

## The Prevalence and Correlates of Binge Eating Disorder in the World Health Organization World Mental Health Surveys

### *Supplemental Information*

**Table S1. Operationalization in the CIDI of criteria for DSM-IV eating disorders and related entities**

Criterion	Operationalization in the CIDI <sup>1</sup>
<b>I. Bulimia Nervosa</b>	
A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following: (1) eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances	Yes on EA16. The next question is about “eating binges” where a person eats a large amount of food during a short period like two hours. By “a large amount” I mean eating so much food that it would be like eating two or more entire meals in one sitting, or eating so much of one particular food – like candy or ice cream – that it would make most people feel sick. With that definition in mind, did you ever have a time in your life when you went on eating binges (READ SLOWLY) <u>at least twice a week for several months or longer?</u>
A (2) a sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating)	Yes on at least one of the following four questions indicative of loss of control: EA17h. Did you often get upset <u>both</u> during and after binges that your eating was out of your control? EA17a. Did you usually eat until you felt uncomfortably full? EA17b. Did you usually continue to eat even when you didn't feel hungry? EA17c. Did you usually eat alone because you were embarrassed by how much you ate?
B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas or other medications; fasting; or excessive exercise	Yes on at least one of the following: <sup>2</sup> EA23a. Did you ever do any of the following things regularly after binging in order to control your weight: Did you fast by not eating at all or only taking liquids for 8 hours or longer? EA23b. Did you take water pills, diuretics, or weight-control medicines? EA23c. Did you make yourself vomit? EA23d. Did you take laxatives or enemas? EA23e. Did you exercise <u>excessively?</u>
C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months	Yes on EA25, assessing compensatory regularity of compensatory behaviors. You (KEY PHRASES FROM “YES” RESPONSES EA23 SERIES <sup>3</sup> [above]). Did you ever do (this/ either of these things/ any of these things) at least <u>two times a week for three months or longer?</u>
D. Self-evaluation is unduly influenced by body shape and weight	Yes on at least one of the following: EA17e. Around the time you were binge eating, were you very afraid that you would gain weight? EA17f. Did you feel like your self-esteem and confidence depended on your weight or body shape? EA1. Was there ever a time in your life when you had a great deal of

concern about or strongly feared being too fat or overweight?

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa

In cases that met criteria for anorexia nervosa, as defined above, there was evidence that bulimia nervosa was present at times when anorexia nervosa was absent, as evidenced by:

1. Onset of compensatory behaviors, twice weekly or more associated with binge eating, at least one year prior to onset of anorexia nervosa
2. Most recent compensatory activities twice weekly or more associated with binge eating, at least one year after most recent episode of anorexia nervosa, or
3. Total duration of regular compensatory behaviors associated with binge eating that was at least one year longer than the period encompassed by anorexia nervosa.

## II. Binge Eating Disorder

A. Same as criterion A for bulimia nervosa (see above)

Same as that corresponding to criterion A for bulimia nervosa (see above)

B. Binge eating episodes are associated with three or more of the following:

Yes on at least three of the following five questions:

- (1) Eating much more rapidly than normal
- (2) Eating until feeling uncomfortably full
- (3) Eating large amounts of food when not physically hungry
- (4) Eating alone because of being embarrassed by how much one is eating
- (5) Feeling disgusted with oneself, depressed, or very guilty after overeating

EA17. During the binges did you usually eat much more quickly than usual?

EA17a. Did you usually eat until you felt uncomfortably full?

EA17b. Did you usually continue to eat even when you didn't feel hungry?

EA17c. Did you usually eat alone because you were embarrassed by how much you ate?

EA17d. Did you feel guilty, very upset with yourself, or depressed after you binged?

C. Marked distress regarding binge eating is present

Yes on at least one of the following four questions indicative of distress:

EA17d. Did you feel guilty, very upset with yourself, or depressed after you binged?

EA17e. Around the time you were binge eating, were you very afraid that you would gain weight?

EA17g. Did you worry about the long term effects of bingeing on your health, on your weight, or on your body shape?

EA17h. Did you often get upset both during and after binges you're your eating was out of your control?

D. Binge eating occurs, on average, at least 2 days a week for six months

Acknowledging that binge eating occurred at least two times a week for at least three months, as reflected by providing of age of onset in EA19a or EA19b<sup>3</sup>

E. The binge eating is not associated with the regular use of inappropriate compensatory behavior (i.e. purging, excessive exercise, etc.) and does not occur exclusively

In cases that met criteria for anorexia nervosa or bulimia nervosa, as defined above, there was evidence that binge eating was present at times when anorexia nervosa and bulimia nervosa were absent, as evidenced by:

1. Onset of binge eating twice weekly or more at least one year prior to onset of anorexia nervosa or bulimia nervosa;

during the course of bulimia  
nervosa or anorexia nervosa

2. Most recent binge eating twice weekly or more at least one year  
after most recent episode of anorexia nervosa or bulimia nervosa;  
or
3. Total duration of binge eating twice weekly or more that was at least  
one year longer than the period encompassed by anorexia  
nervosa or bulimia nervosa.

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CIDI, Composite International Diagnostic Interview.

<sup>1</sup>CIDI, version 3.0, in NCS-R Interview Schedule and Respondent Booklet, Section 24: Eating Disorders  
(<http://www.hcp.med.harvard.edu/ncs/replication.php>).

<sup>2</sup>The CIDI includes other questions in the 23 series, but only answers to the questions listed here qualify as fulfilling  
criterion B for bulimia nervosa.

<sup>3</sup>Note that the CIDI assesses binge eating twice weekly or more for three months or longer, whereas DSM-IV criteria  
specify binge eating two days a week on average for six months or longer.

**Table S2. Course of DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) in the WMH surveys**

	<b>Bulimia nervosa</b>		<b>Binge eating disorder</b>	
	<b>Est</b>	<b>(IQR/95% CI)</b>	<b>Est</b>	<b>(IQR/95% CI)</b>
I. Age-of-onset				
Mean (95% CI)	20.6*	(19.6-21.6)	23.3	(22.7-23.9)
Median (IQR) <sup>1</sup>	18.0	(14.5-22.9)	19.3	(15.5-27.2)
II. Years with episode				
Median (IQR) <sup>1</sup>	6.5	(2.2-15.4)	4.3	(1.0-11.7)
III. 12-month persistence (i.e., 12-mo prevalence among LT cases)				
Est (95% CI)	37.3	(32.2- 42.3)	44.3	(38.7-50.0)
(n)		(457)		(722)

CI, confidence interval; Est, estimate; LT, lifetime.

<sup>1</sup>IQR = Inter-quartile range (i.e., 25th-75th percentiles) of the variable distribution.

\*Significant difference between mean age-of-onset BN and BED at the .05 level, two-sided test ( $t = 3.4$ ,  $p < .001$ ).

**Table S3. Associations of lifetime DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) with each lifetime DSM-IV/CIDI disorders assessed in the WMH surveys<sup>1</sup>**

