## Vulnerable People, Groups, And Populations: Societal View

Values affect how society views the vulnerable—as victims or sinners—and thus whether or not to provide public assistance.

#### by David Mechanic and Jennifer Tanner

**ABSTRACT:** Vulnerability, the susceptibility to harm, results from an interaction between the resources available to individuals and communities and the life challenges they face. Vulnerability results from developmental problems, personal incapacities, disadvantaged social status, inadequacy of interpersonal networks and supports, degraded neighborhoods and environments, and the complex interactions of these factors over the life course. The priority given to varying vulnerabilities, or their neglect, reflects social values. Vulnerability may arise from individual, community, or larger population challenges and requires different types of policy interventions—from social and economic development of neighborhoods and communities, and educational and income policies, to individual medical interventions. [Health Affairs 26, no. 5 (2007): 1220–1230; 10.1377/hlthaff.26.5.1220]

ORE THAN TWENTY YEARS AGO Health Affairs published a special fifth-anniversary issue on health and poverty (Spring 1987). It focused on many population groups that today would be regarded as "vulnerable," consistent with Webster's definitions as "capable of being physically wounded" and "open to attack or damage." But the concept of vulnerability never appears in the issue or even in the index of the prior five years of work. That brings up the question: Are the issues discussed in the present volume the same as those discussed earlier, with new labels, or have fundamental shifts occurred in our perspectives?

■ **Then.** The 1987 publication focused on people who were poor, uninsured, homeless, elderly and frail, and suffering from a range of chronic diseases, or special populations in need such as Native Americans and low-income veterans, a list not much different from one we might arrive at today. But there are some apparent differences. The earlier issue reflected the dominance of health services and focused on health interventions directed to people in need. Analysts appreciate even more now the value of advances in biomedical knowledge and technology for reducing vulnerability, but we also better understand that much more than health care delivery and changing individual lifestyles is required. The 1987 journal issue gave little attention

David Mechanic (mechanic@rci.rutgers.edu) is director of the Institute for Health, Health Care Policy, and Aging Research and the René Dubos Professor of Behavioral Sciences at Rutgers, the State University of New Jersey, in New Brunswick. Jennifer Tanner is a postdoctoral trainee at the institute.

to the long-term determinants of population vulnerabilities—"upstream" factors.

■ And now. Much has happened since spring 1987, including the AIDS epidemic, welfare reform, passage of the Americans with Disabilities Act, broad-scale federal efforts to address AIDS and homelessness, concerns about terrorism and preparation for chemical and biological attack, and increasing worry about the viability of our public health systems. Medical costs continue to grow rapidly, and we worry increasingly about the future financing of Medicaid and Medicare. Other problems present twenty years ago but not high on the public agenda, such as obesity, are now perceived as crises.

Academic and professional concern with "upstream" determinants of health has a long, cyclical history but recently has gained greater traction.<sup>2</sup> Public policy, of course, deals quite extensively with the needs of vulnerable people, but focus on upstream determinants of population health remains more the exception than the rule. The dominant policy discussions remain centered more on individuals than on populations, more on cure than on prevention, and more on seeking to change individual behavior and lifestyles than on seeking to modify the community structures, norms, and incentives that induce people to behave as they do.<sup>3</sup>

■ A unifying focus. This paper explores unifying themes relating to diverse populations typically seen as vulnerable and how the concept might be useful in considering and designing alternative policy interventions. Vulnerability is usually treated similarly to notions of need, risk, susceptibility to harm or neglect, or lacking durability or capability. LuAnn Aday, for example, identified relative vulnerability among people (by age, sex, and race/ethnicity), within interpersonal relationships (by family structure, marital status, and social networks), and by access to neighborhood resources (such as schools, jobs, income, and housing). In this paper we take a complementary tack, identifying personal and community dynamics that increase or diminish risk and that can help discern points of leverage for reducing vulnerability.

### How Moral Values And Politics Interact In Setting Policy Priorities

At any given time, the attention to particular populations or problems depends heavily on politics and views about morality.<sup>5</sup> For example, James Morone contrasts puritanism and the social gospel, noting that while the former is concerned with sinners dangerous to the body politic, the latter blames social and economic forces and injustice for personal troubles.<sup>6</sup> Morone notes that "the personal transgressions—the sins—that ostensibly endanger the nation are most often public health sins." The list of issues seen differently from public health and moral perspectives includes medical marijuana, the war on drugs and imprisonment, alcohol abuse, premarital sex and pregnancy, birth control and abortion, sexually transmitted diseases (STDs), and sex education and health care in schools.

