

# Women Veterans Health Care Barriers

## OMB FORM 2900-XXXX

### **B. Collections of Information Employing Statistical Methods**

#### **1. Respondent Universe and Sampling Methods**

The primary research focus of this study is to understand the barriers and facilitators of utilization of VA health care services and facilities by women Veterans. Many eligible women Veterans do not currently utilize (*NonUtilizers*) VA health care services due to real or perceived barriers. Women Veterans who are current utilizers (*Utilizers*) may have experiences that encourage or discourage ongoing utilization of VA health care services. Understanding differences between these two groups is an important aim of the study. Thus the respondent universe for this study is all women Veterans, whether or not they currently utilize Veterans health care services.

VA health care delivery is organized into 21 regional areas, termed Veterans Integrated Service Networks (VISN). There is considerable variation in the characteristics of the VISNs, in terms of geographic areas served, ethnic and racial distributions, rural/urban distinctions, socioeconomic status of residents, employment status and availability of alternate health care coverage, and many other factors. Planning for future utilization levels and designing programs to reduce barriers to access to health care must be informed by an understanding of variation among the 21 VISNs. Thus, a primary consideration in the construction of the survey sample is to support a statistical comparison across 21 VISNs.

These two desired analytical factors, (1) regional variation by VISN, and (2) variation in experience and perceptions between Utilizers and NonUtilizers within VISN, define the sampling strategy. We will construct a sample with 42 separate cells (2 categories of utilization nested within 21 VISNs) and obtain 200 completed cases within each cell, giving us a total final sample size of 8,400. This design is summarized in Table B-1. A sample size of  $n = 200$  per cell allows for considerable power to detect fine differences between means. With this sample size and a standard deviation of 1.0, a mean difference as small as 0.28 between two cells can be detected with power = 0.8. Differences as small as 0.32 can be detected with a power of 0.9.

Table B-1

Primary Stratifier	VA Utilizer	Non Utilizer	VISN Total
VISN 1: VA New England Healthcare System	200	200	400
VISN 2: VA Healthcare Network Upstate New York	200	200	400
VISN 3: VA NY/NJ Veterans Healthcare Network	200	200	400
VISN 4: VA Stars & Stripes Healthcare Network	200	200	400
VISN 5: VA Capitol Health Care Network	200	200	400
VISN 6: VA Mid-Atlantic Health Care Network	200	200	400
VISN 7: The Southeast Network	200	200	400
VISN 8: VA Sunshine Healthcare Network	200	200	400
VISN 9: VA Mid South Healthcare Network	200	200	400
VISN 10: VA Healthcare System of Ohio	200	200	400
VISN 11: Veterans In Partnership	200	200	400
VISN 12: VA Great Lakes Health Care System	200	200	400
VISN 15: VA Heartland Network	200	200	400
VISN 16: South Central VA Health Care Network	200	200	400
VISN 17: VA Heart of Texas Health Care Network	200	200	400
VISN 18: VA Southwest Health Care Network	200	200	400
VISN 19: Rocky Mountain Network	200	200	400
VISN 20: Northwest Network	200	200	400
VISN 21: Sierra Pacific Network	200	200	400
VISN 22: Desert Pacific Healthcare Network	200	200	400
VISN 23: VA Midwest Health Care Network	200	200	400
<b>Total</b>	<b>4200</b>	<b>4200</b>	<b>8400</b>

We will also use statistical analyses to assess the impact of several other respondent attributes such as general health status, age, race/ethnicity, years of military service, and other factors that emerge during the analysis. However, we do not intend to analyze how these factors vary within the VISN/Utilization stratification scheme, and at this point, we do not believe any oversampling strategy will be required to support these additional analyses because of the overall large sample size. After initial construction of the sample, we will investigate the general distribution of respondent characteristics, to the extent that variables within the sample support it (e.g. race/ethnicity), to ensure obtaining sufficient cases in the categories of interest.

There are approximately 1.8 million women Veterans<sup>1</sup>, all of whom are eligible to be included in our sample frame. A previous study of women Veterans in 2008 experienced major challenges in assembling a comprehensive list of all women Veterans<sup>2</sup> and had to access and collate multiple data sources with the associated issues of duplication, error, and missing data. Since 2008, the National Center for Veterans Analysis and Statistics (NCVAS) has created a unified database (USVETS) designed to include all Veterans, and we are completing appropriate data access agreements in order to

<sup>1</sup> Department of Veterans Affairs, Office of the Actuary, Veteran Population Projections Model (VetPop), 2007, Table 5L.

<sup>2</sup> Washington DL, Sun S, Canning M. Creating a sampling frame for population-based veteran research: Representativeness and overlap of VA and Department of Defense databases. J Rehabil Res Dev. 2010;47(8):763–72.

obtain access to this single source. This database has drawn on external resources such as credit bureaus in order to provide up-to-date contact information, and it is continuously updated. Records will contain both a mailing address and telephone numbers. We are able to link these basic contact information records with health care utilization and administration data from other VA databases, in order to both place respondents in a VISN (based on zip code) and distinguish between *Utilizers* and *NonUtilizers* based on medical procedure codes and patient visit records. For our research purposes, we are designating women Veterans as *Utilizers* if they have had any utilization of VA health care services within the preceding 24 months. Women Veterans who have had no utilization within the 24 month period, but utilization prior to this, will be eligible for the study also, but will be included in the *NonUtilizer* group for sampling purposes.

