

# The Role Of Public Policies In Reducing Mental Health Status Disparities For People Of Color

Public policies can improve the social conditions underlying the mental health disparities among minority populations.

by **Margarita Alegría, Debra Joy Pérez, and Sandra Williams**

**PROLOGUE:** The influence of social factors on mental health has been an implicit part of our understanding of this field throughout the era of deinstitutionalization. The Carter Commission on Mental Health in the late 1970s explicitly recognized the centrality of “community supports” in mental health care, and a growing emphasis on home and community-based treatment has continued to operationalize this understanding, especially since the 1999 *Olmstead* decision. In the following path-breaking essay, Margarita Alegría and her colleagues expand the discussion of social factors in mental illness to incorporate a growing literature on the nonmedical determinants of health and apply this broad analytic framework to the problem of racial and ethnic disparities in mental health.

The authors conclude that social policies addressing inequities in housing, education, and income support cannot be disentangled from the policy challenge of disparities in mental health. These findings come at an opportune moment, as another presidential commission on mental health wraps up its examination of the multiple dimensions of federal policy that intersect around the field of mental health. The President’s New Freedom Commission on Mental Health was charged with the task of seeking improved alignment of federal policies relevant to mental health. Alegría and her colleagues have given policymakers a conceptual framework for aligning policies that might break down the intractable problem of disparities as well. In a Perspective on their paper, Howard Goldman explicates in further detail some findings and recommendations of the current commission that reflect a growing understanding of social factors in mental health.

Alegría is director of the Center for Multicultural Mental Health Research of the Cambridge Health Alliance in Massachusetts. She received her doctorate in psychology from Temple University and has recently held positions as a visiting professor at Harvard University and a professor in the School of Public Health at the University of Puerto Rico. Debra Joy Pérez is a doctoral candidate in the Interfaculty Program in Health Policy at Harvard and a fellow at the Center for Multicultural Mental Health Research. Sandra Williams is a graduate of Wellesley College and a staff member at the center.

**ABSTRACT:** Ethnic and racial disparities in mental health are driven by social factors such as housing, education, and income. Many of these social factors are different for minorities than they are for whites. Policies that address gaps in these social factors therefore can address mental health status disparities. We analyze three policies and their impact on minorities: the Individuals with Disability Education Act, Section 8 housing vouchers, and the Earned Income Tax Credit. Two of the three policies appear to have been effective in reducing social inequalities between whites and minorities. Expansion of public policies can be the mechanism to eliminate mental health status disparities for minorities.

**E**THNIC AND RACIAL DISPARITIES in disease risk and burden associated with mental health status and substance use persist despite the elevated spending for health care in the United States as compared with other industrialized nations.<sup>1</sup> Defining disparities in mental health status for minorities requires a broad definition of psychopathology, one that moves beyond psychiatric disorders to include mental health symptoms (for example, suicidality) and behavioral problems (for example, domestic and sexual violence). Our choice of a broad rather than a narrow definition of mental health status is consistent with the new paradigm of ecoepidemiology that proposes an expanded view of disease, so that the influence of social factors, frequently concealed behind factors that are more immediate in the causal chain, can be exposed.<sup>2</sup>

Although minorities are disproportionately represented in low-income groups, according to a national survey they have, on average, rates of lifetime psychiatric disorder that are similar to those of whites.<sup>3</sup> However, this simple comparison does not imply equal average mental health status between minorities and whites. Similar prevalence rates of minorities may be an artifact of minorities' endorsing psychiatric symptoms at higher thresholds of illness severity; in other words, whites who are less ill may report having a specific symptom while minorities admit the same symptom only when severely ill. This results in prevalence rates that do not reflect the actual distribution of illness across groups.<sup>4</sup> Furthermore, similar prevalence rates of certain psychiatric disorders represent only one point in the continuum of health and disease and could fail to reflect differences in average mental health status.<sup>5</sup> Minorities have more symptoms of distress than their white counterparts have.<sup>6</sup> Our broad definition of mental health status implies looking beyond rates of diagnosable disorder in determining disparities, and when we do, we find evidence of disparities between whites and minorities. For example, Latino youth have higher rates of suicide attempts (12.8 percent in 1999) than white youth have (7.3 percent in 1999). Latino (16.8 percent) and African American (18.8 percent) youth are more likely to exhibit behavioral problems than nonminorities are (9.9 percent).<sup>7</sup> Rates of adolescent sexual violence are higher among racial minorities (13.1 percent for African American and 10.0 percent for Latino) than among whites (6.7 percent).<sup>8</sup> The consequences of psychiatric disorders are greater for minorities, with increased odds of incarceration for minorities who are

substance abusers than for whites with the same disorder.<sup>9</sup>

Disparities between minorities and whites in receipt of and quality of treatment are also well established.<sup>10</sup> Among Latinos with a diagnosable mental health disorder, fewer than one in eleven contact a health professional for treatment, compared with one of every three non-Hispanic whites. Even after sociodemographic variables and level of need are controlled for, the percentage of African Americans receiving mental health services is only half that of whites.<sup>11</sup> At the national level, common policies that address service disparities in mental health care are regulation of health insurance, reforms in Medicaid and Medicare regulation, and employer-based mandates such as mental health parity. These health care policies can only affect the health of people who have mental health care coverage. However, Latinos are more than three times and African Americans almost twice as likely as whites are to be uninsured.<sup>12</sup>

Social conditions consistently appear as major “inputs” to mental health status.<sup>13</sup> Broad disparities exist in the socioeconomic circumstances of minorities as compared with those of whites. As we substantiate later, mental health status disparities can be driven by social factors. A fundamental argument of this paper is that public policies that close the gap in these social conditions between minorities and whites could reduce disparities in mental health status.

