Data supplement

Table DS1 Sample characteristics

Country	Survey	Sample[a]	Field dates	Age, years	Sample size, n Part 1	Part 2	Part 2 and age ≤44[b]	Response rate,[c] %
High-income countries								
Belgium	ESEMeD	Stratified multistage clustered probability sample of individuals residing in households from the national register of Belgian residents (NR)	2001–2	18+	2419	1043	486	50.6
Germany	ESEMeD	Stratified multistage clustered probability sample of individuals from community resident registries (NR)	2002–3	18+	3555	1323	621	57.8
Israel	NHS	Stratified multistage clustered area probability sample of individuals from a national resident register (NR)	2002–4	21+	4859			72.6
Italy	ESEMeD	Stratified multistage clustered probability sample of individuals from municipality resident registries (NR)	2001–2	18+	4712	1779	853	71.3
Japan	WMHJ 2002–2006	Unclustered two-stage probability sample of individuals residing in households in nine metropolitan areas (Fukiage, Higashi-ichiki, Ichiki, Kushikino, Nagasaki, Okayama, Sano, Tamano, Tendo and Tochigi)	2002–6	20+	3417	1305	425	59.2
The Netherlands	ESEMeD	Stratified multistage clustered probability sample of individuals residing in households that are listed in municipal postal registries (NR)	2002–3	18+	2372	1094	516	56.4
New Zealand	NZMHS	Stratified multistage clustered area probability sample of household residents (NR)	2004–5	16+	12992	7435	4242	73.3
Spain	ESEMeD	Stratified multistage clustered area probability sample of household residents (NR)	2001–2	18+	5473	2121	960	78.6
USA	NCS–R	Stratified multistage clustered area probability sample of household residents (NR)	2002–3	18+	9282	5692	3197	70.9
Low- and middle-income countries								
Colombia	NSMH	Stratified multistage clustered area probability sample of household residents in all urban areas of the country (about 73% of the total national population)	2003	18–65	4426	2381	1731	87.7
Lebanon	LEBANON	Stratified multistage clustered area probability sample of household residents (NR)	2002–3	18+	2857	1031	595	70.0
Mexico	M–NCS	Stratified multistage clustered area probability sample of household residents in all urban areas of the country (about 75% of the total national population)	2001–2	18–65	5782	2362	1736	76.6
Nigeria	NSMHW	Stratified multistage clustered area probability sample of households in 21 of the 36 states in the country, representing 57% of the national population. The surveys were conducted in the Yoruba, Igbo, Hausa and Efik languages	2002–3	18+	6752	2143	1203	79.3
China	B–WMH S–WMH	Stratified multistage clustered area probability sample of household residents in the Beijing and Shanghai metropolitan areas	2002–3	18+	5201	1628	570	74.7
South Africa	SASH	Stratified multistage clustered area probability sample of household residents (NR)	2003–4	18+	4351			87.1
Ukraine	CMDPSD	Stratified multistage clustered area probability sample of household residents (NR)	2002	18+	4725	1720	541	78.3

B–WMH, Beijing World Mental Health Survey; CMDPSD, Comorbid Mental Disorders during Periods of Social Disruption; ESEMeD, European Study of the Epidemiology of Mental Disorders; LEBANON, Lebanese Evaluation of the Burden of Ailments and Needs of the Nation; M–NCS, Mexico National Comorbidity Survey; NCS–R, National Comorbidity Survey Replication; NHS, Israel National Health Survey; NR, nationally representative; NSMH, National Study of Mental Health; NSMHW, Nigerian Survey of Mental Health and Wellbeing; NZMHS, New Zealand Mental Health Survey; SASH, South Africa Stress and Health Study; S–WMH, Shanghai World Mental Health Survey; WMHJ 2002–2006, World Mental Health Japan Survey.

