Disparities in the Geography of Mental Health: Implications for Social Work

Christopher G. Hudson

This article reviews recent theory and research on geographic disparities in mental health and their implications for social work. It focuses on work emerging from the fields of mental health geography, psychiatric epidemiology, and social work, arguing that a wide range of spatial disparities in mental health are important to understand but that of greatest relevance are inequities, or disparities, that violate fundamental norms of fairness and social justice. Research is reviewed on geographic variations in subjective well-being and mental health, on personality (using the five-factor model), and on psychopathology as well as several studies on the disparate implementation of mental health policy and services. Critical is the need to simultaneously assess, on the one hand, differential patterns of mental health conditions and, on the other, the services and policies designed to address them—the fact that considering only one dimension often leads to unintended consequences. Many of the most outstanding disparities have been found to exist at the local level, between towns and neighborhoods, and are based on socioeconomic conditions. This review concludes by discussing the implications of geographic disparities in mental health for allocation decisions and for social work practice, including decisions about the most efficacious mix of services at both the community and clinical practice levels.

KEY WORDS: geography of mental health; health disparities; quality of life; spatiality; subjective well-being

Social work’s person-in-environment perspective requires that practitioners consider the social and physical environment—its problems, supports, and opportunities—and, specifically, individuals’ goodness of fit with it. Yet the development of models for understanding the multiple and complex environments that clients regularly interact with remain underdeveloped. In recent years, the fields of social ecology, geography of mental health, and psychiatric epidemiology have made substantial progress in the conceptualization and study of the spatial dimensions of mental health (see Jones, 2007; Philo, 2005), particularly in understanding the disparities and inequities inherent in the role of place in the etiology and progression of a range of mental disorders and the effectiveness of policies and services intended to address such disparities. Studies such as Wilkinson’s (2005) The Impact of Inequality have provided persuasive evidence that the cultural and mental health dimensions of inequality are more important for health and well-being than economic inequality. In addition, the recent debates stimulated by President Obama’s health care initiative have highlighted long-standing disparities in access to health care in the United States. This article aims to provide an introduction to key theories of geographic disparities in mental health, recent research on what these disparities are telling us, and their implications for social policy and social work practice (at both the micro and the macro level).

THEORETICAL CONSIDERATIONS

Unlike in most developed nations, in which the term inequities is commonly used, in the United States, the term disparities is more frequently used in the study of distributional issues in health care (Carter-Pokras & Baquet, 2002). This more inclusive term has traditionally connoted systematic group differences in the prevalence or care of health conditions that may result from a wide variety of causes, only some of which are unjust or unfair. In a similar manner, inequalities connotes simple differences—for example, in the risk of Alzheimer’s between demographic groups—without normative judgment about causes and responsibilities. In contrast, inequities refers to types of disparities that are avoidable and unfair. Health disparities are often identified on the basis of the
principle of “horizontal equity,” or the recognition that individuals who have the same needs should be treated equally (Culyer, 1995). Judgments about what is unfair derive from a society’s understanding of fundamental rights and responsibilities. Scholars from nations with developed social welfare systems, such as the United Kingdom, tend to include a wider range of conditions among those considered inequitable. The World Health Organization (WHO), with the help of Margaret Whitehead (1991), has defined health inequities as “differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust” (p. 427).

This policy specifies seven determinants of health disparities: (1) natural, biological variation; (2) health-damaging behavior that is freely chosen, such as participation in risky sports; (3) the short-term health advantages of one population when it is the first to adopt a new treatment; (4) health-damaging behavior among those for whom lifestyle choices are severely restricted; (5) exposure to unhealthy or stressful working conditions; (6) poor access to basic services; and (7) natural selection—for example, through social mobility, in which ill individuals drift downward socioeconomically. This report suggested that the first three categories represent health conditions for which disparities are unavoidable and fair, whereas the latter categories are viewed as more likely avoidable and unfair inequities. Complicating the assessment of disparities is the basis of comparison that is to be used: Is a group’s ill health and lack of treatment to be compared with that of the population as a whole? With that of the majority group? On what geographic level: local, regional, or national? Some have contended that any systematic differences are inherently inequitable (PAHOWHO, Division of Health and Human Development, 1999). Judgments made in this regard have critical implications for both the design of programs and organizational strategies for their promotion, issues that are explored later in this article.

