

Global burden of post-traumatic stress disorder in the year 2000: Version 1 estimates

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1. Introduction

Post-traumatic stress disorder is an anxiety disorder characterised by

Post-traumatic stress disorder (PTSD) was estimated to account for 0.4% of total YLD, around the same percentage as schizophrenia (1). In the Version 1 estimates for the Global Burden of Disease 2000 study, published in the World Health Report 2001 (2), the estimated burden of PTSD has increased to 0.6% of total global YLDs). This draft paper summarises the data and methods used to produce the Version 1 estimates of PTSD burden for the year 2000. It will be replaced by a more complete and final paper within a few months, when the Version 2 estimates are finalised.

2. Case and sequelae definitions

The case definition and sequelae used for PTSD are given in Table 1 below.

Table 1. Case and sequelae definitions for post-traumatic stress disorder

Cause category	GBD 2000 Code	ICD 9 codes	ICD 10 codes
Post-traumatic stress disorder	U091		F 43.1

Sequela	Definition
Post-traumatic stress disorder - cases	DSM IV criteria for PTSD. The difference in prevalence of PTSD between the two diagnostic systems is considerable: the DSM-IV prevalence is 60-70% lower than ICD 10

3. Disease model

The disease model for PTSD is summarized in Table 2.

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Table 2. Disease model assumptions

Definitions	Comorbidity with depressive episode and alcohol and drug use(harmful and/or dependence) was taken in account
Incidence/Prevalence	Incidence from Dismode
Remission	0.2
Case fatality	0
Severity distribution	-
Other assumptions	-
Data	See table 4 below

4. Disability weights and health state descriptions

Disability weights from the Global Burden of Disease 1990 study have been used.

Table 3. Disability weights

Sequela/stage/severity level	Disability weight	Health state description
Post-traumatic stress disorder Cases		Episodes of repeat reliving a trauma in intrusive memories. There may be dramatic, acute burst of fear, panic or aggression, triggered by stimuli arousing a sudden recollection and/or re-enactment of the trauma. Autonomic hyperarousal with hypervigilance. Commonly there is fear and avoidance of cues that remind the sufferer of the original trauma.

5. Epidemiological data

Table 4 summarizes the available sources of population prevalence data on PTSD. Table 5 summarizes the assumptions and data sources for prevalence estimates for each of the 17 epidemiological subregions used in the GBD 2000.

Table 4. Prevalence data for PTSD

Country	Site	Prevalence	Age range	Prevalence %	
				Male	Female
USA (3)	ECA St. Louis	DIS 6 month	> 18	0.5	1.3
USA (2)	NCA	CIDI lifetime Total: 7.8	15-54	5.0	10.4
USA (1)	Piedmont	Lifetime: 1.3 6 month: 0.4			
Iceland (4)	Iceland	DIS lifetime	55-57	0	0.5
Iceland (5)	Iceland	DIS one month DIS one year	55-57	0.5 0	0.7 1.0

Chile (6)	Santiago	CIDI lifetime	> 18	2.7	5.1
Hong Kong (7)	Hong Kong 1993	CIDI lifetime	18-64	0.6	0.7

Table 5. PTSD data sources and assumptions - summary

AFRO D	= WPRO A	EURO B1	= WPRO A
AFRO E	= WPRO A	EURO B2	= WPRO A
AMRO A	Data from US	EURO C	= WPRO A
AMRO B	Data from Chile	SEARO B	= WPRO A
AMRO D	= AMRO B	SEARO D	= WPRO A
EMRO B	= WPRO A	WPRO A	Prevalence figures with exclusion criteria operationalised from Australia (Andrews, personal communication).
EMRO D	= WPRO A	WPRO B1	Data from Honk Kong
EURO A	Data from Iceland	WPRO B2	=WPRO B1
		WPRO B3	=WPRO B1

6. Incidence, prevalence and mortality estimates for 2000

Table 6. PTSD: age-standardized incidence and prevalence rate estimates for WHO epidemiological subregions, 2000.

Subregion	Age-std. Incidence/100,000		Age-std. prevalence/100,000	
	Males	Females	Males	Females
AFRO D	45	121	216	552
AFRO E	44	126	212	558
AMRO A	47	130	213	601
AMRO B	47	91	212	434
AMRO D	47	91	210	434
EMRO B	41	125	210	572
EMRO D	41	125	210	572
EURO A	35	124	197	574
EURO B1	47	113	215	566
EURO B2	41	125	210	572
EURO C	47	117	213	539
SEARO B	46	133	211	608
SEARO D	45	135	211	606
WPRO A	47	120	218	580
WPRO B1	44	114	203	543
WPRO B2	47	121	212	561
WPRO B3	46	133	211	608

- Age-standardized to World Standard Population (8).