			Lifetime bulimia nervosa						Lifetime binge eating disorder			
	% <sup>2</sup>	(se)	% <sup>3</sup>	(se)	OR	(95% CI)	% <sup>2</sup>	(se)	% <sup>3</sup>	(se)	OR	(95% CI)
I. Mood disorders												
Major depressive episode/dysthymia	3.4	(0.3)	54.6	(3.0)	4.1*	(3.1-5.5)	5.1	(0.3)	42.2	(2.2)	2.8*	(2.3-3.4)
Bipolar disorder <sup>4</sup>	5.7	(0.9)	17.3	(2.4)	4.6*	(3.0-7.0)	8.2	(1.0)	12.3	(1.5)	3.7*	(2.7-5.1)
Any mood disorder <sup>5</sup>	3.4	(0.3)	58.9	(3.0)	4.5*	(3.4-5.9)	5.2	(0.3)	46.1	(2.3)	3.0*	(2.5-3.7)
II. Anxiety disorders												
Generalized anxiety disorder	4.0	(0.5)	21.2	(2.3)	3.1*	(2.3-4.2)	6.1	(0.6)	16.4	(1.6)	2.7*	(2.1-3.5)
Panic disorder/agoraphobia	4.4	(0.6)	16.5	(2.1)	3.0*	(2.1-4.3)	7.9	(0.8)	15.3	(1.7)	3.4*	(2.6-4.5)
Social phobia	4.4	(0.5)	29.4	(2.8)	3.9*	(2.9-5.4)	6.0	(0.6)	20.4	(1.9)	2.7*	(2.1-3.5)
Specific phobia	3.3	(0.4)	32.7	(2.9)	2.8*	(2.1-3.8)	5.7	(0.5)	29.2	(2.4)	2.8*	(2.1-3.6)
Posttraumatic stress disorder	5.8	(0.7)	24.9	(2.8)	5.2*	(3.7-7.1)	6.3	(0.7)	13.7	(1.5)	2.6*	(1.9-3.4)
Separation anxiety disorder <sup>6</sup>	5.8	(0.8)	34.0	(4.0)	6.3*	(4.2-9.5)	7.5	(1.0)	18.4	(2.3)	2.7*	(1.9-3.7)
Any anxiety disorder <sup>5</sup>	3.0	(0.2)	65.2	(3.0)	4.4*	(3.3-5.8)	5.0	(0.3)	56.1	(2.4)	3.4*	(2.8-4.2)
III. Behavioral disorders												
Attention-deficit/hyperactivity disorder <sup>7</sup>	5.7	(1.3)	14.8	(3.3)	5.8*	(2.9-11.5)	9.3	(2.7)	10.2	(2.9)	3.9*	(1.8-8.7)
Conduct disorder <sup>7</sup>	3.7	(1.1)	9.9	(2.5)	4.4*	(2.1-9.0)	5.8	(1.2)	6.6	(1.4)	2.3*	(1.4-3.7)
Oppositional defiant disorder <sup>7</sup>	4.6	(1.0)	12.7	(2.4)	4.4*	(2.5-7.9)	7.4	(1.5)	8.6	(1.7)	2.9*	(1.7-5.0)
Intermittent explosive disorder <sup>8</sup>	3.7	(0.8)	20.0	(3.8)	3.5*	(1.9-6.3)	6.3	(1.0)	13.4	(2.1)	2.3*	(1.6-3.5)
Any disruptive behavior disorder <sup>7</sup>	3.5	(0.5)	32.3	(4.0)	4.3*	(2.8-6.7)	6.6	(0.8)	25.4	(3.0)	3.0*	(2.1-4.4)
IV. Substance disorders												
Alcohol abuse/dependence	2.6	(0.3)	25.1	(2.8)	3.5*	(2.5-4.9)	4.4	(0.4)	21.7	(2.0)	2.8*	(2.2-3.7)
Drug abuse/dependence <sup>9</sup>	4.8	(0.8)	18.3	(2.7)	4.5*	(3.0-6.9)	7.6	(1.0)	14.4	(1.9)	3.6*	(2.6-5.0)
Any substance disorder <sup>5</sup>	2.7	(0.3)	27.5	(2.8)	3.6*	(2.6-4.9)	4.5	(0.4)	23.7	(2.1)	2.9*	(2.2-3.7)
V. Any disorder												
Any disorder <sup>5</sup>	2.4	(0.2)	84.8	(2.4)	6.9*	(4.6-10.3)	4.3	(0.2)	79.0	(2.6)	5.2*	(3.8-7.2)

CI, confidence interval; OR, odds ratio.

\*Significant association between the eating disorder in the column and the mental disorder in the row at the 0.05 level, 2-sided test.

<sup>1</sup>Results are based on logistic regression models at the person level in which the two lifetime eating disorders were included in the same equation as predictors of each mental disorder controlling for age at interview, sex and country. The full sample included 24,124 respondents across 14 countries, but some analyses excluded certain countries due to the disorder not being assessed in that country. The results for bipolar disorder excluded Belgium, France, Germany, Italy, Netherlands, and Spain, as bipolar disorders were not assessed in those countries. The analysis sample was consequently 19,985 for bipolar disorder.

<sup>2</sup>Prevalence of the eating disorder among respondents with the mental disorder. For example, 3.4% of respondents with lifetime major depressive episode/dysthymia have a lifetime history of bulimia nervosa.

<sup>3</sup>Prevalence of the mental disorder among respondents with the eating disorder. For example, 54.6% of respondents with lifetime bulimia nervosa have a lifetime history of major depressive episode/dysthymia.

<sup>4</sup>Excluded Belgium, France, Germany, Italy, Netherlands and Spain since these countries were not assessed for this disorder ( $n = 19,985$ ).

<sup>5</sup>Disorders were coded as absent: (1) for countries that did not assess for these disorders, or (2) among respondents who were not assessed for these disorders ( $n = 24,124$ ).

<sup>6</sup>Excluded New Zealand since it was not assessed for this disorder. Belgium, France, Germany, Italy, Netherlands and Spain only assessed those who are  $\leq 44$  years old for this disorder ( $n = 14,643$ ).

<sup>7</sup>Excluded New Zealand since it was not assessed for this disorder. Except for Brazil, Romania and Northern Ireland, all other countries only assessed those who are  $\leq 44$  years old for this disorder ( $n = 12,413$ ).

<sup>8</sup>Excluded Mexico, Belgium, France, Germany, Italy, Netherlands, New Zealand and Spain since these countries were not assessed for this disorder ( $n = 11,437$ ).

<sup>9</sup>Excluded Belgium, France, Germany, Italy, Netherlands, Portugal and Spain since these countries were not assessed for this disorder ( $n = 19,476$ ).

**Table S4. Summary results (median and inter-quartile range of odds-ratios) of survival analyses of temporally primary DSM-IV/CIDI disorders predicting subsequent first onset of other lifetime DSM-IV/CIDI disorders pooled across all WMH surveys: (I) Temporally primary DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) predicting subsequent first onset of other DSM-IV/CIDI disorders; and (II) Temporally primary other DSM-IV/CIDI disorders predicting subsequent first onset of BN and BED ( $n = 24,124$ )<sup>1</sup>**

	BN			BED		
	Median	(IQR)	p/s <sup>2</sup>	Median	(IQR)	p/s <sup>2</sup>
I. BN and BED predicting other disorders <sup>3</sup>						
Without controls for other DSM-IV/CIDI disorders <sup>4</sup>	3.3	(2.8-4.4)	9/8	2.3	(2.0-2.7)	9/7
With controls for other DSM-IV/CIDI disorders <sup>4</sup>	1.6	(1.1-1.6)	7/3	1.1	(1.0-1.4)	5/2
II. Other disorders predicting BN and BED						
Without controls for other DSM-IV/CIDI disorders <sup>4</sup>	5.1	(3.8-6.0)	14/14	3.4	(3.3-3.9)	14/14
With other DSM-IV/CIDI disorders <sup>4</sup>	1.7	(1.2-2.2)	13/5	1.5	(1.2-1.7)	13/5

IQR, inter-quartile range; OR, odds ratio.

<sup>1</sup>Based on multivariate discrete-time survival models to predict either (I) first onset of other DSM-IV/CIDI disorders from temporally primary lifetime BN and BED or (II) first onset of BN and BED from other temporally primary DSM-IV/CIDI mental disorders. Results are pooled across the 14 countries. Coefficients are pooled across other DSM-IV/CIDI disorders.

<sup>2</sup>The entries in the p/s columns are the number of ORs that are positive (p; i.e., greater than 1.0) and significant at the .05 level (s) out of the 9 ORs for eating disorders predicting subsequent onset of other mental disorders and 14 ORs for other disorders predicting subsequent onset of eating disorders. See Footnote 3 for an explanation of why only 9 ORs are considered in models where eating disorders are the predictors.

<sup>3</sup>Five of the 14 other DSM-IV/CIDI disorders considered here were typically childhood/adolescent-onset disorders: attention-deficit/hyperactivity disorder, conduct disorder, oppositional defiant disorder, separation anxiety disorder, and intermittent explosive disorder. As these disorders typically had onsets well before the age BN or BED first began, it was impossible to assess the associations of eating disorders with the subsequent onset of those disorders. As a result, the summary measures in Part I of this table are based on the other nine DSM-IV/CIDI disorders considered here.

