# SUPPORTING STATEMENT FOR THE

# NATIONAL QUITLINE DATA WAREHOUSE

(OMB No. 0920-0856)

**Revision**

## PART B: STATISTICAL METHODS

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## B. Statistical Methods

### B.1 Respondent Universe and Sampling Methods

**National Quitline Data Warehouse Intake Questionnaire**

The NQDW intake questionnaire will be administered to the entire respondent universe of quitline callers. Basic information about why callers are calling the quitline and how they heard about the quitline will be collected. Sampling methods are not applicable, as it is necessary to enumerate services provided to all callers for program planning and evaluation. In addition, information regarding how quitline callers heard about the quitline is essential to judge how well promotional efforts including the 2012 National Tobacco Education Campaign are working to drive calls to the quitline.

Based on 2011 National Quitline Data Warehouse data, state quitlines provided services to 465,614 telephone clients through the 1-800-QUIT-NOW number and other state-specific quitline numbers; 398,120 (85.5%) of these quitline clients were calling for themselves and requested help in quitting, 53 (0.01%) were calling for themselves, but not for help with quitting, 21,468(4.6%) were calling for someone else, and 45,973 (9.9%) of callers either did not know, refused to give a response, or did not specify for whom they were calling.

In the next OMB approval period for the NQDW, CDC anticipates an overall moderate increase (15%) in call rates to1-800-QUIT-NOW and the other state-specific quitline telephone numbers. This estimate is based on the availability of supplemental PPHF funds to states to enhance their quitline capacity. Because some states are experiencing reductions in the amount of state-based funding for tobacco control programs, PPHF funding will be used to offset these cuts, or to provide for modest increases in total funding. Overall, assuming a moderate 15% increase in demand with Affordable Care Act and PPHF funds as well as other planned promotional efforts, it is estimated that 535,456 state quitline clients will respond to the intake survey (510,768 clients will call for themselves for help with quitting and other callers and 24,688 quitline clients will call for someone else).

**National Quitline Data Warehouse Seven-Month Follow-Up Questionnaire**

Follow-up data collection at seven-months post-intake will be conducted for an annual sample of 800 respondents per state. Respondents will be callers who called for themselves and received a quitline service. The annual sample is based on a recommendation made by the North American Quitline consortium (NAQC, 2009), which determined that 800 completed surveys will ensure an adequate sample size to determine quit rates by type of treatment received (counseling and medication) (NAQC, 2009). The 2008 update to the PHS Clinical Practice Guideline for Treating Tobacco Use and Dependence estimates that 12.7-13.1% of persons who use a quitline quit smoking within six months and 28.1% of persons who receive both quitline counseling and medication quit smoking within six months (Fiore, 2008). More recent data from quitlines have estimated six-month quit rates at 16-23% for those who receive counseling and 30-36% for those who receive counseling and medication (NAQC, 2009). The seven-month follow-up survey is

expected to identify the majority of callers who benefited from the quitline service.

**National Quitline Data Warehouse Quitline Services Online Survey**

The NQDW Quitline Services Online Survey will be completed online by health department personnel (i.e., state tobacco control managers or their designees) from the 50 state health departments, the District of Columbia, Puerto Rico, and Guam. Sampling methods are not applicable.

## B.2 Procedures for the Collection of Information

Data will continue to be collected using the NQDW Intake Questionnaire {Appendix E-1(a) and E-1 (b)}, the NQDW Seven Month Follow-up Questionnaire (Appendix F-1), and the NQDW Quitline Services Online Survey (Appendix G-1) by either state health department personnel who manage the quitline or their designee, such as contracted quitline service providers. All quitlines are currently able to identify those who have already completed one intake questionnaire (38 questions) per year and they do not re-administer the intake questionnaire to these persons in a given year.

Telephone quitline specialists will continue to collect the tobacco use intake information at the beginning of the telephone interaction as part of the needs assessment process for determining appropriate counseling messages. Much of this information will be collected passively as clients naturally share information about their smoking/tobacco use and history. Telephone quitline specialists will actively ask questions as necessary, using a conversational style whereby questions will be woven into the conversation rather than asked in a highly structured format. The demographic questions are also asked at naturally-occurring and appropriate points in the conversation or at the conclusion of the conversation when the customer service questions about scheduling a repeated counseling call are made. Quitline experts agree that this format is best for collecting the necessary information in a respectful manner to the original intention of why the caller called the quitline – for assistance in quitting. It prevents callers from becoming fatigued with the interview and discontinuing the call before they received their cessation counseling. Quitlines always try to place necessary data collection in the context of the services requested by callers. Missing intake data has not been an issue for quitlines who are using this strategy to collect intake data from their callers using the MDS suggested intake questions. In contrast, the seven month follow-up questions will be asked in a structured manner – question-by-question as on the survey - as they are being collected for evaluation purposes including caller satisfaction.

