Some Recommendations for Evaluating and Supporting Collaborative Efforts for Improving Health Care

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A Context for the Evaluation of Collaborative Efforts to Improve Health Care:

Collaborative efforts to improve health care, aim to create environments that improve the quality of care to patients. Although significant differences exist among the aims, targets, and conditions of different health care improvement efforts, the context for evaluation remains similar. In collaborative efforts to improve use of health innovations, for instance, there are multiple and interrelated factors (e.g., opportunities for use, access to resources, social support) that contribute to multiple and interrelated outcomes (e.g., adoption of specific medical techniques, immunization of patients). No single intervention – no one program or policy change – targeting one behavior is likely to improve population-level outcomes. Additionally, the long delay between targeted actions and the resulting widespread behavior change and improvement in population-level outcomes makes it difficult to assess whether the effort is bringing about change.

Accordingly, in dynamic systems, it is important to document those new programs, policies and practices—*community and system changes*—that form the comprehensive intervention that unfolds over time. We can *analyze the contribution* of documented instances of community and system change, an intermediate outcome, to subsequent behavior change and longer-term outcomes. Findings from this analysis can be used to improve the effort's effectiveness along the way.

The Institute of Medicine's (2003) framework for collaborative public health action in communities suggests a general model and four key evaluation questions. Depicted below, it is applicable to the major phases of collaborative efforts to improve health care:
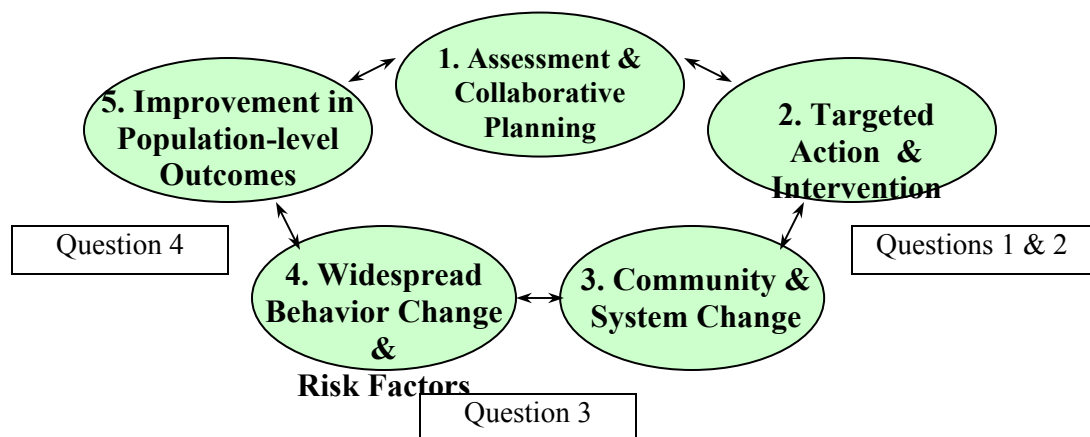
A framework for collaborative efforts to improve health care.

(Source: CDC, 2002; Fawcett et al., 2000; Institute of Medicine, National Academy of Sciences, 2003.)

<u>Core Evaluation Questions and Related Measures</u>:

To evaluate community/system efforts to improve health care, we recommend four evaluation questions and related measures. A brief description of each question and related methods follows:

1. *Is the collaborative effort serving as a catalyst for community/system change in order to improve health care?*

   <u>Measurement and Analysis</u>: **To capture the unfolding accomplishments of the effort, we recommend documenting instances of community/system change; that is, all new or modified programs, policies and practices facilitated by the effort and related to the mission**. Any system of recording the effort's actions and accomplishments should be highly accessible and easily shared among partners and community members (e.g., online documentation). Documented changes can subsequently be graphed, and participants can examine the rate (cumulative number) of community/system change over time. Collaborative partners may review time series graphs to look for discontinuities (marked increases or decreases) in the rate of change for the distinct collaborative efforts. See illustrative Figure 1 below.
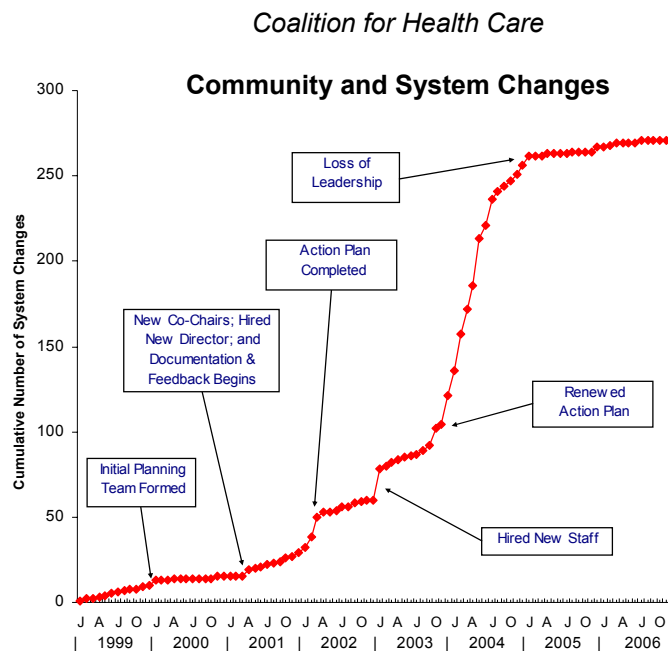
Coalition for Health Care

