## B. Collection of Information Employing Statistical Methods

## **B.1.** Respondent universe and sampling methods

This study will collect information through case studies and an employer survey. The respondent universe and sampling methods are described as below.

# **B.1.a Case study sampling approach**

Because there is no nationally representative database of employer wellness programs, case study candidates will be identified based on published information and expert referral. The experts will include academics, benefit consultants, managers of wellness program vendors, and government officials. The case study will focus attention on companies with at least 100 workers but fewer than 50,000 workers, as substantial information on wellness programs implemented by large, Fortune 500 companies has already been published. It is also of limited use to interview firms with fewer than 100 workers, since our assessment shows that few of these firms offer comprehensive wellness programs.

# B.1.b Employer survey universe and sampling methods

The Dun and Bradstreet data (D&B), considered as the universe of government agencies and private companies, will be used to draw a stratified random sample of employers. Currently, the D&B database has records on 72.4 million businesses and government agencies. The contractor will draw a nationally representative sample of employers, stratified by industry and employer size (i.e. number of employees), which are the two key factors that drive the variation in offering a wellness program.

# **B.2.** Procedures for the Collection of Information

# B.2.a. Statistical methodology for stratification and sample selection

## **B.2.a.1.** Case study sample Selection

The contractor will select the four cases to maximize the informational yield of this study component by focusing on employers that are so far underrepresented in the published literature. The contractor will identify the following four types of organizations:

- One smaller employer, i.e., between 100 and 1000 employees
- One employer that relies strongly on incentives to promote wellness program participation and behavior change. If possible, the contractor will select an organization that uses rewards tied to achievement of health-related standards that are close to the currently allowed limit.
- One state or local government employer
- One employer that built its own wellness program (as opposed to purchasing a program from a vendor)

The four characteristics listed above will be considered essential selection criteria for the case study selection process. In addition, an attempt will be made to include organizations representing different industries, geographic regions, and worker risk profiles, and wellness programs that have had varying degrees of success. In total, eight case study candidates will be selected; four preferred sites and four "back-up" sites.

## B.2.a.2. Employer survey stratification and sample selection

*Target sample size.* The sample size calculation for this wellness survey yielded an initial sample of 3,000 employers, using the 2010 Kaiser Annual Employer Health Benefits Survey as a benchmark. The Kaiser survey is commonly considered as a source for national estimates on health insurance benefits. The contractor will try to achieve as high a survey response rate as possible. To estimate the required sample size, however, the contractor used a conservative response rate of 35%, based on the contractor's previous experience with the 2006 National Computer Security Survey. This combination of sample size and expected response rate will yield an estimate for offering a wellness program with a margin of error of 5

#### percentage points.

*Stratification*. According to the literature and expert input, industry and employer size were identified as the key company characteristics that determine the type and scope of wellness program offerings. For several reasons, the contractor determined that classification into four industry groups provides sufficient granularity. For instance, Category 1 (agriculture, mining, utilities, construction, and manufacturing) and Category 2 (wholesale trade, retail trade, transportation and warehousing) both include blue-collar industries, but Category 1 is characterized by strenuous manual labor to a greater extent than Category 2, implying a different workforce composition and different health risks. Category 3 (information and services) and Category 4 (governments) predominantly consist of white-collar workers, but the constraints and opportunities to offer wellness programs are different in the public sector relative to private service industry employers.

The contractor decided to categorize firm size by number of employees and form five categories:

- >=50 and <=100 workers
- >100 and <=1000 workers
- >1000 and <=10,000 workers
- >10,000 and <50,000 workers
- >50,000 workers

First, the contractor excluded employers with 50 or fewer workers, because the Affordable Care Act exempts them from penalties if they do not offer health insurance coverage and most states consider them part of the small group market. Moreover, use of wellness programs tends to be lower and customization of programs rare among these employers. While the same holds true for firms with 50-100 employees, they are subject to different regulations, as they are guaranteed to be able to offer health insurance coverage on the newly created health insurance exchanges by 2016. Firms with 100-1,000 staff begin to offer wellness programs to a greater extent, but typically rely on solutions offered by their health insurance carriers. Firms between 1,000 and 10,000 have the scale to customize wellness programs with respect to program scope, content and strategies to increase enrollment. Above 1,000 staff, companies also begin to self-insure. Very large employers with more than 10,000 workers are in a position to develop their own programs and participation strategies, with the most sophisticated and mature programs seen in firms with more than 50,000 staff.

