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PART ONE

Methods

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1 Introduction

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1. INTRODUCTION

As medical expenses continue to escalate, it becomes increasingly clear that no society can assume the health-care needs of all its constituents. Fiscal triage rules are needed, whether explicit or implicit, to rationalize the distribution of costly resources (Bobadilla et al. 1994). Evidence of large mismatches between current and optimal health-care allocations suggests that such rules may reap substantial benefits by considering evidence regarding a comparative disease burden and treatment cost–effectiveness (Gold et al. 1996).

Mental disorders are perhaps the largest class of diseases for which evidence exists of a substantial discordance between societal burden and health-care expenditures. The World Health Organization (WHO) Global Burden of Disease (GBD) Study estimated in the mid-1990s that commonly occurring mental disorders such as major depression, bipolar disorder, schizophrenia, and substance abuse are among the highest-ranked diseases in the world in terms of disease-specific disability (Murray & Lopez 1996). Safe, effective, and comparatively inexpensive treatments for most of these disorders were available at that time (e.g., Leonard 1996; Bradley et al. 2005; Haby et al. 2006). Yet the proportion of total health-care dollars devoted to the treatment of mental disorders was then, and continues to be, disproportionately low in the vast majority of countries (Ormel et al. 2008).

Concern about this disparity between mental health service demand and supply led the WHO to launch the World Mental Health (WMH) Survey Initiative in an effort to focus the attention of health policy makers on the problems of unmet needs. A key assumption on which the WMH was based is that government public policy makers continue to neglect mental disorders, at least partially because they discount the GBD because its results were based largely on expert ratings of comparative illness impact rather than on empirical evidence (Cohen 2000; Sanderson & Andrews 2001). The WHO had hoped that policy makers could be motivated to address the problem of unmet treatment needs if evidence of such needs were more concrete and better publicized. The approach taken by the WMH is to conduct rigorous general population surveys in nationally representative samples in many countries throughout the world, to generate reputable data from those surveys on the prevalence and societal costs of mental disorders in comparison to common physical disorders, and then to develop data on unmet mental health treatment needs and to speculate on potentially modifiable barriers to recovery.

The current volume is the first in a series that will report key WMH findings. Our focus in this first volume is on WMH study design (Part One), initial results concerning the prevalence, severity, course, and basic sociodemographic correlates of mental disorders and their treatment within each of the first 17 WMH surveys (Part Two), and cross-national comparison of these results (Part Three). A brief overview of these results is presented here in Chapter 1. It should be noted that the seventeen countries included in this report represent only slightly more than half of those participating in the WMH Survey Initiative. Those that are not represented joined the initiative after the initial enrollment period and are still in the process of either finishing data collection or finalizing data cleaning and coding. A complete list of participating WMH countries and collaborators can be found in Table 1.1. Rather than postpone publication of the first volume of WMH data because of the delayed entry of some countries, we decided to proceed by posting parallel information for other participating countries on the WMH Web site, at http://www.hcp.med.harvard.edu/wmh, as soon as they become available.

2. THE PSYCHIATRIC EPIDEMIOLOGICAL TRADITION OF THE WMH SURVEYS

Although the need for nationally representative data on patterns and predictors of mental disorders was recognized by mental health policy planners throughout the world many years before the WMH Survey Initiative, it was extremely difficult to implement such surveys prior to the early 1980s. This difficulty was due to a lack of sophisticated measures available to assess mental disorders; previously, researchers were limited to either simple screening scales that yielded only true prevalence figures (Langner 1962) or expensive clinician-administered diagnostic interviews that required a cadre of experienced clinicians who could be carefully trained and monitored (Endicott & Spitzer 1978). Although surveys of the latter type were feasible in small areas in developed countries where there was ready access to many skilled clinicians (Weissman, Myers & Harding 1978), such surveys were not feasible in most parts of the world.

The options available for psychiatric epidemiological surveys improved in the early 1980s with the development of the Diagnostic Interview Schedule (DIS) (Robins et al. 1981), the first fully structured diagnostic interview of mental disorders designed for use by trained lay interviewers rather than clinicians. The development of the DIS was facilitated by the publication of the third edition of the Diagnostic and Statistic Manual of Mental Disorders (DSM-III), which was the first diagnostic system to specify diagnostic criteria for mental disorders in a sufficiently concrete way such that these criteria could be operationalized with fully structured diagnostic interviews. Recognizing this potential, the U.S. National Institute of Mental Health launched a program of epidemiological research known as the Epidemiologic Catchment Area (ECA) Program, subsequent to the publication of the DSM-III, which funded the development of the DIS and implemented large-scale DIS surveys in a number of mental health catchment areas in five U.S. metropolitan areas (Robins & Regier 1991).