<sup>4</sup>The models were estimated both without and then again with the 13 DSM-IV/CIDI disorders that might have occurred at an earlier age than the focal outcome disorder included as predictors. Note that these other disorders could have occurred either before, after, or in the same year as the focal predictor disorder.

**Table S5. Time-lagged associations of temporally primary DSM-IV/CIDI eating disorders with the subsequent first onset of other DSM-IV/CIDI disorders<sup>1</sup>**

	BN		BED	
	OR	(95% CI)	OR	(95% CI)
I. Mood disorders				
Major depressive episode/dysthymia	3.3*	(2.5-4.5)	2.2*	(1.7-2.9)
Bipolar disorder <sup>b</sup>	4.4*	(2.7-7.0)	2.4*	(1.5-4.0)
Any mood disorder	3.5*	(2.7-4.4)	2.2*	(1.8-2.8)
II. Anxiety disorders				
Generalized anxiety disorder	2.8*	(1.9-4.1)	2.3*	(1.5-3.3)
Panic disorder/agoraphobia	2.0*	(1.1-3.5)	3.5*	(2.2-5.5)
Social phobia	2.8*	(1.5-5.1)	1.2	(0.6-2.2)
Specific phobia	2.4	(0.8-6.8)	1.3	(0.7-2.5)
Posttraumatic stress disorder	5.2*	(3.4-7.9)	2.0*	(1.2-3.4)
Separation anxiety disorder <sup>c</sup>	7.2*	(4.5-11.7)	2.8*	(1.7-4.6)
Any anxiety disorder	3.4*	(2.6-4.4)	2.1*	(1.6-2.8)
III. Disruptive behavior disorders				
Attention-deficit/hyperactivity disorder	0.4	(0.1-2.7)	0.0*	(0.0-0.0)
Conduct disorder	2.3	(0.7-7.3)	0.0*	(0.0-0.0)
Oppositional defiant disorder	0.8	(0.1-5.5)	1.8	(0.5-6.1)
Intermittent explosive disorder	2.9*	(1.1-7.3)	2.3*	(1.1-4.8)
Any disruptive behavior disorder	2.4*	(1.0-5.7)	1.5	(0.7-3.0)
IV. Substance disorders				
Alcohol abuse/dependence	3.8*	(2.6-5.7)	2.8*	(1.8-4.2)
Drug abuse/dependence	5.8*	(3.2-10.3)	2.7*	(1.7-4.5)
Any substance disorder	4.6*	(3.0-6.8)	2.8*	(1.9-4.0)
V. Any disorder				
Any disorders	3.3*	(2.7-4.1)	2.1*	(1.7-2.5)

BN, bulimia nervosa; BED, binge eating disorder; CI, confidence interval; OR, odds ratio.

\*Significant at the 0.05 level, two-sided test.

<sup>1</sup>Results are based on discrete-time survival models with person-year the unit of analysis and a logistic link function in which time-varying predictor variables for lifetime BN and BED were included in the same equation as predictors of subsequent first onset of the outcome disorder controlling for person-year, age, sex, and country. Note that prior (to age-of-onset of the outcome disorder) lifetime history of other DSM-IV/CIDI disorders than BN and BED were not included among the predictors. See footnote a in Table S3 for a description of sample sizes and exclusions.



**Table S6. Time-lagged associations of temporally primary DSM-IV/CIDI eating disorders with the subsequent first onset of others DSM-IV/CIDI disorders with controls for the effects of comorbidity<sup>1</sup>**

	BN		BED	
	OR	(95% CI)	OR	(95% CI)
<b>I. Mood disorders</b>				
Major depressive episode/dysthymia	1.6*	(1.1-2.4)	1.4	(1.0-1.8)
Bipolar disorder	1.6	(1.0-2.7)	1.1	(0.7-1.9)
Any mood disorder	1.6*	(1.1-2.2)	1.3*	(1.0-1.7)
<b>II. Anxiety disorders</b>				
Generalized anxiety disorder	0.9	(0.6-1.5)	1.0	(0.7-1.6)
Panic disorder/agoraphobia	0.9	(0.5-1.5)	1.9*	(1.2-2.9)
Social phobia	1.1	(0.6-2.1)	0.8	(0.4-1.5)
Specific phobia	1.6	(0.5-4.8)	1.0	(0.5-1.9)
Posttraumatic stress disorder	2.3*	(1.5-3.5)	1.0	(0.6-1.7)
Separation anxiety disorder	3.7*	(2.2-6.0)	1.1	(0.6-2.0)
Any anxiety disorder	1.5*	(1.1-1.9)	1.1	(0.9-1.4)
<b>III. Disruptive behavior disorders</b>				
Attention-deficit/hyperactivity disorder	0.2	(0.0-1.2)	0.0*	(0.0-0.0)
Conduct disorder	0.2	(0.1-1.0)	0.0*	(0.0-0.0)
Oppositional defiant disorder	0.2	(0.0-1.2)	1.6	(0.5-5.4)
Intermittent explosive disorder	1.3	(0.5-3.4)	1.1	(0.5-2.6)
Any disruptive behavior disorder	0.7	(0.3-1.6)	0.8	(0.4-1.5)
<b>IV. Substance disorders</b>				
Alcohol abuse/dependence	1.3	(0.8-2.3)	1.3	(0.8-2.3)
Drug abuse/dependence	2.5*	(1.4-4.5)	1.7*	(1.0-3.0)
Any substance disorder	1.7*	(1.1-2.7)	1.5	(1.0-2.2)
<b>V. Any disorder</b>				
Any disorder	1.4*	(1.1-1.8)	1.2*	(1.0-1.4)

BN, bulimia nervosa; BED, binge eating disorder; CI, confidence interval; OR, odds ratio.

\*Significant at the 0.05 level, two-sided test.

<sup>1</sup>Results are based on the same kind of discrete-time survival models as in Table S5 except that time-varying predictor variables for other lifetime DSM-IV/CIDI disorders were included in the equations used to generate the results in the current table. Comparison of results in Tables S5 and S6 consequently provides information on the extent to which gross effects of eating disorders (Table S5) are explained by comorbid disorders controlled in Table S6. See footnote in Table S3 for a description of sample sizes and exclusions.

**Table S7. Time-lagged associations of other temporally primary DSM-IV/CIDI disorder with the subsequent first onset of DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED)<sup>1</sup>**

	BN		BED	
	OR	(95% CI)	OR	(95% CI)
I. Mood disorders				
Major depressive episode/dysthymia	3.2*	(2.4-4.5)	3.3*	(2.6-4.3)
Bipolar disorder	6.4*	(3.7-11.2)	5.0*	(3.5-7.3)
II. Anxiety disorders				
Generalized anxiety disorder	3.7*	(2.5-5.6)	3.1*	(2.3-4.2)
Panic disorder/agoraphobia	4.2*	(2.8-6.4)	4.0*	(3.0-5.3)
Social phobia	5.4*	(4.0-7.2)	3.7*	(2.9-4.7)
Specific phobia	3.7*	(2.8-4.8)	3.4*	(2.6-4.4)
Posttraumatic stress disorder	5.6*	(3.8-8.3)	3.4*	(2.4-4.8)
Separation anxiety disorder	5.3*	(3.4-8.1)	3.2*	(2.2-4.6)
III. Disruptive behavior disorders				
Attention-deficit/hyperactivity disorder	8.2*	(4.8-14.0)	4.7*	(2.4-9.1)
Conduct disorder	6.1*	(3.0-12.4)	3.3*	(2.1-5.3)
Oppositional defiant disorder	6.9*	(4.3-11.0)	3.4*	(2.1-5.7)
Intermittent explosive disorder	4.9*	(2.6-9.2)	2.6*	(1.8-3.9)
IV. Substance disorders				
Alcohol abuse/dependence	3.6*	(2.2-5.9)	3.4*	(2.5-4.6)
Drug abuse/dependence	4.4*	(2.3-8.4)	5.1*	(3.4-7.7)

CI, confidence interval; OR, odds ratio.

\*Significant at the 0.05 level, two-sided test.