Community and System Changes

Initial Planning Team Formed

New Co-Chairs; Hired New Director; and Documentation & Feedback Begins

Action Plan Completed

Loss of Leadership

Renewed Action Plan

Hired New Staff

| J A J O | J A J O | J A J O | J A J O | J A J O | J A J O | J A J O | J A J O |
| 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |

Figure 1

2. *What factors or processes are associated with the rate of community/system change for improving health care?*

   <u>Measurement and Analysis</u>: Twice yearly or annually, we recommend gathering qualitative information on critical events (e.g., completed action plan; loss of leadership) in the distinct collaborative efforts. These critical events can be overlaid on the time series graph(s) of the unfolding of community/system changes related to

improving health care (e.g., promoting immunizations). When particular events (e.g., action planning; changes in leadership) are associated with marked discontinuities (increases/decreases) in the rate of community change—and where these associations are replicated across contexts—they may suggest key processes or factors that can advance efforts to improve health care. See Figure 1 above.

3. *How are community/system changes contributing to the efforts to improve health care?*

Measurement and Analysis of Contribution: Twice annually, we recommend that key parties review an analysis of contribution and use it to make adjustments with the overall initiative and distinct collaborative efforts. In order to more clearly understand what characteristics of community/system change influence rates of behavior change, we recommend that documenters record several relevant dimensions related to the conceptual framework (e.g., goal addressed, sector the change occurs within, intervention or behavior change strategy used, population targeted, duration of change) for each change. This secondary scoring and review permits an analysis of contribution by relevant dimensions (e.g., amount of change by: goal, strategy, duration, population, sector, and place). See illustrative Figure 2 below.

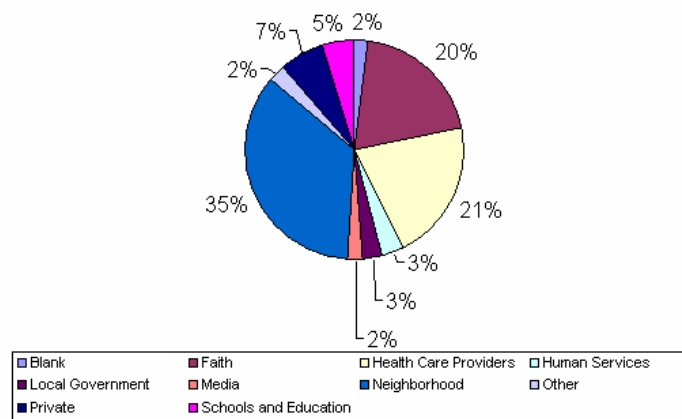Distribution of KC-CDC's Community Changes by Sector (N=321)

Figure 2

4. [For each place-based community effort] *Are community/system changes associated with improvements in population-level outcomes?*

Measurement and Analysis: Annually, examine whether (and under what conditions) the cumulative unfolding of community/system change is related to improvement in indicators of population-level health outcomes (e.g., increasing adoption of health innovations; reducing medical errors). We recommend using the analysis of contribution to help discover the conditions under which associated improvements are noted (e.g., sufficient amount of change by goal; duration; intensity of strategy; penetration to targets, through sectors, in places). Multiple case studies, in which data from discrete health improvement efforts are compared, can help examine the generality of observed associations across contexts and conditions. See illustrative Figure 3 below.
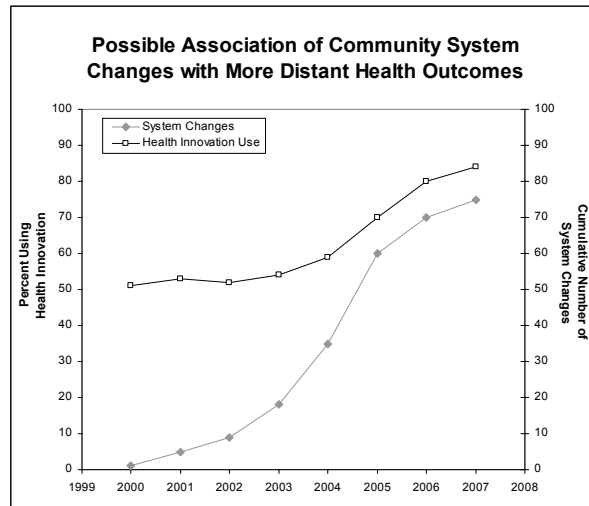
**Possible Association of Community System
Changes with More Distant Health Outcomes**

Figure 3

<u>Summary and Potential Advantages of this Documentation and Evaluation Approach</u>:

There are several advantages to the approach outlined above. First, it can help systematically document the unfolding of the intervention in the dynamic and diverse contexts of collaborative efforts. This helps to analyze the contribution of community/system changes intended to "tip" or improve population-level outcomes. Second, it permits attention to several core evaluation questions for collaborative efforts to improve health care in communities. For instance, it can help address such key questions as: "Is the initiative serving as a catalyst for community/system change?" and "Are community/system changes associated with improvements in population-level outcomes related to the mission?" Third, similar capabilities for documenting and analyzing the contribution of collaborative efforts are currently available. For instance, the KU Work Group's Online Documentation and Support System can be used for online data entry, graphing, data export, and reporting. Fourth, the community/system changes documented by collaborating partners will suggest promising approaches for intervention in other communities and contexts. For example, by enabling collaborating partners to

view documented changes, promising intervention elements can be adapted for other contexts. Finally, use of a cross-cutting measurement and support system will permit co-learning within <u>and</u> across collaborative efforts to improve health care.

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