

# 8

## Social Cohesion, Social Capital, and Health

ICHIRO KAWACHI AND LISA BERKMAN

### THE SEARCH FOR SOCIAL FORCES ACTING ON HEALTH

An important task for the emerging field of social epidemiology is to identify the *collective* characteristics of communities and societies that determine population health status. Ever since Durkheim, social scientists have recognized that society is not simply the sum of individuals—that the factors which determine population well-being cannot be reduced to individual risk factors. In a passage from *The Rules of Sociological Method*, Durkheim contended: “The group thinks, feels and acts entirely differently from the way its members would if they were isolated. If therefore we begin by studying these members separately, we will understand nothing about what is taking place in the group” (1895, 1982, p. 129). Thus, if we wish to understand what keeps some societies healthy, yet others sick, we had better search among social facts for explanations. Durkheim put his own methods to test by investigating the underlying causes of one of

the most individualistic acts imaginable, suicide. He reasoned that if forces external to the individual played any role in their well-being, such influences would be evident even for a cause of death that was apparently entirely within the realm of individual volition. By a process of careful deduction and the elimination of competing hypotheses, Durkheim succeeded in demonstrating that the population rate of suicide is, in fact, related to collective features of society. Comparing suicide statistics in European countries across time and space, Durkheim concluded that the lowest rates of suicide occurred in societies with the highest degrees of social integration. Conversely, an excess of suicides occurred in societies undergoing various forms of dislocation and loosening of social bonds. Most importantly, whereas individuals at risk of committing suicide came and went, the *social suicide rate* in each society remained relatively constant—evidence of the power of social forces in shaping this social phenomenon. In a famous passage, Durkheim concluded that

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The social suicide-rate can be explained only sociologically. At any given moment the moral constitution of society establishes the contingent of voluntary deaths. There is, therefore, for each people a collective force of a definite amount of energy, impelling men to self-destruction. The victim's act which at first seems to express only his personal temperament is really the supplement and prolongation of a social condition which they express externally. . . .

To explain his detachment from life the individual accuses his most immediately surrounding circumstances; life is sad to him because he is sad. Of course his sadness comes from him without in one sense, however not from one or another incident of his career *but rather from the group to which he belongs*. (1897, 1997, p. 299, emphasis added)

The search continues today for collective characteristics that shape individual and group outcomes. Social scientists have puzzled over the question of why some communities seem to prosper, possess effective political institutions, have law-abiding and healthy citizens, while other communities do not. Many societal characteristics have been identified which could account for variations in group-level outcomes (such as the degree of inequality in incomes, described in Chapter 4), but Durkheim's original focus on social integration, or social cohesion, remains as relevant as ever. The purpose of this chapter, then, is to outline the theoretical and empirical linkages between social cohesion (and its related concept, social capital) and health.

#### SOCIAL COHESION AND SOCIAL CAPITAL

Social cohesion refers to the extent of connectedness and solidarity among groups in society (a more formal attempt at definition will follow). According to Durkheim, a cohesive society is one that is marked by the abundance of "mutual moral support, which instead of throwing the individual on his own resources, leads him to share in the collective energy and supports his own when exhausted" (1897, 1997, p. 210). A cohesive society is also one that is richly en-

dowed with stocks of *social capital*. Social capital is defined as those features of social structures—such as levels of interpersonal trust and norms of reciprocity and mutual aid—which act as resources for individuals and facilitate collective action (Coleman 1990; Putnam 1993a). Social capital thus forms a subset of the notion of social cohesion. Social cohesion refers to two broader, intertwined features of society, which may be described as: (1) *the absence of latent social conflict*—whether in the form of income/wealth inequality; racial/ethnic tensions; disparities in political participation; or other forms of polarization; and (2) *the presence of strong social bonds*—measured by levels of trust and norms of reciprocity (i.e., social capital); the abundance of associations that bridge social divisions ("civil society"); and the presence of institutions of conflict management (e.g., a responsive democracy, an independent judiciary, and so forth). Social cohesion and social capital are both collective, or ecological, dimensions of society, to be distinguished from the concepts of social networks and social support, which are characteristically measured at the level of the individual (see Chapter 7).

James Coleman was one of the first social scientists to attempt a formal definition of social capital (1988, 1990). According to Coleman, social capital consists of those features of social structures that facilitate the actions of members within them. Since this definition is explicitly functionalist ("the facilitation of actions"), it follows that social capital is not a single entity, but can take a variety of forms—just as the concept "chair" identifies certain physical objects by their function, despite differences in form, appearance, and construction (1988). Some examples of the forms of social capital described by Coleman (1988, 1990) include levels of trust within a social structure, "appropriable" social organizations, norms and sanctions, and information channels. Although seemingly disparate, some of these concepts are causally linked. For instance, the trustworthiness of the social environment is critical to the proper

Table 8-1. Definitions of Social Capital

Author	Definition
James Coleman, 1990	<p>"Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence." (p. 302)</p> <p><i>Examples:</i> Level of trustworthiness, extent of obligations, norms and effective sanctions, appropriable social institutions, information channels</p>
Pierre Bourdieu, 1986	<p>"Social capital is the sum of resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition." (p. 119)</p>
Glenn Loury, 1992	<p>"[Social capital refers] to naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace." (p. 100)</p>
Robert Putnam, 1993a	<p>"Social capital . . . refers to features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions." (p. 167)</p> <p><i>Indicators:</i> Levels of trust, perceived reciprocity, density of membership in civic associations.</p>

functioning of obligations and expectations, which are themselves forms of social capital. If *A* does something for *B*, expecting *B* to reciprocate at some time in the future, this establishes an expectation in *A* and an obligation on the part of *B*; but the success of the transaction depends crucially on the level of trust between *A* and *B* (1988). As an example of an appropriable social organization, Coleman cites the case of a resident's association in an urban housing project which formed initially for the purpose of pressuring builders to fix various problems (leaks, crumbling sidewalks, etc.). After the problems were solved, the organization remained as available social capital to improve the quality of life for residents (1990). The point is that an organization, once brought into existence for one set of purposes, can also be appropriated for other uses, thus constituting a form of social capital.

Following Coleman's pioneering work, a number of other attempts to define social capital have been made, spanning the disci-

plines of economics (Loury 1992), sociology (Bourdieu and Wacquant 1992), and political science (Putnam 1993a,b) (Table 8-1). Although the definitions differ slightly, there is sufficient consensus to draw some important generalizations about the nature of social capital:

1. *It is social.* The distinctive feature of social capital is that it is external to the individual—i.e., it is not lodged within individuals (as is human capital) nor in the means of production (as is physical capital). Rather, social capital inheres in the structure of social relationships; in other words, it is an ecologic characteristic. A useful distinction can be drawn here between social capital and social networks. Social networks are a characteristic that can (and most often has been) be measured at the individual level, whereas social capital should be properly considered a feature of the collective (neighborhood, community, society) to which the individual belongs. It makes no sense to measure an individual's social capital. In theory, a well-connected individual

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(one who has lots of friends and close relatives) could experience different life chances and health outcomes depending on whether he or she resides in an environment that is rich or poor in social capital.

