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MEASURING THE NEED FOR MENTAL HEALTH CARE

by Gerald L. Klerman, Mark Olfson, Andrew C. Leon, and Myrna M. Weissman

Prologue: One of the toughest tasks facing mental health policymakers and providers is to determine the need for services. Three streams of research contribute to the search for policy solutions: epidemiology, which addresses the prevalence of mental illness; clinical research, which addresses the effectiveness of treatment; and mental health policy research, which deals with financial and organizational issues. The lead author of this paper, the late Gerald L. Herman, was uniquely positioned to offer leadership in all three areas. His high standing in government and academia lent credibility to his strong insistence that scientific and policy questions should be viewed separately. Defining need for services is a policy question; defining prevalence, a scientific one. Policy should not be derived directly from science, he contended; rather, science should inform policymakers and aid their decisions. This paper looks at the need for services from an epidemiologic perspective, in the context of the high known prevalence of psychiatric conditions throughout the U.S. population. Before his death in April 1992, Herman was professor of psychiatry and associate chairman for research at Cornell's Department of Psychiatry. He was administrator of the Alcohol, Drug Abuse, and Mental Health Administration during Jimmy Carter's presidency, before which he conducted and led psychiatric research at Harvard and Yale. Mark Olfson, currently an assistant professor of psychiatry at Cornell, received his medical degree from Northwestern University and trained in psychiatry at Yale. Andrew Leon is assistant professor of biostatistics in psychiatry at Cornell. Myrna Weissman is professor of epidemiology in psychiatry at the Columbia University College of Physicians and Surgeons and is director of the Division of Clinical and Genetic Epidemiology, New York State Psychiatric Institute.
Legislators and government officials consistently place high on the mental health policy agenda the provision of services sufficient to meet perceived need. However, opinion varies on what constitutes need for treatment. Third-party payers, service providers, and symptomatic individuals often have very different notions of who should receive care and under what circumstances. In the area of mental health, where specialists openly disagree over the fundamental nature of illness and its treatment, the ground is particularly fertile for dispute over when treatment is necessary or even desirable.

The controversy over need goes to the heart of why we as a society purchase mental health care. Should we seek to provide treatment to all persons who suffer from mental disorders? Or should we limit care to those who are functionally impaired by their condition, or to those who have a high likelihood of recovering the ability to function? Should priority be given to people who have the most severe disorders, or to those whose conditions are most costly to society? Such difficult questions are central to the ongoing debate over need.

Discussions of need rightfully belong in the domain of political rather than scientific discourse. Conclusions are ultimately based on values rather than facts. At the same time, however, research plays an important role in informing the decision-making process. Epidemiologic research provides information on the scope of mental illness, clinical research offers data on the efficacy of available treatments, and mental health services research describes organizational and financial dimensions of care.

In this paper we examine the need for and use of mental health services from an epidemiologic perspective. We summarize available information on the extent of mental illness, its costs to society, and the degree to which mentally ill persons currently receive mental health treatment. We close with some thoughts on two general strategies for narrowing the gap between need for and provision of care.

Expanding The Scope Of Mental Illness

Any effort to measure the extent or range of psychiatric problems requires consensus on the definition of mental illness. Historically, there has been a trend toward expanding conceptions of mental illness. In the nineteenth century mental illness was almost exclusively related to two conditions, lunacy and idiocy, which are roughly equivalent to what we now refer to as psychotic disorders and mental retardation. Only gradually in the late nineteenth and early twentieth centuries was there an increase in public awareness that large numbers of individuals in the
community, particularly in urban settings, had nonpsychotic or "neurotic" conditions. Neurasthenia, anxiety states, phobias, and depression became increasingly considered within the scope of mental health and mental illness. Persons with these conditions were seen as benefiting from if not requiring mental health care.

Today we see an even further expansion in the range of mental health concerns. Conditions such as sexual harassment, domestic violence, and child abuse have become defined as mental health problems. This expansion is related to the growing secularization of society and an increasing reliance on the health care system. As the United States has become more urbanized and better educated, psychological-mindedness has increased. With these changes, a growing segment of the population has sought access to mental health services.

Measuring Mental Illness

Psychiatric epidemiologists concern themselves with studying the distribution and determinants of psychiatric problems in defined populations. In recent years psychiatric epidemiologists have employed the same criteria for mental illness that clinicians use in practice. This advance has been made possible by two related developments: acceptance of a diagnostic system based on observable symptoms (that is, the Diagnostic and Statistical Manual of Mental Disorders, third edition, or DSM-III) and development of structured interviews.

