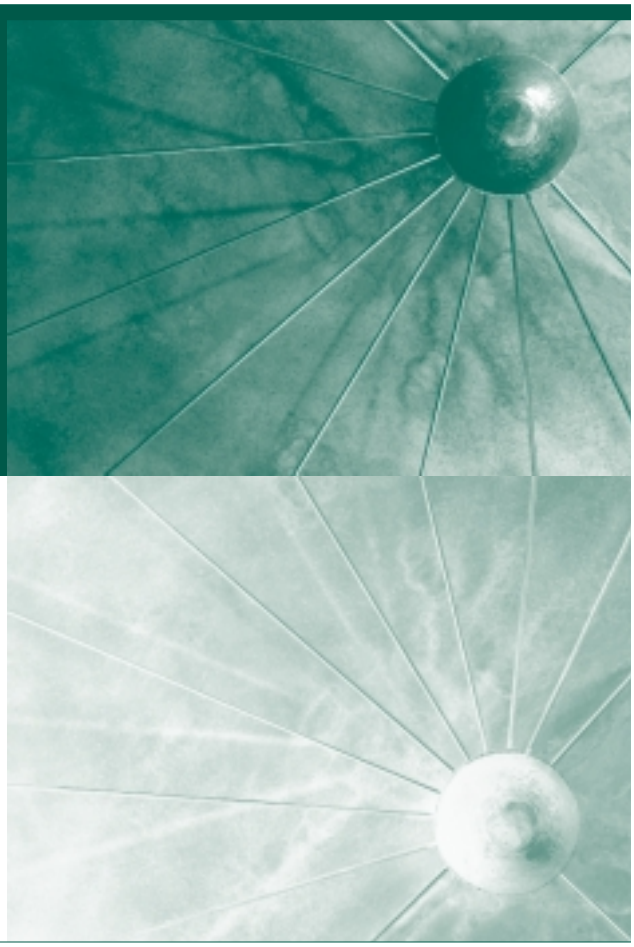
Communication for Social Change Working Paper Series



Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes

By Maria Elena Figueroa
D. Lawrence Kincaid
Manju Rani
Gary Lewis

Foreword By Denise Gray-Felder

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1. Social change - indicators - measurements - outcomes.
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FOREWORD

I have spent my entire professional life working in communication of some sort: journalism, audio and video production, broadcasting, publication writing and editing, public relations, marketing communication, and now communication and administration for a large global foundation. Each experience has reinforced something I've known, instinctively, since childhood; when one is able to express her ideas persuasively with force and intelligence, and to respond sensitively to reactions to her opinions, change can happen.

My professional and volunteer activities have also taught me the power of collective action. While one person can "move a mountain" (just ask Mohammad), I believe that a well-intentioned, well-prepared group can also "build a mountain."

Such is the way I like to think of the body of work known as communication for social change. Those working in this field often move mountains, as partners with the people of local communities and villages across the globe. Through communication for social change they move mountains of apathy, mountains of hopelessness, mountains of cynicism and even mountains of public inefficiency, waste and corruption.

Buoyed by communication for social-change principles and skills they can also build mountains of empowerment for those who have previously been voiceless or seemingly invisible.

This working paper, *Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes*, takes a big step forward in refining the practice of communication for social change. It is part of a larger strategy to spread communication for social-change thinking and ways of working broadly: to poor communities that have never thought about communication as a tool they can control for improving their lives; within aid and donor organizations that are more comfortable being in control than in sharing control; or within academic institutions that are preparing the next generation of professional communicators.

As we looked at the CFSC process, we knew that a big question remained: how do we know when communication for social change is working? Traditionally, when measuring communication effectiveness, professionals focus on end-products or outcomes. How many people viewed a public service announcement? How much newspaper coverage was generated? What is the level of message retention?

Yet communication for social change is valued as a process in and of itself. The act of community problem identification, group decision making, action planning, collective action and implementation are critical to how a community grapples with a serious issue. When a village or group uses the communication for social-change process to address a critical issue they have already affected positive outcomes. They have shown people how to think critically at a group level, they have worked together to identify problems and to come up with solutions.

This direct, many-to-many communication cannot be a one-time activity or characterized merely by a series of inputs; it is a continuous process which underlies a project's progress. CFSC, in general, cannot be adequately understood using traditional gauges that only isolate and analyze quantitative results. Rather it demands a more qualitative assessment.

In other words, the CFSC process is equally as important as the outcomes. The act of people coming together to decide *who they are*, *what they want and how they will obtain what they want* — the definition of communication for social change — demonstrates success, especially for poor, previously marginalized or excluded people.

It is our hope at the Rockefeller Foundation that the integrated CFSC model and process indicators explained in this paper will be easily understood and applied to a myriad of social issues, big and small. The development team of scholars and practitioners who worked on these concepts — or reviewed them and offered substantive improvements — is large, diverse and inclusive. Inspired by the academic rigor of the team at Johns Hopkins Center for Communication Programs — Maria Elena Figueroa, Larry Kincaid and Jose Rimon — we all learned more about the field of study in which we work during this process than we might have first imagined.

I must also point out that this model and the set of indicators are certainly not the only way to evaluate CFSC. Many other methods will emerge … of that I am certain. If this paper sparks a good debate within the community of practitioners, we will be pleased.

When reading this paper we ask that you jot down your insights and share your comments with us so that the process model and social indicators can get better. This is a work in progress — a process that began in 1999 when a group of very smart professionals came together in Cape Town, South Africa, to figure out just how communication for social change should be practiced and what it

can, potentially, accomplish. Special thanks go to James Deane, Warren Feek, Sushmita Ghosh, Alfonso Gumucio Dagron and Adelaida Trujillo for being with us in the beginning and sticking with us.

To the people in the dozens of villages in Africa, Asia and Latin America who inspired this work, we hope we are in some small way helping.

Denise Gray-Felder
The Rockefeller Foundation
New York City, U.S.A.
June 2002

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The preparation of this report was made possible through the joint financial support of the Rockefeller Foundation and the Johns Hopkins Center for Communication Programs. We would like to acknowledge the Rockefeller team, Denise Gray-Felder and Brian Byrd, as well as Warren Feek from the Communication Initiative, for initiating this process and for their participation in the course of the work. We also would like to thank the following people for their comments in different versions of this work: our JHU/CCP colleagues Dr. Luis Ramiro Beltrán, regional adviser for Latin America, based in Bolivia; Carol Underwood from the Research and Evaluation Division; Patricia Poppe, chief of the Latin America Division; the CCP local office in Nicaragua; the Community Mobilization Task Force members, Lisa Howard-Grabman from SAVE and Robert Ainslie from JHU/CCP; and our technical consultant on participatory communication and communitywide development, Marcela Tapia. We also thank Phyllis Piotrow, professor and former director, and Jose Rimon II, senior deputy director, respectively, of JHU/CCP, who were very involved in the development of the model. Finally, we are grateful to the Communication for Social Change reviewers selected by the Rockefeller Foundation for their input and observations throughout this process.

PREFACE

In April of 1997, 22 communication professionals, community organizers, social-change activists and broadcasters from 12 countries met in Bellagio, Italy, at a conference sponsored by the Rockefeller Foundation to examine the connections between social change and communications in the 21st century and to explore the possibilities of new communication strategies for social change. A follow-up meeting took place in Cape Town, South Africa, in 1998 and 2000 (Gray-Felder and Deane, 1999). The members of these meetings defined communication for social change as "a process of public and private dialogue through which people define who they are, what they want and how they can get it" (1999, p. 15). These meetings clarified the most important questions and provided the appropriate perspective for an inclusive and *participatory* model of social change, but they did not specify any particular model (Gumucio, 2001). Nevertheless, a consensus was reached regarding the key components of such a model:

- Sustainability of social change is more likely if the individuals and communities most affected *own* the process and content of communication.
- Communication for social change should be empowering, horizontal (versus top-down), give a voice to the previously unheard members of the community, and be biased towards local content and ownership.
- Communities should be the agents of their own change.
- Emphasis should shift from persuasion and the transmission of information from outside technical experts to dialogue, debate and negotiation on issues that resonate with members of the community.
- Emphasis on outcomes should go beyond individual behavior to social norms, policies, culture and the supporting environment.

Following these recommendations, the Johns Hopkins University Center for Communication Programs, at the request of the Rockefeller Foundation, has developed the present report, *Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes*. The purpose of this report is to provide a practical resource for community organizations, communication professionals and social-change activists working in development projects that they can use to assess the progress and the effects of their programs.

The model presented in this document is intended to help close the gap between the questions defined by these meetings and a resource that can be used to advance some

answers to these questions. Quoting one of the reviewers of an earlier version, the document offers a "concrete, workable framework that can provide a far more refined idea of how this work [development communication] might actually proceed in the field."

Social change is an ongoing process that can be spontaneous or purposeful. There are more sources of social change than can possibly be treated adequately in a single document. The *Communication for Social Change Model* is limited to how social change can happen through a process of *community dialogue* leading to *collective action* that affects the welfare of communities as a whole as well as their individual members. This report provides a set of key indicators of the process and outcomes of such social change.

There is a widespread awareness in the field of development communication that community participation is a valuable end in itself as well as a means to better life. However, there are probably as many ideas about what participation is as there are people who are using it (White, 1994). According to Gumucio, "…the concept of *participatory communication* still lacks an accurate definition that could contribute to a better understanding of the notion" (2001, p. 8). Rather than trying to provide a definition that satisfies every purpose, the *Communication for Social Change Model* focuses on the process by which dialogue — as a participatory form of communication — is related to collective action. Only by limiting the notion to a specific, concrete process is it possible to develop a set of workable indicators that can be used by practitioners and still correspond to existing theories of communication and social change.

Although social change[1] is a broad concept, which covers many social problems, our discussion of the model is limited to examples of problems related to health. The model is quite comprehensive, however, and can be readily applied to any social problem that requires enhancing a community's capacity to solve its own problems. The model includes individual behavioral outcomes as well as social-change outcomes, and thus attempts to integrate the two paradigms of development communication that sometimes compete with one another. We hope that the social-change model will also help translate the philosophy of participation into an effective process which motivates groups to collective action, increases cooperation, and allows them to monitor their progress and improve their own capacity.

[1] According to the sociological literature, social change comprises the transformation in the organization of society, in institutions and in the distribution of power. Most social scientists agree that it entails structural change (Underwood, 2001).

EXECUTIVE SUMMARY

The model of Communication for Social Change (CFSC) describes an iterative process where "community dialogue" and "collective action" work together to produce social change in a community that improves the health and welfare of all of its members. It is an integrated model that draws from a broad literature on development communication developed since the early 1960s. In particular, the work of Latin American theorists and communication activists was used for its clarity and rich recommendations for a more people-inclusive, integrated approach of using communication for development. Likewise, theories of group dynamics, conflict resolution, leadership, quality improvement and future search, as well as the network/convergence theory of communication, have been used to develop the model.

In bringing together the work of practitioners and scholars we have found that there is considerable agreement on the role of communication in development even though at various times over the last 30 years the two groups have diverged. In this sense, special recognition should be given to the practitioners convened by the Rockefeller initiative for reigniting the dialogue and re-examining of the role of communication in development.

For social change, a model of communication is required that is cyclical, relational and leads to an outcome of mutual change rather than one-sided, individual change. In Section 1 of this report we provide a description of such a model. The model describes a dynamic, iterative process that starts with a "catalyst/stimulus" that can be external or internal to the community. This catalyst leads to *dialogue* within the community that when effective, leads to collective action and the resolution of a common problem.

The catalyst in the model represents the particular trigger that initiates the community dialogue about a specific issue of concern or interest to the community. This catalyst is a missing piece in most of the literature about development communication, which often assumes that the community *spontaneously* initiates dialogue and action. The model describes *Community Dialogue and Action* as a sequential process or series of steps that can take place within the community, some of them simultaneously, and which lead to the solution of a common problem. The literature and previous experience indicate that if these steps are successfully completed, community action is more likely to be successful. In this sense, the model is *descriptive* (what happens) and could be used to describe and explain why previous community projects were

successful or unsuccessful. In another sense, it is a *prescriptive* model (what should happen), one that can be used by members of the community and external change agents to increase the likelihood that community action will be successful. Section 2 of the report includes a set of key indicators to measure the process of community dialogue and collective action.

The model also postulates that every time a community goes through the dialogue and collective-action processes to achieve a set of shared objectives its *potential* to cooperate effectively in the future also increases. Likewise, after each problem-solving process is completed, all of the outcomes of social change specified by the CFSC model will be strengthened. Seven outcome indicators of social change are proposed in Section 3: (1) leadership, (2) degree and equity of participation, (3) information equity, (4) collective self-efficacy, (5) sense of ownership, (6) social cohesion, and (7) social norms. Taken *together*, these outcomes determine the *capacity for cooperative* action in a community. The model also describes a learning process, which increases the community's overall capacity for future collective action, and increases its belief in, and value for, *continual improvement*.

The proposed list of indicators is a work in progress and includes different types of measurements given the range of levels of analysis that can be conducted. Four types of measurements are included: (1) dichotomous (yes/no) measures, (2) word scales (Likert-type), (3) numerical scales, and (4) qualitative assessments. The first three types of measures can be computed to yield proportions and averages. The introduction to Section 2 also addresses the question of *who* uses the model for evaluation and *for what* purposes. We suggest that three different groups can conduct the assessment and evaluation of the process and its outcomes:

1. Members of the community who want to know how well their effort has achieved the objectives they set for themselves and would like to share the results with the rest of the community,
2. External change agents involved in the process who need to document how well a community has performed to inform governments, funding agencies and the community, and
3. Social scientists who want to conduct a systematic analysis of the relationship between the process and its outcomes across a sample of communities, to share with practitioners as well as other scholars.

The distinctions made across the three types of evaluators reflect the difference in goals that each one has, and these differences also determine which indicators are used, the methods for collecting them and how they are reported.

For example, at the level of the community the yes/no type of measurement and some proportions may be the recommended and most-appropriate measures, together with some qualitative self-assessments. It is important to emphasize that this type of self-evaluation (by the community) is central to the participatory development communication. In practice, *self-evaluation* is often skipped over, especially when projects are initiated by outside agents who hold a limited notion of evaluation or an anti-participatory ideology (Servaes, 2001). The communication for social-change model explicitly incorporates participatory evaluation into the process itself rather than leaving it entirely for others to do at some other time.

Section 2 of the report also includes a set of two matrices that can be used to keep a record, by the community, the change agent or anyone interested, of each stage of the Community Dialogue and Action process. Each matrix documents whether the step was undertaken, who participated, whether there was any conflict or disagreement, the way in which it was resolved and the outcome of each step. A suggested analysis of these data is also included in Section 2. The matrices also include a space to document the forces that enable or hinder the social-change process.

Although most of us working on development communication agree that social change can not easily fit into a rigidly structured model, some systematic approach or structure is needed to help identify what makes some community initiatives succeed and what may be lacking in those that fail. For example, the stories in *Making Waves* (Gumucio Dagrón, 2001) are wonderful examples of social change. If further analyzed, in terms of their internal dynamics and external environment, these case studies would provide clear guidelines for communities to use in order to solve their own problems (achieve change) and to enable themselves to make these kinds of initiatives happen. The structured model proposed here is designed to help practitioners in the field to monitor their projects and to facilitate the dialogue and collective action in the communities in which they work. We hope that the proposed model will be applied to analyze cases of participatory social change such as the ones featured in *Making Waves* in order to discover how they overcame the "constraints they faced since their individual inceptions" and why they "often failed to reach solutions." (Gumucio Dagrón, 2001)

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SECTION 1

An Integrated Model of Communication for Social Change

Introduction

The guiding philosophy of communication for social change can readily be traced to the work of Paulo Freire (1970), the Brazilian educator who conceived of communication as dialogue and participation for the purpose of creating cultural identity, trust, commitment, ownership and empowerment (in today's term). The proposed model builds on this principle and a broad literature on development communication developed by practitioners, communication activists and scholars (such as Beltrán, Díaz Bordenave, Calvelo, Shirley White, Prieto Castillo, Everett Rogers, Mata, Simpson, Servaes, Portales and Kincaid), as well as on theories of communication, dialogue and conflict resolution. In bringing together the work of practitioners and scholars we have found that there is considerable agreement on the role of communication in development even though at various times over the last 30 years the two groups have diverged.

In this sense, special recognition should be given to the practitioners convened by the Rockefeller initiative for reigniting the dialogue and re-examination of the role of communication in development. We are also indebted to other issue-framing activities, such as the recent UNAIDS communication framework, that was developed through a worldwide process that brought together communication specialists and practitioners working in the field of HIV/AIDS prevention. Many of the practitioners and scholars involved in these activities also participate actively in online debate through the Communication Initiative's *Drumbeat*. This interaction between theory and practice, through the dialogue among practitioners and scholars, will undoubtedly produce valuable contributions and insights for the field of development communication.