a. Most WMH surveys are based on stratified multistage clustered area probability household samples in which samples of areas equivalent to counties or municipalities in the US were selected in the first stage followed by one or more subsequent stages of geographic sampling (e.g. towns within counties, blocks within towns, households within blocks) to arrive at a sample of households, in each of which a listing of household members was created and one or two people were selected from this listing to be interviewed. No substitution was allowed when the originally sampled household resident could not be interviewed. These household samples were selected from census area data in all countries other than France (where telephone directories were used to select households) and The Netherlands (where postal registries were used to select households). Several WMH surveys (Belgium, Germany and Italy) used municipal resident registries to select respondents without listing households. The Japanese sample is the only totally unclustered sample, with households randomly selected in each of the four sample areas and one random respondent selected in each sample household. Eleven of the 16 surveys are based on nationally representative (NR) household samples, two (Colombia, Mexico) are based on NR household samples in urban areas.

b. Israel and South Africa did not have an age-restricted part 2 sample. All other countries, with the exception of Nigeria, China and Ukraine (which were age-restricted to ≤39 years) were age-restricted to ≤44 years.

c. The response rate is calculated as the ratio of the number of households in which an interview was completed to the number of households originally sampled, excluding from the denominator households known not to be eligible either because of being vacant at the time of initial contact or because the residents were unable to speak the designated languages of the survey.

Table DS2 Childhood adversity questionnaire	
Childhood family adversity predictors	Definitions
Physical abuse	Respondents were classified as having experienced this if they indicated that, when they were growing up, their father or mother (including biological, step, or adoptive parent) slapped, hit, pushed, grabbed, shoved or threw something at them, or whether they were beaten up as a child by the persons who raised them.
Sexual abuse	*The next two questions are about sexual assault. The first is about rape. We define this as someone either having sexual intercourse with you or penetrating your body with a finger or object when you did not want them to, either by threatening you or using force, or when you were so young that you didn't know what was happening. Did this ever happen to you*? or *Other than rape, were you ever sexually assaulted or molested*? Sexual abuse was the only adversity where information was not collected that would distinguish whether the perpetrator was a family member or someone else. However, previous research using a similar measure but which did allow such a distinction showed that a good indirect way to distinguish family versus non-family sexual abuse is to ask about number of instances of victimisation, with cases involving one or two instances typically perpetrated by a stranger and those involving three or more instances typically perpetrated by a family member (Molnar *et al*, 2001[a]). In the World Mental Health surveys therefore, respondents who reported that any of these experiences occurred to them three times or more were coded as having experienced sexual abuse (within the family context).
Neglect	The serious neglect scale was the sum of the number of neglect items where the respondent replied 'often' or sometimes, plus 1 if the respondent rated either of their parents as having spent little or no effort in watching over them to ensure they had a good upbringing. The severe neglect scale is the sum of the number of neglect items where respondents replied 'often' plus 1 if the respondent rated either of their parents as having spent no effort in watching over them to ensure they had a good upbringing. Both the serious and severe neglect scales ranged from 0 to 6. For the final definition of neglect, the respondent had to have a score of at least 1 on the severe neglect scale and at least 2 on the serious neglect scale. (Note that the coding of the neglect domain was determined empirically on the basis of frequency distributions, to derive estimates in keeping with existing literature on the prevalence of these experiences in the general population).
Parental death, divorce or other loss	Respondents were classified as having experienced parental death (i.e. when they indicated that one or both parents died), parental divorce (i.e. when they indicated that their parents divorced) and other parental loss (i.e. when respondents replied that they were either adopted, went to boarding school, were in foster care, or that they left home before the age of 16).
Parental mental illness	For parental mental illness the following questions were asked. Parental depression was assessed by the following diagnostic items: (1) 'During the years you were growing up, did (WOMAN/MAN WHO RAISED THE RESPONDENT) ever have periods lasting 2 weeks or more where she was sad or depressed most of the time?' ; and (2) 'During the time when [HIS/HER] depression was at its worst, did [HE/SHE] also have other symptoms like low energy, changes in sleep or appetite, and problems with concentration?' A positive response to depression item 1 was followed up with a frequency question 'Was this during all, most, some, or only a little of your childhood?'. Parental generalised anxiety disorder was assessed by the following diagnostic items: (1) 'During the time you were growing up, did (WOMAN/MAN WHO RAISED THE RESPONDENT) ever have periods of a month or more when she was constantly nervous, edgy, or anxious?' and (2) 'During the time her nervousness was at its worst, did she also have other symptoms like being restless, irritable, easily tired, and difficulty falling asleep?' A positive response to generalised anxiety disorder item 1 was followed up with a frequency question 'Was this during all, most, some, or only a little of your childhood?' Parental panic disorder was assessed by the following item: 'Did (WOMAN/MAN WHO RAISED THE RESPONDENT) ever complain about anxiety attacks where all of a sudden she felt frightened, anxious, or panicky?' Respondents who replied positively to both diagnostic items for depression *and* who replied 'all or most of the time' to the frequency item *and* who reported that their parents got professional help for depression *or* that depression interfered a lot with their parents' life or activities were coded as respondents with parental depression. Similar logic applied to characterising respondents whose parents had generalised anxiety disorder. Respondents who responded positively to the single parental panic disorder item were coded as having parents with panic disorder.