2. *Social capital is a public good.* A corollary of the fact that social capital is a collective characteristic is that it is also a public good. The *sine qua non* of a public good is its aspect of nonexcludability in consumption. For example, the voluntary efforts of a parent liaison at a public school do not primarily benefit that parent, but rather the other children (and their parents) belonging to the same class. This is in contrast to other forms of capital. Physical capital is ordinarily a private good, and property rights make it possible for the person who invests in it to wholly capture the benefits it produces (Coleman 1988). Similarly, human capital also has features of a private good—i.e., the person who invests the time and resources in accumulating skills and knowledge reaps the benefits in the form of a higher-paying job or more satisfying or higher-status work. (Although an argument may also be made for human capital as a public good, i.e., citizens at large benefit in many ways from living in a society where every member has a generally high level of education).

The fact that the actors who generate a public good typically capture only a small part of its benefits tends to lead to the problem of underinvestment. In fact, social capital almost always arises as a *by-product* of social relationships, and not as the result of conscious investment on the part of members within a social structure. Incidentally, some scholars have objected to the use of the term social “capital,” arguing that the language implies an economic basis for social exchange. In fact, our intent is exactly the opposite, i.e., to remind economists that not all forms of capital involve mercantile exchange. We agree with Bourdieu (1986) that

The structure and distribution of the different types and subtypes of capital at a given moment in time represents [*sic*] that immanent structure

of the social world, i.e., the set of constraints, inscribed in the very reality of the world, which govern its functioning in a durable way, determining the chances of success for practices. *It is in fact impossible to account for the structure and functioning of the social world unless one reintroduces capital in all its forms and not solely in the one form recognized by economic theory.* Economic theory has allowed to be foisted upon it a definition of the economy of practices which is the historical invention of capitalism. (Bourdieu 1986, p. 242, *emphasis added*)

In other words, capital may be used to describe any stock of resources, be they tangible (as in the form of dollars) or not so tangible (as in the form of interpersonal trust and norms of reciprocity). Given the characteristics described above, what evidence can we adduce that social capital matters for the outcomes of societies, communities, and individuals?

#### RELATIONSHIPS OF SOCIAL CAPITAL TO COMMUNITY AND INDIVIDUAL OUTCOMES

The benefits of social capital have been examined in at least eight separate fields of inquiry: (1) families and youth behavior problems—for example, the prevention of delinquency and the promotion of successful child development (Parcel and Menaghan 1993; Hagan et al. 1995); (2) schooling and education (e.g., Coleman 1988); (3) community life—for example, norms of labor market attachment (Wacquant and Wilson 1989; Case and Katz 1991); (4) work and organizations—for example, occupational mobility and income attainment (Boxman et al. 1991; Fellmeth 1996); (5) democracy and governance (e.g., Putnam 1993a; Verba et al. 1995); (6) economic development (e.g., Fukuyama 1995); (7) criminology (e.g., Sampson et al. 1997); and (8) public health (Kawachi et al. 1997a, 1999a). For a review of research in these areas, see Woolcock (1998). In terms of relevance to public health, we will briefly review the contributions of three disciplines: criminology, political science, and epidemiology.

### Social Capital and Crime

Nearly a half-century after Durkheim's treatise on suicide, two Chicago criminologists, Clifford Shaw and Henry McKay (1942), made a startling discovery: in their study of 21 U.S. cities, the same socioeconomically disadvantaged areas continued to exhibit high delinquency rates over a span of several decades despite changes in their racial and ethnic composition. Their discovery echoed Durkheim's earlier finding of the persistent effects of the social environment on certain social phenomena (suicide, crime), regardless of what populations experienced them. This observation led Shaw and McKay to reject individualistic explanations of delinquency and focus instead on community processes which led to the apparent transgenerational transmission of criminal behavior.

What do suicides and crime have in common? In each instance, the investigators attributed the geographic variations in the occurrence of events to the strength (or absence) of social cohesion. Weak social controls and the disruption of local community organization were hypothesized to be the underlying factor producing increased rates of suicide (in the case of 19th-century Europe) and crime (in 20th-century America). Social disorganization has been defined as the "inability of a community structure to realize the common values of its residents and maintain effective social controls" (Sampson and Groves 1989). The social organizational approach views local communities and neighborhoods as complex systems of friendship, kinship, and acquaintanceship networks, as well as formal and informal associational ties rooted in family life and ongoing socialization processes (Sampson 1996). From the perspective of crime control, a major dimension of social disorganization is the ability of a community to supervise and control teenage peer groups, especially gangs. Thus Shaw and McKay (1942) argued that residents of cohesive communities were better able to control the youth behaviors that set the con-

text for gang violence. Examples of such controls include the supervision of leisure-time youth activities, intervention in street-corner congregation, and challenging youth "who seem to be up to no good." Socially disorganized communities with extensive street-corner peer groups are also expected to have higher rates of adult violence, especially among younger adults who still have ties to youth gangs (Sampson 1996).

Recently, social disorganization theory has been explicitly linked to the concept of social capital. Sampson et al. (1997) surveyed 8782 residents of 343 Chicago neighborhoods in 1995 to ask about their perceptions of social cohesion and trust in the neighborhood. Respondents were asked how strongly they agreed (on a five point scale) that "People around here are willing to help their neighbors," "This is a close-knit neighborhood," "People in this neighborhood can be trusted," "People in this neighborhood generally don't get along with each other," and "People in this neighborhood do not share the same values" (the last two items were reverse-coded). The resulting scale was then combined with responses to questions about the level of informal social control (whether neighbors would intervene in situations where children were engaging in delinquent behavior) to produce a summary index of "collective efficacy." Collective efficacy turned out to be significantly ( $P < 0.01$ ) related to organizational participation ( $r = 0.45$ ) and neighborhood services ( $r = 0.21$ ). In hierarchical statistical models adjusting for individual characteristics [age, socioeconomic status (SES), gender, ethnicity, marital status, home ownership, and years in neighborhood], the index of collective efficacy was significantly inversely associated with reports of neighborhood violence and violent victimization as well as homicide rates. For example, a 2 standard deviation (S.D.) elevation in neighborhood collective efficacy was associated with a 39.7% reduction in the expected homicide rate.

The link between social capital and violent crime/homicide has been further repli-

cated at the Kawachi et al. analyses, stratified by neighborhood, and gauged by the coefficient of determination ( $R^2 = 0.82$ ), as well as the standardized coefficients (Sampson 1999b).

### Social Capital and Crime

Independence of social capital and crime: a major focus of research. Ever since Durkheim's theory of social capital, researchers have been interested in the relationship between social capital and crime. Having observed that social capital is a key factor in explaining the variation in crime rates, researchers have concluded that social capital is a key factor in explaining the variation in crime rates, and that social capital is a key factor in explaining the variation in crime rates. Political scientists have also found that social capital is a key factor in explaining the variation in crime rates. Their ability to minimize conflict, as well as their ability to enhance community ties, has been found to be a key factor in explaining the variation in crime rates. (Dahrendorf 1999b)

The term "social capital" is not precise. It suggests a positive effect on the well-being of the community, but it is not clear what the meaning of social capital is. It is a term that has been used to describe the social structure of a community, but it is not clear what the meaning of social capital is. (Dahrendorf 1999b)

In other words, that zone which is the state which is the network of

cated at the state level (Kennedy et al. 1998; Kawachi et al., 1999b). In these ecological analyses, states with lower levels of trust (as gauged by responses to opinion surveys) exhibited higher rates of both violent crime and property crime, including homicide ( $r = 0.82$ ), assault (0.61), and robbery (0.45), as well as burglary (0.54) (all correlation coefficients,  $P < 0.05$ ) (Kawachi et al., 1999b).

