

Department of Veterans Affairs

Memorandum

Date: April 12, 2012

From: Aaron Schneiderman, Ph.D., Principal Investigator, and Acting Director, Epidemiology Program, Office of Public Health, VA

Subj: “National Health Study for a New Generation of U.S. Veterans” (OMB No. 2900-0722) – Response to Office of Management and Budget (OMB) Request for Non-Response Bias Analysis

To: OMB; Cynthia Harvey-Prior, Management Analyst (OMB Liaison), VA; Denise McLamb, Program Analyst, VA; Regina Grant, Director, VHA Forms & Publications Office, VA

Please see the VA response to the Office of Management and Budget request for a robust non-response bias analysis for the first wave of the “National Health Study for a New Generation of U.S. Veterans.” This includes a discussion that places our study in context with other similar health studies of military and Veteran populations.

“National Health Study for a New Generation of U.S. Veterans” (OMB No. 2900-0722)
Response to Office of Management and Budget Request for Non-Response Bias Analysis

From: Epidemiology Program, Office of Public Health, Department of Veterans Affairs
April 12, 2012

The National Health Study for a New Generation of U.S. Veterans is a longitudinal health study comparing the health status of Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) Veterans and non-deployed Veterans serving during the same time period by comparing chronic medical conditions, post-traumatic stress disorder and other psychological conditions, general health perceptions, functional status, mortality, health care utilization, and VA disability compensation between these two Veteran populations. In order to accomplish this, a permanent panel of 30,000 OEF/OIF Veterans and 30,000 non-deployed OEF /OIF era Veterans will be followed for 10 years. The permanent panel is comprised of a population-based sample of troops representing each branch of service, unit component (Active duty, Reserve, National Guard) and gender. Women were oversampled to ensure adequate representation in the study and comprise 20 percent of the sample.

A combination of mail surveys, online surveys, and Computer Assisted Telephone Interviews (CATI) were used to collect data from Veterans. Data collection began in April 2009 for the pilot study, and August 2009 for the main study; data collection ended in January of 2011. Overall, the response rate was 34.3% (n=20,563). Of those who responded, 49% responded on the web, 45% on the paper questionnaire, and 6% on the CATI. Table I shows responder status by sampling frame characteristics. Respondents were more likely to be female, have been deployed, and be older than non-respondents, which is consistent with other studies of military and Veteran populations.

Since there are limited analyses that can be performed on a baseline cross sectional data collection, the mode of data collection (paper and web vs. CATI) was examined as a possible surrogate for non-response. The CATI calls were initiated as a mechanism to reach

non-responders after several repeat mailing attempts. Thirteen hundred and eighty six participants responded to the CATI; these are subjects who would likely have been non-responders if this final attempt had not been made. Table II shows a comparison of early (paper or web) vs. late (CATI) responder status by sampling frame variables and by self-reported health status. Late responders were more likely to have been deployed, and be younger; they also more often endorsed that their health was excellent.

The response rate in this study is similar to other recent large cohort studies of military populations. Smith et al (2011) reported a response rate of 34% for the baseline survey of the Millennium Cohort Study (MCS), a population based longitudinal study consisting of 150,000 active duty service members. This 34% response rate includes participants from three panel waves between 2001 and 2008. Exactly half of the participants in MCS have served in support of the wars in Iraq and Afghanistan, which is the population of interest for the National Health Study for a New Generation of U.S. Veterans.

Littman et al (2010) reported the results of a non-response analysis performed on a subset of the MCS cohort (members enrolled between 2001 and 2003) at the first follow up survey in 2004. Logistic regression models were used to calculate propensity scores and propensity weights to examine the effect of non-response on measures of association at the follow up survey. Results from this analysis indicated that nonresponse did not substantially affect odds ratios of health outcomes related to deployment and other risk factors. The factors that were found to be associated with response to the follow up survey were the same as those found to be associated with response to the baseline survey (and greater response to health surveys in the general population), such as female gender, being married, older age, and higher educational attainment. This is the type of analysis that our office proposes to do when follow up data is available for the study cohort.

