

The Population Burden of Posttraumatic Stress Disorder

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As noted in Chapter 2, the population burden of post-traumatic stress disorder (PTSD) is most directly represented either as the point prevalence of the disorder or as the number of years in episode of the disorder per capita in the population. It is clear from the results reported so far that the magnitude of the associations of any predictor of 30-day prevalence will be a joint function of its strength in predicting exposure to specific trauma types, onset of PTSD among those exposed to these trauma types, and persistence of PTSD among the latter cases. Relative prevalence of the separate trauma types is also a critical aspect of these burden calculations. In this chapter, we trace out these pathways to examine the relative importance of different trauma types in accounting for the overall societal burden of PTSD.

Prevalence and Distribution of Trauma Exposure

We saw in Chapter 3 that 70.4% of World Mental Health (WMH) respondents experienced at least one trauma in their lifetimes. Mean number of lifetime trauma types among those with any was 2.0, for 1.4 trauma types per capita (i.e., 0.704×2.0) (see Table 23.1). By far the most common trauma types at the respondent-level (i.e., whether or not this type of trauma ever occurred to the respondent, ignoring how many times it occurred) were unexpected death (UD) of a loved one (reported by 31.4% of respondents) and direct exposure (i.e., witnessing or discovering) to death or serious injury (23.7%). The next most common trauma types at the respondent level were muggings (14.4%), life-threatening automobile accidents (14.0%), and life-threatening illnesses (11.8%). “Private” traumas were reported by 4.9% of respondents. When considered in terms of broader categories, the most common traumas at the respondent level were those that either occurred to a loved one or were witnessed (35.7% of respondents), those involving accidents (34.3%), and

death of a loved one (31.49%) followed by physical violence (22.9%), intimate partner-sexual violence (14.0%), war-related traumas (13.1%), and “other” traumas (8.4%).

The aforementioned results did not take into consideration that the mean number of exposures varied significantly across trauma types for the 18 traumas that were assessed for frequency ($\chi^2_{17} = 1,528.4, p < 0.001$). (The other trauma types were not assessed for frequency because they represented ongoing situations rather than discrete events.) When we multiplied the proportion of respondents with any lifetime exposure to a given trauma type by mean number of exposures among those with any, we found a mean number of exposures to any trauma among those with any of 4.6. This translates into 3.2 lifetime trauma exposures per capita (i.e., 704 with any exposure \times 4.6). The societal burden of these traumas is concentrated among traumas that happen to others, either death of a loved one (16.5% of all traumas) or other traumas that happened to a loved one or that the respondent witnessed (25.0%), collectively accounting for over 40% of all trauma exposures. Another 24.6% of traumas were accidents and another roughly one-fourth either intimate partner-sexual violence (9.8%) or physical violence (13.8%). The remaining categories of war-related (7.4%) and “other” (2.8%) traumas were much less common.

Differential Risk of PTSD Depending on Trauma Type

As detailed in Chapter 5, conditional risk of DSM-IV/CIDI PTSD after trauma exposure was 4.0% overall and varied significantly by trauma type (see Table 23.2). The highest conditional risk was associated with being raped (19.0%), physically abused by a romantic partner (11.7%), kidnapped (11.0%), and sexually assaulted other than rape (10.5%). In terms of broader categories, the traumas associated with the highest PTSD risk

Table 23.1 Prevalence and distribution of lifetime traumas in the WMH surveys ($n = 68,894$)