a. Molnar BE, Buka SL, Kessler RC. Child sexual abuse and subsequent psychopathology: results from the National Comorbidity Survey. *Am J Public Health* 2001; **91**: 753–60.

Table DS3 Mental disorders as predictors of non-completion of four educational milestones in high-income countries

	Did not complete primary school				Did not complete secondary education				Did not enter tertiary education				Did not complete tertiary education			
	OR	(95% CI)	χ^2	P	OR	(95% CI)	χ^2	P	OR	(95% CI)	χ^2	P	OR	(95% CI)	χ^2	P
Anxiety disorders																
Generalised anxiety disorder	2.2	(0.9–5.3)	3.0	(0.09)	1.5	(1.2–1.8)	11.5	(<0.01)	1.0	(0.8–1.3)	0.0	(0.88)	1.1	(0.9–1.4)	0.6	(0.43)
Specific phobia	1.1	(0.8–1.5)	0.2	(0.69)	1.3	(1.2–1.5)	24.7	(<0.01)	1.1	(0.9–1.2)	0.6	(0.45)	1.1	(0.9–1.3)	1.0	(0.31)
Social phobia	1.0	(0.6–1.6)	0.0	(0.87)	1.2	(1.1–1.4)	10.2	(<0.01)	1.0	(0.9–1.2)	0.1	(0.80)	1.1	(0.9–1.2)	1.1	(0.30)
Panic disorder or agoraphobia	1.6	(0.7–3.3)	1.4	(0.24)	1.4	(1.1–1.7)	9.0	(<0.01)	1.4	(1.1–1.7)	7.9	(0.01)	1.4	(1.1–1.8)	9.9	(<0.01)
Adult or childhood separation anxiety	0.5	(0.1–2.8)	0.5	(0.46)	1.6	(1.2–2.1)	12.5	(<0.01)	1.5	(1.1–2.0)	8.3	(<0.01)	1.0	(0.8–1.3)	0.1	(0.76)
Post-traumatic stress disorder	3.8	(1.4–10.3)	7.1	(0.01)	1.6	(1.3–1.9)	18.7	(<0.01)	1.0	(0.8–1.3)	0.1	(0.71)	1.0	(0.8–1.3)	0.0	(0.97)
Any anxiety disorder	1.1	(0.8–1.5)	0.5	(0.49)	1.3	(1.2–1.4)	32.0	(<0.01)	1.1	(1.0–1.2)	1.8	(0.17)	1.1	(1.0–1.2)	1.6	(0.21)
Mood disorders																
Major depression	1.6	(0.9–2.7)	3.0	(0.08)	1.4	(1.2–1.6)	13.4	(<0.01)	1.1	(0.9–1.2)	0.8	(0.38)	1.0	(0.9–1.1)	0.0	(0.92)
Dysthymia	2.9	(1.1–7.6)	4.6	(0.03)	1.4	(1.0–1.9)	4.4	(0.04)	1.4	(1.0–2.0)	3.6	(0.06)	0.9	(0.6–1.3)	0.4	(0.51)
Bipolar disorder[a]	0.3	(0.0–2.2)	1.4	(0.24)	1.7	(1.3–2.2)	13.7	(<0.01)	1.5	(1.1–2.0)	8.2	(<0.01)	1.3	(1.0–1.8)	3.4	(0.07)
Any mood disorder	1.6	(1.0–2.6)	3.4	(0.06)	1.4	(1.2–1.6)	25.2	(<0.01)	1.2	(1.0–1.4)	6.7	(0.01)	1.1	(0.9–1.2)	0.6	(0.45)
