

ESTIMATING THE TRUE GLOBAL BURDEN OF MENTAL ILLNESS

Daniel Vigo, Graham Thornicroft, Rifat Atun *Lancet Psychiatry* 2016; 3: 171-78

The magnitude of mental illness worldwide has been highlighted by studies on the global burden of disease.

Five types of mental illness appeared in the top 20 causes of global burden of disease (GBD) in 2013:¹

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|---|---|
| 2nd Major depression | 16th Dysthymia |
| 7th Anxiety disorders | 17th Bipolar disorder |
| 11th Schizophrenia | |

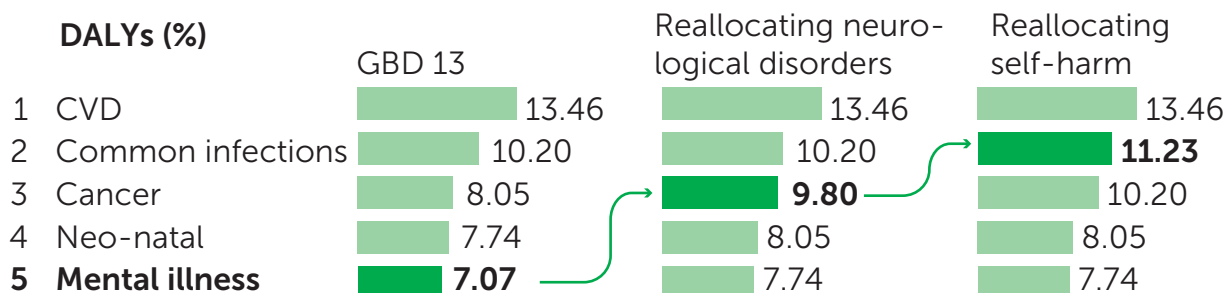
The burden of mental illness has been underestimated due to the following five issues:



1. The overlap between psychiatric and neurological disorders
2. The grouping of suicide and behaviours associated with self-injury as a separate category outside the boundary of mental illness
3. The conflation of all chronic pain syndromes with musculoskeletal disorders
4. The exclusion of personality disorders in mental illness disease burden calculations
5. Inadequate consideration of the contribution of severe mental illness to mortality from associated causes

REVISING DISABILITY-ADJUSTED LIFE-YEARS (DALYs) ESTIMATES

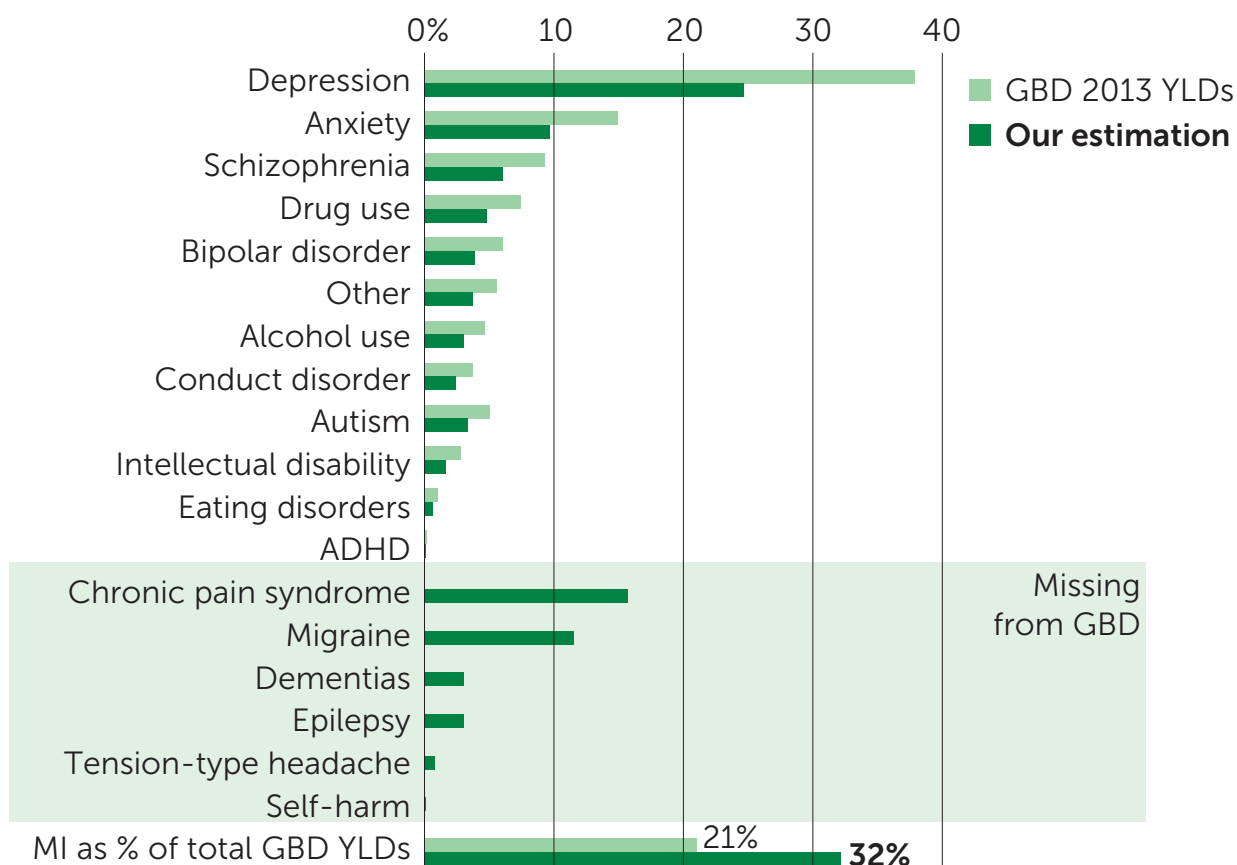
We propose that for disease burden estimation purposes, **certain neurologic syndromes**, i.e. the dementias, epilepsy, tension-type headache, and migraine, **should be aggregated within the overall category of mental illness**. This adjustment would move the total ranking of mental illnesses in the GBD tables from 5th to 3rd place overall, accounting for 9.8% of DALYs globally. Repositioning all self-harm related DALYs from the category of injuries to mental health would increase the number of DALYs from 9.8 to 11.23%, placing it 2nd in the ranking.



