

National Human Exposure Assessment Survey (NHEXAS)

Maryland Study

Quality Systems and Implementation Plan for Human Exposure Assessment

Emory University
Atlanta, GA 30322

Cooperative Agreement CR 822038

Standard Operating Procedure

NHX/SOP-G11

Title: Training of Field Coordination Center Staff

Source: Harvard University/Johns Hopkins University

U.S. Environmental Protection Agency
Office of Research and Development
Human Exposure & Atmospheric Sciences Division
Human Exposure Research Branch

Notice: The U.S. Environmental Protection Agency (EPA), through its Office of Research and Development (ORD), partially funded and collaborated in the research described here. This protocol is part of the Quality Systems Implementation Plan (QSIP) that was reviewed by the EPA and approved for use in this demonstration/scoping study. Mention of trade names or commercial products does not constitute endorsement or recommendation by EPA for use.

[Incorporates Westat comments of 7/22.]

1. Title of Standard Operating Procedure

Harvard University/Johns Hopkins University Standard Operating Procedure:
G11 Training of Field Coordination Center Staff, Rev. 1.0

2. Overview and Purpose

For the NHEXAS Phase I Field Study, the staff of the Field Coordination Center (FCC) consists of:

- The Field Coordinator (FC), Robert Clickner, will oversee and coordinate all field activities, receive custody of samples, and approve shipping lists.
- The Field Supervisor (FS), Rotraut Bockstahler, will assign field staff to homes and oversee day-to-day sampling activities.
- The Communication Specialist (CS), Jill Weiner, will be responsible for development and implementation of public information and outreach, especially recruiting and retaining respondents. She will also supervise the telephone interviewers.
- The Resource Specialists will supervise preparation for sampling and answer questions that arise during sampling. They are:
Richard Rinehart (air, dust, soil, dermal wipes, water)
Jill Weiner (questionnaires, duplicate diet, and mini-market basket)
Rotraut Bockstahler (urine and blood)
- The Field Coordination Center Supervisor (FCCS), Brian Dingwall, will maintain equipment and prepare samplers for air, dust, and water sampling; he will also disassemble Harvard Impactors and personal air samplers and package filters after sampling. The FCCS is also responsible for printing ID labels, affixing them to paperwork and some sample containers, assembling the Field Packet of paperwork for each household, copying and filing papers after sampling, and shipping samples. The responsibilities and training of this position are described in SOP G07, "Training of Field Technicians."
- The FCC Clerks will assist the FCCS in the day-to-day operation of the Field Coordination Center.
- The Telephone Interviewers will call prospective respondents, administer the Baseline Questionnaire, arrange appointments, and make reminder calls.

All personnel are responsible for proper handling of any samples they deal with.

FCC staff will be trained in the tasks they will do. Except for the FCC Technicians, they will not attend the full training program for interviewers and technicians. All staff will attend the beginning of the training session to get an introduction to the study.

This SOP outlines the responsibilities of FCC staff before, during, and after sampling at residences;

and the training program that will teach them what they need to know to handle these responsibilities.

3. Discussion

This and the related SOPs, G07 "Training of Field Technicians," G08 "Training of Interviewers," G09 "Training of Laboratory Technicians," G10 "Training of Phlebotomists," and the appropriate field and laboratory SOPs will be the basis for field and laboratory manuals to be used by staff. For details such as how to test an air sampler, refer to the appropriate SOPs.

FCC staff will be trained professionals from Westat, who will receive further training in procedures specific to this investigation.

4. Personnel Responsibilities

4.1 Planning Training Curriculum

Harvard and Westat personnel will plan the curriculum for the training session.

4.2 Hiring Staff

Candidates for positions will be interviewed and selected by Westat.

4.3 Training Staff

Training will take place at the Westat offices in Rockville, MD, no more than six weeks before the beginning of the study. Training will be by Harvard and Westat engineers familiar with all aspects of the study.

4.4 Audits

During the 15-month survey period, audits will be performed by HSPH, JHU, and/or Westat personnel, and by an independent entity. See Section 8.2.

5. Required Equipment and Materials

Field Manual (including SOPs)
Sampling equipment (listed in SOP for each medium)
Labels, logsheets, forms

6. Responsibilities

The table in section 6.1 shows the general responsibilities of FCC staff members. (It is duplicated in SOP F01 "Field Sampling -- General Information.")

Section 6.2 details the responsibilities of the FCC Clerks.

6.1 FCC Staff Responsibilities

Position	Field Coordinator	Field Supervisor	Telephone Interviewer	FCC Supervisor	FCC Clerk	Resource Specialists	Communication Specialist
Name	Bob Clickner	Rotraut Bockstahler		Brian Dingwall		Rick Rinehart, Jill Weiner, R. Bockstahler	Jill Weiner
Before Cycle (esp. before Cycle 1)		Assign field staff to homes	Call prospective respondents, administer Baseline Q, arrange appointments	Air: check pumps, program timers. Dust: assemble & calibrate HVS3s.	Make sure enough labels, forms, etc. are in stock.		Develop & implement procedures for recruiting & retaining respondents, and other public info & outreach. Supervise phone interviewers.
Preparation for Sampling	Air: keep custody of PUF samplers.		Reminder calls	Air: assemble samplers, check pumps, program timers. Dust: maintain HVS3s, label catch bottles. Water: check pH meters, label bottles.	Air: inspect & package filters. Print ID labels, affix to paperwork, assemble Field Packet for household.		Supervise phone interviewers.
During Sampling	Oversee all field operations		Reminder calls			Answer questions from field staff.	Supervise phone interviewers.
After Sampling	Receive custody of samples. Scan ID labels of samples as they are packed for shipping, approve list.			Air: disassemble HIs & PEMs, package filters, package PUF samplers, check & clean equipment. Dust: check filter bags, decontaminate nozzles & tubing.	Copy & file paperwork, assemble labels etc. for shipping.	Supervise preparation of samples for shipping.	Supervise phone interviewers.