The publication of the DSM-III in 1980 was a landmark event in the modern history of descriptive psychiatry.¹ It provided a reliable diagnostic system to identify individuals with specific mental disorders based on readily observable psychiatric symptoms. Psychiatric researchers devised structured interviews to apply these criteria to clinical and community samples.² The capacity to measure the prevalence of mental illness in the general population has markedly increased the relevance of psychiatric epidemiology to mental health policy deliberations.

The most ambitious psychiatric epidemiologic study to date is the National Institute of Mental Health (NIMH) Epidemiologic Catchment Area (ECA) program. Between 1979 and 1982 over 18,000 adult residents across five U.S. communities were selected for intensive psychiatric examination.³ The ECA survey remains the most comprehensive source of information on the prevalence of mental illness in the United States.

Prevalence of mental illness. The ECA survey revealed that diagnosable mental illness is highly prevalent in the general population. Approximately one in six adult Americans (15.4 percent) suffer from a
mental disorder during a single month, one in five (19.5 percent) suffer from a mental disorder during a six-month period, and one in three (32.7 percent) meet criteria for a mental disorder at some point during their lives.

Most individuals with mental disorders suffer from conditions not related to substance abuse. During a six-month period, 15.1 percent of adults meet criteria for a mental disorder that is unrelated to drugs or alcohol, 4.7 percent meet criteria for alcohol abuse or dependence, and 2.0 percent meet criteria for drug abuse or dependence.4

When these prevalence estimates are extrapolated to the 1990 U.S. adult population, the results are truly astonishing. Each month nearly thirty million adult Americans meet criteria for a mental disorder, thirty-five million over a six-month period, and sixty million at some point in their lives. Moreover, many psychiatric researchers believe that these estimates are conservative. The ECA findings do not include Alzheimer’s disease, childhood or adolescent disorders, generalized anxiety disorder, and many of the personality disorders. The findings also do not include the large number of persons with low-grade conditions that fail to reach the diagnostic threshold but nonetheless are correlated with significant disability.5 However, even without these other conditions, the ECA data provide dramatic evidence of the vast scope of mental illness in America.

One strategy for narrowing the scope is to focus solely on persons with more severe conditions. Mental disorders vary widely in the extent to which they impair or disable affected individuals. Simple phobias, for example, have a comparatively high lifetime prevalence (12.5 percent) but have relatively little impact on quality of life. In contrast, schizophrenia, which has a lifetime prevalence of only about 1.3 percent, carries a heavy toll on most affected individuals from adolescence through adulthood. For this reason, prevalence alone does not necessarily provide the most useful guide to the extent or magnitude of mental illness in America.

NIMH defines persons with schizophrenia, bipolar affective disorder, and major depression as having severe mental disorders.6 By this definition, approximately 4.6 million adult Americans currently suffer from severe mental illness, and 11.2 million have been so affected at some point in their lives.7 These numbers provide a more manageable target for policymakers and mental health planners than the cumulative estimates of mental disorder provide. However, diagnosis is only a rough index of illness severity.

Functional impairment and duration of illness are other key dimensions of illness severity.8 Some individuals may have “severe diagnoses,”
but it may be misleading to categorize them as severely mentally ill because their course of illness is not prolonged or seriously impairing. On the other hand, many individuals, such as those with severe personality disorders or substance use disorders, may run highly incapacitating courses of illness.

The ECA survey unfortunately included very few measures of functional impairment. By adding impairment measures to future surveys, psychiatric epidemiology has an opportunity to increase its relevance to mental health service planning. In addition to collecting information on the prevalence of the symptoms necessary to make a diagnosis, it would be useful to know something about vocational and homemaking role performance, self-care skills, capacity for independent living, and economic self-sufficiency.

### Cost Of Mental Illness

Mental illness imposes a substantial economic burden on society. Cross-sectional cost estimates provide insight into the size and location of these expenditures and revenue losses. Any serious consideration of unmet need requires a familiarity with how society is currently allocating treatment resources and where it is absorbing financial losses stemming from mental illness.

Dorothy Rice and her colleagues at the University of California, San Francisco, have provided the most comprehensive national estimates of the direct and indirect costs attributable to alcohol, drug, and mental (ADM) disorder. Direct costs are the estimated dollar expenditures related to the treatment of an illness and typically include expenditures for institutional care, professional services, medications, and rehabilitation services. Indirect costs include the estimated value of lost productivity, lost work, and losses due to premature death.