The ECA results were widely disseminated, leading to the subsequent adoption of the ECA methodology and instrumentation in similar surveys around the world (Horwath & Weissman 2000). Both the ECA surveys and the later ECA-influenced surveys documented a high prevalence of mental disorders and widespread unmet need for treatment of these disorders (Canino et al. 1987; Bland, Orn & Newman 1988; Hwu, Yeh & Cheng 1989; Lépine et al. 1989; Wells et al. 1989; Lee et al. 1990; Wittchen et al. 1992). However, as the DIS operationalized only DSM-III diagnostic criteria and International Classification of Diseases (ICD-10) criteria were used in many countries, the WHO recognized the need to develop an instrument comparable to the DIS that used ICD criteria. An initiative to develop such an instrument was launched by the WHO

Table 1.1. The 27 WMH Initiative participating countries: Survey information

Country	Status	Sample size
WHO: Regional Office for the Americas (AMRO)		
Brazil	Completed[b]	5037
Colombia	Completed[a]	4426
Mexico	Completed[a]	5782
Peru	Spring 2008	3912
United States	Completed[a]	9282
WHO: Regional Office for Africa (AFRO)		
Nigeria	Completed[a]	6752
South Africa	Completed[a]	4351
WHO: Regional Office for the Eastern Mediterranean (EMRO)		
Iraq	Completed[b]	4332
Lebanon	Completed[a]	2857
WHO: Regional Office for Europe (EURO)		
Belgium	Completed[a]	2419
Bulgaria	Completed[b]	5318
France	Completed[a]	2894
Germany	Completed[a]	3555
Israel	Completed[a]	4859
Italy	Completed[a]	4712
Netherlands	Completed[a]	2372
Northern Ireland	Winter 2007	3097
Portugal	Winter 2008	10,000 (estimated)
Romania	Completed[b]	2357
Spain	Completed[a]	5473
Turkey	Completed[b]	5115
Ukraine	Completed[a]	4725
WHO: Regional Office for the Western Pacific (WPRO)		
Australia	Spring 2008	10,000 (estimated)
Japan	Completed[a]	2436
New Zealand	Completed[a]	12,992
People's Republic of China		
Beijing	Completed[a]	2633
Guangzhou	Spring 2008	7000 (estimated)
Shenzhen	Spring 2008	7134
Shanghai	Completed[a]	2568
WHO: Regional Office for South-East Asia (SEAR)		
India	Completed[b]	2992

[a] Included in the current volume.

[b] Although these surveys were recently completed, we are still in the process of data cleaning. As a result, they could not be included in the current volume, but their results will be posted on the WMH web site (http://www.hcp.med.harvard.edu/wmh/) as they become available.

in the mid-1980s with support from the U.S. Department of Health and Human Services. This initiative used the DIS as the foundation for an expansion to include ICD criteria and to create culturally valid translations of the instrument in many different languages. The instrument was known as the WHO Composite International Diagnostic Interview (CIDI) (Robins et al. 1988).

The first large-scale national survey to administer the CIDI was the U.S. National Comorbidity Survey (NCS) (Kessler et al. 1994). The NCS

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was carried out in the early 1990s. The NCS, unlike the earlier ECA surveys, was nationally representative, making it possible to draw much more powerful inferences than from ECA surveys about prevalence, correlates, and patterns of mental disorder treatment in the United States. Like the ECA, the NCS also documented high prevalence of mental disorders and substantial unmet treatment need. The NCS also documented that much of the U.S. treatment that was provided failed to meet even the most minimal published criteria for treatment adequacy (Wang, Demler & Kessler 2002).

As was the ECA, the NCS was followed by a number of replications in other parts of the world. These replications were greater in number than after the ECA, though, because the CIDI, unlike the DIS, was developed by the WHO, included ICD criteria, was translated into many languages, and was supported by a firm foundation of international reliability and validity studies. The WHO created a cross-national research consortium that united the investigators who carried out the many replications of the NCS to collaborate in systematic cross-national comparisons (Kessler 1999). High prevalence, early age of onset, substantial persistence, and high comorbidity were all documented consistently in these comparative analyses (WHO International Consortium in Psychiatric Epidemiology 2000).