Kang et al (2009) reported the results of the second follow up of a similar study of Gulf War and Gulf War Era Veterans. The response rate for this follow up assessment was 34%

(9,970 total Veterans). Non-respondents were more likely to be younger, non-white, single, Reserve/National Guard, male and enlisted rank during their service at the time of the 1991 Gulf War. In order to determine whether or not these factors were significantly different from non-responders with respect to health status, the self-reported health status (ranging from excellent to poor) at baseline (1995) was compared between those who participated and those who did not participate in the 2005 follow up. No differences were observed, and self reported health status in 1995 was not a good predictor of response in 2005.

These published data suggest that the response rate achieved in the current study is similar to the experience of other large population based health surveys of active duty military and Veterans. The consistency of these findings may not be related to the study design, but a function of the unique characteristics of the population under study and the trend toward decreased participation rates in U.S. epidemiological studies in recent decades. Since we only have baseline data and are limited on the types of analysis we can perform, we propose to explore in greater depth non-response when data from the follow up survey is available. Failure to continue this unique study with a follow up survey would result in a loss of valuable data to VA on the health experiences and concerns of this specific group of recent Veterans over a significantly long time frame; the health care needs of both VA and non-VA users; and information to help VA effectively allocate health care resources and plan quality care.

Table I: Comparison of sampling frame characteristics between respondents and non-respondents to the New Generation Study, 2009-2011.

Characteristic	Respondents (N=20,563)	Non-Respondents N= (39,437)
Deployment Status		
Deployed	11,337 (55.13)	18,663 (47.32)
Non-deployed	9,226 (44.87)	20,774 (52.68)
Branch of Service		
Air Force	4,339 (21.10)	7,309 (18.53)
Army	11,165 (54.30)	21,589 (54.74)
Marine	1,969 (9.58)	4,825 (12.23)
Navy	3,090 (15.03)	5,714 (14.49)
Unit Component		
Active	7,860 (38.22)	16,140 (40.93)
Guard	5,614 (27.31)	10,386 (26.34)
Reserve	7,089 (34.47)	12,911 (32.74)
Sex		
Males	16,217 (78.86)	31,783 (80.59)
Females	4,346 (21.14)	7,654 (19.41)
Age		
24-29	4,673 (22.73)	15,168 (38.46)
30-39	6,647 (32.33)	14,474 (36.70)
40-49	5,691 (27.68)	6,995 (17.74)
50-59	2,876 (13.99)	2,462 (6.25)
60+	676 (3.29)	338 (0.85)

Table II: Comparison of sampling frame characteristics and self reported health among Early and Late Responders

Characteristic	Early Responder (Web and Paper) (N=19,177)	Late Responder (CATI) (N=1,386)
Deployment Status		
Deployed	10,598 (55.26)	739 (53.32)
Non-deployed	8,579 (44.74)	647 (46.68)
Branch of Service		
Air Force	4,082 (21.29)	257 (18.54)
Army	10,386 (54.16)	779 (56.20)
Marine	1,831 (9.55)	138 (9.96)
Navy	2,878 (15.0)	212 (15.30)
Unit Component		
Active	7,330 (38.23)	530 (38.24)
Guard	5,211 (27.17)	403 (29.08)
Reserve	6,636 (34.60)	453 (32.68)
Sex		
Males	15,099 (78.73)	1,118 (80.66)
Females	4,078 (21.27)	268 (19.34)
Age		
24-29	4,250 (22.16)	423 (30.52)
30-39	6,158 (32.11)	489 (35.28)
40-49	5,359 (27.94)	332 (23.95)
50-59	2,755 (14.37)	121 (8.73)
60+	655 (3.42)	21 (1.52)
Self-Reported Health*		
Excellent	2,372 (12.42)	246 (17.81)
Very Good	6,525 (34.16)	468 (33.86)
Good	6,962 (36.44)	433 (31.33)
Fair	2,804 (14.68)	196 (14.18)
Poor	441 (2.30)	39 (2.82)

*Total denominator is 20,486 for this variable, to accommodate missing values