Impulse disorders																
Intermittent explosive disorder	2.2	(0.8–6.2)	2.2	(0.14)	2.0	(1.5–2.7)	22.4	(<0.01)	1.0	(0.7–1.2)	0.1	(0.78)	1.4	(1.1–1.7)	7.5	(0.01)
Conduct disorder	0.9	(0.2–4.2)	0.0	(0.92)	3.6	(2.6–4.9)	64.4	(<0.01)	1.3	(0.9–2.0)	1.8	(0.18)	1.6	(1.1–2.3)	6.1	(0.01)
Oppositional defiant disorder	2.9	(1.1–7.7)	4.6	(0.03)	2.4	(1.7–3.3)	26.7	(<0.01)	1.5	(1.1–2.0)	5.2	(0.02)	1.7	(1.2–2.5)	7.5	(0.01)
Attention deficit disorder	0.9	(0.3–2.4)	0.1	(0.80)	2.0	(1.5–2.8)	19.0	(<0.01)	1.4	(1.0–1.8)	4.9	(0.03)	2.0	(1.5–2.7)	23.3	(<0.01)
Any impulse disorder	1.2	(0.6–2.4)	0.4	(0.53)	2.2	(1.8–2.7)	53.2	(<0.01)	1.1	(0.9–1.4)	1.3	(0.25)	1.5	(1.3–1.9)	17.6	(<0.01)
Substance use disorders																
Alcohol abuse	19.0	(4.7–76.5)	17.2	(<0.01)	2.4	(2.0–3.0)	67.6	(<0.01)	1.9	(1.6–2.3)	54.7	(<0.01)	1.4	(1.2–1.7)	13.7	(<0.01)
Alcohol dependence	1.5	(0.2–11.5)	0.1	(0.72)	3.1	(2.2–4.2)	46.0	(<0.01)	1.8	(1.4–2.5)	16.3	(<0.01)	1.5	(1.1–2.1)	6.3	(0.01)
Drug abuse	18.0	(4.8–66.8)	18.6	(<0.01)	3.5	(2.8–4.4)	109.9	(<0.01)	1.4	(1.0–2.0)	5.0	(0.03)	1.5	(1.1–1.9)	7.4	(0.01)
Drug dependence	8.1	(1.3–50.1)	5.1	(0.02)	3.9	(2.6–5.8)	42.4	(<0.01)	1.6	(1.0–2.7)	3.9	(0.05)	1.4	(1.0–2.0)	3.1	(0.08)
Any substance use disorders	15.2	(5.8–39.7)	30.8	(<0.01)	2.8	(2.3–3.3)	122.6	(<0.01)	1.7	(1.3–2.0)	23.1	(<0.01)	1.4	(1.2–1.7)	11.9	(<0.01)
Composite disorders																
Exactly one disorder	1.1	(0.8–1.6)	0.7	(0.39)	1.2	(1.1–1.3)	12.7	(<0.01)	1.2	(1.0–1.3)	6.2	(0.01)	1.0	(0.9–1.2)	0.4	(0.51)
Exactly two disorders	1.2	(0.6–2.4)	0.2	(0.68)	1.7	(1.4–1.9)	46.2	(<0.01)	1.1	(0.9–1.3)	1.4	(0.23)	1.2	(1.0–1.5)	6.0	(0.01)
Three or more disorders	2.1	(1.1–4.1)	4.8	(0.03)	2.3	(2.0–2.7)	100.5	(<0.01)	1.5	(1.2–1.8)	15.9	(<0.01)	1.4	(1.2–1.7)	12.2	(<0.01)
Any mental disorder	1.2	(0.9–1.6)	1.6	(0.20)	1.4	(1.3–1.5)	57.5	(<0.01)	1.2	(1.1–1.3)	11.7	(<0.01)	1.1	(1.0–1.3)	5.4	(0.02)

