The Practices, They Are A-Changin': Changes in the Levels of Implementation of Quitline Practices in North American Quitlines 2009-2011

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Background

There is considerable evidence that tobacco cessation quitlines are effective at helping people quit using tobacco (Fiore 2008, Stead *et al.* 2007). Yet there are many individual practices that make up quitline operations, and these practices vary in degree of implementation by quitline and have varying levels of evidence to support their effectiveness at helping people quit, or increasing the reach of quitlines.

For example, while 90% of US and Canadian quitlines have implemented fax referral systems to coordinate quitline referrals from health care providers, only 5% have implemented text messaging programs (NAQC annual survey data, 2010).

Similarly, while there is strong evidence that providing outbound proactive counseling improves effectiveness (quit rates) of quitlines (Lichtenstein *et al.* 1996, Pan 2006, Stead *et al.* 2006, Stead *et al.* 2003, Fiore 2008), there are no studies that show that staffing quitlines with masters-level counselors improves efficacy.

Finally, there are some individual studies that examine the impact of certain practices on quitline reach (Miller 2009, Campbell *et al.* 2008, An *et al.* 2006, Scheffer *et al.* 2010, Tinkelman *et al.* 2007, Fellows *et al.* 2007), identifying another way to view evidence for quitline practices.

Objectives

This study examines 27 quitline practices, and examines changes in the degree of implementation of those practices over time. It also analyzes the relationships between implementation of individual practices, reach of quitlines, and spending amounts on quitline counseling and medication per adult smoker.

Methods

- The Knowledge Integration for Quitlines: Networks to Improve Cessation (KIQNIC) grant was awarded to the Arizona Cancer Center at The University of Arizona, to work with the North American Quitline Consortium (NAQC) to better understand the communication mechanisms by which NAQC members interact, share new evidence, make decisions on how and when to implement new knowledge, and adopt practices that they believe will improve quitline outcomes.
- To understand more about the specific practices implemented by quitlines, the research team surveyed representatives of North American quitlines in two consecutive years: 2010 (n = 63) and 2011 (n = 65).
- To assess level of implementation for each practice, survey respondents were asked first whether they were aware or not aware of each practice. If they reported being "aware" of a practice, they were asked at what stage of the decision-making process they were in.
- If they selected "decided to implement the practice," they were asked what stage of implementation they were in *(see Figure 1).*

Figure 1. Assessment Questions for Level of Implementation

The stages for the implementation process are as follows:

Awareness of the practice => decision to adopt (or not adopt) => implementation

The format of the questions will follow these linear stages.

Are you **AWARE** of this practice? ❍ Yes ❍ No

If you answered "Yes", please indicate where you are in the decision-making process:

- If your quitline has initiated any actions towards putting a practice into action, it is assumed that a **decision to implement** the practice has been made.
- Practices with "Decided to implement" responses will be carried through to the implementation stage.

❍ Have not yet discussed
❍ In discussion
❍ Decided not to implement
❍ Decided to implement

If you answer "Decided to implement", please indicate what place you are at in the implementation process:
Please indicate your response on a the 5-point scale where:

1 = **No progress has been made yet**
2 = **A low level of implementation has been reached** (e.g., some discussion, staff informed, someone assigned to lead the process, etc.)
3 = **A medium level of implementation has been reached** (e.g., formal plan for implementation, resources committed, training begun, etc.)
4 = **A high level of implementation has been reached** (e.g., pilot project has been implemented, or testing has begun)
5 = **Fully implemented** (the practice has become part of the quitline's policy or standard operating procedures for all eligible callers).

- Responses were aggregated to the organizational level (if there was more than one respondent per funder or vendor organization) and to the quitline level (combining responses from each funder-vendor pair for each quitline).
- Correlations were run between the number of quitlines reporting "high" or "full" implementation of each practice, and the level of evidence for each practice with respect to increasing effectiveness (quit rates) and reach (*see* Moor *et al.* poster "Do the Right Thing, or the Right Thing to Do? Weighing the Evidence: Classification of Quitline Practices According to Type of Evidence" for definitions of the different levels of evidence).

Results

- There was no relationship between the level of evidence for either reach or efficacy and the number of quitlines implementing the practice in either 2010 or 2011 (*see Table 1*).

Table 1: Correlation Matrix for Number of Quitlines Implementing a Practice and the Level of Evidence for that Practice (Pearson's *r*)

	Level of evidence for increasing quitline efficacy (quit rates)	Level of evidence for increasing quitline reach (utilization)
Number of quitlines implementing a practice in 2010	$r = +0.32$	$r = +0.29$
Number of quitlines implementing a practice in 2011	$r = -0.01$	$r = -0.05$

- 2011 showed a greater number of quitlines implementing the practice for almost all practices. Exceptions included:
  - Providing self-help materials for tobacco users regardless of their reason for calling or services selected.
  - Providing telephone counseling immediately to all callers who request it.
  - Supplementing quitline services with Interactive Voice Response (IVR) services.
  - Using text messaging to provide tailored support in conjunction with, or instead of, telephone counseling.
- When comparing 2010 to 2011, referral to health plans had the greatest proportion of increase out of all the practices.

Figure 2

Number of Quitlines Reporting "Full" and "High" Implementation 2010-11

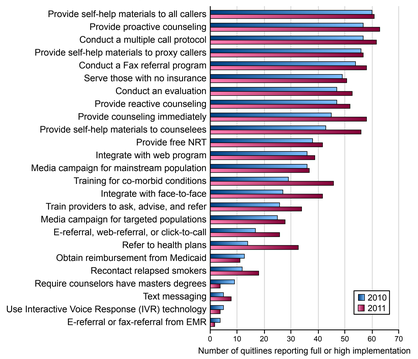
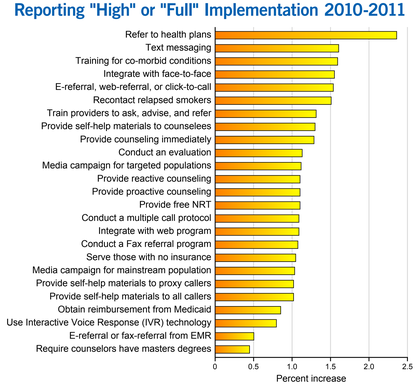


Figure 3

Proportion of Increase in Number of Quitlines Reporting "High" or "Full" Implementation 2010-2011



Discussion

In general, for the practices included in this study, quitlines added more practices than they discontinued from 2010-2011.

Of the four practices that showed a decrease in level of implementation, one (requiring counselors to have masters degrees) had very little evidence that it increased either effectiveness or reach, and the other three (obtain reimbursement from Medicaid, use IVR technology, and accept e-referrals or fax-referrals from electronic medical records) require significant financial and staff resources to implement.

While no relationship exists between level of implementation of practices and level of evidence for practices, there may be additional factors that play a role in decision-making for quitlines, such as cost-effectiveness.

Conclusions

In an environment of increasingly limited resources, quitlines may want to pay more attention to the levels of evidence each practice has, and how that relates to each quitline's unique goals.

Practices that assist quitlines with cost-sharing and diversifying funding sources may be those that are adopted most quickly in the near future.

Additional research should be done to assess any relationship between cost-effectiveness of individual practices and level of implementation by quitlines.

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