	Person-level lifetime prevalence ^a		Mean exposures given any ^b		Number of exposures per 100 people ^c		Each trauma type as a percentage of all traumas ^d	
	%	(SE)	Mean	(SE)	Est	(SE)	%	(SE)
I War-Related Trauma								
Relief worker in war zone	1.0	(0.1)	–	–	1.0	(0.1)	0.3	(0.0)
Civilian in war zone	4.4	(0.1)	–	–	4.4	(0.1)	1.4	(0.0)
Civilian in region of terror	3.4	(0.1)	–	–	3.4	(0.1)	1.1	(0.0)
Refugee	2.2	(0.1)	–	–	2.2	(0.1)	0.7	(0.0)
Combat experience	3.1	(0.1)	–	–	3.1	(0.1)	1.0	(0.0)
Purposely injured/tortured/killed someone	0.9	(0.1)	2.5	(0.1)	2.1	(0.1)	0.7	(0.0)
Witnessed atrocities	3.7	(0.1)	2.1	(0.0)	7.6	(0.2)	2.4	(0.1)
Any	13.1	(0.2)	1.8	(0.0)	23.9	(0.5)	7.4	(0.1)
II Physical Violence Victimization								
Beaten by caregiver	7.9	(0.2)	–	–	7.9	(0.2)	2.5	(0.0)
Beaten by someone else	5.9	(0.1)	2.0	(0.0)	11.5	(0.3)	3.6	(0.1)
Mugged/threatened with a weapon	14.5	(0.2)	1.6	(0.0)	23.7	(0.4)	7.4	(0.1)
Kidnapped	1.1	(0.1)	1.1	(0.0)	1.2	(0.1)	0.4	(0.0)
Any	22.9	(0.3)	1.9	(0.0)	44.3	(0.6)	13.8	(0.2)
III Sexual Violence Victimization								
Raped	3.2	(0.1)	1.8	(0.0)	5.8	(0.2)	1.8	(0.1)
Sexually assaulted	5.8	(0.1)	2.0	(0.0)	11.7	(0.3)	3.6	(0.1)
Stalked	5.3	(0.1)	1.8	(0.0)	9.5	(0.2)	3.0	(0.1)
Beaten by spouse/romantic partner	4.5	(0.1)	–	–	4.5	(0.1)	1.4	(0.0)
Any	14.0	(0.2)	2.3	(0.0)	31.5	(0.6)	9.8	(0.2)
IV Accidents/Injuries								
Automobile accident	14.0	(0.2)	1.4	(0.0)	19.6	(0.3)	6.1	(0.1)
Other life-threatening accident	6.2	(0.1)	1.5	(0.0)	9.4	(0.2)	2.9	(0.1)
Natural disaster	7.4	(0.2)	1.8	(0.0)	13.1	(0.5)	4.1	(0.1)
Toxic chemical exposure	4.2	(0.1)	2.7	(0.1)	11.5	(0.4)	3.6	(0.1)
Human-made disaster	4.0	(0.1)	1.7	(0.0)	6.9	(0.2)	2.1	(0.1)
Accidentally caused serious injury/death	1.4	(0.1)	1.6	(0.1)	2.2	(0.1)	0.7	(0.0)
Life-threatening illness	11.8	(0.2)	1.4	(0.0)	16.5	(0.3)	5.1	(0.1)
Any	34.3	(0.3)	2.3	(0.0)	79.2	(1.1)	24.6	(0.2)
V UD of a Loved One								
	31.4	(0.3)	1.7	(0.0)	53.2	(0.7)	16.5	(0.2)
VI Other Traumas of Loved Ones or Witnessed								
Child with serious illness	7.9	(0.1)	1.3	(0.0)	10.1	(0.2)	3.1	(0.1)
Trauma to loved one	5.6	(0.1)	1.5	(0.0)	8.5	(0.3)	2.7	(0.1)
Witnessed parent violence	7.9	(0.2)	–	–	7.9	(0.2)	2.5	(0.0)
Witnessed death/dead body/serious injury	23.7	(0.3)	2.3	(0.0)	53.9	(0.9)	16.8	(0.2)
Any	35.7	(0.3)	2.2	(0.0)	80.4	(1.0)	25.0	(0.2)
VII Other Traumas								
Some other trauma	4.2	(0.1)	–	–	4.2	(0.1)	1.3	(0.0)
Private trauma ^e	4.9	(0.1)	–	–	4.9	(0.1)	1.5	(0.0)
Any	8.4	(0.2)	1.1	(0.0)	9.1	(0.2)	2.8	(0.1)
VIII Any								
	70.4	(0.3)	4.6	(0.0)	321.5	(2.9)	100.0	(0.0)

^aThe percent of all respondents who reported ever in their lifetime experiencing the trauma type indicated in the row heading. For example, 3.1% of respondents across surveys reported a history of combat experience.

^bThe mean number of lifetime occurrences of the trauma type indicated in the row heading among those who reported ever experiencing that trauma type. “–” entries indicate that we did not assess number of occurrences for the trauma type. For example, the respondents who reported ever in their life purposely injuring, torturing, or killing someone reported a mean of 2.5 such occurrences.

