# DRAFT RESEARCH AGENDA FOR QUITLINES
## Outline

Revised July 21, 2011

**Purpose:**

- To provide criteria for developing and managing internally generated research (within the network) as well as external requests for network participation
    - To establish a process for soliciting research ideas from consortium members
    - To establish a process for prioritizing research topics
    - To establish a process for communicating with consortium members regarding research opportunities, implementation of protocols
- To develop a balanced research portfolio that meets the needs of the various stakeholder groups including the following topics and methods:
    - Convincing research about the necessity and success of quitlines. "Return on investment" information as calculated through cost benefit and cost effectiveness analyses.
    - Descriptive analyses about the populations that access the quitlines, and what barriers/challenges the populations perceive to quitline accessibility
    - Effectiveness of different types/constellations of services for different populations, especially priority populations.
    - Essential elements of the quitline intervention for maximum efficacy
    - Essential elements of counselor training for maximum efficacy
    - Randomized and non-randomized trials and evaluations to assess innovative interventions to improve outcomes
- To leverage use of the Minimal Data Set
    - Ways to use data already being collected across quitlines to answer questions that single quitlines cannot answer alone
    - Ensuring that the data that are being collected are being used
    - Examine whether use of the MDS as it currently stands poses a barrier to accessing services, especially regarding its length

**Process:**

- Many of the items below are taken from the White Paper written by Deborah Ossip in 2005. For that paper, Dr. Ossip collected extensive feedback over the course of three years from quitline stakeholder groups.
- NAQC's initial focus was on operational issues, and creating a Minimal Data Set for quitlines. Funding and resources were not immediately available for much of the work proposed in the white paper.
- Development of the MDS and its subsequent Assessment and Revision, as well as the evolution of the NAQC Annual Survey for quitlines, have laid the groundwork for much of the work proposed in Dr. Ossip's white paper. Where relevant, updates on progress made on various agenda items is noted below.
- NAQC members are consulted as part of the Research Agenda workgroup for current and ongoing updates to this document. External feedback from the larger quitline research community is also being sought.

**Broad Research Agenda for Quitlines:** to address the question "How can we most effectively reduce the impact and burden of tobacco use through increasing the reach, delivery, and effectiveness of quitlines?"

How can we maximize our use of current resources?

How can we continue to advance the state of the field?

| **NAQC Strategic Goal 1: Increase the Use of Quitline Services in North America**<br>**Objective 1: By 2015, each quitline should achieve a (treatment) reach of at least 6% of its total adult tobacco users. (Treatment reach is defined as the proportion of total adult tobacco users receiving evidence-based treatment – either beginning at least one counseling session or receiving medication.)** | | |
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| **Research question** | **Methods needed to address the question** | **How findings might be used in operations and/or to move policy forward** |
| 1. Descriptive studies with special focus on the reach of quitlines and diversity/disparities in use of quitlines<br>a. Who calls quitlines? - Already being done through NAQC Annual Survey data collection<br>b. What services do callers select and what do they receive?<br>c. NRT availability and use – what % of quitlines offer NRT or other medications? (Already collected and reported by NAQC)<br>d. Do callers who request/receive NRT differ from callers who do not (i.e. does NRT availability attract different callers – by ethnicity, age, gender, pregnancy, motivation?)<br>e. How do callers hear of the service? Which types of media draw which types of callers? | NAQC Annual Survey data collection<br><br>Potentially CDC NQDW data collection<br><br>Evaluation studies, comparative case studies (especially for topics d and e) | Baseline data for future studies<br><br>Trend data showing progress or declines in quitline efforts<br><br>Data to show areas where additional efforts, promotions, and funding might be needed – helpful for advocacy work.<br><br>Information on topic e would be useful to build the evidence base for targeted promotions, and/or help make the case that targeted promotions are not necessary.<br><br>Projects in response to project g would need to be flexible, nimble, and responsive in a rapidly changing environment. |

