# APPENDIX

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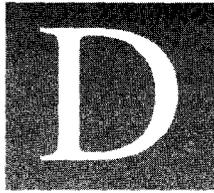
# SUPPORTING PARTICIPATORY EVALUATION USING THE COMMUNITY TOOL BOX ONLINE DOCUMENTATION SYSTEM

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A key challenge in evaluating comprehensive community health initiatives is document-ing the unfolding of the intervention, that is, the multiple changes in the environment that can lead to widespread behavior change and improvement in population-level outcomes. Using principles of community-based participatory research (CBPR), partners can document changes in the community and system (for example, a new program or policy),

analyze how the changing environment contributes to more distant health outcomes, and make adjustments along the way.

## BACKGROUND AND FRAMEWORK FOR THE ONLINE SUPPORT SYSTEM

The Work Group for Community Health and Development (2008a) at the University of Kansas (KU) has developed an Internet-based support for participatory evaluation, known as the Online Documentation and Support System (ODSS), which has been used with various community health initiatives (for example, Collie-Akers et al., 2007; Fawcett et al., 1997, 2003; Fawcett, Schultz, Carson, Renault, & Francisco, 2003; Paine-Andrews et al., 2002). Each customized workstation integrates tools for participatory evaluation, such as online graphing and reporting, with capacity-building resources in the Community Tool Box (CTB) (Work Group for Community Health and Development, 2008b). The CTB contains over 7,000 pages of free resources for learning skills (for example, conducting listening sessions), doing the work (for example, assessing needs and resources), solving problems (such as not enough participation), and exploring best approaches for change.

The Institute of Medicine's (2003, pp. 178–211) framework for collaborative public health action in communities suggests a general model for promoting community health. As shown in adapted form in Figure D.1, the KU work group's online documentation system focuses attention on four participatory evaluation questions related to the framework. In using this or other frameworks, CBPR partners collaboratively select and interpret measures of process and intended outcomes based on an agreed-upon logic model.
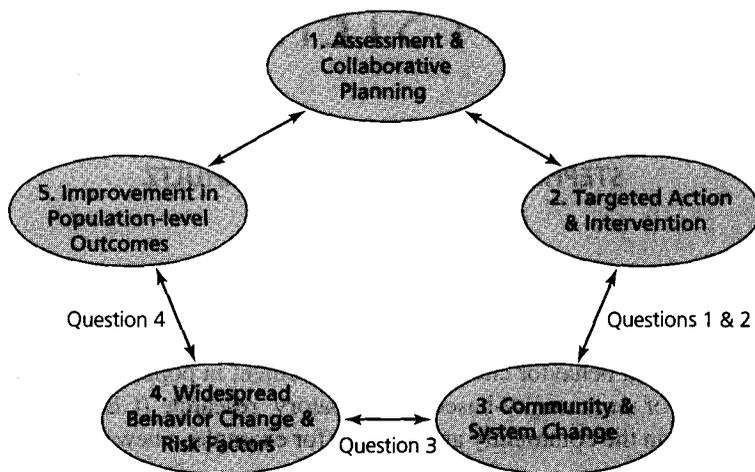


**FIGURE D.1** *Framework for Collaborative Public Health Action in Communities*

## CORE QUESTIONS AND RELATED MEASURES

1. *Is the community health initiative serving as a catalyst for community and system change related to its mission?* To capture the unfolding of changes in the environment, the online system supports documentation of key events such as community and system change: that is, new or modified programs, policies, and practices facilitated by the effort and related to its aims (for example, to prevent substance abuse or injuries). Using online graphs, community and research partners can examine the rate of community and system changes over time (see Figure D.2). We recommend that partners regularly document discrete instances of community and system change (for example, a new after-school program or a modified road safety policy) and review the time series graphs to look for discontinuities (marked increases or decreases) in rates of change.

2. *What factors or processes are associated with the rate of community and system change?* We recommend engaging CBPR partners in obtaining qualitative information on critical events in the initiative (for example, a completed action plan or implementation of intervention components). Updated annually, identified critical events can be overlaid on the time series graph(s) of community and system changes (see the boxes in Figure D.2). When particular events (for example, completion of action plan or change
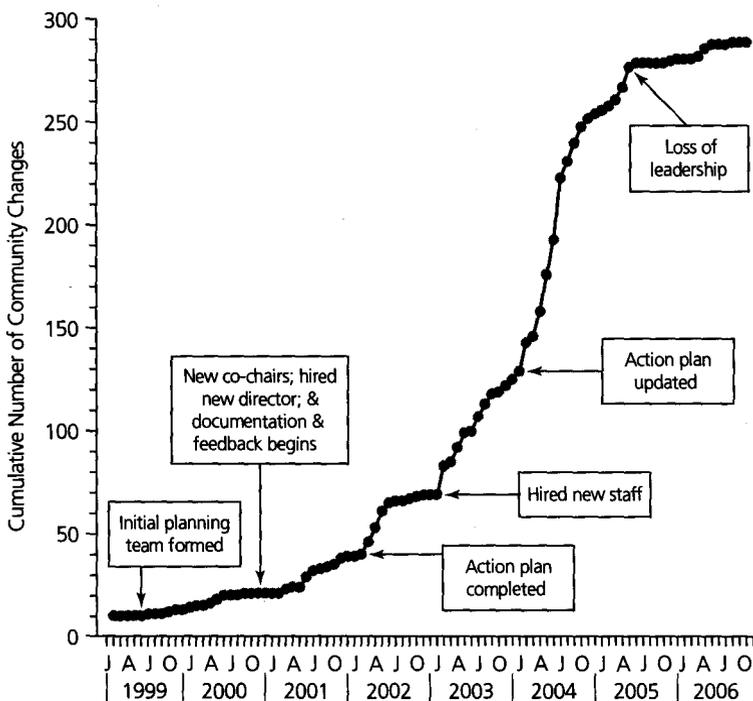


