SPECIAL FEATURE: COMMUNITY PARTNERSHIPS

Broadening Participation in Community Problem Solving: a Multidisciplinary Model to Support Collaborative Practice and Research

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ABSTRACT   *Over the last 40 years, thousands of communities—in the United States and internationally—have been working to broaden the involvement of people and organizations in addressing community-level problems related to health and other areas. Yet, in spite of this experience, many communities are having substantial difficulty achieving their collaborative objective, and many funders of community partnerships and participation initiatives are looking for ways to get more out of their investment. One of the reasons we are in this predicament is that the practitioners and researchers who are interested in community collaboration come from a variety of contexts, initiatives, and academic disciplines, and few of them have integrated their work with experiences or literatures beyond their own domain. In this article, we seek to overcome some of this fragmentation of effort by presenting a multidisciplinary model that lays out the pathways by which broadly participatory processes lead to more effective community problem solving and to improvements in community health. The model, which builds on a broad array of practical experience as well as conceptual and empirical work in multiple fields, is an outgrowth of a joint-learning work group that was organized to support nine communities in the Turning Point initiative. Following a detailed explication of the model, the article focuses on the implications of the model for research, practice, and policy. It describes how the model can help researchers answer the fundamental effectiveness and "how-to" questions related to community collaboration. In addition, the article explores differences between the model and current practice, suggesting strategies that can help the participants in, and funders of, community collaborations strengthen their efforts.*

KEYWORDS   *Civic problem solving, Collaboration, Community engagement, Empowerment, Partnership effectiveness, Social ties, Synergy.*

INTRODUCTION

There are compelling reasons to promote broad community participation in addressing community health problems. From a philosophical perspective, people living in democratic societies have a right to a direct and meaningful voice about issues and services that affect them.[1–3] At a practical level, many of the problems that affect the health and well-being of people in communities—such as substance

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abuse, poverty, environmental hazards, obesity, inadequate access to care, and terrorism—cannot be solved by any person, organization, or sector working alone.[4–9] These problems are complex and interrelated, defying easy answers. They affect diverse populations and occur in many different kinds of local contexts. The local context, in turn, is dependent on decisions made at state, national, and international levels. Only by combining the knowledge, skills, and resources of a broad array of people and organizations can communities understand the underlying nature of these problems and develop effective and locally feasible solutions to address them.[10–13]

Responding to the promising potential of collaboration to give voice to people in communities and to enhance the effectiveness and efficiency of achieving challenging health objectives, foundations and government agencies in the United States have invested hundreds of millions of dollars in community partnerships and participation initiatives.[8,9,12,14–18] Some examples of participatory initiatives that focus on community health, the delivery of health services, and community-based research for health include Community Health Centers, Target Cities, Ryan White, Center for Substance Abuse Prevention Community Partnerships, Healthy Cities and Healthy Communities, Community Care Networks, Healthy Start, Community-Based Public Health, Community Voices, Community Access Program, Urban Research Centers, Free to Grow, Turning Point, and Partnerships for the Public's Health.

The substantial interest and investment of funders in community collaboration have been matched by the passion of the people involved in collaborative efforts to make a real difference in their communities. Yet, for a number of reasons, the experience with community participation initiatives in the United States over the last 40 years seems to have generated more frustration than results. The terminology associated with these initiatives has been one source of frustration. Terms like "community engagement," "partnership," and "collaboration" mean different things to different people. Because of this ambiguity, expectations about the purpose and nature of community involvement vary substantially among participants and often are not met.[19]

Another challenge has been translating the rhetoric and abstract principles of community participation into practice. Engaging a broad array of people and organizations in a successful collaborative process is extremely difficult. On the front lines, many collaborations are struggling—often unsuccessfully—to find ways to recruit and retain community participants, to run a process that enables diverse participants to work together productively, and to sustain their collaborative efforts over time.[17,20–22]

An additional source of frustration relates to effectiveness. Thus far, it has been very difficult to document that broad participation and collaboration actually strengthen the ability of communities to improve the health and well-being of their residents.[17,22–26] Without evidence showing that community engagement works—or for which kinds of problems it works—participatory approaches to civic problem solving have not been taken seriously by many policymakers.[2,27,28]

Why are we in this predicament? For one, many efforts to broaden participation in community-level problem solving have been too short term or thinly resourced to reach a level at which their impacts can be fairly evaluated.[19] Moreover, the evaluations of these initiatives have focused more on their ultimate goals than on the impact of the collaborative process in achieving those goals. This focus on distal outcomes relates to several factors: broad-based collaborative processes are

not scientifically designed interventions; by nature, these processes are interactive and evolving; and there are no standard benchmarks by which to evaluate the effectiveness of the process.[29,30] As a result, broad-based collaborative processes have not been considered to be amenable to the "gold standard" of evaluation: the randomized controlled trial.[30] When process evaluations are conducted, most tend to be anecdotal and not comparative, which limits their generalizability.[31,32]

Another factor contributing to the current predicament is the multidisciplinary scope of this work. Community participation initiatives have been established to address not only physical and mental health issues, but also many other problems as well, in areas such as child welfare, economic development, education, the environment, housing, jobs, safety, community building, civic democracy, and urban planning.[2,19,32–41] Compounding this diversity, the researchers and theoreticians who are interested in community engagement, collaboration, and civic problem solving come from a variety of fields, including not only the health professions, but also sociology, community psychology, political science, public administration, social work, education, business, and philosophy. Although the practical and methodological knowledge base about community collaboration should be strengthened by such a broad array of experience and expertise, fragmentation of effort has prevented much of this from happening. Very few of the people involved in this work have drawn on the literature or experiences outside their specific focus or discipline, and most of them have not worked together. Consequently, as they attempt to deal with the challenges they face, it is difficult for anyone involved in community partnerships and participation initiatives to know or fully benefit from what others have learned.[32]

Two years ago, the Center for the Advancement of Collaborative Strategies in Health at the New York Academy of Medicine organized a joint-learning work group to enable nine community partnerships in the Turning Point initiative to learn not only from each other, but also from the broader experience. These geographically and sociodemographically diverse partnerships—located in Chautauqua County, New York; Cherokee County, Oklahoma; Decatur, Illinois; New Orleans, Louisiana; New York City, New York; north central Nebraska; Prince William, Virginia; Sitka, Alaska; and Twin Rivers, New Hampshire—are a subset of the 41 local grantees that were funded by the W. K. Kellogg Foundation in 1997 to use collaboration to transform and strengthen the public health infrastructure.[42–45] The nine partnerships were brought together because they all sought to achieve the goal of Turning Point in a similar way—by establishing locally tailored processes that enable a broad array of people and organizations to work together on an ongoing basis to (1) talk to each other about community health; (2) define and assess the health of the community; (3) identify and understand the nature of problems that affect community health; and (4) leverage their complementary strengths and capabilities to solve community health problems. The work group calls this kind of broadly participatory collaborative process *community health governance* (CHG).*

To provide the community partnerships with technical assistance and to broaden their knowledge base, the work group has involved a number of "resource participants" with experience in other kinds of community participation initiatives

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*In the term *community health governance*, *community* is defined geographically; *health* is defined as a broad, positive concept (consistent with the World Health Organization definition; see Ref. 46); and *governance* is defined as the means by which communities make decisions (see Ref. 47).

and with expertise in a variety of disciplines.* Over the last 2 years, as the work group's characterization of CHG has become increasingly clear, the objectives and challenges of the sites were used as a lens with which to identify relevant literatures. By combining the aspirations and experiences of the sites with the knowledge of the resource participants and with information gleaned from an extensive review of these literatures, the work group developed a model that explains how broadly participatory collaborative processes, like CHG, strengthen community problem solving.

This model, which synthesizes a number of previously disparate ideas, defines—operationally—what a successful collaborative problem-solving process is. Although the model has been very useful to the participants in the work group, its applicability appears to be considerably broader. By providing a pathway to explain how broad-based community collaborations work, the model makes it easier to determine whether they work and to identify the particular characteristics these collaborative processes need to have to strengthen community problem solving.

The purpose of this article is to share the CHG model with other interested parties and, by doing so, to stimulate discourse about broad-based community collaboration across contexts, initiatives, and fields. The article begins with an explication of the model, which includes a review of conceptual and empirical work in multiple literatures. We then focus on the implications of the model for research, practice, and policy. In this concluding section we discuss how the model can help researchers answer the fundamental effectiveness and "how-to" questions related to community collaboration. We also compare the model with current practice, identifying strategies that can help the participants in, and funders of, community collaborations strengthen their efforts.