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| f. What is the reach of quitlines? Does this differ by population characteristics? (NAQC is collecting this information)<br>g. What is the impact of specific events or campaigns (e.g., FDA health warnings, health care reform, etc.) | | |
| 2. With respect to referral mechanisms (e.g., fax referral programs) are there more effective methods to recruit referral sources for quitlines? | Comparative case studies, evaluation studies | Take lessons learned from effective methods and apply them in other situations. |
| 3. What marketing/communication strategies can improve the reach of quitlines?<br>a. In the context of health care reform, does it make a difference who the messenger is? (PSA vs. health plans vs. Medicare/Medicaid?) | Media evaluation<br><br>Tracking enrollments/registrations over time along with marketing/communication strategies and campaigns to determine correlations and most effective strategies. | Take lessons learned from effective methods and apply them in other situations.<br><br>Demonstrate the impact of integrating quitlines into health care reform efforts, and partnering with health plans, Medicare, etc. |
| 4. What is the impact of integration of quitline services with other services with respect to reach? (e.g., web-based interventions, social network technologies, behavioral health services, economic services, etc.) | Evaluation studies, quasi-experimental studies (non-randomized observational studies). Pre-post studies (before and after integration).<br><br>Case studies noting what worked and what didn't work, especially noting barriers and how they were overcome. | Will help make the case for integrating quitlines with other services.<br><br>Will provide successful models that can be followed in other situations by other quitlines. |
| 5. Systems change research<br>a. How best to integrate fax referrals into health care systems without | Comparative case studies, evaluation studies | Develop a "toolkit" for integrating quitline referral mechanisms into EMRs |

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| increasing the burden on health care providers?<br>b. Case studies of successful integration of quitlines into EMRs – how they did it, state, provider, single system, in and out patient<br>c. Case studies of timely and novel collaborations (e.g., Vermont going to a single payor) | | Use information to influence other health systems change |
| 6. Web-based services<br>a. What features of web-based cessation programs are available?<br>b. How are web-based participants followed up? What is the response rate? | Some of this is available through the NAQC Annual Survey, but additional details could be collected through that mechanism as well. | Begin to establish an understanding of what services are available, trends for using web-based technologies, etc. |

**NAQC Strategic Goal 2: Increase the capacity of quitline services in North America**

**Objective 2: By 2015, on average $2.19 per capita ($10.53 per smoker) should be invested in quitline services (both counseling and medications). [**The CDC Best Practices for Comprehensive Tobacco Control Programs (2007 update) set as a goal that quitlines should invest $3.49 per capita in cessation services, assuming 8% of tobacco users would be reached and 6% would receive services. After consulting with CDC, NAQC staff used the same methodology to calculate a budget goal of $498.7 million for quitlines in the US (about $2.19 per capita or $10.53 per smoker). The funding covers the cost of counseling plus two weeks of NRT for all callers and up to 4 weeks for callers without insurance and those Medicaid/Medicare beneficiaries. It assumes that 85% of callers receiving counseling will accept NRT.]

| **Research question** | **Methods needed to address the question** | **How findings might be used in operations and/or to move policy forward** |
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| 1. What is the cost effectiveness/cost benefit of various quitline services? How does this vary across population groups (e.g., light vs. heavy smokers)? | Cost/cost-effectiveness studies. Economic modeling?<br><br>Need to be careful to conduct studies with large enough sample sizes for the various populations of interest. | Helps to make the case for continued and expanded funding of quitlines, as well as expanded reimbursement for quitline services. (Make the case for: increase funding for quitlines in state/provincial budgets by legislators and health agency commissioners and tobacco control program chiefs; earmark a portion of state/provincial tobacco excise tax for tobacco program and quitlines; increase funding for quitline budgets via program funds or earmarks on federal excise taxes; increased reimbursement by third-party payers)<br><br>Helps to more appropriately allocate funding for services across different populations/groups of smokers. |
| 2. What is the level of public awareness of quitlines? Are we helping to create an environment that is support of change (tobacco cessation)? | State and provincial tobacco surveillance surveys, could add a question to BRFSS (or CTUMS?)<br><br>Polling data? | Public awareness of quitlines is a necessary precursor to increased demand for quitlines and increased utilization of quitlines. A growth in awareness over time could be used to make the case for increased funding for quitlines to support the demand. |