a. Bipolar disorder includes both type 1 and type 2 disorder.

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Table DS4 Mental disorders as predictors of non-completion of four educational milestones in low- and middle-income countries																
	Did not complete primary school				Did not complete secondary education				Did not enter tertiary education				Did not complete tertiary education			
	OR	(95% CI)	χ^2	P	OR	(95% CI)	χ^2	P	OR	(95% CI)	χ^2	P	OR	(95% CI)	χ^2	P
Anxiety disorders																
Generalised anxiety disorder		See footnote a			0.6	(0.3–1.0)	4.4	(0.04)	1.8	(0.9–3.4)	3.2	(0.07)	0.8	(0.4–1.5)	0.6	(0.46)
Specific phobia	0.9	(0.7–1.1)	0.9	(0.35)	1.0	(0.8–1.2)	0	(0.88)	0.9	(0.7–1.3)	0.1	(0.73)	1.0	(0.7–1.4)	0.0	(0.94)
Social phobia	0.4	(0.2–0.9)	5.5	(0.02)	1.2	(0.9–1.5)	1.2	(0.27)	0.8	(0.5–1.2)	0.9	(0.34)	1.0	(0.7–1.5)	0.0	(0.88)
Panic disorder or agoraphobia	0.7	(0.4–1.1)	3.0	(0.08)	1.1	(0.9–1.4)	0.8	(0.37)	1.3	(0.9–1.9)	2.0	(0.16)	1.0	(0.6–1.5)	0.0	(1.00)
Adult or childhood separation anxiety	0.5	(0.3–1.0)	4.0	(0.05)	0.8	(0.6–1.1)	1.3	(0.25)	1.1	(0.7–1.8)	0.1	(0.71)	1.0	(0.6–1.7)	0.0	(0.98)
Post-traumatic stress disorder	1.4	(0.5–4.1)	0.3	(0.57)	1.2	(0.7–2.0)	0.6	(0.45)	1.7	(0.6–4.4)	1.1	(0.29)	1.6	(0.7–3.5)	1.5	(0.22)
Any anxiety disorder	0.7	(0.6–0.9)	6.3	(0.01)	1.0	(0.9–1.1)	0.4	(0.54)	1.1	(0.9–1.3)	0.3	(0.59)	1.0	(0.8–1.3)	0.1	(0.82)
Mood disorders																
Major depression	1.3	(0.6–3.0)	0.4	(0.55)	1.2	(0.9–1.6)	2.2	(0.14)	0.8	(0.6–1.1)	1.6	(0.21)	1.2	(0.8–1.6)	0.9	(0.34)
Dysthymia	0.5	(0.1–2.3)	0.8	(0.37)	0.8	(0.4–1.6)	0.5	(0.50)	1.5	(0.6–3.7)	0.9	(0.34)	1.0	(0.4–2.7)	0.0	(0.99)
Bipolar disorder[b]	0.6	(0.1–3.0)	0.3	(0.57)	1.8	(1.1–3.0)	5.0	(0.03)	0.6	(0.3–1.3)	1.8	(0.18)	0.7	(0.3–1.4)	1.2	(0.28)
Any mood disorder	1.4	(0.6–2.8)	0.6	(0.42)	1.3	(1.0–1.6)	4.6	(0.03)	0.8	(0.6–1.1)	2.1	(0.15)	1.1	(0.8–1.4)	0.2	(0.66)
Impulse disorders																