Often, when “disparities” are studied in mental health, the term and its scope are left undefined. Does it involve general patterns of health? Differences in the occurrence of particular conditions or diseases? In patterns of access to needed goods and services? The resulting combinations of patterns of disparities based on these things are multifaceted. For example, there may be unavoidable disparities in the risk of a condition but avoidable and unfair differences in access to needed services. A minority group, such as Asians or Hispanics, may have a moderately reduced risk of serious mental illness compared with other groups (Miranda, McGuire, Williams, & Wang, 2008) but very poor access to needed treatments, thus pointing to an inequity that demands social intervention. Another group, such as racecar drivers, may have both an increased risk of disability due to avoidable behaviors and enhanced access to trauma services, thus suggesting disparities that are not inequitable. A key point is that systematic variations in both the occurrence of the condition of concern and society’s response, as well as the extent that either of these are avoidable and unjust, must be considered in assessment and intervention planning.

STUDY OF THE GEOGRAPHY OF MENTAL HEALTH

This review focuses on a particular type of group disparity—namely, differences in mental health that are based on place. Place may be defined as the microenvironment of the home, workplace, or neighborhood or as larger environments involving the community, state, nation, or region. Analyses may involve single localities or nations or the spatial variations between a wide range of localities or nations. Perhaps the first to study geographic variations in mental illness were Faris and Dunham (1939), who mapped the varying levels of risk of psychiatric hospitalization across Chicago, producing the first evidence of a dramatically elevated risk of mental illness among those in the lowest socioeconomic groups. Many of the early studies in the geography of mental health were conducted in the United Kingdom, including work by Giggs (1973) conducted in Nottingham, Taylor (1974) conducted in Southampton, and Dean and James (1981, 1984) conducted in Plymouth. This line of research examined the relationship between mental illness and the urban environment. Such studies have consistently revealed an elevated concentration of people with schizophrenia in inner city areas (Dean & James 1981; Giggs, 1973, 1986, 1988). There are many other important types of disparities and inequities—most notably those based on race, gender, and socioeconomic status (SES)—that may be both cause and consequence of disparities based on place. In fact, addressing
rational disparities in access to health care has been a major focus of numerous private and public organizations—for instance, the Centers for Disease Control’s Office of Minority Health and Health Disparities.

However, it was the work of the geographers Michael Dear and Jennifer Wolch (1987) that is usually credited with initiating the study of the geography of mental health. In the 1980s and early 1990s, they researched “service-dependent ghettos,” sometimes referred to as “psychiatric ghettos,” in the zone of transition in the inner city, characterizing these areas as reservoirs of potential clients resulting not only from the deinstitutionalization juggernaut, deindustrialized, and stagnant economies with plentiful cheap housing, but also suburbanization. The influx of clients in these areas was fueled by the development of new services designed to care for them, which acted as a catalyst in attracting further clients, becoming a self-reinforcing cycle. Dear and Wolch (1987) observed that by the 1970s and early 1980s, “pressures to gentrify and redevelop the urban zone of dependence had begun to push mentally disabled and other service-dependent residents and their support facilities out” (p. 172). They argued that the dismantling of the ghetto led to several treatment trends, including assignment to inappropriate services, homelessness, and a return to institutions. Although they highlighted structural forces, Dear and Wolch reverted to the conservative recommendation of additional shelters for people who are mentally ill and homeless as a short-term response, with virtually no elaboration or discussion of long-term services or structural interventions. Yet, in the two decades since, researchers have been investigating more dispersed geographic patterns of mental health and illness, driven in part by the need to integrate people who are mentally ill in more normalized community settings (see Jones, 2007; Law & Gleeson, 1998). Research has ranged from large quantitative and correlation studies (Hudson, 2005) to small qualitative studies involving particular settings (see Davidson, 2003). But many researchers still avoid community-level studies for fear of the “ecological fallacy”—the possibility of mistakenly extrapolating conclusions about geographic entities to individuals (or the opposite, the “atomistic fallacy”). Yet this is essentially the problem of spuriousness or uncontrolled variables—which is a concern for all kinds of social research, whatever entities or levels are considered—and can be assessed and, if need be, adjusted for. In practice, research findings often apply to multiple levels of analysis, but this cannot be assumed and is a hypothesis that must always be tested.

Among the outstanding questions in this field is whether the impact of place on mental health simply reflects the aggregated impact of a wide range of demographic and socioeconomic variables—such as race, gender, age, or education—or if there are distinctive features of communities that have impacts independent of the well-known individual predictors. Study of the spatiality of mental health also includes study of the social ecology of subjective states of well-being, how they are affected by and, in turn, affect the structures and cultures of communities (see Philo & Wolch, 2001). An ongoing controversy concerns the role of social selection in the generation of observed patterns of socioeconomic disparities. Do individuals first develop particular conditions and personality patterns and then get selected out of higher socioeconomic environments, due to intolerance or high costs, and forced to move to poor areas? Or do the stressors and lack of supports in impoverished environments cause people to develop severe mental illnesses in the first place?