■ **Sinners versus victims.** The behavior that the public views as personally controllable is fundamental to whether they see people as sinners or victims. Such per-

ceptions have political salience as well and affect conceptions of appropriate social policies. Federal and state government are more likely to provide assistance to those who are not seen as responsible for their vulnerability, such as children, the blind, disabled veterans, and the elderly. When people are seen as responsible for their life circumstances, such as in the case of substance abusers, unwed mothers, or exoffenders, there is less public compassion and often stigma.

■ Personal control versus scientific paradigms. The definition of *vulnerability* is also contingent on scientific paradigms, public understanding, and media influences. Conditions such as alcohol abuse and obesity—often attributed to lack of personal responsibility or discipline and therefore stigmatized—are reframed as they come to be seen as diseases or linked to environmental conditions such as poor food environments that are less under individual control. Lung cancer, once primarily seen as an individual problem resulting from the personal choice to smoke, is now seen increasingly as a public health problem partly because of media exposure of tobacco manufacturers' efforts to induce addiction. 9

### The Dimensions Of Vulnerability

Vulnerability involves several interrelated dimensions: individual capacities and actions; the availability or lack of intimate and instrumental support; and neighborhood and community resources that may facilitate or hinder personal coping and interpersonal relationships. The trendy term *social capital* has commonly been used to characterize the networks that link people together in useful ways (bridging capital) and build reciprocity and social solidarity through shared norms and loyalties (bonding capital). We generally think of social capital as a constructive source of participation and community relations, but it also can be used in antisocial ways to exclude those outside one's own racial or ethnic group or social circle.

■ Social stress process. The social stress process provides a useful way of thinking about how individuals and communities manage potential adversities. Research on stress elucidates how people come to experience challenging circumstances, potentially caused by socioeconomic deficits, exclusion, illness and disability, and a large number of other potential assaults, and how they are mediated by coping, social supports, and sense of control and mastery. Individual sources of stress or their cumulation challenge individuals and their communities, and people's vulnerability (that is, their liability to attack or damage) depends on the personal, material, and social resources they and their social networks can draw on to cope successfully and counter potential harm. The resources that prevent harm may come from people's capacities and resources such as educational preparation, income and wealth, cognitive ability, and planning and preparation or can be drawn from or supplemented by families, social networks, and community resources. The likelihood that vulnerability will be "turned on" and make adversity probable depends on the intensity of the stressors experienced and the resources available to manage them.

■ Coping mechanisms. Coping is ultimately an individual process but one shaped by community relationships and the neighborhood environment. As Leonard Pearlin has noted:

Neighborhoods are typically composed of individuals whose key statuses are similar. Thus, the people in our neighborhoods, as well as those in our social networks, usually bear statuses more like ours than different.... People who share similar statuses will also experience similar hardships and, furthermore, they will respond to these hardships in similar ways, with similar resources.... The neighborhood can stand as a context in which people come to witness stressful social disorganization as a normative reality of life.<sup>12</sup>

### **Sources Of Vulnerability**

In the past decade or two we have come to understand better that vulnerability is cumulative over the life course. Early-life difficulties and their adverse effects interact with later events in ways that increase the likelihood of poor adult outcomes. The welfare of adolescents, young adults, and the elderly depends greatly on trajectories of personal development, social and economic experiences of one's family and community, and stressors that may be unique to various age groups or to communities at a particular time.

■ **Poverty and race.** Discussion of vulnerability inevitably involves poverty and race and related issues of stigma and discrimination. Low income and education from early life and often over the life course, more common among black than white Americans, is associated with a wide range of vulnerabilities. Poor socioeconomic status (SES), for example, is linked to deficiencies in prenatal and early nutrition. Malnourished children develop differently, have lower educational achievement, are more likely to have lower SES in later life, and have higher cardiovascular and other illnesses and mortality compared with children who received proper nutrition. Such factors interact in complex ways, and both early developmental experiences and low social status and later adversities contribute to poor future health and mortality.