THE MODEL OF COMMUNITY HEALTH GOVERNANCE

The model of community health governance is a road map that lays out the pathways by which broadly participatory collaborative processes lead to more effective community problem solving and to improvements in community health (Figure). It hypothesizes that, to strengthen their capacity to solve problems that affect the health and well-being of their residents, communities need collaborative processes that achieve three proximal outcomes: individual empowerment, bridging social ties, and synergy. The model hypothesizes that all three of these proximal outcomes are needed to strengthen community problem solving, and that these proximal outcomes improve community health directly as well as by enhancing the capacity of the collaborative process to solve health problems. Going further, the model hypothesizes that a collaborative process needs to have certain characteristics to

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*The work group's resource participants have included Quinton Baker (Consultant, Community Health, Leadership, and Development); Anne Barry (Minnesota Department of Finance); Barbara Blum (National Center for Children in Poverty); Charles Bruner (Child and Family Policy Center); Phyllis Brunson (Center for the Study of Social Policy); Moses Carey, Jr. (Piedmont Health Services, Inc.); Robert Chaskin (Chapin Hall Center for Children, University of Chicago); David Chrislip (Skillful Means); Otis Johnson (Savannah State University; Chatham-Savannah Youth Futures Authority); Roz Lasker (The New York Academy of Medicine); Alonzo Plough (Seattle–King County Department of Public Health); Keith Provan (School of Public Administration and Policy, University of Arizona); Trish Riley (National Academy for State Health Policy); Barbara Sabol (W. K. Kellogg Foundation); James Schowalter (Minnesota Department of Finance); Steven Rathgeb Smith (University of Washington); and Norman Zimlich (Zimlich and Associates, Inc.).
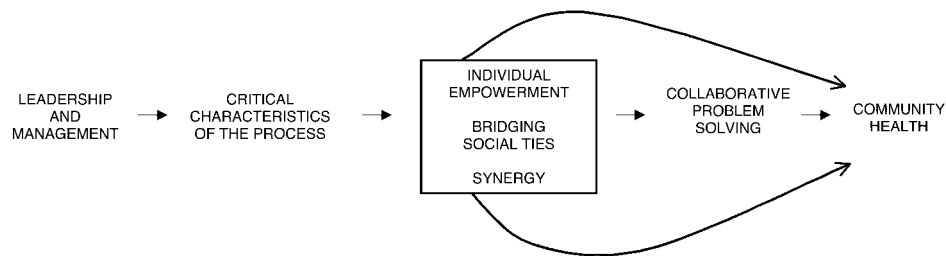
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LEADERSHIP        CRITICAL              INDIVIDUAL           COLLABORATIVE      COMMUNITY
    AND       →  CHARACTERISTICS  →    EMPOWERMENT      →     PROBLEM       →     HEALTH
MANAGEMENT       OF THE PROCESS                               SOLVING
                                      BRIDGING
                                    SOCIAL TIES

                                       SYNERGY
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FIGURE. Model of community health governance.

achieve these proximal outcomes, and that special kinds of leadership and management are required to achieve these characteristics.

Below, we explicate the model by walking through it from right to left. First, we focus on why collaborative problem solving is needed to improve community health. Next, we identify shortcomings that are undermining the ability of people and organizations in communities to work together effectively to solve problems. We then discuss the three proximal outcomes in the model, describing how they reinforce each other in addressing current shortcomings with community problem solving and how they have a direct impact on health. We continue by elucidating the particular characteristics that enable a collaborative process to achieve these proximal outcomes and thus effectively engage a broad array of people and organizations in solving complex problems. Finally, we discuss the implications of these process characteristics for leadership and management.

The Need for Collaborative Problem Solving
to Improve Community Health

Consistent with the World Health Organization, the partnerships in the CHG work group define community health broadly—as a positive concept, encompassing all of the environmental, social, and economic resources as well as the emotional and physical capacities that enable people in a geographic area to realize their aspirations and satisfy their needs.[46] But, even if health is conceptualized more narrowly, as the absence of disease, many of the problems that impair the health of people in communities are daunting, and communities cannot improve the health of their residents or eliminate current disparities in health unless these problems are effectively addressed.

The growing interest in using collaboration to deal with problems that affect community health stems from the fact that many of these problems are complex; consequently, they go beyond the capacity, resources, or jurisdiction of any single person, program, organization, or sector to change or control.[4–9] Without sufficiently broad-based collaboration, it has been difficult for communities to understand the underlying nature of these kinds of problems or to develop effective and locally feasible solutions to address them. For example, strategies that focus on the services or programs of only one kind of professional or organization have not been adequate to solve problems like low birth weight, substance abuse, depression, teen pregnancy, asthma, and inadequate access to care because these problems are interrelated and depend on a broad array of social, economic, environmental, political, emotional, and biologic determinants.[47–50]

Problems that require comprehensive actions have been difficult to solve when

needed participants have not been involved or when programs, organizations, and/or policies work at cross-purposes with each other.[51] The tremendous diversity in the populations affected by health problems, and in the local contexts in which these problems occur, have limited the effectiveness of top-down, "one-size-fits-all" solutions.[13,29,37,47] The lack of community involvement in, and ownership of, solutions has made it difficult to sustain strategies to improve health.[21,51,52] When effective solutions depend on the actions of people and organizations at regional, state, national, and/or international levels, communities have been at a disadvantage working on their own.[13,53]

Reflecting the complexity of problems that affect community health and well-being and the need for broad-based collaboration to deal with these kinds of problems, the concept of collaboration has been embedded in the way people think about effective community problem solving. Cottrell, whose work has influenced recent approaches to health promotion and health education, coined the term *community competence* to refer to the ability of community members to collaborate effectively in identifying problems and needs, to reach consensus on goals and strategies, to agree on ways and means to implement their agreed-upon goals, and to collaborate effectively in the required actions.[54] He defines a competent community as one that is able to cope with the problems of its collective life. At a more general level—going beyond health—the National Civic League and others involved in civic problem solving have used the term *civic infrastructure* to refer to the formal and informal processes and networks by which communities make decisions and solve problems.[38,55] They refer to the capacity of people and organizations to work together constructively to solve problems as *civic health*.[28,38]

Current Shortcomings of Community Problem Solving

Although collaborative problem solving appears to have an important role to play in improving community health, there is substantial and growing concern about the ability of people in communities to work together effectively to solve problems.[32,34,38,47,55] This concern is more than academic. Many communities attempting to address a particular health problem have noted that they cannot do so unless they also fix the problem-solving process per se.[23,32,34,54,56] Communities in the CHG work group have been spurred to strengthen their collaborative problem-solving capacity for a number of reasons: to identify important problems and assets that are currently being overlooked, to get a better understanding of the root causes of complex problems, to find effective ways to deal with problems that have been intractable, and to be able to take action to address problems that people in the community care about without waiting for external players, like the federal and state governments or national foundations, to develop programs and initiatives.

At a practical level, what does it mean to strengthen community problem solving? The participants in the CHG work group recognized that to figure out how to achieve this goal, they first had to clarify what needs to be fixed. Below, we discuss shortcomings that have been cited as undermining collaborative problem solving in communities in the United States. These shortcomings include the politics of interest groups, the eroding sense of community, and the limited involvement of community residents in civic problem solving.

Politics of Interest Groups   Despite the importance of the political process in identifying and solving problems in democratic societies, increasing dissatisfaction with politics in the United States has led the National Civic League to state that "Ameri-

ca's democracy is in need of repair."[38(p7)] As everyone is aware, there have been numerous scandals and breaches of trust.[38,57] Many people have little or no voice in the political process and perceive the process to be controlled by powerful interest groups; they feel that "public life is beyond their control, that their own values and interests are not reflected in the policies that shape the larger society."[38(p7–8)] As people feel cut out and unheard, some have opted out of the traditional political process.[34,57] Others have looked to confrontation and advocacy to influence the forces that affect their lives.[58]

Advocacy gives people a way to draw attention to issues that would otherwise be ignored. But, when the politics of interest groups goes too far, it can hinder, rather than strengthen, community problem solving.[34,58,59] For example, ideological debates look at problems in isolation rather than in relation to each other or to the broader community context.[32,54,55] The sound bites and slogans of most of these debates lack substance, and public hearings—in which representatives of different interest groups speak *at* each other—do not promote the broad and open discourse that is needed to understand and solve complex problems.[58,60] Moreover, when one solution is advocated over another, in a zero-sum fight with different interests choosing sides, winning the fight and beating opponents become more important than developing solutions.[22,38,55,59] In this environment, "shouting, confrontation, name-calling, and obfuscating nondiscussion" weaken the capacity of people to listen to each other and think critically.[54] Often, the end result is rancor, gridlock, abandoned programs, and fragmented, short-sighted, and reactive policymaking.[48,55,59,61]

Eroding Sense of Community

Putnam's treatise, *Bowling Alone*, which spurred much of the current interest in community building, resonated with many people's perceptions that civic life in the United States is deteriorating.[62,63] This eroding sense of community has been attributed to several factors. Confrontational politics and the growing diversity of the American population have both been cited as contributing to the polarization of people and organizations.[55,64] In addition, the new business orientation of government, which sees citizens as customers, encourages people to focus on their own self-interest rather than the public good.[2,3] The net result of this diminished sense of connectedness is a frayed social fabric in which ties within groups may be strong, but people from different backgrounds, organizations, sectors, and jurisdictions do not know each other and trust each other enough to work together to solve problems. As Cottrell bemoaned 25 years ago—in a statement that still seems to be true—this frayed social fabric is leading to "such a welter of institutional rivalries, jurisdictional disputes, doctrinal differences, and lack of communication that effective joint action seems well beyond practical possibility."[54(p195)]