It is inappropriate to base a model of communication for *social change* on a linear model of communication that describes what happens when an individual source transmits a message to a receiver or group of receivers with some desired and predetermined individual effect. For social change, a model of communication is required that is cyclical and relational and leads to an outcome of mutual change rather than one-sided, individual change. In this section we provide a brief description of such a model: communication as *dialogue* rather than monologue, as a cyclical process of information sharing which leads to mutual understanding, mutual agreement and collective action. This alternative model serves as the foundation upon which the Communication for Social Change Model is based.

The *community* as defined in this document is a multilevel concept ranging from local, geographically defined entities, such as villages, cities and nations, to international entities widely dispersed in space and time, such as activists organized by means of the Internet to protest the World Trade Organization. It also includes issue-related groups, such as the gay community, professional organizations and even the development communication community itself. A more complete definition of community for purposes of measurement is provided in Section 2.

The model also recognizes that communities are not homogeneous entities but are comprised of subgroups with social strata and divergent interests. As a consequence, disagreement and conflict are also incorporated into the communication for social-change model. The full layout of the model is presented in this section. The model also acknowledges that external constraints and supports often hinder or facilitate community dialogue and collective action.

Communication as Dialogue

Theories are not right or wrong, only appropriate or inappropriate given the circumstances and nature of the phenomenon to which they are applied. For example, the theory of reasoned action (Fishbein and Ajzen, 1993), the health-belief model (Becker, 1974), and the stages of change model (Prochaska, et al., 1992) may all work quite well for communication projects designed to persuade individuals to reduce unsaturated fat in their diet, quit smoking and drinking, and practice safer sex, especially in situations where external constraints (social or physical) do not prevent or discourage individuals from taking action by themselves. Even in these situations, however, models of individual change reach their own, inherent limitations. For example, when the research shows that social influence and peer pressure are the major determinants of smoking and drinking, then finding the best rational arguments against smoking and drinking are simply not sufficient. Collective, institutional changes, policies and laws — such as the smoke-free workplace and a maximum, legal blood-alcohol level — are also necessary.

In other situations, the prevention of a disease may *only* be possible by means of collective action. The risk of getting dengue fever can be reduced by eliminating all of the standing water sources (e.g., tin cans, old tires, etc.) around one's house. This individual behavior is ineffective, however, if none of one's neighbors within the range of flight of mosquitoes eliminates the standing water around their houses as well. If everyone does not do it, what is the point of anyone doing it? The response must be collective. Some type of community dialogue and collective, cooperative action is required to solve the problem. Even in cases where individual change is extremely difficult to achieve, such as the reduction of HIV/AIDS by means of safer sex practices, it is still fruitful to adopt a social-change strategy in addition to an individual one. The individual-change strategy may simply not be sufficient by itself.

Individual-change strategies also have a habit of succeeding with one segment of a population (often the "haves") while failing with another (the "have-nots"). The unintended outcome may be an increase in the pre-existing gap or inequality in the population due to unequal access to education, mass media, employment and health care (Tichenor et al., 1970; Robinson and Levy, 1986). In addition to failing to change as expected and then lagging further behind, these same individuals may even be blamed for a program's failure. Personal or individual blame is to some extent a natural consequence of doing individual, *psychological* research on problems that are fundamentally *social* problems (Caplan and Nelson, 1973, in Rogers and Kincaid, 1981, p. 40).

The communication literature also contains criticisms of the dominant, individual approach to communication theory (Rogers and Kincaid, 1981). Early models of communication were linear, one-way processes from sources to receivers (Shannon and Weaver, 1949; Berlo, 1960), usually for the purpose of having an effect on individual receivers. When feedback was included in these models, it was treated as "knowledge of effects." Even though the diffusion model identified a "diffusion effect" in the adoption "S" curve due to interpersonal communication with satisfied adopters, communication was still assumed to serve primarily a function of information dissemination and persuasion (Rogers and Shoemaker, 1971). During the 1970s, criticism of one-way, top-down, persuasive models of communication was well articulated by Latin American scholars such as Beltrán, (1974, 1976, 1980) and Díaz Bordenave (1976).

As a consequence of this growing dissatisfaction, emphasis began to shift from audience members as individual objects to audiences as social groups, and from the action of sources on receivers to the *relationships* among participants (Schramm, 1973), to *mutual understanding* (Kincaid, 1979, 1988), and to *convergence* within communication networks (Rogers and Kincaid, 1981; Kincaid 1993; Rogers, 1995). In spite of this initial effort to shift the paradigm from action to transaction, by the end of the 1990s it became apparent that transmission and persuasive models still continue to dominate the design of strategic communication, at least in the field of health (Piotrow, et al., 1997).

Communication practitioners, however, have not let go of this important issue (Gray-Felder and Deane, 1999; Gumucio, 2001; UNAIDS, 2001). The call for a model of development communication based on *dialogue* versus monologue, *horizontal* versus vertical information sharing, equitable *participation*, local *ownership*, *empowerment*, and *social* versus individual change continues to be heard and, if anything, has grown stronger with the rapid decentralization of authority and increased access to new communication technology that occurred during the 1990s (Beltrán, 1993a, 1993b; Díaz Bordenave, 1994, 1998; Fox and Coe, 1998).

What would an alternative paradigm look like? At least two key features are necessary. It needs to be based on a *model of communication* that describes a process of dialogue, information sharing, mutual understanding and agreement, and collective action. Second, it needs a *model of social change* based on community dialogue and collective action that clearly specifies *social outcomes* as well as individual outcomes. The convergence/network model of communication meets the first requirement (Rogers and Kincaid, 1981). It represents communication as a process of *horizontal* sharing between two or more participants within social networks. It is beyond the scope of the present paper to present this model in detail, but a brief description is necessary to understand how community dialogue fits into a model of social change (see Figure 1).

The first noticeable feature of the model is that information is shared or exchanged between two or more individuals rather that transmitted from one to the other. All participants act on the same information; none are passive receivers of information. The information can be created by the action of any participant, or it may originate from a third source such as television or radio, or a person or institution not directly participating such as church, school, nongovernmental agency and so forth. The second feature of the model is that it stresses the important role of the perception and interpretation of participants, and thus draws upon the principles of semiotics and the hermeneutics (Ricoeur, 1981), which treats understanding in terms of a dialogue or ongoing cultural conversation.

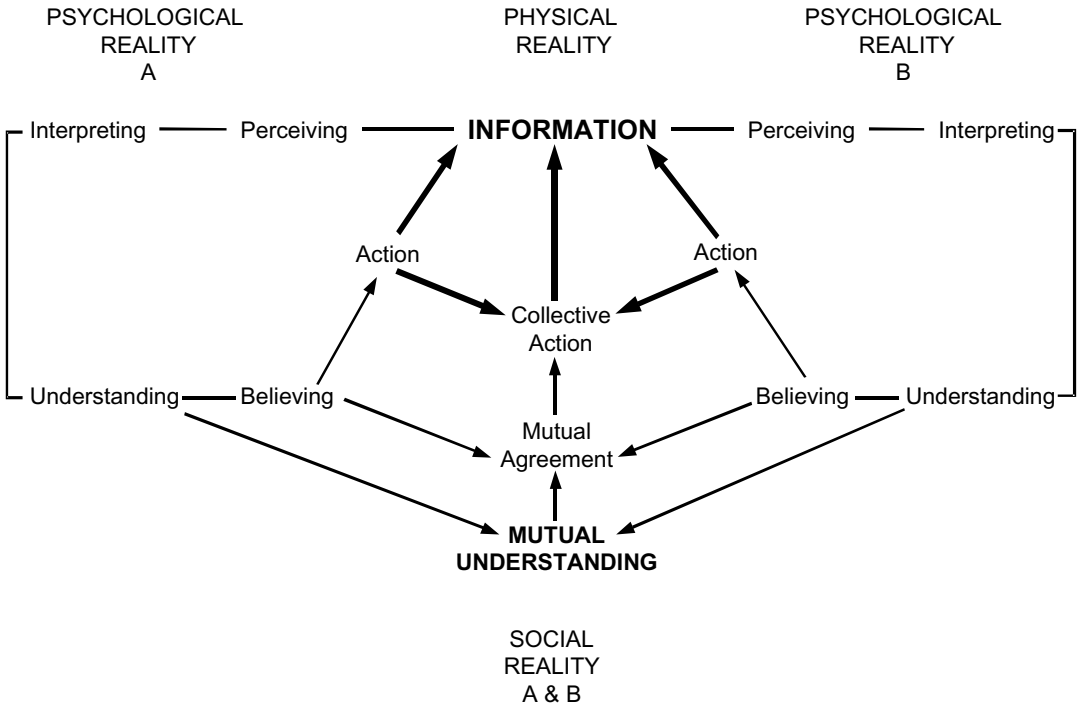
The third feature of the model is that it represents a horizontal, symmetrical relationship among two or more participants (A, B, … n) that is created by sharing information. The outcomes of information processing by the par-

ticipants are *social* — mutual understanding, agreement and collective action (see the central column of the model), as well as *individual* — perceiving, interpreting, understanding and believing. And finally, the model implies a continuous, cyclical process as participants take turns creating information to share with one another and then interpreting and reinterpreting its meaning until a sufficient degree of mutual understanding and agreement has been reached for collective action to take place.

"Information" is preferred over the term "message" to allow for both verbal and nonverbal information, unintended as well as intended information. For example, if women suddenly show up at a community meeting for the first time, this *action by itself* conveys information that can be stronger than all of the verbal comments made about "allowing women to participate."

Each participant perceives and arrives at her/his own unique interpretation, understanding and beliefs (defined as the validity of one's interpretation) about information that is shared. Once reached, each person's understanding and beliefs can then be expressed to others. In the diagram, talking (self-expression) is one type of *action* that follows from, and is based on, each person's own understanding and beliefs. Any action creates new information, which potentially can be interpreted by the other participants. For instance, this means walking out of a meeting is also a form of information that can be interpreted. In a dialogue, a process of turn taking occurs as each participant seeks to clarify what others believe and understand as well as one's own understanding and beliefs. And that turn taking constitutes a minimal form of *collective* action: joint action in the form of two or more persons engaging in *dialogue.* But dialogue must mean more than just endless turn taking. The underlying assumption of dialogue is that all participants are willing to listen and change not just one of the parties. Communities that have a long history of conflict may not be able to engage even in this minimal form of collective action — talking to one another.

Figure 1. Basic Components of the Convergence Model of Communication



Note: Information and mutual understanding are the dominant components of the convergence model of communication. Collective action of any group is based upon information sharing, mutual understanding and mutual agreement.
Source: Kincaid (1979); Rogers and Kincaid (1981).

This turn taking (conversation, dialogue) constitutes a *feedback* process for each participant which, if effective, leads to a "series of diminishing mistakes — a dwindling series of under-and-over corrections converging on a goal" (Deutsch, 1963, in Rogers and Kincaid, 1981, p. 62). The common experience of "ah…so that's what you mean," indicates a process in which participants gradually converge toward a greater degree of mutual understanding and agreement (shared beliefs). The initial, relatively unique understanding and beliefs of each individual gradually become more similar and share more in common with those of others. Convergence does not imply perfect agreement, only the direction of movement.

The inherent properties of this process suggest that over time most groups will converge toward a state of greater internal uniformity, also referred to as "local culture" (Kincaid, 1988, 1993). The convergence theory is valid in part because of the important roles played by *boundaries*. Within the boundaries created by the dialogue itself, convergence occurs because those who do not see an issue the same way nor agree with other participants tend to stop participating in the dialogue and then "drop out" of the group. Simply leaving a group (moving outside the boundaries created by the dialogue) automatically ensures greater uniformity among those who remain within the group. In communities, this process of divergence describes the formation of *factions*. The existence of factions/subgroups within a group (culture) implies two simultaneous processes: convergence among members *within* each bounded subgroup and divergence *between* subgroups over time. Boundaries determine who is included and who is excluded within a dialogue. Boundaries can be determined by observation and self-report, and by mapping the social networks within a community. Splitting communities into factions with different points of view reduces the overall *social cohesion* of a community and hence its capacity to solve mutual problems through collective action. If severe, it can bring cooperative action among groups within a community to a halt.

Ironically, dialogue itself is one of the primary means of overcoming such divisions. Effective dialogue occurs (1) when participants with differing points of view *listen* to one another, as indicated by paraphrasing the other's point of view to the other's satisfaction, (2) when each one acknowledges the conditions under which the other's point of view can be accepted as *valid*, and (3) when each one acknowledges the overlap or *similarity* of both points of view (Rapoport, 1967, as derived from Rogers' client-centered therapy, 1951). But sometimes dialogue can lead to disagreement and divergence, especially when the dialogue makes it clear each individual's true interests and values are in conflict. The model depicted in Figure 1 does not show the nature of the relationships among the participants, nor does it say anything about the role of emotion, conflict and group motivation. Other models are needed to add this level of complexity. The social-change model described below considers these missing elements.

The convergence model of communication implies symmetry in the relationship of participants and equity of information sharing (action). Real groups and communities are sometimes far from this ideal. Power relationships substantially affect the communication process. Power may be exercised by means of authority (threat or use of positive and negative sanctions), influence (persuasiveness of participants), pre-existing social norms or all three. So, *power and conflict* represent another means for overcoming differences and opposition within a group. But even in cases where a community leader or outsider coerces recalcitrant individuals and subgroups to cooperate in a project, some minimal level of mutual understanding and agreement is still required for them to comply and engage in collective action. *Negotiation* represents a third means of overcoming opposition and conflict. Leaders of opposing factions can propose trade-offs and agree to compromises in order to obtain sufficient mutual agreement for collective action to proceed. For example, the subgroup within a village that wants to build latrines rather than new wells can agree to cooperate with building the wells first if the other subgroups agree to help with latrines later and if some of the wells are located close to their houses. Third-party arbitration or mediation provides another alternative to conflict if dialogue and negotiation fail.

In summary, some initial amount of communication within a community or group is required to identify areas of agreement and disagreement among those participating. When different points of view and beliefs arise (divergence), further communication is required to reduce the level of diversity (convergence) to the point where there is a sufficient level of mutual understanding and agreement to engage in collective action and solve mutual problems. The method used to reach consensus is usually determined by leaders within the community. The communication for social-change model describes a process by which leaders guide community members through dialogue and collective action in order to resolve mutual problems for themselves.

Community Dialogue and Collective Action

The Integrated Model of Communication for Social Change (IMCFSC) describes an iterative process where "community dialogue" and "collective action" work together to produce social change in a community that improves the health and welfare of all of its members.

The development of a community can occur through a variety of change processes:

- *Externally generated change,* such as the construction of potable water systems, roads and health clinics by outsiders that leads to a reduction in the prevalence of disease within the communities affected.
- *Individual behavior change,* such as the adoption of chlorinated water, oral rehydration solutions for diarrhea and visits to local health clinics that, when aggregated, leads to a reduction in the prevalence of disease within the communities which experience sufficient individual change.
- *Social influence* for individual behavior changes where individuals who adopt a new health behavior publicly advocate its adoption to other individuals, so that the rate of change (decline) in the prevalence of disease increases.
- *Community dialogue and collective action* in which members of a community take action as a group to solve a common problem, such as high rates of diarrhea, lack of potable water and so forth, which leads not only to a reduction in the prevalence of disease within the community but also to social change that increases the *collective* capacity to solve new problems.

The IMCFSC was developed to describe the last type of change: community dialogue and collective action. The four types of change are not mutually exclusive. For example, externally-generated, government-development projects can also involve individual adoption of new behavior with social influence. A collective-action project, such as getting every household to eliminate stagnant water sources to eradicate the spread of dengue fever by mosquitoes, may require individual behavior change as a result of social pressure from neighbors. The integrated model draws from a broad literature on development communication that has developed in the early 1960s. In particular, the work of Latin American theorists and communication activists was used for its clarity and rich recommendations for a more people-inclusive, integrated approach for using communication for development (see, Bibliography). Likewise, theories of group dynamics (Cartwright and Zander, 1968; Zander, 1996), conflict resolution (Carpenter and Kennedy, 1988; Yankelovich, 1999), leadership (Scholtes, 1998), quality improvement (Tenner and DeToro, 1992; Walton, 1986), and future search (Weisbord and Janoff, 1995; Weisbord, et al., 1992), as well as the network/convergence theory of communication (Rogers and Kincaid, 1981; Kincaid, 1988) have been used to develop the model (see, Figure 2 on page 7).