Until recently, it has not been possible to investigate many of these questions, as the analyses typically require massive samples of respondents from a range of areas and at multiple points in time. However, because of the increasing availability of such data from governmental sources (for example, national comorbidity studies, statewide hospitalization databases) and the proliferation of geographic information system and advanced analytic software and required hardware, substantial headway is being made with such questions. This review, therefore, now turns to several of the most outstanding examples of such research from the last decade in mental health as it is reflected through the areas of quality of life, personality patterns, psychopathology, and policy and services.

RECENT RESEARCH

Quality of Life

When the relationships of place with mental health are investigated, the focus is sometimes on the occurrence of serious mental illness or specific
diagnostic categories; occasionally on personality patterns; or, alternatively, on a wide range of mental health policies and services. With the growing interest in positive psychology (Seligman & Csikszentmihalyi, 2000) and the recognition that mental health goes beyond simply the absence of diagnosable mental conditions, there has been considerable work in charting variations in quality of life, happiness, resilience, and other positive qualities. There is substantial overlap in each of these concepts; however, each has distinctive meanings.

A typical definition of quality of life is that it is “an individual’s ability to function physically, emotionally and socially within his/her environment at a level consistent with his/her own expectations” (Church, 2004, p. iv). Researchers in this area have usually distinguished between the subjective and objective meanings of the term, with the former focusing on life satisfaction and the latter on conditions assumed to be necessary for life satisfaction, such as safety, affordable housing, work opportunities, and cultural and recreational amenities (Forskningscenter for Livskvalitet, n.d.). A parallel distinction is often made between health-related quality of life and environmental quality of life (Pacione, 2002). In contrast, there has been much research on subjective well-being, more commonly referred to as “happiness.” This is a broad field that encompasses states of happiness; related feelings such as self-esteem and hopefulness; and a range of capabilities such as resiliency and hardness, decision making, and intrinsic motivation, each of which is believed to be an element of mental health. Martin Seligman, who was president of the American Psychological Association in 1998, has referred to this new field as “positive psychology” (Seligman & Csikszentmihalyi, 2000). Happiness is defined as an underlying feeling of contentment, and even joy, which transcends the daily fluctuations of good and bad moods.

It has been considerably easier to define mental illness than mental health, no doubt because the latter is a more complex phenomenon, reflected in the range of approaches (for example, subjective, functional, normative, cognitive) to its definition. Many argue that various states of subjective well-being (for example, happiness, self-esteem, vitality) best epitomize mental health (see Hudson, 2010).

One of the more significant findings from studies that have compared levels of happiness between nations is the impact of socioeconomic development and income. These studies have typically used data from the World Values Survey (WVS) (Inglehart, 2000) and have, for instance, shown that throughout the world, income does have a positive correlation with life satisfaction, but only up to a point. The research has confirmed results of earlier studies showing that higher income has a declining significance in wealthier nations. Stanca (2008) suggested that “this result can be interpreted as providing a microeconomic interpretation of the established finding of decreasing returns to income in the cross-country income–happiness relationship” (p. 11). The research has also shown that the costs of unemployment in terms of life satisfaction are larger in countries where unemployment is high and income is high, thus highlighting the massive impacts of unemployment on mental functioning (see also Brenner, 1973). Overall, these results demonstrate that consideration of the spatial dimension in the analysis of determinants of life satisfaction has profound implications for economic planning and social policy.

Whereas studies using the WVS indicators rely on a limited range of questionnaire items, a recent Canadian study of variations in mental health across that nation’s provinces drew on a wide range of indicators. Stephens, Dulberg, and Joubert (1999) examined eight measures of mental health from the National Population Health Survey of 17,626 adolescents and adults in 1994 and 1995. These include not only four indicators of mental illness—depression, the amount and the impact of distress, and cognitive impairment—but also data from several instruments that measure positive mental health: sense of coherence, self-esteem, sense of mastery, and happiness and interest in life. The study produced many significant findings, but in respect to the few consistent geographic differences among provinces, there was a finding of good mental health in Newfoundland and Prince Edward Island, where respondents reported among the greatest mean levels of sense of coherence and happiness and the lowest levels of depression and distress. Quebec was characterized by the range of measures on which it was at the extreme. Quebeccers reported among the highest levels of self-esteem and
mastery but the least happiness, the lowest sense of coherence, and the most distress. The researchers concluded that

the psychosocial and demographic factors associated with mental health problems were also found to be (inversely) associated with the indicators of positive mental health. This implies that strategies that promote resilience and other psychological resources will also contribute to problem reduction or even prevention. (Stephens et al., 1999, p. 125)