<sup>1</sup>Results are based on discrete-time survival models with person-year the unit of analysis and a logistic link function in which time-varying predictor variables for other lifetime DSM-IV/CIDI disorders were included in the same equation as predictors of subsequent first onset of DSM-IV/CIDI eating disorders controlling for person-year, age, sex, and country. Note that prior (to age-of-onset of the outcome disorder) lifetime history of other DSM-IV/CIDI disorders than BN and BED were not included among the predictors. See footnote a in Table S3 for a description of sample sizes and exclusions.

**Table S8. Time-lagged associations of other temporally primary DSM-IV/CIDI disorder with the subsequent first onset of DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) with controls for the effects of comorbidity<sup>1</sup>**

	BN		BED	
	OR	(95% CI)	OR	(95% CI)
I. Mood disorders				
Major depressive episode/dysthymia	1.2	(0.8-1.8)	1.7*	(1.3-2.3)
Bipolar disorder (Broad)	1.7	(0.9-3.3)	1.6	(1.0-2.4)
II. Anxiety disorders				
Generalized anxiety disorder	1.1	(0.7-1.8)	1.1	(0.8-1.5)
Panic disorder/agoraphobia	1.2	(0.7-1.9)	1.3	(0.9-1.9)
Social phobia	2.6*	(1.8-3.7)	1.7*	(1.2-2.4)
Specific phobia	2.1*	(1.5-2.9)	2.2*	(1.6-3.0)
Posttraumatic stress disorder	2.3*	(1.4-3.7)	1.3	(0.8-2.0)
Separation anxiety disorder	2.2*	(1.3-3.6)	1.4	(0.9-2.2)
III. Disruptive behavior disorders				
Attention-deficit/hyperactivity disorder	2.4*	(1.3-4.5)	1.9	(0.8-4.9)
Conduct disorder	1.0	(0.4-2.5)	0.9	(0.4-1.7)
Oppositional defiant disorder	1.7	(0.8-3.6)	1.1	(0.6-2.2)
Intermittent explosive disorder	1.6	(0.8-3.3)	1.1	(0.7-1.7)
IV. Substance disorders				
Alcohol abuse/dependence	1.4	(0.8-2.6)	1.5*	(1.0-2.1)
Drug abuse/dependence	1.1	(0.5-2.5)	1.8*	(1.1-3.2)

CI, confidence interval; OR, odds ratio.

\*Significant at the 0.05 level, two-sided test.

<sup>1</sup>Results are based on the same kind of discrete-time survival models as in Table S5 except that time-varying predictor variables for other lifetime DSM-IV/CIDI disorders were included in the equations used to generate the results in the current table. Comparison of results in Tables S7 and S8 consequently provides information on the extent to which gross effects of individual other DSM-IV disorders (Table S7) are explained by comorbid disorders controlled in Table S8. See footnote a in Table S3 for a description of sample sizes and exclusions.

**Table S9. Time-lagged associations of temporally primary DSM-IV/CIDI eating disorders with the subsequent first onset of a variety of self-reported chronic physical conditions<sup>1</sup>**

	BN		BED	
	OR	(95% CI)	OR	(95% CI)
I. Musculoskeletal				
Arthritis	1.6*	(1.1-2.3)	1.7*	(1.3-2.2)
Chronic back/neck pain	2.8*	(2.1-3.6)	2.0*	(1.5-2.7)
II. Other pain conditions				
Chronic headaches	1.9*	(1.4-2.7)	2.3*	(1.7-3.3)
Other chronic pain	2.8*	(1.9-4.1)	2.7*	(1.8-4.0)
III. Respiratory				
Seasonal allergies	0.9	(0.6-1.3)	1.2	(0.8-1.7)
Asthma	0.8	(0.5-1.4)	1.4	(0.9-2.2)
Tuberculosis	0.3	(0.0-2.3)	2.2	(0.6-8.2)
COPD and other chronic lung diseases	0.8	(0.2-2.8)	1.0	(0.4-2.5)
IV. Cardio-metabolic				
Diabetes	3.1*	(2.0-4.8)	2.9*	(1.9-4.6)
Hypertension	2.2*	(1.6-3.1)	2.2*	(1.7-3.0)
Heart disease	1.1	(0.5-2.4)	1.3	(0.6-2.5)
Heart attack	4.1*	(1.7-10.1)	0.9	(0.3-3.1)
Stroke	3.3*	(1.2-9.0)	1.6	(0.7-3.5)
V. Other				
Cancer	1.8	(1.0-3.4)	1.8	(1.0-3.3)
Epilepsy	1.6	(0.5-5.4)	1.1	(0.3-3.8)
HIV infection	0.1*	(0.0-0.2)	0.1*	(0.0-0.1)
Ulcer	1.8	(0.9-3.5)	1.9*	(1.2-3.0)

BN, bulimia nervosa; BED, binge eating disorder; CI, confidence interval; COPD, chronic obstructive pulmonary disease; HIV, human immunodeficiency virus; OR, odds ratio.

\*Significant at the .05 level, two-sided test.

<sup>1</sup>Results are based on discrete-time survival models with person-year the unit of analysis and a logistic link function in which prior lifetime history BN and BED are included in the same equation as predictors of the subsequent first onset of the chronic physical conditions listed in the rows controlling for person-year, age at interview, sex, lifetime history of anorexia nervosa, and country.

**Table S10. Time-lagged associations of temporally primary DSM-IV/CIDI eating disorders and the subsequent first onset of a variety of self-reported chronic physical conditions controlling for other DSM-IV/CIDI disorders<sup>1</sup>**

	BN		BED	
	OR	(95% CI)	OR	(95% CI)
I. Musculoskeletal				
Arthritis	1.1	(0.7-1.5)	1.3	(1.0-1.6)
Chronic back/neck pain	1.7*	(1.3-2.2)	1.5*	(1.1-2.0)
II. Other pain conditions				
Chronic headaches	1.2	(0.9-1.7)	1.8*	(1.3-2.5)
Other chronic pain	1.5*	(1.1-2.2)	1.8*	(1.2-2.7)
III. Respiratory				
Seasonal allergies	0.8	(0.5-1.1)	1.1	(0.8-1.5)
Asthma	0.8	(0.4-1.3)	1.3	(0.9-2.0)
Tuberculosis	0.2	(0.0-1.4)	1.6	(0.4-5.9)
COPD and other chronic lung diseases	0.5	(0.1-1.7)	0.7	(0.3-1.6)
IV. Cardio-metabolic				
Diabetes	2.4*	(1.5-3.8)	2.4*	(1.5-3.7)
Hypertension	1.6*	(1.1-2.3)	1.8*	(1.3-2.4)
Heart disease	0.7	(0.3-1.5)	0.9	(0.5-1.8)
Heart attack	2.5	(0.9-7.0)	0.7	(0.2-2.5)
Stroke	1.9	(0.7-5.2)	1.2	(0.5-2.5)
V. Other				
Cancer	1.3	(0.6-2.6)	1.5	(0.8-2.8)
Epilepsy	0.8	(0.3-2.7)	0.7	(0.2-2.7)
HIV infection	0.0*	(0.0-0.0)	0.0*	(0.0-0.0)
Ulcer	1.0	(0.5-1.9)	1.2	(0.7-1.9)

BN, bulimia nervosa; BED, binge eating disorder; CI, confidence interval; COPD, chronic obstructive pulmonary disease; HIV, human immunodeficiency virus; OR, odds ratio.

\*Significant at the .05 level, two-sided test.

<sup>1</sup>Results are based on discrete-time survival models with person-year the unit of analysis and a logistic link function in which prior lifetime history BN and BED are included in the same equation as predictors of the subsequent first onset of the chronic physical conditions listed in the rows controlling for person-year, age at interview, sex, lifetime history of anorexia nervosa and the DSM-IV/CIDI disorders listed in Tables S7-S8, and country. The results in this table differ from those in Table S9 only in the inclusion of controls for other DSM-IV/CIDI disorders.

**Table S11. Role impairment due to 12-month DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) in the WMH surveys<sup>1</sup>**

	Any impairment				Severe impairment			
	BN		BED		BN		BED	
	%	(se)	%	(se)	%	(se)	%	(se)
Work	33.5	(4.8)	31.2	(3.1)	4.3	(1.5)	4.9	(1.4)
Home management	38.1	(5.0)	33.9	(3.2)	9.2	(2.9)	5.8	(1.5)
Social life	42.7	(4.4)	38.1	(3.6)	13.6	(3.3)	8.2	(2.1)
Close relationships	33.9	(4.1)	35.7	(3.4)	12.9*	(3.2)	5.4	(1.3)
Any of the above	54.5	(5.1)	46.7	(3.4)	21.8	(3.8)	13.2	(2.4)
(n)	(158)		(344)		(158)		(344)	

\*Significant difference between BN and BED at the .05 level, two-sided test.

