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THE SOCIOLOGY OF HEALTH

America has the best doctors, the best nurses, the best hospitals, the best medical technology, the best medical breakthrough medicines in the world. There is absolutely no reason we should not have in this country the best health care in the world.

William Frist

If we aren't willing to pay a price for our values, then we should ask ourselves whether we truly believe in them at all.

Barack Obama

The story of Village Creek is not unlike those told in high-poverty neighborhoods across the country that have been threatened by exposure to environmental hazards. Residential toxic exposure is highly disruptive (Downey and Van Willigen 2005; Ellaway and Macintyre 1996, 1998; Greenberg and Schneider 1996; Kawachi and Berkman 2003). The stress experienced by contamination or even the threat of contamination is significant and underscores the importance of understanding health. Beyond the obvious physical health risks, exposed residents often report feelings of anger, frustration, aggression, and depression, and in some cases require hospitalization for mental or emotional illness. Many families experience disruption, financial difficulties, divorce or separation, and extended unemployment as a result of their exposure to hazards

(e.g. Edelstein 2004). The community's social fabric is torn apart by the stress of exposure to hazards. When physical stressors collide with the stressful circumstances of individual and contextual poverty, neighborhood detachment is likely to occur (Kawachi and Berkman 2003; Woldoff 2002). These "detached communities" are more likely to be urban, high density, low income, and predominantly minority. It is estimated that there are over 400 hazardous waste sites in the United States, with 9 million people living within 2 miles of one of them. Over half of those residents are minorities, living in neighborhoods where the poverty rate is 1.5 times higher, and the population density is nearly 30 times greater (Saha 2009).

While the physical impact of environmental disasters on residents in urban areas is well documented (Bullard 1990, 2000; Edelstein 2004), the feeling of helplessness experienced in such disasters is often overlooked. As was the case in the Village Creek incident, residents often report experiencing depression-like symptoms as their home and neighborhood are threatened. In addition to affecting individual health, exposure to hazard challenges the overall well-being and quality of life in the local community. While threats to health are the immediate issue, these threats themselves initiate an extraordinary distress process with long-term implications for residents.

The Healthy Society

Anticipation and worry over threats to physical health are not surprising or necessarily community specific. There is a revitalized interest in health in American society that, in part, has been motivated by an increase in chronic diseases associated with negative health behaviors (Becker and Rosenstock 1989). In addition, the recent convergence of several social phenomena, including the graying of America, technological development leading to increased health risks, health care reform, along with a culture that increasingly promotes self-development, has encouraged Americans to rethink their health behaviors. Expenditure patterns reveal that the U.S. population spends billions of dollars each year on fitness and health-related activities and equipment (U.S. Department of

Commerce 2005). In addition, the health service industry now accounts for over 15 percent of the gross domestic product, with billions spent on health care annually (Organization for Economic Cooperation and Development 2007). Ironically, in the midst of the “health craze” and the boom in health-related spending, general health and health care remain significant social and political problems for the United States (Link 2008). Our population’s health does not reflect the country’s significant and growing expenditures for health care.

This motivated the Obama administration to work with legislators and health professionals to reform health care delivery in the United States. While the consequences of this effort remain uncertain, the intention is clear. Successful reform requires expanding coverage and emphasizing preventive care, while honoring patient choice, reducing inflationary pressures on costs, and holding insurance companies accountable. An effective health care system must offer universal access to basic care. Postmodern capitalism has produced not only great wealth for some, but also dramatic poverty for others. In America’s current free market-driven system, the economically disadvantaged are medically disadvantaged. The quantity and quality of health services are unevenly distributed geographically, and there are clear-cut disadvantages for those living in inner cities where poverty and minority status combine and are concentrated (Collins and Schulte 2003; Wright and Fisher 2003).

Besides structural barriers to good health, the quest to become the “healthy society” often has been overshadowed by lifestyles that promote health-compromising and risk-taking behaviors. Health-compromising lifestyles continue to challenge health care professionals as they struggle to find new ways to modify old behaviors. America’s comparatively poor health appears to be due in part to such risk-taking behaviors as smoking, drinking, drug use, poor eating habits, sedentary lifestyles, and risky sexual practices, among others (American Heart Association 2009; Colditz et al. 1996; Goldstein 1992). Although health-related behaviors are important for health outcomes, this individualized perspective overemphasizes genetics and behavior while ignoring the critical role that social structure plays in determining health care access, as well as physical and

mental well-being (Link 2008; Wilkinson 1996). For example, obesity is a major contributing factor to the poor health of Americans. Obesity is linked in complex ways to social structure. The highest rates of obesity ironically occur in states with the lowest median income and education, and the highest rates of physical inactivity (Drewnowski and Specter 2004). Poverty encourages poor diets. Healthier foods are less available in poor neighborhoods because such foods are often considerably more expensive, and low-cost foods are higher in sugars and fats and frequently more palatable than healthier, more expensive foods (Drewnowski and Specter 2004). In effect cheap foods are often preferred because of taste and cost per calorie, even when their long-term costs to health are considerable.

