| EXECUTIVE SUMMARY |

Quitline Service Offering Models: A Review of the Evidence and Recommendations for Practice in Times of Limited Resources

OVERVIEW

This Issue Paper ***was created in response to a request from NAQC members to summarize the evidence and provide recommendations on how to most effectively use resources when determining service offering options.*** The full paper is intended to serve as a resource for the multiple audiences involved with tobacco quitlines, including decision-makers within state, provincial, and national organizations that fund quitline services, service providers who offer guidance to their clients, and other quitline and cessation professionals. In addition, providers and payers of privately funded quitlines may find this paper relevant given current efforts to promote public-private partnerships for quitline services.

This ***executive summary serves as a quick reference for quitline decision makers***. It does NOT provide details regarding the scientific literature, and instead focuses on the recommendations made. For a summary of the literature, or details on specific studies, please see the full paper. The full paper also makes many recommendations for research. These recommendations have been summarized separately and are encompassed by the research priority areas listed in the NAQC Research Agenda for Quitlines.

There is a strong commitment to publicly funded quitlines in the U.S. and Canada. At the same time, the environment continues to shift in ways that are straining resources. Quitlines are faced with decisions about how to serve tobacco users most effectively at a time with historically high utilization, limited resources, and a rapidly changing public health and health care environment. Given the strong role that science has played in the creation and advancement of quitlines, it is critical that the evidence generated from research studies and evaluation of practice be used to inform efforts moving forward**.**

This paper is based largely on a review of the published literature. In areas where there is little published evidence, examples from practice are included. The review of the literature for this paper focuses on three broad areas: 1) quitline service offerings; 2) pharmacotherapy offered through quitlines; and 3) technological advances to support quitline service offerings. Funders, service providers, and quitline professionals will need to consider their unique circumstances when considering the recommendations for practice offered in this paper. Likewise, these recommendations are offered within a North American context and may not be generalizable to the broader international community of quitlines.

SECTION ONE: A REVIEW OF EXISTING SERVICE MODEL OFFERINGS

Recommendations for Practice Related to Service Model Offerings

This review examines literature related to reactive service models, proactive service models, fax referral programs, and medications. Recommendations below are based on the review of the existing evidence:

1. If faced with the decision to add nicotine replacement therapy (NRT) or additional proactive counseling calls to a reactive quitline, the addition of NRT appears to be the more clinically effective and cost-effective choice. Furthermore, promoting the availability of free NRT has the potential added benefit of increasing call volume and extending quitline reach.
2. Quitlines offering proactive services should consider how many calls their callers are completing. While there is little literature to guide call-attempt protocols, unless a proactive quitline is willing to invest efforts in increasing the number of calls ultimately completed, the offer of a two- to three-call protocol with a high rate of completed counseling sessions may result in the same level of quit success as the offer of a four- to five-call protocol.
3. Combining NRT with proactive counseling results in the highest levels of quit success and has a positive impact on quitline reach. The evidence is currently mixed regarding the optimal amount of NRT to be provided to callers, with some studies demonstrating a benefit for extended supplies (beyond two weeks) and others suggesting that the trade-offs for quit rates with smaller supplies of NRT may be minimal. Limited evidence suggests that smaller NRT supplies are more cost-effective than extended supplies.

a. Under conditions of increased demand for services and limited resources, quitlines should consider providing two weeks of NRT to all eligible callers and reserving extended supplies of NRT (up to eight weeks) for those least able to afford it.
b. Under conditions of adequate resources, quitlines should provide extended supplies of NRT (up to eight weeks) to eligible callers.

4. Quitlines that offer smaller amounts of NRT should include counseling protocols to support and encourage callers to acquire additional NRT.
5. Quitlines should continue to utilize fax-referral programs to reach tobacco users. These programs will be most effective when contact and enrollment rates are high. The quitline community should work together to identify which efforts have been most successful in contacting and enrolling individuals who are interested in and motivated to quit. Evidence suggests that investments in provider training, technical assistance, and systems changes may help to achieve the maximum impact of fax-referral programs.
6. While the body of evidence for reactive service offerings is limited, findings suggest they can be clinically effective, in particular when combined with medications.
7. Quitlines should be encouraged to carefully evaluate the impact of any changes made in service offerings. Reducing the amount of NRT provided will be cost-effective only if quit rates remain relatively stable; the addition of NRT offerings may drive up costs if more callers are enrolling in counseling services. Careful monitoring of the effects of changes in service offerings will be critical to maintaining quality.

SECTION TWO: EXPANDING SERVICE OFFERINGS THROUGH PHARMACOTHERAPY

This section of the paper focuses on the overall impact of pharmacotherapy on quitlines, rather than by service model, and examines which mechanisms for medication dosing and delivery may provide efficiencies for service provision. The 2009 NAQC Issue Paper, *Integration of Tobacco Cessation Medications in State and Provincial Quitlines: A Review of the Evidence and the Practice with Recommendations*, examines the topic of cessation medications and quitlines in depth and readers are encouraged to access that paper for additional information.

Recommendations for Practice for Expanding Service Offerings through Pharmacotherapy

1. Under conditions of increased demand for services and limited resources, quitlines should consider providing two weeks of NRT to all eligible callers and reserving extended supplies of NRT (up to eight weeks) for those least able to afford it. Under conditions of adequate resources, quitlines should provide extended supplies of NRT (up to eight weeks) to eligible callers.
2. Quitlines that offer smaller supplies of NRT should include counseling protocols to support and encourage callers to acquire additional NRT.
3. Quitlines providing extended supplies of NRT by direct mail may want to consider split-shipment protocols.
4. Quitlines with robust budgets may want to consider providing access to prescription medications.