<sup>1</sup>Role impairment was assessed with the Sheehan Disability Scales. See the text for a description.

**Table S12. Lifetime and 12-month treatment of DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) in the WMH surveys**

	<b>BN</b>		<b>BED</b>	
	<b>%</b>	<b>(se)</b>	<b>%</b>	<b>(se)</b>
I. Lifetime treatment of emotional problem among lifetime cases				
General medical	43.2	(3.2)	34.3	(2.4)
Mental health specialty	57.7	(2.9)	43.3	(2.4)
Human services	14.3	(2.1)	10.3	(1.4)
Complementary-alternative medicine	18.8	(2.2)	15.0	(1.6)
Any	67.3	(2.7)	57.7	(2.6)
	(n)	(457)	(722)	
II. Twelve-month treatment of emotional problems among 12-month cases				
General medical	31.0	(4.8)	24.9	(3.2)
Mental health	25.2	(4.2)	17.6	(2.7)
Human services	7.4	(3.1)	5.5	(1.4)
Complementary-alternative medicine	5.5	(1.8)	6.7	(1.8)
Any	45.0	(5.1)	36.6	(3.4)
	(n)	(158)	(344)	
III. Treatment of eating disorder				
Lifetime among lifetime cases	47.4	(3.2)	38.3	(2.6)
Twelve-month among 12-month cases	25.9	(4.5)	9.8	(2.0)

**Table S13. Lifetime treatment of DSM-IV/CIDI bulimia nervosa and binge eating disorder<sup>1</sup>**

	Bulimia nervosa		Binge eating disorder	
	OR	(95% CI)	OR	(95% CI)
Sex				
Female	1.5*	(1.1-2.1)	1.6*	(1.0-2.2)
Male	1.0	(---)	1.0	(---)
Age-of-onset <sup>2</sup>	1.01	(0.99-1.03)	1.04*	(1.02-1.07)
Years since onset <sup>2</sup>	0.95*	(0.92-0.98)	0.96*	(0.93-0.99)
Education				
Student	1.1	(0.7-1.7)	1.4	(0.8-2.4)
Nonstudent less than high school	0.7*	(0.5-0.9)	0.8	(0.5-1.2)
Nonstudent high school graduate	0.8	(0.5-1.1)	0.9	(0.6-1.4)
Nonstudent some college	0.8	(0.6-1.0)	0.7	(0.4-1.3)
Nonstudent college graduate	1.0	(---)	1.0	(---)
$\chi^2_4$		9.3		5.8
Marital status				
Never married	0.8	(0.5-1.2)	1.4	(0.9-2.1)
Previously married	1.4	(0.9-2.1)	1.0	(0.7-1.5)
Married	1.0	(---)	1.0	(---)
$\chi^2_2$		6.8*		2.2
Prior lifetime mental disorders (count) <sup>3</sup>				
Internalizing	1.0	(0.9-1.1)	1.0	(0.9-1.1)
Externalizing	0.9*	(0.8-1.0)	1.0	(0.9-1.2)
(n)		(457)		(722)

CI, confidence interval; OR, odds ratio.

<sup>1</sup>Based on multivariate discrete-time survival models with person-year the unit of analysis and a logistic link function taking into consideration age-of-onset (AOO) and number of years between AOO at time of first obtaining treatment. Education and marital status were treated as time-varying predictors.

<sup>2</sup>The coefficients for age-of-onset and years since onset are presented with greater precision than those for the other predictors due to the wide distribution of the predictors. ORs represent changes relative odds *per year* of difference in the predictors. The OR of first seeking treatment a decade after mean years since onset compared to at the mean is 0.6 (i.e.,  $0.95^{10}$ ).

<sup>3</sup>Internalizing disorders include all the anxiety and mood disorders assessed in the surveys, while externalizing disorders include attention-deficit/hyperactivity disorder, conduct disorder, intermittent explosive disorder, oppositional defiant disorder, alcohol abuse, alcohol dependence with abuse, drug abuse, and drug dependence with abuse. The predictor variables considered here are counts of the number of lifetime disorders of each type the respondent had as of the person-year of assessment.



**Table S14. Sensitivity Analysis of restriction to the diagnostic algorithm for DSM-IV/CIDI disorders that include binge eating: Comparison of original definition and alternative definition for lifetime and 12-month prevalence pooled across all WMH countries**

	Total sample				Female				Male			
	Original		Alternative <sup>1</sup>		Original		Alternative <sup>1</sup>		Original		Alternative <sup>1</sup>	
	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)
I. Lifetime prevalence												
Bulimia nervosa	1.0	(0.1)	0.8	(0.1)	1.4	(0.1)	1.3	(0.1)	0.4	(0.1)	0.3	(0.1)
Binge eating disorder	1.9	(0.1)	1.9	(0.1)	2.6	(0.2)	2.6	(0.2)	1.1	(0.1)	1.1	(0.1)
Either	2.7	(0.1)	2.6	(0.1)	3.8	(0.2)	3.6	(0.2)	1.4	(0.1)	1.4	(0.1)
II. Twelve-month prevalence												
Bulimia nervosa	0.4	(0.0)	0.3	(0.0)	0.5	(0.1)	0.5	(0.1)	0.2	(0.0)	0.1	(0.0)
Binge eating disorder	0.8	(0.1)	0.8	(0.1)	1.2	(0.1)	1.2	(0.1)	0.5	(0.1)	0.5	(0.1)
Either	1.2	(0.1)	1.1	(0.1)	1.7	(0.1)	1.6	(0.1)	0.6	(0.1)	0.6	(0.1)

<sup>1</sup>The alternative definition includes two restrictions. First, one of the items used in the original definition (“Did you usually eat alone because you were embarrassed by how much you ate?”) was deleted as qualifying for criterion A2 for binge eating. Second, endorsement of a different item (“Did you feel like your self-esteem and confidence depended on your weight or body shape?”) was required for criterion D for bulimia nervosa.

**Table S15. Current body mass index (BMI) among respondents with versus without DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) in the New Zealand WMH survey<sup>1</sup>**

	BN				BED				No eating disorder	
	Lifetime		12-month		Lifetime		12-month			
	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)
<b>I. Distribution of BMI</b>										
< 18.5 (underweight)	0.7	(0.5)	0.6*	(0.6)	2.1	(1.4)	2.3	(2.2)	2.2	(0.2)
18.5 – 24.9 (normal)	38.5	(4.1)	34.6	(6.9)	30.2*	(4.1)	22.8	(5.1)	45.6	(0.9)
25 – 29.9 (overweight)	23.5*	(3.7)	18.8*	(5.5)	26.8	(4.4)	33.2	(7.3)	32.5	(0.8)
30 – 34.9 (obese class I)	18.5	(3.1)	19.8	(5.9)	22.5*	(3.3)	22.1	(4.3)	13.8	(0.6)
35 – 39.9 (obese class II)	12.9*	(2.1)	19.8*	(5.1)	10.9*	(2.1)	12.4	(3.4)	4.2	(0.4)
40+ (obese class III)	5.9*	(1.9)	6.5	(4.0)	7.5*	(2.0)	7.3	(2.4)	1.7	(0.2)
35+ (obese class II-III)	18.8*	(2.8)	26.2*	(6.1)	18.4*	(2.8)	19.7	(4.1)	5.9	(0.4)
30+ (total obese)	37.3*	(4.0)	46.0*	(7.7)	40.9*	(3.6)	41.8	(5.7)	19.7	(0.7)
<b>II. Logistic regression of BN or BED (vs. No lifetime eating disorder) on BMI<sup>1</sup></b>										
	OR (95% CI)		OR (95% CI)		OR (95% CI)		OR (95% CI)			
< 18.5 (underweight)	0.4	(0.1-1.6)	0.4	(0.0-2.8)	1.5	(0.4-5.5)	2.1	(0.3-15.2)		
18.5 – 24.9 (normal)	1.0	--	1.0	--	1.0	--	1.0	--		
25 – 29.9 (overweight)	0.9	(0.5-1.4)	0.8	(0.4-1.6)	1.2	(0.7-2.2)	2.0	(0.9-4.5)		
30 – 34.9 (obese class I)	1.6	(1.0-2.5)	1.9	(0.8-4.4)	2.5*	(1.6-3.8)	3.2*	(1.7-5.9)		
35 – 39.9 (obese class II)	3.6*	(2.3-5.7)	6.1*	(2.8-13.5)	3.9*	(2.3-6.5)	5.8*	(2.7-12.4)		
40+ (obese class III)	4.2*	(2.0-8.9)	5.1*	(1.3-20.9)	6.8*	(3.5-13.3)	8.8*	(3.9-19.9)		
$\chi^2_5$	45.6*		33.0*		62.9*		39.0*			
(n)	(215)		(73)		(264)		(134)		(6,834)	

CI, confidence interval; OR, odds ratio.