Perhaps the most concerning issue raised by the ECA, NCS, and most other surveys prior to the WMH surveys was that the number of people estimated to meet criteria for a mental disorder in any given year in most countries' surveys was much higher than the number of people who could realistically access medical care. Commentators suggested that such observations might be overstated when some untreated cases almost certainly had mild or self-limiting disorders that did not need treatment (Narrow et al. 2002). However, in the absence of information about disorder severity, it was impossible to specify biases of this sort. The ECA and NCS were unable to provide definitive data on this issue, as the main concern of the surveys was to make categorical assessments of specific DSM disorders, not to evaluate severity. Nonetheless, post hoc analyses were able to provide some indirect information about severity. These analyses strongly suggested that a substantial proportion of DSM cases in the general population of most countries were mild (Narrow et al. 2002; Bijl et al. 2003).

As these results regarding disorder severity were based on post hoc analyses using indirect measures of severity, it soon became clear that future CIDI surveys needed to invest more heavily in the assessment of severity. To this end, the WHO consortium that coordinated CIDI surveys developed a revised version of the CIDI in the late 1990s in the hope that future CIDI surveys would collect more fine-grained data on severity (Kessler & Üstün 2004; see also Chapter 4). Shortly after this new version of the CIDI was finalized, the WHO established the WMH Survey Consortium to encourage countries around the world to implement CIDI surveys using this new version of the instrument.

Generous support from a number of funding agencies made it possible for WMH to pay centrally for core infrastructure development. This allowed participating countries to carry out high-quality, large-scale mental health epidemiological needs assessment surveys at a much lower cost than if they had attempted to launch such surveys on their own. Even putting aside cost, local investigators in many of the participating countries would not have been able to replicate this infrastructure regardless of cost because they lacked the personnel with the required expertise, which means that WMH made it possible to begin a tradition of community mental health needs assessment in these countries.

3. WMH METHODS

Chapters 2 through 6 in Part One present an overview of WMH methods. A WMH innovation compared to the surveys that were carried out in the wake of the ECA and the NCS was that the WMH surveys were conducted in coordinated fashion rather than assembled for post hoc comparative analysis. Sample design, interviewer training, and field quality control were all coordinated by the worldwide WMH Data

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Collection Coordination Centre, directed by Steven Heeringa and Beth-Ellen Pennell from the University of Michigan's Survey Research Center at the Institute for Social Research. The activities of the WMH Data Collection Coordination Centre guaranteed consistency in survey implementation by developing and training collaborators in each country to use consistent procedures and by carrying out audits to confirm that the procedures were being implemented. The WMH Data Collection Coordination Centre also interacted on an ongoing basis with country collaborators throughout the data collection period. For example, internal consistency checks of survey responses were carried out centrally by analysts at the center using special consistency-checking software. The results of these checks were provided to interviewer supervisors in the participating countries to assist in quality-control monitoring of interviewers and data-entry specialists. The first two chapters in Part One describe these activities. The first substantive chapter, by Heeringa (Chapter 2), describes WMH sampling and design procedures. Chapter 3, by Pennell, describes WMH field quality-control procedures.

The following three chapters in Part One present information on the expanded version of the CIDI that was used in the WMH surveys. A broad overview of the many methodological issues considered and the preliminary studies needed to develop this new version of the CIDI is first presented by Kessler and Üstün (Chapter 4). Pennell and Harkness (Chapter 5) then discuss the complexities involved in translating the instrument into the many languages used in the WMH surveys. Finally, Haro and colleagues (Chapter 5) present the results of the WMH CIDI clinical reappraisal studies, in which diagnoses based on the CIDI were compared to independent clinical diagnoses based on blinded reinterviews conducted in subsamples of the WMH samples using semistructured research diagnostic interviews implemented by trained clinical interviewers. As shown in that chapter, good concordance was found between diagnoses based on the CIDI and those based on independent clinical assessments.