It is essential to understand the complicated relationship between health, social structure, and social behavior. Attempts to disentangle that relationship have been ongoing since Hippocrates. In *On Airs, Waters, and Places*, he noted that well-being was influenced by the intersection of social and environmental factors including climate, topography, quality of natural resources, and living habits and lifestyle. Since this first “ecological” examination, scientists have struggled with identifying specific social and behavioral causes for disease.

Rooted in eighteenth-century Western European thought, modern medical practice emerged with two distinctive orientations: a “medicine of the species” and a “medicine of social spaces” (Cockerham 2009; Foucault 1973). The medicine of social spaces represented the precursor to modern-day preventive medicine. It was based on the simple notion that if a person’s daily activities were regulated, health and health behaviors could be positively affected. This critical assumption represents the basis for the modern public health approach, which assumes that health and behavior are intimately connected and that improvements in health require changing people’s behavior patterns. There are numerous contemporary examples (AIDS, heart disease, tuberculosis, cancer, cirrhosis, depression, anxiety, post-traumatic stress disorder) that illustrate how certain behaviors, conditioned by structural circumstances, can negatively impact an individual’s physical and mental health. One of those structural circumstances is residence.

Place of residence influences an individual's mental and physical well-being and is a critical sociological variable affecting health. That relationship is central to this chapter and this book. In the last decade, research examining the link between place and health has grown exponentially, with convincing results (Corburn 2009; Kawachi 2002; Macintyre et al. 2005; Mirowsky and Ross 2003; Ross and Mirowsky 2001). In an attempt to explore this relationship we examine five theories that address the relationship between social structure, behavior, and health: health beliefs, healthy lifestyles, risk and protective factors, psychosocial resources, and neighborhood disadvantage/disorder. We then show how they can be used to develop a comprehensive place-based theory of health. To accomplish this, the ecological theory discussed in Chapter 3 is employed to explore the links between ecological characteristics, health-related aspects of social structure and behavior, and the health of urban populations.

Health Beliefs

The first of the major social science theories of health is the health beliefs model (Becker 1974; Rosenstock 1966, 1990). This theory uses attitudes to explain why certain individuals engage in health-protective behaviors while others do not. It rests on the assumption that individuals take disease-preventive action when their behavior can lead to a valued outcome, and they believe that the desirable outcome is achievable. In an attempt to explain health-related behavior, the theory shows how disease-prevention behaviors occur when four conditions are present. First, individuals must believe (susceptibility) that there is some threat (disease or condition) to their health. Second, they also must believe that contracting a particular disease or developing a particular condition will have serious consequences. Third, they must assume that taking certain actions can reduce their susceptibility to the disease or the seriousness of the condition. Fourth, modifying factors exist (demographics, psychosocial factors, media campaigns, advice from professionals and friends, etc.) that can influence a person's perception of the disease's threat and the likelihood that she will take preventive action (Becker 1974).

In short, the theory suggests that individual perceptions can be modified to increase chances that persons take a recommended preventive action to improve or maintain their health. The modifying influence of television and radio, reminders from physicians, newspaper or magazine articles, prior knowledge or contact with a particular disease, and peer pressure can work in combination to mediate the negative expectation of individuals and their perception of disease threat. The model assumes that elements of a person's belief system can be changed in order to ensure a successful treatment or prevention outcome (Becker 1974).

Over the last several decades, the health beliefs model has been used with some success in explaining health-preventive behavior. Applications of the theory have included AIDS prevention (Brown et al. 1991; Connor and Norman 1996; Montgomery et al. 1989), dengue health education (Lennon 2005), and seat belt use (Nelson and Moffit 1988). Most studies indicate that the model's real merit is in identifying the role that a person's subjective health assessment plays in the decision to seek health services. Indeed, research shows that an individual's opinions about his or her health are often a better predictor than an actual medical diagnosis as to whether individuals will seek treatment for a disease or condition. While not without criticism, this micro approach demonstrates the role of attitudes and beliefs in determining health-related behaviors. It suggests that a macro-level theory of health requires acknowledgment of the subculture's function in shaping the health of various populations.

Criticism of the theory centers on the questionable ability of attitudes and perceptions to predict health behavior. Do perceptions actually cause behaviors, or do circumstances that are either out of the individual's control or impossible to measure make the difference? Attitude-behavior approaches are often critiqued for over-rationalizing human behavior. Some argue that attitudes merely offer individuals an opportunity to provide after-the-fact explanations for personal habits that involve little rationale or calculation. In addition, critics argue that the model is difficult to quantify. Perhaps the more serious criticism, however, is that this model accounts for behavior simply by relying on attitudes and beliefs, to

the exclusion of important structural and environmental factors (Bernard and Krupat 1994).

