

NIOSH Survey of U.S. Truck Driver Safety and Health

Survey Questionnaire

Most of the questionnaire will be derived from previously developed and validated instruments. It will combine items from previous questionnaires, include some original items, and in some cases change the mode of administration.

A. Preliminary Interview

The preliminary interview will serve two functions: 1) to determine eligibility, and 2) to examine differences between respondents and non-respondents. All drivers of heavy trucks will be eligible to participate in the interview. It is important to determine if nonresponse will bias the survey results since significant differences in health and safety may exist between different classes of truck drivers. Major distinctions include owner-operators versus company drivers; union versus non-union drivers; and regional drivers (who tend to sleep at home most nights) versus long-haul drivers (who sleep many consecutive nights on the road). Other potential confounders include gender, age, years as a truck driver, type of truck, and type of cargo.

B. Subject-Specific Questionnaire

1. Core Questions

The core questionnaire will serve two purposes: as a check for internal validity between the core and component questionnaires, and to collect information on basic variables that are important to all four component questionnaires.

2. Injury component

The injury component questionnaire will gather data from truck drivers on five broad content areas: (1) truck crashes and injuries, and other occupational injuries; (2) driver knowledge and attitudes; (3) vehicle attributes; (4) perceived usefulness of countermeasures to reduce occupational injuries among truck drivers; and (5) safety program and safety training. The injury component will provide more precise data on specific risk factors and circumstances of nonfatal injuries among truck drivers, leading to interventions that will focus on modifying risk factors, thereby reducing incidence of injuries.

3. Health and wellness component

Health and wellness items will be derived from the National Health Interview Survey (NHIS) and the Behavioral Risk Factor Surveillance System (BRFSS), and will address a range of health conditions and behaviors. Questions from these surveys are typically

close-ended questions that can be answered with minimal effort, such as “Have you ever been told by a doctor or other health professional that you had coronary heart disease?”

4. Fatigue component

Items in the fatigue component questionnaire will be derived from a variety of previously validated instruments, including the Task-induced Fatigue Scale [Matthews and Desmond 1998], Multidimensional Fatigue Symptom Inventory [Stein et al. 1998], and FACES for insomnia [Shapiro et al. 2002]. Fatigue dimensions to be explored are physical fatigue (muscular fatigue, visual fatigue, and sleepiness); tiredness and demotivation (low energy/activity, boredom, and demotivation); and cognitive and attentional fatigue (confusion, distractibility, and performance worries).

Individuals receiving the fatigue component questionnaire will also receive a sleep diary to be filled out over a 24-hour period and returned either at the truck stop or via mail. The sleep diary is a simple, scannable, one-page sleep/activity diary developed for workers on irregular work schedules and will be used to capture detailed information about timing and duration of sleep, driving and other daily events of truck drivers.

5. Sleep Disorder Component

This component includes the application of standardized questionnaires to assess the risks and consequences of sleep disorders and the use of portable monitors in a subset of drivers in order to establish the diagnosis of sleep apnea/hypopnea. Both the Berlin Questionnaire and Epworth Sleepiness Scale (ESS) will be used to assess sleep disorders. In addition, participants receiving this component will be asked if they would agree to completion of a sleep diary and use of a portable monitor to record physiological parameters during sleep over a period of 2 days. If they agree, they will be asked to complete a consent form.