#### Social Capital, "Civil Society," and the Functioning of Democracy

Independently of the discoveries made in criminology, social capital has emerged as a major focus of inquiry in political science. Ever since Tocqueville, American scholars have been fascinated by the role of civic associations in maintaining social cohesion. Having observed the Americans for 2 years during his visit in the 1830s, Tocqueville concluded that they were a "nation of joiners," and that "Americans of all ages, all conditions, and all dispositions constantly form associations" (1845, 1990, p. 114). Political scientists have theorized about the functions of civic associations, including their ability to bind together society and to minimize the disintegrative effects of conflict, as well as to provide individual members with a sense of personal identification and enhanced social status (Smith and Freedman 1972). The concept of "civil society" (or "civic culture") has been described by Ralf Dahrendorf in the following way:

The term "civil society" is more suggestive than precise. It suggests, for example, that people behave towards each other in a civilized manner; the suggestion is fully intended. It also suggests that its members enjoy the status of citizens, which again is intended. However, the core meaning of the concept is quite precise. Civil society describes the associations in which we conduct our lives, and that owe their existence to our needs and initiatives rather than to the state. (Dahrendorf 1995)

In other words, civil society is defined as that zone between the individual and the state which is occupied by a crisscrossing network of voluntary associations. The web

of weak social ties created by voluntary associations acts as the social glue that holds society together. A variety of advantages have been claimed for civil society, such as keeping individuals from becoming isolated, protecting them from the state, meeting needs that cannot be filled by government, and encouraging more active engagement in the life of the community whilst preserving a degree of choice.

The recent surge of interest in civil society within political science can be traced to the publication in 1993 of a seminal work by the American political scientist Robert Putnam. His book *Making Democracy Work* (1993a) reports how Putnam sought to measure the strength of civil society—or more specifically, social capital—across the 20 regions of Italy. The purpose of his 20-year study was to attempt to explain the performance of local governments, which were introduced to Italy in 1970. Local government performance in each region of Italy was assessed by surveys, interviews, and a diverse set of policy indicators selected to gauge institutional responsiveness to constituents and their efficiency in conducting the public's business. Putnam's central finding was that the wide variations in the performance of regional governments was most closely related to the level of social capital in each region. In northern Italy, where citizens actively participate in civic associations—choral societies, soccer leagues, literary guilds, and the like—regional governments were "efficient in their internal operation, creative in their policy initiatives, and effective in implementing those initiatives" (Putnam 1993a, p. 81). By contrast, in southern Italy, where patterns of civic engagement were much weaker, local government tended to be corrupt and inefficient. Putnam explained his findings in terms of the way social capital enables citizens to cooperate with each other for mutual benefit and hence overcome the dilemmas of collective action. Citizens living in areas characterized by high levels of social capital were more likely to trust their fellow citizens and to value solidarity and equality.

By contrast, social relations in areas of low social capital were characterized by proverbs such as "Damned is he who trusts another," "Don't make loans, don't give gifts, don't do good, for it will turn out bad for you," and "When you see the house of your neighbor on fire, carry water to your own" (Putnam 1993a, p. 144).

The mechanisms by which social capital influences political participation and government performance have been detailed by Verba and colleagues (1995). According to their Civic Voluntarism Model, ordinary and routine activities that take place when citizens join voluntary associations may appear to have nothing to do with politics or public issues, but they can nonetheless develop organizational and communications skills that are relevant for politics and thus can facilitate political activity:

Organizing a series of meetings at which a new personnel policy is introduced, chairing a large charity benefit, or setting up a food pantry at a church are activities that are not in and of themselves political. Yet, they foster the development of skills that can be transferred to politics. (Verba et al. 1995, p. 18)

Moreover, participation in nonpolitical associations can act as the locus of attempts at political recruitment: Church and organization members make social contacts and thus become part of networks through which requests for participation in politics are mediated. Indeed, the *embeddedness* of political activity in the nonpolitical institutions of civil society has profound implications for the ability of communities to garner resources for themselves and to improve their level of well-being. An obvious example is the community which is able to organize and apply pressure to government to obtain resources—such as police and fire services and block grants—that in turn help to sustain neighborhood organization and crime control. Where political participation is depressed, the community correspondingly suffers. For example, Hill and Leighley used Census data to show a relationship between the voting turnout rate of the poor and the level of state spending on welfare programs (1992).

Again, ecological evidence bears out the connection between social capital and political participation. Putnam (1993a) and

Kawachi and Kennedy (1997) find that the tight social capital in New England is correlated with high voter turnout.

Although the causal mechanism is not clear, running from the social capital to the political participation, the opposite is also true. The bidirectional relationship suggests that the accumulation of social capital is a result of political participation. The bidirectional relationship suggests that the accumulation of social capital is a result of political participation. The bidirectional relationship suggests that the accumulation of social capital is a result of political participation.

Social Capital

The latest available data on social capital in the United States in 1997 (Kawachi and Kennedy 1997a) can be used to illustrate the relationship between social capital and voter turnout. Indicators of social capital include levels of interpersonal trust, civic membership (Total Civic Membership), and political participation (Total Political Participation).

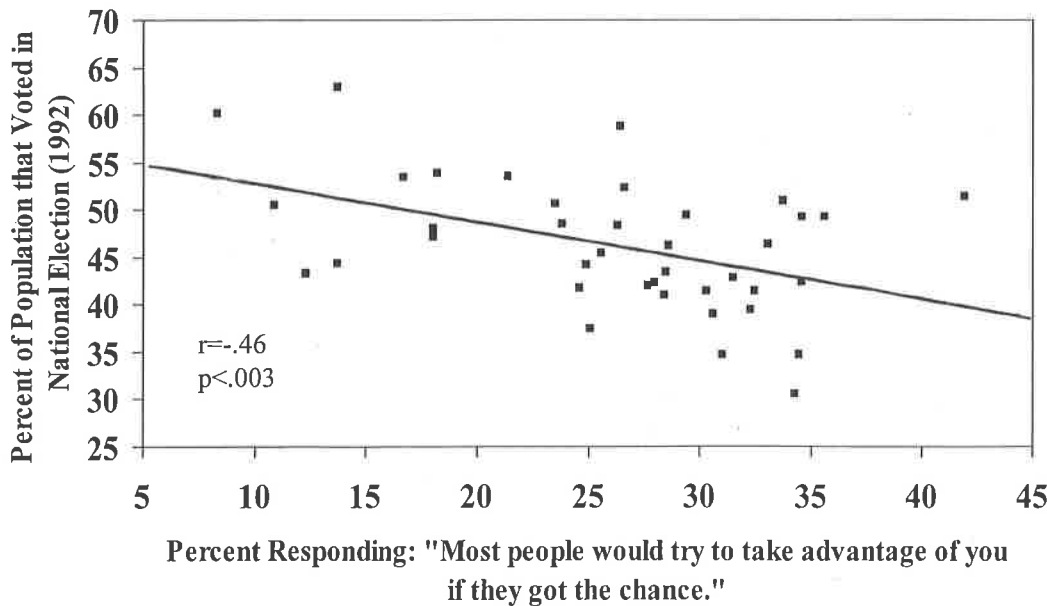


Figure 8-1. Relation between interpersonal trust and voter turnout in U.S. states (from Kawachi and Kennedy 1997).