There is evidence that socioeconomic circumstances also affect the course of mental and behavioral disorders and therefore are linked to differences in recovery for people with psychiatric disorders.<sup>14</sup> Social policies could redress not only differences in mental health status but also differences in recovery for mentally ill minorities. Yet because policies could have different effects on these two groups, we focus here on the non-mentally ill, given the scarcity of information on social policies as a mechanism to reduce disparities.

In this paper we discuss three public policies to exemplify this reasoning. None of these policies was originally intended to ameliorate mental health status inequalities.<sup>15</sup> However, two of these policies, Section 8 housing assistance programs and the Earned Income Tax Credit, have been advocated to help in the recovery of people with mental disorders.<sup>16</sup> The third policy, the Individuals with Disability Education Act (IDEA, P.L. 105-17), explicitly covers children with mental health and emotional disorders, providing counseling and other services for children in special education. We provide evidence that minorities would benefit at least as much as non-Latino whites would from pursuit of these policies, primarily because minorities are overrepresented in the populations the policies affect.

### **Social Conditions As Determinants Of Mental Health Status**

Although there is growing agreement about the importance of social determinants of mental health, there is no consensus on the mechanisms operating or the type and magnitude of the effects on the cost-efficiency of changing social conditions as a strategy to improve mental health and health.<sup>17</sup> The causal relationship

between psychiatric disorders and low socioeconomic status (SES) has been explained in terms of a progression from chronic adversity and stress of being in a disadvantaged social position to diminished physiological functioning resulting in vulnerability to psychiatric and physical conditions. Other investigators argue that it is not status attainment but the psychosocial environment related to employment that plays a role in the SES–psychiatric disorder connection.<sup>18</sup>

Improved housing conditions could have a more direct effect on mental health, by reducing housing cost burden and ambient hazards. Or the effect could be indirect, by increasing community resources, allowing greater integration in nonpoor communities, or increasing safety. The effect of education on mental health appears to be indirect, by increasing one's resources to cope with adversity or increasing a sense of control over one's destiny.<sup>19</sup> Identifying the mechanism between social conditions and mental health status could be difficult because the mechanism might vary depending on the social factor of interest.<sup>20</sup> Recognizing that the mechanisms are difficult to pin down, we review literature that documents how changes in these social factors lead to improvements in mental health status and, therefore, could reduce the mental health risk and burden for people of color.

### **Public Policy As An Instrument To Improve Mental Health**

In examining evidence on the determinants of health, the Institute of Medicine (IOM) estimates that only five years of the thirty-year increase in life expectancy over the past century can be attributed to health care.<sup>21</sup> Recent findings on the impact of medical care, socioeconomic, lifestyle, and environmental factors on the health production function of the U.S. population show that additional medical care use is limited in increasing life expectancy.<sup>22</sup> John McKinlay and Lisa Marceau argue that the greatest impact in reducing health differentials might be achieved by social and marketing policies—forces that can change the social conditions of those in the lower echelons of society who might be at an increased risk for disease.<sup>23</sup> For social policy to be defined as effective in reducing mental health status disparities, however, two conditions must be satisfied: The policies must be effective in changing social conditions; and the policies must work the same or better for minorities as they do for whites. Our paper explores this logic.

Whether social policies can reduce the differential risk of mental health problems for people of color has not been directly tested. However, evaluations of housing renewal programs for people living in poor conditions and early educational interventions show that improving social conditions can contribute to improved mental health status.<sup>24</sup>

The relative risk for psychiatric disorders is approximately twofold or higher for those in the lower income distribution than for those in higher groups.<sup>25</sup> There is indication that both social causation and social selection processes contribute to the observed association between SES and psychiatric disorders.<sup>26</sup> There is evi-

dence that the presence of mental illness can be harmful to the development of human capital.<sup>27</sup> Evidence of social causation shows that improvements in living conditions and education can have long-term effects on health and mental health.<sup>28</sup> In a follow-up study five years after a housing renewal program, researchers found sizable decreases in both adults' and children's levels of psychological distress, attributed to increased community safety and reductions in housing defects.<sup>29</sup> Sandra Newman has shown that chronically mentally ill patients who participated in a longitudinal study before and after the Section 8 program was implemented have improved mental health outcomes, as evidenced by one-third fewer services per month and shorter hospital lengths-of-stay.<sup>30</sup>

Amount of schooling (in years) is directly linked to the development of effective capabilities that influence subsequent life conditions affecting mental health, including economic welfare, healthy lifestyles, and full-time employment.<sup>31</sup> Low educational attainment not only is a strong predictor of poor mental health outcomes for children but remains important for older cohorts.<sup>32</sup> For example, having less than a high school education is associated with twice the risk of having a functional limitation later in life, even after healthy lifestyle factors are controlled for.<sup>33</sup> In a review of sixteen longitudinal studies on employment status' impact on mental health, Gregory Murphy and James Athanasou found that being employed improved mental health status more than employment loss decreased it.<sup>34</sup> However, causation was found to be significant in both directions. Public policies that augment jobs and decrease poverty, that provide better housing and promote education, could reduce mental health status disparities.