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| 3. What is the status of public perception of quitlines? Is this changing over time? | State and provincial tobacco surveillance surveys, could add a question to BRFSS (or CTUMS?)<br><br>Polling data? | While awareness of quitlines may be high, perception of quitlines may be quite negative, or that quitlines are not relevant for the needs of tobacco users. It will be important to monitor this over time, and in response to various media campaigns or other efforts. |
| 4. What is the impact of various changes with respect to coverage for cessation services? (e.g., does federal employee benefit for quitline services influence Medicare benefits? What is the impact of health care reform efforts?) | Comparative case studies<br><br>Descriptive case studies | Show the impact of incremental changes in quitline reimbursement. Helps to diversify funding sources for quitlines overall.<br><br>Use the information to influence the outcome of health care reform efforts, specifically working out the details of what it means for tobacco control and cessation, and ensuring that quitlines are part of the solution to help health plans (and others) address USPTF recommendations at the A and B levels. |
| 5. What is the impact of increasing benefit coverage for quitlines or medications through quitlines? How does health care reform influence this? | Descriptive case studies | If quitlines can serve more people as a result of diverse funding sources, then this information could be used to advocate for similar changes elsewhere. |
| 6. What is the impact of integrating quitline services with other services on funding levels for quitlines? | Track funding levels over time (NAQC annual survey) in coordination with integration.<br><br>(would need a measure of "integration") | Could demonstrate the benefit of integration of quitline services on funding levels over time, which could increase support both for integration of services and funding for quitlines.<br><br>Integrating quitlines with other chronic conditions (referring out to diabetes, etc. programs, or providing more disease management services for people with chronic conditions who smoke) may make quitlines less of an easy target for funding cuts. |

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| 7. What are ways to improve funding levels for quitlines? What strategies might improve funding levels? (E.g., reimbursement from health plans, earmarking tobacco taxes, especially federal taxes, for quitlines and other cessation services) | Natural experiments<br><br>Comparative case studies<br><br>Tracking the relationship between quitline funding and reach. | The purpose of this question would be to explore strategies to improve/stabilize funding. For example, when ARRA funding ends in 2012 how does this impact quitline capacity? It is likely that when the funds end, quitline reach may be diminished. Quitlines may be able to use this type of information to make the case to continue funding at that level.<br><br>NAQC could engage in "reward and acknowledgement" activities for decision makers who enhance quitline funding – what would the impact of those activities be? |
| 8. What is the impact of any major funding shift? | Natural experiments<br><br>Comparative case studies<br><br>Tracking the relationship between quitline funding and reach. | The purpose of this question would be to explore strategies to improve/stabilize funding. For example, when ARRA funding ends in 2012 how does this impact quitline capacity? It is likely that when the funds end, quitline reach may be diminished. Quitlines (and NAQC) may be able to use this type of information to make the case for sustained, consistent, and increased funding levels. |

| **NAQC Strategic Goal 3: Increase the quality and cultural appropriateness of quitlines in North America**<br>**Objective 3a: By 2015, each quitline should have an overall quit rate of at least 30% (as measured by the NAQC standard quit rate calculation – responder rate, 30-day point prevalence, measured at 7 months after registration, sampled of all clients who consented to follow-up and started at least one counseling session or received medications).** | | |
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| **Research question** | **Methods needed to address the question** | **How findings might be used in operations and/or to move policy forward** |
| 1. What are effective and cost-effective models for delivering NRT/medications through quitlines?<br>a. Timing<br>b. Dosing<br>c. Funding strategies<br>d. New medications (e.g., varenicline)<br>e. Can we remove barriers for accessing NRT through a quitline model? | RCTs<br><br>Pre-post evaluation studies<br><br>Retrospective comparative case studies<br><br>Cost-effectiveness studies | Improve quitline operations to make them more effective.<br><br>Implement creative or innovative cost-sharing strategies or funding strategies for medications thereby making medications more accessible for more people. |
| 2. What is the relationship between baseline variables and cessation outcomes? In particular, who does well with what types of interventions, by demographics, tobacco use type and history, biological/genetic factors, comorbidities, etc. | Evaluation studies<br><br>Combining data from multiple quitlines with similar or identical counseling protocols could give answers to these types of questions.<br><br>RCTs (although would require very large sample sizes, potentially) | Could target the most expensive programs or protocols to those who need it the most.<br><br>Use the information gained to target promotions at different populations.<br><br>Increase cost-effectiveness of quitlines and other cessation programs. |
| 3. What is the optimal "packaging" of sessions (timing and intensity)? | Evaluation studies<br><br>Combining data from multiple quitlines with similar or slightly | Improve our collective understanding of "best practices" for quitlines.<br><br>Quitlines could make more informed |