SECTION THREE: EXPANDING QUITLINE SERVICE OFFERINGS THROUGH ADVANCES IN TECHNOLOGY

This section of the paper examines the evidence base for the use of integrated web, interactive voice response technology (IVR), and text-based interventions as an adjunct to quitline services. While these tools represent emerging technology that has not been fully tested with quitlines, these innovations hold great potential for expanding quitline service offerings by reaching new populations, providing efficiencies in service delivery, and offering cost savings. These technologies can be implemented to specifically enhance quitline services or may be part of a larger constellation of cessation services being offered along with quitline services.

Considerations for Practice for Expanding Quitline Service Offerings through Advances in Technology

The emerging nature of the evidence for these new technologies as an adjunct to quitline services limits the ability to make science-based recommendations. This will be an area that will be fluid in terms of evolving technology and evidence, and readers will need to review up-to-date research before making service decisions. It is expected that quitlines will continue to innovate with these technologies and incorporate them into their cessation service offerings, and dissemination of experience-based findings among quitlines should be encouraged. Though relatively inexpensive, building systems to support these technologies does require some investment of resources and time. Quitlines should carefully consider the value added in adopting and integrating these technologies.

Based on the evidence to date, the findings of this review suggest:

1. There is no compelling evidence that integrating web-based cessation programs with phone counseling is more effective than phone counseling alone. Further research will be needed to more fully understand how these two programs can work together to support tobacco users in their quit attempts.
2. In practice, there are many uses of web technology that are being used in conjunction with quitline services. The future of quitlines will likely be highly integrated with web-based technologies. Innovations should be encouraged and experiences shared.
3. To date, IVR technology remains largely untested among quitlines. Those who are adopting IVR should be supported to evaluate these programs and share findings with the larger quitline community. Likewise, the National Cancer Institute should be encouraged to share findings based on the federal IVR system.
4. Texting appears to provide short-term cessation benefits. Given the potential for this tool to provide efficiencies in service delivery and its relatively low cost, quitlines should be encouraged to adopt and evaluate text-based interventions. An emphasis should be placed on encouraging quitlines to adopt and modify texting programs that are currently available rather than on developing new texting programs.
5. While this paper did not review the use of social media, several quitlines have integrated these tools (Facebook, Twitter) into their programs. Dissemination of experience-based findings should be encouraged.

SUMMARY

Based on this review of the evidence, service delivery options are presented for conditions of both low and high resources.

Table 14. Service Delivery Options for Low and High Resources Environment

	Service Delivery Options	Evidence
Low Resources	Scale back the number of proactive calls	Evidence suggests that the offer of moderate intensity protocols (2-3 calls with a high rate of completed counseling sessions) are as likely to be as clinically effective as the offer of higher intensity call protocols (4-5 calls).(1-5) In addition, moderate counseling protocols are more cost-effective than high intensity protocols.(1)
	Scale back to one-call (reactive) combined with NRT	Evidence indicates that NRT combined with single-call reactive counseling is an effective service model.(1, 6, 7)
	Reduce the provision of NRT to a two-week starter kit	Studies have shown that a two week provision of NRT is clinically effective (8-10) and cost-effective.(11)
	If reducing the provision of NRT to two weeks, include counseling on how to obtain additional NRT	Studies have shown that some callers are willing to purchase NRT on their own,(4, 6, 8, 9, 12) in particular if counseled to do so.(11)
	Reserve extended supplies for those least able to obtain NRT on their own	Studies have shown that a longer course of NRT (up to 8 weeks) results in higher quit rates than shorter supplies.(11, 13, 14)
	Consider using split-shipments for distributing extended supplies of NRT	Evidence suggests that split-shipment protocols for providing extended courses of NRT may be more cost-effective than single-shipment protocols.(15)
	Increase resources for fax referral with an emphasis on achieving high rates of contact and enrollment	Evidence suggests that fax-referral programs are an effective tool for increasing quitline enrollments,(16, 17) increasing success in quitting,(18) and increasing provider engagement in the quitting process.(19) In addition, these programs are highly cost-effective.(16, 17, 20) Efforts to achieve high rates of contact and enrollment among those referred further enhance the effectiveness of fax referral.(20)
High Resources	Add proactive counseling to a reactive quitline	There is strong evidence that multi-call proactive counseling sessions have greater benefit compared to single session counseling.(21, 22)
	Add free NRT if not already provided	Several studies have demonstrated that providing NRT is effective in increasing call volume,(9, 12, 23-28) increasing

		tobacco abstinence,(9, 12, 23, 25-29) and is cost-effective.(1, 12, 27, 28)
	Provide extended supplies of NRT	Studies have shown that a longer course of NRT (up to 8 weeks) results in higher quit rates than shorter supplies.(11, 13, 14)
	For quitlines with robust budgets, consider providing access to prescription medications	Evidence suggests that the provision of varenicline(30) or bupropion(31) through quitlines is clinically effective.

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NORTH AMERICAN QUITLINE CONSORTIUM

The North American Quitline Consortium (NAQC) is a non-profit organization that strives to promote evidence-based quitline services across diverse communities in North America. By bringing quitline partners together—including state and provincial quitline administrators, researchers, quitline service providers, and national organizations in the United States, Canada, and Mexico—NAQC helps facilitate shared learning and encourages a better understanding of quitline operations, promotions, and effectiveness to improve overall quitline services.