### **The Social Conditions Of Minorities**

Minorities are more likely than whites are to live in poor housing.<sup>35</sup> One study has found that minorities living in public housing were much more likely than whites in the same type of unit were to live with structural and maintenance housing deficiencies.<sup>36</sup> National data also show that minority children tend to fare worse in academic performance than their white counterparts do. Latino and African American children perform well below whites in science, math, and reading.<sup>37</sup> Regarding high school completion, 7 percent of white students drop out and do not continue their education, compared with 28 percent of Latino and 13 percent of African American children.<sup>38</sup> Poverty is also more common among minority groups. The poverty rates of Latinos and African Americans are 21.4 percent and 22.7 percent, respectively, compared with 7.8 percent among non-Latino whites. The median household income for non-Latino whites is \$46,300, in contrast to \$33,600 for Latinos and \$29,500 for blacks.<sup>39</sup> Over the past thirty years, lifetime earning inequality and earning instability have risen for minorities.<sup>40</sup>

In relation to these facts, the basic thesis of this paper is simple. If social conditions affect health and mental health, public policies that improve those conditions for minorities should improve their mental health as well. Within this

framework we analyze three public policies, as mentioned earlier.

■ **Housing.** There is strong evidence of the association of neighborhood characteristics and incidence of disease, making housing differentials one potential contributor to racial disparities in health.<sup>41</sup> Neighborhood socioeconomic conditions have become an important area of inquiry in mental health as evidence links them to suicide rates, violence, depression and anxiety, adolescent well-being, and behavioral and emotional problems in children and youth.<sup>42</sup>

Housing policies, then, could play a vital role in affecting the context of poor minority families and the disparities in mental health. In fact, programs of the U.S. Department of Housing and Urban Development (HUD) have a history of assisting the seriously mentally ill.<sup>43</sup> According to a 2000 HUD report, disabled people (including the chronically mentally ill) represent 11 percent of all people served by Section 8 voucher programs.<sup>44</sup>

Minorities make up the majority of residents in public housing environments. In 1998, 69 percent of residents in public housing projects were minorities. Although not all public housing facilities are poorly maintained, they are disproportionately located in census tracts with high percentages of poverty.<sup>45</sup>

Government can act as a key player in the attempt to decrease segregation and improve housing quality for low-income residents.<sup>46</sup> One way in which government has intervened is to create subsidized housing for low-income families, the elderly, and the disabled in the form of Section 8 vouchers. Section 8 is the largest subsidized housing program in the country, with 1.5 million low-income units receiving \$8 billion in federal funds in 2000.<sup>47</sup> Low-income people can apply to their local Public Housing Authority (PHA) for vouchers that cover all but 30 percent of their rent in the private market. These can be used anywhere as long as the participants find eligible housing. Renters are encouraged to use vouchers to move out of poverty-ridden areas.<sup>48</sup>

A HUD demonstration project evaluated the outcomes of housing mobility from high- to low-poverty areas under a program called Moving to Opportunity (MTO).<sup>49</sup> An experimental group received a Section 8 voucher that had to be used in an area with less than 10 percent of residents living below the poverty level. Ninety-three percent of participants were minorities. The rationale for moving people out of their neighborhoods was based on evidence of negative neighborhood effects on health and psychological well-being.<sup>50</sup> The preliminary findings of MTO showed that families offered vouchers had improvements in housing mobility from the most economically disadvantaged areas to better neighborhoods.<sup>51</sup> Adults in the experimental condition who moved to nonpoor housing reported improved mental health and less anxiety in contrast to controls.<sup>52</sup> Children who relocated to these nonpoor environments displayed fewer behavior problems and reduced levels of depression compared with controls.<sup>53</sup>

Despite these positive outcomes, an interim MTO evaluation reported two negative effects: children's lack of integration within the new neighborhood schools,

and lack of social connections in the new community. These negative impacts appeared related to racial, language, and cultural barriers that sometimes prevented respondents from forming relationships in the new community.<sup>54</sup> These findings are consistent with other studies that have found that inner-city participants and minority families eligible for Section 8 are less likely to relocate to nonpoor communities than suburban and white participants in Section 8 are.<sup>55</sup>

The impact of a relocation policy on mental health disparities among minorities appears promising. There is no discrepancy in the average Section 8 success rates by race/ethnicity, with 69 percent of non-Hispanic whites and 68 percent of minorities being able to lease a unit.<sup>56</sup> John Hartung and Jeffrey Henig caution that although voucher programs upgrade the quality of housing and help the poor and minorities penetrate suburban areas, their effectiveness in decentralizing minorities from poor areas could be contingent on market forces and preferences to stay close to family.<sup>57</sup>

■ **Education.** Mortality differentials by level of education have been found consistently in Europe and the United States. For example, Matthias Bopp and Christoph Minder find that the mortality odds decreased by 7.2 percent for each additional year of education for men and by 6.0 percent for women.<sup>58</sup> Low education (less than high school) has been associated with poor psychological functioning and increased risk for negative mental health outcomes.<sup>59</sup> Because education is related to a myriad of health and mental health outcomes over the life cycle, policies on education can affect disparities in mental health status throughout a person's life.<sup>60</sup>

In an effort to address low educational attainment and learning difficulties in school, special education and other related services were required as part of the Education for All Handicapped Children Act of 1994 (P.L. 94-142) for students with disabilities. This law was amended in 1997 to become IDEA. School-based services for students in special education must conform to this law, which required that school systems provide appropriate educational programs for all children with disabilities, including those with emotional and behavioral disorders. Under IDEA, children with disabilities are entitled to free, appropriate public education in the least restrictive environment, and transition services must be available to improve their lives after they finish schooling. Children with special needs are entitled to individual education plans (IEPs), which give them access to the academic and related service accommodations they need to obtain an education.<sup>61</sup> The law also requires adequate assessment, development of a treatment plan, and delivery of services matching each child's needs.