Limited Involvement of Community Residents

Many people want to be directly and actively involved in addressing community-level problems that affect their lives. Yet, they are rarely treated as peers or resources in problem solving.[2,3,34] In both the public and private sectors, community residents are usually treated as customers, clients, "objects of concern," sources of data, or targets of problem-solving efforts.[39,54,61] Because people treated in these ways have little or nothing to do or say concerning setting policy or making decisions, these approaches devalue and discredit their contributions and breed feelings of helplessness and dependency.[2,39,54,65]

Equally important, when decisions are left to experts, the community lacks the information and resources it needs to come up with effective solutions to problems.[21,40,66,67]

Expertise and statistical data are important, but experts are limited in their own foresight and capability, and statistical data alone do not yield the whole answer to complex problems.[21,40] Moreover, when experts or service providers "run the show," problems tend to be viewed narrowly within professional boundaries, and the knowledge, skills, and resources of people and organizations in the community are often not utilized.[23,65] Without these community assets, it is difficult for a problem-solving process to identify what residents actually want and need, to frame issues in ways that make sense to people in the community, to identify the underlying causes of problems, or to develop and implement solutions that are likely to work in the local environment.[21,40,66,67] Without the commitment that comes from having community members involved in the design of solutions, initiatives are often disbanded after external funding ends.[21,30,51,52,61]

The Proximal Outcomes

The three proximal outcomes in the model explain what we think a collaborative process needs to accomplish, in the short term, to be effective in solving community-level problems and improving community health. Put simply, the model hypothesizes that, to address current shortcomings in community problem solving, communities need collaborative processes that

- *empower individuals* by getting them directly and actively involved in addressing problems that affect their lives
- create *bridging social ties* that bring people together across society's dividing lines, build trust and a sense of community, and enable people to provide each other with various kinds of support
- create *synergy*—the breakthroughs in thinking and action that are produced when a collaborative process successfully combines the knowledge, skills, and resources of a group of diverse participants

One can think of the proximal outcomes in the model as the mechanisms by which successful collaborative processes address the shortcomings in community problem solving that we discussed above. Each of these mechanisms operates at a different level: empowerment is experienced by individuals; bridging social ties are created dyadically, between people; and synergy is the product of a group. The model hypothesizes that *all three* of these proximal outcomes are needed to strengthen community problem solving. It also hypothesizes that two of the proximal outcomes—individual empowerment and bridging social ties—improve community health *directly* as well as by enhancing the capacity of collaborative processes to solve health problems. Below, we discuss the proximal outcomes in turn.

Individual Empowerment   The CHG model draws on the rich literature on empowerment, which has identified empowerment as a link between community participation and health, both conceptually and in practice.[23] Yet, it is important to clarify how this concept is used in the model. Because the literature on empowerment spans multiple disciplines—including community psychology, health education, community organizing, social work, and education—the term *empowerment*

has different meanings for different groups.[48,49,68] For example, it has been used to connote both an outcome and a process, and it has been applied at individual and community levels.[23,49,69–72]

In the CHG model, different aspects of empowerment are incorporated in different parts of the pathway. *Individual* empowerment appears as a proximal outcome in the model. The notion of *community* empowerment is embedded in a distal outcome in the model: effective community problem solving. A community can be said to be empowered when it has the capacity to solve problems, identifying its own problems and solutions.[73] This definition is closely related to Cottrell's concept of community competency, which we use to define effective community problem solving. The notion of empowerment as a process is incorporated in earlier components of the model: leadership/management and process characteristics (discussed later). By distinguishing these process aspects of empowerment, the model can build on them to explain how empowerment outcomes are achieved.

Why are we focusing on individual-level empowerment as a proximal outcome in the model? The reason is straightforward—the empowerment of individuals appears to be an important mechanism for addressing current shortcomings in community problem solving and for improving community health. Considered as an individual-level outcome, empowerment has been defined as the ability of people to make decisions and have control over forces that affect their lives.[49] According to Zimmerman, individual empowerment has three dimensions. People are empowered when they (1) believe they have the ability to exert control over forces that affect their lives; (2) have the knowledge, skills, and resources to do so; and (3) are actually involved in making decisions and taking actions.[71] These dimensions of individual empowerment resonate closely with the basic tenets of participatory democracy.[1,57,74–76] By actively taking part in making decisions and by determining the results of decisions, people in democratic societies gain control over their lives.

The literature suggests that individual empowerment has a direct effect on health, independent of problem solving. A number of studies have shown that both physical and mental health are significantly affected by the extent to which people perceive that they have control over their lives. For example, nursing home residents with more choice and decision-making power have been shown to have better mental and physical health.[77,78] The risk of coronary heart disease has been associated with the degree to which employees have control over their work environment.[79,80] The lack of individual control has been associated with alienation, devaluation of self, passivity, apathy, and a loss of the sense of significance, which compromise peoples' mental health.[54] At a biological level, the most likely explanation for these findings is that the perception of control directly affects the nervous, endocrine, and immune systems, reducing autonomic reactivity and levels of stress hormones, which have a negative impact on health, and improving immunologic responsiveness.[77,78]

In addition to its direct effect on health, individual empowerment also appears to be a prerequisite for strengthening the capacity of communities to solve complex health problems. As the discussion in the previous section suggests, a much broader array of community members needs to be empowered to address shortcomings in community problem solving. Currently, many people whose lives are affected by community-level decisions and actions are excluded from community problem-solving activities. When people are disempowered in this way, they have no opportunity to use their knowledge, skills, and resources to influence forces that affect their

lives.[81] At the same time, the community lacks the knowledge, skills, and resources that it needs to identify, understand, and solve complex problems.

Collaborative processes that lead to the empowerment of a broad array of community members can strengthen problem solving by giving the community access to valuable knowledge, skills, and resources that it otherwise would not have.* For example, local people understand the needs, opportunities, priorities, history, and dynamics of the community in ways that professional nonresidents do not.[67] Users of services have perspectives and experiences that the community needs to develop services that will actually be useful to them, and people directly affected by problems have important insights about the root causes of problems and ways to address problems.[21,40] Actively involving these community members in problem solving can lead to more effective, feasible, and responsive solutions, prevent the repetition of ill-advised decisions, and enhance the acceptance and legitimacy of decisions.[66,67]

It is important to point out that solving a problem that affects the health and well-being of a person is not the same as empowering that person. People who are not directly involved in a community problem-solving process can benefit from the results that are achieved without being empowered. Equally important, people can be empowered by a collaborative process that is not effective in solving problems. The reason this can happen is that empowerment is necessary for effective problem solving, but it is not sufficient by itself. The concept of individual empowerment relates to "being involved" and "the ability to exert control" rather than to the quality of any decisions that are made or actions that are taken.[82] Consequently, just because people are empowered does not mean that they are making the kinds of decisions and taking the kinds of actions that can actually solve problems.

Bridging Social Ties   The CHG model hypothesizes that, in addition to empowering people, collaborative problem-solving processes also need to create social relationships that bridge many sectors and levels. The inclusion of this proximal outcome in the model is supported by literatures that have linked social ties—both conceptually and empirically—to community problem-solving capacity and to the physical and mental health of people in communities. This work suggests that bridging social ties, as distinct from the bonding ties that undergird ethnic and interest groups, are needed to address the factors that are currently undermining community problem solving.

While the literature relating social ties to community problem solving is not as robust as the literature relating social ties to health, a number of studies have documented such an association. For example, the classic study of Putnam et al. of civic traditions in Italy related the performance of local governments, including their ability to identify and solve problems, to the density of associations among community members and the vibrancy of associational life.[83] In the context of community-level health interventions, the intentional development of social networks has been associated with an enhanced capacity to solve problems.[84,85]

The importance of bridging social ties in community problem solving has also been highlighted in the literature. Chrislip, for instance, has noted that solving complex problems—in ways that further the public interest—requires not only connec-

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*It is important to point out that, in the CHG model, individual empowerment is a product of the collaborative process. It is not something that powerful participants give to other participants.

tions among like-minded people who advocate particular causes, but also connections that bring people together across society's dividing lines.[58] The National Civic League has emphasized that strengthening the way communities solve problems requires collaborative relationships that cross many sectors and initiatives.[38,47] Referring to social capital—the networks and norms of reciprocity and trustworthiness that arise from social ties—Putnam states that, to address our biggest collective problems, we need ties of the most broad and bridging kind.[62]

Why are bridging social ties needed to solve community-level problems? The reasons become apparent when social ties are considered in terms of the shortcomings in problem solving that many communities are experiencing today. To go beyond the adversarial politics of competing interests—so that problems can be viewed in relation to each other and to broader community concerns—people in communities need to establish relationships that extend further than their own immediate networks. To repair the frayed social fabric that impedes cooperation for mutual benefit, connections need to be established between people who are currently polarized and skeptical of each other's motivations. To obtain the full range of knowledge, skills, and resources that the community needs to identify, understand, and solve complex problems, ties need to be created between people and organizations from a broad range of backgrounds, disciplines, and sectors—including ties between community residents directly affected by problems and people with various kinds of professional expertise. Finally, to address problems that depend on actions at regional, state, national, or international levels, relationships need to be established that go beyond the local community. The importance of these cross-level ties has been emphasized in efforts to improve economic opportunities in inner-city neighborhoods.[53,63]