\*Significant difference from respondents who had no lifetime eating disorder at the .05 level, two-sided test.

\*\* There were no significant differences between BN and BED at the .05 level, two-sided test.

<sup>1</sup>Based on a series of logistic regression models, each one comparing respondents with the eating disorder defined by the column heading with respondents without a history of eating disorders.

**Table S16. Current body mass index (BMI) among respondents with versus without DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) in the three South American WMH surveys<sup>1,2</sup>**

	BN		BED		No eating disorder
	Lifetime % (se)	12-month % (se)	Lifetime % (se)	12-month % (se)	% (se)
<b>I. Distribution of BMI</b>					
< 18.5 (underweight)	0.5* (0.4)	0.5* (0.5)	1.7 (1.1)	2.3 (1.5)	3.8 (0.5)
18.5 – 24.9 (normal)	24.3* (4.5)	21.1* (6.2)	31.0* (5.5)	26.9* (5.2)	51.2 (1.1)
25 – 29.9 (overweight)	46.6* (5.1)	49.6 (9.3)	33.3 (4.0)	29.4 (5.5)	34.4 (1.0)
30 – 34.9 (obese class I)	24.4* (4.5)	28.8* (8.5)	27.1* (5.1)	29.0* (5.4)	7.7 (0.5)
35 – 39.9 (obese class II)	3.0 (1.7)	0.0 (0.0)	5.8 (1.8)	10.7* (3.3)	2.3 (0.3)
40+ (obese class III)	1.1 (0.9)	0.0 (0.0)	1.2 (0.7)	1.7 (1.2)	0.5 (0.1)
35+ (obese class II-III)	4.1 (1.9)	0.0 (0.0)	7.0 (1.6)	12.4* (3.4)	2.9 (0.4)
30+ (total obese)	28.5* (4.4)	28.8* (8.5)	34.0* (5.3)	41.4* (6.4)	10.6 (0.7)
<b>II. Logistic regression of BN or BED (vs. No lifetime eating disorder) on BMI<sup>1</sup></b>					
	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	
< 18.5 (underweight)	0.3 (0.1-1.3)	0.3 (0.0-2.6)	0.8 (0.2-3.0)	1.2 (0.3-4.7)	
18.5 – 24.9 (normal)	1.0 --	1.0 --	1.0 --	1.0 --	
25 – 29.9 (overweight)	2.8* (1.6-4.8)	3.5* (1.5-8.0)	1.6 (1.0-2.6)	1.6 (0.9-2.8)	
30 – 34.9 (obese class I)	6.4* (3.3-12.2)	9.0* (3.5-22.9)	5.6* (3.0-10.5)	6.9* (3.7-12.9)	
35 – 39.9 (obese class II)	2.3 (0.6-9.1)	-- --	3.5* (1.3-9.3)	7.5* (2.8-20.2)	
40+ (obese class III)	4.1 (0.7-22.6)	-- --	3.5 (1.0-12.5)	5.8* (1.3-25.8)	
$\chi^2_5$	47.7*	57.8*	40.8*	42.2*	
(n)	(128)	(48)	(244)	(109)	(5,041)

CI, confidence interval; OR, odds ratio.

\*Significant difference from respondents who had no lifetime eating disorder at the .05 level, two-sided test.

\*\* There were no significant differences between BN and BED at the .05 level, two-sided test.

<sup>1</sup>In Colombia, Sao Paulo Brazil, and Mexico.<sup>2</sup>Based on a series of logistic regression models, each one comparing respondents with the eating disorder defined by the column heading with respondents without a history of eating disorders controlling for dummy variables for country.

**Table S17. Current body mass index (BMI) among respondents with versus without DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) in the nine European surveys<sup>1,2</sup>**

	BN				BED				No eating disorder	
	Lifetime		12-month		Lifetime		12-month			
	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)
<b>I. Distribution of BMI</b>										
< 18.5 (underweight)	1.4	(1.2)	0.6*	(0.6)	0.6*	(0.6)	0.0	(0.0)	2.9	(0.3)
18.5 – 24.9 (normal)	41.5	(8.3)	28.9*	(10.4)	46.5	(6.4)	32.3*	(7.9)	49.9	(0.8)
25 – 29.9 (overweight)	25.9	(7.2)	31.4	(12.0)	23.5	(5.2)	29.5	(8.5)	34.6	(0.7)
30 – 34.9 (obese class I)	21.5	(8.7)	30.0	(12.9)	17.4	(5.1)	24.4	(9.3)	9.8	(0.4)
35 – 39.9 (obese class II)	6.2	(5.9)	0.0	(0.0)	7.0	(3.5)	3.4	(2.9)	2.3	(0.2)
40+ (obese class III)	3.4	(2.8)	9.1	(8.6)	5.0	(2.5)	10.5	(5.3)	0.6	(0.1)
35+ (obese class II-III)	9.7	(6.4)	9.1	(8.6)	12.0*	(4.2)	13.8	(5.9)	2.8	(0.2)
30+ (total obese)	31.2*	(9.4)	39.1*	(13.4)	29.4*	(6.0)	38.2*	(9.6)	12.6	(0.5)
<b>II. Logistic regression of BN or BED (vs. No lifetime eating disorder) on BMI<sup>1</sup></b>										
	OR (95% CI)		OR (95% CI)		OR (95% CI)		OR (95% CI)			
< 18.5 (underweight)	0.7	(0.1-4.7)	0.5	(0.1-3.9)	0.3	(0.0-2.0)	--	--		
18.5 – 24.9 (normal)	1.0	--	1.0	--	1.0	--	1.0	--		
25 – 29.9 (overweight)	0.9	(0.4-1.8)	1.5	(0.5-4.6)	0.7	(0.4-1.3)	1.2	(0.5-2.9)		
30 – 34.9 (obese class I)	2.6	(0.9-7.6)	5.2*	(1.5-18.2)	1.9	(0.9-4.0)	3.4*	(1.2-10.0)		
35 – 39.9 (obese class II)	3.3	(0.4-25.8)	--	--	3.1	(1.0-9.8)	2.1	(0.3-13.6)		
40+ (obese class III)	7.1*	(1.2-40.6)	30.9*	(4.0-241.2)	8.6*	(2.9-25.9)	23.2*	(7.0-77.1)		
$c^2_5$	9.7		29.4*		26.4*		39.9*			
(n)	(62)		(21)		(110)		(50)		(8,255)	

CI, confidence interval; OR, odds ratio.

\*Significant difference from respondents who had no lifetime eating disorder at the .05 level, two-sided test.

\*\* There were no significant differences between BN and BED at the .05 level, two-sided test.

<sup>1</sup>In Belgium, France, Germany, Italy, Netherlands, Northern Ireland, Portugal, Romania, and Spain.<sup>2</sup>Based on a series of logistic regression models, each one comparing respondents with the eating disorder defined by the column heading with respondents without a history of eating disorders controlling for dummy variables for country.

