

General Information About the Mobile Examination Center (MEC) Examination Data

Automated Data Collection

Each MEC examination had a computerized data collection interface. All data entry was conducted using automated technology; no paper forms were used to record data. The examination component data entry systems had built-in quality control checks; unusual data entries were flagged and a message was sent to the technicians. The technicians were required to either verify the original entry or edit the original response. At the end of each examination session, data were sent to a central survey database and transmitted to headquarters offices.

Spanish Translations of Protocol Instructions

All NHANES brochures, consent forms, hand cards, protocols, and correspondence were produced in English and Spanish. All translated materials were approved and certified as part of the NHANES Institutional Review Board (IRB) approval process. NHANES examination protocols were also pretested in English and Spanish. Extensive training was completed with MEC staff to ensure the quality and comparability of staff interactions with Spanish-speaking respondents.

Technician Training

The qualifications for MEC laboratory, physician, dental, and health technician staff are described in the component training manuals. All MEC staff completed the requirements for safety, subject privacy and confidentiality, and cardio-pulmonary resuscitation training. In addition, all staff completed component-specific training to learn the standardized NHANES protocol for each of the components they performed. The health technicians, for example, performed multiple procedures and were expected to maintain their skill levels on each component.

Quality Control Monitoring- General Procedures

Quality control measures included equipment calibration, observations of examinations in the field, and performance of second examinations.

Experienced trainers and observers monitored technician performance in the field. Periodic retraining sessions were conducted with the survey staff.

For a subset of examination components (e.g., body measurements and the dental examination), a second examination was completed on examinees who previously completed the NHANES exam. In some cases, a “gold standard” examiner performed the second examinations during a site visit.

Consistency Checks

An extensive series of quality assurance and quality control analyses were completed for each examination component. The MEC examination component training manuals and analytic file notes provided with these data files describe the measures taken in greater detail.

Data Preparation

Routine data preparation procedures included a review of frequency data, outliers, and technician notes. In general, data are not changed if the reported values are plausible. Analysts should review the data reported for each component or laboratory assay prior to beginning data analyses. Analysts should examine the data spread and consider whether or not it is appropriate to include or exclude extreme values in a given analysis.