The literature suggests a number of mechanisms by which bridging social ties strengthen community problem solving. For one, social relationships play an important role in promoting the development of trust. Indeed, as Durkheim noted over 100 years ago, decreased civic trust is one of the serious consequences of a fragmented social fabric.[86] Social relationships also foster a sense of social identity; people with a network of social relationships feel they are part of a community.[86,87] Going further, social ties and networks provide a way for people to provide each other with various kinds of support, such as (1) information, advice, and guidance; (2) tangible aid and assistance; (3) emotional affirmation; and (4) encouragement and motivation.[56] As Heany and Israel point out, the exchange of social support increases a community's ability to garner the resources it needs to solve problems.[56]

As with empowerment, the development of social ties and the exchange of social support appear to improve health directly as well as by fostering more effective problem solving. In fact, there is an extensive body of evidence relating the physical and mental health of individuals to the number, strength, and reciprocity of their social relationships.[88–90] The lack of social relationships has been shown to be a major risk factor for health; House et al. note that this risk rivals "the effects of well-established risk factors, such as smoking, hypertension, obesity, and inactivity."[87(p86)] On the other hand, when people have strong and supportive social relationships, they are significantly healthier.[91,92] According to Berkman, social support enhances health by meeting basic human needs for companionship, intimacy, and reassurance of a person's own self-worth.[93] Other beneficial effects of social relationships have been attributed to a sense of meaning and coherence, which decreases reactivity to stress, and to a sense of belonging and social identity, which

promotes psychological well-being.[70,86,87,94] Taken together, the literature suggests that a collaborative process that empowers individuals and builds social relationships between people can be health promoting in and of itself—even if it does not solve any community health problems.

Synergy   Empowerment and bridging social ties are important, but even together they do not explain how a collaborative process enables people and organizations in a community to work together constructively to identify, understand, and solve complex problems. Consequently, the CHG model hypothesizes that, in addition to getting people directly and actively involved in addressing problems that affect them and creating relationships that enable them to trust each other and provide each other with support, a collaborative process also needs to achieve another proximal outcome—it needs to create synergy.

Synergy can be defined as the breakthroughs in thinking and action that are produced when a collaborative process successfully combines the complementary knowledge, skills, and resources of a group of participants[95] (see also Refs. 10, 11, 13, and 96). In contrast to empowerment, which focuses on individuals, and social ties, which focus on dyadic relationships, synergy is the product of a group. It is created when a group of people and organizations combine their resources rather than dyadically exchange them.[97,98] In a collaborative process that creates synergy, the group, as a whole, has an advantage over its separate participants.[95]

Although the literature on collaboration is rich with allusions to synergy, very little empirical work has been done in this area. Nonetheless, recent conceptual work on synergy by Lasker and colleagues helps explain how the active involvement of a broad array of people and organizations strengthens community problem solving.[95,99] Often, it is difficult for individuals, organizations, or interest groups to make good decisions on their own because they have imperfect or incomplete information. For example, they see only part of a problem, consider an issue from only one perspective, or make incorrect assumptions about what other people think. But, when a collaborative process combines the complementary knowledge of different kinds of people—such as professionals in various fields, service providers, people who use services, and residents who are directly affected by health problems—the group as a whole can overcome these individual limitations and improve the information and thinking that undergird community problem solving.[8,10,11,13,36,47,95,96,100–103] Working together in this way, a broad array of participants can

- obtain more accurate information (e.g., about the concerns and priorities of people in the community and the trade-offs they are willing to make)
- see the "big picture" (e.g., look at issues in relation to each other and the broader community context; appreciate how different services, programs, and policies in the community relate to each other and to the problems the community is trying to address)
- break new ground (e.g., challenge ideologies and the "accepted wisdom" to understand the root causes of problems and discover innovative solutions to problems)
- understand the local context (e.g., appreciate the values, politics, assets, and history of the local environment and use this information to identify strategies that are most likely to work in that environment)

Synergy is manifested not only in the way a community thinks about problems, but also in the actions it takes to address these problems.[7,10–13,20,95,102] By combining the skills and resources of diverse participants, a community has the potential to take actions that go beyond the capacity of any single person, organization, or sector. Working together, people and organizations in a community can take actions that

- build on community assets
- are tailored to local conditions
- connect multiple services, programs, policies, and sectors
- attack a problem from multiple vantage points simultaneously

Finally, synergy can strengthen community problem solving by promoting a special kind of consensus or collective purpose. Rather than agreeing to a position or solution that a person, organization, or interest group advocated at the start, a group of people who create synergy develops consensus around ideas and strategies they generate together. In this kind of process, consensus does not require anyone to "give in" or "give up." Instead, participants contribute to the development of something new and feasible that many people can support.[95,97,98] When a broad group of participants develop and "own" a solution that makes sense to them, implementation is more likely to go smoothly and is more likely to be sustained.[21,39,51,52]

Critical Characteristics of the Process

Having gone through the proximal and distal outcomes in the model, we are now in a position to look at the collaborative process itself. The CHG model hypothesizes that a collaborative process needs to have certain characteristics to achieve the three proximal outcomes—individual empowerment, bridging social ties, and synergy—and thus to effectively engage a broad array of people and organizations in solving complex problems and improving community health. These process characteristics, which relate to *who* is involved, *how* they are involved, and the *scope* of the process, build on the literatures related to the proximal and distal outcomes in the model as well as the practical experiences of the sites in the CHG work group. Below, we discuss the critical characteristics of the process, explaining how they enable a collaborative process to achieve the three proximal outcomes.

Who Is Involved   Engaging a broad array of people and organizations is central to the work of many community partnerships and participation initiatives. The partnerships in the CHG work group, for example, have involved people and organizations from many different backgrounds, disciplines, sectors, and levels, including not only various kinds of service providers, but also people directly affected by health problems, formal and informal community leaders, academics, government agencies, schools, businesses, and faith-based organizations. Some of these participants, particularly youths and low-income residents, had not previously been involved in community-level processes to identify and solve health problems.

While there are strong philosophical reasons to involve diverse people and organizations in collaborative endeavors, the CHG model shows that broad engagement is more than an end in itself. It is needed to strengthen the capacity of the community to identify, understand, and solve complex problems and improve community health.[34,47,61,104] To achieve the three proximal outcomes, and thus rectify

current shortcomings in community problem solving, the model hypothesizes that collaborative processes need to involve more than the "usual suspects." Broader participation is required to (1) empower people who have not previously been involved in community-level problem solving; (2) create relationships between people from various backgrounds, disciplines, sectors, and levels; and (3) bring together people and organizations with a sufficient range of knowledge, skills, and resources so the group, as a whole, can achieve the breakthroughs in thinking and action that are needed to understand and solve complex problems.

Indeed, recent research on partnership synergy by Weiss and colleagues has documented the value of broad and diverse involvement in collaborative endeavors. They found that the ability of partnerships to achieve a high level of synergy is related to the sufficiency of the partnership's nonfinancial resources (i.e., knowledge, skills, and expertise; perceptual, observational, and statistical information; connections to people, organizations, and groups; legitimacy and credibility; convening power).[105] Partnerships with many different kinds of participants have a greater variety of nonfinancial resources with which to create synergy than partnerships with a few homogeneous partners.

Ultimately, everything that comes from a collaborative process depends on the people and organizations participating in it. While the optimal mix of participants in a collaborative process is likely to vary according to the phase of the process, the scope of the process, and the particular problems it is addressing, the CHG model provides a structured way to identify people and organizations who should be involved. For example, one might consider the following kinds of questions when thinking about participation in relation to the three proximal outcomes in the model:

- *Individual empowerment*: Who has been left out of community problem solving? Whose voice has not been heard? Of these people, who can help the group identify important community problems and community assets? Who has knowledge, skills, and resources that the group needs to understand and develop effective and locally feasible solutions to problems? Whose health and well-being are affected by the problem(s) the process is trying to address?
- *Bridging social ties*: Of the people and organizations who need to work together to identify, understand, or solve the problem(s) the collaborative process is trying to address, who does not know each other? Who does not understand each other? Who does not respect each other? Who does not trust each other?
- *Synergy*: Which people and organizations need to be brought together to enable the group, as a whole, to obtain complete and accurate information, to see the full picture, to challenge the conventional wisdom, to understand and appreciate the local environment, and to carry out comprehensive strategies? Are there people and organizations not currently involved in the process with knowledge, skills, or resources that can help the group identify the concerns and priorities of people in the community, understand the root causes and context of the problem(s) it is trying to address, develop effective and locally feasible solutions, or take action to implement solutions?