Rice and colleagues estimate that the total national core cost of ADM disorder was approximately $168 billion in 1985. This is more than $700 per U.S. citizen. Most of these costs are attributable to mental disorders ($99.2 billion), but alcohol abuse ($58.2 billion) and to a lesser extent drug abuse ($10.6 billion) also account for a significant share.

Indirect costs account for approximately two-thirds of total core costs ($116.6 billion). The indirect costs are largely related to mental illness ($56.7 billion) and alcohol abuse ($51.4 billion) rather than to drug abuse ($8.5 billion). In contrast, mental illness ($42.5 billion), but not alcohol abuse ($6.8 billion) or drug abuse ($2.1 billion), accounts for the vast majority of direct treatment costs. Therefore, in relation to lost output (indirect costs), society has made a far greater investment in the...
treatment of mental disorders than substance abuse disorders. The humanitarian and economic consequences of this national policy are of critical importance to the debate over unmet need.

Despite a quarter-century of reductions in the number of hospital beds in state mental hospitals, 58 percent of the treatment cost of mental illness continues to be for institutionally based care. However, only about 3 percent of persons with a recent mental disorder have ever been hospitalized for psychiatric treatment. It is fair to conclude that the nation continues to invest far more heavily in the small number of affected individuals who require institutional care than in the much larger number of mentally ill individuals who receive ambulatory care or no care at all.

Use Of Mental Health Care

An important finding to emerge from the ECA survey is that most individuals with mental disorders do not receive mental health care. Even if mental health care is broadly defined to include a single visit to a general medical provider or a mental health specialist for a mental health reason, fewer than one in five persons with a mental disorder are found to have received care during the past six months. Not only are a large proportion of individuals with less severe conditions not receiving care, but care is also not being provided to a substantial proportion of persons with schizophrenia (47–61 percent), affective disorders (68–69 percent), and substance abuse/dependence disorders (82–92 percent). Over a six-month period close to thirty million adult Americans with a mental disorder do not receive any mental health care, of whom approximately 5.5 million suffer from schizophrenia, bipolar affective disorder, and major depression. Thus, how need is defined clearly has a dramatic impact on how the debate over public mental health resources is framed.

Seeking care. No straightforward relationship exists between the presence of a mental disorder and help-seeking behavior. Just as large numbers of persons with mental disorders do not seek care, so many mental health visits are made by persons without an apparent mental disorder. For example, approximately one-third of the persons in the ECA sample who made a mental health visit during a six-month period did not have a concurrent DSM-III disorder. We need to know more about the type of distress and disability experienced by this large and poorly defined group of mental health care consumers.

Need for services should also not be confused with help-seeking behavior. Access barriers prevent use of services by individuals who
would be recognized as requiring treatment even under the most stringent definitions of need. At the same time, economic research suggests that some ambulatory mental health care-seeking behavior is discretionary in nature.

Health care seeking is influenced by clinical factors, such as symptoms and subjective distress, and by predisposing or enabling factors, such as sociodemographic, geographic, economic, and attitudinal variables.16 The effects of nonclinical factors on use of services are generally contingent upon the presence of some clinical need.

Philip Leaf and colleagues provide evidence that sociodemographic factors significantly influence mental health services use.17 After controlling for diagnosis, they found that being female, between ages twenty-four and sixty-five, white, and of higher educational status all increase the likelihood of making a mental health visit. From a public policy perspective, therefore, males, the young and elderly, nonwhites, and those of lower educational status are at increased risk of not receiving care.

Geographic accessibility to treatment also influences health care seeking. Psychiatrists and other mental health professionals are disproportionately concentrated in urban areas. As a result, a majority of U.S. counties have either very few or no psychiatrists, psychologists, or social workers.18 Unmet need for mental health services may be particularly high in rural areas where geographic barriers impede access to care.