Kawachi and Kennedy (1997) have noted the tight correlation between indicators of social capital and political activities such as voting. Within the United States, levels of civic trust and group membership are strongly correlated with geographic variations in voter turnout at elections (Fig. 8-1).

Although we have discussed the pathway running from social capital to human capital, the opposite is clearly possible: Educational attainment is one of the strongest individual predictors of group participation as well as trust (Brehm and Rahn 1997). The bidirectionality of the association suggests that there may be certain feedback and amplification effects of social capital on collective outcomes. In communities where stocks of social capital are being actively eroded, the associated underinvestment in human capital may lead to a further deterioration in civic activity. For instance, William Julius Wilson has suggested that racial segregation in urban residential neighborhoods, coupled with the progressive out-migration of successful working class families, resulted in the concentration of poverty, unemployment, crime, and ill-health in American inner-city ghettos (Wilson 1987; Wacquant and Wilson 1989). The flight of social capital in such areas—evidenced by the lack of norms of labor force attachment and other forms of “collective socialization”—threatens to keep residents in a perpetual state of disadvantage and despair.

#### Social Capital and Public Health

The latest area to which the notion of social capital has been applied is within the discipline of public health. Kawachi et al. (1997a) carried out an ecological analysis of social capital indicators across the United States in relation to state-level mortality rates. Indicators of social capital were the same ones used by Putnam (1993b; 1995): levels of interpersonal trust, norms of reciprocity, and density of associational membership (Table 8-1). Data were obtained from residents in 39 states from the General Social Surveys conducted by the National Opinions Research Center between 1986

and 1990. Among other questions, the survey asked about membership in a wide variety of voluntary associations—church groups, sports groups, hobby groups, fraternal organizations, labor unions, and so on. Per capita group membership in each state was strongly inversely correlated with age-adjusted all-cause mortality ( $r = -0.49, P < 0.0001$ ). In regression analyses adjusted for household poverty rates, a one-unit increment in the average per capita group membership was associated with a lower age-adjusted overall mortality rate of 66.8 deaths per 100,000 population (95% confidence interval: 26.0 to 107.5). Density of civic associational membership was similarly a predictor of deaths from coronary heart disease, malignant neoplasms, and infant mortality. The General Social Surveys also asked questions related to levels of civic trust. Respondents in each state were asked which is true: “Most people can be trusted,” or “You can’t be too careful in dealing with people.” The correlation of associational membership to civic trust was very high ( $r = 0.65$ ). In turn, the level of distrust (the proportion of residents in each state agreeing that most people can’t be trusted) was strikingly correlated with age-adjusted mortality rates ( $r = 0.79, P < 0.0001$ ) (Fig. 8-2). In regression models, variations in the level of trust explained 58% of the variance in total mortality across states. Lower levels of social trust were associated with higher rates of most major causes of death, including coronary heart disease, malignant neoplasms, cerebrovascular disease, unintentional injury, and infant mortality. If these associations are causal, then an increase in level of trust by 1 S.D., or 10%, would be associated with about a 9% lower level of overall mortality.

Most recently, Kawachi et al. (1999a) carried out a multilevel study of the relationship between state-level social capital and individual self-rated health. Self-rated health (“Would you say your overall health is excellent, very good, good, fair, or poor?”) was assessed among 167,259 individuals residing in 39 U.S. states, sampled



(from



Age-Adjusted Mortality Rates by Social Capital (Social Trust)

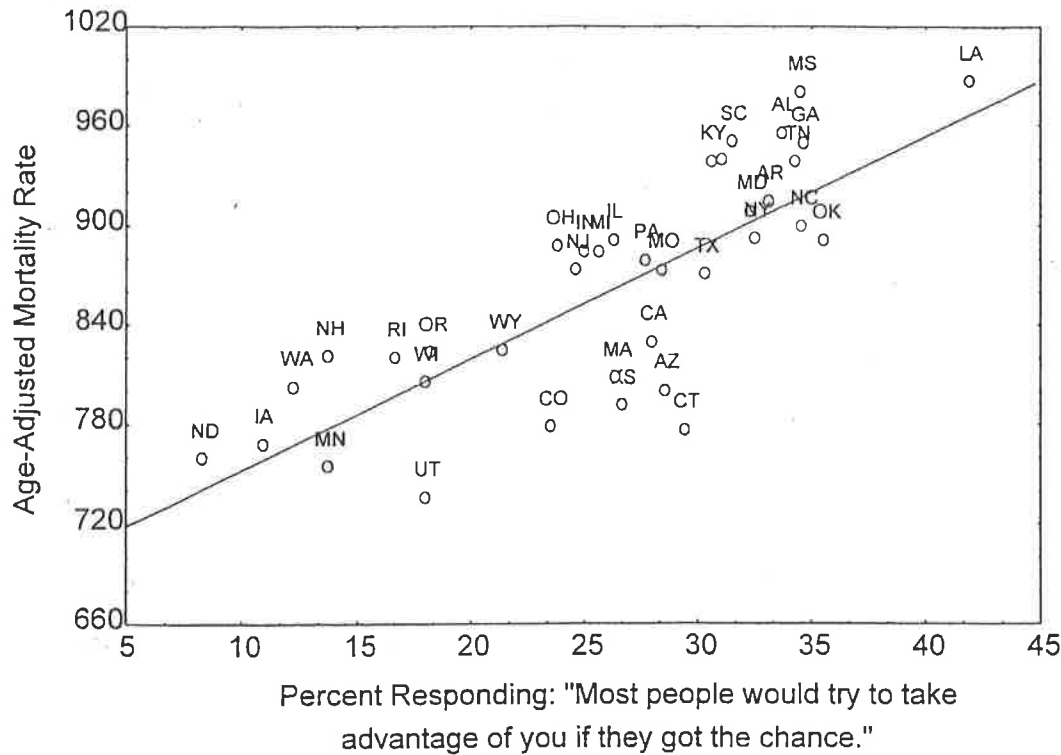


Figure 8-2. Relation between interpersonal trust and age-adjusted mortality rates in U.S. states (from Kawachi et al. 1997a).

by the Center for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS). From this single item, a dichotomous outcome measure was created (1=fair or poor; 0=excellent, very good, or good). A recent review of 27 community studies concluded that even such a simple global assessment appears to have high predictive validity for mortality, independent of other medical, behavioral, or psychosocial risk factors (Idler and Benyamini 1997). For most studies, odds ratios for subsequent mortality ranged from 1.5 to 3.0 among individuals reporting poor health compared to excellent health. Self-rated health has also been demonstrated in longitudinal studies to predict the onset of disability (e.g., Idler and Kasl 1995).

Social capital indicators, aggregated to the state level, were obtained from the Na-

tional Opinion Research Center's General Social Surveys, described above (Kawachi et al. 1997a). Indicators of social capital included levels of interpersonal trust (percent of citizens responding "Most people can be trusted"), norms of reciprocity (percent of citizens responding "Most people are helpful"), and per capita membership in voluntary associations. Logistic regression was carried out with the SUDAAN procedure to estimate the odds ratios of fair/poor health (vs. excellent/good health). A strength of this particular study was the availability of information on individual-level confounds, including health insurance coverage, smoking status, overweight, as well as sociodemographic characteristics such as household income level, educational attainment, and whether the individual lived alone.