Health Lifestyles

A more recent approach to health behavior is the health lifestyles model. Lifestyles are ways of life involving preferences in food, fashion, appearance, housing, work patterns, leisure, and other forms of behavior that differentiate people. Health lifestyles are defined as collective patterns of health-related behavior based on the choices made available to people according to their life chances (Cockerham 2007; Cockerham and Ritchey 1997). Health lifestyles include nutrition and eating habits, drinking, smoking, exercise, personal hygiene, coping patterns, and other health-related patterns of behavior. Cockerham (1999) demonstrates the critical role that lifestyles play in health, showing how the widespread decline in health in former Eastern Bloc socialist countries can be attributed to lifestyle patterns.

Life chances include age, gender, race, ethnicity, and socioeconomic position. Life chances shape the choices available to people; socioeconomic standing affects the individual's ability to realize these choices. In this perspective, while people generally engage in some form of health-advancing behavior, socioeconomic position helps to determine their capacity to pursue and obtain specific health outcomes.

This model is grounded in the earlier work of Max Weber, who first proposed the idea of lifestyles in his discussion of status groups in *Economy and Society* ([1922] 1978). Weber links lifestyle to status by suggesting that the characteristics of status can be expressed in the particular lifestyles that a person chooses. Knowing that lifestyles are part of a consumption process, Weber argues that lifestyle differences between status groups are a function of their relationship to the means of consumption, rather than the means of production (Cockerham et al. 1997). Thus, consumption of goods and services is a way that social differences are expressed and actually established between status groups. So, for example, a person using a health spa at an exclusive resort is a consumer with a status and social identity clearly different from

someone who cannot afford that type of health-improving activity, or someone who can but chooses other activities.

Weber views life choices (*Lebensführung*) and life chances (*Lebenschancen*) as components of a person's lifestyle (*Lebensstil*) (Abel and Cockerham 1993; Cockerham et al. 1993). Life choices reflect the preferences individuals make regarding lifestyle, which are intimately related to an individual's life chances. Life chances refer to the likelihood of achieving a particular lifestyle, based on past experiences, social status and power, and social networks. Thus, one's life chances are clearly constrained by social, political, and economic circumstances, which, in turn, affect life choices. In essence, the Weberian approach describes interplay between structure and choice, providing further elaboration of the health beliefs model.

While this model has great potential for contributing to a better understanding of health behaviors, a critical question raised by medical sociologists is: How does Weber's lifestyles concept translate into a healthy lifestyles framework? The work of Bourdieu (1984, 1990) bears directly on the contemporary version of the healthy lifestyles model. Bourdieu notes that while individuals choose their lifestyles, they do not do so freely. Rather, their *habitus* (a collection of objective social and economic conditions) predisposes them to make certain choices (Cockerham et al. 1997; Munch 1988). It provides an individual with a cognitive map of his or her social world, as well as behaviors appropriate for particular situations. Bourdieu (1990) contends that the human mind is socially bounded and limited by socialization, life experiences, and training. While most individuals understand their social circumstances, their perceptions are typically bounded by a social and economic reality. Habitus encourages development of a pattern of behavior and mind-set that appears reasonable to the individual, given their social and economic circumstances. Thus, what emerges is a lifestyle pattern, including a system of varying tastes (dress, food, and other forms of entertainment, including health and fitness) nested in a particular status group. Hence, social standing predisposes specific aspects of lifestyle, which may include eating, exercising, attitudes toward prevention, physical appearance, and a variety of risk-taking behaviors.

This relationship becomes most apparent when examining differences in health-improving behaviors between status groups. Martha Balshem (1991) illustrates the link between social status and lifestyle in a study of a working-class neighborhood where a public health program to reduce cancer risk failed. In this neighborhood, most residents believed that they could do nothing to improve their chances of preventing cancer, and so lifestyle changes were deemed futile. This finding supports Bourdieu's (1990) claim that due to habitus the usual ways of behaving prevail, and extraordinary changes in behavior are unlikely to occur (Cockerham et al. 1997).

While good health is a commonly held goal, people make a variety of choices affecting lifestyle patterns and health. Such choices usually occur for very practical reasons such as not wanting to contract specific diseases, desiring to live longer, wanting to look and feel good, or aging gracefully. In most Western cultures, a good deal of emphasis is placed on the role of life choices in effecting good health. Even as health care becomes more structured, a menu of options bombards the health consumer as they attempt to make decisions regarding who, how, when, and where they are cared for. With this overemphasis on choice, the relationship between chances and choices is often ignored. What predetermined factors influence choices? How does place affect choices? Is place a critical aspect of habitus?