Catalyst

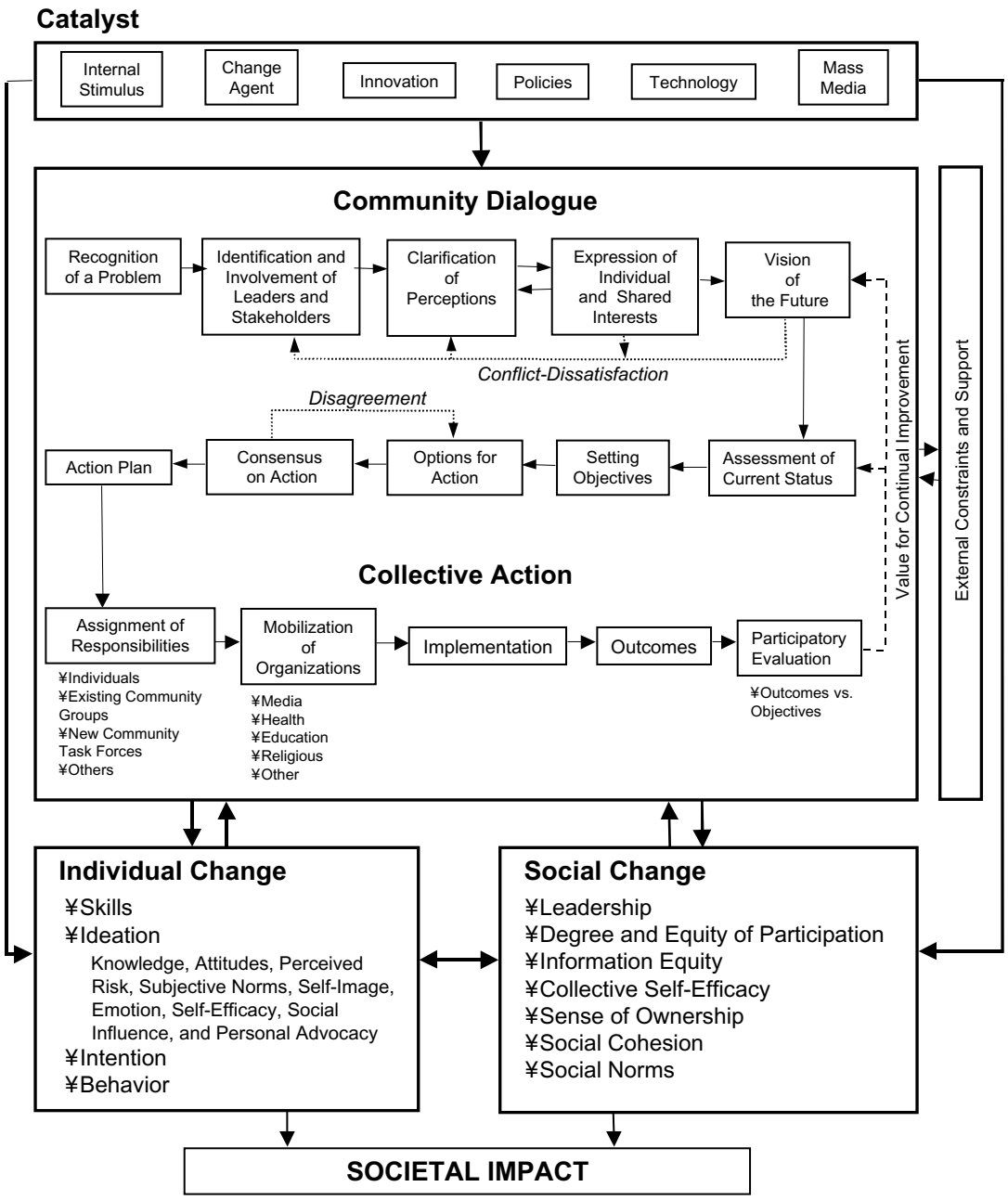
The model describes a dynamic, iterative process that starts with a "catalyst/stimulus" that can be external or internal to the community. This catalyst leads to a *dialogue* within the community that when effective, leads to collective action and the resolution of a common problem. The model identifies six potential catalysts:

1. An *internal stimulus* may be discovery of high levels of arsenic in the village wells, the onset of an epidemic such as AIDS, noticeable increases in maternal mortality or, perhaps, the suggestions of a local leader that stimulates members of the community to talk to one another about a health problem.
2. A *change agent,* such as the ones used in most NGO community interventions, may visit a community to initiate a discussion of "felt needs" or of a specific health problem in order to induce the community to take some type of collective action.
3. An *innovation,* such as a new oral rehydration solution, a new vaccine or the availability of a new type of chlorine water disinfectant, may stimulate a community to talk about its adoption.
4. *Policies* that prompt the community to act, such as a new law that requires all children to complete primary education.
5. Availability of t*echnology*, such as the injectable method of contraception or mechanical digging equipment, may stimulate a community to talk about family planning or to reconsider the construction of new wells.
6. *Mass media*, including messages designed to promote individual behavior or collective action, may stimulate members of a community to adopt the behavior or to emulate other communities that have achieved some common goal by working together.

The catalyst in the model represents the particular trigger that initiates the community dialogue about a specific issue of concern or interest to the community. This catalyst is a missing piece in most of the literature about development communication. Much of the existing literature implies that the community *spontaneously* initiates dialogue and action or that an external change agent visits the community to mobilize the community. Experience has shown that communities rarely initiate a dialogue about a problem spontaneously, and that some do take action on their own without being visited by external change agents.

Some authors like Juan Díaz Bordenave (1998) initiate the description of a community process with the "identification of the problem." One could ask how a problem is identified in contexts where "a problem" is seen in the

Figure 2. Integrated Model of Communication for Social Change



Figueroa and Kincaid, 6/2001

community as something "normal"? For example, it may be normal that children under the age of 1 often die or that mothers die during pregnancy. What the model implies is that some type of *catalyst* is usually necessary to stimulate a community to consider and discuss a problem. Once this discussion is initiated it may unfold in several directions: from simply creating a greater sense of dissatisfaction, to inciting a community conflict or to cooperative action that helps solve the problem.

The *Community Dialogue and Action* box of the model describes a sequential process or series of steps that can take place within the community, some of them simultaneously, and which lead to the solution to a common problem. The literature and previous experience indicate that if these steps are successfully completed, community action is more likely to be successful. In this sense, it is a *descriptive* model, one that could be used to describe and explain why previous community projects were successful or unsuccessful. In another sense, it is a *prescriptive* model, one that can be used by local leaders and external change agents to increase the likelihood that community action will be successful.

Each small box in the model represents a step that may or may not happen in a specific context or case. At some points, when a particular step is not successfully completed the group may "loop back" to an earlier point in the process and reconsider earlier decisions.

Community Dialogue

The 10 steps of community dialogue are:

1. *Recognition of a Problem.* As result of a catalyst, someone in the community becomes aware of the existence of a problem. For example, a group of women who wash clothes together discover that all of their children are suddenly having unusually severe episodes of diarrhea. The women ask each other why this is happening.
2. *Identification and Involvement of Leaders and Stakeholders.* Some of the women talk to their husbands and elders about the problem. Perhaps they visit the leader of their own women's development group. Eventually, someone exercises leadership and takes responsibility for solving the problem. Through a process of sequential networking (going from house to house) or small group meetings, the leader(s) identifies other opinion leaders and resource persons who can help in the process for solving the problem. A midwife or volunteer health worker may live in the community that can be consulted. Men or women who frequently travel outside the community are asked to consult with health providers at local clinics. Once the problem is labeled (say) as diarrhea and dehydration, informal community leaders may call a meeting to discuss the problem. Members of the community who are most affected by the problem (stakeholders), such as mothers with children under 5, are asked to come to the meeting.
3. *Clarification of Perceptions.* It is possible that different perceptions of the problem exist among different members of the community. For example, some people may think that the problem is being caused by the food supply, while others think that the water is being contaminated. Someone else may see it as a problem of inadequate hand washing because of the current drought or a lack of soap. Unless a consensus can be reached regarding the nature of the problem and its causes, it will be difficult for the group to find an adequate course of action that is acceptable to everyone. Dialogue is necessary to create a mutual understanding (common framework) with which to solve the problem. Only after such perceptions have been clarified and different points of view rectified can the process move forward with a clear understanding of how the problem should be addressed.
4. *Expression of Individual and Shared Needs.* One key element that community projects have to keep in check is the involvement of those individuals that are among the most disadvantaged in the community. Otherwise, projects run the risk of involving groups that may not be representative of those in the bottom of the scale and whose perception of the problem and needs may be different. Not everyone will experience the problem with the same level of severity. For example, better-off families may not experience as high a frequency of diarrhea. They may believe that diarrhea is a problem for each individual family, and not something that the whole community should get involved in. Someone else may think that the lack of good latrines combined with contaminated water is something that involves everyone: everyone is part of the problem, so the solution has to come from everyone. In order to resolve problems successfully it is important that all affected in the community get the chance to express their own views and needs. If any conflict or dissatisfaction arises, then community leaders have to resolve the conflict before much progress can be made with the problem. The potential for this conflict/dissatisfaction is reflected, in the model, by the dotted line coming out from this box. To resolve the conflict, more clarification may be needed (arrow into the clarification box) or new leaders and stakeholders may have to get involved (arrow into the leaders' box) so that a majority can convince a reluctant minority to go along.
5. *Vision of the Future.* This box represents the ideal "picture" of how the community wants to see itself in the future. This will be the answer to the question: Where

do we want to be in a year from now, with respect to the problem? It is important that this vision involves representatives of all affected groups (stakeholders) in the community so that it becomes inclusive of all interests. The common vision expresses all of the changes that will occur and the benefits that everyone expects to receive.

6. *Assessment of Current Status.* To be able to set clear goals of where to go and to assess accomplishments, the community should have an objective measurement of the size of the problem. The shared vision expresses where the group wants to go; assessment of current status tells them where they are *now*. Answers to this question can be qualitative and quantitative. Quantification of the problem will give a clear idea of the size of the problem, for example, the number of children who got diarrhea in the last week, the number of children that died from diarrhea in the last three months, the number of mothers that have died during delivery in the last year, the number of new orphans resulting from AIDS and so forth. Qualitative assessment would consider what kind of diarrhea is occurring and how it differs from previous years and if it responds at all to antibiotics and oral rehydration therapy. Unless a clear measure of the problem is established it will be difficult to set goals for action, and then determine if any progress is being made later.
7. *Setting Objectives.* With the current status clearly stated and shared by community members, the next question is: What is a reasonable expectation about what the group itself can do about the problem? Can the number of children and adults experiencing diarrhea be cut in half in three months if a certain number of families take the appropriate action? Can it be eliminated altogether? Turned into a rare rather than a common event? The act of comparing one's current status with one's desired status and then setting realistic goals is the source of group motivation (Zander, 1971, 1996). Research has shown that if the goal is set too high, and hence is unrealistic, then motivation will be low. The group will not have a sufficient sense of self-efficacy or confidence that anything they do will make a difference. If the goal is set too low, then it can be reached with hardly any action, and motivation will also be low. Moderate goal setting that is achievable creates the high level of group motivation that is required for people to take sufficient action to solve the problem.
8. *Options for Action*. This box is the answer to the question: What different kinds of action can be taken to accomplish the objectives with which everyone agreed? This implies the identification of resources both inside and outside the community as well as persons or groups that can carry them out. Following the example of diarrhea, the community needs to decide whether to build new latrines, establish locations further from the village for defecation, get community members to wash their hands appropriately after defecation and before preparing and handling food, increasing water treatment or boiling, new well construction, etc. One or all of the above? In what order of priority? Getting a consensus on action can also lead to conflict or a lack of commitment. If a sufficient consensus cannot be reached, then the objectives and/or the courses of action may have to be discussed all over again. If not handled successfully, the whole community dialogue process may break down for good, and the problem may persist or worsen while nothing is done.
9. *Consensus on Action*. Once a detailed plan is at hand, a new process of getting consensus among the community needs to take place. Getting consensus is important not only for summing up resources but also for getting people to volunteer or for assigning courses of action to various members of the community. The more the community participates and sees the proposed actions as "theirs," the more likely that they will take action. Likewise, the more a community is "involved and committed" the higher the empowerment and sense of collective self-efficacy that the community will develop.
10. *Action Plan*. A specific timetable for when each activity has to be accomplished will help the community to have clear deadlines for effectively moving toward the solution of the problem. This box will be the answer to the question: Who does what and when do we need to do each activity and organize ourselves to accomplish our goals?

Collective Action

The collective action portion of the model describes the process of effectively executing the action plan and the evaluation of its outcomes. The model identifies five key action steps:

1. *Assignment of Responsibilities.* To convert a plan into action, specific people must take responsibility to accomplish specific tasks within specified periods of time. Leaders must ask for volunteers or else assign tasks to individuals and/or community subgroups (existent or newly created for executing the action plan). Someone must take responsibility for each of the activities identified in the action plan. Depending on the complexity of the problem it may be necessary to create community task forces focused on specific project goals and subgoals.
2. *Mobilization of Organizations.* It may not be necessary for members of the community to take responsibility for all of the tasks that need to be accomplished, espe-

cially if there are existing organizations inside and outside the community that can help. Thus, one of the assigned tasks may be to obtain the support and help of pre-existing community resources. For example, in most health interventions, health providers and schools should be asked to contribute. In the experience of many communication activists, communication through the local media can be an invaluable resource for mobilizing community support and activity. Díaz Bordenave (1998) lists several ways in which the media can facilitate the dialogue and action process. In the *dialogue phase* (a) it can support the diagnosis of problem situations and the presentation of the problem to the community (there are many examples of how radio or radio tapes have assisted in getting the "voices" of community groups in the dialogue process), (b) it can stimulate community deliberation and the prioritizing of problems, (c) it can support the exchange of ideas and experiences among distant communities, (d) it can help community organizations find solutions to problems, and in the *action phase* communication and local media can contribute by (e) informing the community about available services and how to gain access to them, (f) training community members how to use the media to inform the general public about their needs, (g) helping communities to obtain legitimization and support from authorities, (h) providing feedback to the community about the progress and achievements of community projects, and (i) praising/rewarding communities for their achievements and thereby enhancing member's self-esteem and sense of collective self-efficacy.

3. *Implementation*. This step refers to the actual execution of the action plan and its monitoring. No plan can be successful if the required work is not done. Furthermore, leaders, members and/or subgroups should take responsibility for monitoring all the tasks that have been assigned making sure that activities are moving according to the timetable and everyone is fulfilling their responsibilities.
4. *Outcomes*. This step refers to the actual results that the community is able to achieve given the resources, organization and mobilization process specified by the action plan and then carried out. If the problem was an unacceptable level of diarrhea among children under 5, then the solution — the action taken — should be followed by a reduction in diarrhea among that group. If a certain number of tube wells were planned for the preceding year, then how many were actually constructed? To know the results of community projects, some type of observation and/or counting of events/incidents need to be done to measure the level of achievement.
5. *Participatory Evaluation*. The achieved outcomes may or may not be what the community originally planned in their specification objectives. The comparison of the outcomes to the shared vision and original objectives is an important *self-evaluation* process. For purposes of group motivation and reward, it is important that most of the community participate in the evaluation process so that the lessons learned about what worked and why can be shared throughout the community. The result of the participatory evaluation should be a *new reassessment of the current status* of the community with respect to the problem. This is shown in the diagram by the arrow moving back up to the shared vision and the assessment of current status boxes in the model. From here, the community is ready to renew the process, moving forward into further action for the same problem, perhaps, or on to a different problem. It is by means of this reassessment process that the community reinforces its sense of collective self-efficacy, which in turn leads to and increases the community's belief in and *value for continual improvement* (see vertical text going up from this box to the "Vision of the Future" box). This improvement is shown in the model as one of the primary outcomes of continual reassessment of the current status followed by a renewal of community dialogue and collective action.

External Constraints and Support refer to any factor outside the control of community members that can either inhibit or enhance dialogue and collective action. Extreme poverty, the drastic consequences of a flood or famine, or even the distance between homes in a community make it difficult to engage in a participatory process. It is easier to announce and get women to come to a group meeting in a densely packed Korean village, for example, than in the geographically dispersed housing pattern of a coconut plantation in certain areas of the Philippines. It was not possible for women to meet in *jiggasha* discussion groups in Bangladesh where the norms of *purdah* (modesty) and their husbands do not allow it (Kincaid, 2000). On the other hand, government construction of a community schoolhouse or meeting house can greatly enhance the capacity of a community to meet to discuss common problems. The model shows two-way arrows from community dialogue and collective action to external constraints and support implying that *over the long run* community action itself can be taken to remove external constraints and to obtain external support. Government field workers can persuade husbands to allow their wives to participate in group meetings; communities can construct their own meeting halls.

Outcomes

The state of the community in terms of the status of the individuals who comprise it as well as the community as a whole can be measured at any time before, during and after a development project has been undertaken. The differences between individual or social characteristics of a community from one point of time to another provide an indication of the *change* that has occurred while the community was engaged in community dialogue and collective action. The lower left-hand side of the model lists the most prevalent types of individual change that can occur, which are based in stage models of behavior change (Rogers 1971, 1995; Prochaska, 1992; Piotrow et al., 1997) and ideation models of behavior (Kincaid 2000, 2001).

