KIQNIC CONCEPTUAL FRAMEWORK SYNOPSIS
December 2009

THE PURPOSE OF THE KIQNIC CONCEPTUAL FRAMEWORK IS TO:

1. Frame KIQNIC within current thinking about knowledge to action (KTA) determinants, processes, and outcomes;
2. Provide a conceptual foundation that links NAQC structures and functions to variables that may affect its operations and associated KIQNIC research;
3. Outline a way of working with NAQC that meets its needs for feedback and quality improvement.

THEORETICAL FOUNDATIONS

The ways we think about knowledge and linking research, practice and policy have been changing markedly in the last five years, powered in large part by four factors:

1. Typical practice change from knowledge translation activities is only about 8-15% (Crowley et al., 2004; Grimshaw et al., 2001). The results from past ways of thinking just aren’t good enough – we need to be able to translate more of our knowledge into practice.
2. If we want more evidence-informed practice, we need more practice-informed evidence (Green, 2006. There is growing commitment to a two-way street in which research and practice learn from each other.
3. The public health problems that we want to impact, like tobacco use, are best seen as embedded in complex adaptive systems. We need to change the way we think to understand the dynamics of these systems if we want to influence systems change (Huang et al., 2009; Leischow et al., 2008).
4. There is growing consensus that the critical issues around improving impact relate less to diffusion of knowledge and more to implementation of practices (Glasgow & Emmons, 2008; Green et al., 2009). Of particular interest for KIQNIC is evidence that context/environment is the best single predictor of knowledge utilization (Landry et al., 2003).

CONCEPTUAL ISSUES AND PRINCIPLES

KIQNIC can begin to develop a practical, dynamic framework for understanding the influences on quitline implementation of evidence guidelines and how the different quitlines innovate. Together, KIQNIC and NAQC can build an approach for shared learning and continuous improvement.

Figure 1 is a preliminary Causal Loop Diagram (Pankaj & Pankaj, 1994) showing key components of the NAQC system and suggesting ways in which they may interact. Here is how to read the map:

- The boxes show what are called “stocks” – the various factors that we believe influence implementation of quitline practices.
The four boxes in the middle show how quitlines and networks influence decision making, which in turn influences knowledge integration. At the left and right, we assume that NAQC also has effects on the quitlines, networks and decision making; and the local community context has effects as well.

The arrows or feedback loops show how one stock influences another. Feedback loops can be positive (reinforcing) or negative (dampening/self-correcting).

In a feedback loop, a factor can be both a cause and an effect, such that the cause is in the past and effect is in the present. The direction of the arrow shows the direction of the causation, and a (+) or (-) on the arrow indicates whether the effect amplifies or dampens the effect, or both. For example, in one community stable funding may have a very positive effect on the network and quitline operations; in another community, a disruption in funding may have a very negative effect.

FIGURE 1
Dynamic Map of the NAQC System

DATA ANALYSIS
The KIQNIC grant proposal outlined an analytic framework for the survey data, as shown in Figure 2. This approach takes advantage of some of the best methods currently
available to analyze the types of data collected by KIQNIC. The KIQNIC team will follow this model, at least initially, in an effort to understand how decision-making is influenced by structural characteristics of quitlines, funding, and organizations’ network relationships. In addition, it will explore the effects that organizations’ network characteristics have on adoption and implementation of quitline practices, as well as any mediating role that decision-making characteristics might play.

FIGURE 2
Analytic Framework for KIQNIC

NAQC-KIQNIC COLLABORATION

The NAQC Advisory Workgroup will play a central role in determining how the KIQNIC research findings will best be communicated to the larger NAQC membership and the broader quitline community. In addition, it will play a critical role in data analysis and interpretation. Research team members will be responsible for cleaning and conducting preliminary analyses of the survey data. These findings will be consolidated and presented to the Workgroup via PowerPoint and conference call. Workgroup members will be asked to provide context around the findings, and to confirm or modify the research team’s interpretations of those findings. In addition, Workgroup members will give the research team guidance on how best to present the findings to the larger NAQC membership and quitline community. Potential vehicles for communicating the findings could include reports at the individual organization or quitline level, member-wide conference calls, conference presentations, fact sheets, “dashboard” reports, and/or interactive web-based reports. This process for engaging NAQC members through the Workgroup will evolve as needed based on feedback from both the research team and the Workgroup.
REFERENCES