Table 8-2. I reporting fai characteristic

Independent
Low Trust***
Medium Trust
High Trust
Age (years)
Age:
25 years
<25-39
40-64
65+
Male
Race:
Black
White
Other
Living alone
Income:
<\$10,000
\$10,000-14,9
\$15,000-19,9
\$20,000-24,9
\$25,000-34,9
\$35,000+
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*** Percent resp
Low-trust states
Medium-trust s
SC, TX, UT, VA
High-trust state
Source: reprint

Table 8-2. Logistic regression results. Odds ratios and 95% confidence intervals (CI) of individuals reporting fair/poor health according to levels of social trust, adjusted for individual-level characteristics

Independent Variables	Odds ratio for fair/poor health	
	Model 1*	Model 2**
Low Trust***	1.68 (1.58-1.79)	1.41 (1.33-1.50)
Medium Trust	1.19 (1.13-1.26)	1.14 (1.08-1.21)
High Trust	1.00	1.00
Age (years)	1.04 (1.04-1.04)	
Age:		
25 years		0.74 (0.67-0.81)
<25-39		1.00
40-64		2.38 (2.26-2.50)
65+		4.80 (4.52-5.10)
Male	0.92 (0.88-0.95)	1.05 (1.01-1.09)
Race:		
Black	2.01 (1.91-2.11)	1.33 (1.27-1.40)
White	1.00	1.00
Other	1.84 (1.71-1.98)	1.43 (1.33-1.55)
Living alone		1.93 (1.34-2.80)
Income:		
<\$10,000		5.95 (5.58-6.34)
\$10,000-14,999		4.39 (4.00-4.60)
\$15,000-19,999		3.01 (2.80-3.23)
\$20,000-24,999		2.42 (2.25-2.60)
\$25,000-34,999		1.88 (1.75-2.01)
\$35,000+		1.00
Missing		2.97 (2.79-3.17)
Current smoker		1.51 (1.45-1.57)
Obese		1.70 (1.64-1.77)
Health Insurance Coverage		0.73 (0.70-0.78)
Recent Checkup		1.39 (1.32-1.46)

\*Adjusted for age (as continuous variable), gender, and race.

\*\*Adjusted for age (as categorical variable), gender, race, household income, living alone, current smoking status, obesity, health insurance coverage, and health checkup in last 2 years.

\*\*\*Percent responding on the General Social Surveys that "Most people can't be trusted."

Low-trust states were AL, AR, LA, MS, TN, WV (mean % mistrust = 59.4%; range: 56.0%-61.6%).

Medium-trust states were AK, CA, CO, CT, FL, GA, IL, IN, IA, KY, MD, MA, MI, MO, NH, NJ, NY, NC, OH, OK, OR, PA, RI, SC, TX, UT, VA, WA (mean % mistrust = 42.9%; range: 33.4%-51.7%).

High-trust states were KS, MN, ND, WI, WY (mean % mistrust = 26.7; range: 21.2%-32.6%).

Source: reprinted from Kawachi et al., 1999a.

As expected, strong associations were found between individual risk factors (e.g., low income, low education, smoking, obesity, lack of access to health care) and poor self-rated health. However, even after adjusting for these proximal variables, individuals living in states with low social capital were at increased risk of poor self-rated health. For example, the odds ratio for fair/poor health associated with living in areas with the lowest levels of social trust was 1.41 (95% confidence interval: 1.33 to 1.50) compared to living in high-trust states (Table 8-2). In other words, these findings were consistent with an apparent contextual effect of state-level social capital on individual well-being, independent of the more proximal predictors of self-rated health.

#### MECHANISMS LINKING SOCIAL CAPITAL TO HEALTH

The mechanisms linking social capital to outcomes such as crime prevention and political participation have been articulated, and they appear plausible. But what about mechanisms linking social capital to health outcomes? It is useful here to distinguish between the *compositional* effects of social capital and its *contextual* effects (see Chapter 14 for a clear description of these effects).

On the one hand, an ecologic-level correlation between social capital and poor health can be explained by the fact that more socially isolated individuals reside in areas lacking in social capital (a compositional effect). Socially isolated individuals are more likely to be concentrated in communities that are depleted in social capital, because such places provide fewer opportunities for individuals to form local ties (Sampson 1988; Wacquant and Wilson 1989). There are well-established and biologically plausible links between social isolation (measured at the individual level) and poor health outcomes (e.g., Berkman and Syme 1979; Kawachi et al. 1996; see also Chapter 7 of this book). To date, no study

of social capital and health has simultaneously accounted for individual-level indicators of social isolation (e.g., not having contacts with friends or relatives, not attending church or belonging to groups). Hence, it is not possible to rule out a compositional effect of social capital on self-rated health.

A more challenging task is to identify the mechanisms by which social capital could exert a contextual effect on individual health. Social capital may affect health through different pathways depending on the geographic scale at which it is measured, e.g., neighborhoods vs. states. Considering effects at the neighborhood level, there are at least three plausible pathways by which social capital could affect individual health: (1) by influencing health-related behaviors; (2) by influencing access to services and amenities; and (3) by affecting psychosocial processes.

#### Health-Related Behaviors

First, social capital may influence the *health behaviors* of neighborhood residents by (1) promoting more rapid diffusion of health information (Rogers 1983) or increasing the likelihood that healthy norms of behavior are adopted (e.g., physical activity) and by (2) exerting social control over deviant health-related behavior. The theory of the diffusion of innovations suggests that innovative behaviors (e.g., use of preventive services) diffuse much more rapidly in communities that are cohesive and in which members know and trust each other (Rogers 1983). Alternatively, recent evidence from criminology (Sampson et al. 1997) suggests that the extent to which neighbors are willing to exert social control over deviant behavior (a characteristic that Sampson et al. termed collective efficacy) predicts their ability to prevent delinquency and crime. A similar process may also operate to prevent other forms of deviant behavior, such as adolescent smoking, drinking, and drug abuse. For instance, part of the reason why relatively little underage smoking occurs in Japan in spite of the ubiquitous pres-

ence of cigarettes due to the culture and teachers, an avenue when law. (We should coercive natural high levels of

#### Access to Services

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ence of cigarette vending machines may be due to the close-knit nature of Japanese society and the extent to which neighbors, teachers, and strangers are willing to intervene when minors are caught breaking the law. (We shall turn later to the potentially coercive nature of societies characterized by high levels of social capital.)

#### Access to Services and Amenities

Access to local services and amenities is a second way in which neighborhood social capital may affect health. Again, evidence from criminology suggests that socially cohesive neighborhoods are more successful at uniting to ensure that budget cuts do not affect local services (Sampson et al. 1997). Residents of cohesive neighborhoods more readily band together to create the kinds of "appropriable" social organizations described earlier by Coleman (1990). The same kind of organizational processes could conceivably ensure access to services such as transportation, community health clinics, and recreational facilities that are directly relevant to health. Macintyre and colleagues (1993) have documented how poor and affluent neighborhoods differ systematically in terms of their access to such amenities and resources. Given such geographically based inequalities, the existence of local pressure groups to lobby for the provision of services could make all the difference.