Research continues to demonstrate the link between life chances and choices and their role in effecting health outcomes. Though socioeconomic status is important, it is not the only life-chance factor influencing health. In fact, certain health behaviors such as diet, exercise, smoking, and drinking patterns have been shown to be characteristic of particular groups of persons irrespective of their social standing (e.g. George and Johnson 2001; Grzywacz and Marks 2001). Beyond class, factors such as gender, residential location, and age also influence health behaviors. Researchers note that when controlling for socioeconomic status, men generally engage in more health-compromising behaviors than women (Cockerham 2005, 2007). The social area approach, reviewed previously in Chapter 3, suggests that places vary in lifestyle. The research generated from this perspective indicates that a place's social climate,

independent of the individual's gender, age, and socioeconomic status, will affect the individual's style of life. No research has directly explored the impact of the social area on health behaviors. Research has been done, however, on age's implications for health lifestyles. Aging persons take better care of themselves—watching what they eat, taking more time to relax, and reducing their intake of alcohol and tobacco (Cockerham et al. 1988; Lueschen et al. 1995). The one exception is exercise, which declines with age, creating a major lifestyle change with the potential for significant impact on health (Grzywacz and Marks 2001).

Aspects of the healthy lifestyle viewpoint have been incorporated into the very consciousness of mainstream society. An overwhelming desire to look good and live longer and a conviction that these desires can be accomplished through wellness programs, exercise centers, and commercial products dominate a middle-class way of thinking that may be helping to set the health agenda in the twenty-first century. Unfortunately, this viewpoint often glosses over the critical role life chances play in determining lifestyles, creating the impression of a dialectic between life chances and choices rather than a causal or interactive process.

Risk and Protective Factors

A third framework, originally designed to explain health-compromising behaviors (drug and alcohol use) among youth, is the risk and protective factors model. Instead of conceptualizing health behavior as a function of both socially determined chances and individual choices, this distinctively public health approach concentrates on the factors promoting or discouraging health-compromising behaviors. These factors are seen as complex, multilevel forces operating at both individual and contextual levels.

The salience of certain risk and protective factors varies across individuals, families, schools, and communities. Thus, a multilevel prevention approach becomes critical to developing effective strategies for reducing health-compromising behavior. This systems approach to understanding health-compromising behaviors among youth is compatible with

Bronfenbrenner's ecological theory (1979, 1986). Here, a child's development is strongly influenced by family, schools, peers, and neighborhood, which, as the main "spheres of influence," act as interdependent, nested parts or systems. Each system contains an "organized collection of activities and resources that exists within definable social and physical boundaries" (Berger et al. 1996), and each one exerts its own influence on the individual. This systems approach to development recognizes both the child's capacities to change, as well as the social environment's power to induce such change. While genetic code is important in determining cognitive, social, and psychological outcomes, the social ecology of a community creates a powerful context of influence, significantly affecting the path of development (Bronfenbrenner 1986; Garbarino et al. 1992). These ever-widening "spheres of influence" are precisely why the risk and protective factors perspective is important for developing a place-based approach to health.

The general model proposes that the relationship between risk and health-compromising behaviors is buffered or mediated by protective factors. While the specifics of the risk and protective factors model have gone through significant theoretical revisions, the general perspective has produced a great deal of research over the past 30 years. This research has allowed generalizations to be made regarding the role of risk and protection in understanding negative health outcomes (Dekovic 1999; Fitzpatrick 1997; Fitzpatrick et al. 2008; Fitzpatrick et al. 2009; Piko and Fitzpatrick 2003; Piko et al. 2005; Sameroff et al. 1993; Stevens 2006). These generalizations include the following:

1. Risk factors exist in multiple domains. Risk occurs at various levels in the individual's environment—the family, school, social networks, and neighborhood.
2. The more risk factors present in the environment, the greater the risk and the greater the likelihood that a negative health outcome will result. Many persons are at risk for negative health outcomes. Some, however, are exposed to such a large number that their "risk quotient" is exponentially greater than others. For example, all children living in poverty are at risk for poor negative health outcomes simply

because they are poor, yet not all of these children follow similar health trajectories. If a child lives in poverty, has a low IQ, lives with a single parent, has no health insurance, has low self-esteem, and is constantly exposed to community violence, that child's risk quotient is significantly greater than for a child who lives in poverty without any other risk factors present.

3. Common risk factors predict a diverse set of health outcomes. This finding suggests that when certain risk factors are identified and interventions prove successful, additional benefits may accrue. Thus, for example, a program that successfully reduces violence exposure and improves mental and physical health may also reduce feelings of vulnerability, while increasing school performance and social competence.
4. The effects of risk factors show some consistency across race, ethnicity, and social class. Thus, while risk varies from group to group, the effects of risk do not, suggesting that community prevention efforts targeting specific risk factors should be adaptable to a variety of subpopulations.
5. Protective factors may buffer the negative effects of exposure to risk. Research has demonstrated that certain protective factors moderate the negative consequences of exposure to risk, improving health outcomes. Protective factors are both passive and active; some actually reduce risk simply by their presence, while others change the way a person responds to risk. Armed with knowledge about these multi-level protective factors, communities can develop programs that more effectively minimize or eliminate risk.
6. As is the case with risk factors, protective factors occur at multiple levels. Individual, family, school, and community-level characteristics are important in helping individuals establish a "blanket of protection." Protective factors include individual characteristics such as gender, IQ, and temperament; family and school characteristics such as bonding with parents and teachers, parental supervision and interest in child's activities; and community characteristics such as healthy beliefs and well-defined standards in a community that provides support and access to resources.