On an annual basis, the Tobacco Control Manager is also responsible for sending CDC a de-identified summary of caller intake and follow-up data. The summary report is compiled electronically from the state's quitline data system, which is supported by state funding sources supplemented by cooperative agreement assistance from CDC. The summary report is based on the common NQDW data elements and is submitted to CDC electronically. Instructions for this submission are provided in Appendix E-1(c ). The estimated burden per response for this submission is one hour. This includes with uploading data to the secure FTP server or saving the data to a CD/DVD and preparing it to be mailed to CDC.

Concerning the NQDW Quitline Online Services Survey (Appendix G-1), we will send an e-mail (Appendix G-2) to state health department personnel (i.e., state health department tobacco control managers or their designee) from all 50 states, DC, Guam and Puerto Rico one week prior to making the survey available on our CDC website. As part of our ongoing technical assistance through the National Tobacco Control Program we keep updated contact information for personnel at each state health department. We will ask the manager to complete the survey within four weeks, send a reminder email to those who have not completed the survey within two weeks, and another reminder email 2 days before the survey closes on the website. If the survey has still not been completed, we will follow-up with emails /telephone calls to ensure completion.

### B.3 Methods to Maximize Response Rates and Deal with Nonresponse

States will have the option of using CDC funds for incentives to improve response rates, which historically have been in the 50% to 60% range in most states. Data from the initial NQDW Quitline Services Online Survey in Quarter 1, 2010 showed 5 states (9%) used incentives to increase participation in the 7-month follow-up questionnaire. States also will be encouraged to use other methods to improve response rates. State health department personnel or their designee will not receive any gift or payment for participation in the NQDW Quitline Services Online Survey as this is part of their performance-related reporting requirements under the Affordable Care Act funding or any other funding streams.

For calendar year 2010 and 2011, the NQDW Quitline Services Online Survey obtained a response rate of 99.8% (We asked 53 states/territories to complete quarterly surveys between 2010 and 2011 resulting in a total of 424 possible responses: 53 x 8 = 424. We received data from all states in 7 of the 8 quarters and 52 states in Q4 2011. This resulted in a total of 423 responses. Response Rate: 423/424 = 99.8%.) The NQDW does not calculate a response rate for the intake questions on the NQDW Intake Questionnaire because quitline clients provide this information as part of the counseling process. For calendar year 2010 and 2011 for the National Quitline Data Warehouse NQDW Follow-up Survey, states' response rates varied from 13.7% - 62.6%.

To support high response rates, CDC-OSH has provided extensive technical assistance to state programs and quitline service providers including specific information on the files needed for the NQDW. There are a number of ways in which CDC has helped states with submitting data to the NQDW of the previous two years. For instance, we acknowledge that quitline service providers may have had to make significant one-time, up-front efforts to format the data at the beginning of this project. CDC is currently providing five full-time technical assistants (TA's) for the 53 states/territories participating in the NQDW. These TA's have worked with their assigned states to ease the time burden of formatting and submitting data to the NQDW. For example, CDC-OSH now accepts some quitline service providers' secondary individual-level (intake and follow-up) data "as is." For one particular quitline service provider that serves approximately 27 states (with our acceptance of their secondary data "as is"), the time burden of formatting and submitting these data was dramatically reduced.

CDC/OSH has also provided extensive training on the NQDW data collection and will continue to do so for the state and territorial grantees. We have presented on several CDC/OSH/Program Services Branch (PSB) all-state calls with webinars in October 2010, March

2011, May 2011, September 2011, and January 2012. During these webinars, we have taken the opportunity to: 1) instruct states on how to complete the NQDW Quitline Services Online Survey, 2) operationally define some questions due to interpretation difficulties from states, 3) provide instruction on how to submit data to CDC so the answers are more valid, and 4) answer frequently asked questions. Also through these webinars, we have responded to states' requests for easier data submission to CDC and created an online data submission tool (a secure FTP server) in which states have a unique user name and password. The server is checked almost daily for files and the files are quickly removed after being downloaded. The only problems reported by states involve states not being able to access the FTP server because of firewall issues on their side. The CDC TAs have provided detailed instructions to states in the form of screen shots to aid states who may be unfamiliar with submitting data through this mechanism, and are available to "walk" states through this process on a phone call. We believe that most of the technological difficulties have been resolved, as evidenced by the fact that we have received fewer CD/DVDs via U.S. mail compared to the secure FTP server. For example, from 2010-2011, there were 137 individual-level data submissions on CD/DVD via U.S. mail compared to 202 individual-level data submissions received via the FTP server.