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| | different counseling protocols could give answers to these types of questions.<br><br>RCTs (although would require very large sample sizes, potentially) | choices about how to allocate funding and resources. |
| 4. What are effective means of decreasing attrition/dropout from intervention protocols? What is the impact of decreased attrition on quit rates? | Evaluation studies (pre-post)<br><br>RCT<br><br>(May need to control for motivation to quit and/or confidence in quitting) | Use the info to improve effectiveness of quitline services. |
| 5. What is the impact of integration of quitline services with other services? (e.g., web-based technologies, behavioral health services, economic services, etc.) | Similar to #8 below.<br><br>Monitor referrals in and out of the quitline, as well as "how heard about" responses.<br><br>Pre-post comparison (before and after integration) – reach, population served, etc.<br><br>Paired comparison<br><br>Cost studies | Use info to help quitlines make informed decisions about integrating with other services. Would need to carefully monitor unintended results – are there benefits or pitfalls associated with integration that were not expected especially with respect to priority populations? |
| 6. What are effective characteristics of counselor training programs? | Paired comparison<br><br>Retrospective comparative case studies<br><br>Methods need to carefully monitor adherence to counseling protocol. | Help to separate tobacco cessation quitlines from general "hotlines" or information lines where those staffing the phones do not have specific tobacco cessation training.<br><br>Need to control for population served to make sure the characteristics of tobacco |

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| | [would counseling protocols need to be identical, with just the training being different?] | users are not biasing the effectiveness of the counseling program. |
| 7. What elements of quitlines are most important for effectiveness and cost-effectiveness? | Paired comparison<br><br>RCT<br><br>Cost effectiveness studies | Help quitlines make decisions about the benefit of adding or continuing to provide various features of quitlines. Need to be careful that results are interpreted correctly; it may be that removing one feature impacts others – what are the unintended consequences of removing certain elements? |
| 8. How would linking with online cessation programs and/or social networking sites, text, other improve the effectiveness of quitlines? What is the "value added" of the additional components? (both in terms of effectiveness, as well as perception, awareness, etc.)<br>9. How do we best translate what we have learned with telephone interventions to web, text, smartphone apps, other platforms? | Some of these studies are being done now. What is the "value added" of additional components?<br><br>Paired comparison: Comparison of two quitlines with similar or identical counseling protocols. One would be linked to an online or social networking site, one would not.<br><br>Cost studies, cost effectiveness, cost-benefit | Use info to help quitlines make decisions about the benefit of adding online or social networking components to their services.<br><br>Use to develop new interventions which could then be tested with different sub-populations to determine the best target audience for each. "What someone needs is now two clicks away. We need to go there." |
| 10. Do tobacco users come to quitlines ready to quit? Are quitlines capturing individuals in pre-contemplation? Are quitlines increasing a tobacco user's motivation to quit? | [This might go under goal #1]. Quitline intake data could be used to assess the first two questions here. Would need to add another measure of motivation to quit later on in the counseling process to answer the third. | Could combine this question with #2 above to determine what services are most effective and most cost-effective for tobacco users at different stages of readiness to quit. |