The risk and protective factors framework has been particularly useful in developing comprehensive prevention programs for spatially concentrated health problems. Developing and implementing strategies that comprehensively attend to the multidimensional physical and mental health needs of children and families is a formidable task. Unfortunately, most of the efforts have concentrated on treating the illness rather than dealing with the risks associated with the illness, such as place of residence, and the socioeconomic and general life circumstances of the individual.

As suggested, a risk-based approach to prevention can be used as a comprehensive strategy to address the health problems emerging in a diverse society with significant demographic differences in morbidity and mortality. Following theories of health discussed earlier in this chapter, health lifestyles and beliefs should be included in this framework as aspects of risk and protection targeted for the prevention of health-compromising behavior.

Psychosocial Resources

Another framework used to explain health behavior is the psychosocial resources model, a model that originated from the earlier work of stress researchers (Dohrenwend and Dohrenwend 1981; Holmes and Rahe 1967; Tausig 1986a and b; Thoits 1985). The model attempts to understand the intricate relationships among stressors, social and psychological resources, and the individual's mental health (Cobb 1976; Dean and Lin 1977; Ensel and Lin 1991; Lazarus and Folkman 1984; Lin et al. 1986; Mirowsky and Ross 1989; Pearlin 1989; Turner 1983; Turner et al. 1995; Wheaton 1983).

Stressors refer to environmental, social, or individual circumstances that give rise to stress, force people to adjust or readjust their behavior, and eventually influence the mental and/or the physical health of the individual (Thoits 1995). Pearlin (1989) suggests that two major types of stressors should be considered: *life events* and *chronic strains*. Life events are undesired, unscheduled, and uncontrollable acute events in a person's life, such as divorce, death, loss of a job, or in the case of Village Creek, an environmental accident. Extensive empirical research has shown that

one or more negative events experienced in a year can have a negative impact on a person's mental health (Cohen and Williamson 1991; Tausig 1986a and b; Thoits 1983).

Chronic strains, on the other hand, are more enduring problems faced on a daily or ongoing basis. These circumstances, like life events, also have negative effects on physical and mental health (Avison and Turner 1988; Pearlin 1989; Verbrugge 1989). Chronic strains have been linked to the social roles and places that are byproducts of the stratification system. Thus, gender, race/ethnicity, and class become particularly relevant to a discussion of the association between social position and individual health outcomes (Mirowsky and Ross 1989; Pearlin 1989).

Perhaps the most obvious example of the link between social position and health is that of income inequality (Lundberg 1993; Wilkinson 1996). Poverty represents a chronic strain with significant consequences for health. Both absolute and relative deprivation cause stress; empirical evidence shows that adverse socioeconomic circumstances have the potential for long-lasting psychological and emotional damage, particularly for children living in high-stress environments (Bolland 2003). General comparisons with children not living in poverty indicate that at-risk youth are more likely to fail in school, have disciplinary problems, have low achievement scores, repeat grades, drop out of school, exhibit delinquent behavior, and experience long periods of unemployment. These same youth are also likely to encounter significant physical and mental health problems.

To further illustrate the important role that socioeconomic disadvantage plays in determining health outcomes, Wilkinson (1996), using cross-national data, demonstrates that at similar levels of development, nations with greater income inequality generally have populations with poorer overall health. Hence, in those countries where inequality is modest and social cohesiveness high, life expectancy is higher. Among developed countries, it is not the wealthiest societies that have the best health, rather the most egalitarian do. Societies with a narrower gap between rich and poor have a stronger community life, less family dissension, and higher levels of formal and informal social support. These resources, in turn, play an important role in promoting health.

In general, researchers conclude that these types of resources intervene in the stress process. Resources modify or at least mediate negative conditions (life events or chronic strains such as poverty) that may lead to the development of mental health problems. Thus, they are conceptualized as reactive elements in the stress process, which are drawn upon as either mediators or buffers against negative external stimuli (Ensel and Lin 1991).

Two major types of resources are considered critical to understanding the overall stress reduction process. *Psychological resources* are personality characteristics that enable individuals to cope with challenging circumstances. Traits such as mastery (Pearlin and Schooler 1978), self-esteem (Rosenberg 1965), and social competence (Cairns and Cairns 1994) are resources capable of moderating life stressors. *Social resources* are the resources embedded within a person's social networks that serve specific instrumental and expressive needs. One way of thinking of these networks is to see them as *social supports* that persons in distress rely upon, including family, friends, and neighbors. These supports are critical to an individual's ability to cope with challenging, undesirable circumstances and events.