Studies of parenting find that low family income and maternal hardship hamper children's cognitive and social competence. Moreover, parents in poor living environments have difficulty nurturing and protecting their children, increasing the likelihood that children will gravitate into activities and peer associations leading to school dropout, premature sexual experience, use of drugs, and other deviant behavior. Family deprivations also increase the probability of abuse and neglect of children, who then seek to escape the household early, associate with inappropriate peers, form tenuous sexual partnerships, have early pregnancies, and often replicate the pattern of inadequate parenting they experienced as children.

Low income and educational attainment have many consequences, affecting knowledge, employment possibilities, housing, nutrition, access to medical care, and much more.<sup>17</sup> Social vulnerabilities associated with low SES are commonly linked as well to racial and ethnic residential separation in communities with poor schools, deficient community institutions, and inferior health-enhancing environments. The poorest residential areas are commonly characterized by noise, heavy traffic, pollution, crime and victimization, high density of liquor outlets,

and easy access to illegal drugs. Studies repeatedly find that such neighborhoods have a high prevalence of major disorders and deviant behavior, including infant mortality, substance abuse, school dropout, unemployment, HIV and other STDs, tuberculosis, suicide, mental illness, and crime.<sup>18</sup> Poor and minority children growing up in these environments are vulnerable.

Vulnerability is exacerbated by stigma, prejudice, and discrimination, which in turn lead to segregation by race and class and high concentrations of devalued people, such as those with serious and persistent mental illnesses and substance abuse disorders and those with a history of arrest and incarceration. These stigmatized populations are commonly excluded as well from public programs designed to aid the "deserving" poor.<sup>19</sup>

People under correctional supervision, for example, share multiple vulnerabilities, with large overrepresentation of racial minorities, people with mental illnesses, and people with little education and unstable work histories. In 2004 there were more than two million people in correctional institutions and almost five million on probation. <sup>20</sup> Many are incarcerated for minor violations of punitive drug laws, and such people not uncommonly have serious mental illnesses and substance abuse comorbidities. <sup>21</sup> On reentry to the community, they face daunting problems involving housing, subsistence, and receipt of appropriate medical care.

- Social networks and lack of social support. Many people in impoverished communities, and in much less deprived communities as well, are often vulnerable because of their precarious ties to social networks and lack of needed social supports. Such networks provide both emotional and practical help in dealing with stressors and often make the difference between successful and inadequate coping. Social isolation is commonly found among the oldest old, whose social networks have become depleted by death and incapacitating illness, and among others such as people from households disrupted because of divorce, separation, or death, or people with severe and persistent mental illnesses and other disabilities. They are especially vulnerable during community disruptions and disasters, lacking the resources to protect themselves. Deaths among African Americans and the elderly during Hurricane Katrina and the large numbers of elderly deaths that occurred in the United States and Europe during recent heat waves have reflected the inadequacy of resources, networks, and community preparedness.<sup>22</sup>
- **Personal limitations.** Ultimately, vulnerability is expressed at the individual level, however important the social and neighborhood context. Physical and cognitive impairments and serious, persistent illnesses exacerbate vulnerabilities, and many of these problems, such as very low birthweight, congenital defects, childhood abuse and deprivation, conduct disorder, and learning difficulties, begin early in life and make later problems more likely. Early recognition and intervention often prevent serious harm. Moderating the effects of many of these early personal vulnerabilities depends on good access to high-quality medical care and specialized rehabilitation services that are usually less accessible to the poor and uninsured.

■ Physical location. A major part of the population is vulnerable because of location, such as in low-density and impoverished rural areas; urban ghettos; or other places associated with underdeveloped or deteriorating infrastructure; lack of employment opportunities; inadequate medical, social, and educational services; poor transportation and communication facilities; high crime and victimization; and exposure to environmentally adverse conditions. With economic deprivation and limited opportunities, outmigration of the young and better educated results in unbalanced age distributions, leaving those remaining more vulnerable and with inadequate support.