Intermittent explosive disorder	0.6	(0.2–2.0)	0.7	(0.42)	0.9	(0.6–1.3)	0.3	(0.57)	0.7	(0.4–1.1)	2.5	(0.11)	1.0	(0.7–1.5)	0.0	(0.97)
Conduct disorder	1.9	(0.7–4.9)	1.6	(0.21)	3.0	(2.0–4.4)	29.3	(<0.01)	0.9	(0.4–1.8)	0.1	(0.71)	0.9	(0.4–2.0)	0.0	(0.83)
Oppositional defiant disorder	1.4	(0.6–3.2)	0.7	(0.39)	1.6	(1.1–2.2)	6.6	(0.01)	2.1	(1.1–4.2)	4.9	(0.03)	0.7	(0.3–1.6)	0.7	(0.40)
Attention-deficit disorder	1.3	(0.7–2.5)	0.9	(0.35)	1.2	(0.9–1.8)	1.4	(0.24)	1.3	(0.5–3.1)	0.3	(0.56)	1.1	(0.3–3.7)	0.0	(0.84)
Any impulse disorder	1.1	(0.7–1.8)	0.3	(0.57)	1.3	(1.1–1.6)	6.3	(0.01)	0.9	(0.6–1.3)	0.2	(0.64)	1.0	(0.7–1.4)	0.0	(0.98)
Substance use disorders																
Alcohol abuse		See footnote a			1.6	(1.0–2.5)	4.7	(0.03)	0.7	(0.5–1.1)	2.2	(0.14)	1.3	(0.9–2.0)	1.9	(0.17)
Alcohol dependence		See footnote a			1.3	(0.6–2.9)	0.5	(0.49)	0.9	(0.4–2.1)	0.1	(0.77)	1.2	(0.6–2.3)	0.2	(0.68)
Drug abuse	0.3	(0.0–2.5)	1.1	(0.29)	1.4	(0.8–2.4)	1.8	(0.18)	0.6	(0.3–1.2)	2.4	(0.12)	0.7	(0.4–1.3)	1.0	(0.32)
Drug dependence	–	–	–	–	3.2	(1.2–8.3)	5.7	(0.02)	0.7	(0.2–2.9)	0.2	(0.64)	0.4	(0.1–1.3)	2.3	(0.13)
Any substance use disorders	0.1	(0.0–1.0)	4.0	(0.05)	1.5	(1.1–2.1)	5.6	(0.02)	0.7	(0.5–1.0)	3.6	(0.06)	1.2	(0.8–1.7)	0.7	(0.40)
Composite disorders																
Exactly one disorder	0.8	(0.6–1.0)	2.6	(0.11)	1.0	(0.8–1.1)	0.6	(0.43)	1.1	(0.9–1.3)	0.3	(0.57)	1.1	(0.9–1.4)	1.2	(0.28)
Exactly two disorders	0.9	(0.6–1.4)	0.2	(0.65)	1.3	(1.0–1.6)	4.0	(0.05)	0.6	(0.4–0.9)	7.1	(0.01)	1.2	(0.9–1.7)	1.1	(0.29)
Three or more disorders	0.3	(0.1–0.9)	4.5	(0.04)	1.6	(1.1–2.2)	7.1	(0.01)	1.1	(0.7–1.9)	0.3	(0.59)	0.8	(0.5–1.5)	0.4	(0.51)
Any mental disorder	0.8	(0.7–1.0)	3.3	(0.07)	1.0	(0.9–1.1)	0.3	(0.59)	1.0	(0.8–1.2)	0.1	(0.72)	1.1	(0.9–1.3)	1.2	(0.27)

a. Zero cell counts made estimation of odds ratios for these disorders impossible.
b. Bipolar disorder includes both type 1 and type 2 disorder.