Financial factors also affect use of health care. The demand for mental health services appears to be more price-sensitive than is the demand for outpatient general medical services.19 Experimental research indicates that persons assigned to a 50 percent coinsurance plan consume less than half the ambulatory mental health services that persons assigned to free care consume. In practice, the elasticity of demand is most evident in the utilization profile of those who are just above the poverty level. Individuals who are near-poor—those without Medicaid whose household incomes are below 150 percent of the poverty level—are at higher risk than are other income groups of having their needs for mental health services unmet.20

Personal and public attitudes may also influence mental health services use. Public opinion surveys indicate that mental illness is a highly rejected condition.21 Business managers, for example, have been shown to view mental illness as unfavorably as ex-convict status and significantly less favorably than heart disease, blindness, or paraplegia.22 As a result of discrimination or devaluation, some individuals may try to hide the fact that they suffer from a mental illness. Avoidance of necessary treatment is one tragic consequence of social stigmatization.
Over the past few decades two broad strategies have been advocated to reduce unmet need for mental health care. One emphasizes the role of the specialty psychiatric sector, while the other emphasizes the role of the general medical sector. These two approaches have profoundly different implications for service planning.

Specialists. The first option is to seek to have individuals with ADM disorders treated by specialists in specialized treatment settings. For many years this was the goal of federal mental health policy. Large amounts of federal funds were made available for expansion of the numbers of mental health professionals and for the development of new facilities, particularly psychiatric units in general hospitals and community mental health centers. However, it became apparent in the 1970s that this strategy was extremely costly, and doubt surfaced over its cost-efficacy.

Parallel developments were under way in the general health care system. The federal government, joined by foundations such as The Robert Wood Johnson Foundation, supported the expansion of primary care. There was an attempt to slow, if not reverse, the tendency toward medical subspecialization. Analysis of the ECA data confirms earlier findings that the general medical and specialty mental health sectors are both substantially involved in caring for persons with mental disorders.23

Generalists. A second option, therefore, would be to expect that not all individuals with ADM needs would be treated by specialists. Under this plan, the goal is to enhance the capacity of the primary care sector to recognize, diagnose, and treat selected ADM disorders. At the same time, it must be acknowledged that available evidence indicates that the primary care sector has not shown itself skilled in these clinical roles. Accumulating evidence suggests that in primary care there is a high degree of underrecognition, underdiagnosis, and undertreatment of conditions such as depression, anxiety disorders, and alcoholism.24 Mental health care in the general medical sector is often superficial, and some health policy analysts warn that casting general medical providers as an alternative to specialized treatment will reinforce efforts to limit benefits for specialty care.25

An example of the type of initiative that would be vigorously pursued if the general medical sector option were chosen is the NIMH Depression Awareness, Recognition, and Treatment Program (D/ART).26 Under this program, NIMH is assembling workshops and educational materials to help health providers, including primary care clinicians, recognize and treat depression. The program is modeled after the successful
Hypertension Detection and Follow-up Program. In this community-based program, an intensive approach to hypertension treatment reduced cerebral-vascular accidents and mortality below the levels experienced by persons who received regular sources of community care.

If the primary care sector is to play an increased role in providing mental health care, then the government must make a far larger resource commitment to this area. Beyond an extensive educational campaign to involve physicians and other medical staff, an evaluation process would need to be developed to assess the efficacy of these efforts.

### Mental Health Care And Values

Approximately one in five adult Americans meet criteria for having a mental disorder over a six-month period. The vast majority of these people do not receive any treatment for their symptoms. For planners of mental health services, the question arises: What is the relationship between the high prevalence of mental disorders and the need for mental health services?

The answer to this question turns on value judgments about the function of mental health care. To the extent that society purchases mental health services for humanitarian purposes, unmet need is massive, and priority should be given to those who have the most serious conditions and are presumably in the greatest pain.

To the extent that society purchases mental health services for utilitarian or economic purposes, policy decisions will be driven by cost/benefit analyses and considerations about the restoration of occupational productivity. Because little research currently exists to guide this line of policy planning, it is not possible to state with certainty how this policy would redistribute service priorities. In general, however, priority would be given to persons with depression, anxiety disorders, and perhaps alcoholism who have a significant likelihood of recovering occupational productivity and improved quality of life.

Epidemiologic data have historically played an important role in informing U.S. mental health policy. With the development of criteria-based mental disorders and methods for determining the community prevalence of these disorders, psychiatric epidemiology has expanded its role in policy discussions. As measures of functional impairment are added to diagnostic epidemiologic surveys, the relevance of this research will continue to increase. By providing quantitative data that relate directly to the question of need for services, psychiatric epidemiology enlightens the debate over one of the most important health care policy issues of our time.
NOTES


11. Ibid.


14. Ranges are based on differences between sites in the ECA study. Shapiro et al., “Utilization of Health and Mental Health Services.”

15. Ibid.


22. Albrecht et al., “Social Distance from the Stigmatized.”