African Americans and Latinos are disproportionately represented in special education and in special classrooms for emotional and behavioral disorders.<sup>62</sup> African American students are almost twice as likely as their white counterparts are to be identified as emotionally disturbed and almost three times as likely to be identified as mentally retarded.<sup>63</sup>

The most recent Office of Special Education Programs (OSEP) study, reviewing

data from 1994 through 1998, found that all of the states and the District of Columbia were out of compliance with IDEA requirements to some degree: Forty states failed to comply with providing free appropriate public education, thirty-six failed to comply with the requirement of placing students in the least restrictive environment, and twenty-two failed to comply with the requirement for IEPs.<sup>64</sup> According to the amended guidelines, related services should include occupational, speech, and physical therapy and psychological counseling based on individual need. Without these related services, some students with disabilities cannot learn. Yet thirty-four states failed to comply with related-services requirements.

The percentage of students with disabilities who graduate from high school is one indicator of the success of the program. According to OSEP's 2001 report, 57.4 percent of students with disabilities graduated from high school, compared with a 71.3 percent graduation rate for the total student population.<sup>65</sup> Students with emotional disturbance and those with mental retardation had the lowest graduation rates (41.9 percent and 41.7 percent, respectively).

How does the policy work for minorities? Students with disabilities benefit most when they are educated with their general education peers to the maximum extent appropriate.<sup>66</sup> Approximately 33 percent of African Americans and 28 percent of Latinos with disabilities are served in separate educational classrooms, compared with 15 percent of white children.<sup>67</sup> In addition, minorities with disabilities tend to be underserved. African American children with emotional disabilities tend to receive fewer hours of counseling and related services than their white peers receive.<sup>68</sup> Graduation rates for students with disabilities were also lower for minorities (43.5 percent for African Americans, 47.9 percent for Native Americans, and 52.9 percent for Latinos) than for whites (63.4 percent). The overrepresentation of minority children in special education and classrooms for children with serious emotional disturbance (SED) and these children's decreased likelihood of receiving appropriate treatment suggest that minority children are benefiting less from the policy of special education.

Less desirable special education and classrooms for SED treatments may lead to less advantageous levels of educational attainment, which predict negative post-school outcomes such as unemployment and adolescent pregnancy.<sup>69</sup> Employment outcomes for minority students with disabilities after high school are dramatically lower than for whites, with 75 percent of African American students, compared with less than half of white students, not employed after three to five years out of school. These data suggest that IDEA, as it is now implemented, might be missing an opportunity to reduce mental health disparities.

■ **Income and poverty.** The connection between poverty and low mental health status suggests that social conditions can exert a powerful influence on the mental health of poor populations.<sup>70</sup> For this reason, lifting people out of poverty could reduce mental health problems and disparities between minorities and nonminorities.

Minorities are more likely than nonminorities are to be poor. While only 4 percent of workforce participants are working poor, 10 percent of Latinos and 8.7 percent of African Americans meet this criterion.<sup>71</sup> Immigrants account for nearly 30 percent of U.S. workers without a high school diploma who are concentrated in low-wage jobs.<sup>72</sup> The Earned Income Tax Credit (EITC) is a policy intended to reduce the impact of poverty among low-income families. It is a refundable tax credit that subsidizes low-wage workers in low-income families. It offsets federal income tax obligations, allowing low-income workers to receive checks from the government if the credit is greater than tax obligations. State credits for state-level EITCs are usually set as a percentage of the federal tax credit that varies by state. It can boost a family's gross annual income by up to one-third.

In 1999 EITC policy assisted 19.5 million poor or near-poor taxpayers by contributing \$30 billion in tax credits.<sup>73</sup> In a 1998 report issued by the Center on Budget and Policy Priorities, the EITC accounted for an 8 percent decrease in poverty rates for all Americans and for a 14.5 percent decrease in poverty rates for children. The EITC is the government's most successful antipoverty program.<sup>74</sup> According to David Neumark and William Wascher, the EITC works to increase the probability of a worker's making the transition from below-poverty-level earnings to above-poverty earnings by 32 percent.<sup>75</sup> Use of the EITC lifts children out of poverty, improves economic and social mobility, and helps families make ends meet.<sup>76</sup> Richard Burkhauser contends that the EITC is the most effective mechanism to augment the income and employment chances not only of the poor but also of workers with disabilities (including the chronically mentally ill).<sup>77</sup>

According to Joseph Hotz and colleagues, increases in the EITC from 1993 to 1998 account for 21–45 percent of the increase in labor-force participation of single mothers, depending on the number of children they have.<sup>78</sup> Proportionally, more African Americans (8.1 percent) and Latinos (14.8 percent) than whites (5.5 percent) were lifted out of poverty by the EITC.<sup>79</sup> However, two barriers limit the EITC's effectiveness for minorities: lack of information about the program for non-English-speaking minorities, and lack of orientation for obtaining and filling out the required forms. Low-income African Americans have similar EITC knowledge (72.7 percent) and receipt (48.0 percent) rates as low-income whites have (75.9 percent and 53.1 percent, respectively) However, only 32 percent of low-income Latinos know about the program, and less than one-fifth have ever received the credit.<sup>80</sup> Overall, the available data indicate that the EITC can decrease poverty, which gives it the potential to reduce mental health status disparities.

## **Concluding Comments**

The preliminary recommendations of the President's New Freedom Commission on Mental Health call attention to the need "to identify policies that could be implemented by Federal, State and local governments to maximize the utility of existing resources, improve coordination of treatments and services, and promote

successful community integration” for adults and children with mental illness.<sup>81</sup> However, John Wildman states that any health policy designed to close the gap in health that does not account for income inequalities will likely lead to inequitable distributions of health in the population.<sup>82</sup> We recommend that the commission consider whether expansion of policies such as the EITC and Section 8 could serve to lessen mental health status differentials for minorities. The evaluation of these and other programs supports their use as strategies to improve social conditions for minorities, and consequently reduce disparities in mental health status. They directly target differences in social determinants that affect a disproportionate number of minorities.