### **Temporary Versus Persistent Vulnerabilities**

Vulnerabilities may be temporary, stressing individuals and groups during particular life crises such as acute illness, family breakup, unemployment, community disasters, or other severe losses. Although some of these events lead to persistent or permanent vulnerabilities, what we mean by "temporary" is that the people and communities at issue have the resources and resilience to cope once they overcome the particular adversity that overtaxed their capacities. In contrast, other people and communities face persistent and permanent vulnerabilities because of a longterm pattern of severe and persistent illness and disability, persistent poverty (even from one family generation to the next), and chronic unemployment. Welfare studies have observed that most people who required assistance needed it only for limited periods before overcoming unemployment and other life crises. But approximately 30 percent of these clients faced adversities that were long term (eight or more years) and extremely difficult to resolve.<sup>24</sup> A comparable distinction also applies to people with serious illnesses. Many require intensive assistance during particular episodes, but most can satisfactorily return to conventional medical and self-management. A subset of these more common problems involve people with profound and persistent disabilities that require an intensive and continuing pattern of care and social support.

# Policy Agenda For Vulnerable Individuals, Communities, And Populations

Vulnerable communities are those Pearlin describes as those sharing a "stressful social disorganization as a normative reality of life." They require interventions beyond health care, such as improving schools and involving parents and the community with them; creating employment opportunities; and providing affordable housing, safe places to exercise and congregate, and access to healthier food. <sup>26</sup>

Other populations spread across neighborhoods and communities share specialized needs because of their illnesses, disabilities, or incapacities—such as isolated frail elderly people, the seriously and persistently mentally ill, ex-offenders released from jail or prison, or the homeless. They commonly are not integrated in the community, often feel excluded, and may be encouraged into deviant associa-

tions and activities that serve neither their or the community's long-term interests. National and state programs may provide many of the needed generic resources, whether Medicaid, Social Security Disability Income (SSDI), or Section 8 housing, but the service programs and the person's attachments to the community must be organized in each community.

Distinguishing among individuals, communities, and dispersed populations helps clarify which programs can be largely built around individuals and which require mobilization of neighborhoods, schools, voluntary groups, and public-private coalitions. Our medical care system has much stability despite its many problems, but many of the neighborhood and population programs that help create and sustain a community safety net lack stable funding and continuing political commitment. Programs that address the needs of clients who are seen by the public as less deserving particularly face persistent problems of underfunding and instability. A few nongovernmental organizations (NGOs) addressing these needs have reasonably stable funding, but thousands of smaller organizations struggle from year to year in raising sufficient funds to maintain their efforts. The fragmentation and selective focus of many of these agencies inevitably result in vulnerable individuals' and communities' "falling through the cracks."

■ **The SES factor.** The policy challenge is not so much any lack of creative solutions but more the will to do the things we already know on the scale needed. The single most established finding in health is the importance of SES in determining the course of future illness, disability, and mortality.<sup>27</sup> The pathways through which education, income, wealth, and occupational status shape vulnerability and resilience are complex, but SES indicators are associated with almost every measure of health and health care, including infant and adult mortality, morbidity, impairment and disability, health behavior, and less access to medical care of all kinds.

SES has broad implications because those who have more income and education are likely to have the resources needed to experience health-promoting life conditions and to take advantage of new social and medical innovations and opportunities, from the Internet to preventive health screening. They respond more effectively to new opportunities and threats, through their money, knowledge, social networks, and influence, leading Bruce Link and Jo Phelan to characterize social class as a fundamental determinant of health. Link and Phelan view this gap in SES resources as a major cause of health disparities.

Early socioeconomic deprivations make it less likely that children will have access to educational stimulation and good schools, have high levels of educational attainment, compete for better jobs, and achieve adequate incomes and living standards as adults. A major conceptual and practical challenge is how best to intervene in these patterns of cumulative disadvantage so that children in disadvantaged settings have a more equal starting point for attaining acceptable developmental progress and adult achievement. Programs that provide income support, educational enrichment, and employment opportunities all importantly address

such issues. There is no consensus about which of the interrelated elements of SES have the greatest impact over the life course, since each operates through both common and unique causal pathways. The relative influence of each will depend on the specific health and welfare outcome in question.<sup>29</sup>

Many economic and health indicators suggest that the most disadvantaged segments of the U.S. population have been falling behind, despite overall positive economic trends, and that socioeconomic and racial disparities have been increasing. Infant mortality rates, for example, which have been falling for decades, are now on the rise for black Americans, especially in some southern states. A policy agenda on vulnerability must carefully examine the balance between "upstream" determinants of health and immediate needs.