State programs have commented to CDC on how the NQDW data submission procedures have become more routine and more easily integrated into their regular procedures. State programs have mentioned that they appreciate CDC-OSH's flexibility regarding the form in which data are submitted and CDC-OSH's effort to effectively and efficiently respond to state needs. For example, we have: accepted data provided to NQDW TA's via a phone call and in the form of an email; provided assistance to states in uploading data to the secure FTP server; and helped states identify and resolve issues related to their data {see Appendix E-1 (c)}.

**B.4. Tests of Procedures or Methods to be Undertaken**

Burden estimates are based on the results of instrument pre-testing and initial experience with the NQDW data collection during the first two years of OMB clearance. Burden estimates also reflect prior state experience with voluntary implementation of the NAQC MDS survey questions, which are similar to the NQDW intake and 7-month follow-up questionnaires. We believe that these experiences and CDC's extensive efforts have decreased the effort involved in formatting the data for CDC based on the OMB-approved survey instruments. However, since NQDW data collection has now been going on for a number of years, this up-front, one-time effort should no longer be an issue. The burden for submitting intake and 7-month follow-up data to CDC has been estimated as 1 hour, this includes with uploading data to the secure FTP server or saving the data to a CD/DVD and preparing it to be mailed to CDC.

The State health department personnel (e.g., tobacco control program manager, quitline manager) for each state, the District of Columbia, Puerto Rico, and Guam will be asked to complete a quarterly, web-based NQDW Quitline Services Online Survey (see Appendix G-1) describing the services provided through their quitline. The majority of these data (90%) are submitted through the web-based survey, while the remaining 10% are submitted through other electronic means (i.e. email, PDF, fax). The time burden of this survey is variable and highly dependent on the number of questions a state/territory must answer regarding medication provision by the state quitline. Please see table below for the average time to complete the survey by the number of medications provided to quitline callers. We are confident in the time

estimates as they have been consistent with each fielding of this survey. CDC/OSH is also pursing ways to condense the NQDW Quitline Services Online Survey even further – e.g., by changing the format to table-style questions that ask about the provision of NRT/medications in a single question instead of a series of questions.

**Actual time burden per quarter for answering questions on the NQDW Quitline Services Online Survey**

| State-specific medication provision requested on NQDW Quitline Services Online Survey | Average time to completion (range) |
|---|---|
| States that do not provide medications to quitline callers (for 5 states as of Q4 2011) | 14 minutes (7 to 33 minutes) |
| States that provide 1 medication to callers (for 9 states as of Q4 2011) | 23 minutes (10 to 41 minutes) |
| States that provide 2 medications (patch and gum) to quitline callers (for 36 states as of Q4 2011) | 20 minutes (9 to 50 minutes) |
| States that provide 3 or more NRTs (for 23 states as of Q4 2011) | 23 minutes (10 to 43 minutes) |

The services survey has been designed with skip patterns to minimize respondent burden. For example, although the Q4 2011 services survey contains 52 questions, the average respondent answered approximately 38 questions because most quitlines do not provided every form of cessation medication asked about in the services survey; most states only provided three forms of nicotine replacement therapy (patches, gum, and lozenges). For most states (those that provide 2 medications (patch and gum) to quitline callers: 36 out of 52), the average time to complete the NQDW Quitline Services Online Survey is 20 minutes. This Information Collection Request includes the revised 20-minute estimate for the Services Survey.

## B.5 Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

CDC has consulted with and will continue to consult with leading tobacco researchers and CDC partners including the North American Quitline Consortium as appropriate. CDC is planning to convene a NQDW evaluation working group to obtain stakeholder feedback and expert opinion on using NQDW for evaluation, monitoring, and program improvement. The working group will be established in July 2012 and a report of the initial working group meeting will be available in September 2012. One of the goals of the group will be to develop a detailed evaluation plan that addresses data analysis, quality assurance, and dissemination. This working group will consist of quitline evaluators and representatives from quitline service providers, NAQC, and state tobacco control programs and other federal agencies. This workgroup will provide an opportunity for CDC to obtain input on the specifics of NQDW data collection from NAQC and the quitline community. Data management and analysis will be performed by the Office on Smoking and Health at CDC.

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**References**

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