A thorough discussion of individual change is beyond the scope of this report. As Figure 2 shows, the potential outcomes of dialogue and collective action *for the individuals who participate* include: (1) improvement in skills necessary to perform new behaviors; (2) ideational factors such as knowledge, beliefs, values, perceived risk, subjective norms and even self-image; emotional responses such as feelings of solidarity, empathy and confidence; and increase in social support and influence *from* others as well as increased advocacy *to* others; (3) intention to engage in new behavior in the future; and (4) specific behaviors related to the problem addressed by the dialogue and collective action. The model also indicates that these individual outcomes can be the result of the direct influence of one of the external catalysts identified in the model, such as mass-media messages that promote specific health practices and the introduction of health clinics near a community.

The right-hand side of the model lists seven possible outcomes of social change that may occur. A definition and measures for each one of these outcomes is provided in Section 3 of the report. Many of the individual and social change outcomes are related and can affect one another. For example, the knowledge that individual participants have about a health problem is aggregated at the community level to determine the average level and distribution (equity) of that type of knowledge in the community. Where the perceived social norm is that both men and women are expected to participate in community meetings, we would expect to find a majority of women saying that they think, "Most of my friends expect me to come to the meeting and participate." If this behavior is encouraged and rewarded during collective action, we would expect a greater number of women to report afterwards that they did indeed participate (an individual outcome), leading to an overall increase in the degree and equity of participation with the community (a social outcome).

There is no better example of the relationship between social and individual change than the case of malaria prevention by removing stagnant water sources in the area around one's own home. If only a few individuals in a community do this on their own, their (individual) behavior will have little impact on the mosquito population. However, if through dialogue a consensus is reached among everyone (or a critical mass of community members) and they all take *joint action* at the same time (social behavior), then the strategy can lead to an effective, long-term solution to the problem of mosquito-born diseases. The primary focus of *Communication for Social Change* is on the social outcomes of dialogue and collective action. If a community effectively completes the steps outlined in the model and then accomplishes one or more of the objectives it sets for itself, then we would expect some potentially profound social outcomes within the community, above and beyond what happens to the individual members who participate or benefit. For example, if leaders successfully engage the requisite number of stakeholders, facilitate the expression of individual and shared interests, resolve conflicts, and help create a vision for the future in ways that they have never used before, then those leaders *learn* something that they can use again. In one sense these are individual leadership skills, but leadership cannot be practiced in isolation from followers. Leadership is a joint behavior that takes place between leaders and their followers, and hence is a characteristic of the group or community in which it occurs. In other words, an improvement in leadership is an indication of *social change* as well as change in the individual behavior of specific leaders.

The same implication applies to followers as well. Participative leadership and an increase in the shared decision making and power within a community requires followers to change their behavior as well. Although it may appear that a greater burden falls on leaders, the 15 steps specified in the model require effective *followership* — the appropriate response and cooperation of other members of the community. In many cultures, for example, where women, following long-held traditional norms, have not attended community meetings or have attended without speaking, it would be very difficult for a leader *by himself* to suddenly ask for women to participate actively and on an equal basis with men. Doing so could easily turn into a "token effort" that results in a reinforcement of the shared belief (stereotype) that women really do not want to participate or are simply unable to do so. On the other hand, a leader who identifies the most influential women and who meets with them beforehand to plan and prepare for their participation is much more likely to succeed. He/she is developing a change in the relationship before asking for change in the behavior of particular individuals and for a change in the norms governing behavior in community meetings. *Leadership* and *follower-*

ship is a characteristic of the community as a whole because it is based on the *relationship* between leaders and followers rather than on a set of traits possessed by either one alone.

In the same sense, while we can measure individual gains in knowledge about a problem and its solution, individual levels of knowledge can be aggregated as the proportion of community members who are knowledgeable or as the average level of knowledge of all the members. The average level of knowledge can be high in a situation where (say) half the people have a lot of knowledge and the rest have hardly any. Statistically, this is a bipolar distribution. Since one of the implied social goals of the social change model is knowledge equity, then emphasis must be placed on the extent to which the knowledge is *shared* within the community as opposed to hoarded or monopolized by just a few. The width of the distribution (standard deviation) around the average level of knowledge offers an indication of how widespread knowledge is as well as its average level.

Changes in the frequency of participation and the proportion of community members who participate in dialogue, decision making and implementation, along with the diversity of participants in terms of education, occupation, gender, ethnicity, and so forth, provide a measure of social change of the community in terms of *degree and equity of participation*. Such a change is a desirable outcome of a participatory development project in and of itself, regardless of expected changes in individual health behavior and status, because such changes at the community level are expected to have a positive impact on the success of the project and on the *capacity* of a community to deal with its next problem. Perceived ownership, cohesion and a value for continual improvement is also expected to follow from increased participation and shared decision making.

When community dialogue and collective action are implemented in the manner specified by the model (the 15 steps), we expect not only an improvement in the health status of community's members, but also an increase in the following:

- Community's sense of *collective self-efficacy* — the confidence that *together* they can succeed in future projects,
- *Sense of ownership* — the degree to which they perceive themselves as responsible for the project's success and thus feel that they deserve the credit and benefits from the project,
- *Social cohesion* — the extent to which members want to cooperate in another community project and the degree to which the social network of the community is interconnected as opposed to divided into cliques and factions,
- *Social norms* — the accepted rules for participation, especially regarding who should or should not speak up and share in decision making and "fairness" regarding contribution and sharing of benefits, and, finally,
- *Collective capacity* — the overall ability of a community to engage in effective dialogue and collective action that is a consequence of all of the social change indicators specified by the model.

Social scientists have developed the concept of "social capital" to account for a community's capacity to cooperate for mutual benefit (Collier, 1998; Krishna and Shrader, 1999). Putnam (1993) defines social capital as the "features of social organization, such as networks, norms and trust, that facilitate coordination and cooperation for mutual benefit." The concept can be traced back to James Coleman (1988), who proposed that social capital consists of a variety of different entities with two elements in common: some aspect of *social structure* that facilitates the *actions* of actors within the structure. Like economic and human capital, "social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence, but unlike other forms of capital, social capital inheres in the structure of relations between persons and among persons. It is lodged neither in individuals nor in physical implements of production" (Coleman, 1990, p. 302). Nan Lin (1999, p. 9) defines social capital as "investment in social relations by individuals through which they gain access to embedded resources to enhance expected returns of instrumental or expressive actions."

To qualify as a type of capital, the social capital of a group must be capable of being increased by means of some type of investment (in resources and work). Social capital as a form of surplus value, must be capable of being increased and captured by means of some process. Thus, from the perspective of social capital, the dialogue and collective-action process described in our model is a *learning process*, in which individual members through their participation in community projects increase their capacity for cooperative action with one another and form social structures — networks, teams, leader-follower relationships — which increase the community's overall capacity for future collective action. Information sharing, coordination of activities by leaders, joint decision making and the equitable distribution of participation and benefits all provide an incentive for further cooperative action, increase the productivity of the community as a whole and create a shared value for continual improvement.

The Interaction of Individual and Social Change

For health, as well as many other areas of development, individual and social change are both necessary for attaining sustained health improvement. Table 1, at right, shows what is expected to happen as a result of individual change by itself, social change by itself, neither social change nor individual change, and finally the interaction of individual and social change.

Individual change by itself is usually the expected outcome of health promotion programs, especially those dedicated to a single health problem such as the use of oral-rehydration therapy to reduce childhood diarrhea, immunization programs, family planning programs, condom promotion for HIV/AIDS prevention, and mosquito-net use. The urgency of the problem, the initiative taken by centralized agencies, the concentration of resources, the specific focus, and the concrete and limited nature of the behavior to be changed, all increase the efficiency and likelihood of success. It is not surprising to find, therefore, that individual behavior-change programs are quite common in the field of public health. By design, however, the outcomes are limited to a single, specific aspect of health. As a consequence, some individual behavioral change may even be limited to a short duration in time unless other measures are taken to ensure that such changes are institutionalized and self-sustaining.

In a situation where only social change occurs, the capacity or potential for improvement in health or other areas of development may increase but with little impact if not accompanied by the required changes in individual behavior. Changing a community's leadership patterns, initiating a dialogue about problems that resonate with everyone and even jointly deciding on a course of action may all improve a community's capacity to solve problems, but if it is not accompanied by the required changes in the behavior of individual members, then very little progress will be made on specific problems. Ironically, communities may have to conduct their own internal health-promotion programs to get their members to adopt the appropriate behavior. If neither social nor individual change occurs, then we would expect the existing *status quo* to be maintained.

The ideal change process would result in social change and in the requisite individual change. We expect the interaction of these two types of change to result in *self-sustained* improvement in health and other problems faced by a community. Every time a community goes through the dialogue and collective-action process and actually achieves a set of shared objectives, its *potential* to cooperate effectively in the future is also expected to increase. If the process also leads to the changes necessary in individual behavior for a community to *achieve* its objectives, then the success of the community reinforces both collective and individual behavior. The likelihood of a community continuing to solve problems together in the future is expected to increase. Furthermore, the confidence of the community to undertake collective action increases and the value for continual improvement is strengthened and institutionalized. The possibility for self-sustained, continual improvement can become a reality.

Table 1. Interaction of Social and Individual Change

Social Change	Individual Health Behavior Change: NO	Individual Health Behavior Change: YES
NO	Maintenance of the status quo	Limited health improvement
YES	Increased potential for health improvement	Self-sustained health improvement

The question of which type of change should receive the highest priority is sometimes very controversial. We must keep in mind that we should not expect every local community to invent its own solutions to every problem, especially for problems in which specific technology such as vaccinations, antibiotics or contraceptives can be made available from outside authorities in the "larger community," such as local and national governments or international development agencies. Even in this obvious situation of individual adoption, however, a community response may be necessary to obtain such technologies from the outside.

Oral rehydration solution (ORS) for the treatment of diarrhea, a leading cause of infant mortality, underscores these issues. ORS has saved millions of lives, but the alternative solution of hand washing with soap, improvement of latrines and clean water within the *community as a whole* would be expected to have a greater impact on childhood diarrhea than the treatment of one child at a time with ORS after an infection occurs, especially if some of the ingredients of ORS are not always available. Both external policymakers and local community leaders have to find the appropriate balance between social and individual approaches to change, a balance that best fits the problem itself and the needs of the members of the community.

SECTION 2

Social Change Process Indicators

Introduction

In this section, we provide indicators with which to measure the process of community dialogue and collective action. In addition to specific measures for each stage, two summary matrices are provided as well, one for dialogue and one for collective action. The matrices give a "snapshot" of exactly how a particular community has acted: who and how many engaged in dialogue and participated in decisions, whether or not measurable objectives were identified, whether specific people were assigned to each task and if outside resources used. But first we address the question of *who* uses the model for evaluation and *for what purpose.*

Assessment and evaluation of the process and its outcomes can be conducted by three different groups:

- Members of the community who want to know how well their effort has achieved the objectives they set for themselves and how much more needs to be done,
- External change agents involved in the process who need to document how well a community has performed, and
- Social scientists who want to conduct a systematic analysis of the relationship between the process and its outcomes across a sample of communities.

The distinctions made across the three types of evaluators reflect the difference in goals that each one has, and these differences also determine which indicators described below are used, and how they are reported.

For members of the community, the dialogue in which they have participated should have led to a clearer vision of the future, and assessment of community's status when they begin, and some concrete and measurable objectives to accomplish. In the final stage of the collective-action process, the community needs to reassess its status in terms of the objectives that it set for itself. This is identical to assessment of the current state, which should occur in the dialogue process, but which also involves comparing the initial state of the community to its (new) current state after the project is completed.

Did they reach or exceed these objectives? What contributed to, or prevented, their reaching these objectives? If community wells were built how many were finished and, more importantly, how many and which community members benefited from having them? The degree of success is crucial for *motivating* the community to continue working on problems together and for developing a belief in and greater value for *continual improvement*. This is why it is so important that they do this assessment themselves, for themselves. If for some reason they do not reassess their situation, nothing will be learned and the likelihood that further action would be taken will diminish.

This type of self-evaluation is central to the participatory development communication. In practice, *self-evaluation* is often skipped over, especially when projects are initiated by outside agents who hold a rigid notion of evaluation or an anti-participatory ideology (Servaes, 2001). The communication for social-change model explicitly incorporates participatory evaluation into the process itself rather than leaving it for others to do at another time.

Outside agents, if they have taken responsibility for initiating the dialogue and action process, often have obligations to their own funding sources to provide feedback regarding how well their goals are being met. In this situation, the model and its indicators can be used to collect additional information required by the project. For example, change agents may have a goal of increasing the level of participation, equity of information and decision making that initially some community members may not have. By measuring previous levels of participation and styles of leadership, and then documenting how the project influenced and changed these features of the community, the change agent may also change the way community members view the collective-action process itself. Especially if greater participation and sharing of responsibility contributed to the success of the project, then community members may endorse these aspects of the process as goals themselves and strive to improve them in their next round of dialogue and action.

For this to happen, the change agent needs to provide *feedback* to the community about these issues and encourage them to work on these issues. If the information is buried in the agent's own report, then the likelihood of development in this respect would be expected to diminish substantially, even if community members have some vague idea about how things took place.

And finally, a rigorous, systematic investigation of the process and outcomes may be undertaken by social scientists in cooperation with change agents. Participative observation, extensive in-depth interviews with knowledgeable informants, systematic focus-group discussions

with subgroups within the community, and even surveys with statistical analysis may be conducted using the indicators described below. In addition to providing more details about the process and outcomes to community members and external funding agencies, such an extensive, systematic investigation — especially if it is done over a number of communities — would provide the opportunity to increase the general knowledge about dialogue and collective action. The results would have implications for both practice and theory. For example, the theory that greater motivation (and hence, action) occurs when moderate, feasible goals are set versus goals that are either too easy or impossible to achieve, can be tested and confirmed by examining a wide range of community experiences. In fact, such an analysis may be the only way to establish what constitutes a "moderate, feasible" set of objectives in a particular situation.

Other aspects of the model would benefit from this type of analysis as well. In a particular culture, what balance of strong authoritative leadership and participatory decision making leads to the greatest satisfaction among community members as well as the most successful collective action? What type leads to greater motivation to participate in another project? These are difficult, complex questions that require more information than community members would normally obtain for their own purposes, or that change agents would obtain to meet their own reporting obligations. The knowledge gained from such an analysis could lead to better training programs, more effective guidance by change agents and more effective dialogue and action within communities.

Community Definition

Social change refers to characteristics of a *group* of individuals that change over time, as opposed to changes in the individual members of a group. To measure social change in a group it is first necessary to define the group: (1) to determine what criteria are used by community members to define themselves as a group, and (2) to establish the *boundaries* that determine who is inside and who is outside of the group. A community is often defined by geographical and legal/governmental criteria. Using location as the criterion, a *community* is defined as a group of people who reside in the same locality. For groups in which members do not reside in the same location, community is defined as a group of individuals who share a common interest. A professional group, an Internet chat group or labor-union members meet this criterion for membership. But interest alone may not be sufficient. To qualify as an active member of an interest group it is also necessary to know which individuals communicate with one another about the issue, that is, who is a member of the *communication network* that addresses the issue. The network can be defined by face-to-face interpersonal communication or mediated communication by means of the telephone, the Internet, etc. Establishing the geographical boundaries of a local residential community (village, neighborhood, etc.) is not always simple and straightforward. The members who reside in a neighborhood may themselves have different ideas regarding its geographical boundaries. Needless to say, the boundary issue needs to be resolved before it is possible to measure accurately the social aspects of any type of community. The resulting definition can then be used to measure characteristics of the group.

To proceed, a community profile needs to be constructed by means of a series of focus-group discussions with knowledgeable, key informants in the community before conducting the study of its social characteristics (see, Hawe, 1994; Eng and Parker, 1994; Israel, et al., 1994; Krishna and Shrader, 1999; Krishna and Uphoff, 1999). In addition to preparing for the main study, these initial group interviews will establish a *consensus definition* of the "community" in which the remaining research is to be conducted. These focus-group discussions can also be used to draw a community map, which specifies the boundaries and indicates all of the community resources, such as wells, common land and meeting houses. The discussions can also be used to obtain an initial list of all of the formal and informal groups, organizations and institutions that exist in the community, along with a list of the leaders of each one. Techniques are available that allow focus-group discussions to place all of the relevant community groups and organizations on various-sized pieces of paper. Then they can be moved around on a large sheet of paper or table in a manner that indicates the closeness of each group to each of the others. Once a consensus is reached on this set of relationships, the same focus-group discussions can then draw lines between pairs of groups/organizations that frequently interact and cooperate with one another. The resulting interorganizational diagram can then be photographed and used later to calculate indices of *intergroup network cohesion* (see, social cohesion in Section 3 for specific measures).

