert ratings or plausibility. Fourthly, despite the revision of some parameters, estimates proved to be robust: depressive disorders are still ranked among the four leading causes of disease burden. Finally, on the individual treatment level, the results do not imply that any priority must be given to either depression or any other health condition. In conclusion, the data presented in the study renew the strong evidence advocating the need for systematic detection and treatment of depression in primary care. On the population level, the results are important for setting priorities in health research. Furthermore, as part of health economic analyses these results allow an evidence-based allocation of resources in healthcare.<sup>3</sup>

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