Although the United States has not seen a similar in-depth survey, Gallup, as part of its Gallup–Healthways Well-Being Index project (Gallup & Healthways, 2009), recently collected extensive responses from over 350,000 adults through telephone interviews. These include both subjective and objective quality of life indicators in the following categories: life evaluation, emotional health, physical health, healthy behavior, work environment, and basic access. Overall, Utah ranks highest among the states, followed by Hawaii, Wyoming, Colorado, and Minnesota. West Virginia shows the lowest overall well-being, followed by Kentucky, Mississippi, Ohio, and Arkansas. High-well-being states are situated mainly in the West, and those with lower scores are located mostly in the Midwest and Appalachian South. Despite the recession, the survey revealed slight improvements in reported well-being between May 2009 and May 2010. Whether states or years are compared, differences between them tended to be fairly small, although statistically significant. Whereas Utah scored a high of 69.2, West Virginia’s overall measure of well-being was the lowest at 61.2, with an average of 65.5.

The minimal variation between states raises the question of whether important variations in levels of well-being or happiness may involve local areas, perhaps even neighborhoods. This is suggested by one of the most important studies on happiness to date. Fowler and Christakis (2008) undertook an ingenious secondary analysis of data from the Framingham Heart Study of 4,739 respondents in the western suburbs of Boston. These individuals provided ratings of their happiness over the 1983 to 2001 period and detailed information on their network connections with family, friends, and coworkers on a total of 53,228 relationships. Unlike results with clinical depression and other forms of mental illness, the study demonstrated a strong communicative and interactive effect of happiness levels, even after numerous other explanations were controlled for. Fowler and Christakis’s longitudinal model showed that clusters of high happiness levels result from association with similarly happy individuals. For example, a friend who lives a mile away and who becomes happy increases the odds by 25 percent that his or her associates will be happy. Similar patterns were found for coresident spouses, siblings who live nearby, and neighbors, but not for coworkers. These effects wear off over time and over increased distances. Thus, it is clear that subjective well-being is a function of, among other factors, both social and geographic proximity and that a population’s level of well-being is not calculable purely on an additive or utilitarian bean-counting basis—that the benefits of a single person achieving a sense of subjective well-being have substantial and multiplicative effects, according to these researchers, at over three degrees of separation, especially when those involved live close to one another.

Personality Patterns

Mental health is often conceived of as an optimal combination of positive psychological traits. Although a plethora of typologies of healthy and unhealthy personalities have been proposed, what has emerged as the leading approach is known as the “big five factor model.” Research in this field has identified and validated five dimensions (Costa & McRae, 1992) along which personalities vary in a continuous fashion, the descriptions of which consist of a set of five scores for these dimensions. People range from the extraverted to the introverted (extraversion); from being agreeable and conciliatory to disagreeable and even confrontational (agreeableness); from being conscientious, detail oriented, and perfectionistic to disorganized (conscientiousness); from expressing a high degree of neuroticism, anxiety, and depression to stability and level-headedness (neuroticism); and from being open, curious, and creative to being closed to new ideas and experiences (openness to experience). Although there have been considerable attempts to characterize national populations along
these dimensions, only recently have researchers begun to map variations in these patterns geographically across the United States.

Rentfrow, Gosing, and Potter (2008) proposed a theory about the sources of geographic variation in the five dimensions of personality and tested it through the analysis of an extensive database of responses from over half a million respondents from throughout the United States. They specifically theorized that there would be significant differences in these patterns between states and that these would be the result of a combination and interaction of upward processes of individual traits generating cultural patterns and associated behaviors and institutions and downward impacts of states’ cultures and institutions on individual behavioral and psychological patterns. Upward or emergent processes include the impacts of personality on behavior and of group behavior on geographic representation, most notably patterns of selective migration and social influences. Downward causal influences consist of the impact of public opinion and participation in community and institutional life on individual behaviors and the impact of individual behaviors on personality traits, particularly the impact of social norms on trait prevalence. Rentfrow and colleagues tested their theory through an aggregated state-level analysis of the anonymous responses of 619,397 respondents to a Web site combined with several other state-level data sets. These researchers were able to establish a fair degree of representativeness, reliability, and validity of their data, but because the study was essentially cross-sectional, or collected during one period of time, they could not conclusively rule out rival causal explanations for the observed variations.