6.2 FCC Clerk Responsibilities

6.2.1 Inventory -- maintain adequate supplies of:

Forms, ID labels, paper, printing supplies, disks
Shipping supplies: cartons, tape, address labels, special labels (DRY ICE etc.)
Dry ice and cold packs (frozen) for field pickup and shipping

6.2.2 ID labels -- before Visit 1 to each household in each Cycle (Details are in SOP F01 "Field Sampling -- General Information" and the field SOP for each medium)

Print full set of ID labels for each household for each Cycle
Print list of ID numbers for each household for each Cycle, with meaning
(e.g. 043-1-S-4-15-5 personal air). The software will generate a set of labels and a list, given the household and Cycle numbers.
Affix ID labels to logsheets, chain-of-custody forms, questionnaires, etc.
Assemble Field Packet for field staff to check.
Prepare Visit Form.
Affix ID labels to sample containers for soil, dermal wipe, food, urine, and blood.
[Westat -- assuming FCC Tech will handle air, dust, and water. If not, who?]

6.2.3 Copying and Filing -- after each visit

There will be a file folder for each household & Cycle, e.g. "Household 123, Cycle 1"
Collect papers from field staff.

Logsheets:

Needed for later visits: check for completeness. If incomplete, get the field person to complete it. Replace in Field Packet, file Field Packet in household/Cycle folder.

Not needed for later visits: check for completeness. If incomplete, get the field person to complete it. Separate pages: page 1 to go to data entry location, page 2 to go to PI, page 3 file in household/Cycle folder.

Chain-of-custody forms:

After the Field Coordinator has received a sample from the field person and both have signed the chain-of-custody form, the FCC Clerk will photocopy the form, place the original in the designated place to be sent out with the sample, and file the photocopy in the household/Cycle folder.

Questionnaires, activity records, and food checklists:

[Westat -- Will FC sort them after receiving them, or should custody be transferred to clerk?]

6.2.4 Shipping (after each visit)

Read bar codes of samples to be shipped, print shipping list, get FCCS's approval.
[Westat says not necessary to get FC's approval if FCCS sticks to schedule, but someone should double-check the clerk's work, probably FCCS.]
Pack samples according to specifications for each medium.

Ship samples and notify recipients.

For more information, see SOP G05 "Storage and Shipping of Samples."

7. Curriculum [need to decide who should attend each part of training]

7.1 Contact with respondents (for those FCC staff who have contact with respondents)

7.1.1 Behavior

- Maintain the privacy and confidentiality of respondents.
- Be courteous and professional.

7.1.2 Conversation

- Be prepared to answer questions about the survey, including confidentiality (see SOP G02 "Confidentiality Assurance").
- Avoid conversation on unrelated topics, especially controversial topics.
- Do not give advice on environmental or health concerns, even if asked by the respondent. You will have a list of information sources to offer if they have questions.

7.1.3 Appearance (for staff who will see respondents)

- Clothing should be neat and clean. Do not wear clothing or pins that express personal opinions or advertise products.
- Wear photo ID badge.

7.2 Sample Handling

7.2.1 Labeling, logsheets, and forms

- Trainees will learn the labeling and tracking system, and practice the procedures. For general information, see HSPH SOPs G03 "Identification Numbers for Samples and Forms" and G04 "Chain of Custody and Sample Tracking." For labeling of samples for each medium, see the SOP for that medium.
- How to assemble and prepare the labels and forms that will be needed for each field visit.
- How to log in samples and records after a visit.
- How to use a bar code reader.

7.2.2 Storage and shipping

- How to log in supplies and keep inventory.
- How to handle each type of sample after it is delivered to the field coordination center. See SOPs G04 "Chain of Custody and Sample Tracking" and G05 "Storage and shipping of Samples." The SOP for each medium describes any special requirements (e.g., chilling) and tells where samples go for analysis.
- How to ship samples.

7.3 Equipment Preparation

7.3.1 General

- How to prepare and label equipment for each visit.
- What to do with equipment brought back to the FCC after sampling, including equipment needing repair..

7.3.2 Containers and seals

- What containers and seals are needed for each visit.
- How to prepare, label, and pack them.
- What to do with unused ones back to the FCC after a visit.

8. Quality Assurance Procedures

8.1 Testing

8.1.1 During training

- Trainees will be tested on skills used in their position.
- At end of training, trainees will be evaluated while performing tasks involved in their position.

8.1.2 During survey

- During the early weeks of the survey, instructors will monitor staff performance and provide any help needed.

8.2 Audits

During the 15-month survey period, the following audits will be performed:

- internal audits every six months by HSPH, JHU, and/or Westat personnel

- one performance audit by an independent entity

9. References

Harvard University/Johns Hopkins University Standard Operating Procedures:

- G02 Confidentiality Assurance
- G03 Identification Numbers for Samples and Forms
- G04 Chain-of-Custody and Sample Tracking
- G05 Storage and Shipping of Samples
- G06 Problem Management
- G07 Training of Field Technicians
- G08 Training of Interviewers
- G09 Training of Laboratory Technicians
- G10 Training of Phlebotomists
- D01 Data Flow Procedures