^cThe number of lifetime occurrences of the trauma type indicated in the row heading per 100 respondents, which equals the product of the two earlier row entries. For example, the 2.5 lifetime occurrences of purposely injuring, torturing, or killing someone reported by 0.9% of respondents results in 2.1 (0.9×2.5) lifetime occurrences of such a trauma for every 100 respondents in the sample.

^dThe ratio of the entry in the cell of the previous column to the 321.5 total lifetime traumas for every 100 respondents. For example, the 3.1 instances of combat experience represent approximately 1.0% of the 321.5 total.

^eA *private* event is a trauma that some individuals reported in response to a question asked at the very end of the trauma section that asked if they ever had some other very upsetting experience they did not tell us about already (and this includes in response to a prior open-ended question about “any other” trauma) because they were too embarrassed or upset to talk about it. Respondents were told, before they answered, that if they reported such a trauma we would not ask them anything about what it was, only about their age when the trauma happened.

Table 23.2 Conditional risk of DSM-IV/CIDI PTSD by trauma category in the WMH surveys

	PTSD risk given trauma exposure ^a		Number of PTSD episodes per 100 people ^b		Percentage of all PTSD episodes for each trauma type ^c		
	%	(SE)	Est	(SE)	%	(SE)	(n)
I War-Related Trauma							
Relief worker in war zone	0.8	(0.7)	0.0	(0.0)	0.1	(0.1)	(139)
Civilian in war zone	1.3	(0.5)	0.1	(0.0)	0.5	(0.2)	(1,050)
Civilian in region of terror	1.6	(0.6)	0.1	(0.0)	0.4	(0.1)	(634)
Refugee	4.5	(2.0)	0.1	(0.0)	0.8	(0.3)	(406)
Combat experience	3.6	(0.8)	0.1	(0.0)	0.9	(0.2)	(535)
Purposely injured/tortured/killed someone	4.0	(3.1)	0.1	(0.1)	0.7	(0.5)	(102)
Witnessed atrocities	5.4	(4.1)	0.4	(0.3)	3.2	(2.2)	(533)
Any	3.5	(1.4)	0.8	(0.3)	6.4	(2.3)	(3,399)
II Physical Violence Victimization							
Beaten by caregiver	5.0	(1.0)	0.4	(0.1)	3.1	(0.6)	(2,082)
Beaten by someone else	2.5	(0.6)	0.3	(0.1)	2.2	(0.6)	(1,201)
Mugged/threatened with a weapon	1.8	(0.4)	0.4	(0.1)	3.4	(0.7)	(3,277)
Kidnapped	11.0	(3.0)	0.1	(0.0)	1.0	(0.3)	(216)
Any	2.8	(0.4)	1.3	(0.2)	9.7	(1.2)	(6,776)
III Sexual Violence Victimization							
Raped	19.0	(2.2)	1.1	(0.1)	8.6	(1.0)	(1,246)
Sexually assaulted	10.5	(1.5)	1.2	(0.2)	9.5	(1.3)	(1,574)
Stalked	7.6	(2.0)	0.7	(0.2)	5.6	(1.4)	(1,160)
Beaten by spouse/romantic partner	11.7	(1.3)	0.5	(0.1)	4.1	(0.5)	(1,675)
Any	11.4	(1.0)	3.6	(0.3)	27.8	(2.0)	(5,655)
IV Accidents/Injuries							
Automobile accident	2.6	(0.4)	0.5	(0.1)	4.0	(0.7)	(3,428)
Other life-threatening accident	4.9	(2.4)	0.5	(0.2)	3.5	(1.6)	(1,205)
Natural disaster	0.3	(0.1)	0.0	(0.0)	0.3	(0.1)	(1,669)
Toxic chemical exposure	0.1	(0.0)	0.0	(0.0)	0.1	(0.0)	(622)
Human-made disaster	2.9	(1.3)	0.2	(0.1)	1.5	(0.7)	(726)
Accidentally caused serious injury/death	2.8	(1.0)	0.1	(0.0)	0.5	(0.1)	(251)
Life-threatening illness	2.0	(0.3)	0.3	(0.1)	2.5	(0.4)	(3,249)
Any	2.0	(0.3)	1.6	(0.3)	12.4	(1.9)	(11,150)
V UD of a Loved One							
	5.4	(0.5)	2.9	(0.3)	22.2	(1.8)	(10,714)
VI Other Traumas of Loved Ones or Witnessed							
Child with serious illness	4.8	(0.6)	0.5	(0.1)	3.8	(0.5)	(2,452)
Trauma to loved one	5.1	(1.3)	0.4	(0.1)	3.4	(0.8)	(1,173)
Witnessed parent violence	3.8	(0.7)	0.3	(0.1)	2.4	(0.4)	(2,000)
Witnessed death/dead body/serious injury	1.3	(0.3)	0.7	(0.1)	5.5	(1.0)	(5,114)
Any	2.4	(0.2)	1.9	(0.2)	15.0	(1.4)	(10,739)
VII Other Traumas							
Some other trauma	9.1	(1.0)	0.4	(0.0)	3.0	(0.3)	(1,260)
Private trauma ^d	9.2	(1.1)	0.5	(0.1)	3.5	(0.4)	(1,503)
Any	9.2	(0.7)	0.8	(0.1)	6.5	(0.5)	(2,763)
VIII Any							
	4.0	(0.2)	12.9	(0.7)	100	(0.0)	(51,196)