Nonetheless, the patterns Rentfrow et al. (2008) identified provided valuable information on the psychosocial environments in the various states. They found, for instance, that extraversion was highest in Great Plains, midwestern, and southeastern states and lowest in northwestern, mid-Atlantic, and East Coast states. Agreeableness was most pronounced in the midwestern, south central, and southeastern states and least so in the Northeast. Conscientiousness was found to be greatest in the Southwest, Midwest, and Southeast and lowest in the mid-Atlantic and New England regions. Neuroticism was most intense in the northeast and southeast and relatively low in the Midwest and West Coast states. And openness was most pronounced in the New England, mid-Atlantic region, and West Coast states and least so in the Great Plains, the Midwest, and south central states. Although most of the differences were statistically significant, the researchers unfortunately did not report details of the statistical patterns of variation within the state subsamples, potentially obscuring the degree of overlap in the personality characteristics of state populations. Nonetheless, their data and the associated maps provided a compelling portrait of the nation’s psychosocial landscape and preliminary support for many of their hypotheses about the interaction of bottom-up and top-down processes—driven by social, cultural, and economic forces—in generating the apparent diversity of personality patterns.

**Psychopathology**

Until recently, comparisons of rates of various mental illnesses among geographic areas have been very rare. The range of definitions and methods have usually undercut such efforts, which have had to rely on either systematic reviews or meta-analyses of disparate local or national studies. These reviews have generated valuable but highly tentative findings. A key question has concerned the potential variability of the incidence and course of schizophrenia between developed and developing nations. Jablensky (2000) reviewed the research, including the Ten Nation study conducted by the WHO (Jablensky et al., 1992) and reported that although there were no significant differences in incidence, one of the most consistent findings has been a more favorable course and outcome of schizophrenia in the developing countries. For example, in the Ten Nation study, 62.7 percent of patients in the developing countries were in complete remission after two years, compared with only 36.8 percent in the developed nations. It has been variously suggested that this reflects negative effects of greater access to treatment in developed countries or more natural supports and less stigma in many developing countries.

Two other geographic patterns are pertinent to disparities in psychopathology. Krabbendam and van Os (2005) conducted a meta-analysis (or aggregated statistical analysis) of 10 studies that examined differences between urban and rural occurrences of schizophrenia and found a consistently
elevated risk in urban areas. The rate in urban areas was approximately double that in rural areas. They concluded that potential confounding factors, such as differential use of mental health services, are unlikely explanations for this difference and that genetically at-risk individuals are more likely to move to urban areas. Krabbendam and van Os speculated that their results may have been attributable to greater cognitive social capital—involving mutual trust, bonding, and safety—that may retard the development of schizophrenia and other mental illnesses in rural areas.

One of the most consistent findings in the social sciences has been the negative correlation between SES and risk of most types of mental illness, or a substantially increased risk for those in the lowest socioeconomic groups. This research consists of hundreds of studies dating back to the work of Faris and Dunham (1939) and has been extensively reviewed elsewhere (see Hudson, 1988, 2005). Hudson (2005) analyzed a statewide database of acute psychiatric hospitalizations for Massachusetts that included 237,976 episodes on the part of 109,437 individuals over a recent seven-year period. These data revealed a moderate to strong inverse or negative correlation of −.51 between the SES of Massachusetts’ 351 towns and cities and rates of acute psychiatric hospitalization. This relationship was found to be nonlinear; the changing slope of this relationship suggested that it might not have been variation between middle- and upper-income communities that were associated with heightened levels of mental illness, but specifically those in lower- to middle-income areas. Whereas communities that are a standard deviation below average in respect to levels of income, education, and occupational status have reported rates of mental illness of about 7 percent, these rates decline as conditions improve but level off at about 3 percent in communities with SES that is a standard unit above average.

The model developed in the foregoing study was then used with data from the National Co-morbidity replication study, in conjunction with small area estimation techniques, to estimate levels of serious mental illness in both the 48 contiguous U.S. states and the towns and cities throughout Massachusetts (Hudson, 2009). Validity coefficients for the estimates ranged from .43 to .75. The state estimates varied from a low of 4.7 percent in Maryland to a high of 7.0 percent in West Virginia. Those with the lowest rates were concentrated in the coastal area between Virginia and Massachusetts and in Florida and California, whereas the states with the highest rates were mainly in the Appalachian and lower Mississippi Valley regions, ranging from West Virginia to Louisiana and Mississippi. Many of the sparsely populated and relatively isolated western states also had relatively high rates. These patterns are plotted using a map of the contiguous 48 states in Figure 1. Perhaps one of the most significant findings of this study is that geographic variation in rates of serious mental illness were modest when states were compared, whereas considerably more disparate when local areas in Massachusetts were estimated, ranging there from a low of 2.3 percent in one of the richest communities (Waban) to 8.0 percent in one of the poorest cities (Chelsea). Whether state or local variations are considered, these data highlight the importance of social workers in mental health targeting advocacy and services to areas of the greatest documented need.