In describing the various aspects and sources of support, Lin and colleagues (1986) point to the "perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners" (p. 18). There are several noteworthy aspects to this particular definition. One is a clear distinction between actual and perceived support. Both types of support have received a great deal of attention in the literature, and in a majority of research; both perceived and actual supports have been shown to reduce the negative consequences of stressors on an individual's mental health (Lin et al. 1986; Thoits 1995). The definition also highlights the multiple sources of social support for individuals. These include the characteristics of an individual's formal and informal networks, as well as the nature of the community in which those networks are embedded.

Considerable empirical evidence shows that social support at all these levels plays an important role in the stress process (see Thoits 1995 for a comprehensive review of social stress research and its major findings);

the exact nature of this relationship has been a subject of some debate (Ensel and Lin 1991). The suggested roles that resources play include deterrence and coping. Models proposing deterrence show resources directly reducing distress. Coping models, on the other hand, argue that stressors trigger a response from the individual's social resources that, in turn, have some impact on distress. Additionally, they point out that resources generally intervene in the relationship between stressors (events and circumstances) and levels of distress. Social science research most strongly supports the coping perspective (Ensel and Lin 1991; Thoits 1995). This perspective is also compatible with ideas contained in the risk and protective factors approach. Both models propose that social resources act as protection against the risks contained in a stress-filled environment.

But social ties are more than simply a coping mechanism or a vehicle for protection. They are assets that individuals can draw on both to get by as well as get ahead (Putnam 2000; Irwin et al. 2008; LaGory 2009). They are a form of capital as valuable to the well-being of individuals and communities as their financial assets, their education and training. Like financial capital and human capital, *social capital* is a resource that can be used not just to alleviate distress, but to actually promote health and well-being.

Just like financial and human capital, in order for them to be beneficial they must be spent from time to time. At a personal level such ties offer access to information, opportunities, and resources available only to the friends and acquaintances in those networks. With a little effort they can help the individual solve a range of personal challenges from finding work or a loan, to getting help when they are sick. The community can benefit from social capital as well. A multiplier effect is realized when groups share their talents and resources. Partnerships have the potential of being stronger, more resilient, and more creative than their partners.

Social capital benefits individuals and groups in two ways. It *bonds* similar individuals together, producing "strong ties" between them. A strongly bonded group offers entrée to a community of persons with similar characteristics, influence, and resources. On the other hand, social ties *bridge* or link differing groups of people, unlocking a wider array of

resources and a wider span of influence. Bonding social capital allows people with limited resources to maintain their current circumstances and lifestyles better than they might on their own; a protective function (Putnam 2000). Bridging social capital, on the other hand, allows these same people to achieve a better life by providing admission into groups with a greater variety of resources and power. These ties are sometimes referred to as “weak ties” because they extend beyond the immediate support system of family and friends and include the individual’s larger acquaintance structure. Weak ties can help people and communities overcome structural barriers to advancement. One critical problem, however, is that high-poverty ghettos, because of significant segregation, tend to have little bridging social capital, leading to circumstances in which residents have few social resources to overcome the structural disadvantages of poverty (Mitchell and LaGory 2002).

Neighborhood Disadvantage and the Ecology of Health

Ecological factors constrain the choices and actions of individuals in neighborhoods, and these actions and choices affect the health of residents and their communities. In addition, the ecology of a metropolitan area can directly affect health because of the differential risks distributed across the urban landscape. The nature of the relationship between ecology and health is obviously complex, involving more than just the physical and psychological risks inherent in a place. The ecology of an area has an impact on the health beliefs and practices of residents, their health lifestyles, their access to various health resources, and the social network of friends and supports that help people cope with stressful circumstances and events. Certain ecological conditions can intensify the health disadvantages of some groups, promoting the emergence of unhealthy lifestyles mired in risky and dangerous behaviors. They can concentrate persons with already limited options into areas that, because of their ecology, further restrict the lifestyle options, social supports, and health resources available to them. There are clearly unhealthy places.

Risk and life chances are spatially structured in the urban landscape. Because housing is delivered in the marketplace, residential location is a

function of a group's ability to pay for housing and transportation, as well as their ability to gain advantage and control over the market. Hence, the urban space is home to a mosaic of groups sorted and sifted according to their political and economic resources (life chances). Those with greatest resources generally reside in areas containing low levels of risk, while those with limited resources find access restricted to undesirable areas with the greatest amount of risk. Thus, the ecology of risk follows fairly straightforward patterns in which people are segregated according to their abilities to gain housing. Risk, in other words, typically is segregated by those factors associated with life chances (race/ethnicity and class). Communities with the greatest concentration of risk contain large numbers of minorities and low-income persons living in aging residential areas—the low-resource populations and places of the high-poverty ghetto (Logan and Molotch 1987). These also happen to be groups whose lifestyle choices are constrained by their life chances or habitus.

