A Project Narrative

The Behavioral Risk Factor Surveillance System (BRFSS) has become an important and integral part of the Massachusetts Department of Public Health's (MDPH) demonstrated commitment to surveillance, evaluation, and the integration of this data into program planning and policy development.

Massachusetts began participation in the BRFSS in 1986 and has received continuous funding in support of its participation since that time. Over the years, the Health Survey Program (HSP) has continued to increase the scope of its surveillance system increasing the sample size to over 16,000 respondents, adding state-specific questions, utilizing a complex sample design, and oversampling cities with diversified population s.

In response to FOA CDC-RFA-DP09-90103-SUPP10, MDPH proposes:

To comply with component IA: Conduct surveillance for Influenza Like Illness.

Implement the 12 questions of the Influenza Like Illness (ILI) Module for a seven month period September(October) 2010 through March(April) 2011.

The 12 questions will be incorporated in the landline survey and asked during the seven month period across the sample consisting of more than 9,000 completes. MA BRFSS has experience conducting emergency surveys for H1N1 and ILI in the year 2009. The collected data will be submitted to CDC on be-weekly basis in the format required by CDC protocol. MA BRFSS will monitor the surveys on a monthly basis, not less than 3 times per month, revise the collected data, conduct the analysis and disseminate the da ta, internally and externally, as needed. The Massachusetts 2009 annual report summarizes the results of the emergency survey, conducted in 2009. MA BRFSS plans to continu e

collecting and processing the new data and to comply with CDC protocol for data layouts and submission time lines.

To comply with Component IB:

Landline: MA BRFSS will collect the additional 2,175 completes to maintain landline sample size 16,670 completes as was planned in the year 2009. The data will be collected by MA BRFSS vendor Abt SRBI Inc. All survey questions, including CDC core and ILI related, will be asked across the whole sample. State added questions and some optional modules will be asked in splits. The landline survey is conducted in three languages—English, Spanish and Portuguese. The MA BRFSS oversamples cities with diversified population to obtain better information about minority population groups. Consequently, the sample design contains six geographical strata. The same design will be utilized for the additional landline sample. The addition of new sample will allow for improvement and enhancement of the analysis and reporting, for both state-wide and community-based health indicators.

Cell phone: The increase of cell phone sample up to 10% of the land line sample size (from 500 to 1700 completes) is crucial for MA BRFSS to obtain better information about state and city populations, especially younger groups and Hispanic subpopulations. The increase of cell phone sample will reduce the existing bias of MA landline-only sample; older age people, females and White population groups are currently overrepresented. MA participated in pilot cell phone study in calendar year 2008 and conducted the cell phone survey in 2009, continuing into the year 2010. The 2010 instrument contains two sets of state-added questions: more detailed set of health insurance questions and a set of tobacco related questions. In addition to the CDC-

provided survey, these questions will be asked across the new sample as well. The cell phone survey is conducted in English and Spanish, following CDC protocol. The data from the years 2008 and 2009 show substantial discrepancies in the socio-demographical composition of landline and cell phone respondent samples. The combining of landline and cell phone only samples affects all the main health indicators Statistically significant differences between landline and combined samples percentages were observed for some indicators, such as tobacco smoking.

Mail survey: The 2010 target number of completed mail survey responses in Massachusetts is 125. We will maintain the size of 125 completes in 2010 and 2011 calendar years in order to be able to draw conclusions about the efficiency of the survey. Below is a brief description of the methods used in MA for 2010 current mail survey: Telephone survey non-responders are defined as PRECALL=1 and (DISPCODE NE 110 or 120). That is Pre-Call Status Code is to be called and the case is not a survey completed interview. On a monthly basis, Abt SRBI will mail the questionnaire booklet to a sample of randomly selected landline telephone survey non-responders with an address match. We will NOT ask for addresses from the non-matched households The Massachusetts mail survey will be prepared in English only. The materials will be mailed from Abt SRBI's MA office. The mailing will be in a packet (i.e. flat) envelope with the Department of Public Health's name and Abt SRBI's Hadley office address (MA center).The letter accompanying the questionnaire will be addressed to "Massachusetts resident". It will be on MA Department of Public Health letterhead. The mail questionnaire will be formatted as a two-color booklet. Only the 2010 (MA-edition) Core

questions will be included in the mail questionnaire. The questionnaire will a sk for a telephone number, should we wish to call to clarify survey responses.