This community definition and mapping procedure is important for the rest of the community study, so more than one focus-group discussion should be conducted. The number of focus-group discussions to be conducted for this purpose depends on the degree of diversity in the community. At least one focus-group discussion for men and one for women should be conducted separately. Groups representing different ethnicity or religions, residential areas or age groups may also be conducted. To reach a consensus on community boundaries,

groups/organizations and leaders, a spokesperson from each of the groups can meet afterward to establish a consensus among the groups. Difficulty or inability to reach such a consensus is the first evidence of potential divisions in the community that may reduce its overall capacity for community dialogue and collective action.

Social Change Process

The following indicators correspond to the community dialogue and collective-action process as described previously. These indicators have the purpose of assessing how the community is advancing in its collective effort in the undertaking of a program or solution to a problem affecting the community. These indicators are complementary to the outcome indicators described later. Note, also, that these indicators intend to measure the extent and mechanisms of the participation so that the effort (dialogue and action) is inclusive of all community members. Likewise, they intend to assess whether there is conflict and how does the community deal with it, so that the conflict empowers the community rather than preventing the program from advancing.

Recognition of a Problem

The process of problem identification is complex, may take a great deal of time and may be catalyzed internally or externally. Within the dialogue process "recognition of a problem" may occur simultaneously with "clarification of perceptions" (identification of the root causes and the potential solutions to the problem) and with the "expression of individual and shared interests" (conflict and opposition). These stages, however, have been assigned to individual boxes in the IMCFSC because of the importance of wider participation by the affected groups. These stages are presented separately with separate indicators, but they may, in fact, be all integral parts to the problem identification and clarification process. These indicators together with "social change" indicators of "information equity" and "sense of ownership," should be considered in assessing a community's progress towards addressing the problem.

The first stage in the process of social change is the recognition by the larger community or by a smaller subset of the community that there is a problem that limits their current quality of life, constrains their aspirations for the future, or has the potential to hurt the community or members of the community. This stage is so fundamental that it is unlikely that any process would be implemented before there is a basic recognition of a problem. Indicators to measure early-stage awareness of the problem are:

- Has the community recognized the issue as a problem?
- What are (have been) the catalyst(s)?
- Which groups and people have been involved in the recognition of the problem?

Implicit in the identification of a problem is the *identification of a solution*. If there is not a solution, it is rare that people would think of the issue as a problem. Excess fertility, while a serious threat to a woman's health, became the problem of unwanted fertility only when women could control their fertility. The identification of a solution should be clearer as result of the "clarification of perceptions" by the wider community and not just by the initial groups aware of the problem.

Another important element of the problem identification stage is the *recognition of the opposition to change*. The opposition may be based on tradition, economics, control and power, ethnicity, competition or just fear of change. Empowering women may be a good strategy for promoting condom use to prevent AIDS, but that empowerment comes at the expense of men's power and control. Potable water systems may be a good solution to prevention of diarrheal disease, but it is a threat to the income of the water haulers. Ending the practice of female genital cutting has a positive health impact, but is an attack on traditional values and denies an income to the traditional practitioners who do the operation. Possible opposition to a program/solution of a problem may be resolved during the community's stage of "expression of shared interests" and "involvement of leaders and stakeholders." An evaluator faced with opposition to the solutions should first assess what resources (such as additional key stakeholders/leaders who can address opposition) have been mobilized to overcome the barriers.

Identification and Involvement of Leaders and Stakeholders

Leaders

The problem or issue to be addressed next should logically produce some kind of leadership structure. This leadership structure can take many forms: (1) Spontaneously generated from within the group vs. externally appointed. (2) Leadership comes from an existing cadre of community leaders vs. leaders that evolve to address a specific problem (often first-time leaders). (3) Traditional or cultural leaders vs. political or externally appointed leaders. (4) Group leadership vs. individual leadership. (5) Casual and/or dynamic leadership structure vs. more formal or structured (often hierarchical) leadership. (6) Stable vs. constantly changing leadership structures. (7) Leadership based on capacity vs. interest vs. random selection. (8) Ongoing vs. specialized or one-time leadership. (9) Participatory vs. autocratic leadership. (10) Open opportunity vs. selected leadership.

The leadership that evolves in any community may be described using a number of the above descriptors. It is important to note that the above types of leadership do not have an inherent value — that is, one type is not better than another in producing the desired outcome. Special attention should be paid to ensure that the leadership structure created to tackle the issue does not reproduce an existing inequitable power structure in the community. For equitable leadership to happen, a fair representation of all community groups affected by the problem should be in place and endorsed or approved by these community groups. It should be noted that a mechanism that provides opportunities for active participation for leadership is more likely to convey social change as it provides reinforcement and renewal of the existing leadership. The indicators for this stage are:

- How were leaders (individual or groups) on the issue/program elected?
- Proportion of different interest groups or factions in the community represented in the leadership (individual or group)?
- Number of individual leaders or groups working on the particular issue/program?

Stakeholders

Participation of those who are most affected by the problem (stakeholders/beneficiaries) is a characteristic of community/social-change intervention. This involvement may be direct (work on the solution) or indirect (advocate or support for facilitating the solution or removing opposition). Besides direct beneficiaries, stakeholders can also be family/friends of direct beneficiaries, potential future beneficiaries, or people with an interest in the issue but no expectation of benefit (altruistic). Indicators of stakeholders' involvement can be qualified by answering the following questions:

- Describe what was done to get stakeholder and beneficiaries involved in the program (posters, public meetings, speaker, truck, referrals, etc.).
- What was the mechanism for involving the larger community to discuss the issues and obtain representation?
- Who was involved in the discussion of the problem and possible solutions of the problem:
  - Persons from outside the community?
  - Small leadership group (look for fair representation of affected members)?
  - Members of the community (this is the response that indicates how equitable the participation by stakeholders is)?

Clarification of Perceptions

When this stage of community dialogue has occurred, there should be a greater degree of unanimity and understanding over the nature of the problems (root cause/s), possible solutions and associated actions. This stage can be transitional and may be skipped over if the root cause(s) of the problem is widely recognized and the solution(s) clear (e.g., household spraying for malaria), or if it has been resolved in the "recognition of a problem" stage. Potential indicators for assessing whether the community is moving toward a clear understanding of what are the causes and solutions to the problem are the following:

- Mechanisms for clarifying perceptions that involve the whole community,
- Proportion of most affected groups in the community effectively participating in discussions regarding the issue, and
- Level of agreement regarding the root causes of the problem and or solution.

Expression of Individual and Shared Interests

One of the goals of community dialogue is to maximize participation in the issue, while balancing the needs of a consensus. Another goal of dialogue is to balance the interests of individuals with the larger interests of the community. A problem that effects a small number of members of the community, or a solution that helps a small proportion of the community at risk, must be considered in light of the communities needs and the potential impact across the range of community members. This stage, like "clarification of perceptions," is transitional in the dialogue process, meaning that these transitional steps may have occurred earlier, or they may have occurred in the context of another step (e.g., involvement of leaders). It is important to remember that the IMCFSC, *while laid out linearly does not function in a linear manner.* The best indicator for participation is the degree to which all in the community are involved, including those who might be excluded. It is possible to identify if the community is allowing for "expression of interests" with the following indicators:

- Was anything done to identify all the beneficiaries, and include them in the planning process?
- What are the mechanisms being used for all community members to communicate their interests at the different structural levels in the community?
- Proportion of relevant groups expressing their needs or interests with regard to the issue.
- Was the design of the project changed to increase the number of beneficiaries?
- Were there any relevant groups (those most affected) in the community that refused to participate?

Conflict and Dissatisfaction

Balancing the interests of individuals with the larger interests of the community may result in conflict. Besides existing power structures within the community that may bias the direction of the program or that may represent opposition, there may be undeniable conflicts of interest

among community groups in dealing with solutions to the problem. This is a critical stage that may terminate a program or, if dealt with effectively, can render an empowered community. For effectively dealing with conflict more/other leaders or stakeholders may be consulted to provide additional support/evidence and/or persuade/influence reticent groups. The important measurement at this stage is that the community keeps seeking resources and dealing with conflict positively to advance the program.

- Is there conflict/disagreement?
- How are the different conflicts arising at this stage resolved (document the actual process)?
- What other resources (leaders, stakeholders, influential persons or evidence) has the community sought to deal with conflict?

Vision of the Future

Once a community has passed through the previous stages it would be ready to plan *where* it wants to be in the future (five years from now, one year from now) and to figure out the ways for getting there. As in the previous stages, broader community participation will ensure that the defined "vision" is inclusive of all community member's hopes and aspirations:

- What has been the representation of community members and affected groups in defining the vision?
- How has the community articulated its "dream" (generally, this takes the form of a statement that includes the ideal (feasible) scenario of where the community wants to be with respect to the problem/issue?

Assessment of Current Status

At this stage, the community may be already motivated (if not, it should be encouraged) to assess the extent/magnitude of the problem so that a plan of action can be defined. This assessment can be quantitative as well as qualitative. This may require gathering information about the problem from either an available source, such as the health center, or from members within the community. If information gathering within the community is necessary, the community should decide how to organize to get the data. It could be through periodic community meetings where the affected groups have member representatives to report, or by visiting those households in the community affected by the problem. Information gathering through group meetings may prove better as it facilitates sharing of knowledge and progress on the issue. An indicator for assessing whether the community is working on this stage is the mechanism used:

- Existing mechanism for information gathering about the extent of the problem in the community and the changes over time. This tracking mechanism should allow the community to answer questions such as: How many children in the community had diarrhea last week? How are these events similar or different from previous years?
- Resources, inside and outside of the community, being used to track changes in the number of cases and other qualifications related to the issue/problem.

Setting Objectives

A shared vision should allow the community to list the goals/objectives it wants to achieve. The community, together with the leaders and/or change agent, should evaluate how realistic the goals are and should try to set moderate goals in order to avoid either a sense of failure (if goals are unrealistic, too high), or lack of motivation (if goals are too low). Goals that are challenging but feasible should be preferred. Potential indicators to assess this stage of the process are the following:

- How are (were) the goals/objectives set up (participatory goal setting, in principle, would secure wide support and action)?
- What are the goals set up by the community to deal with the problem (generally, a list of goals should exist, that describes what the community wants to see accomplished at the end of the program)?
- Level of agreement of leaders/group members on the goals/objectives set up.

Options for Action

The goal-setting stage should naturally give place to the actual planning process of what different kinds of actions can be taken to accomplish the objectives with which everyone has agreed. This implies the identification of resources both inside and outside the community, as well as persons or groups that can carry them out. A change agent can assist the community by making sure it has considered all feasible options. If the change agent believes a feasible option hasn't been considered it should be brought to the attention of the community and explored as to why the community did not decide on that option.

- What was (is) the mechanism used in identifying options for collective action?
- Were the affected groups involved in the identification of options?
- What are the internal and external options considered by the leaders/groups to deal with the problem (a list of considered options should provide evidence of awareness of the range of possibilities considered by the leaders/groups and members of the community)?

Consensus on Action

Getting a consensus on action can also lead to conflict or a lack of commitment. The important measurement at this stage is that the community continues to seek resources and deals with conflict positively to advance the solution to their problem:

- Has any conflict arisen in reaching consensus?

- How is the community dealing with conflict on actions and how is conflict being resolved?
- Has consensus been reached on any action plan?
- How was the consensus reached on the final action plan?
- Who participated in reaching consensus?
- Does a document exist that specifies what is the community-action plan?

Action Plan

A specific timetable for when each activity needs to be accomplished will help the community to have clear deadlines for effectively moving toward the solution of the problem:

- Does a written community action plan exist (Yes/No)?
- Verification of following data in the action plan:
  - Who is responsible for each activity?
  - What resources are needed (people and other material resources)?
  - When is the activity going to be implemented?
  - Where will the activity be implemented?
  - How will the activity be monitored?
  - What is the expected result?

Assignment of Responsibilities

Specific people and groups should take responsibility for conducting each activity as defined in the action plan. Indicators for assessing this stage are as follows:

- How were the actual responsibilities assigned (leaders assigned, volunteers, other)?
- Level of agreement (by leaders, community groups) with the assignment of responsibilities?
- Level of representation of interest groups on the assignment of responsibilities?
- Are there any new task forces/groups created to carry out different activities under the action plan (Yes/No)? If yes, a listing of the different groups/task forces created.
- Are leaders (individuals or groups) sharing in responsibility for implementing the action plan?

Mobilization of Organizations

Depending on the size and nature of the problem, existing organizations inside and outside the community can be called upon to join the community-action effort. It is likely that the higher the resources mobilized by the community, the higher the commitment to the program/solution of problem by the community. The extent of the participation by the different groups in the community should also influence the sense of ownership of the program and social cohesion:

- Magnitude of resources mobilized within and outside the community (a listing of all organizations contacted will give evidence of the size of the network accessed by the community).
- Type of internal and external organizations/resources contacted (extent of networking; look for involvement of the local media).
- Representation of affected groups in the community in the participating resources and organizations.

Implementation

This step refers to the actual execution of the action plan and its monitoring. Actions should be put in place for back-up activities so that the whole action plan does not get truncated if some activities do not work according to the original plan. Indicators for this stage are:

- How is the implementation being monitored?
- Who is monitoring the implementation of the activities?
- Has each activity specified in the action plan been implemented as intended (documentation for each activity)?
- For the activities not implemented as planned, what are the reasons for poor implementation (resource constraint, decline in interest in the community members assigned with the responsibility, others)?
- Actions taken to cover for unsuccessful key activities.

Outcomes

This step refers to the actual results that the community is able to achieve:

- What are the actual results achieved at the end of the process?
- Who participated (is participating) in obtaining (summing up) the results?

Participatory Evaluation

The achieved outcomes may or may not be what the community originally planned in their goal setting. The comparison of the outcomes versus the original objectives is an important *self-evaluation* process. For purposes of group motivation and reward, it is important that most of the community (especially the affected groups) participate in the evaluation process so that the lessons learned about what worked and why may be shared throughout the community. The result of the participatory evaluation should be a *new reassessment of the current status* of the community with respect to the problem.

- How is (was) the evaluation conducted?
- Who is participating (participated) in the evaluation?
- How are the results being disseminated to the broader community?
- What was learned from the process (look for intangibles)?

Community Dialogue and Action Process Matrices

Instructions
Assessment of the process of community dialogue and action can be conducted through direct observation, if the evaluator has enough time to spend in the community, or through focus-group discussions and interviews with key leaders. Direct observation should allow for a deeper understanding of the community dynamics regarding dialogue and action. But if the evaluator cannot be present to directly monitor all the dialogue and action process, it is recommended that he/she make notes whenever he/she is present in the community in order to obtain a better documentation of the community dynamics. (See pages 22 and 23 for matrices)

Before using the matrices, the evaluator should first carry out a *community profile*, which can be conducted through a series of group interviews in the community during the initial days of fieldwork as explained in Section 2, Community Definition. As a result of this process the evaluator should have a clear definition of the community, as well as the list of groups, leaders and problems, as defined by the community.

Two matrices have been designed — one for Community Dialogue and another for Collective Action, to record the extent to which the community has undertaken each of the dialogue and collective-action steps. A separate matrix should be filled out for each issue or problem that the community has addressed. The purpose is to document how far and how well the community has progressed toward resolving all of the problems that it had taken up, during a specified time period. It is important to note that some of the steps may have been skipped or may not have been adequately completed yet. The matrix will provide a single picture of the progress that a community has made on each problem.

Filling the Top of the Matrices
Use a different set of matrices (one for dialogue, another for action) for each problem identified by the community during the "community definition" analysis. Write the **problem/issue** being described in the matrix in the specific space provided for this purpose at the top left of each matrix.

Problem Code: Write the number of the problem being addressed and described in the matrix. This number will come from the list of problems identified by the community during the community profile. It may be the case that the community is dealing with more than one problem at a time and this code will help identify the information matrices related to each one of them and allow cross-referencing to other documents related to the same problem.

Start Date: Write the date that the dialogue and action processes starts (or started) in the community for that specific problem. It may be that the community has already started the dialogue/action process for a particular problem before the investigator/observer arrived in the community.

End Date: Write the date when the dialogue and the action processes ended for that specific problem. If the process is still ongoing, leave it blank.

Filling the Columns of the Matrices
The first column of each matrix contains the stages in the process of "community dialogue" and "collective action," respectively, as described in the Communication for Social Change Model. For the Community Dialogue Matrix only, use the codes provided at the bottom of this first column to identify the catalyst of the process for that specific problem. The other (13) columns have to be filled for each stage in the process as follows:

Occurrence, column (2): Mark if the specific stage occurred. It may be that for some cases, the community skips some of these stages. It may also be that the community process follows a different order. Make a note indicating if the stages were skipped and if the community went back to them later.

Change Agent, column (3): Write the name of the change agent (if any) that participated in each specific stage. Note whether the change agent comes from within or outside of the community.

Key Leaders, column (4): Record the number and names of key leaders involved in each stage.

Leader Identification, column (5): Write the identification number of the leaders involved in each stage. This information comes from the list of leaders prepared during the community-profile analysis.

Participants Count, column (6): Write the total number of community members that participated in each stage. Include both men and women.