How Participants Are Involved Just because a collaborative process includes the "right" mix of people and organizations does not mean that it will automatically achieve the three proximal outcomes in the model or be effective in solving prob-

lems or improving health. In fact, the CHG model hypothesizes that participants need to be involved in special ways to achieve these outcomes—ways that the work group sites find to be very different from the "usual way of doing business." Below, we discuss participant involvement in collaborative problem solving by focusing on process characteristics related to (1) feasibility, (2) influence and control, and (3) group dynamics.

Feasibility   The CHG model hypothesizes that a collaborative problem-solving process needs to be structured so that it is feasible for a broad array of people to be involved. The rationale for this process characteristic is simple. People cannot be involved if they are not aware of the opportunity to participate in the process or if they face logistical barriers that make participation difficult.[106] People who are not involved for these reasons cannot be empowered through the process, develop relationships with other participants, or strengthen the ability of the group to create synergy.

Influence and Control   The CHG model also hypothesizes that the participants need to have real influence in, and control over, the collaborative process. Consistent with work on "empowering processes," this means that the collaborative process needs to be designed and run by its diverse participants rather than by any single stakeholder, and that, together, the participants need to determine how their collective work gets done.[49] The model's call for such a community-driven process reflects not only the experiences of the sites in the CHG work group, but also numerous concerns raised in the literature about the control of community collaborations by experts and specialists and the domination of such endeavors by the agenda of powerful stakeholders.[3,22,23,31,54,65,104,107]

The proximal outcomes in the model help to clarify the importance of broad-based community influence and control. People are not fully empowered when their participation in a collaborative process is limited to providing a lead agency with input or advice or to helping a lead agency obtain additional resources and community "buy-in" to carry out a predetermined program. Moreover, the participants in a collaborative process cannot challenge the conventional wisdom and achieve the significant breakthroughs in thinking and action that are required to understand and solve complex problems (i.e., create synergy) if the process is constrained by the agenda or paradigm of a dominant stakeholder.

Operationally, the literature suggests that, to achieve broad-based influence and control, everyone in the process needs to participate on an equal footing—as peers—regardless of their position in the social hierarchy.[23,31,34,69] In addition, if the community is to have real influence in the ultimate outcome of the process, a broad array of people and organizations needs to be involved actively in all phases of community problem solving—identifying and framing problems, understanding the causes of problems and the context in which they occur, developing strategies to address problems, taking collective actions to solve problems, and refining these actions over time.[99] In a health-oriented process like CHG, this means that broad and diverse groups of participants are involved in determining the geographic area(s) that make sense in dealing with community health issues, how community health is defined, how it is assessed, how problems affecting community health are identified and prioritized, which problems are addressed, and how these problems are understood and addressed.

Group Dynamics The model hypothesizes that to empower people, build bridging social relationships, and create synergy, a collaborative process needs to enable a group of diverse participants to talk to, learn from, and work with each other over an extended period of time. The CHG work group has operationalized such a group process as follows. The process brings a group (or groups) of people together to talk to each other on a regular basis. It promotes meaningful discourse (i.e., it enables diverse participants to talk *with* each other rather than *at* each other) by valuing listening as well as speaking, by honoring and respecting different kinds of knowledge and points of view, and by fostering the development of a jargon-free language that is widely understood. It creates an environment in which participants feel comfortable raising questions, expressing different opinions, and voicing new ideas. In addition to giving people voice, the process also combines the complementary knowledge, skills, and resources of participants so they can create new ideas and strategies together. When that happens, the way the group thinks about problems and the way it addresses problems are often very different from where any of the participants started.

By explaining the need for this kind of group process to achieve the three proximal outcomes, the model provides further justification for certain process characteristics that have been highlighted in a variety of literatures. Theorists and practitioners interested in such diverse fields as participatory democracy, empowerment education, and health promotion have repeatedly emphasized the importance of meaningful discourse in their work. Unlike sound bites and adversarial confrontations (such as hearings and debates), open, inclusive, and ongoing discussions enable people to discover shared values about what is good for the community and to work out their personal interests in the context of community concerns.[1,8,22,23,38,54,60,62,69,108–110]

A key objective of group dialogue is to promote critical thinking, which helps people develop a healthy skepticism, skills in weighing information, and sensitivity to fresh ideas and perspectives.[54,69] Consequently, this kind of dialogue has been cited as having a role to play in every stage of a problem-solving or policymaking process.[75]

As in the CHG model, listening, empathy, and a common language have been highlighted as critical characteristics of group discourse.[54,69,75] Participants in a group dialogue need to be able to listen as well as talk, and as Friere notes, this listening is not the same as conducting a needs assessment.[69] Instead, it is a participatory and ongoing interaction that uncovers issues of emotional and social significance to those involved and enables participants to see a situation from each others' perspectives.[54,69] This level of understanding is only possible if the group develops common meanings so that they are all speaking the same language.[54,111]

The Scope of the Process While the process characteristics described above are applicable to many different kinds of partnerships and community participation initiatives—including those that focus on a particular problem—the CHG model hypothesizes that communities need collaborative processes that are broad in scope to fully achieve the three proximal outcomes and thus rectify the shortcomings currently undermining community problem solving. Consistent with the literature on civic problem solving, the model hypothesizes that communities need collaborative processes—like CHG—that are ongoing and iterative, include agenda setting as well as planning and action, and focus on multiple issues and problems.[22,28,32,38,47,50]

Again, the proximal outcomes in the model help to explain why these particular process characteristics are important. Collaborative processes with an agenda-set-

ting capacity have a greater potential to empower people than partnerships that focus on a predetermined problem because they enable participants to identify, and draw attention to, additional problems they care about that might otherwise be overlooked. A multi-issue focus also promotes empowerment because it enables participants in a collaborative process to leverage the relationships and skills they develop in addressing one problem toward the solution of others.

The scope of a collaborative process has implications for synergy as well as empowerment. For example, the participants in a process like CHG, which deals with multiple factors and problems related to community health, are able to see a "bigger picture" and take more comprehensive actions than the participants in a categorical partnership. Rather than considering environmental, social, economic, and medical problems in isolation, they can appreciate how policies, programs, and services in these different areas relate to each other, and can reinforce each other, in efforts to improve community health.

Leadership and Management

Ultimately, the success of any community collaboration depends on the way it is run. The CHG model is illuminating in this regard because it hypothesizes that leadership and management influence the success of a community collaboration by determining who is involved in the process, how participants are involved, and the scope of the process. These process characteristics, in turn, determine the extent to which a collaboration can achieve the three proximal outcomes in the model—individual empowerment, bridging social ties, and synergy—and thus strengthen community problem solving and community health. Leadership and management have been linked, conceptually, to all of the proximal and distal outcomes in the model.[26,95,112] In empirical work, leadership and certain aspects of management have been shown to be correlated closely with the ability of collaborations to create synergy and to solve community-level problems.[105,112] The process characteristics in the model explain how leadership and management affect these outcomes. Moreover, they provide a useful lens for identifying important attributes of leadership and management.

Building on the growing body of literature on collaborative leadership and democratic management, as well as the experiences of the sites in the CHG work group, the model hypothesizes that special kinds of leadership and management are required to achieve the critical characteristics of a collaborative problem-solving process. This type of leadership and management is very different from what is needed to coordinate services or to run a program or organization. One difference relates to the number and mind-set of the people involved. Rather than having one person "run the show," successful community collaborations often involve a variety of people in the provision of leadership, in both formal and informal capacities.[105,112] Going further, the people who seem to be most successful do not function as traditional leaders and administrators, who tend to have a narrow range of expertise, are used to being in control, have their own vision of what should be done, and relate to the people they work with as subordinates rather than as peers. Instead, community collaborations appear to benefit from having leaders and staff who believe deeply in the capacity of diverse people and organizations to work together to identify, understand, and solve community problems. These kinds of individuals understand and appreciate different perspectives, are able to bridge diverse cultures, and are comfortable sharing ideas, resources, and power.[95,112–115]

Another difference relates to what the leadership and management of a community collaboration need to do. The CHG model hypothesizes that, to achieve the

critical characteristics of a collaborative process, the leaders and staff of a community collaboration need to play certain roles and carry out certain functions. Below, we make this aspect of the model operational by describing the particular roles and functions that appear to be required to (1) promote broad and active participation, (2) ensure broad-based influence and control, (3) facilitate productive group dynamics, and (4) extend the scope of the process.

Promote Broad and Active Participation   The CHG model hypothesizes that community collaborations need a diverse group of leaders who come from the community and that a key role of these leaders is to build broad-based involvement in the process.[58,112] To accomplish this objective, the leaders need to get out into the community continually to see how people perceive the process, to establish new relationships, and to identify and engage new and diverse participants. Rather than convincing people in the community to support or "buy into" the process, the purpose of this outreach is to make people aware of the process and to be sure that the process is a valuable resource for them. Equally important, the leaders need to work with current participants to identify and modify attitudes that lead to "filtering," the intentional or unintentional exclusion of certain kinds of people or organizations from the process. For example, the training and socialization of some professionals involved in the collaboration may create "blinders" that make it difficult for them to appreciate the limitations of their own expertise or the value of combining that expertise with the knowledge and skills of other people in the community.[99]

The model also hypothesizes that the management of a collaborative process has important roles to play in promoting broad and active involvement. For example, to make it feasible for people to be involved, the collaboration needs to provide orientation and mentoring for new participants and minimize the logistical barriers that some people face. In work group sites, this objective has been achieved by offering participants a variety of ways to be involved, by holding meetings at convenient places and times, by providing transportation and child care, by serving meals and refreshments, and by encouraging organizational partners to make participation part of their representatives' job descriptions.