Once surveys were completed, all WMH data were sent to the WMH Data Analysis Coordination Centre at the Department of Health Care Policy, Harvard Medical School, for centralized cleaning in collaboration with the individual countries. Once cleaning was completed, centralized coding and analysis were carried out at the WMH Data Analysis Coordination Centre. Cleaned and coded data sets and the results of preliminary analyses were then returned to the participating countries for more in-depth analysis, the initial results of which are reported in Part Two of this volume. Subsequent within-country data analyses were then carried out both centrally at the WMH Data Analysis Coordination Centre and by collaborators in the individual countries. Cross-national WMH work groups were created to analyze particular aspects of the data. More than a dozen such work groups are currently active, investigating cross-national patterns and correlates of particular disorders, such as posttraumatic stress disorder and major depression; delving into the determinants of such well-known associations as the higher prevalence of anxiety and mood disorders among women than men; and studying modifiable barriers to seeking professional treatment. Each of these work groups interacts on an ongoing basis with the senior statisticians and analysts at the WMH Data Analysis Coordination Centre at Harvard Medical School to discuss statistical methods and interpretation of results, to share computer programs, and to troubleshoot various problems that arise in the course of data analysis. Peer consultation in the work groups is used to review drafts of papers prior to submission for publication and to provide mentorship for less experienced investigators.

This broadly collaborative process has effectively helped a number of countries that would not otherwise have been able to carry out and analyze the results of WMH surveys independently because of either lack of expertise or resources. In this way, WMH is expanding the infrastructure for psychiatric epidemiological research and training a new generation of psychiatric epidemiologists in countries that lack strong epidemiological grounding. This cadre of trained

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researchers will be of great value to health-care policy planners as evidence-based methods are introduced into health policy planning in the coming years.

The WMH is also leveraging the resources available in participating countries to avoid duplication of efforts and to share joint work in instrument development, training, creation of data-entry and data-cleaning software, creation of statistical analysis protocols, and preparation of state-of-the-art literature reviews. On the basis of these rich cross-national collaborations, the WMH consortium is now expanding its work to include expanded methodological studies under the direction of the WMH Data Collection Coordination Centre, genetic-epidemiological and clinical epidemiological studies, and community interventions. Although none of these new developments is discussed in the current volume, they will be the focus of a future volume in this series.

4. BRIDGING THE GAP BETWEEN CLINICAL AND EPIDEMIOLOGICAL STUDIES

Before turning to a discussion of Part Two, we want to comment on the importance of the efforts made by the WMH collaborators to close the traditional divide between psychiatric epidemiology and clinical practice that has limited the value of psychiatric epidemiological studies. Many of the WMH surveys include a clinical reappraisal component in which a probability sample of survey respondents is interviewed by clinical interviewers who are blind to the results of the CIDI interviews. Our original hope was that these clinical interviews would be carried out in all WMH countries, but it proved impossible to do this. The clinical interviewers are carefully trained in the use of a gold-standard, semistructured research diagnostic interview that is the basis for their clinical assessments. We consider this clinical reappraisal phase of the surveys central to the overall WMH undertaking because it helps build a heretofore-missing bridge between community epidemiological research and clinical practice.

Another part of this bridge-building activity involves the assessment of clinical severity. As noted previously, much of the impetus for the expansion of the CIDI and the subsequent initiation of the WMH Survey Initiative came from evidence in earlier DIS and CIDI surveys that very high proportions of the populations in many countries meet criteria for some mental disorder. It is critical to advance beyond this sort of simple “head counting” to distinguish among disorders on the basis of severity. The WMH surveys have accomplished this by embedding fully structured versions of standard clinical severity measures into the assessments of specific disorders. For example, the Quick Inventory of Depressive Symptoms Self-Report (QIDS-SR) (Rush et al. 2003) is used to assess the severity of 12-month major depressive episodes, the Young Mania Rating Scale (Young et al. 1978) to assess the severity of 12-month manic episodes, and the Panic Disorder Severity Scale (Shear et al. 2001) to assess the severity of 12-month panic disorder. As with the clinical reappraisal studies, this use of standard clinical severity scales is designed to create a crosswalk between epidemiological studies and clinical research and practice.

The WMH surveys also include much more information about role impairments and disability than did previous psychiatric epidemiological surveys. As with the assessment of clinical severity, the assessment of role impairment was expanded in the WMH surveys to help establish the clinical significance of community diagnoses to clinicians and mental health policy advocates. Importantly, these assessments of role impairment are also carried out in the WMH surveys for a selected group of chronic physical conditions in an effort to provide comparative information about the burdens of mental disorders.