**Table S18. Current body mass index (BMI) among respondents with versus without DSM-IV/CIDI bulimia nervosa (BN) and binge eating disorder (BED) in the U.S. WMH survey**

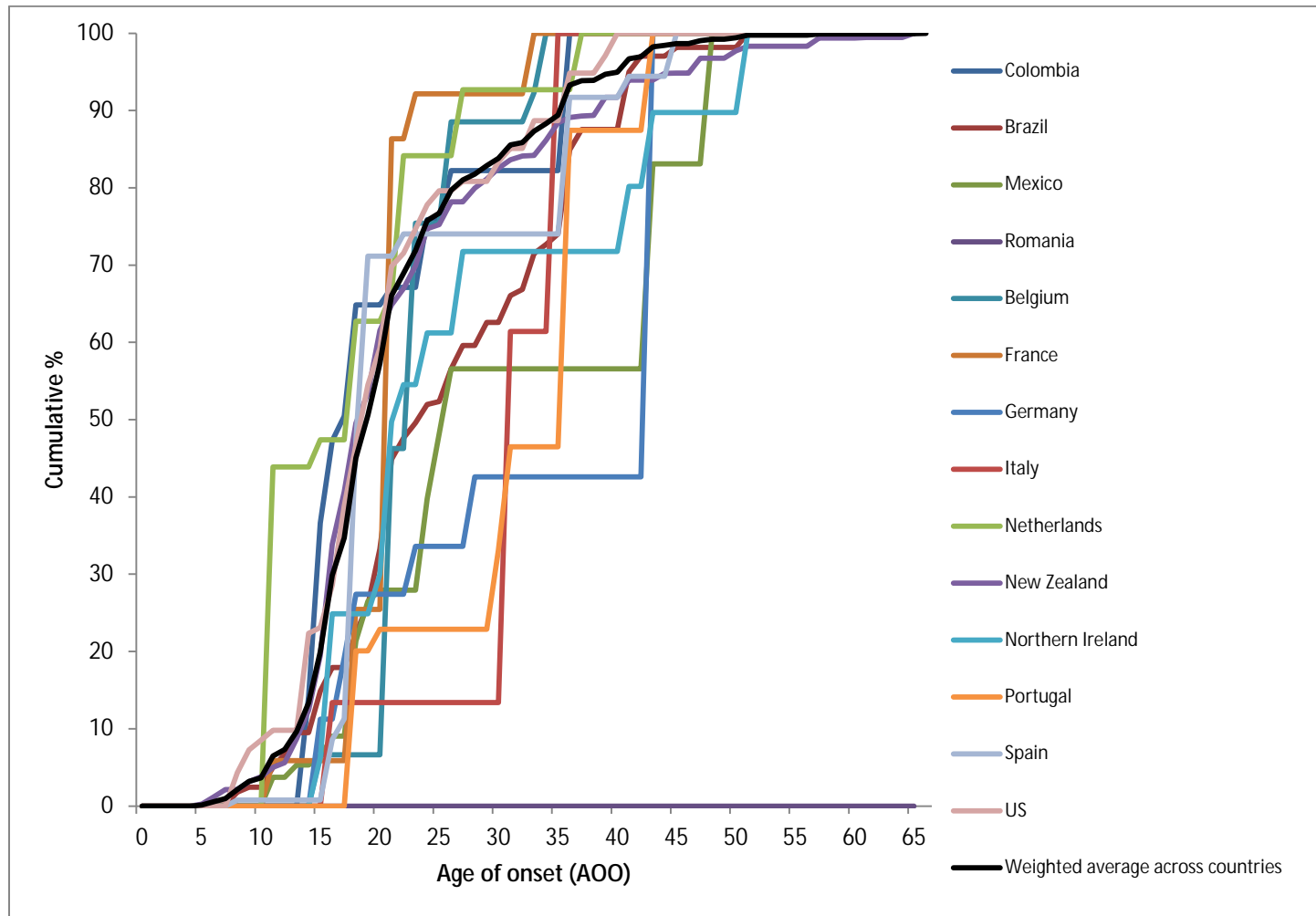
	BN				BED				No eating disorder
	Lifetime % (se)	12-month % (se)	Lifetime % (se)	12-month % (se)	Lifetime % (se)	12-month % (se)	Lifetime % (se)	12-month % (se)	% (se)
<b>I. Distribution of BMI</b>									
< 18.5 (underweight)	3.4 (2.5)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	2.0 (0.4)	2.0 (0.4)	2.0 (0.4)
18.5 – 24.9 (normal)	31.8 (5.6)	15.3* (9.5)	21.1* (5.0)	19.0* (4.4)	36.7 (1.5)	36.2 (1.2)	36.2 (1.2)	36.2 (1.2)	36.2 (1.2)
25 – 29.9 (overweight)	34.4 (9.1)	42.2 (13.4)	39.2 (7.6)	35.7 (10.2)	36.2 (1.2)	36.2 (1.2)	36.2 (1.2)	36.2 (1.2)	36.2 (1.2)
30 – 34.9 (obese class I)	10.2 (4.4)	3.5*** (3.5)	21.4 (6.4)	25.6 (7.4)	15.1 (1.2)	15.1 (1.2)	15.1 (1.2)	15.1 (1.2)	15.1 (1.2)
35 – 39.9 (obese class II)	10.1 (4.7)	20.3 (13.4)	4.5 (1.9)	3.6 (1.9)	6.2 (0.7)	6.2 (0.7)	6.2 (0.7)	6.2 (0.7)	6.2 (0.7)
40+ (obese class III)	10.0 (4.9)	18.7 (11.4)	13.9* (4.5)	16.2 (7.6)	3.8 (0.5)	3.8 (0.5)	3.8 (0.5)	3.8 (0.5)	3.8 (0.5)
35+ (obese class II-III)	20.2 (5.5)	39.0* (14.0)	18.4 (4.5)	19.8 (7.6)	10.0 (0.8)	10.0 (0.8)	10.0 (0.8)	10.0 (0.8)	10.0 (0.8)
30+ (total obese)	30.3 (7.4)	42.4 (14.3)	39.8 (7.4)	45.4 (10.5)	25.1 (1.5)	25.1 (1.5)	25.1 (1.5)	25.1 (1.5)	25.1 (1.5)
<b>II. Logistic regression of BN or BED (vs. No lifetime eating disorder) on BMI<sup>1</sup></b>									
	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>	<b>OR (95% CI)</b>
< 18.5 (underweight)	2.0 (0.4-9.3)	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
18.5 – 24.9 (normal)	1.0 --	1.0 --	1.0 --	1.0 --	1.0 --	1.0 --	1.0 --	1.0 --	1.0 --
25 – 29.9 (overweight)	1.1 (0.5-2.5)	2.8 (0.6-13.3)	1.9 (0.9-4.0)	1.9 (0.8-4.4)	1.9 (0.8-4.4)	1.9 (0.8-4.4)	1.9 (0.8-4.4)	1.9 (0.8-4.4)	1.9 (0.8-4.4)
30 – 34.9 (obese class I)	0.8 (0.3-1.8)	0.6 (0.0-7.2)	2.5* (1.1-5.7)	3.3* (1.4-7.5)	3.3* (1.4-7.5)	3.3* (1.4-7.5)	3.3* (1.4-7.5)	3.3* (1.4-7.5)	3.3* (1.4-7.5)
35 – 39.9 (obese class II)	1.9 (0.6-6.0)	7.8 (0.9-65.4)	1.3 (0.4-3.8)	1.1 (0.3-3.8)	1.1 (0.3-3.8)	1.1 (0.3-3.8)	1.1 (0.3-3.8)	1.1 (0.3-3.8)	1.1 (0.3-3.8)
40+ (obese class III)	3.1* (1.1-8.9)	11.8* (1.7-81.3)	6.4* (3.0-13.9)	8.3* (2.9-23.7)	8.3* (2.9-23.7)	8.3* (2.9-23.7)	8.3* (2.9-23.7)	8.3* (2.9-23.7)	8.3* (2.9-23.7)
$\chi^2_5$	9.4	36.8*	45.9*	49.1*	49.1*	49.1*	49.1*	49.1*	49.1*
(n)	(52)	(16)	(104)	(51)	(51)	(51)	(51)	(51)	(2,819)

CI, confidence interval; OR, odds ratio.

\*Significant difference from respondents who had no lifetime eating disorder at the .05 level, two-sided test.