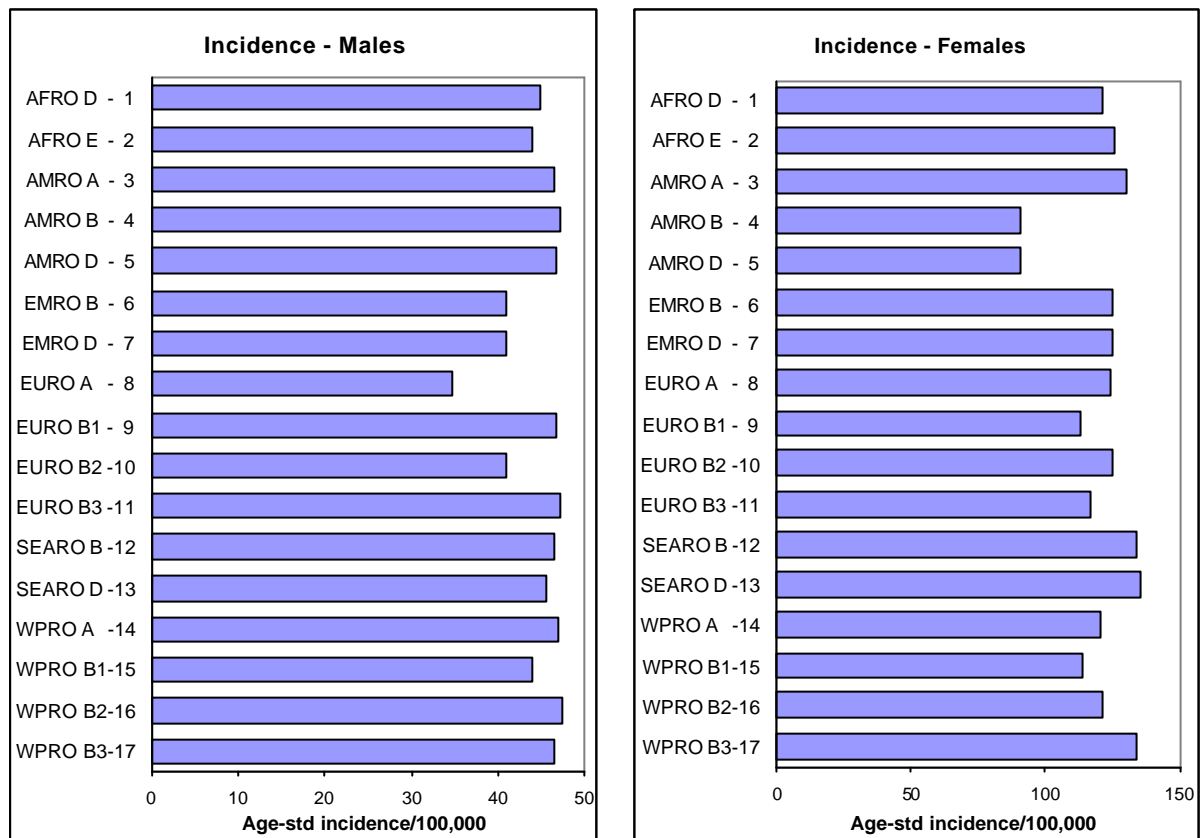


Figure 1. Age-standardized PTSD prevalence rate estimates, WHO epidemiological subregions, by sex, 2000.

7. Global burden of post-traumatic stress disorder in 2000

General methods used for the estimation of the global burden of disease are given elsewhere (9). The tables and graphs below summarise the global burden of PTSD estimates for the GBD 2000 and compare them with the PTSD estimates from the GBD 1990 (10).

Table 7. PTSD: global total YLD, YLL and DALY estimates, 1990 and 2000.

	Males	Females	Persons
YLD('000)			
GBD1990	741	1,204	1,945
GBD2000	895	2,335	3,230
YLL('000)			
GBD1990	0	0	0
GBD2000	0	0	0

DALY('000)			
GBD1990	741	1,204	1,945
GBD2000	896	2,335	3,230

Table 8. PTSD: YLD and DALY estimates for WHO epidemiological subregions, 2000.

Subregion	YLD/100,000		YLD	YLL	DALY
	Males	Females	('000)	('000)	('000)
AFRO D	27.4	68.4	160	0	160
AFRO E	25.4	68.3	158	0	158
AMRO A	29.5	80.1	171	0	171
AMRO B	30.9	61.5	205	0	205
AMRO D	28.6	57.7	31	0	31
EMRO B	30.1	83.5	78	0	78
EMRO D	29.8	81.5	76	0	76
EURO A	26.8	72.9	207	0	207
EURO B1	32.0	81.7	95	0	95
EURO B2	29.7	81.7	28	0	28
EURO C	31.0	72.9	131	0	131
SEARO B	31.0	88.9	236	0	236
SEARO D	29.5	83.4	750	0	750
WPRO A	29.5	74.7	78	0	78
WPRO B1	29.8	80.3	738	0	738
WPRO B2	31.2	84.8	83	0	83
WPRO B3	29.3	83.0	4	0	4
World	29.4	77.8	3,230	0	3,230

8. Uncertainty analysis

General methods for uncertainty analysis of estimates for the Global Burden of Disease 2000 are outlined elsewhere (11). Uncertainty analysis for post-traumatic stress disorder estimates has not yet been completed.

9. Conclusions

These are version 2 estimates for the GBD 2000. Apart from the uncertainty analysis, updating estimates to reflect revisions of mortality estimates and any new or revised epidemiological data or evidence, it is not intended to undertake any major addition revision of these estimates.

We welcome comments and criticisms of these draft estimates, and information on additional sources of data and evidence. Please contact Colin Mathers (EBD/GPE) on email mathersc@who.ch

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