

Information Collection Clearance

The Supporting Statement

Survey of Medical Examiners Who Certify the Physical Qualifications of Commercial Motor Vehicle Drivers

B. Collections of Information Employing Statistical Methods

1. Universe and Respondent Selection:

There are four primary subgroups in the population of medical examiners who perform CMV driver physical examinations: doctors of medicine and osteopathy, advanced practice nurses, physician assistants, and chiropractors. As indicated, given that 1) MDs and DOs undergo similar professional training and 2) are licensed through the same process, they will be treated as a single professional group for the purposes of this study. Medical examiners who qualify CMV drivers are not conveniently available for contact via licensing or training organizations. They are included in unknown subsets of these four different types of medical professionals based on their decision to perform this service in their practices. Defined in this manner, medical examiners who perform this service constitute a hidden population relative to obtaining accurate information about their practice through a sample survey. Given that there is no convenient sampling frame for this hidden population, there are no “ideal” sampling approaches. However, we propose the most rigorous sampling approach given the current state of accessibility to this population and available resources.

Our sampling approach will consist of utilizing groups of known occupational and environmental medicine professionals.

Members of the NRCME listserv. We propose to contact the approximately 4,000 members of the NRCME listserv for whom we have email addresses to gauge their interest in further participation. When the Medical Examiner Performance Study was conceived, a large population (50,000) of practitioners was assumed. When considering sampling methods for both the NRCME Role Delineation Study survey and Medical Examiner Performance Study survey, finding a unique sample of several thousand participants for each study seemed practical within the limits of resources that FMCSA could apply.

Given what has been learned while building the NRCME Role Delineation Study survey sample, it appears the population of practitioners who regularly interact with CMV drivers and make medical qualification decisions is much more limited. Only about 4,000 total practitioners have been identified for the NRCME study after extensive direct-mail solicitation and word-of-mouth efforts. Therefore, given

available resources and lessons learned from prior recruitment experience with this population, those who have already expressed interest in the NRCME initiative will be contacted to assess their interest in participating in this study.

Respondent burden was considered in making the decision to recruit the majority of participants from the same sample used for the NRCME Role Delineation Study survey. As the last of those surveys was returned in early March 2007, a considerable amount of time will have passed between the Role Delineation Study survey and solicitation for the Medical Examiner Performance Study survey.

Members of the Occupational-Environmental-Medicine listserv. The Occupational and Environmental Medicine listserv (OCC-ENV-MED) is a free, electronic, international forum for medical professionals of this subspecialty. The listserv has 4,000 members.

Members of the MCOH/EH listserv. This is a private, non-commercial list which supports discussion between health professionals involved in medical center occupational and environmental health. MCOH/EH has approximately 390 members.

Members of the SAFETY listserv. This occupational health and safety management listserv is the oldest and busiest of all occupational health forums, and is devoted to the general discussion of occupational health and safety management issues. SAFETY has approximately 3,000 subscribers.

Members of the MRO listserv. This listserv is devoted to the discussion of drug testing and interpretation, as well as related policy, in both unregulated and regulated situations. This list contains approximately 660 members.

As the Medical Examiner Performance Study survey is administered electronically, these online groups will provide a readily-accessible sample for our survey. In addition, as members have expressed interest or practice in a medical subspecialty of interest, we hypothesize that many of these professionals will currently conduct CMV driver physical examinations.

We will send initial recruitment correspondence via email to all individuals in the aforementioned groups. We intend to conduct follow-up with sample members with a goal to achieve least the aforementioned 80% overall response rate among medical examiners who opt in to participate. We feel that we will realistically be able to achieve this rate based on this experience, the saliency of the topic, an opt in to the sample, and the follow-up methods we will be using. We recognize that some contact information could be outdated given the length of time that has passed since it was provided by participants. However, we feel that this loss may be balanced by an increase in responding due to the shorter, electronic nature of this survey. Our goal is to achieve a sample of 3,379

respondents; completed surveys from at least 1,000 individuals will still allow detection of large differences.

It is acknowledged that we will be using a convenience sample, but given the current hidden nature of this population, we are limited in our recruitment options. We recognize that this may introduce unknown bias, and that the population of interest would have to be studied further to generalize results with confidence. To increase the methodological rigor of this study, we will, if necessary, ensure equal numbers of participants within each medical profession subgroup.

We acknowledge that, given the evaluative nature of this study, it is reasonable to expect more diligent or proficient medical examiners to be more motivated to complete the survey. Even if study results are limited to medical examiners who are confident in their abilities to qualify drivers, we find these comparisons still hold potentially high value in giving direction to FMCSA for training medical examiners. We will collect demographic information from non-respondents for comparison to the group of respondents to explore potential bias factors.