Another function of management is to optimize the way participants are involved. At a practical level, this means recognizing and making use of the assets that each participant brings to the collaboration, matching the roles and responsibilities of participants to their particular interests and skills, and running the collaboration in a way that makes good use of participants' financial and in-kind resources and time.[95,102,116,117] It also means paying attention to the relative benefits and drawbacks that each participant experiences.[113,118–120] Management strategies that work group sites have used in this regard include asking participants what they want and need from the process, trying to realize the particular benefits that participants seek, minimizing the drawbacks associated with the process, and giving participants credit for the collaboration's accomplishments. To optimize the involvement of organizational participants, relationships often need to be established at multiple levels, for example, by entering into agreements with the board of the organization, by involving chief executives in making organizational commitments, and by involving organizational staff in the collaboration's activities and projects.

Ensure Broad-Based Influence and Control   Experience suggests that broad-based community influence and control are the most critical characteristics of a collabora-

tive problem-solving process and the ones most difficult to achieve. The potential for domination is a continual and challenging issue for community collaborations because, while powerful people and organizations need to be involved in the process, they often have their own agenda and are used to being in control.[23,40,49,57] The CHG model hypothesizes that the leadership and management of a collaboration need to play critical roles to prevent these powerful participants from having undue influence that compromises the integrity of the collaborative process.

To ensure that everyone involved in the process participates on an equal footing, the leadership of a collaboration needs to treat powerful participants—including staff and content experts—like everyone else and use norms, discussion, and peer pressure to prevent powerful participants from taking control. To help participants in different tiers of the social hierarchy see each other as peers, the leaders need to continually highlight the value of different kinds of knowledge and contributions.

The model hypothesizes that a democratic approach to management plays an important role in preventing domination.[49,121] A key management strategy in this regard is to involve a broad and diverse array of participants in all decision making. Another is to make all of the leaders, staff, lead agencies, and fiscal agents formally accountable to the decision-making body of the collaboration rather than to their own employer or board. A democratically managed collaboration diffuses power among participants by having different organizational partners assume fiscal responsibility for different project grants. It also uses a variety of strategies to prevent powerful participants from dominating meetings and activities, for example, by making sure all participants are kept up to date and receive information at the same time, by involving a broadly representative group of participants in creating meeting agendas, by making sure that the minutes of meetings provide a complete and accurate record of what transpired, and by not allowing any small group of participants to reinterpret and refine decisions that the full group has already made.

Another, and critically important, role of management is to help the collaboration develop a diversified resource base, including commitments of both in-kind and financial resources from a broad array of participants. When a collaborative process is not dependent on one or a few organizations for all or most of its support, it is much less of a "setup" for domination.

Facilitate Productive Group Dynamics   The CHG model hypothesizes that community collaborations need strong "facilitative leadership" to enable their diverse participants to engage in meaningful discourse and combine their knowledge, skills, and resources.[58] The more successful a collaboration is in engaging a broad and diverse array of participants—who often do not know each other and are skeptical of each others' motivations—the more this kind of leadership is required.

The leadership of a collaboration fosters a meaningful and productive group process by creating an environment that values listening as well as speaking, honors and respects different kinds of knowledge and points of view, promotes the development of a jargon-free language, makes participants feel comfortable expressing their ideas, and combines what different people know. While little empirical work has been done to identify exactly what the leaders of community collaborations need to do to create such an environment, a number of practical ideas have come from the experiences of sites in the CHG work group and other collaborations.

The model hypothesizes that one role—of both leadership and management—is to make sure that enough time is allotted for the group process. It is very

difficult, if not impossible, to create a robust group dynamic if participants meet only for an hour or two on three or four occasions per year. In addition, the leadership needs to help diverse participants get to know each other in both formal and informal ways. What participants learn in these encounters often runs counter to their previous assumptions. Leaders can use this new knowledge to help participants acknowledge their past history and relationships so they can move beyond them.

Another important role of leadership is to give meaningful voice to participants. Through the use of structured exercises, for example, leaders help participants appreciate the value of listening and give them practice doing so. Variants of the nominal group process can be used to ensure that everyone has an opportunity to speak. By welcoming new ideas and by responding to ideas in nonjudgmental ways, leaders encourage reticent participants to join in the discussion. To help the group develop a language that everyone understands, leaders make participants aware of when they are using jargon and ask them to define the meaning of terms that are unclear to others or seem to be contributing to disagreements. Leaders also foster voice by encouraging participants to communicate their ideas in ways that are most comfortable for them, for example, through storytelling, drawings, and photography.

Going beyond giving people voice, the model hypothesizes that leaders need to stimulate the people involved in a community collaboration to be creative and look at things differently. In addition, a key leadership role is to relate and synthesize the knowledge of diverse participants so the group can create new ideas and understanding, which no single participant had before, and combine their complementary skills and resources to carry out effective and feasible actions. Enabling a diverse group of participants to bring their knowledge, skills, and resources together in this way may be one of the most difficult roles that leaders of collaborations need to play.

Extend the Scope of the Process   Communities need collaborative processes that are broad in scope to rectify fully current shortcomings in problem solving. The CHG model hypothesizes that the roles of leadership and management become more complex when a collaborative process includes agenda setting as well as planning and action and when it focuses on multiple issues and problems.

Extending the scope of the process is challenging for the leadership of a collaboration because the group of participants that needs to be engaged and work together is more diverse, the "picture" these participants need to see is bigger, the interrelationships they need to appreciate are more complex, and the strategies they need to develop and implement are more comprehensive. From a management perspective, collaborations that are broader in scope are more challenging because they have more group processes to support and more projects and programs to run.

Due to the paucity of empirical and conceptual work in this area, it is difficult to identify exactly what the leadership and management of a collaboration need to do to broaden the scope of a collaborative process. Nonetheless, the model makes some hypotheses based on the experiences of the sites in the CHG work group. For one, the leadership should extend the scope of a collaborative problem-solving process incrementally—building on, and connecting, what the collaboration has already done. Second, to support agenda setting, as well as planning and action, group processes often need to be established at multiple levels (for example, in neighborhoods and boroughs as well as the citywide level). Third, to help partici-

pants appreciate and benefit from interrelationships, the management needs to create functional connections that not only link the various group processes to each other, but also link the action projects that come out of these group processes to the community-wide problem-solving effort. In work group sites, this objective has been accomplished by creating project task teams that are headed by members of the community-wide collaborative process and that report back to it, by inviting participants in local problem-solving processes to become members of the community-wide process, and by using community-wide meetings to explore how local and community-wide efforts can support each other. Finally, to build local and community-wide capacity for broad-based problem solving, the management needs to provide current and potential participants with training and technical assistance.

IMPLICATIONS FOR RESEARCH, PRACTICE, AND POLICY

The CHG model brings together a broad array of practical experience as well as conceptual and empirical work from multiple fields, and it organizes this information in a new and coherent way. The product is a theoretical road map that lays out the pathways by which broadly participatory processes lead to more effective community problem solving and to improvements in community health. The explication of these pathways provides an operational definition of collaborative problem solving (Table). The CHG model is unique in that it represents the first time that empowerment, social ties, and synergy have been considered together in the context of collaborative problem solving. Moreover, prior to the development of this model, neither the characteristics of the collaborative process nor the leadership and management that undergird these characteristics had been considered in relation to all three of these proximal outcomes.