More research on the effects of these policies on different racial and ethnic groups is necessary so that their impacts on social inequality can be more fully assessed. For example, there is limited information on which to judge the effectiveness of IDEA as a strategy to reduce mental health status disparities for minorities. The available evidence suggests the need to strengthen the IDEA policy. Recent partnerships between OSEP, the National Association of State Mental Health Program Directors, and the National Association of State Directors of Special Education may propel systemic collaborations that could eventually make special education and SED services under IDEA a tool to eliminate mental health status disparities.

Demographic differences in knowledge and receipt of the EITC should be addressed to make sure that the funds go to those who need them most. In addition, increasing state-level EITCs and encouraging more states to adopt an EITC could lift more families out of poverty. Automatic application of the EITC for low-income earners who are eligible, as reviewed by the IRS, would facilitate expanding this antipoverty mechanism to help many more families. Aggressive tax reforms that provide tax credits could serve as the best mechanism to eradicate mental health disparities for people of color.

Working together, housing and income policies can indirectly and directly affect the disparities in mental health outcomes for minorities. Policymakers interested in promoting mental health should seize the opportunity to intervene by strengthening social policies. We should be clear that we do not view social policies as a substitute for service interventions. Rather, policies in related areas such as housing, education, and income support are part of a broad policy agenda to prevent and treat problems related to mental health status.

The big issue in a world of trade-offs governed by public budgets is how to make choices among alternative policies for addressing mental health disparities. This will not be simple, because social policies have multiple “outputs”—improving housing and mental health status, for example. Research can aid in evaluating these trade-offs by quantifying the impact of such policies on mental health outcomes. How much of an increase in income or education is necessary to affect mental health? At what age are these effects more substantial? What complemen-

tary actions are needed to ensure that the policies can be effective (for example, available housing for Section 8, knowledge of EITC forms)? How much do such policies prevent and redress negative mental health outcomes? Which types of outcomes are affected by social policies, and which are not?

While not directly intended to address mental health outcomes for minorities, public policies could have important health consequences that need to be considered in policy evaluation. In an era when policymakers are attempting to be more attentive to the needs of disadvantaged and poor minorities and with health disparities having become a major public health concern, adoption and reforms of social policies can open new routes for action.

.....  
*The authors appreciate the thoughtful comments of Thomas McGuire, Norah Mulvaney-Day, and Pinka Chatterji. This work was supported by National Institute of Mental Health Grant nos. P01MH59876 and P01H510803.*

#### NOTES

1. J.M. Wallace, "The Social Ecology of Addiction: Race, Risk, and Resilience," *Pediatrics* 103, no. 5, Part 2 (1999): 1122–1127; S.L. Buka, "Disparities in Health Status and Substance Use: Ethnicity and Socioeconomic Factors," *Public Health Reports* 117, no. 1 Supplement (2002): S118–S125; and U.E. Reinhardt, P.S. Hussey, and G.F. Anderson, "Cross-National Comparisons of Health Systems Using OECD Data, 1999," *Health Affairs* (May/June 2002): 169–181.
2. S. Schwartz, E. Susser, and M. Susser, "A Future for Epidemiology," *Annual Review of Public Health* 20 (1999): 15–33.
3. R.C. Kessler et al., "Lifetime and Twelve-Month Prevalence of DSM-III-R Psychiatric Disorders in the United States: Results from the National Comorbidity Survey," *Archives of General Psychiatry* 51, no. 1 (1994): 8–19.
4. J.Y. Nazroo, "Rethinking the Relationship between Ethnicity and Mental Health: The British Fourth National Survey of Ethnic Minorities," *Social Psychiatry and Psychiatric Epidemiology* 33, no. 4 (1998): 145–148.
5. U.S. Department of Health and Human Services, *Culture, Race, and Ethnicity: A Supplement to Mental Health, a Report of the Surgeon General* (Rockville, Md.: DHHS, 2001).
6. *Ibid.*
7. U.S. Department of Justice, *Youth Victimization: Prevalence and Implications*, April 2003, [www.ncjrs.org/pdffiles1/nij/194972.pdf](http://www.ncjrs.org/pdffiles1/nij/194972.pdf) (6 June 2003).
8. DOJ, *Extent, Nature, and Consequences of Intimate Partner Violence*, July 2000, [www.ncjrs.org/pdffiles1/nij/181867.pdf](http://www.ncjrs.org/pdffiles1/nij/181867.pdf) (6 June 2003).
9. Buka, "Disparities in Health Status and Substance Use"; and Wallace, "The Social Ecology of Addiction."
10. See, for example, Institute of Medicine, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* (Washington: National Academies Press, 2002); M. Alegria, "Inequalities in Use of Specialty Mental Health Services among Latinos, African Americans, and Non-Latino Whites," *Psychiatric Services* 53, no. 12 (2002): 1547–1555; and T.A. LaViest, "Measuring Disparities in Health Care Quality and Service Utilization," in *Guidance for the National Healthcare Disparities Report*, ed. E.K. Swift (Washington: National Academies Press, 2002).
11. DHHS, *Culture, Race, and Ethnicity*.
12. National Center for Health Statistics, "Figure 1.3: Age-Sex-Adjusted Percent of Persons without Health Insurance Coverage, by Race/Ethnicity: All Ages, United States, Quarter One 2002," 25 October 2002, [www.cdc.gov/nchs/about/major/nhis/released200209/figure01\\_3.htm](http://www.cdc.gov/nchs/about/major/nhis/released200209/figure01_3.htm) (12 December 2002).
13. T. Fryers, D. Melzer, and R. Jenkins, "Social Inequalities and the Common Mental Disorders: A Systematic Review of the Evidence," *Social Psychiatry and Psychiatric Epidemiology* 38, no. 5 (2003): 229–237.
14. World Health Organization, *Mental Health: New Understanding, New Hope, World Health Report 2001*, [www.who.int/whr2001/2001/main/en/pdf/whr2001.en.pdf](http://www.who.int/whr2001/2001/main/en/pdf/whr2001.en.pdf) (6 June 2003).
15. R.G. Bratt, "A Withering Commitment," July/August 1997, [www.nhi.org/online/issues/94/bratt.html](http://www.nhi.org/online/issues/94/bratt.html) (6