A recent study (Moriarty, Zack, Hold, Chapman, & Safran, 2009) produced estimates for both U.S. states and counties using a broader definition of mental illness, that of frequent mental distress (FMD), based on a single item in the Behavioral Risk Factor Surveillance System (see http://www.cdc.gov/brfss/) that asked, “Now thinking about your mental health which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” This massive survey of 2.4 million adults revealed that, overall, 9.4 percent of adults reported FMD, that more than half of the days they did not consider their mental health good, and this rate ranged from a low of 6.6 percent in Hawaii to a high of 14.4 percent in Kentucky. Although this study used a broader definition of mental illness, the variations in levels of mental illness that were found paralleled Hudson’s (2009) study of serious mental illness, with the lowest rates in many of the major coastal areas—such as New England, the mid-Atlantic, Florida, and California—and the highest rates in the most isolated parts of the nation, particularly the Appalachian region and some of the western states.
Policy and Services

Among the most dramatic disparities are those involving mental health policy and services, based on considerations not only of race and social class, but of locality as well. Minorities of color have been reported to have disproportionately low access to mental health services, a pattern that is partly associated with disparities based on SES and geography (Sherkat, Husaini, Cain, Craun, & Levine, 2002). Data relevant to disparities among nations have been only recently developed, and these reveal exceptionally diverse patterns of development of mental health systems throughout the world. Although data collected by the WHO (Jacob et al., 2007) revealed that 80 percent of the world’s nations had mental health programs, and 70 percent had mental health legislation, the most pronounced disparities involved budgets, services, and professionals. Of the 69 percent of nations that had an identifiable mental health budget, in the least well-funded region, Africa, only 0.76 percent of the health budgets were devoted to mental health, whereas in the best-funded region, Europe, 6.3 percent of these budgets were allocated for mental health. The extreme experiences of Africa and Europe were also reflected in mental health bed coverage, which ranged from 0.34 beds per 10,000 individuals in Africa to 7.90 beds per 10,000 in Europe. Coverage by psychiatrists, similarly, ranged from a low of 0.05 per 100,000 in Africa to a high of 9.40 per 100,000 in Europe. Unfortunately, it has been the exception that such inequalities are examined in the context of underlying disparities in mental health conditions and needs. Yet indicators of need are greater in Europe than in Africa—the rate of neuropsychiatric conditions per 100,000 was 3,266 in Europe, compared with 2,538 per 100,000 for Africa. North America, including the United States, was generally closer to the European experience but fell short of Europe in its mental health service coverage.

Within the United States, geographic disparities in mental health policies and services are most typically examined at the state level because of their pivotal role in the financing and oversight of
public mental health services. Studies of state-level disparities involve such diverse areas as psychiatric commitment laws, including outpatient commitment; public mental health funding; deinstitutionalization; parity laws; and children’s mental health. In a national study of homelessness, including its relationship with deinstitutionalization of mental hospitals, Hudson (1998) found that the stringency of commitment laws—how narrowly they defined criteria for involuntary psychiatric commitment—was one of the most important predictors of the extent that states had emptied their state and county mental hospitals between 1955 and 1988. The degree of deinstitutionalization, in turn, was found to be related to rates of homelessness, but in a nonlinear manner, with the greatest levels of homelessness found in those states and counties that fell on the extremes of relatively little and very substantial deinstitutionalization.

Another example of state-level disparities involves a study of children’s mental health conducted by Sturm, Ringel, and Andreyeva (2003) using the 1997 and 1999 waves of the National Survey of America’s Families. These researchers found that use of children’s mental health services differed by a factor of two across states, from 5 percent in California and Texas to over 10 percent in Colorado and Massachusetts. Their data revealed that differences in population characteristics across states could not explain the observed geographic disparities in use and outcomes. They concluded that “overall, there is no apparent relationship between levels of need and use of services across states. As a general rule, states with high rates of services do not have low levels of need or vice versa” (Sturm et al., 2003, p. 308). They cited Alabama and Texas as having higher rates of need and lower rates of use, whereas Washington state evidenced the opposite pattern.