Participant Gender, Men/Women, column (7): Write the total number of men and women that participated in each stage. This column will give the ratio of men to women participants, which may in fact be different for each stage and each type of problem being addressed.

Participant Groups, column (8): Record the names and total number of groups involved in each stage.

Group Identification, column (9): Write the identification number of the groups involved in each stage. This information comes from the list of groups prepared during the community profile analysis. This information will tell us whether or not the most affected groups are being involved in the different stages of the dialogue and action process.

Dialogue Context, column (10): Indicate for each stage, the context in which community members undertook any dialogue. Write the corresponding number from the bottom of the column that indicates the type of dialogue (0=none; 1=community meeting; 2=small groups; 3=sequential networking). Sequential networking is when one or more person goes house to house in a community so that dialogue takes place in a sequence of discussions with different people over time. Multiple codes may be used if several different types of dialogue occurred.

Disagreement/Conflict, column (11): At each stage in the process, indicate whether any disagreement or conflict arose. Use the codes at the bottom of the column to indicate the level of disagreement.

How Resolved, column (12): Use the codes at the bottom of the column to indicate the manner in which any disagreement or conflict was resolved at each stage in the process. If the conflict is still being resolved, simply write a question mark in this space. If a conflict exists but is not being dealt with, then use code 7 for avoidance. For other possible resolutions not included in the list, use the code for "other" and then specify how the conflict was resolved.

Decision Process, column (13): If a decision is made at any step in the process, indicate it by marking the number corresponding to the method used to make the decision. If no decision has been made (for example, a course of action has not been selected), then leave the column blank. If for some reason the process continues without any decision, then use code 1 for "none." If some type of voting process is used, then also note the letter of the type of vote that was taken.

Specific Outcome, column (14): For some stages of the dialogue and action process, the community may produce some specific outcomes/documents. For example, a document may result that contains a vision of the future and the list of objectives. Likewise, there may be documentation about the resources gathered by the community to deal with the problem during the stage in which organizations are mobilized. Write in this column whether this or other type of outcome exists for any stage and identify it with a specific reference to the actual document/outcome.

Constraints and Supports, boxes at the bottom: Use the two boxes below each matrix to describe any constraints or supports (such as, outside political pressure, lack of tools/equipment, building permits, access to credit, political support and donations from outside agencies) that are currently affecting or have affected the community's progress with each problem. Also, note how the community is dealing with these constraints or using provided support. How did the community react to them? What actions are planned for them? The back of the page may be used for any additional notes regarding each stage or the process overall.

Data Processing and Analysis: The Dynamics of Social Change

Each cell in the matrix can be treated as a variable for purposes of data analysis. The entry from each cell should be entered into a database under an appropriate variable name. The verbal (as opposed to numerical codes) entries, including the notes in the boxes corresponding to constraints and supports, can be entered as string variables in the same database. The "case" in the data set corresponds to a matrix for a specific community problem or issue. The case number is identical to the problem number listed in the top corner of the matrix. A separate variable should be used to code the name of the community for the study, especially if more than one community is being observed. A community may have several problem "cases" entered under its name. The dates and sequence of the data for each case (problem/issue) are very important, because one of the main purposes of collecting the data for these matrices is to examine the change over time in the way that communities use dialogue and collective action to solve problems.

For example, if a community undertakes dialogue/collective action to resolve three different problems over the course of one year, then the database constructed from the matrix sheets would provide data for three cases (problem cycles) for that community. Each case would have data from all the cells (row/column). Therefore, for the variable, participants, or number of people who select a course of action, there would be three entries, one for each dialogue/problem cycle, ordered sequentially by time. The date of each dialogue/problem cycle would also be entered as a variable. This would make it possible to graph the number of participants, by time, over the course of the year covered by the data collection. The graph would show to what extent the number of participants was increasing, decreasing or staying the same over the

Matrix 1. Community Dialogue Matrix

COMMUNITY CODE ☐ PROBLEM CODE ☐

Community Name: _____ Start Date: ____/____/____

Problem/Issue: _____ End Date: ____/____/____ (Blank if ongoing)

Stages in the Process (1)	Occur? Y/N (2)	Change Agent (3)	Key Leaders (4)	Leader Identification (5)	Participants				Dialogue Context (10)	Disagreement/ Conflict		Decision Process (13)	Specific Outcome (Cross-Ref. to Doc.) (14)
					Total (6)	Men/ Women (7)	Groups (8)	Group Identification (9)		Y/N (11)	How Resolved (12)		
1. Catalyst													
2. Problem Recognition													
3. Identification and Involvement of Leaders													
4. Clarification of Perceptions													
5. Expression of Individual and Shared Interests													
6. Vision of the Future													
7. Assessment of Current Status													
8. Setting Objectives													
9. Options for Action													
10. Consensus on Action													
11. Action Plan													

Catalyst: 1. Internal stimulus, 2. Change agent, 3. Innovation agents, 4. Policies, 5. Technology, 6. Mass media

Name of change agent

Number of leaders involved

From list

Number of groups

From list

1. Community meeting, 2. Small groups, 3. Sequential networking, 4. Other (specify)

0. None, 1. Hardly any, 2. Some, 3. A lot

0. None, 1. Consensus, 2. Compromise, 3. Mediation, 4. Arbitration, 5. Threat, 6. Violence, 7. Avoidance, 8. Unknown, 9. Other ____

1. None, 2. Leaders decided, 3. Discuss until no objection, 4. Discuss until consensus, 5. Proposal and vote by: a. Voice vote, b. Show of hands, c. Secret ballot, d. Other (specify)

Constraints to the action (specify): _____

Supports for the action (specify): _____

Matrix 2. Collective Action Matrix

COMMUNITY CODE ☐ PROBLEM CODE ☐

Community Name: _____

Problem/Issue: _____

Start Date: ____/____/____

End Date: ____/____/____
(Blank if ongoing)

Stages in the Process (1)	Occur? Y/N (2)	Change Agent (3)	Key Leaders (4)	Leader Identification (5)	Participants				Dialogue Context (10)	Disagreement/ Conflict		Decision Process (13)	Specific Outcome (Cross-Ref. to Doc.) (14)
					Total (6)	Men/ Women (7)	Groups (8)	Group Identification (9)		Y/N (11)	How Resolved (12)		
12. Assignment of Responsibilities													
13. Mobilization of Organizations													
14. Implementation													
15. Outcomes													
16. Participatory Evaluation													

Catalyst:
1. Internal stimulus
2. Change agent
3. Innovation agents
4. Policies
5. Technology
6. Mass media

Name of change agent

Number of leaders involved

From list

Number of groups

From List

0. None
1. Community meeting
2. Small groups
3. Sequential networking
4. Other (specify)

0. None
1. Hardly any
2. Some
3. A lot

0. None
1. Consensus
2. Negotiation
3. Mediation
4. Arbitration
5. Threat
6. Violence
7. Avoidance
8. Unknown
9. Other_____

1. None
2. Leaders decided
3. Discuss until no objection
4. Discuss until consensus
5. Proposal and vote by:
   a. Voice vote
   b. Show of hands
   c. Secret ballot
   d. Other (specify)

Constraints to the action (specify): _____

Supports for the action (specify): _____

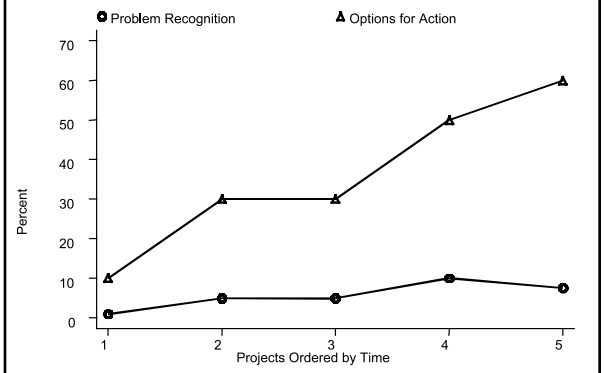
course of one year. If a variable is created for each problem type (water supply, AIDS, etc.), then it would be possible, for example, to examine trends in women's participation over time by *type of problem*.

Likewise, the percent of women participating could be created for each time period (dialogue/problem cycle) to see the trend in women's participation over time. If 10 such dialogue/problem cycles are entered over the course of five years then the resulting data set would provide a good description of changes over time *(dynamics)* in the nature of the process of dialogue, decision making, leadership, participation and outcomes *(social change)*. This data and the corresponding graphs can be used in combination with the other information collected about each community to provide a comprehensive description of the communication and social-change process for each community.

The Dynamics of Social Change: An Illustration

The following graph presents a hypothetical case of five community problems, which were undertaken by a community. The projects are ordered from 1 to 5 according to the order in time in which they were undertaken.

Graph 1. Level of Women's Participation in Two Stages of Dialogue



The lines show the percent of women who participated in the decisions at two points in the community dialogue process. The percentages used for the bottom line would be calculated by dividing the number of women (row 2, col. 7) by the total number of people participating (row 2, col. 6) for each of the five projects/problems undertaken. The graph shows that in the first project no women participated in the definition of the problem to be undertaken by the community, but 10 percent were involved in choosing the course of action (option) to solve the problem (top line). The graph indicates that women's participation in defining the problem gradually increased to around 8 or 10 percent over the course of the five projects. So, women's participation in bringing problems to the attention of the community increased slightly during the time represented by these five projects. On the other hand, when it comes to choosing which options to pursue to solve problems, women's participation increases dramatically, from just 10 percent for the first problem/project to a majority of 60 percent on the last project. Was the last project one in which women are traditionally involved, or have women increased their general participation in this phase of community dialogue? An analysis of the data by type of problem would shed light on this question.

The community dialogue and collective-action matrices generate an overall data table of 16 rows by 14 columns, plus four string variables with textual information regarding constraints and supports (see the two boxes at the bottom of each matrix). This means 224 cells from both matrices (16 x 14) plus the text from the four boxes (constraints and supports). Some of the cells may be empty (not applicable or relevant for a particular project). The information from the data table can be entered into a computer database with variables corresponding to each of the 224 cells, plus the four boxes and identifying information for each case (e.g., community and problem codes). This is another way of saying that as a community goes through this process, it generates a considerable amount of data just about the process by which it undertakes a project.

If a larger program includes a set of 20 communities or so, then the model and matrices would generate data for more than 240 variables in 20 cases (communities). Over time, as some of the communities undertake new projects, the number of dialogue/action cases per community would increase. Once all of the information from the cases generated by the 20 communities have been entered into a computer database, it would be possible to examine statistical outcomes such as: (a) the a*verage percentage* of women's participation in any particular step in the process *for all 20 communities*, and (b) the average participation of women during all the 16 steps in the dialogue/action process depicted by the IMCFSC. Similarly, it would be possible to calculate the percentage of steps where conflict occurred (in a community project), or to examine at which steps in the process conflict was more likely to erupt over all 20 communities being studied. Likewise, it may be possible to assess the most common way in which community conflicts were resolved (i.e., consensus, negotiation, etc.). And finally, as the graph above shows, it would be possible to analyze each community over time (say, five years) to see what kind of social change has taken place and at which point in the dialogue/action process. With a sufficient number of data points (cases) for each community, it would also be possible to calculate the *rate* and *direction* of social change over time using these two matrices.

SECTION 3

Social Change Outcome Indicators

Introduction

As explained in the previous section, indicators can be used by three types of evaluators depending on their purposes. In this section we provide a description of indicators for each of the outcomes of social change. Within each outcome, indicators vary by level of difficulty and type of data-collection method. Some are qualitative and others are quantitative measures. As explained before, no one would be expected to use all of the indicators for each outcome. A variety is included so that each evaluator can choose the one that best fits his/her purpose and resources. For example, leaders who are in touch with members of their community can readily get a sense from talking to people of how satisfied everyone was after the project is completed. They would also know how willing everyone would be to start another project. This constitutes an informal measure of cohesion as groups usually experience it. However, a change agent might need an indicator that is representative of all members of the community and not just rely upon the opinions of leaders, even though the leaders may be correct. So, change agents may want to collect information on their own in a more systematic manner. The social scientists may want to use one of the numerical scales of cohesion described below in order to get an aggregate measure, such as an average cohesion score. This way they can assess how much cohesion is increasing or decreasing after each process of dialogue and collective action is completed. All three of these methods yield an indication of cohesion but they serve different purposes.

Leadership[2]

Development of sustained and effective leadership, which provides a base for organizing community participation, is an important outcome indicator for social change. Strong and supportive leadership is characterized by a combination of open management, shared vision, team spirit, decentralized control and role clarity. When groups experience leadership that inspires without dominating, members are more likely to get involved, share the vision of the leader(s) (e.g., goals, objectives, indicators of success, values, norms, future orientation), share in the benefits of the program and institutionalize the process of social change. There may be leaders (people or groups, traditional or formal) in the community, but no leaders on the specific issue (e.g., domestic violence, family planning, adolescent health). Thus, one of the main objectives of a social-change program is to strengthen or develop leadership for that particular problem or program.

Dimensions of Leadership
Operationally, leadership can be defined to have the following six dimensions:

- Extent of leadership,
- Equity and diversity,
- Flexibility,
- Competence in encouraging and securing dialogue and action,
- Vision and innovation, and
- Trustworthiness and popularity.

An overall index of leadership may be developed from these dimensions, and the progress may be measured over time.

Extent of Leadership
Refers to the number of formal and informal leaders in the community and to the degree community members get to serve the function/role of leader on the particular issue or program.

1. People or groups who have a leadership role in the issue/program:

Q: Who are the main leaders in this community (probe formal and informal leadership)?
Q: Who are the leaders in this community with respect to the issue/program?
Q: How many people have had the opportunity to lead various aspects of this program?
Q: Were people given the opportunity to play a leadership role in the program?

Data Sources: Key informant interviews, program records.

Equity and Diversity of Leadership
The existing leadership of a group may be very small (narrow-based), representing only a few sections or groups in the community. Changing leadership from an elite model (e.g., only men, only high class), to a more broadly based leadership will facilitate representation and inclusion. This will result in more ideas on strategy, greater

[2] In this discussion, leadership refers to the larger concept of the role of leadership, which can include a single leader, a small leadership group, multiple leaders for different stages or leadership by broad consensus.

consensus on approaches, more resources, greater ownership of the process and program, and greater opportunities for traditionally excluded groups to participate.

2. Proportion of leaders (people or groups) on the issue/program that belong to different interest groups in the community:

Q: Use Matrix 3 and indicate the characteristics of each leader on the issue/program, mentioned above. For groups, the proportion of those having the specified characteristic can be recorded.

Selection and Flexibility in Leadership
Refers to the process of selecting leaders related to the issue/program and to opportunities for anyone in the community to become a leader. A program may benefit from having leadership chosen by the community and the opportunity to change leadership if the community is dissatisfied.

3. Selection process and proportion of leaders elected by the community:

Q: How are leaders selected in the community?
Q: Who in the community decides and elects leaders for the issue/program (the whole community, other people or groups within the community, other people or groups outside the community, chosen by the government, chosen by external agent)?
Q: From the total number of leaders on the issue/program in the community, how many were elected by the whole community (all of them … none)?

4. Degree to which leaders on the issue/program can be changed:

Q: Does the leadership of the program change regularly, such as by annual elections of leaders?

5. Degree to which community members have opportunities to take leadership roles:

Q: Would you say anybody involved in the program could be a leader if they wanted to?

Data Sources: Program records, key informant interviews, focus groups, and household surveys.

Leadership Competency in Encouraging and Securing Dialogue and Action (Matrix 4, as seen on p. 28)
6. Degree of overall leadership competency:

Q: How competent/good would you say (leader's name or group) is in the following activities related to the issue/program?

Answers can be recorded using a range from 1 to 5, with 5 being very competent and 1 being not competent at all.

Additional Indicators on Leadership Competency
7. Degree to which leaders accept conflict/dissatisfaction as "normal" and use it as a stimulus for change (versus viewed as "bad" and something to be controlled):

Q: How does (leader's name or group) deal in general with conflict/dissatisfaction/disagreement of community members when discussing the issue/program (respects differences and tries to enrich the view of the issue, ignores those with a different opinion from his, manipulates those with a different opinion, repeals dissidents from community dialogue, other)?

Matrix 3. Characteristics of Leaders on Issue/Program

Characteristics*	Leaders (people or groups) on the issue/program		
	Leader 1	Leader 2	Leader 3
Gender			
Age			
Caste/Ethnicity			
Economic status			
Religion			
Occupation			
Other relevant characteristics			
*If the leaders are groups, the answer can be obtained in terms of proportion of members in the group with the corresponding characteristic.			

8. Mechanism for reaching community consensus on the solution of the problem (program):

Q: How does (leader's name or group) reach consensus about the issue/program (leader dictates the decision to others, leader allows discussion until a consensus appears and declares it, states a decision and asks if there is any objection, states the options and asks for votes, other)? Is decision making consensual and inclusive as opposed to top-down and nonparticipatory?