#### Psychosocial Processes

Finally, neighborhood social capital could influence the health of individuals via psychosocial processes by providing affective support and acting as the source of self-esteem and mutual respect (Wilkinson 1996). Variations in the availability of psychosocial resources at the community level may help to explain the anomalous finding that socially isolated individuals residing in more cohesive communities—such as the East Boston community (Seeman et al. 1993), African Americans in rural Georgia (Schoenbach et al. 1986), and Japanese

Americans in Hawaii (Reed et al. 1983)—do not appear to suffer the same ill health consequences as those living in less cohesive communities.

Trusting social environments in turn tend to beget trustworthy citizens. The developmental processes by which the moral values of trust and reciprocity become instilled in children was described by Jane Jacobs in her classic work *The Death and Life of Great American Cities* (1961, 1992), which is where the earliest-known use of the term "social capital" occurs. Children growing up in a social-capital-rich neighborhood quickly learn that "people must take a modicum of public responsibility for each other even if they have no ties to each other." Moreover, "this is a lesson nobody learns by being told. It is learned from the experience of having *other people without ties or kinship or close friendship or formal responsibility to you* take a modicum of public responsibility for you" (p. 82, *emphasis in the original*). Jacobs went on to describe the benefits of neighborhood social capital for the preservation of sidewalk safety, the facilitation of child rearing, the enhancement of self-government, and the maintenance of the civility of public life in general.

#### Social Capital at the Level of the State

Turning finally to mechanisms linking social capital at the *state* level to individual health, it appears that the more cohesive states produce more egalitarian patterns of political participation that result in the passage of policies which ensure the security of all its members (Kawachi and Kennedy 1997; Kawachi et al. 1997b). Putnam (1993a) has demonstrated that social capital (measured by the same indicators used by Kawachi et al. 1997a) is indispensable to the responsiveness and smooth functioning of civic institutions. Low levels of interpersonal trust correlate strikingly with low levels of trust and confidence in public institutions (Brehm and Rahn 1997); low levels of political participation (as measured by voting and other forms of engagement in politics) (Kawachi

and Kennedy 1997; Putnam 1993b; Verba et al. 1995); and ultimately, reduced efficacy of government institutions. United States data demonstrate that states with low levels of interpersonal trust are less likely to invest in human security and are likely to be less generous with their provisions for social safety nets. For example, mistrust was highly inversely correlated ( $r = -0.76$ ) with the maximum welfare assistance as a percentage of per capita income in each state. Needless to say, less generous states are likely to provide less hospitable environments for vulnerable segments of the population.

#### REMAINING PROBLEMS WITH THE DEFINITION AND CONCEPT OF SOCIAL CAPITAL

We have attempted to provide a sense of the considerable progress that has been made in establishing the theoretical and empirical linkages between social capital and health. Several issues remain to be resolved, however.

##### Definitional and Measurement Issues

Both the definition and approaches to measurement of social capital are still evolving. Various commentators have highlighted ambiguities in the definition of the concept. For instance, the definitions listed in Table 8-1 seem to mix together indicators such as membership in civic associations with moral resources such as trust and reciprocity. As Woolcock has pointed out, "This leaves unresolved whether social capital is the infrastructure or the content of social relations, the 'medium,' as it were, or the 'message'" (1998, p. 156). In other words, the definition seemingly encompasses both the structure and function of social relations. If social capital in the form of trust is created as a by-product of participation in civic associations (which are themselves indicators of social capital), this leaves us with the problematic conceptual task of distinguishing between the *sources* of social capital and the *benefits* derived from them.

Measurement is a separate issue. Although there is virtually universal agreement that social capital is a collective characteristic and ought to be measured at the aggregate level, little or no work has been carried out to distinguish the concept from an array of existing neighborhood-level constructs in the field of community psychology (Lochner et al., in press). Constructs such as "psychological sense of community" (McMillan and Chavis 1986), "community competence" (Cottrell 1976; Eng and Parker 1994), and "neighboring" (Buckner 1988) all involve the assessment of neighborhood-level characteristics such as levels of trust, norms of reciprocity, and civic engagement. In short, further theoretical and empirical work is needed to sort out the issue of whether social capital represents an independent construct or is merely "old wine in new bottles" (Lochner et al. in press). (Regardless of the outcome of this debate, however, we note that the relevance of characterizing neighborhood social environment as a determinant of health remains undiminished.)

On a practical level, work remains to be carried out in selecting different indicators of social capital. Two types of approaches are possible: (1) using *aggregate* variables (i.e., aggregating individual responses to social surveys) and (2) using *integral* variables (i.e., direct social observation of neighborhoods). The latter approach has been scarcely tested. An observable indicator of reciprocity might be the number of instances in a city in which commuters block opposing traffic at busy intersections during rush hour compared to the number of instances when they do not. (We are indebted to Alvin Tarlov for this example.) An indicator of trust might be the proportion of gas stations in a community that require customers to pay up before letting them pump vs. those that do not. And so on.

##### Social Capital and Public Policy

Further ambiguity in the notion of social capital is evidenced by the fact that it has

been used to prescriptions tives regard : sum—i.e., "tutions want Woolcock 1' Big Govern provision of tends to "cro associations 1995). By ce state-society i.e., the sta Skocpol (19' of the exist America can ate governm Thus, volun cally operat welfare state runner of th gress of M breakthrough mothers' per to Families the Sheppar er became p As Putnam ( ital is not a policy but re part, a cons

Both liber displayed a tal as an unc 1998). This functionalis "facilitates c efit.") But, c conceive of including its terlocking n as the inhil (created by lic surveillat And some fo inal gangs) members b frankly disr downside o

been used to justify contradictory policy prescriptions (Woolcock 1998). Conservatives regard state-society relations as zero-sum—i.e., “as the state waxes, other institutions wane” (George F. Will, quoted in Woolcock 1998). It has been argued that Big Government, through the paternalistic provision of a panoply of social services, tends to “crowd out” the activities of civic associations (McKnight 1995; Fukuyama 1995). By contrast, liberals tend to regard state-society relations as positive-sum—i.e., the state can nurture civil society. Skocpol (1996), for one, argues that many of the existing key civic associations in America came about as a result of deliberate government intervention and support. Thus, voluntary associations have historically operated in close symbiosis with the welfare state. Early in this century, the forerunner of the PTA (then the National Congress of Mothers) lobbied for historic breakthroughs in social policy, including mothers’ pensions (which later became Aid to Families with Dependent Children) and the Sheppard-Towner program (which later became part of the Social Security Act). As Putnam (1993b) has noted: “Social capital is not a substitute for effective public policy but rather a prerequisite for it and, in part, a consequence of it” (p. 42).

Both liberals and conservatives alike have displayed a tendency to discuss social capital as an unqualified social good (Woolcock 1998). This is partly a consequence of the functionalist definition of the concept. (It “facilitates collective action for mutual benefit.”) But, of course, it is quite possible to conceive of the downside of social capital, including its coercive aspects (caused by interlocking networks of obligations) as well as the inhibition of individual expression (created by the stifling atmosphere of public surveillance and meddlesome neighbors). And some forms of social capital (e.g., criminal gangs) may provide resources for its members but contribute little to (or be frankly disruptive of) social cohesion. The downside of social capital suggests that it is

a resource to be *optimized* rather than maximized (Woolcock 1998).