A considerable portion of the survey, containing those questions that will provide the most substantive data regarding medical examiner performance, includes knowledge-based questions, which we anticipate should minimize the role of social desirability in responding. As this remains a concern for other sections of the survey, the potential of this bias will be acknowledged in all associated reporting. Regarding the case questions section of the survey, social desirability may lead some respondents to choose to gather more information before they make a qualification decision, while the WIPT has determined that the driver in the case either qualifies or should be disqualified based on information that is already available. Therefore, social desirability can lead to less than optimal responses to some survey questions, which is part of the construct we wish to measure.

2. Procedures for Collecting Information:

FMCSA and Axiom Resource Management, Inc. propose to send recruitment correspondence to a minimum of 12,000 email addresses belonging to individuals from medical disciplines known to perform the CMV driver physical examination (note: these may not represent 12,000 individuals; duplicate contacts are addressed later in this document). This electronic correspondence will contain clear and concise background information and will encourage recipients to register via a hyperlink to complete the online survey (see Attachment I). Individuals will also certify here that they 1) represent one of the four medical profession groups of interest (doctors of medicine and osteopathy, advanced practice nurses, physician assistants, and chiropractors), 2) complete CMV driver physical examinations, and 3) reside in North America. After registration, these individuals will receive a follow-up email containing the URL address that will direct them to the survey, as well as their user-specific identifier

(see Attachment J). Those who do not complete the online survey within two weeks of this second correspondence will receive a third message, containing 1) the survey URL address and their user-specific identifier as well as 2) the URL address for a shorter questionnaire containing only demographic questions useful for bias analyses (should they be unwilling to complete the full survey) (see Attachment K). For those individuals who do not complete the registration step, an additional email will be sent as a reminder to sign up for the online survey (see attachment L). Should the projected sample size not be reached, repeat email reminders will be sent to this participant pool in an effort to increase the response rate. In addition, WIPT members may be asked to stress the importance of the project to those in the sample from their respective medical profession groups. All individuals will be provided a telephone number to call for more information and support in using the survey technology.

After careful consideration, it was decided that an electronic survey would be used given the high level of computer access by professionals in the target population. In addition, the short length of the survey and independent nature of the sections of the survey lend themselves well to an electronic administration. Also, many of the questions involve conditional steps, which can be programmed into an electronic version to minimize the time required of each respondent to submit a complete set of responses.

We will be able to remove duplicate registrations that may occur given that we will have names and contact information for all who indicate interest via the registration site. Submission of more than one survey will be prevented by assigning random, respondent-specific user identifiers to each participant. This login authentication information will be included on the recruitment materials being emailed to prospective participants.

Ideally, in addition to the current electronic mode of survey completion, one would mail paper surveys or provide a telephone completion option. However, resource constraints preclude the use of multiple survey delivery modalities.

As indicated, we intend to stratify the sample among the four medical groups authorized to perform FMCSA CMV driver physical examinations. Should substantial disparity in the size of medical subgroups emerge, respondents included in analyses will be randomly sampled from completed surveys for the larger medical examiner cohorts in order to equalize the groups. Analyses will also be conducted on the original sets of data (i.e., disparate group sizes). Each cohort includes specialty practice areas in which practitioners are more likely to perform the FMCSA CMV driver physical examination as part of their practice (e.g., within the MD/DO cohort, there are those who practice in occupational health settings). The goal is to maximize the degree of accuracy and relevance of the responses.

3. Methods to Maximize Response:

We will attempt to ensure that the respondent sample of at least 3,379 professionals includes those medical professions who perform CMV driver physical examinations. Research staff will monitor responses as surveys are electronically submitted. As outlined above, should our sample size goal not be reached initially, follow-up correspondence will be emailed to those not yet registered as well as registered respondents who have not yet completed the survey. This additional correspondence can be targeted specifically to those subgroups that may be underrepresented in the sample at that time. Again, given that this survey is targeting members of a hidden population, we are oversampling given the limitations in maximizing responding from specific individuals.

As indicated earlier, in an effort to capture information on non-respondents and assess non-response bias, a follow-up recruitment email will prompt those not willing to complete the entire survey to respond to a shorter online questionnaire containing only demographic questions.

4. Testing of Procedures:

Testing of the electronic survey instrument was conducted with five alternate WIPT members who are representatives from each of the medical disciplines conducting CMV driver physical examinations (doctors of medicine and osteopathy, advanced practice nurses, physician assistants, and chiropractors). All pretesting feedback was considered by the expert members of the WIPT in developing the final survey instrument.

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