Many additional disparities in services have been found at the local level, whether this consists of counties, cities and towns, neighborhoods, or specially designated mental health catchment areas. These disparities involve access, use, quality of care, outcomes, and the failure to tailor services to prevalent ethnic groups. A classic example is the phenomenon of “creaming”—selecting only the most motivated and well-behaved clients for services—sometimes known as the “YAVIS syndrome” (Schofield, 1964). This refers to the favoring of young, attractive, verbal, intelligent, and successful clients by many mental health professionals, particularly those who are white. Another major issue for the full range of mental health professions, including social work, is the dramatic lack of availability of professionals in rural compared with major urban areas (see Merwin, Hinton, Dembling, & Stern, 2003).

DISCUSSION AND IMPLICATIONS
Disparities in mental health conditions and services are ubiquitous, so much so that many practitioners avoid dealing with them, not knowing where to begin. Nonetheless, social workers have been at the vanguard in addressing the devastating impacts of inequality, whether through the work of community organizers such as Jane Addams (1910) or contemporary social work researchers (see Bywaters, McLeod, & Napier, 2009).

Cross-cutting Implications
Recent theory and research—especially that coming out of the fields of social work, mental health geography, and psychiatric epidemiology—reveals critical dimensions involving the assessment and intervention on the macro and micro levels of practice. The research reviewed enables social workers to narrow their focus by concentrating on those disparities that are inequitable, are avoidable or remediable, and are unfair—for instance, those that derive from systematic oppression, marginalization, or exclusion of people from rightful entitlements (see Table 1). For example, many social agencies need to considerably improve their documentation of unmet needs before effective advocacy can take place on both the case and policy levels. Whether clinical practice or policy work is considered, reduction of disparities involves not only minimizing the disabling effects of diagnosable mental conditions, but—and this is very important—maximizing quality of life and subjective well-being. This can be done through carefully linking the dual social work strategies of competency building and community building (see Hudson, 1998); assisting individuals in developing better problem-solving skills, resilience, and a sense of efficacy; and facilitating the building of both local and national communities—including physical, political, and social infrastructures—and, especially, enhancing social capital (for example, trust, a sense of mutual support, civic engagement). The psychiatric
The clubhouse model is an example of a documented model that facilitates the linkage of a local community-building strategy with the development of the vocational and emotional competencies of members.

**Macro-Practice Implications**
Whether the macro social work practitioner is assessing which neighborhoods to prioritize for outreach or in which parts of a city or state to locate a new program, responsibility for the assessment of mental health needs must simultaneously consider disparities in both quality of life and incidence of mental disorder as well as disparities in services and their effectiveness. Differences in culture and prevailing personality patterns, likewise, need to be considered to assure optimal implementation strategies. For example, a low tolerance for novelty and high conscientiousness on the part of a community might suggest emphasis of the traditional features of a proposed program and a formalistic presentation of its details. But perhaps one of the most outstanding implications of the findings on the dramatically divergent levels of mental illness in various communities is the need for state and county mental health authorities to move beyond the funding of local services on the basis of population, historical funding patterns, fee-for-service, or simplistic formulas that fail to take into account the socioeconomic and demographic profile of local communities (see the Macro-Practice Implications section of Table 1). These approaches, especially the use of a population formula, typically short-change the poorest communities, creating service gaps and diminishing service access for their indigent residents.

The use of the rich information now available on large-scale patterns of geographic disparities in mental health is best done within a dynamic complex systems framework (see Hudson, 2010), one that takes into account the movement of individuals and populations between diverse environments. There are many examples involving immigration and migration; geographic drift from higher to lower income