#### **B.2.b.** Data collection procedures

*Employee Focus Groups and Key Informant Semi-structured interviews:* The contractor will initially contact candidate companies by telephone and/or email. Once sites are recruited, a primary contact at each site will be identified. The organizational representative will be asked to help with informant and focus group recruitment. The contractor will provide the text for the recruitment emails, which will give an explanation of the project and the commitment for participants, and emphasize that participation is voluntary. The contractor will ask the organizational contact to send emails to employees identified based on the sampling criteria such as age, sex, and job classification, with a follow-up email closer to the date. If necessary, the sampling criteria will be modified to reflect information that can be identified by the organizational contact. If the organizational representative prefers not to help with the recruitment, the contractor will request employee rosters with data on sex, age, and job classification so that they can email employees directly.

Once the participants for interviews and focus groups are identified, the contractor will schedule and conduct 2-day site visits to complete the employee focus groups and key informant interviews. Focus groups will be conducted during the site visit. For key informant interviews, follow-up phone interviews may be conducted with informants who are not available during the visit.

*Employer Survey:* The mode of data collection will primarily be a web-based survey, but the contractor will mail paper versions upon request. The contractor will also make a paper-based questionnaire in PDF form available for download on the website, and conduct one mailing of a paper survey to non-responders. The survey questions were revised based on cognitive interviews and a pilot survey.

The contractor will first use the Dunn & Bradstreet database to identify a company representative who is likely to be able to respond to the web-based survey (e.g., benefits manager or human resource representative). The contractor will make pre-calls to the sampled employers without such listings. Pre-calls will be made by telephone interviewers utilizing a Computer Assisted Telephone Interviewing (CATI) system. During pre-calls, if possible, the contractor will check if an employer has health insurance and/or a wellness program. Both the CATI system and web-based survey will be tested to ensure that the logical flow is correct and that the data are being recorded correctly.

Once an employer contact is identified, the contractor will send that contact an initial invitation by email. If no email address is available, a letter will be sent with the link and password for completing the webbased survey. A reminder letter/email will be sent to non-responders three weeks after the initial invitation. Approximately three weeks after the reminder letter/email is sent, if the employer has not completed the web-based sample and has not already been removed from the sample (e.g. refusal), a paper survey will be sent to the contact. For those employers that have been identified as not having a program, the contractor will send them an abridged survey instrument instead of a complete questionnaire. Telephone prompting calls will be made to selected employers who have not completed the survey, with a special focus on the strata that have a relatively large proportion of non-respondents.

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

The contractor will employ various proven methods to improve response rate. The contractor will draw the sample close to the actual fielding of the survey to ensure that the posted contact information is current. In addition, the employers' website will be searched to confirm or update contact information whenever possible. For employers who receive pre-calls, the contractor will inquire whether they offer health insurance and a wellness program or not. For those employers identified as being without a program, the contractor will send an abridged survey instrument instead of a complete questionnaire.

The contractor will also make the instrument user-friendly and simplify questions. The web-based survey includes only items that are critical to the analysis and request information that should be readily available to the respondent. The web-based instrument is estimated to take no more than 30 minutes to complete, including the time it may take respondents to look-up and retrieve needed information. Experience has shown that limiting respondent burden reduces non-response. A paper-based questionnaire in PDF will be provided for download on the website, should the respondent prefer this mode. The survey methodology includes follow-up with non-respondents to maximize response rates. For instance, the contractor will send prompting letters and/or emails, a paper-based questionnaire to employers who do not respond to requests to complete the survey, and conduct telephone follow-ups for selected employers who have not respondents. The methods proposed for data collection should yield fairly high response rates.

The contractor will use mathematical approaches to correct for missing responses and increase the validity of the estimates:

- For total non-response, they will first use the reserve sample within the same stratum as replacements. Second, they will account for total non-response by constructing appropriate sampling weights, the product of initial sampling weight and the reciprocal of weighted response rate within each stratum.
- For item non-response, they will use imputation methods to impute missing values.

*Final sampling weights.* Final sampling weights will be constructed based on the population in each sampling stratum, non-response, and other considerations. For instance, sampling weight adjustments will also be conducted when an employer turns out to be in a different stratum than the one originally assigned. In this case, the contractor will adjust the weight of this employer to match the weights of the other employers in the new stratum.

## B.4. Tests of Procedures or Methods to be undertaken

The employer survey instrument was cognitively tested with 8 respondents and questions were revised based on findings from the cognitive interviews. The contractor will be employing essentially the same procedures and survey during the proposed data collection.

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

This study is being conducted by the contractor, The RAND Corporation, under contract to the U.S. Department of Health and Human Services and Department of Labor. The RAND Principal Investigator is Dr. Soeren Mattke. Dr. Christine Eibner will oversee the design and analysis of the Case Studies and Dr. Hangsheng Liu will oversee the design and analysis of the Employer Survey. Q Burkhart at RAND was consulted on the statistical aspects of the design for the employer survey.

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