^aThe conditional risk of PTSD associated with the trauma type indicated in the row heading. For example, 3.6% of combat experiences resulted in DSM-IV/CIDI PTSD.

^bThe mean number of lifetime episodes of PTSD associated with the trauma type indicated in the row heading per 100 respondents. For example, the 3.5% of lifetime war-related traumas that led to PTSD reported in the first column of Table 23.2, when multiplied by the 23.9 lifetime occurrences of such traumas per 100 respondents reported in the third column of Table 23.1, translates into 0.8 lifetime episodes of PTSD due to this category of traumas per 100 respondents.

^cThe ratio of the entry in the cell of the previous column to the total of 12.9 lifetime episodes of PTSD per 100 respondents. For example, the 0.8 cases of PTSD associated with war-related traumas represents 6.4% of the 12.9 total.

^dA *private* event is a trauma that some individuals reported in response to a question asked at the very end of the trauma section that asked if they ever had some other very upsetting experience they did not tell us about already (and this includes in response to a prior open-ended question about "any other" trauma) because they were too embarrassed or upset to talk about it. Respondents were told, before they answered, that if they reported such a trauma we would not ask them anything about what it was, only about their age when the trauma happened.

were those involving intimate partner-sexual violence (11.4%), with aggregate conditional risk much lower in the other broad trauma categories (2.4–5.4%).

Prevalence of trauma exposure and conditional risk of PTSD both need to be considered in evaluating the trauma-specific population burden of PTSD. Given that 4.6 trauma exposures occurred per capita in the population, the 4.0% aggregate conditional risk of PTSD would translate into 18.4 lifetime episodes of PTSD per 100 people in the population. The trauma type associated with by far the highest number of these PTSD cases based on these calculations was UD of a loved one (2.9 episodes of PTSD/100 population; 22.2% of all lifetime episodes of PTSD), with rape (1.1 episodes of PTSD/100 population; 8.6% of all lifetime episodes) and sexual assault other than rape (1.2 episodes of PTSD/100 population; 9.5% of all lifetime episodes) together accounting for another 18.1% of lifetime episodes. As noted earlier, UD is a very common type of trauma (53.2/100 population; 16.5% of all lifetime traumas) with a high-average conditional risk of PTSD (5.4%), whereas rape and other sexual assault are less common (5.8–11.7 lifetime occurrences/100 population; 1.8–3.6% of all lifetime traumas) with much higher condition risks of PTSD (19.0–10.5%).