REVISING YEARS LIVED WITH DISABILITY (YLDs) ESTIMATES

Our new YLD estimation of mental health related burden is 32.42%. Our estimations of disability alone (YLDs) combined with mortality (DALYs) indicate that by excluding certain conditions from the mental illness burden, current assessments underestimate both YLDs and DALYs for 2013 by more than one-third.

Disease burden as % of mental illness (MI) burden



We also show that mental illness accounts for one-third of the global disability, instead of one-fifth, as currently estimated.

YLDs (%)		Reallocation	
	GBD 13	neuro-logical disorders and self-harm	chronic pain syndrome
Mental illness	21.16	27.28	32.42
MSK	20.85		

DISPROPORTIONATELY WEAK GLOBAL RESPONSE TO MENTAL ILLNESS

The imbalance between burden, financing, and delivery is observed in countries of different income levels.²

Mental illness burden vs. spending (%)

% of total YLDs	32.4
% of total DALYs	13
% of total health spending (HICs)	5.1
% of total health spending (median)	2.8
% of total health spending (LICs)	0.5
% of development assistance for health	0.4

WHY ARE THESE FINDINGS IMPORTANT NOW?

Universal Health Coverage, identified as a Sustainable Development Goal³, offers opportunities for addressing the neglect of mental illnesses, which constitute, along with all cardiovascular plus circulatory disorders (13.03% and 13.46% respectively), the leading causes of global disease burden. Of particular importance is the inclusion of the mental health indicators proposed in the 2015 Global Reference List of Core Health Indicators.⁴

Indicators for mental health to track the 2015 Sustainable Development Goals

Indicator 23: Probability of dying between the ages of 30 and 70 from any cardiovascular disease, cancer, diabetes, chronic respiratory disease, or suicide

Indicator 28: Proportion of persons with a severe mental disorder (psychosis, bipolar affective disorder, or moderate-severe depression) who are using services



TIME FOR GLOBAL ACTION

Globally, achieving effective coverage will demand concerted global stewardship to increase funding for mental illness, better allocate resources, and improve the integration of mental illness with other health services.



References

1. Vos T et al. GB of DS 2013. Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*. 2015;6736(15):1990–2013. doi:10.1016/S0140-6736(15)60692-4.
2. World Health Organization (WHO). Mental Health Action Plan 2013–2020. Geneva, Switzerland; 2013.
3. United Nations. Resolution adopted by the General Assembly on 27 July 2012.; 2012. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E.
4. WHO Department of Health Statistics and Information Systems (HSI). 2015 Global Reference List of 100 Core Health Indicators. 2015.



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