Although the model was developed to explain a particular kind of collaborative problem-solving process—CHG—its applicability is considerably broader. The purpose of CHG is to enable diverse people and organizations to work together on an ongoing basis to identify, understand, and solve multiple problems that have an impact on community health. While the model hypothesizes that multi-issue collaborations with an agenda-setting capacity are needed to rectify fully current shortcomings with community problem solving, most aspects of the model are relevant to collaborations with a narrower scope, such as time-limited partnerships dealing with a particular problem. Because the pathways are general in nature, the model is not limited to collaborations that deal with health issues. Indeed, the model explains a common observation of people involved in community participation initiatives: a broadly participatory collaborative process can be health promoting in itself, even if the collaboration is not focusing on community health problems.[54]

In addition, since the critical characteristics of the process can be realized in many different ways, depending on the unique circumstances of the local environment, the model is not limited to any particular kind of community context. This geographic and sociodemographic applicability has been demonstrated in the communities in the CHG work group. Coming from all parts of the country, these communities include cities of various sizes, suburban "bedroom" communities, rural areas, and frontier regions, and they are inhabited by different population groups. The model not only resonates with these diverse communities; it provides them with a framework for identifying and dealing with the particular challenges

TABLE. Explication of the model of community health governance

COMMUNITY HEALTH The extent to which people in a community are able to realize their aspirations, satisfy their needs, and cope with their environment

COLLABORATIVE PROBLEM SOLVING The ability of people and organizations in the community to work together constructively to identify, understand, and solve complex community-level problems

- *Current shortcomings in community problem solving:* (1) politics of interest groups; (2) eroding sense of community; (3) limited involvement of community residents

PROXIMAL OUTCOMES What a collaborative process needs to accomplish, in the short term, to be effective in solving community-level problems and improving community health

- *Individual empowerment:* the ability of people to make decisions and have control over forces that affect their lives
- *Bridging social ties:* relationships and networks that (1) bring people together across society's dividing lines; (2) build trust and a sense of community; and (3) enable people to provide each other with various kinds of support
- *Synergy:* the breakthroughs in thinking and action that are produced when a collaborative process successfully combines the complementary knowledge, skills, and resources of a group of participants

CRITICAL CHARACTERISTICS OF THE PROCESS Attributes that a collaborative process needs to have to achieve the three proximal outcomes

- *Who is involved:* a broad and diverse array of people and organizations, including people directly affected by problems
- *How participants are involved:* (1) participation is feasible; (2) the process is designed and run by its diverse participants; (3) a broad array of participants is actively involved on an equal footing in all phases of problem solving; (4) the process enables participants to talk to, learn from, and work with each other
- *The scope of the process:* (1) ongoing and iterative; (2) includes agenda setting as well as planning and action; (3) focuses on multiple issues and problems

LEADERSHIP AND MANAGEMENT What the shared leadership and management of a collaborative process need to do to achieve the critical characteristics of the process

- *Promote broad and active participation:* (1) make the process a valuable resource for participants; (2) modify attitudes that lead to "filtering"; (3) provide orientation and mentoring; (4) address logistical barriers; (5) match roles/responsibilities to participants' interests/skills; (6) make good use of participants' resources and time; (7) maximize benefits/minimize drawbacks; (8) relate to organizational participants at multiple levels; (9) give participants credit for the collaboration's accomplishments
- *Assure broad-based influence and control:* (1) involve a broad and diverse array of participants in all decision making; (2) make all leaders, staff, lead agencies, and fiscal agents formally accountable to the decision-making body of the collaborative process; (3) develop a diversified resource base, including commitments of financial and in-kind resources from many different participants; (4) prevent powerful participants from dominating meetings and activities; (5) highlight the value of different kinds of knowledge and contributions
- *Facilitate productive group dynamics:* (1) make sure there is a group process and that enough time is allotted for it; (2) provide a variety of ways for participants to get to know each other; (3) promote meaningful discourse by giving everyone an opportunity to speak, encouraging different ideas and points of view, helping participants appreciate the value of listening, helping the group develop a commonly understood language, and encouraging people to communicate their ideas in comfortable ways; (4) relate and synthesize the knowledge/skills/resources of different participants so the group, as a whole, can be creative and look at things differently and develop understanding/take actions that go beyond anyone's preconceived notions
- *Extends the scope of the process:* (1) build incrementally; (2) establish group processes at multiple levels; (3) make functional connections across levels and between planning and action projects; (4) provide training and technical assistance

they face and for establishing locally tailored structures to support their collaborative processes.

The multidisciplinary scope of the CHG model and its broad applicability are important because these features are at the heart of the model's potential usefulness in addressing concerns and challenges related to broad-based community collaboration. As mentioned at the beginning of this article, thousands of communities—in the United States and internationally—are working to expand participation in some aspect of community decision making and problem solving. Yet, most of these communities are finding this objective very difficult to achieve, and many of the government agencies and foundations that support community partnerships and participation initiatives are looking for ways to get more from their investment. The CHG model has the potential to overcome some of the fragmentation of effort that is currently compromising success; the model provides a platform that makes it easier for people from different contexts, content areas, academic disciplines, and initiatives to talk to, and learn from, each other. More specifically, the model can help the broad array of people interested in community collaboration answer the following policy questions:

- Does broad participation actually strengthen community problem solving? If so, for what kinds of problems is this approach best suited?
- What does it take to successfully involve a broad array of people and organizations in community problem solving? If communities, policymakers, and private foundations want to promote this kind of collaboration, what do they need to do to make it work?

Below, we describe how the CHG model can contribute to the research that is needed to answer both the basic effectiveness question and the applied how-to question. We then compare the how-to element laid out in the model with current practice and explore the implications of these differences for the people and organizations who participate in and fund community collaborations.

Using the Model to Strengthen Research

There is no doubt that some communities have solved problems—including intractable ones—using broad-based collaboration. Nonetheless, in spite of these successes, collaborative problem solving is not mainstream. In fact, as Norris has noted, this approach is "below the radar screen" for most pundits and policymakers.[28] Why is this so? For one, success does not necessarily mean that the community could not have solved the problem just as well using more traditional, noncollaborative approaches. Consequently, it is not clear that the additional time and effort involved in collaboration is warranted. Going further, many communities are not successful in their collaborative efforts. Yet, because it is so difficult to engage a broad array of people and organizations in a collaborative problem-solving process, it is hard to tell if the problem is with the collaborative approach per se or with the way the collaborative problem-solving process has been implemented.

These concerns reflect two important limitations of the current evidence. The first limitation is that most of the research that has been done on broad-based community collaboration has not been comparative. We are not aware of any studies that have compared the effectiveness of collaborative and noncollaborative ap-

proaches in solving similar kinds of problems, and very few studies have compared successful and unsuccessful endeavors. When studies look only at successful cases, as is commonly done, it is not possible to be sure that they are really identifying the attributes needed for success because the same attributes could have been present in unsuccessful cases.

Another limitation with the current evidence is that most research studies have not been based on a comprehensive theory of change.* Much of the research has looked at collaborative problem solving from a limited perspective (focusing, for example, on leadership, empowerment, or synergy). Such studies may be missing important aspects of the collaborative process or what the process needs to accomplish to solve problems. In addition, no research study has tested a comprehensive, step-by-step pathway for collaborative problem solving. Without such a pathway, it is not possible to distinguish communities that are "on the right track" and would benefit from additional support from those that would not. Moreover, in unsuccessful cases, it is not possible to determine what caused the community's lack of success or what the community can do to rectify the situation.

The CHG model can help address these limitations in several ways. First, and perhaps most important, the multidisciplinary underpinnings of the model provide a platform for bringing an otherwise disparate group of researchers together to combine their complementary knowledge and methodologies. Second, the model provides these researchers with a comprehensive and testable theory of change to jump-start their discussion. The model's pathway explains the how-to element of collaborative problem solving; it describes what the leadership and management of a collaboration need to do to achieve the critical characteristics of the process, and it lays out the proximal outcomes that the collaborative process needs to achieve to be effective in solving problems. Building on a large body of work in numerous fields, this pathway incorporates a broad array of variables at multiple levels, and the importance of these variables is justified by the model's theory. The model also provides researchers with a strong foundation for measurement. Valid measures have already been developed for a number of the variables in the model, including aspects of leadership and management, individual empowerment, and synergy.[49,105] Widely used measures of social networks and social support provide a basis for the measurement of social ties.[122,123] The model facilitates the development of additional measures by clarifying and operationalizing certain concepts and by providing a framework for identifying and leveraging relevant conceptual work.

A third way that the model can help address the limitations of current evidence is by supporting comparative research. The model is amenable to testing through a comparative case study design. For example, a longitudinal study of communities attempting to solve a similar problem in different ways could be used to test the degree to which successful problem solving is related to the achievement of the critical process characteristics and proximal outcomes in the model. The applicability of the model to various problems could be explored by comparing the ability of communities that have achieved these process characteristics and proximal outcomes to solve different kinds of problems. Of note, the model may also be amenable to testing through a randomized controlled trial. Building on the pathways in the model, it may be possible to develop an intervention that achieves specific pro-

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*The terminology used to describe a causal model differs across disciplines; what we are calling a *theory of change* has also been called a *theory of action* or a *logic model*.

cess characteristics and proximal outcomes, yet respects the interactive and evolving nature of community collaboration.

Validating the model, or a variant of it, will help to answer the key policy questions related to broad-based community collaboration. The ability to distinguish communities that are, and are not, able to achieve the critical process characteristics and proximal outcomes in the model will make it easier to document the overall effectiveness of broad-based collaboration in solving community problems. A validated pathway will make a substantial contribution to the how-to question and facilitate evaluation by demonstrating what a collaboration needs to do, and accomplish in the short term, to be successful in solving problems.[19,124] Because the pathway identifies markers of success that can be measured along the way (for example, the critical characteristics of the process reflect the effectiveness of leadership and management; the three proximal outcomes—individual empowerment, bridging social ties, and synergy—reflect the effectiveness of the collaborative process), it will support the development of evidence-based evaluation tools and practice guides that can help communities assess how well they are doing and take early and effective corrective action.