5. PREVALENCE AND TREATMENT OF MENTAL DISORDERS IN THE WMH SURVEYS

The chapters in Part Two of this volume present parallel descriptive data for each of the first 17 WMH surveys on lifetime prevalence, age of onset, persistence, and severity of the core diagnoses in the WMH surveys, along with data on patterns and correlates of treatment. The core diagnoses include a wide range of anxiety disorders (e.g., panic disorder, phobia, generalized anxiety disorder, posttraumatic stress disorder), mood disorders (major depressive disorder, dysthymic disorder, bipolar disorder), impulse-control disorders (attention deficit/hyperactivity disorder, oppositional-defiant disorder, conduct disorder, intermittent explosive disorder), and substance disorders (alcohol and illegal drug abuse and dependence). Other disorders were also assessed in subsets of the WMH surveys or as exploratory disorders in subsamples in individual surveys, but results regarding these other disorders are not presented in this first volume. Our main focus in these initial analyses is on basic description that can be used for purposes of mental health policy planning. We present data on the proportion of people in the population of each participating country who meet criteria for each core disorder at some time during their lives, the typical age of onset of each disorder, the typical course of the disorder, and the distribution of disorder severity. We also study the proportion of people with individual disorders in each country who ever receive treatment for the disorder, the typical length of time between onset of the disorder and first contact with the treatment system, and patterns of treatment in the 12 months before interview. Basic sociodemographic correlates of all these outcomes are also examined.

The chapters in Part Two make clear that a substantial proportion of the population in each participating country meets criteria for one or more of the core WMH mental disorders at some time during their lives, that age of onset is often quite early, that many of these disorders are persistent, and that a substantial proportion of these persistent disorders are seriously impairing. Sociodemographic correlates and patterns of treatment are variable, but there is a consistent pattern across countries for substantial delays between first onset of most mental disorders and first contact with the treatment system. A consistent pattern also can be seen in the data for relatively low rates of treatment in a given year and for much of this treatment's failure to meet even minimal standards of treatment adequacy. Sectors of treatment (e.g., specialty mental health treatment as compared to treatment in the general medical system or in the human services system) vary widely as a function of the size and structure of the mental health care delivery system in the participating country. Variations in these broad patterns can be seen in each country, as detailed in the separate chapters, with associated variation in policy implications that are discussed in the chapters.

6. CROSS-NATIONAL COMPARISONS

The chapters in Part Three present systematic cross-national comparisons of the results, focusing more on consistencies than on the country-specific patterns documented in Part Two. Broad conclusions and policy implications are discussed, dealing with the possible public health implications of expanding programs for timely intervention with early-onset disorders, programs for secondary prevention of comorbid conditions, and quality-improvement programs designed to address the pervasive cross-national problem of low treatment quality. These recommendations are placed in the context of a broad perspective on the wide variation in the existing systems for organizing and financing the delivery of mental health services across the WMH countries.

7. THE IMPORTANCE OF DESCRIPTIVE PSYCHIATRIC EPIDEMIOLOGY

The results presented in this first WMH volume are largely descriptive rather than analytical (i.e., they do not search for causes of mental disorders). Descriptive data of this sort are much more important in psychiatric epidemiology than in other branches of epidemiology because psychiatric epidemiology has traditionally been hampered by difficulties in conceptualizing and measuring disorders. Indeed, the descriptive data presented here are in most cases the first representative data on the prevalence, correlates, and treatment of mental disorders ever available to the mental health policy planners in the participating countries.

As we continue with more in-depth WMH analysis, we will go beyond description to consider modifiable risk factors for disorders and barriers to treatment. The more in-depth analyses will address the ultimate goals of epidemiology: to understand and control disease by investigating empirical associations among variation in exposure to pathogens external to the individual, variation in the resistance of individuals exposed to the pathogens, and variation in resistance resources in the environments of exposed individuals. Although these investigations should initially be carried out by examining natural variations of the sort assessed in the WMH surveys, it is important subsequently to move beyond this initial step by focusing on hypotheses that can be tested in naturalistic quasi-experimental situations with matching or statistical controls used to approximate the conditions of an experiment.