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| **NAQC Strategic Goal 3: Increase the quality and cultural appropriateness of quitlines in North America**<br>**Objective 3b: By 2015, each quitline should achieve a reach of 6% in priority populations (American Indian/First Nations, Alaska Native, Asian, Black or African American, Hispanic or Latino, LGBT, Low SES, Native Hawaiian or Other Pacific Islander) [Note: while the priority populations listed here are those identified in NAQC's strategic goals, the definition of "priority population" may need to be expanded to adequately identify all emerging populations of interest (e.g., people with mental illness, or substance abuse disorders).]** | | |
| 1. Descriptive studies with special focus on the reach of quitlines and diversity/disparities in use of quitlines<br>c. Who calls quitlines? - Already being done through NAQC Annual Survey data collection<br>d. What services do callers select and what do they receive?<br>e. NRT availability and use – what % of quitlines offer NRT or other medications? (Already collected and reported by NAQC)<br>f. Do callers who request/receive NRT differ from callers who do not (i.e. does NRT availability attract different callers – by ethnicity, age, gender, pregnancy, motivation?)<br>g. How do callers hear of the service? Which types of media draw which types of callers?<br>h. What is the reach of quitlines? Does this differ by population characteristics? (NAQC is collecting this information) | NAQC Annual Survey data collection<br><br>Potentially CDC NQDW data collection<br><br>Evaluation studies, comparative case studies (especially for topics d and e) | Baseline data for future studies<br><br>Trend data showing progress or declines in quitline efforts<br><br>Data to show areas where additional efforts, promotions, and funding might be needed – helpful for advocacy work.<br><br>Information on topic e would be useful to build the evidence base for targeted promotions, and/or help make the case that targeted promotions are not necessary. |

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| 2. With respect to referral mechanisms (e.g., fax referral programs) are there more effective methods to recruit referral sources of priority populations for quitlines?<br>a. What populations are reached with fax or other referral programs? | Comparative case studies, evaluation studies | Take lessons learned from effective methods and apply them in other situations. |
| 3. What outreach/marketing/communication strategies can improve the reach of quitlines for priority populations? | Evaluations of outreach strategies<br><br>Media evaluation<br><br>Tracking enrollments/registrations over time along with marketing/communication strategies and campaigns to determine correlations and most effective strategies. | Take lessons learned from effective methods and apply them in other situations. |
| 4. What is the impact of integration of quitline services with other services with respect to reach for priority populations? (e.g., web-based interventions, social network technologies, behavioral health services, economic services, etc.) | Evaluation studies, quasi-experimental studies (non-randomized observational studies). Pre-post studies (before and after integration).<br><br>Case studies noting what worked and what didn't work, especially noting barriers and how they were overcome. | Will help make the case for integrating quitlines with other services.<br><br>Will help identify partnerships that can be particularly effective at outreach to priority populations.<br><br>Will provide successful models that can be followed in other situations by other quitlines. |
| 5. What are effective means of decreasing attrition/dropout of priority populations from intervention protocols? (include creative solutions for providing counseling in a multi-lingual and multi-cultural society) | Evaluation studies (pre-post)<br><br>RCT | Use the info to improve effectiveness of quitline services for priority populations. |

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| 6. What are effective characteristics of counselor training programs? | Paired comparison<br><br>Retrospective comparative case studies<br><br>Methods need to carefully monitor adherence to counseling protocol. [would counseling protocols need to be identical, with just the training being different?] | Help to identify what elements of counselor training are most impactful for different priority populations (or whether the same training elements increase the impact for all priority populations)<br><br>Need to control for population served to make sure the characteristics of tobacco users are not biasing the effectiveness of the counseling program. |
| 7. What are valid measures of cultural appropriateness? How do we determine whether a quitline's services are culturally appropriate or not? What is the relationship between cultural appropriateness and quit (and other) outcomes for priority populations? | Borrow from other disciplines (e.g., sociology, psychology, and education). There are quite a few parallels between the field of education and quitline research in that they are both interested in how cultural appropriateness (and competence) influences quality and outcomes.<br><br>Work closely with national networks to identify/create/validate measures | Quitlines could adopt measures of cultural appropriateness to better serve tobacco users, especially members of certain priority populations. |