- June 2003); P. Pardini, "The History of Special Education," *Rethinking Schools Online*, Spring 2002, [www.rethinkingschools.org/archive/16\\_03/Hist163.shtml](http://www.rethinkingschools.org/archive/16_03/Hist163.shtml) (6 June 2003); and Internal Revenue Service, "EITC Overview," [www.irs.gov/individuals/article/0,,id=96406,00.html](http://www.irs.gov/individuals/article/0,,id=96406,00.html) (6 June 2003).
16. S. Newman, "The Housing and Neighborhood Conditions of Persons with Severe Mental Illness," *Hospital and Community Psychiatry* 45, no. 4 (1994): 338–343; and R.V. Burkhauser, "Minimum Wage: Reviewing Recent Evidence of Its Impact on Poverty," Testimony prepared for House Committee on Education and the Workforce, 27 April 1999, [edworkforce.house.gov/hearings/106th/hc/minwage42799/burkhauser.htm](http://edworkforce.house.gov/hearings/106th/hc/minwage42799/burkhauser.htm) (6 June 2003).
  17. F. North et al., "Explaining Socioeconomic Differences in Sickness Absence: The Whitehall II Study," *British Medical Journal* 306, no. 306 (1993): 361–366; L. Syme, B. Lefkowitz, and B.K. Kringold, "Incorporating Socioeconomic Factors into U.S. Health Policy: Addressing the Barriers," *Health Affairs* (Mar/Apr 2002): 113–118; and N.E. Adler and K. Newman, "Socioeconomic Disparities and Health: Pathways and Policies," *Health Affairs* (Mar/Apr 2002): 60–76.
  18. W.W. Eaton et al., "Socioeconomic Status and Depressive Syndrome: The Role of Inter- and Intra-Generational Mobility, Government Assistance, and Work Environment," *Journal of Health and Social Behavior* (September 2001): 277–294; and Syme et al., "Incorporating Socioeconomic Factors into U.S. Health Policy."
  19. M.J. Chartier, J.R. Walker, and M.B. Stein, "Social Phobia and Potential Childhood Risk Factors in a Community Sample," *Psychological Medicine* 31, no. 2 (2001): 307–315.
  20. I.H. Yen and S.L. Syme, "The Social Environment and Health: A Discussion of the Epidemiologic Literature," *Annual Review of Public Health* 20 (1999): 287–308.
  21. IOM, "Understanding Health and Its Determinants," chap. 2 in *Improving Health in the Community: A Role for Performance Monitoring*, 1997, [www.nap.edu/openbook/0309055342/html/40.html](http://www.nap.edu/openbook/0309055342/html/40.html) (6 June 2003)
  22. J. Thornton, "Estimating a Health Production Function for the U.S.: Some New Evidence," *Applied Economics* 34, no. 1 (2002): 59–62.
  23. J.B. McKinlay and L.D. Marceau, "A Tale of Three Tails," *American Journal of Public Health* 89, no. 3 (1999): 295–298.
  24. T. Blackman and J. Harvey, "Housing Renewal and Mental Health: A Case Study," *Journal of Mental Health* (October 2001): 571–583; and S. Goldston, "Cost Analysis and Primary Prevention: A Sound Idea Whose Time Has Come," *Journal of Mental Health* 7, no. 5 (1998): 505–518.
  25. C.E. Holzer et al., "The Increased Risk for Specific Psychiatric Disorders among Persons of Low Socioeconomic Status," *American Journal of Psychiatry* 6, no. 4 (1986): 259–271; D.P. Dohrenwend, "Socioeconomic Status and Psychiatric Disorders: The Causation-Selection Issue," *Science* 21, no. 255 (1992): 946–952; Kessler et al., "Lifetime and Twelve-Month Prevalence"; and M. Alegría et al., "Income Differences in Persons Seeking Outpatient Treatment for Mental Disorders: A Comparison of the United States with Ontario and the Netherlands," *Archives of General Psychiatry* 57, no. 4 (2000): 383–391.
  26. Dohrenwend, "Socioeconomic Status and Psychiatric Disorders."
  27. C. Grootaert, "Social Capital: The Missing Link?" in *Social Capital and Participation in Everyday Life*, ed. E.M. Uslander (London and New York: Routledge Taylor and Francis Group, 2001), 9–29.
  28. V.A. Freedman and L.G. Martin, "The Role of Education in Explaining and Forecasting Trends in Functional Limitations among Older Americans," *Demography* 36, no. 4 (1999): 461–473; and Wallace, "The Social Ecology of Addiction."
  29. Blackman and Harvey, "Housing Renewal and Mental Health."
  30. Newman, "The Housing and Neighborhood Conditions."
  31. C.E. Ross and J. Mirowsky, "Refining the Association between Education and Health: The Effects of Quantity, Credential, and Selectivity," *Demography* 36, no. 4 (1999): 445–460.
  32. Chartier et al., "Social Phobia and Potential Childhood Risk Factors"; and M.M. Wagner, "Outcomes for Youths with Serious Emotional Disturbance in Secondary School and Early Adulthood," *Critical Issues for Children and Youths* 5, no. 2 (1995): 90–112.
  33. Freedman and Martin, "The Role of Education."
  34. G.C. Murphy and J.A. Athanasou, "The Effect of Unemployment on Mental Health," *Journal of Occupational and Organizational Psychology* 72, no. 1 (1999): 83–99.
  35. P.A. Simmons, "Changes in Minority Homeownership during the 1990s," September 2001, [www.fannie-mae.com/foundation.org/programs/census\\_notes\\_7.shtml](http://www.fannie-mae.com/foundation.org/programs/census_notes_7.shtml) (18 July 2003).
  36. M.A. Turner, S. Popkin, and M. Cunningham, *Section 8 Mobility and Neighborhood Health: Emerging Issues and Pol-*