The final health model included in this review of health theories, *neighborhood disadvantage*, examines these ecological aspects of health by exploring the role of neighborhood poverty in determining health and well-being (Cohen et al. 2003; Hill et al. 2005; Latkin and Curry 2003; Mirowsky and Ross 2003; Ross and Mirowsky 2001; Sampson et al. 2002). Neighborhood disadvantage theory offers a road map for a place-based approach to health, and has its roots in Wilson and Kelling's (1982) "broken-window" hypothesis. The urban disadvantage theory examines the complex interplay between neighborhood disadvantages (poverty, minority residents), personal disadvantages (low socioeconomic status, unemployment, low education), and neighborhood disorder (vacant housing, limited social capital), and these factors' impact on residents' physical and mental health (Browning and Cagney 2003; Ross and Mirowsky 2001; Sampson 2003; Sampson et al. 2002). Negative neighborhood conditions promote social disorder. Whether incivility or crime, fewer jobs or opportunities for success, residential disadvantage weakens the social fabric of places, creating an environment of fear, anxiety, depression, hopelessness, and poor physical health (e.g. Mirowsky and Ross 2003).

Perhaps no better example of this is Eric Klinenberg's (2002) study of heat-related deaths in Chicago during the unusually long and severe heat wave of 1995. In six days, 740 people died from heat-related causes (twice as many as during the Great Chicago Fire of 1871). The incident was more than a natural disaster, according to Klinenberg, it was "a catalogue of urban horrors" and a "biological reflection of social fault lines." While many elderly died, this wasn't just a manifestation of age-related health risks, but the lethal combination of a concentration of elderly living in socially isolated, deteriorating neighborhoods with limited social capital/support and declining commercial activity (Browning et al. 2006).

This incident is far from unusual—neighborhood conditions shape health outcomes across all age, gender, class, and racial groups. While separating individual from place effects is difficult, studies continue to show that neighborhoods with concentrated poverty and minorities, poor housing stock, and social disorder have poorer health outcomes (e.g. Baumer and South 2001; Elliot 2000; Ross 2000; Sampson et al. 2002). These places lack the resources necessary to promote good health and healthy lifestyles. High-poverty ghettos cannot keep or attract the supermarket chains or drugstores that offer healthy foods or the bare medical necessities to sustain a healthy way of life. The absence of health-promoting places such as parks, doctor and dentist offices, drugstores or chain grocery stores is complemented only by the prevalence of liquor stores, pawn shops, pay-day loan offices, and drug dealers.

In such places social capital is also limited, and even when it exists, it often functions in unhealthy ways. In neighborhoods where everyone is poor, bonding social capital may actually operate as an obligation network rather than a support system, where well-connected people are more frequently tapped for help, than provided support (Mitchell and LaGory 2002). In addition, since disadvantaged communities are also highly segregated places, their residents tend to lack the bridging capital that ties people to diverse resources. This makes it difficult for residents to escape the poverty dominating their personal lives and the lives of neighbors living around them.

These are places where trust is a scarce commodity. Those living and those coming into the community often cannot be trusted. Such places

lack *collective efficacy*, defined as “the willingness and ability to intervene on behalf of the common good” (Sampson et al. 1997). They are unable to respond effectively to threats from inside and outside the community. In such places, crime accelerates and fear grows, keeping residents from using sidewalks and parks for physical exercise.

If, on the other hand, people feel strongly attached to a place and trust their neighbors, they are more likely to function territorially, and collective efficacy will be high. Collective efficacy may be exhibited in behaviors ranging from increased maintenance of their surroundings to assisting their neighbors. Territorial functioning spills over into strong neighborhood ties. In communities where the neighborhood becomes a central behavioral space, community ties strengthen and the area becomes more capable of defending itself against outside threats. Certain ecological conditions promote or reduce territorial functioning. These include spatial conditions that make neighborhoods defensible, such as opportunities for residential surveillance; attractive exteriors; real barriers that separate the residential area into manageable sectors; the absence of “spatial incivilities” such as litter, dilapidation, and graffiti; and the presence of shrubs, trees, and gardens (Perkins et al. 1996).

Disadvantaged neighborhoods with limited collective efficacy, on the other hand, are places where access to health-promoting resources are limited. The poor diets of disadvantaged residents, due to limited access to healthy foods and the costs of these foods, couple with the lack of exercise to promote obesity. Obesity is linked to an urban ecology that concentrates poverty and hazards, limits trust, and promotes unhealthy lifestyles (Drewnowski 2004). It is almost as if some communities were designed to make people sick. Not surprisingly, this link between neighborhood conditions and residents’ health seems true for cities throughout the world (Cummins and Macintyre 2006; Macintyre et al. 2002, 2005; Mirowsky and Ross 2003), and for a range of U.S. cities (Boston, Chicago, New York, San Antonio, Birmingham, St. Louis, Raleigh, New Haven, Los Angeles, etc.) where researchers consistently find that high-poverty ghetto residents are at greater risk of experiencing physical and mental health problems than those living in other parts of the

metropolis (Cockerham 2007; Kubzansky et al. 2005; Laraia et al. 2006; Sampson et al. 2008).