Four of the six trauma types associated with highest population proportions of lifetime PTSD episodes were in the category of intimate partner-sexual violence. These included 4.1% of all lifetime PTSD episodes associated with physical abuse by a romantic partner, 8.6% with rape, 9.5% with other sexual assault, and 5.6% with being stalked, for a total of 27.8% of all lifetime episodes of PTSD. Intimate partner-sexual traumas accounted for 9.8% of all lifetime trauma exposures and were associated with comparatively high conditional risk of PTSD. The only other trauma types accounting for as many cases of PTSD were the two most commonly occurring traumas considered here: UD of a loved one (22.2% of all cases of PTSD), which, as noted earlier, was the second most common trauma (16.5% of all traumas) associated with high-average conditional risk of PTSD, and direct exposure to death or serious injury (5.5% of all cases of PTSD), which was the most common trauma (16.8% of all traumas) and was associated with a comparatively low risk of PTSD (1.3%).

It is also relevant that the results in Chapter 9 showed that the vast majority of prior trauma types were significantly and positively associated with subsequent trauma exposure, the strongest of these

associations (OR = 2.0–2.5) being for one type of physical violence (e.g., physical abuse in childhood) predicting other types of subsequent physical violence (e.g., being mugged) and intimate partner-sexual violence. It is especially important in light of this fact that we found in Chapter 9 that individuals with a history of prior trauma exposure were more likely than others to develop PTSD after exposure to subsequent traumas.

Persistence of PTSD Symptoms

As noted in Chapter 16, mean duration of PTSD varies widely across cases. The longest median duration was 5 years for PTSD symptoms associated with war-related traumas followed by 3 years for traumas involving physical or intimate partner-sexual violence. Median durations were only 1–2 years, in comparison, for PTSD due to the other broad trauma categories (see Table 23.3). Total population burden of PTSD associated with each trauma type was then calculated by multiplying these episode duration estimates by trauma-specific episode frequency estimates. When trauma-specific products were summed across all trauma types, we estimated that there were 77.7 lifetime person-years of PTSD in the population per 100 respondents. The four trauma types with the highest proportions of these person-years were rape (13.1%), other sexual assault (15.1%), being stalked (9.8%), and UD of loved one (11.6%). The broad category of intimate partner-sexual violence accounted for nearly 42.7% of all person-years with PTSD in the population.

Discussion

As noted in other chapters, the WMH results are limited in a number of ways. First, lifetime prevalence estimates of trauma exposure are likely to be conservative due to recall error. Second, diagnoses of lifetime PTSD are based on retrospective reports obtained in a cross-sectional survey using a fully structured lay-administered diagnostic interview rather than a semi-structured clinician-administered diagnostic interview. Third, the WMH clinical reappraisal study showed that PTSD prevalence was underestimated in the CIDI compared to blinded semi-structured clinical interviews, but that the vast majority of CIDI cases were confirmed in these clinical reappraisal interviews (Haro et al., 2006), suggesting that the WMH prevalence estimates are conservative. Finally, WMH results regarding PTSD persistence, in comparison, are anti-conservative because they assess persistence of any

Table 23.3 Mean duration and years in episode of DSM-IV/CIDI PTSD by trauma type in the WMH surveys

