## **Supporting Statement B for**

# ETHICAL DILEMMAS IN SURGERY AND UTILIZATION OF HOSPITAL ETHICS CONSULTATION SERVICE: A SURVEY

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

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

For the purposes of this study, a random sample of 2990 surgeons will be contacted through the American Board of Medical Specialties contact list, which reflects a population of 135,854 active surgeons currently practicing in the United States. This sample size was selected so that we could obtain a 95% confidence interval and a 4% margin of error for our population size, and factor in an anticipated response rate of 20% so we may obtain sufficient power for statistical analysis of the results of the study. The random sample will be stratified so that surgeons representing: 1) both rural and urban locations, 2) all 5 US geographical locations (Northeast, Southeast, Central, Northwest, and Southwest), and 3) the 13 surgical subspecialties recognized by the American College of Surgeons (Obstetrical and Gynecological, General Surgery Composite, Orthopedic, Ophthalmologic, Urologic, Otolaryngological, Plastic, Neurosurgery, Thoracic, Colorectal, Dermatologic, Pediatric General, Pediatric Specialty) will be included in this study in order to increase the generalizability of our results to the entire surgeon population practicing in the US. We are estimating a response rate of 20% for this survey, as previous studies have shown this population to be particularly difficult in eliciting responses. As such, we have adjusted our sample size to account for this low response rate so that our results will have sufficient power to analyze our hypothesis.

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

The survey instrument will take approximately 15 minutes to complete. The initial mailing will include a letter announcing the future arrival of the survey. The second mailing will include a cover letter explaining the purpose of our study and a paper copy of the survey instrument.

Successful remission of the questionnaire will be documented using a de-identified, coded

envelope. Two follow-up reminder post cards will be sent to non-respondents in an effort to increase the response rate and minimize non-response bias. Questionnaires will be self-administered by the respondents at a time that is convenient for these individuals. Data will be collected from the completed questionnaires by the University of Massachusetts Center for Survey Research and only de-identified, raw data will be reported to us.

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

We are estimating a response rate of 20% for this survey, as previous studies have shown this population to be particularly difficult in eliciting responses. As such, we have adjusted our sample size to account for this low response rate so that our results will have sufficient power to analyze our hypothesis. Randomly selected surgeons will be contacted through the American Board of Medical Specialties mailing list. Physician offices may be contacted by phone prior to mailing out the survey materials to confirm that the mailing address listed for the surgeon is correct. Any individual with an incorrect address will be removed from our mailing list, and the office of another randomly selected surgeon will be contacted until a sample size of 2990 surgeons with correct mailing addresses is obtained. Multiple paper mailings will be sent to eligible participants, and repeat mailings will be sent to non-respondents in an effort to increase the response rate and minimize non-response bias. Additionally, the survey instrument was created to be short and efficient in gathering the data important for accomplishing the goals of this study. It has undergone cognitive testing, in which 9 surgeon volunteers completed the survey and provided feedback regarding ease of use, time necessary to complete answers, and appropriateness of questions and available responses to each question, to ensure that it performs as well as expected. In order to encourage surgeon participation, we are offering an unconditional incentive (\$10 bill) with the questionnaire paper mailing.

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

Pre-testing involved: 1) Review of the survey instrument by members of the NIH Department of

Clinical Bioethics and other qualified consultants (listed in A.8 above) for comments regarding

clarity and appropriateness of the questions, 2) Cognitive testing of the survey instrument was

performed on 9 surgeon volunteers by University of Virginia Center for Survey Research. The

survey instrument was revised as appropriate based on feedback from these sources.

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

**Analyzing Data** 

We will utilized the services of the University of Virginia Center for Survey Research for

survey instrument expert review, cognitive testing, and validation of the survey instrument.

UMass CSR will be contacted to implement the full-scale survey, including subject

enrollment; mail-based communication with survey participants; and data management

including collection and reporting of the raw data to us for subsequent statistical analysis by

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