Another factor at work in the link between urban ecology and health is *health-related subcultures* (LaGory 1983). Disadvantaged neighborhoods characterized by residents with limited life chances and high levels of segregation have spatial structures that encourage the development of subcultures. Individuals in such areas develop significant bonding social capital but have few links outside the social area—creating what Fischer (1976, 1982) describes as a “critical mass” for subculture formation. For a subculture to emerge, certain minimal numbers are necessary to support the institutions that give the group a unique identity. Individuals learn cultural norms and values from role models. If the number of role models is high, but their social diversity low, then a situation of high conformity to the local subculture is likely. This conformity will be further intensified if people in the community also have limited resources to seek contacts outside the area, a condition occurring in inner-city areas where transportation is limited by low income and high rates of unemployment. Under these circumstances of limited life chances and highly concentrated social networks, conformity to the norms and values of the local area and limited individual autonomy will be the rule.

The degree to which the subculture deviates from the traditional culture will depend partially on how isolated the local group is, how big it is, as well as whether or not the resources and institutions in the community promote traditional values and norms. Whether risky behaviors become part of the local subculture will depend on the presence of “illegitimate institutions” and “deviant role models” (Cloward and Ohlin 1960). These institutions and models are most likely to emerge in places where the dominant culture’s goals (such as achievement, material acquisition, etc.) are difficult for the local group to attain—a situation most common in areas with limited life chances (Merton 1968). These ecological circumstances (high density, high segregation, low access to health-promoting resources, presence of illegitimate institutions, presence of deviant role models) represent the spatial conditions that nurture high probabilities of health-compromising behaviors and health beliefs. This health-compromising subculture will further exacerbate the high risks

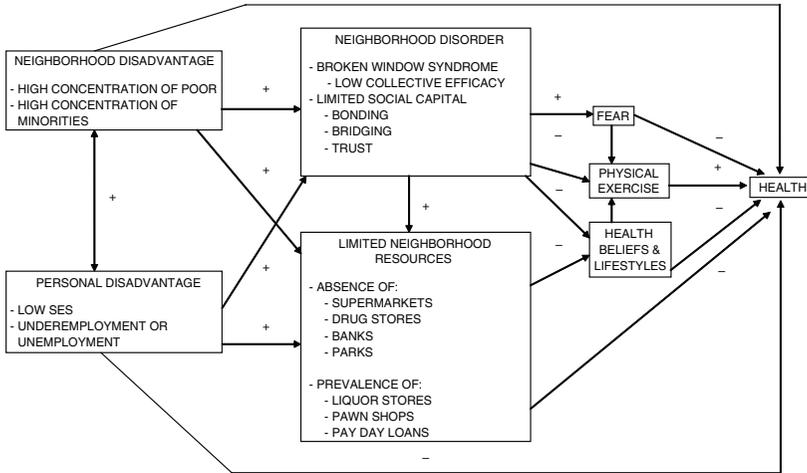


Figure 4.1 A synthetic model of the role of place on health

concentrated in such communities. Hence, local ecology often promotes a mosaic of distinct health challenges, combining unique subcultures with high amounts of hazard and risk, reduced social capital and collective efficacy, and limited health-promoting resources. The most obvious and discussed of these subcultures are high-poverty ghetto areas where the “urban health penalty” is the highest.

The urban disadvantage theory is currently the most effective way to organize and describe the ecological forces contributing to health and disease. Figure 4.1 summarizes this perspective on health and underscores the health disadvantages attached to living in high-poverty ghetto areas.

Conclusion

Until recently social science theories have not adequately integrated place into an understanding of the social forces that impinge on the general health and well-being of individuals and populations. A review of the five social theories of health provides a necessary backdrop for integrating basic ecological concepts into a more comprehensive approach to health and health behavior. This approach is particularly relevant to

understanding the etiology and dynamics of the “urban health penalty.” Certain neighborhoods within the United States clearly have distinct spatial qualities that shape residents’ health risks, health beliefs, and behaviors, as well as the formal and informal networks of protection and support. Identifying these ecological characteristics is an essential first step to developing comprehensive programs that minimize or eliminate the urban health penalty. The value of this spatial approach derives not only from the ability to identify critical, yet often underexplored aspects of health, but also from the fact that spatial structures are more easily manipulated than social structures. Thus ecology of health becomes both a useful and an essential ingredient in a comprehensive health policy attending to the extraordinary needs of the high-poverty ghetto and its residents.