■ Addressing long-term sources of vulnerability. Some important programs in place seek to address long-term sources of vulnerability. Such well-accepted income policies as Social Security and the Earned Income Tax Credit have greatly reduced poverty, and there are indications that they have had major health effects as well. <sup>32</sup> "Sin taxes" on cigarettes and alcohol affect uptake and consumption, particularly among younger people. <sup>33</sup> Proposed policies on income redistribution and in areas concerning drugs, sex, and guns, however, commonly become entangled in ideological disputes, diverting us from common ground. Thus, approaching socioeconomic challenges through greater educational opportunity and quality offers a political advantage, since support for educational initiatives is widely shared across the political spectrum and ideological positions. <sup>34</sup>

Institutions and programs providing assistance to clients with long-term vulnerabilities face different challenges from those designed to serve people and groups in temporary distress. The long-term problems require a comprehensive commitment (social, medical, and rehabilitative), but our systems of assistance and care are largely built around meeting the needs of individuals and groups with more temporary episodes. The needed longitudinal approaches are difficult to sustain within our insurance structures and approaches to organizing health care. Major efforts to develop systems for chronic disease management continue, but financial incentives are weak, and progress remains slow.<sup>35</sup> There have been outstanding developments in rehabilitation in many areas, including major physical trauma and physical and mental disabilities, but the intensity and persistence needed are often lacking and difficult to sustain. As illustrated by recent experience with wounded soldiers at Walter Reed Army Medical Center in Washington, D.C., we do far better in the intensive acute phase than in the continuing responsibility to follow through on the needed longitudinal care and assistance.

■ **Differential program costs.** In addressing vulnerable people, inevitably a small proportion of the population with the largest handicaps will require a large proportion of expenditure because of the intensity of their needs.<sup>36</sup> Marc Berk and Alan Monheit found that in 1996, 1 percent of the population accounted for 27 percent of aggregate health spending, 5 percent accounted for more than half of the to-

tal, and the top 10 percent accounted for more than two-thirds.<sup>37</sup> In Medicaid in 2002, 3 percent of the 51.4 million enrollees accounted for a third of all spending, and 7 percent accounted for more than half.<sup>38</sup> Disabled enrollees on average cost \$46,531 in 2002. Such disproportionate cost distribution is not unexpected, and inevitable, if we serve people with the largest needs.

- Vulnerable programs for vulnerable people. Medical care is our best-funded and most sophisticated system of interventions for vulnerable people. Response in other areas of vulnerability—including poverty, welfare, child support, and community disorganization—is less developed, is less systematic, and has less stable funding. These policies and programs are highly dependent on state and local efforts and those of NGOs. Vulnerable populations with little influence and power have little priority when cutbacks are required in public budgets. However formidable the problems of our medical care system, they are modest compared to the challenges faced by organizations designed to deal with sustained poverty, foster children, and depletion of neighborhoods.
- Personal versus population initiatives. Americans implicitly believe in individual initiative and responsibility, and many interventions that are politically attractive involve clients' actively taking the initiative. The Earned Income Tax Credit, for example, is attractive across the political spectrum because it rewards work, and President Ronald Reagan and other conservatives championed what was in essence a large program of income redistribution to the poor. Typically, however, interventions that demand individual initiative will favor those with greater personal and social resources even among the poor, who are better positioned to take advantage of new opportunities. Thus, it should not be surprising that such programs increase some types of disparities.<sup>39</sup>

Population initiatives, in contrast, affecting life and health independent of personal initiative, are more likely to benefit populations broadly without increasing disparities. Auto and highway safety design, fluoridation of water, and Social Security are all examples. Reaching hard-to-reach groups can be facilitated by assuming eligibility of all and requiring that people explicitly opt out of programs in which they do not wish to participate. This type of intervention has been powerfully demonstrated to increase inadequate savings among young workers by assuming acceptance of 401(k) plans among employees who do not explicitly opt out.<sup>40</sup>

■ Neighborhood and community context. As evidence grows indicating that neighborhood and community context affects health and welfare beyond personal characteristics and resources, it makes clear the need to design improved interventions at the community level. Degraded neighborhoods can be targeted for intensive interventions, including the many areas crucial to quality of life such as housing stock, employment opportunities, transportation, safety and freedom from victimization, educational enrichment, and recreational opportunities. These are long-standing but inadequately addressed concerns. Much vulnerability arises from the way we have neglected many community environments.