If the hypotheses withstand these preliminary tests, they then need to be evaluated in interventions aimed at preventing the onset or at altering the course of the disorders. These evaluations cannot be carried out with the WMH data, but data of the sort collected in the WMH surveys create a critically important empirical foundation for later studies of this sort. This means that the WMH surveys should be viewed as a necessary step in the evolution of epidemiological research on mental disorders, as these data provide a firm empirical foundation for further analytic and experimental epidemiological research. The WMH surveys also can be used to provide provisional tests of a number of hypotheses about psychosocial risk factors for the onset and course of mental disorders as well as about barriers to seeking treatment. As multipurpose data collection efforts rather than focused investigations of single disorders, the WMH surveys lend themselves to a great many descriptive and analytic purposes that will be elaborated on in later volumes in this series.

8. THE COST–BENEFIT RATIO OF LARGE-SCALE PSYCHIATRIC EPIDEMIOLOGICAL RESEARCH

An important issue to address in considering the value of the WMH Survey Initiative is whether a massive undertaking of this sort is cost-effective. At least one pair of critics has argued that it is not (Weich & Araya 2004). These critics believed that the usefulness of the WMH could be called into question based on its cross-sectional design and its use of the ICD and DSM systems to classify cases. The cross-sectional design was criticized because it forces us to rely on potentially biased retrospective reports to make inferences about the dynamics of illness. The use of ICD and DSM categories was criticized because the validity of these categorical systems is questionable, especially in non-Western countries.

We agree with these criticisms but not with the conclusion that the WMH is not cost-effective because of them. The problem with this conclusion is that it is based on an inaccurate assessment of the counterbalancing advantages of the WMH. The two main advantages in the critics' view were (1) that the WMH surveys would generate prevalence estimates of mental disorders that could be used by policy planners and (2) that the WMH surveys would generate estimates of the societal burden of mental disorders. The first of these two presumed advantages was criticized on the grounds that categorical models of mental disorder lack validity, and the second presumed advantage was criticized on the grounds that the methods used to estimate the global burden of disease in previous WHO studies have been severely criticized (Musgrove 2003).

These criticisms can be summarily dismissed. The criticism of strict adherence to invalid categorical systems is misplaced because the WMH questions were designed explicitly to allow for the assessment of subthreshold cases in an effort to explore the validity of the diagnostic boundaries currently specified in the ICD and DSM systems. The criticism of using controversial methods to estimate disease burden is misplaced because the main criticism of these methods has been that they rely on imputation rather than empirical analysis. The WMH surveys are carrying out precisely the kind of empirical analysis called for by the critics of previous disease-burden estimates. The criticism that the WMH data are based on cross-sectional surveys that use retrospective questions to reconstruct information about course of illness is being addressed in a number of planned prospective studies that are using the cross-sectional WMH surveys as baselines.

The WMH investigators recognize that the initiative has inevitable limitations. We want to be as aware of these limitations as we can be, to address them to the extent that we can within the constraints of the WMH design, and to use the WMH as a stepping stone to launch future studies that resolve the limitations that cannot be addressed adequately within the constraints of the WMH design. We know that some limitations are imposed by the rigidity of existing diagnostic systems, that other limitations are based on the constraints of cross-sectional data collection, and that others are due to the fact that we used fully structured assessments rather than semistructured clinical assessments to make diagnoses. The WMH collaborators are well aware of all these limitations and are now actively engaged in thoughtful and subtle methodological studies that address these limitations, including nosological analyses aimed at informing future ICD and DSM revisions (e.g., Hudson et al. 2007; Kessler et al. in press).

It is noteworthy that the WMH surveys are also constrained by their focus on the household population and their exclusion of population segments likely to have high proportions of the severely mentally ill (e.g., the homeless and the institutionalized). Furthermore, systematic survey nonresponse (i.e., people with mental disorders having a higher survey refusal rate than those without disorders) and systematic nonreporting (i.e., recall failure, conscious nonreporting, or error in the diagnostic evaluation) could lead to bias in the estimates of disorder prevalence or unmet need for treatment in these surveys, particularly for lifetime events. Given what we know about the associations between true prevalence and these errors (Allgulander 1989; Eaton et al. 1992; Turner et al. 1998), it is likely that disorder prevalence is underestimated, and the prevalence estimates found in these surveys is therefore conservative. The wide range of substantive analyses currently under way with the WMH data considers these conservative biases. In addition, efforts are under way to investigate these limitations using the baseline surveys as sampling frames for methodological follow-ups aimed at studying nonrespondents and improving the questions and procedures used to assess mental disorders in future research. Results found on these ongoing substantive and methodological analyses will be reported in a future volume in this series.

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