### Table 1: Key Implications for Social Work Practice Emerging from Research on the Geography of Mental Health

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<td>• Suggests the need to concentrate on disparities that are inequitable and those that are avoidable or remediable</td>
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<td>• Highlights the importance of maximizing population mental health and subjective well-being and balancing it with efforts to address the immediate needs of seriously mentally ill individuals</td>
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<td>• Leads to a recognition of the importance of careful linkage of community-building and competency-building strategies</td>
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<td>• Extends our understanding of patterns of risk for most mental illnesses that are dramatically elevated for those living in communities of lower socioeconomic status, whatever the theoretical interpretation of this relationship may be</td>
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<th>Macro-Practice Implications</th>
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<td>• Emphasizes the importance of targeting services to communities with the greatest documented mental health needs rather than attempting to distribute them equally to all communities, regardless of need</td>
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<td>• Stresses the importance of individualizing mental health services not just to individuals, but to key characteristics of their communities through development of community profiles</td>
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<td>• Suggests the importance of documenting patterns of migration between geographic areas, especially migration resulting from institutional churning</td>
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<td>• Highlights importance of tailoring community organizing strategies to prevalent personality patterns in local and regional areas</td>
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<td>• Extends our understanding of the nature of the interaction of the goodness of fit between individual personality dispositions and those prevalent in the social environment</td>
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<td>• Accentuates the need to closely link mental health services with concrete supports (for example, housing, employment, education, income)</td>
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<td>• Reveals the centrality of particular types of local friendships and neighbor relationships in enhancing patterns of subjective well-being</td>
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areas; deinstitutionalization and transinstitutionalization; the seasonal routes of some homeless individuals; and the transfer of patients from hospitals to communities or other institutions such as shelters, nursing homes, or prisons. An increasingly important phenomenon is churning, or institutional cycling, which refers to the constant uprooting of seriously mentally ill individuals, often driven by arbitrary service-time limits, need for recertification, or other types of exclusionary practices that function to cream higher functioning clients and marginalize and exclude those with complex and multiple disabilities (see DeVerteuil, 2003; Hopper, Jost, Tay, Welber, & Haugland, 1997). Thus, it is often insufficient to simply document inequitable disparities, as much as such documentation is needed. This knowledge needs to be supplemented with documentation of the practices and policies that drive the flow of consumers within and between areas. Greyhound therapy (see Serrano, 1990)—the practice of providing difficult clients with bus tickets elsewhere—is a classic example of churning. Such churning of populations functions to open up service slots occupied by clients with minimal third-party coverage and replace them with those easier to work with and who have more generous insurance policies.

To the extent that social workers conduct community mental health needs assessments to better understand local variations in mental health, personality patterns, psychiatric needs, and services, they will be in a position to tailor the mix of services to the local populations that need them most. In fact, funders would do well to require that mental health planners develop detailed community mental health profiles as an integral part of needs assessments for any new programs. Perhaps one of the most important implications of the research in this area is that, although any one person or community can be afflicted with severe mental illnesses, mental illness is not an “equal-opportunity” disease—differential risks based on geography, SES, race, and other personal characteristics and community conditions have now been systematically documented in hundreds of studies.

**Micro-Practice Implications**

One of the most immediate implications of this research is the importance that practitioners understand, as part of individualized assessments, the role of place in generating and perpetuating mental dysfunction and presenting avenues of resolution. A fundamental responsibility of social workers is to advocate for enhanced equity in decisions regarding the allocation of funds, personnel, and other resources (see the NASW, 2008, *Code of Ethics*). Addressing issues of equity does not require definitive answers to questions of causation—for instance, deciding whether serious mental illness is socially or genetically precipitated or some combination (“social causation” versus “social selection” interpretations). There are many possible interpretations of this relationship, which calls for continued research. However, given the substantial evidence that individuals who are unemployed, have low income, are minimally educated, and work in low-status occupations are at dramatically elevated risk of most mental illnesses, strategies that systematically link traditional direct mental health and social work services (for example, outpatient psychotherapy, medication, hospitalization, with supported housing, assisted employment, vocational rehabilitation) are likely to serve to minimize deterioration and ameliorate the continued effects of illness. In many contexts, this would suggest the need for less specialized models of generalist and advanced generalist social work practice. Although many state mental health authorities have moved toward greater integration of soft therapeutic and concrete social services—through such approaches as the program of assertive community treatment, clubhouses, and psychiatric rehabilitation—substantial opportunities remain for social workers to assume leadership roles in implementing such models, including those of trainer, case advocate, broker, supervisor, consultant, and program developer. Finally, research on subjective well-being, especially its efficacious transmission through social networks (Fowler & Christakis, 2008), reinforces the importance of maintaining and developing natural social supports of clients.

**Research Implications**

Until the development of current methods in psychiatric epidemiology, the notion of community mental health has been considered by many to be primarily a matter of rhetoric. But with the development of a variety of inexpensive small-area estimation methodologies, such assessments are
increasingly practical. Further research should capitalize on such methodologies to better understand the fine-grained patterns of disparity in mental health and disability that define local communities and their complex geographies. Identification of highly networked clusters of clients and support systems in the context of their surrounding communities permits a far more efficient, targeted, and strategic use of mental health services than was possible previously. Thus, the wealth of information on the geography of mental health presents major opportunities for the reinvigoration of service planning and social work practice on the micro, mezzo, and macro levels.

CONCLUSION
This review has introduced recent developments in theory and research on the geography of mental illness and health so as to enhance readers’ understanding of and capacity for intervening in social environments as these affect individuals. Documented disparities in access to services, when combined with disparities in the risk of a wide range of conditions, create a special need for social workers to more effectively target their services to areas of greatest need and to systematically link their micro and macro practice methods, integrating competency-building and community-building strategies.

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