Serving the most vulnerable people and communities is not easy, not only because of ideological differences in assessing responsibility but also because many of these groups are low in the public's awareness and priorities. Nevertheless, the lack of opportunity for large segments of our population exacerbates problems for the entire society. It results in alienation, substance abuse, inappropriate behavior, and victimization of others. It degrades our shared social environment, which makes us unwilling to enter parts of our communities and keeps many of us fearful in our homes, separate from our neighbors. An important challenge is to help the public and their political representatives understand that attention to vulnerable groups not only assists their life chances but contributes more generally to the safety and quality of life of the entire community.

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#### **NOTES**

- D.M. Cutler, A.B. Rosen, and S. Vijan, "The Value of Medical Spending in the United States, 1960–2000," New England Journal of Medicine 355, no. 9 (2006): 920–927.
- 2. S.W. Bloom, The Word as Scalpel: A History of Medical Sociology (New York: Oxford University Press, 2002).
- As Michael McGinnis and William Foege noted in a now classic paper, only a small fraction of health expenditures are directed at control of social and environmental factors contributing to as much as half of all deaths. J.M. McGinnis and W.H. Foege, "Actual Causes of Death in the United States," *Journal of the American Medical Association* 270, no. 18 (1993): 2207–2212.
- 4. L.A. Aday, At Risk in America: The Health and Health Care Needs of Vulnerable Populations in the United States, 2d ed. (San Francisco: Jossey-Bass, 2001).
- 5. J.W. Kingdon, Agendas, Alternatives, and Public Policies (Boston: Little, Brown, 1984).
- J.A. Morone, Hellfire Nation: The Politics of Sin in American History (New Haven, Conn.: Yale University Press, 2003).
- 7. J.A. Morone, "Morality, Politics, and Health Policy," in *Policy Challenges in Modern Health Care*, ed. D. Mechanic et al. (New Brunswick, N.J.: Rutgers University Press, 2005), 17.
- 8. K.D. Brownell and K.B. Horgen, Food Fight: The Inside Story of the Food Industry, America's Obesity Crisis, and What We Can Do about It (Chicago: Contemporary Books, 2004).
- A.M. Brandt, The Cigarette Century: The Rise, Fall, and Deadly Persistence of the Product That Defined America (New York: Basic Books, 2007).
- R.D. Putnam, Bowling Alone: The Collapse and Revival of American Community (New York: Simon and Schuster, 2000).
- 11. L.I. Pearlin et al., "The Stress Process," Journal of Health and Social Behavior 22, no. 4 (1981): 337–356.
- 12. L.I. Pearlin, "The Stress Process Revisited: Reflections on Concepts and Their Interrelationships," in *Handbook of the Sociology of Mental Health*, ed. C.S. Aneshensel and J.C. Phelan (New York: Kluwer Academic/Plenum, 1999), 399.
- D.J. Barker et al., "Size at Birth and Resilience to Effects of Poor Living Conditions in Adult Life: Longitudinal Study," British Medical Journal 323, no. 7324 (2001): 1273–1276; for a review of these studies in the broader context of population health, see D. Mechanic, "Population Health: Challenges for Science and Society," Milbank Quarterly 85, no. 3 (2007): 533–559.
- 14. E.T. Gershoff et al., "Income Is Not Enough: Incorporating Material Hardship into Models of Income Associations with Parenting and Child Development," *Child Development* 78, no. 1 (2007): 70–95; and G.J. Duncan, J. Brooks-Gunn, and P.K. Klebanov, "Economic Deprivation and Early Childhood Development," *Child Development* 65, no. 2 (1994): 296–318.
- 15. G.W. Evans, "The Environment of Childhood Poverty," American Psychologist 59, no. 2 (2004): 77–92.
- 16. For an excellent review, see G. Brown, "Mental Illness," in Applications of Social Science to Clinical Medicine and