	Mean PTSD episode duration (in months) by trauma type ^a		Number of years with PTSD per 100 people ^b		Percentage of all years with PTSD for each trauma type ^c		
	Mean	(SE)	Est	(SE)	%	(SE)	(n)
I War-Related Trauma							
Relief worker in war zone	95.3	(45.8)	0.1	(0.0)	0.1	(0.1)	(2)
Civilian in war zone	62.9	(26.7)	0.3	(0.1)	0.4	(0.2)	(29)
Civilian in region of terror	38.5	(15.6)	0.2	(0.0)	0.2	(0.0)	(20)
Refugee	44.7	(20.2)	0.4	(0.1)	0.5	(0.2)	(20)
Combat experience	161.7	(23.3)	1.5	(0.3)	1.9	(0.5)	(54)
Purposely injured/tortured/killed someone	79.3	(8.9)	0.6	(0.4)	0.7	(0.5)	(7)
Witnessed atrocities	78.3	(22.1)	2.7	(1.6)	3.5	(2.0)	(29)
Any	82.0	(11.8)	5.7	(1.8)	7.3	(2.2)	(161)
II Physical Violence Victimization							
Beaten by caregiver	138.6	(25.7)	4.6	(0.7)	5.9	(1.0)	(174)
Beaten by someone else	22.7	(4.6)	0.5	(0.1)	0.7	(0.2)	(62)
Mugged/threatened with a weapon	115.0	(47.5)	4.2	(2.3)	5.4	(2.8)	(119)
Kidnapped	115.9	(38.1)	1.3	(0.5)	1.6	(0.7)	(40)
Any	101.4	(18.6)	10.6	(2.6)	13.6	(3.0)	(395)
I Sexual Violence Victimization							
Raped	110.3	(14.1)	10.2	(1.4)	13.1	(1.9)	(443)
Sexually assaulted	114.2	(18.5)	11.7	(2.1)	15.1	(2.7)	(280)
Stalked	127.1	(84.2)	7.6	(6.0)	9.8	(6.5)	(103)
Beaten by spouse/romantic partner	82.7	(9.0)	3.6	(0.5)	4.7	(0.7)	(318)
Any	110.9	(18.0)	33.2	(6.5)	42.7	(4.9)	(1,144)
IV Accidents/Injuries							
Automobile accident	52.5	(15.0)	2.2	(0.7)	2.9	(0.9)	(170)
Other life-threatening accident	28.6	(6.4)	1.1	(0.6)	1.4	(0.8)	(41)
Natural disaster	12.9	(4.3)	0.0	(0.0)	0.0	(0.0)	(22)
Toxic chemical exposure	40.4	(22.2)	0.0	(0.0)	0.1	(0.0)	(9)
Human-made disaster	41.3	(8.4)	0.7	(0.3)	0.9	(0.4)	(31)
Accidentally caused serious injury/death	54.5	(27.7)	0.3	(0.1)	0.4	(0.1)	(24)
Life-threatening illness	41.3	(9.0)	1.1	(0.3)	1.4	(0.3)	(152)
Any	41.2	(5.7)	5.5	(1.0)	7.1	(1.4)	(449)
V UD of a Loved One							
	37.7	(3.9)	9.0	(0.9)	11.6	(1.5)	(1,158)
VI Other Traumas of Loved Ones or Witnessed							
Child with serious illness	44.7	(8.7)	1.8	(0.4)	2.3	(0.5)	(225)
Trauma to loved one	45.7	(12.8)	1.7	(0.5)	2.1	(0.6)	(101)
Witnessed parent violence	107.1	(15.0)	2.7	(0.5)	3.5	(0.7)	(135)
Witnessed death/dead body/serious injury	45.4	(9.8)	2.7	(0.8)	3.5	(1.0)	(140)
Any	55.0	(5.1)	8.9	(1.1)	11.4	(1.6)	(601)
VII Other Traumas							
Some other trauma	62.1	(12.1)	2.0	(0.4)	2.5	(0.6)	(201)
Private trauma ^d	79.5	(13.1)	3.0	(0.4)	3.9	(0.6)	(248)
Any	71.5	(6.8)	5.0	(0.6)	6.4	(0.9)	(449)
VIII Any							
	72.3	(6.0)	77.7	(7.5)	100.0	(0.0)	(4,357)

^aThe mean duration (in months) of PTSD episodes associated with the trauma type indicated in the row heading. Recovery was defined as the number of months until the respondent stopped having any symptoms. For example, respondents with a history of PTSD due to combat experience reported that symptoms continued for a mean of 161.7 months (13.5 years).

^bThe number of lifetime episodes of PTSD due to the trauma type indicated in the row heading per 100 respondents from the second column in Table 23.2 multiplied by the mean duration (in years) from the first column of Table 23.3. For example, the 0.8 lifetime episodes of PTSD due to war-related traumas per 100 respondents multiplied by the mean 6.8 years per episode results in 5.7 (0.8 × 6.8) years of PTSD due to this category of traumas per 100 respondents.

^cThe ratio of the entry in the cell of the previous column to the total 77.7 years of PTSD due to any trauma for every 100 respondents. For example, the 5.7 years of war-related PTSD represent 7.3% of the 77.7 total.

^dA private event is a trauma that some individuals reported in response to a question asked at the very end of the trauma section that asked if they ever had some other very upsetting experience they did not tell us about already (and this includes in response to a prior open-ended question about "any other" trauma) because they were too embarrassed or upset to talk about it. Respondents were told, before they answered, that if they reported such a trauma we would not ask them anything about what it was, only about their age when the trauma happened.

symptom rather than persistence of the full PTSD syndrome.