Mail survey households who have not responded one week after the initial ma iling will receive a reminder postcard .The monthly mailings will continue until 125 completed interviews have been received and entered manually into a computer program containing the Mail Survey questionnaire. Because of the Mail Survey questionnaire's similarity to the BRFSS Core/Cell Phone survey, Abt SRBI was able to re-program an existing CATI program for the Mail Survey. The mail survey data will be processed according to the upcoming CDC protocol.

Data processing and monitoring: HSP will monitor survey interviews on a monthly basis at least three times per month. This will allow HSP to ensure implementation of the CDC-developed protocol as well as assess performance of the instrument. Our survey vendor, Abt SRBI, will perform routine cleaning throughout the data collection period by working closely with HSP and CDC.

Data collection will occur as follows: CDC will provide the cell phone and landline samples to Abt SRBI for the requested sample design. The survey will be conducted in English, Spanish and Portuguese (landline only) languages, to reflect the diverse cultural and ethnic population of the state. HSP will work closely with Abt SRBI to ensure that the questionnaire is programmed correctly and interviewers have been trained in the content. Interviewers will have received initial training consisting of: 1) CATI program use, 2) interviewing protocol, and 3) education in administrative issues. Abt SRBI has extensive supervision, monitoring and verification systems in place. Interviews are conducted from the Abt SRBI Call Center s in MA and West Virginia.

HSP will receive monthly reports from Abt SRBI reflecting the number of completes, distribution of disposition codes, drop off, refusal and response rates, a list of questions with the highest drop off rate, and the number of completes by language of the survey. Data files will be provided to MDPH monthly along with the summary reports. In addition, MDPH and Abt SRBI staff will hold conference calls on an as-needed basis in order to update each other on the status of data collection and to discuss issues that have emerged, possible solutions and follow-ups. Data collected will be processed by the survey vendor, Abt SRBI. Data processing will be comprised of three components: 1) converting the raw telephone data into a user-friendly data file, 2) performing a quality review of the data, and 3) formatting the data to CDC and MDPH specifications. Data will be entered during interviewing using CfMC's CATI software package. The data for each month will then be converted into an ASCII file and a Statistical Analysis Software (SAS) file will be constructed to clean the data of out-of-range codes, to recode open-ended responses, and to identify and clarify logically inconsistent responses. CDC's PC-Edits program will be used to check the ranges and frequencies for a number of variables to see if the data collected is in line with expectations.

Once the data has been cleaned and verified, the data files for cell phone and landline samples will be submitted to MDPH and CDC, usually within 15 days after the end of data collection for each month.

To comply with component 1C:

The MA BRFSS survey contains about 50% state-added questions and optional modules. In order to be able to implement additional important state-specific questions, MA BRFFS splits the sample into three survey versions. The core CDC questions are always

asked across the whole sample, while modules and state added questions are asked in splits. Each split has at least 5,000 annual completes and the split number is picked randomly.

We will incorporate the Inadequate Sleep module into one split (6 questions will be asked for the calendar year 2011).We will incorporate the COPD module into all 3 splits (6 questions will be asked for the whole sample for the calendar year 2011). The decision to ask COPD across the sample is based on the relativel y low prevalence of COPD measures.

The modules will be an integrated part of 2011 BRFSS survey. The data collection, monitoring , cleaning and processing for these modules will follow the CDC protocol and rules described above (see p5).