- Health Policy, ed. L.H. Aiken and D. Mechanic (New Brunswick: Rutgers University Press, 1986), 175–203.
- D. Mechanic, The Truth about Health Care: Why Reform Is Not Working in America (New Brunswick, N.J.: Rutgers University Press, 2006), 51–66.
- 18. K.M. Fitzpatrick and M. LaGory, Unhealthy Places: The Ecology of Risk in the Urban Landscape (New York: Routledge Press, 2000).
- C.R. Gresenz, K. Watkins, and D. Podus, "Supplemental Security Income (SSI), Disability Insurance (DI), and Substance Abusers," Community Mental Health Journal 34, no. 4 (1998): 337–350.
- 20. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Prison Statistics*, http://www.ojp.usdoj.gov/bjs/prisons.htm (accessed 25 May 2007); and *Probation and Parole Statistics*, http://www.ojp.usdoj.gov/bjs/pandp.htm (accessed 25 May 2007).
- D.J. James and L.E. Glaze, "Special Report: Mental Health Problems of Prison and Jail Inmates," Pub. no. NCJ 213600, September 2006, http://www.ojp.usdoj.gov/bjs/pub/pdf/mhppji.pdf (accessed 25 June 2007).
- 22. D. Brinkley, The Great Deluge: Hurricane Katrina, New Orleans, and the Mississippi Gulf Coast (New York: Morrow, 2006); and E. Klinenberg, Heat Wave: A Social Autopsy of Disaster in Chicago (Chicago: University of Chicago Press, 2002).
- S.D. Grosse et al., "From Public Health Emergency to Public Health Service: The Implications of Evolving Criteria for Newborn Screening Panels," *Pediatrics* 117, no. 3 (2006): 923–929.
- 24. G.J. Duncan, M.S. Hill, and S.D. Hoffman, "Welfare Dependence within and across Generations," *Science* 239, no. 4839 (1988): 467–471.
- 25. Pearlin, "The Stress Process Revisited."
- M.T. Greenberg et al., "Enhancing School-Based Prevention and Youth Development through Coordinated Social, Emotional, and Academic Learning," American Psychologist 58, no. 6–7 (2003): 466–474.
- 27. J.P. Bunker, D.S. Gomby, and B.H. Kehrer, eds., Pathways to Health: The Role of Social Factors (Menlo Park, Calif.: Henry J. Kaiser Family Foundation, 1989); and B.G. Link and J.C. Phelan, "Fundamental Sources of Health Inequalities," in Policy Challenges in Modern Health Care, ed. Mechanic et al., 71–84.
- 28. Link and Phelan, "Fundamental Sources of Health Inequalities."
- 29. G. Davey Smith et al., "Education and Occupational Social Class: Which Is the More Important Indicator of Mortality Risk?" *Journal of Epidemiology and Community Health* 52, no. 3 (1998): 153–160.
- J.J. Heckman and A.B. Krueger, Inequality in America: What Role for Human Capital Policies? (Cambridge, Mass.: MIT Press, 2004).
- 31. E. Eckholm, "In Turnabout, Infant Deaths Climb in the South," New York Times, 22 April 2007.
- 32. J.S. House and D.R. Williams, "Understanding and Reducing Socioeconomic and Racial/Ethnic Disparities in Health," in *Promoting Health: Intervention Strategies from Social and Behavioral Research*, ed. B.D. Smedley and S.L. Syme (Washington: National Academies Press, 2000), 81–124.
- P.J. Cook, Paying the Tab: The Costs and Benefits of Alcohol Control (Princeton, N.J.: Princeton University Press, 2007); and F.J. Chaloupka et al., "Tax, Price, and Cigarette Smoking: Evidence from the Tobacco Documents and Implications for Tobacco Company Marketing Strategies," Tobacco Control 11, no. 1 Supp. (2002): 162–172.
- 34. Mechanic, "Population Health."
- 35. L.P. Casalino, "Disease Management and the Organization of Physician Practice," *Journal of the American Medical Association* 293, no. 4 (2005): 485–488.
- 36. M.W. Stanton and M.K. Rutherford, "The High Concentration of U.S. Health Care Expenditures," Research in Action, Issue no. 19, Pub. no. 06-0060 (2005): 1–10.
- 37. M.L. Berk and A.C. Monheit, "The Concentration of Health Care Expenditures, Revisited," *Health Affairs* 20, no. 2 (2001): 9–18.
- 38. A. Summers, M. Cohen, and M. O'Malley, *Medicaid's Long-Term Care Beneficiaries: An Analysis of Spending Patterns* (Washington: Kaiser Commission on Medicaid and the Uninsured, November 2006).
- 39. D. Mechanic, "Disadvantage, Inequality, and Social Policy," Health Affairs 21, no. 2 (2002): 48-59.
- 40. D.K. Remler and S.A. Glied, "What Other Programs Can Teach Us: Increasing Participation in Health Insurance Programs," *American Journal of Public Health* 93, no. 1 (2003): 67–74.