**FIGURE D.2** *Cumulative Community and System Changes (Such as New Programs or Policies) Facilitated by a Hypothetical Coalition, and Associated Critical Events and Processes*

in leadership) are associated with marked discontinuities (increases or decreases) in the rate of community change—and where these associations are replicated across contexts—they may suggest key processes that can advance or inhibit efforts to reach outcomes.

3. *How are community and system changes contributing to efforts to promote community health?* We recommend that CBPR partners conduct regular analyses of contribution by reviewing how the community and system changes are distributed along several dimensions related to the logic model or intervention plan. Secondary scoring of documented changes and online graphs (such as pie charts of the proportion of changes occurring in different sectors) can aid systematic reflection. We recommend examining the distribution of community and system changes by (a) primary goal or aim (for example, to promote healthy nutrition or physical activity); (b) primary strategy of intervention used (for example, providing information or bringing about policy change); (c) expected duration of change (for example, a one-time event or an ongoing process); (d) primary population to benefit (for example, children or adults); (e) primary sector addressed (for example, schools or health organizations); (f) primary ecological level addressed (for example, individual, relationship, or community); and (g) place (for example, a particular city or county).

4. *Are community and system changes associated with improvements in population-level outcomes related to the objectives?* Annually, the CBPR partners examine whether the cumulative unfolding of community and system changes is sufficient to "tip," or improve, indicators of population-level improvement (for example, the prevalence of violence or reported cases of HIV/AIDS) (see the sample graph in Figure D.3). We recommend using the analysis of contribution to discover the "dose" or conditions under which associated population-level improvements are noted. For instance, we might expect population-level
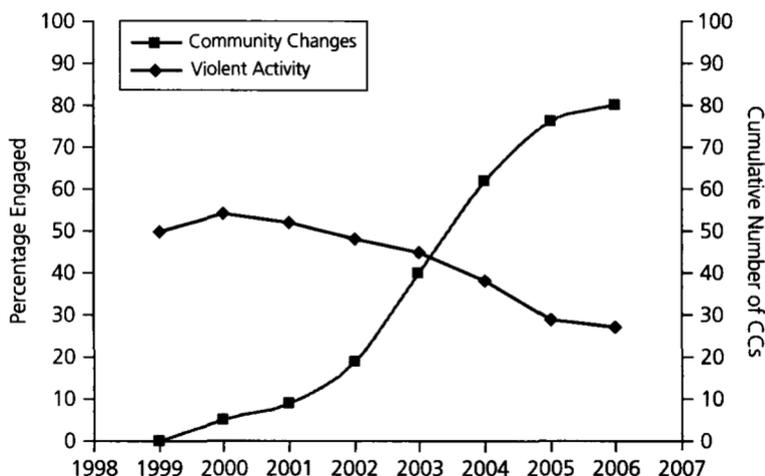


**FIGURE D.3** *Possible Association of the Unfolding of Community and System Changes and Improvement in Population-Level Outcomes.*

improvement when there are larger numbers of environmental changes that are focused on the goal, and when these changes are of longer duration, with a greater intensity of change strategy, and delivered through multiple sectors in places where people experience the problem. Multiple case studies can help researchers establish the generality of observed associations across contexts and conditions.

## SUMMARY AND ADVANTAGES

There are several advantages to this and similar systems for supporting CBPR and related efforts to promote community health. First, such a support system can help partners to systematically document the unfolding of comprehensive community interventions in dynamic and diverse contexts. Second, it focuses attention on core evaluation questions, such as whether an initiative is serving as a catalyst for environmental change and whether the changes are associated with population-level improvement. Third, all required online capabilities for documenting and analyzing the contribution of community health efforts (for example, for online data entry, graphing, participatory sense making, reporting, and making adjustments) have been field-tested using the CTB Online Documentation and Support System.

Fourth, it provides integrated supports for targeted action and related participatory evaluation. For instance, when viewing online graphs, community and research partners can use tailored reflection questions to consider what the results mean. If the results show a low level of change or improvement, for example, guiding questions may be asked (for example, Is this what we expected to see? What affects progress? What might lead to improvement?). For identified problems, the participants are referred to relevant how-to sections in the Community Tool Box (for example, how to respond to opposition). Fifth, the community and system changes documented by collaborating partners can suggest promising approaches for intervention in other communities. Each initiative's postings of accomplishments are readily viewable by other CBPR partners, thus contributing to empowerment and co-learning within and across initiatives. When coupled with other technical assistance, this online support system can help make easier the collaborative work of creating conditions that promote health and health equity.

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