Data Sources: Program records (minutes of the group meeting) key informant interviews, household surveys.

Vision and Innovativeness of Leadership

9. Degree in which leader enhances vision and community spirit:

Q: Do you think (each leader on issue/program) has a clear goal or direction for the community, with respect to the issue/program? Do they have any innovative solutions to the problem?

Q: How would you describe each leader in the issue/program's enthusiasm/passion for strengthening/motivating community aspirations for the issue/program (very enthusiastic and involving, …., very apathetic)?

Data Sources: Program records (analysis of mission statements of the community groups if any, statement of any long-term objectives or plans), interviews with community members, key informants.

Trustworthiness and Popularity of Leadership

Refers to the community's trust in their leaders for keeping their promises and managing their resources with integrity.

10. Degree of trustworthiness and popularity of leaders related to issue/program:

Q: Think about (leader's name) and recall things he/she says and does related to issue/program. Thinking about all his/her attributes, I would like you to tell me:

A. How credible would you say is (leader's name) on things he says or promises?
B. Does (leader's name) keep the promises he/she makes?
C. How trustworthy would you say is (leader's name) on managing the community resources?
D. How courageous is (leader's name) in standing up for community interests/ideas and confronting conflicts constructively?
E. How likable is (leader's name)?
F. How sensitive do you think (leader's name) is to the needs of people and their feelings?
G. How accessible is (leader's name) to community members?
H. How respectful is (leader's name) about others' opinions?
I. How much you like (leaders' name)?

All responses are given on a four-point scale: very, somewhat, not very, not credible at all.

(Repeat the entire set of questions for each leader mentioned, related to issue.)

Data Sources: Program records, key informant, representative sample surveys.

Degree and Equity of Participation

This dimension measures the range of participation to include the traditionally disenfranchised members of the larger community (e.g., women, lower class, ethnic groups, age, occupation, as related to the issue), as well as the diversity of activities which members get involved, ranging from planning, selection of leaders, decision on services and modes of delivery, resource mobilization and management, to evaluation of program outcomes.

Dimensions of Participation

- Access to participation, and
- Extent and level of participation.

Access to Participation

1. Existence and number of community groups that deal with the issue/program:

Q: Is there any committee or community organization/group dedicated to address the issue/program problem (variable related to constraints/support) (Yes/No)?
Q: How many of these committees or community groups are there for the issue/program?

2. Accessibility of community groups to overall community members related to the issue/program:

Q: Do these committee(s) or community organization(s) offer and encourage opportunities for people (related to the issue) in the community to actively participate (Yes/No)?
Q: What are the mechanisms used for encouraging participation?

Extent and Level of Participation

3. Proportion of traditionally excluded or more disadvantaged members that participate in community meetings and get involved in issue/program activities:

Q: Do any of the following people/groups participate in any of the following activities related to issue/program (use Matrix 5 and check if "yes" for each activity and group identified)?

Note: For more sophisticated communities that may have good record-keeping, the following indicator and corresponding question about intensity of participation may be preferable.

4. Intensity of participation in different program activities by community members and the more disadvantaged (related to issue) in the community:

Q: How would you rate the general participation of the following people and groups in the community for each one of the listed activities (1, no participation at all, 2, little participation, 3, some participation, 4, high participation, 5, very high participation)?

Matrix 4. Leadership Competency in Community Dialogue and Action

Activity	Leader 1	Leader 2	Leader 3
Identification of problems in the community			
Initiating community dialogue around the issue/program			
Encouraging widescale participation of stakeholders in issue			
Promoting inquiry to clarify community perceptions around the issue/program			
Facilitating opportunities to obtain opinion from the more disadvantaged members			
Executing the plan of action agreed upon about the issue/program			
Mobilizing resources to address the issue/program			
Securing fair share in implementation of activities			
Securing fair share on benefits from issue/program			
Note: Information can be obtained by asking key informants or through a survey. An index of overall leadership competence can be created or specific activity indicators can be obtained, depending on the relevance of the activity for the program or problem in the community.			

Data Sources: Key informant interviews, program records, direct observation notes.

Notes about the matrix #5:

- Local circumstances and nature of program would determine the actual groups used in the matrix. Likewise, the activities should be adapted to the specific characteristics of the program. We listed those that can be more relevant in general terms.
- Information from the matrix can be used to create a composite index or to obtain relevant specific indicators such as the proportion of electorates made of a particular interest group to elect community leaders.
- For the baseline information many of the activities may not be relevant, as the program may be in the very first stages.

Information Equity

This refers to the level of awareness and knowledge about an issue, health problem or program that is shared (common wisdom) among different individuals within a group or between different groups in a community. Information equity also refers to the level of access that the community has to the corresponding information sources. Besides assessing the level of information equity at the community level, emphasis may be placed on assessing the corresponding level among specific groups (or most vulnerable groups) related to the issue or program. High levels of shared information are likely to affect the level of direct or indirect participation in the implementation of the program and other activities related to the issue. Individuals with a good understanding about the issue or program and with access to sources of information will be more likely to participate, and that will reinforce other social-change outcomes such as sense of ownership.

Matrix 5. Participation in Issue/Program Activities by Selected Members of the Community

	People and interest groups					
Activities	Women	Men	Main interest group/more disadvantaged	Other relevant interest groups with respect to the issue	Outside organizations	Government
Accepting or initiating the program						
Attending meetings or group discussions						
Speaking up at meetings						
Selection of leaders and other resource persons						
Setting program objectives						
Decision making on actions						
Mobilization of resources						
Implementation						
Assessment/ evaluation of program						
Initiation of new activities						

Dimensions of Information Equity

For purposes of this study two dimensions of information equity can be identified:

- Awareness and correct knowledge about the issue or program, and
- Enhanced free flow of information.

Awareness and correct knowledge about the issue or program:

1. Percentage of community members having correct knowledge about (different aspects of) the issue or program. We expect distribution to be the same by gender and other individual or group characteristics; or

1a. Average level of knowledge about the issue or program in the community. If specific knowledge items are identified, an overall knowledge index can be constructed to assess overall community knowledge related to the issue or program.

2. Percentage of community members who are aware of community activities related to the issue or program. A matrix with individually listed program activities can be created to assess specific awareness by different individuals and groups in the community.
3. Percentage of community members who are aware of community sites or other sources of information related to the issue or program.
4. Percentage of community members who are aware of mechanisms for participation in activities related to the issue/program.
5. Percentage of community members/groups aware of other programs in their community related to issue/program.

Enhanced free flow of information:

6. Proportion of community members/groups having access to varied sources of information, TV, radio, newspapers, telephone, Internet, etc.
7. Frequency of use of local media and other information mechanisms by community members to learn about (and/or to provide information about and support) the program/issue.
8. Degree of media participation about program/issue (nomination of a specific reporter to follow up on issue).
9. Percentage of media time/space devoted to program/issue.
10. Number of media reports related to community activities/accomplishments (news releases, radio/TV interviews, etc.).
11. Percentage of community members/groups who have discussed the issue/program with other community members/family members/groups in last * months.

Data Sources: In-depth interviews with the representatives of different groups (formal or informal) identified in the community and individual representative sample surveys.

Collective Self-Efficacy

Collective efficacy refers to a group's *shared* belief in its *conjoint* capabilities to attain their goals and accomplish desired tasks (Bandura, 1986). It involves the belief or perception that an *effective collective* action is possible to address a social or public health problem. It differs from individual self-efficacy though, of course, is rooted in it. A group of self-doubters cannot be molded into a collectively efficacious group. On the other hand, even if individual members are capable and their self-efficacy beliefs are high, low confidence in the group's capacity for collective action may still inhibit not only collective action but community dialogue as well. Beliefs of collective efficacy may be a predictor of group performance. Furthermore, collective self-efficacy is not a monolithic group attribute. Individuals who occupy different roles or positions in the same organization may differ in their perceptions of the group's collective efficacy (Bandura, 1995). It is expected that a community's collective efficacy will influence the group's dialogue, goal setting, collective effort and especially their persistence when barriers arise.

There are two different approaches to the measurement and evaluation of collective efficacy (Bandura, 1995):

1. Aggregate appraisals (by members) of their personal capabilities for the functions they perform in the group, and
2. Aggregate appraisals by members of their group's capabilities as a whole.

Perceptions of self-efficacy may vary with the tasks at hand and with other contextual factors. Questions about perceived self-efficacy should be precise and refer to specific circumstances. For example, perceived self-efficacy at negotiating safer sex may depend on the particular context, such as whether one is with one's regular partner, a new partner, somebody one just met, and so forth. Answers to the questions for each of these different contexts, when combined will provide a general measure of self-efficacy for safer sex. The collective efficacy of a community should also be assessed, as far as possible, with regard to a particular task. For example, the community may feel more confident organizing to combat a diarrhea epidemic than an AIDS epidemic.

Dimensions of Collective Self-Efficacy

- Perceived efficacy to take action as a group.
- Perceived capability of other community members.
- Perceived efficacy to solve problems as a group.

Perceived efficacy to take action as a group:
Refers to the confidence of the community to *work together as a group* and take collective action on an issue confronting the community. This dimension may be affected by contextual factors in the form of past experiences, a history of factionalism or other conflicts in the community. The following items can be used to assess this dimension. Responses should be coded as, strongly agree, agree, unsure, disagree, strongly disagree (standard Likert-type format).

1. People in this community are always able to discuss problems that affect everyone.
2. If a problem arises that people cannot solve by themselves, the community as a whole will be able to solve it.
3. People in this community usually have trouble dealing with conflict.
4. Whenever our community undertakes a project together, we know that we will all work hard until it is accomplished.
5. Whenever our leaders ask us to work on projects together, almost everyone is willing to join in and to do their share of the work.
6. Whenever a community problem arises, I have very little confidence that we will be able to solve it.

Perceived capability of other community members:
Refers to members' perceptions of other community members' talents and abilities to do their work within the group or community. The following items can be used for this purpose (adapted from Riggs, et al., 1994, for this report the word, group, is replaced by the word, community).

1. The community members I work with have the ability to tackle ____ [this issue].
2. People in this community have poor skills and resources compared to other communities that I know of.
3. I have plenty of confidence that people in this community can perform the tasks that are assigned to them.
4. The members of this community have excellent skills to tackle _____ [this problem].
5. This community is not effective in tackling the problems that we face.

Perceived efficacy to solve problems as a group:
Refers to the perceived confidence of solving a specific problem or addressing a particular issue at the community level by working together. This dimension is problem-specific. A community may feel confident in working together, but not confident about resolving a particular problem. The following items may be used for this purpose.

Responses should be coded as, strongly agree, agree, unsure, disagree, strongly disagree (standard Likert-type format).

Suggested Items[3]:
1. I believe our community is capable of using innovative approaches to deal with _____ [issue, e.g., HIV, diarrhea epidemic, contaminated water, etc.], even when faced with setbacks.
2. As members of this community, we are able to tackle the most difficult situations (or crises) because we are all committed to the same collective goals.
3. Our community can come up with creative ways to improve the health status of the community, even without outside support.
4. Our community has internal skills, knowledge and ability to implement the action/plan needed to address the issue at hand.
5. Our community can sustain the project activities once the external support is withdrawn.
6. Our community can harness/mobilize resources to change situations that affect the members.
7. I am confident that we as community members can develop and carry out different health initiatives in a cooperative manner even when difficulties arise.
8. Our community as a group can influence the development/health initiatives that affect them because we are a cohesive and competent community.
9. We can deal effectively with even the most critical events because we are able to draw upon the social networks that exist within our community.

Data Sources: Analysis of statements of community leaders in community meetings, media, key informant interviews, representative sample surveys.

Other Related Questions:
1. To what extent does this community/organization have the skills, knowledge and abilities to implement a plan to address the issue of _____?

0-Not at all: members do not have the skills, knowledge and abilities and cannot implement the plan.
1-Somewhat: members may have some skills, knowledge and abilities, but cannot use them collectively to solve the problem.
2-Pretty well: members have the skills, knowledge and abilities, and steps are being taken to use them.
3-Very well: members have all the skills, knowledge and abilities, and the community can implement the plan.

[3] As with all other items for assessing the dimensions of this outcome (collective self-efficacy), and measures proposed for the other outcomes in the study, field testing is necessary to refine them.

2. Does your community feel more, the same or less confidence, as you did five years ago in tackling the problem _____ ?

0-Less confident.
1-Same confidence.
2-More confident.

Sense Of Ownership

Sense of ownership is defined as the community's feeling/belief that the problem/issue and/or program belong to them and they have a commitment to the program. How intensively and extensively the people are involved in defining the issue or program, the planning process and the implementation, will affect the sense of ownership.

> "Ownership develops when partners play a key role in formulating and implementing a project and understand the benefits of participation. The recognition by each partner that he will be better able to achieve his own goals by collaborating and helping his partners reach their respective goals is the best way to ensure partners are committed for the long haul." (Kraemer (1993), p. 23).

Even though an external agent may help determine the needs/program goals, and guide the implementation process, the community should be heavily involved so that a sense of ownership can develop. The gain of creating a sense of ownership is that it reinforces what people learn and encourages them to integrate the shared learning into related situations. This in turn, feeds back into strengthening other social-change outcomes such as "sense of collective efficacy."

Dimensions of Sense of Ownership
For the purposes of this study, six dimensions of measurement for this outcome can be identified:
- Importance of the issue or program to participants,
- Sense of responsibility for the program,
- Contribution to the program,
- Benefit from the program,
- Participants' sense of ownership of either credit or blame in the program outcome, and
- Personal identification with the program.

Importance of the issue or program:
1. Level of importance of the issue or program for members of the community.

Q: What would you say are the (10) main problems affecting your community (affecting you and your family well-being)? Rank them in order of importance, or use the list of main problems identified by the community and ask the respondent to rank them.
Q: How important is the issue/program for you (for the community) compared to the others affecting you (the community)? Measurement can be done using a five-point scale or by comparing the relevance of the issue of concern in relation with the others: more, less or of equal importance.
Q: Do you think you (your community) should be doing more about the issue/program?

Sources: K (key informant), S (survey), F (focus groups).

Note: The concepts of importance have to be contextualized by the costs of the solution and the size of the constraints to change. An unimportant problem that can be easily changed with low cost (financial or psychic) becomes important.

Responsibility for the issue or program:
2. Percentage of community members that identify themselves (the community) as having responsibility for the problem/issue (program).

Q: Who is *responsible* for solving this problem (making this project successful): outsiders, some members in the community, the affected/beneficiaries or the entire community?

Sources: K (key informant), S (survey), F (focus groups).

Contribution to the program:
3. Degree to which community members contributed to the issue/program.

Q: How much would you say you (the community) have (has) contributed to the program as a whole: very much, slightly, not much, not at all?
Q: If not much or not at all, has anything/anyone prevented you (the community) from making more contributions to the program (solution of the problem)? Descriptive/control variable.

Perceived benefits from the program:
4. Degree to which community members believe the community benefits from the program (solving the problem).

Q: How much did you (the community) *benefit* from this project (from solving this problem): very much, slightly, not much, not at all?

5. Degree to which community members believe (all the community) should share from the benefits of the program (solving the problem).

Q: Who in the community benefits from the program (solving the problem)?

6. Degree to which members of main interest groups perceive a benefit(s) from participating in the solution.

Q: What are the reasons why you (the community) participated in the program: for monetary incentive, voluntarily/feels program is important, coercion, asked by local community leaders to participate, for the sake of curiosity?

7. Proportion of members of main interest group with "contradictory" reasons for nonparticipation in the program (solution to the problem).

Q: What are the reasons why you (members of the community) did not participate in the program: not aware about the issue/program, did not know how to participate, not allowed to participate, did not see any benefits from participation?

Perceived accountability from the program results:

8. Degree to which community members recognize their accountability in the outcome of the program.

Q: Who do you think deserves the credit/blame for making this project successful/a failure: outsiders, some members in the community, the affected/beneficiaries, the community as a whole?

Perceived personal identification with program:

9. Degree to which community members report they (the community) owns the program (problem).

Q: Whose project (problem) is this: outsiders, some members in the community, the affected/beneficiaries, the community as a whole, others?

Social Cohesion

Social cohesion consists of the forces that act on members of a group or community to remain in, and actively contribute to, the group. In cohesive groups, members want to be part of the group, they generally like one another and get along well, and are loyal and united in the pursuit of group goals. Social cohesion is an important antecedent and consequence of successful collective action. Social cohesion mediates group formation, maintenance, and productivity.

Dimensions of Social Cohesiveness

For the purposes of this study, social cohesion can be divided into at least six related social and cognitive dimensions:

- Sense of belonging,
- Feelings of morale,
- Goal consensus,
- Trust,
- Reciprocity, and
- Network cohesion.