\*\*Significant difference between BN and BED at the .05 level, two-sided test.

<sup>1</sup>Based on a series of logistic regression models, each one comparing respondents with the eating disorder defined by the column heading with respondents without a history of eating disorders.



**Figure S1. Cumulative age-of-onset distribution for lifetime bulimia with hierarchy in each country**

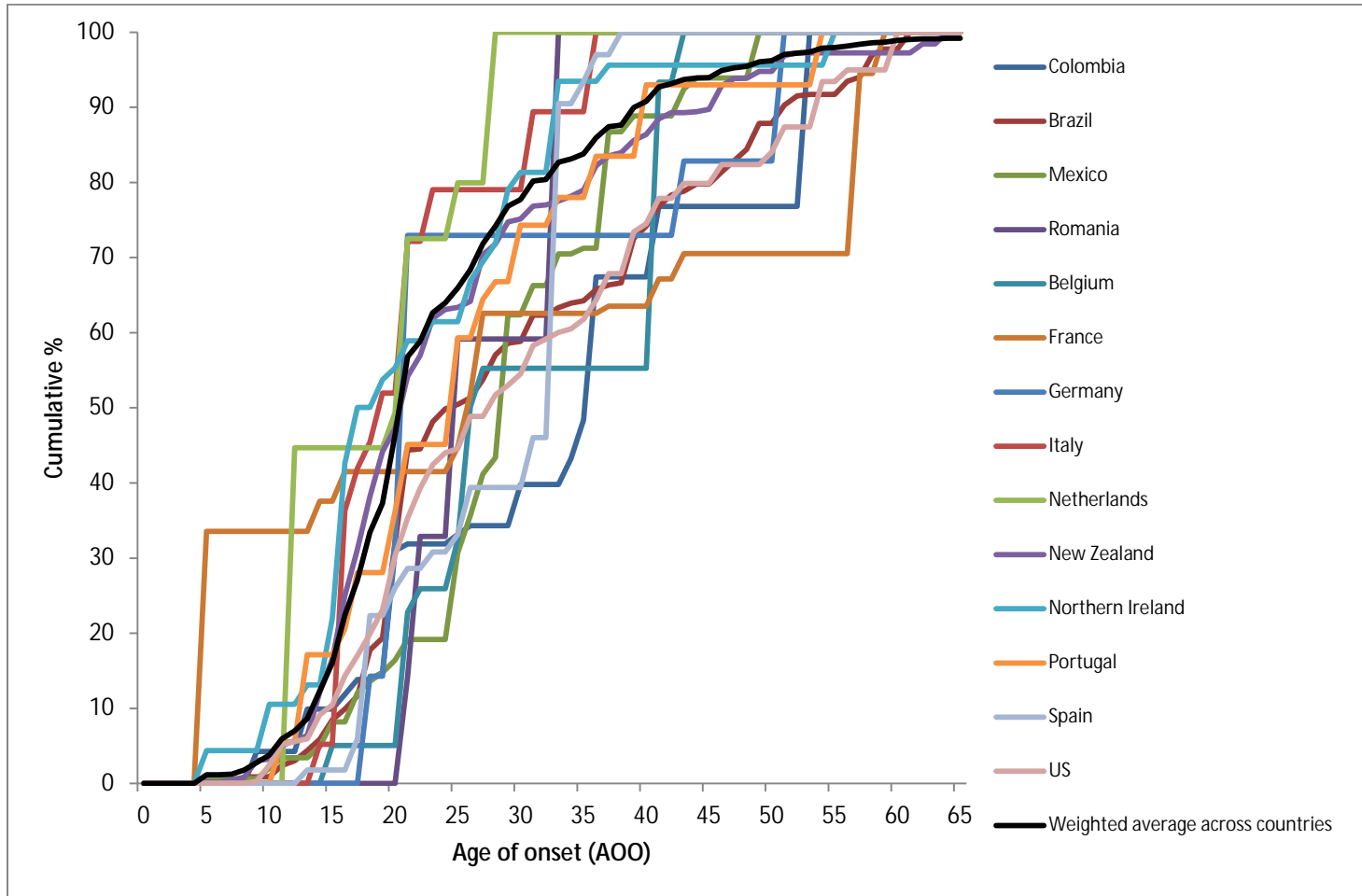


Figure S2. Cumulative age-of-onset distribution for lifetime binge eating disorder with hierarchy in each country

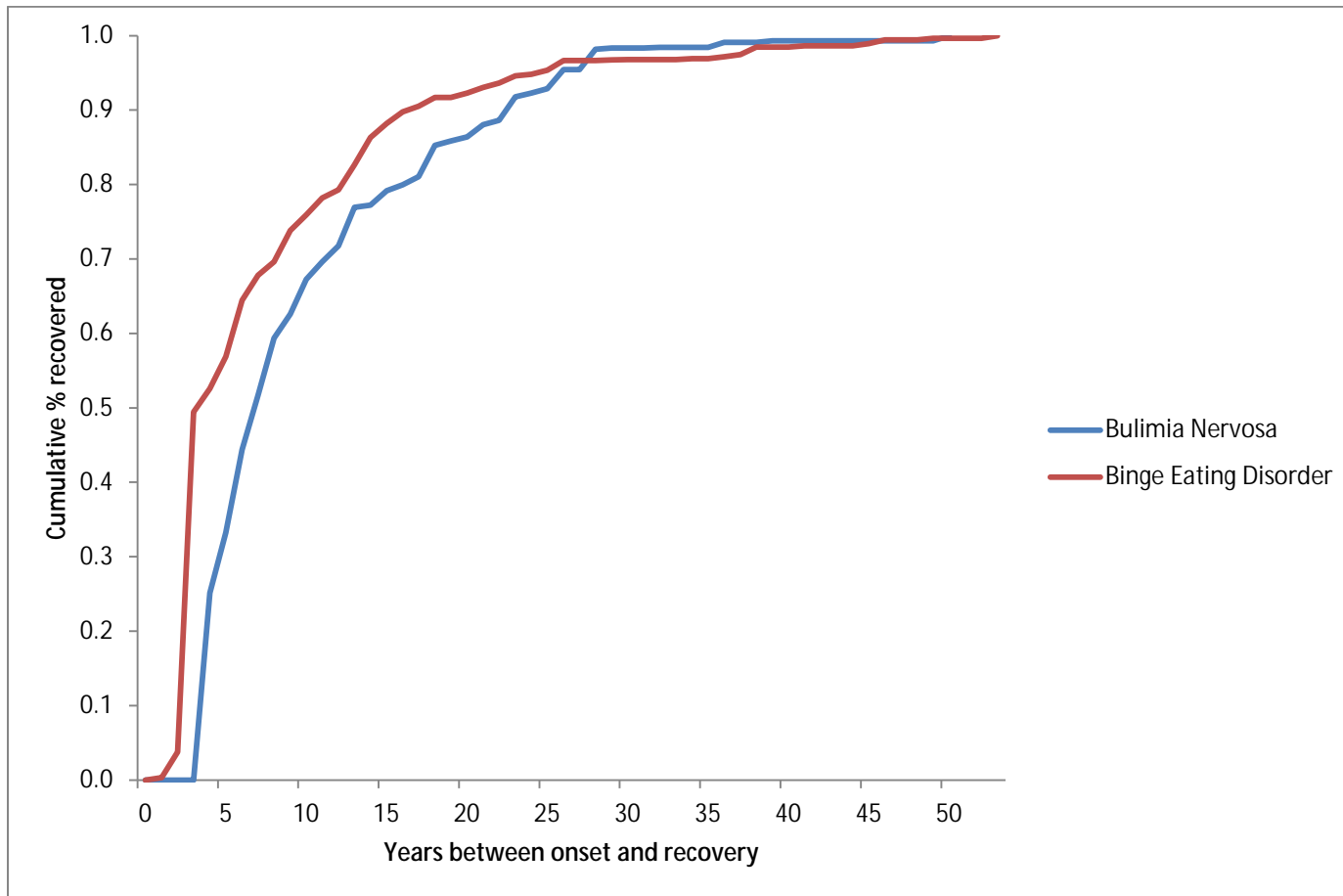


Figure S3. Speed of recovery from eating disorder, all countries pooled