In order to construct the sample for our survey, we will merge health utilization information with the basic demographic information to create a *Utilizer/NonUtilizer* variable. We anticipate that both types of information will originate from the USVETS database. Each sample record will be coded with the VISN closest to the Veteran's home zip code. Based on these classifications, we will construct a stratified sample using SUDAAN sampling procedures, which also calculate and store the basic sampling weight for each selected record. The basic sampling weight is the inverse of the probability of selection for each sampled record. This is necessary because of the unequal distribution of Veterans by VISN and utilization. The basic sampling weight will be retained in the sample record and used to calculate a final case weight after the data collection period. At this point, we will also include a non-response weight and any appropriate post-stratification weights. We will use the SUDAAN WTADJUST procedure to finalize case weights.

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

The study will be conducted using telephone interviewing. We will first construct the sample using the processes detailed above. Not every sampled record will result in a completed case, and it is difficult to assess how many sampled records will have invalid telephone numbers, result in a refusal to participate from the respondent, or have some other problem. We intend to complete a total of 8,400 cases, and thus we will draw additional sample records to compensate. Past experience indicates that a 4:1 ratio is conservative, and so the initial total sample file will contain 33,600 records. These will be organized into smaller replicates for proper sample management during the field period. Each replicate will contain the same equal distribution of records within the sample stratification plan. We will release only a few replicates into the field at a time. Each record will receive the full calling protocol, and additional replicates will only be released if necessary, so drawing a sample that is potentially larger than necessary does not impact response rate or result in some records ending with only partial call attempts.

The sample will contain postal mailing addresses, and we will update these using the National Change of Address (NCOA) database. We will also confirm telephone numbers using the Telematch service. Approximately 14 days before the first call to any record, we will mail a pre-notification packet to each potential respondent. The packet will contain a personalized cover letter explaining the purpose of the study and alerting them to our call, signed by an official from Veterans Affairs; an FAQ document; an informational brochure from Veterans Affairs, and a brightly colored insert card with our toll-free number and email address, inviting the respondent to update contact information.

Each sample record will receive up to 10 call attempts, spaced over days, evenings, and weekends. Interviewers will ask for the respondent by name and will schedule further call attempts if the respondent is not currently available. Interviewers will accept alternate telephone numbers and additional information from household informants, if the respondent cannot be reached at the original

number. After each call attempt, interviewers record the disposition of the call and any salient notes or comments. At the conclusion of the study, a review of all interim dispositions is conducted by the field director and a final disposition is recorded for the sample record.

Because of the sensitive nature of the questionnaire, we will use only female interviewers for this study. All interviewers receive extensive standard training and will also be given study-specific training prior to beginning work. We monitor approximately 10% of all interviews as a primary quality assurance mechanism.

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

We will maximize the study response rate by several techniques including the postal pre-notification mailing, repeated call attempts, an interview introduction crafted to assure legitimacy and saliency to the respondent, assurances of confidentiality, and interviewer techniques to build rapport and trust with the respondent. We anticipate that endorsement by Veterans Affairs and the saliency of women's health issues to our respondent pool will assist us in gaining respondent cooperation. Respondents who initially refuse to participate are given a special disposition code and can be called back by senior interviewers with extra training in reaching through to reluctant respondents. Although many studies have found that monetary incentives are effective in facilitating cooperation, we are not proposing incentives for this study.

Our automated interviewing and sample management system provides detailed response reports on a daily basis. Response rates will be monitored continuously throughout the field period and individual cases reviewed daily by field supervisors. We can modify the calling protocol on a case-by-case basis, including switching interviewers and adding additional call attempts, as appropriate.

We are specifying a calling protocol with ten call attempts. However, once contact is made with the named respondent, we will make as many calls as necessary, exceeding ten attempts where appropriate, until we complete the case or obtain a hard refusal from the respondent.

Telephone surveys are experiencing increasing challenges in maintaining high response rates. This is due to several factors including the reduction in land line usage, the increase in robocalls, predictive dialers and related abusive practices, call blocking, and perhaps increasing public cynicism. In response to these realities, our study plan includes a non-response analysis to gauge potential bias due to lower response rates. Fortunately, the sample records will contain extensive demographic information about each potential respondent, and we will have a good understanding of the women Veteran population overall. We will profile respondent characteristics of the collected cases as compared to those sample records that did not result in completed cases. This will allow us to assess any systematic bias in responses attributable to the propensity to respond across different demographic groups. Our overall sample size should be sufficient to support reasonable adjustment through non-response and post-stratification weighting.

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

Prior to creating the survey questionnaire, the research goals of the study were finalized. The study was initiated in response to a Congressional mandate (Public Law 111-163, Sec. 201-Women Veterans Health Care Matters and contract # GS-10F-0261K, Order # VA741-12-F-0036) to assess the status of access to VA health care services by women Veterans. The mandate required that the following dimensions be assessed: comprehension of benefits, access to care, child care, transportation, privacy and safety, lack of women's specific services, quality of providers, and perceived mental stigma. The

survey questionnaire was created to provide data to support the analysis of these dimensions of the women Veterans' experience of health care within the VA system.

We made an extensive review of the literature from related studies and incorporated existing questionnaire items from other surveys of Veterans and surveys relating to general barriers and facilitators to care access. Several stakeholder meetings were held with other VA researchers and experts to review questionnaire items and solicit input about comprehensibility and appropriateness. A draft questionnaire was produced that represented items reviewed by our stakeholder experts for appropriate language and focus and by our research team to ensure that the collected data would support a statistical analysis required in order to answer the congressionally-mandated research issues.

The draft questionnaire was tested in a series of cognitive interviews with five women Veterans, including both *Utilizers* and *NonUtilizers*. Based on these cognitive interviews, we added some clarification of terms, revised the order of certain questions, and added response options that had not been anticipated previously.

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

Statistical aspects of the study have been reviewed by the individuals listed below:

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