- icity Challenges, April 2000, [www.urban.org/community/sec8\\_mobility.html](http://www.urban.org/community/sec8_mobility.html) (11 November 2002).
37. National Center for Education Statistics, "The Nation's Report Card: Science Highlights 2000," 2000, [nces.ed.gov/nationsreportcard/pdf/main2000/2002452.pdf](http://nces.ed.gov/nationsreportcard/pdf/main2000/2002452.pdf) (18 June 2003); NCES, "The Nation's Report Card: Mathematics Highlights 2000," 2000, [nces.ed.gov/nationsreportcard/pdf/main2000/2001518.pdf](http://nces.ed.gov/nationsreportcard/pdf/main2000/2001518.pdf) (18 June 2003); and NCES, "The Nation's Report Card: Fourth-Grade Reading Highlights 2000," 2000, [nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001513](http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001513) (18 June 2003).
  38. NCES, *The Condition of Education 2002*, 2002, [nces.ed.gov/pubs2002/2002025.pdf](http://nces.ed.gov/pubs2002/2002025.pdf) (18 June 2003).
  39. U.S. Census Bureau, *Poverty in the United States: 2001*, September 2002, [www.census.gov/prod/2002pubs/p60-219.pdf](http://www.census.gov/prod/2002pubs/p60-219.pdf) (30 July 2003); and *Money Income in the United States, 2001*, September 2002, [www.census.gov/prod/2002pubs/p60-218.pdf](http://www.census.gov/prod/2002pubs/p60-218.pdf) (30 July 2003).
  40. S. Haider, "Earnings Instability and Earnings Inequality of Males in the United States: 1967–1991," *Journal of Labor Economics* 19, no. 4 (2001): 799–836.
  41. A. Diez-Roux, F. Nieto, and C. Muntaner, "Neighborhood Environments and Coronary Heart Disease: A Multilevel Analysis," *American Journal of Epidemiology* 146, no. 1 (1997): 48–63; D.G. Smith et al., "Individual Social Class, Area-Based Deprivation, Cardiovascular Disease Risk Factors, and Mortality: The Renfrew and Paisley Study," *Journal of Epidemiology and Community Health* 52, no. 1 (1998): 399–405; and D.R. Williams and C. Collins, "Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health," *Public Health Reports* 116, no. 5 (2001): 404–416.
  42. M. Ferrada-Noli, "Health and Socioeconomic Indicators in Psychiatric Catchment Areas with Divergent Suicide Rates," *Psychological Reports* 81, no. 2 (1997): 611–619; R.J. Sampson, S.W. Raudenbush, and F. Earls, "Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy," *Science* 277, no. 5328 (1997): 918–924; and F. Furstenberg and M.E. Hughes, "The Influence of Neighborhoods on Children's Development: A Theoretical Perspective and a Research Agenda," in *Neighborhood Poverty, Vol. 2: Policy Implications in Studying Neighborhoods*, ed. J. Brooks-Gunn, G. Duncan, and J.L. Aber (New York: Russell Sage Foundation, 1997), 23–47.
  43. S. Newman, "The Effects of Independent Living on Persons with Chronic Mental Illness: An Assessment of the Section 8 Certificate Program," *Milbank Quarterly* 72, no. 1 (1994): 171–199.
  44. D. Devine, "Persons with Disabilities Assisted under the Section 8 Mainstream Set-Aside Program," *Washington D.C. City-Scape: A Journal of Policy Development and Research* 5, no. 1 (2000): 231–235.
  45. S.J. Popkin, L.E. Harris, and M.K. Cunningham, *Families in Transition: A Qualitative Analysis of the MTO Experience Final Report* (Washington: U.S. Department of Housing and Urban Development, 2002), 1, 118.
  46. Turner et al., *Section 8 Mobility*.
  47. M. Finkel and L. Buron, *Study on Section 8 Voucher Success Rates, Volume 1: Quantitative Study of Success Rates in Metropolitan Areas*, November 2001, [www.huduser.org/publications/pdf/sec8success.pdf](http://www.huduser.org/publications/pdf/sec8success.pdf) (chaps. 2–3) (18 July 2003).
  48. Turner et al., *Section 8 Mobility*.
  49. Popkin et al., *Families in Transition*.
  50. L.F. Katz, J.R. Kling, and J.B. Liebman, "Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment," *Quarterly Journal of Economics* 116, no. 2 (2001): 607–654.
  51. Popkin et al., *Families in Transition*; and Turner et al., *Section 8 Mobility*.
  52. Katz et al., "Moving to Opportunity in Boston."
  53. *Ibid.*
  54. Popkin et al., *Families in Transition*.
  55. Turner et al., *Section 8 Mobility*.
  56. Finkel and Buron, *Study on Section 8 Voucher Success Rates*.
  57. J. Hartung and J. Henig, "Housing Vouchers and Certificates as a Vehicle for Deconcentrating the Poor: Evidence from the Washington, D.C., Metropolitan Area," *Urban Affairs Review* 32, no. 3 (1997): 403–419.
  58. M. Bopp and C. Minder, "Mortality by Education in German-Speaking Switzerland, 1990–1997: Results from the Swiss National Cohort," *International Journal of Epidemiology* 32, no. 3 (2003): 346–354.
  59. R.V. Bijl et al., "The Netherlands Mental Health Survey and Incidence Study (NEMESIS): Objectives and Design," *Social Psychiatry and Psychiatric Epidemiology* 33, no. 12 (1998): 581–586.
  60. D.P. Goldman and J.P. Smith, "Can Patient Self-Management Help Explain the SES Health Gradient?" *Proceedings of the National Academy of Sciences (U.S.)* 99, no. 16 (2002): 10929–10934.