Comparing the Model with Current Practice

The need to conduct the research described above becomes even more compelling when one compares the how-to element laid out in the model with currently used approaches to community collaboration. The participants in the CHG work group have been struck by how different the model is from much of mainstream practice. Pending validation of the model, it is not possible to be sure which approach is best. Nonetheless, the CHG model warrants serious consideration because it is based on much practical experience—both positive and negative—and some of the relationships in the model have been documented by empirical work. Moreover, current approaches do not seem to be working well in many communities; people directly involved in broad-based collaborations and organizations that fund community partnerships and participation initiatives are having substantial difficulty achieving the results they seek.

The differences between the model and current practice suggest that some people and organizations may be inadvertently compromising their success by the way they are going about collaboration. Below, we illustrate this supposition by focusing on three important aspects of practice: (1) community engagement, (2) group discourse, and (3) the role of government in collaborative problem solving. The insights that the CHG model provides suggest specific ways that the participants and funders of community collaborations might be able to strengthen their efforts. Moving in this direction will not be easy, however. Communities in the CHG work group have identified a number of barriers to implementing the model; these relate to the negative past experiences of community members with partnerships and participation initiatives; professional socialization and culture; constraining funding requirements; and insufficient incentives, technical assistance, and training. Ultimately, all of these issues will need to be addressed to realize the full potential of community collaboration to solve complex problems.

Community Engagement   One practical benefit of the CHG model is that it defines the otherwise ambiguous phrase "meaningful community engagement" in terms of who needs to be involved in a collaborative process and how they need to be involved to strengthen the ability of the community to solve complex problems.

Broad-based influence is central to this definition. According to the model, if a collaborative process seeks to engage the community in a meaningful way, it needs to involve diverse people and organizations actively on an equal footing in all phases of problem solving—identifying and framing problems, understanding the causes of problems and the context in which they occur, and developing and carrying out strategies to address problems. The model hypothesizes that this degree of influence is a prerequisite for empowering community members, for creating the breakthroughs in thinking and action that are needed to solve complex problems, and for developing a sufficiently broad sense of community ownership and commitment to sustain collaborative efforts over time. The model also hypothesizes that broad-based influence facilitates the recruitment and retention of community members by making participation in the collaboration worthwhile.

In contrast to the model, both anecdotal experience and concerns raised in the literature suggest that community members do not currently have this kind of influence in many partnerships and participation initiatives.[23,49,125] As Robertson and Minkler note, when professionals take the lead, community members are often treated as objects of concern or sources of data rather than as peers in problem solving.[23] Moreover, professionals often determine the language that people use to discuss issues, the paradigm they use to frame and understand issues, and the "boundaries around the domain of issues that will be considered germane."[126(p32)]

One illustration of current practice—very common in the health arena—is a community partnership in which a lead agency is funded to carry out a predetermined program. In this kind of collaboration, virtually all of the thinking and planning are done by the funder and the lead agency, which is usually a local hospital, health department, academic center, or community-based organization. Typically, the funder identifies the problem that needs to be addressed, and the lead agency, following guidelines from the funder, develops an intervention to address the problem. While community residents and other community stakeholders are often asked to provide the lead agency with feedback and input about its plans (for example, advice about how to tailor a program to a particular neighborhood or group), their primary role is to help the lead agency obtain community buy-in and to provide the additional skills and resources that are needed to carry out the predetermined program. So, for instance, they are often engaged to provide the lead agency with access to a target audience it currently does not reach, greater credibility for its message and program, and/or cosponsorship of programs and events.

In the context of the CHG model, it is not surprising that many of these partnership initiatives are not as successful as they would like to be in recruiting community members, solving problems, or sustaining interventions over time. The model suggests that it may not be possible to deal with these challenges unless the partnerships, and the organizations that fund them, make substantial changes in the way community members are engaged.

Group Discourse   The CHG model hypothesizes that, to solve complex community problems, a collaborative process needs to promote ongoing, meaningful discourse among a diverse group (or groups) of people. This kind of discourse—in which participants from different backgrounds get together on a regular basis to listen to each other, talk with each other, and influence each other—is at the heart

of collaborative problem solving. Without it, a collaborative process cannot achieve individual empowerment, bridging social ties, or synergy.

In spite of the importance of group discourse in the model, our experience suggests that many community partnerships around the country are not structured in a way that makes such discourse possible. Some of these partnerships do not have any group process at all. One common example is a partnership that is organized like the spokes of a wheel, with one person or organization at the hub. In this type of arrangement, the leader of the partnership talks to each of the other participants, but these participants do not engage in discourse with each other. In other partnerships, a group process exists, but it involves a small, and often homogeneous, group of people. The core group may use focus groups, surveys, and other forms of data collection to obtain other community perspectives. But, this communication goes only one way, so there is no opportunity for the core group and the people who provide information to discuss issues with each other. The model suggests that while these kinds of partnerships may be able to coordinate services or carry out a predetermined program, they are unlikely to be able to understand and solve complex community problems.

Going beyond structural issues, many community collaborations appear to lack the leadership that is needed to promote meaningful discourse. The model hypothesizes that, without the right kind of leadership, even collaborations that bring a diverse group of people and organizations together on an ongoing basis will not achieve meaningful group discourse. Along these lines, we are aware of numerous partnerships in which certain participants have a seat at the table, but have little or no voice. Even when all participants are given an opportunity to speak—and other participants listen to what they say—understanding is often compromised by preconceived notions or the use of jargon, and breakthroughs in thinking are often not achieved because the discourse is constrained by a narrow professional paradigm or the knowledge and ideas of different participants are not connected. While this type of partnership may be successful in empowering its participants, it is unlikely to create the bridging social ties and synergy that are needed to solve complex problems.

Role of Government in Collaborative Problem Solving   Rectifying current shortcomings in community problem solving clearly requires broader, and more active, citizen involvement in the work of government. Toward that end, over the last 40 years, federal, state, and local government agencies have created a variety of initiatives to engage local residents and organizations in carrying out assessments, implementing government programs, reforming government services, and working collaboratively to address government-identified problems. Unfortunately, both community residents and government agencies have been dissatisfied with the experience and results of many of these initiatives.[1,2,35,106,127] Consequently, there have been repeated calls for new and better ways to engage the community in government activities.[1,2,3,35,38,104] While the insights discussed above (related to community engagement and group discourse) can help government agencies as well as private sector organizations be more effective in structuring their community partnerships and participation initiatives, there is an even more fundamental implication of the CHG model for the role of government in collaborative problem solving. In addition to broadening community involvement in their own work, government agencies and elected officials need to participate in collaborative problem-solving processes that reside in civil society.

Although the CHG model does not address the roles of any particular group, organization, or sector per se, the critical characteristics of the collaborative process, coupled with the experiences of the work group sites, suggest that it may not be feasible or appropriate for a broad-based community problem-solving process like CHG to be housed in, or run by, government. One reason is that the CHG model differs substantially from the way government agencies usually approach community collaboration. Instead of any single participant (such as a government agency) being in control, a broad array of people and organizations in the community decide what the process focuses on and how the work gets done.

The broad scope of the process is another issue. The collaborative process delineated in the model is a comprehensive one that encompasses a wide range of problems related to social and environmental policy, economic development, public health, and medical care. Addressing such problems goes beyond the jurisdiction or control of any single government agency. Even when a government agency *wants* to promote this kind of collaborative problem-solving process, it is difficult, if not impossible, for the agency to be viewed at the same level as other participants if it manages the process or is its dominant funder. Moreover, as Hollar points out, low-income residents are often intimidated by government; they have "an absolute fear of speaking out less they lose all benefits."[106(p5)]

The need for "neutral" or "safe" spaces in civic society to support broad-based collaborative problem solving has been highlighted in the literature.[2,22,38] Yet, rather than duplicating or replacing the role of government in community problem solving, processes in civil society are seen as complementary.[38,47] By providing a venue in civil society in which people can engage in discourse that goes beyond ideological debates, processes like CHG can function as a valuable resource for government. In one work group site, for example, the process contributed to the development of an innovative, broadly supported strategy for dealing with an intractable solid waste problem, which was subsequently enacted into law by the local legislature. In other sites, the process is enhancing the ability of local health departments to identify problems that people in the community care about, to connect and work with other government agencies and community-based organizations (so they can have more of an impact on the broad determinants of health), and to accomplish more than would otherwise be possible on their limited budgets. Although some local health departments have been concerned about the potential for a process like CHG to privatize public health, so far that has not happened. None of the local health departments in work group sites have given up any of their functions when they participate in CHG; in fact, in two of the sites, new regional governmental public health entities are being created.

Ultimately, it appears that two complementary forms of collaboration are required to strengthen the ability of communities to solve complex problems: one in which the community participates in the work of government and another in which government participates in community-driven processes in civil society. While we are far from knowing how these collaborative processes can best be implemented or aligned, there is a tremendous amount of experience and scholarly work from which we can learn. By providing a framework that synthesizes much of this knowledge and by establishing a multidisciplinary platform for bringing diverse practitioners, scholars, and policymakers together, the CHG model can promote the kinds of coordinated efforts that are needed to move us forward.

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NOTE

Responses to this article follow.

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