### ACCESS TO SOCIAL CAPITAL

Although social capital has been earlier characterized as a public good whose benefits are available to all members within a social structure, this definition needs qualification. The extent of access to some forms of capital is undoubtedly unequal across income levels, gender, and race. Poor people, women, and African Americans may be excluded from access to social capital because of residential segregation, labor market segmentation, or other forms of discrimination both overt and covert. This suggests that an important task in research and policy is to identify those characteristics of civic associations that have the ability to *bridge* social divisions. Although new forms of civic association are being constantly generated (for example, in the form of suburban soccer leagues), their potential to serve the interests of society at large will remain limited so long as people’s access to such forms of capital is restricted by other structuring processes such as residential segregation or segregation in the labor market or in schools.

An important agenda for research is therefore to identify the characteristics of civic associations that are more or less likely to serve the common interest. For instance, groups that are set up with other-regarding missions (e.g., charities) are more likely to serve the public interest than those characterized by self-regarding missions (e.g., hobby groups). Similarly, associations which involve face-to-face contact are more likely to foster trust and mutual aid than virtual communities (Internet discussion groups) or associations that require only the payment of membership dues (e.g., the American Medical Association [AMA]). (This is not to deny the real political clout wielded by tertiary associations such as the AMA, but whether they contribute to social cohesion is another matter.)

## HOW CAN WE INTERVENE TO BUILD SOCIAL CAPITAL?

Finally, how should we proceed to build social capital? There is an asymmetry to our state of knowledge of social capital; regrettably, we have a far better understanding of the forces that tend to destroy social capital but rather few notions of what kinds of interventions help to build it. One lesson is clear: social capital requires stability of social structure. Disruptions of social organization or of social relations can be highly destructive to social capital. As Jacobs emphasized, the basis of social cohesion must be "a continuity of people who have forged social networks. These networks are a city's irreplaceable social capital. Whenever the capital is lost, from whatever cause, the income from it disappears, never to return until and unless new capital is slowly and chancily accumulated" (1961, 1992, p. 138). Although we lack a complete understanding of how social capital is created, there is ample evidence of the destructive effects of residential instability and turnover. One of the unforeseen consequences of the urban renewal programs of the 1960s was the destruction of social capital following the breakup of cohesive inner-city neighborhoods.

Putnam (1995) has argued that social capital is generally on the decline in American society. According to time trend data obtained from the General Social Surveys, average group membership has dropped by a quarter in all social class groups over the last 25 years. The proportion of Americans agreeing that most people can be trusted fell by more than a third between 1960 (when 58% agreed) and 1993 (37%) (Putnam 1995). We have noted the general decline in social capital. The ways to rebuild civil society in America will depend less on calls to return to a romanticized Tocquevillian past than on identifying emerging forms of social capital and capitalizing on existing policy levers. Although beyond the scope of this chapter, it is possible to conceive of an array of top-down and bottom-up approaches to

rebuild social capital. From a top-down perspective, state and federal government, as well as the private sector, could do much to directly subsidize local associations that foster social capital, such as neighborhood associations, cooperative childcare, and youth organizations. From a bottom-up perspective, existing institutions (such as faith communities, trade unions, and charitable foundations) could do much to encourage voluntarism and invest in the social infrastructure of distressed neighborhoods.

Many things determine the health status of communities and societies, but the power of social capital lies in its potential ability to explain an array of collective outcomes that directly or indirectly influence well-being. As Durkheim wrote more than a century ago:

A nation can be maintained only if, between the State and the individual, there is interspersed a whole series of secondary groups near enough to the individuals to attract them strongly in their sphere of action and drag them, in this way, into the general torrent of social life." (1893, 1997, p. 28)

## REFERENCES

- Berkman, L.F., and Syme, S.L. (1979). Social networks, host resistance and mortality: a nine-year follow-up study of Alameda County residents. *Am J Epidemiol*, 109:186-204.
- Bourdieu, P. (1986). The forms of capital. In Richardson, J.G. (ed.), *The handbook of theory: research for the sociology of education*. New York: Greenwood Press, pp. 241-58.
- Bourdieu, P., and Wacquant, L. (1992). *Invitation to reflexive sociology*. Chicago: Chicago University Press.
- Boxman, E., De Graaf, P., and Flap, H. (1991). The impact of social and human capital on the income attainment of Dutch managers. *Soc Networks*, 13:51-73.
- Brehm, J., and Rahn, W. (1997). Individual-level evidence for the causes and consequences of social capital. *Am J Polit Sci*, 41:999-1023.
- Buckner, J.C. (1988). The development of an instrument to measure neighborhood social cohesion. *Am J Community Psychol*, 16: 771-91.
- Case, A.C., and Katz, L.F. (1991). *The company you keep: the effects of family and neighborhood on working-class children*. National Academy Press.
- Coleman, J.S. (1982). *The asymmetric society*. New York: Basic Books.
- Coleman, J.S. (1990). *The asymmetric society*. New York: Basic Books.
- Cottrell, L.S. (1995). In Leighton, J.S. (ed.), *Social capital and economic development*. pp. 195-210. New York: Routledge.
- Dahrendorf, U. (1985). *Class and class conflict in industrial society*. Philadelphia: University of Pennsylvania Press.
- Durkheim, E. (1938). *The division of labor in society*. London: Free Press.
- Durkheim, E. (1984). *The division of labor in society* (tr. J.A. and Free Press).
- Durkheim, E. (1984). *The division of labor in society* (tr. J.A. and Free Press).
- Durkheim, E. (1984). *The division of labor in society* (tr. J.A. and Free Press).
- Durkheim, E. (1984). *The division of labor in society* (tr. J.A. and Free Press).
- Eng, E., and ... (1997). *Community and the international economy*. pp. 220-221.
- Fellmeth, A. (1995). *States and Policy Research*.
- Fukuyama, F. (1995). *Trust and the social capital of nations*. Free Press.
- Hagan, J., and ... (1995). *Delinquency and the context of the family*. pp. 100-102.
- Hill, K.Q., and ... (1995). *Consequences of social capital*.
- Idler, E.L., and ... (1995). *Health and social capital: a national study*. *Sci*, 50:1-10.
- Idler, E.L., and ... (1995). *Health and social capital: a national study*. pp. 38-21-10.
- Jacobs, J. (1995). *Great American cities*. New York: Basic Books.
- Kawachi, I., and ... (1995). *Social capital and social inequality*.