61. National Council on Disability, *Back to School on Civil Rights*, 25 January 2000, [www.ncd.gov/newsroom/publications/pdf/backtoschool.pdf](http://www.ncd.gov/newsroom/publications/pdf/backtoschool.pdf) (18 June 2003).
62. P. Robertson et al., "An Update of Participation of Culturally and Linguistically Diverse Students in Special Education: The Need for a Research and Policy Agenda," *Bilingual Special Education Perspective* 14, no. 1 (1994): 3–9.
63. T. Parrish, "Racial Disparities in Identification, Funding, and Provision of Special Education," in *Racial Inequity in Special Education*, ed. D.J. Losen and G. Orfield (Cambridge, Mass.: Harvard Education Press, 2002).
64. NCD, *Back to School on Civil Rights*.
65. Office of Special Education Programs, U.S. Department of Education, "Twenty-third Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act," 2001, [www.ed.gov/offices/OSERS/OSEP/Products/OSEP2001AnlRpt/](http://www.ed.gov/offices/OSERS/OSEP/Products/OSEP2001AnlRpt/) (6 June 2003).
66. D.J. Losen and G. Orfield, "Introduction," in *Racial Inequity in Special Education*, ed. Losen and Orfield, xv–xxxvii.
67. Civil Rights Project at Harvard University, "Racial Disparities in Special Education: National Trends," 2002, [www.civilrightsproject.harvard.edu/resources/specialed/racial\\_disparities.pdf](http://www.civilrightsproject.harvard.edu/resources/specialed/racial_disparities.pdf) (22 November 2002).
68. Losen and Orfield, "Introduction."
69. Wagner, "Outcomes for Youths."
70. W.G. Albee and K. Ryan, "An Overview of Primary Prevention," *Journal of Mental Health* 7, no. 5 (1998): 441–449.
71. Bureau of Labor Statistics, U.S. Department of Labor, "A Profile of the Working Poor, 2000," Report 957, March 2002, [www.bls.gov/cps/cpswp2000.htm](http://www.bls.gov/cps/cpswp2000.htm) (18 June 2003).
72. M.E. Enchautegui, "Low-Skilled Immigrants and the Changing American Labor Market," *Population and Development Review* 24, no. 4 (1998): 811–824.
73. V.J. Hotz, C.H. Mullin, and J.K. Scholz, "The Earned Income Tax Credit and Labor Market Participation of Families on Welfare," January 2001, [www.jcpr.org/wpfiles/hotz\\_mullin\\_scholz\\_final.pdf](http://www.jcpr.org/wpfiles/hotz_mullin_scholz_final.pdf) (18 July 2003).
74. Ibid.; and D. Neumark and W. Wascher, "Using the EITC to Help Poor Families: New Evidence and a Comparison with Minimum Wage," *National Tax Journal* 54, no. 2 (2001): 281–317.
75. D. Neumark and W. Wascher, "State-Level Estimates of Minimum Wage Effects: New Evidence and Interpretations from Disequilibrium Methods," *Journal of Human Resources* 37, no. 1 (2002): 35–62.
76. T.M. Smeeding et al., "The EITC: Expectation, Knowledge, Use, and Economic and Social Mobility," *National Tax Journal* 53 (2000): 1187–1219; and R. Greenstein, "Welfare Reform's Hidden Ally," *American Prospect* 13, no. 13 (2002): A35–A36.
77. R.V. Burkhauser, "Beyond Stereotypes: Targeting Public Policy toward the Doubly Disabled," *American Enterprise* 3, no. 5 (1992): 60–69.
78. Hotz et al., "The Earned Income Tax Credit."
79. K. Porter et al., *Strengths of the Safety Net: How the EITC, Social Security, and Other Government Programs Affect Poverty* (Washington: Center on Budget and Policy Priorities, 2002).
80. K.R. Phillips, "The Earned Income Tax Credit: Knowledge Is Money," *Political Science Quarterly* 116, no. 3 (2001): 413–424.
81. President's New Freedom Commission on Mental Health, "Interim Report of the President's New Freedom Commission on Mental Health," 2003, [www.mentalhealthcommission.gov/reports/Interim\\_Report.htm](http://www.mentalhealthcommission.gov/reports/Interim_Report.htm) (18 July 2003).
82. J. Wildman, "Modelling Health, Income, and Income Inequality: The Impact of Income Inequality on Health and Health Inequality," *Journal of Health Economics* 22, no. 4 (2003): 521–538.