Within the context of these limitations, as we noted in Chapter 3, our finding that 70.4% of respondents were exposed to one or more traumas in their lifetimes is broadly consistent with previous research. However, the WMH surveys went beyond previous studies in assessing frequency of exposure, documenting that trauma exposure is even more common than previously known, with a per capita mean lifetime average of 2.0 trauma types and 4.6 trauma exposures. But these estimates are conservative, as they are based on calculations in which some ongoing traumas, such as physical abuse at the hands of a caregiver during childhood, are counted as only “one occurrence,” even though these traumas might have persisted over many years.

Regarding the most common types of trauma, WMH results are consistent with previous research showing that UD of a loved one and automobile accidents are the two most common types of trauma in the general population. We also found, though, that traumas occurring to others account for over 40% of all reported traumas (16.5% involving UD of a loved one and an additional 25.0% other traumas that either occurred to a loved one or were witnessed), that accidents are the most common type of directly experienced trauma (24.6%), and that traumas involving intimate partner-sexual violence (9.8%) and physical violence (13.8%) account for the bulk of other traumas. It is noteworthy that the number of traumas that occurred to loved ones is clearly underreported by WMH respondents. That’s because though we would expect the loved ones of each respondent to have as many traumas as the respondent, this is not the case in respondent reports. This discrepancy suggests that reports about traumas occurring to loved ones are limited to the traumas that are most psychologically salient.

We also found that trauma exposure is not distributed randomly in the population. Our results are consistent with the literature on basic socio-demographic correlates of trauma exposure (Hatch & Dohrenwend, 2007) and previous research showing that traumas involving violence and accidents are more likely to occur in adolescence and early adulthood than at other stages of the life course. We also found that trauma exposures are correlated over time, with individuals exposed to earlier traumas at significantly increased risk of being exposed to subsequent traumas. The latter pattern presumably reflects individual differences in

predispositions, coping resources, life circumstances, and lifestyles. The WMH data were too coarse to search for modifiable risk factors that might be targeted to prevent future trauma exposure, but the strong inter-temporal patterning of exposure suggests that such an investigation might make sense. Given that preventive interventions can already address recurrences of drunk driving (Miller et al., 2015), intimate partner violence (Ramsay et al., 2009), and sexual violence (Marques et al., 2005), our results raise the possibility of also developing risk models to target broader types of secondary preventive interventions.

Our estimates of conditional PTSD risk among those exposed to traumas were mostly lower than in previous studies due to our focus on representative samples of traumas in comparison to the worst traumas examined in most other community epidemiological studies and in samples that overrepresent help-seekers focused on particular trauma types (e.g., Campbell et al., 2009; Goldmann & Galea, 2014). Our finding that conditional PTSD risk was elevated after traumas involving violence is broadly consistent with the results reported in reviews (Ozer et al., 2003; Atwoli et al., 2015). We also found that prior exposure to some traumas involving violence was associated with *generalized vulnerability* to subsequent PTSD. Although ongoing research is investigating pathways leading to such generalized vulnerability (Rutter, 2012; Daskalakis et al., 2013; Levy-Gigi et al., 2016), we know of no work on the differential effects of trauma types. However, suggestive related evidence exists on differences in associations of childhood adversities with adult mental disorders across different childhood adversity types (Pirkola et al., 2005; Kessler et al., 2010) and profiles (Putnam et al., 2013; McLafferty et al., 2015).

Finally, our results regarding persistence are broadly consistent with previous studies showing that a substantial minority of PTSD cases remit within months, but that a substantial minority of cases persist for many years. As shown in Chapter 16, we found much less evidence for systematic pre-onset predictors of course of illness than we found for the predictor of onset. This means that we would have no way to target the subset of patients at high risk of *chronic* PTSD for preventive interventions at the time of trauma exposure based on the variables considered in the WMH surveys. This presumably reflects the importance of factors that could not be assessed until after PTSD onset on the course of illness. We had no way to study these variables with the WMH data. This is a main focus

of the new prospective AURORA study mentioned in Chapter 24. Taken together, these results demonstrate that there are a number of potential intervention points to reduce the population burden of PTSD, a topic covered in Chapter 24.

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