- top-down government, and do much actions that neighborhood care, and bottom-up (such as and charity) to enhance the social neighborhoods. Health status at the potential ability outcomes well-being a century-
- between the interspersed a far enough to singly in their his way, into 1893, 1997,
- 1). Social network: a nine-County res-5-204.
- f capital. In *Book of the of education*. p. 241-58.
- 1992). *Invitation*: Chicago
- ), H. (1991). Social capital on managers.
- individual-level consequences *Sociol*, 41:999-
- ment of an in-neighborhood social *Psychol*, 16:
- The company and neighbor-*
- hood on disadvantaged youths. (NBER Working Paper No. 3705.) Cambridge, MA: National Bureau of Economic Research.
- Coleman, J.S. (1988). Social capital in the creation of human capital. *Am J Sociol*, 94 Suppl:S95-120.
- Coleman, J.S. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.
- Cottrell, L.S. Jr. (1976). The competent community. In Kaplan, B.H., Wilson, R.N., and Leighton, A.H. (eds.), *Further exploration in social psychiatry*. New York: Basic Books, pp. 195-209.
- Dahrendorf, R. (1995). A precarious balance: economic opportunity, civil society, and political liberty. *The Responsive Community*, 5:13-39.
- Durkheim, E. (1897, 1997). *Suicide: a study in sociology*, ed. Simpson, G. (tr. Spaulding, J.A., and Simpson, G., 1951). New York: Free Press.
- Durkheim, E. (1893). *The division of labor in society* (tr. Simpson, G., 1933). Glencoe, IL: Free Press.
- Durkheim, E. (1895, 1982). *The rules of sociological method*, ed. Lukes, S. (tr. Halls, W.D., 1938). New York: Free Press.
- Eng, E., and Parker, E. (1994). Measuring community competence in the Mississippi Delta: the interface between program evaluation and empowerment. *Health Educ Q*, 21:199-220.
- Fellmeth, A. (1996). Social capital in the United States and Taiwan: trust or rule of law. *Dev Policy Rev*, 14:151-71.
- Fukuyama, F. (1995). *Trust: the social virtues and the creation of prosperity*. New York: Free Press.
- Hagan, J., Merckens, H., and Boehnke, K. (1995). Delinquency and disdain: social capital and the control of right-wing extremism among east and west Berlin youth. *Am J Sociol*, 100:1028-52.
- Hill, K.Q., and Leighley, J.E. (1992). The policy consequences of class bias in state electorates. *Am J Polit Sci*, 36:351-63.
- Idler, E.L., and Kasl, S. (1995). Self-ratings of health: do they also predict change in functional ability? *J Gerontol B Psychol Sci Soc Sci*, 50:S344-53.
- Idler, E.L., and Benyamini, Y. (1997). Self-rated health and mortality: a review of twenty-seven community studies. *J Health Social Behav*, 38:21-37.
- Jacobs, J. (1961, 1992). *The death and life of great American cities*. New York: Vintage.
- Kawachi, I., and Kennedy, B.P. (1997). Health and social cohesion: why care about income inequality? *BMJ*, 314:1037-40.
- Kawachi, I., Colditz, G.A., Ascherio, A., Rimm, E.B., Giovannucci, E., Stampfer, M.J., and Willett, W.C. (1996). A prospective study of social networks in relation to total mortality and cardiovascular disease in men in the U.S. *J Epidemiol Community Health*, 50:245-51.
- Kawachi, I., Kennedy, B.P., Lochner, K., and Prothrow-Stith, D. (1997a). Social capital, income inequality, and mortality. *Am J Public Health*, 87:1491-8.
- Kawachi, I., Kennedy, B.P., and Lochner, K. (1997b). Long live community: social capital as public health. *Am Prospect*, November/December: 56-9.
- Kawachi, I., Kennedy, B.P., and Glass, R. (1999a). Social capital and self-rated health: a contextual analysis. *Am J Public Health*, 89:1187-1193.
- Kawachi, I., Kennedy, B.P., and Wilkinson, R.G. (1999b). Crime: social disorganization and relative deprivation. *Soc Sci Med*, 48:719-31.
- Kennedy, B.P., Kawachi, I., Prothrow-Stith, D., Lochner, K., and Gupta, V. (1998). Social capital, income inequality, and firearm violent crime. *Soc Sci Med*, 47:7-17.
- Lochner, K., Kawachi, I., and Kennedy, B.P. (1999). Social capital: a guide to its measurement. *Health and Place*, (in press).
- Loury, G. (1992). The economics of discrimination: getting to the core of the problem. *Harvard J African Am Public Policy*, 1:91-110.
- Macintyre, S., Maclver, S., and Sooman, A. (1993). Area, class and health: should we be focusing on places or people? *J Soc Pol*, 22:213-34.
- McKnight, J. (1995). *The careless society*. New York: Basic Books.
- McMillan, D.W., and Chavis, D.M. (1986). Sense of community: a definition and theory. *J Community Psychol*, 14:6-23.
- Parcel, T., and Menaghan, E. (1993). Family social capital and children's behavior problems. *Soc Psychol Q*, 56:120-35.
- Putnam, R.D. (1993a). *Making democracy work: civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.
- Putnam, R.D. (1993b). The prosperous community: social capital and public life. *Am Prospect*, 13:35-42.
- Putnam, R.D. (1995). Bowling alone: America's declining social capital. *J Democracy*, 6: 65-78.
- Reed, D., McGee, D., Yano, K., and Feinleib, M. (1983). Social networks and coronary heart disease among Japanese men in Hawaii. *Am J Epidemiol*, 117:384-96.
- Rogers, E. (1983). *Diffusion of innovations*. New York: Free Press.
- Sampson, R.J. (1988). Local friendship ties and community attachment in mass society: a



- multilevel systemic model. *Am Sociol Rev*, 53:766-79.
- Sampson, R.J. (1996). The community. In Wilson, J.Q., and Petersilia, J. (eds.), *Crime*. San Francisco: Institute for Contemporary Studies, pp. 193-216.
- Sampson, R.J., and Groves, W.B. (1989). Community structure and crime: testing social-disorganization theory. *Am J Sociol*, 94:774-802.
- Sampson, R.J., Raudenbush, S.W., and Earls, F. (1997). Neighborhoods and violent crime: a multilevel study of collective efficacy. *Science*, 277:918-24.
- Schoenbach, V.J., Kaplan, B.H., Fredman, L., and Kleinbaum, D.G. (1986). Social ties and mortality in Evans County, Georgia. *Am J Epidemiol*, 123:577-91.
- Seeman, T.E., Berkman, L.F., Kohout, F., LaCroix, A., Glynn, R., and Blazer, D. (1993). Intercommunity variations in the association between social ties and mortality in the elderly: a comparative analysis of three communities. *Ann Epidemiol*, 3:325-35.
- Shaw, C., and McKay, H. (1942). *Juvenile delinquency and urban areas*. Chicago: University of Chicago Press.
- Skocpol, T. (1996). Unravelling from above. *Am Prospect*, 25:20-5.
- Smith, C., and Freedman, A. (1972). *Voluntary associations: perspectives on the literature*. Cambridge, MA: Harvard University Press.
- Tocqueville, A., de (1835, 1990). *Democracy in America*, ed. Reeve, H., Bowen, F., and Bradley, P. (tr. Reeve, H., 1945). New York: Vintage.
- Verba, S., Lehman Schlozman, K., and Brady, H.E. (1995). *Voice and equality: civic voluntarism in American politics*. Cambridge, MA: Harvard University Press.
- Wacquant, L.J.D., and Wilson W.J. (1989). The cost of racial and class exclusion in the inner city. *Ann Am Acad Polit Soc Sci*, 501:8-25.
- Wilkinson, R.G. (1996). *Unhealthy societies: the afflictions of inequality*. London: Routledge.
- Wilson, W.J. (1987). *The truly disadvantaged*. Chicago: University of Chicago Press.
- Woolcock, M. (1998). Social capital and economic development: toward a theoretical synthesis and policy framework. *Theory and Society*, 27:151-208.

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