Sense of belonging:

Is the extent to which individual members feel as if they are an important part of the group or community. The group's level of belonging can be measured by means of focus group discussions, in-depth interviews with individual members and sample surveys of community members. The following items may be used for this purpose; responses should be coded as, strongly agree, agree, unsure, disagree, strongly disagree (standard Likert-type format):

1. I feel that I belong to this community.
2. I see myself as part of this community.
3. I feel that I am a member of this community.
4. I would rather live in a different community/village.
5. I would rather live in this community than any others I know of.
6. I would like to move out of this village as soon as possible.
7. People in this community are all striving for the same goals.
8. Everyone here wants to pursue their own goals rather than working for the good of the community.

Feelings of morale:

Refer to the extent to which members of a group or community are happy and proud of being a member. Level of belongingness can be measured by means of focus group discussions, in-depth interviews with individual members and sample surveys of community members. The following items can be used for this purpose; responses should be coded as, strongly agree, agree, unsure, disagree, strongly disagree (standard Likert-type format):

1. I am happy to be part of this community.
2. I am content to be part of this community.
3. This community is one of the best anywhere.
4. I want to work with the same people on our next community project.
5. I would rather work with different people on our next community project.
6. Most of the people in this community project genuinely like one another.
7. Most of the people here are willing to share responsibility for making our community a better place to live.
8. There are too many people in this community who think they should share in the benefits without contributing their share of the work.

Goal Consensus:
Goal consensus is the degree to which members of the community agree (1) on the importance of each problem or issue facing the community, and (2) on the objectives to be achieved by the group. Agreement assumes shared knowledge. Before members of a community can reach an agreement regarding priorities and goals, they must know what the issues are and what objectives have been set. (See, the convergence model of communication described in the first section of the document.) During the initial stage of investigation when the focus group discussion's are being held to define the community, its organizations and leaders, they should also be used to elicit the list of the 10 most important problems/issues that the community faces. This consensus list of problems can then be used in a survey of the remaining community members to measure goal consensus. Each respondent is presented with a list of these 10 problems/issues and then asked to indicate to the interviewer which problem is the most important to them at this time, which is the second most important issue, and so forth, for the entire list.

Indicator:
Each of the 10 problems will have a score (rank) from each respondent in the survey that ranges from 1 to 10. If a problem is judged to be the most important priority, then it would receive a score of 1; the problem with the lowest priority would receive a score of 10. For each problem, one can compute an average rank score, which is the sum of scores given by each individual divided by the number of individuals in the sample.[4] The problem with the lowest average rank is considered by the community to be the most important problem. One can also assess the agreement on this ranking by calculating the variance around this average rank.[5] For example, if every person in a survey of, say, 30 individuals judged water purity to be the No. 1 priority, the average rank will be the sum of all the 1.0 (equal 30) divided by the number of individuals (30), which gives a mean score for water purity of 1.0. The difference between each person's own score and the average rank would be zero if everyone gave it a score of 1.0, as in the example. In this case, the average variance would be 0, indicating perfect consensus on that problem. If everyone agreed that malaria was the second most-important problem, then the average rank score for the community would be 2.0, and once again the variance would be 0, indicating a perfect consensus on its rank order. Perfect agreement on the rank of all 10 problems would yield variances of 0. Maximum disagreement would occur when half the community ranked a problem as first priority (1.0), and the other half ranked the same problem as last (10). Dialogue about the community's priorities is expected to *reduce* the variance or disagreement on these priorities, and produce a greater, but not necessarily perfect consensus. The calculation of the actual variance in priority ranking scores can be used to know exactly how much progress has been made in reaching a community consensus on each of the 10 problems, after a process of community dialogue.

Social trust:
Is the general confidence that one has in the integrity, ability and good character of other people? Trust is sometimes thought of as the glue that holds a group or community together and makes cooperative action possible. Since 1972, the General Social Survey of the National Opinion Research Center in the United States has included a general question about whether or not other people can be trusted. Key informants of a community and/or a random sample of community members may be asked:

General:
1. Can other people (in this group/community) be trusted [check one]?

___ Can be trusted.
___ Cannot be trusted.
___ Not applicable.
___ Don't know.

Project specific: responses should be coded as, strongly agree, agree, unsure, disagree, strongly disagree (standard Likert-type format).

2. I do not trust others to have any influence over issues that are important to our projects.
3. I am comfortable giving other people responsibility for project tasks even when I cannot monitor what they do.
4. I can rely on the people that I work with on this project.
5. People in this group/community have confidence in one another.

Social reciprocity:
Refers to mutual interchange of favors, privileges and benefits in a relationship. For example, if someone helps another build their well or bring in their crop, the person who receives the favor is expected and actually returns the favor at a later date. Level of perceived reciprocity can be measured by means of focus-group discussions, in-depth

[4] Using the formula for calculating an average: $\sqrt{} = 1/n$; x_i for each problem, where n is the number of individuals in the sample, and x is the rank score for each individual, i.

[5] Using the formula for variance: $s^2 = (x_i \subset \sqrt{})^2/n$. Each individual's rank score for a particular problem, is subtracted from the average, then all the individual difference scores are added up and divided by the number of individuals in the sample to produce an "average" difference from the average rank score.

interviews with individual members and sample surveys of community members. The following items can be used for this purpose; responses should be coded as, strongly agree, agree, unsure, disagree, strongly disagree (standard Likert-type format):

1. People behave in an opportunistic way and disregard their obligations to others.
2. People fulfill their obligations when they can be punished for not doing so.
3. People fulfill their obligations with others because, if they find out, the people around them will know that they are not trustworthy.
4. People in general fulfill their obligations to be sure that others will do so for them.
5. People try to fulfill their obligations to others.

Network cohesion:
Exists in a "bounded network or clique with a high level of internal cohesion, usually defined in terms of the density or connectedness of the links of information exchange among its members" (Kincaid, 1993, p. 113). A *social network* consists of all of the dyads or pairs of individuals (or groups) within a community that are linked by some form of social relationship (kinship, friendship, economic tie, etc.), while a *communication network* consists of all of the dyads or pairs of individuals (or groups) within a community that are linked by information exchange. Communication network data is obtained by means of personal interviews with all members of an intact network, group, or community and by asking them to name all (or some limited number, five to 10) members of the community with whom:

1. They have talked to most often in the last ___ (months/days) [General Interpersonal Network].
2. They have discussed [health problem *x*, *y*, or *z*] in the last ___ months/days [Content Specific Network].
3. They have sought (or given) advice to about [health problem *x*, *y*, or *z*] in the last ___ months/days [Opinion Leadership Network].

Measures of network cohesion may be estimated:
1. By computing the *density* of a network of all individuals in a group or community, calculated as the number of pairs of individuals in a network that are linked to one another, divided by the total number of possible links in the network (see, Figures 3 and 4).
2. By computing *centrality* of a network based on the distance of all individuals to one another (number of steps of separation), calculated as the average number of the shortest steps connecting each individual to all others in a network (see, Figures 3 and 4).

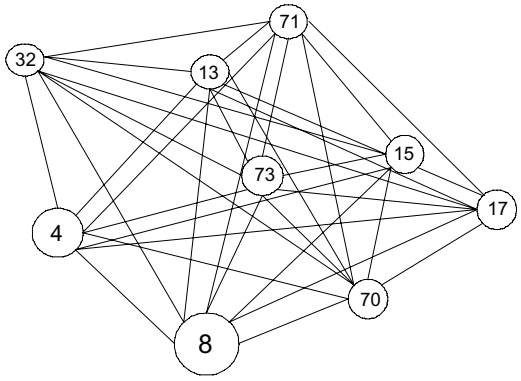
Social Norms

Social norms are the collectively agreed-upon standards and rules that are adhered to and accepted by the majority of the members of a particular society or group. Social norms are people's beliefs about the attitudes and behaviors that are normal, acceptable or even expected in a particular social context. In many situations, people's perception of these norms will greatly influence their behavior.

Dimensions of Social Norms
For purposes of this study, three dimensions of social norms can be identified:
- Norms on participation,
- Norms about leadership, and
- Norms about the specific issue/program.

Norms on participation:
Refer to the community's beliefs and rules about behaviors that are acceptable for participating, especially regarding who should or should not attend meetings and/or speak up and share in decision making. Likewise, it includes "fairness" regarding contribution to the solution of the issue/problem (program) and sharing of benefits.

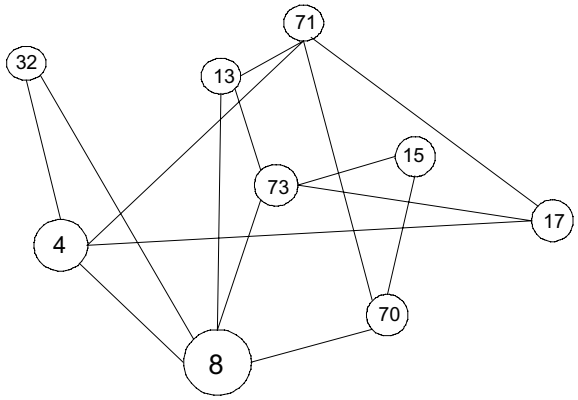
Figure 3. A completely connected communication network of nine individuals with maximum density of 100%.



Total number of possible links is $n(n\text{-}1)/2 = 9\,(9\text{-}1)/2 = 9 \times 8/2 = 9 \times 4 = 36$ links. Since all individuals are linked to one another, the **network density** is 36/36 = 1.0, or 100%, indicating maximum network cohesion.

Each individual is just one step away from all others, so the distance of each person is 8 one-step links divided the number of possible links, 8, which means that the **centrality** of each individual is 8/8 or 1.0. Each person can reach all other persons by a direct, one-step link, and all members are equally central to the whole network.

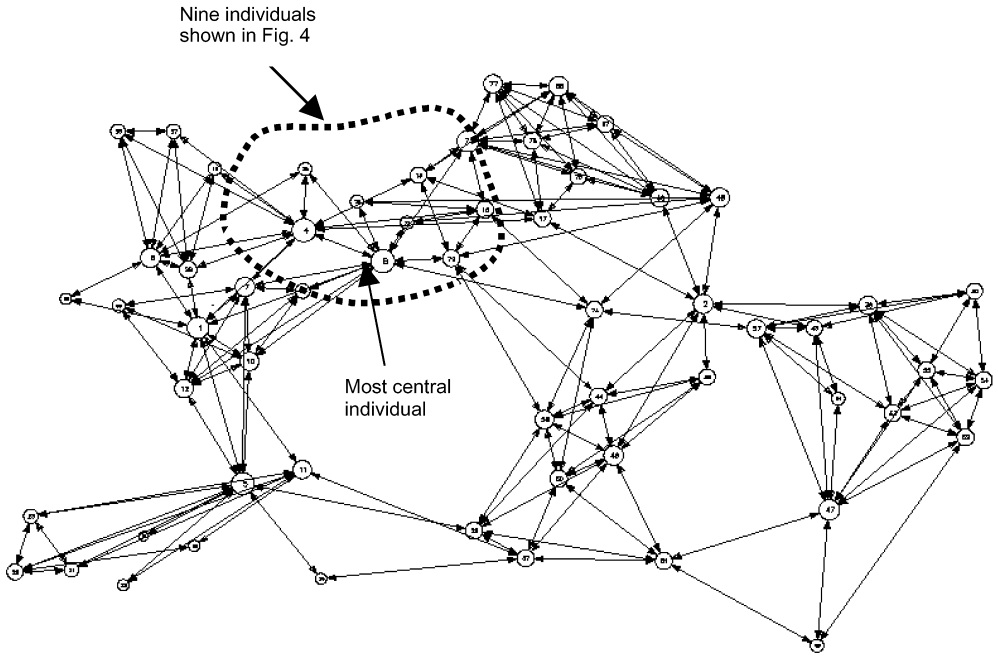
Figure 4. A partially connected communication network of nine individuals taken from the Bangladesh village network shown in Figure 5.



The same network of nine individuals, but with only 15 links out of the 36 possible links, as calculated above. Thus, the **network density** is now only 15/36 or just 42%. By this measure, network cohesion is less than half of a completely connected network.

Individual No. 8 has the most number of direct, one-step links, 5, and the shortest distance to the other three (71, 15, and 17) is by two-step links. So, No. 8's centrality score is 5+2+2+2=11 divided by the number of other individuals, 8, or 11/8 = 1.38. This indicates that No. 8 is the most central individual in the network, the one closest to all other individuals.

Figure 5. Example of a communication network from a village in Bangladesh



A computer program is necessary to calculate network density and centrality for a large network of 59 individuals, such as the one shown in Figure 5. Using the same calculations shown above, the density of this large network is 10%. The separation of individuals into 5 or so distinct subgroups (cliques) is common, but it lowers the density of the network as a whole. In this situation the cohesion of the network is dependent upon those centrally located individuals who connect these subgroups.

The most central individual in the network is No. 8, who is connected to all other individuals by an average of 2.3 steps. As the diagram shows, No. 8 is directly connected to 4 of the 5 subgroups. The least central individual in the network is 3.7 steps away from all other individuals on the average. The average centrality of all individuals in the network is 3.1 steps.

1. Extent of perceived approval about members' participation in the solution of the problem (implementation of the program). Composite index.

Q: From the following list of people, who would you say should participate in the following activities? (see, Table 2, p. 38, "Community Groups Participation by Selected Activities").

2. Proportion of members/groups that believe the community will participate voluntarily.

Q: Under which circumstances do you think members of the community should/can participate in the solution of the problem (program): every time they are asked/voluntarily, if the community gets outside resources/money, if they think they will have negative sanctions; only if they are paid?

3. Perceived potential for personal risk in addressing the solution of the problem (program).

Q: Can becoming involved in the issue/problem (program) result in personal risk: none; some economic risk, physical, social, other?

Norms about leadership:
Refer to the community's rules, systems and beliefs about leader's attributes, the responsibilities and ways of selecting/changing leaders.

4. Perceived role of community leaders.

Q: What is the role of community leaders? What is the role of community leaders in the issue/program?
Q: Who in the community can become a (program/issue) leader?

5. Perceived attributes of a good leader for program (solution to problem) by members of the community.

Q: What do you think are the characteristics of a good leader for the program (solution of the problem): authoritarian, single versus multiple leadership, democratic, group consensus?

6. Proportion of community members that can describe some mechanism for changing leaders.

Q: If there is a problem with the leader(s) what can the community do to change leader(s): nothing, something else, …?

Norms about specific issue/program:
Refers to the community's beliefs and rules about how acceptable it is to talk about and participate in activities regarding the issue/problem or program of interest, especially who should/can deal with it, who is traditionally excluded from discussion, level of detail for discussion and level of personal risk.

7. Extent of perceived relevance of the problem for the community's involvement.

Q: Who in this community are the people who should act or not act to solve the problem (program) in the community: only men, only women, all the community, …?

8. Extent to which the problem (program) can be discussed freely in the community.

Q: Who are the people you would talk to about the problem (program): nobody, immediate family members/household, other relatives, same sex friends, all friends, other acquaintances, other people in the community, others outside the community, anybody?
Q: For each person/people that you mentioned, do you think they will approve advocating the solution of the problem (program)? (Yes/No)
Q: Do you think it is acceptable for this issue/problem (program) to appear in the media (popular and other)? (Yes/No)

9. Degree and level of support that other members of the community have in solving the problem (program): level of opposition.

Q: How many people do you think support to the solution of the problem (program): the majority, most, more than half, less than half, few; none?
Q: How strong do you think people feel in their support to the solution of the problem (program); strength/emotional intensity of the support: very strongly, somewhat strongly, not very, weakly, not at all?

Table 2. Community Groups Participation by Selected Activities

People/Group*	Activity				
	Attend meetings/ discussions	Speak out at meetings	Involved/contribute in the action of program (solution)	Get benefits from program (solution)	Elect and/or act as leader for program (solution)
Women					
Men					
Main interest group/more disadvantaged					
Other relevant group with respect to the issue					
Other members not related to issue (program)					

* The list of people or groups may vary depending on the issue/program.

Table 3. List of Social Change Outcome Indicators and its Dimensions for Measurement

Indicator	Dimension
Leadership	Extent of leadership
	Equity and diversity
	Flexibility
	Competence in encouraging and securing dialogue and action
	Vision and innovation
	Trustworthiness and popularity
Degree and equity of participation	Access to participation
	Extent and level of participation
Information equity	Awareness and correct knowledge about the issue or program
	Enhanced free flow of information
Collective self-efficacy	Perceived efficacy to take action as a group
	Perceived capability of other community members
	Perceived efficacy to solve problems as a group
Sense of ownership	Importance of the issue or program to participants
	Responsibility for the issue/program
	Contribution to the program
	Perceived benefit from the program
	Perceived accountability from the program results
	Perceived personal identification with the program
Social cohesion	Sense of belonging
	Feelings of morale
	Goal consensus
	Social trust
	Social reciprocity
	Network cohesion
Social norms	Norms on participation
	Norms about leadership
	Norms about specific issue/program

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The Rockefeller Foundation
420 Fifth Avenue
New York, New York
10018-2702