# National Health and Nutrition Examination Survey (NHANES) 

Phone Follow-Up Dietary Interviewer Procedures Manual

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## 1. OVERVIEW OF THE NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY

This chapter provides a general history and description of the National Health and Nutrition Examination Survey (NHANES), and an overview of the tasks that staff perform during the survey.

### 1.1 History

The National Health Survey Act, passed in 1956, provided the legislation authorizing for a survey to provide current statistical data on the amount, distribution, and effects of illness and disability in the United States. NHANES was created to fulfill the purpose of this act. The NHANES 99 for 2004 was the eighth in a series of national examination studies conducted in the United States since 1960, but effective in 2005, NHANES will become a continuous field survey with year-round data collection.

To fulfill the purposes of this act, it was recognized that data collection would involve at least three sources: (1) direct interviews with Americans of all ages; (2) clinical tests, measurements, and physical examinations on sample persons; and (3) facilities where persons received medical care such as hospitals, clinics, and doctors' offices.

To comply with the 1956 act, the National Center for Health Statistics (NCHS), a branch of the U.S. Public Health Service in the U.S. Department of Health and Human Services, has conducted seven separate examination surveys to collect interview and physical examination data.

The first three of these national health examination surveys were conducted in the 1960s:

1. 1960-62-National Health Examination Survey I (NHES I);
2. 1963-65-National Health Examination Survey II (NHES II); and
3. 1966-70-National Health Examination Survey III (NHES III).

NHES I focused on selected chronic disease of adults aged 18-79. NHES II and NHES III focused on the growth and development of children. The NHES II sample included children aged 6-11,
while NHES III focused on youths aged 12-17. All three surveys had an approximate sample size of 7,500 individuals.

Beginning in 1970 a new emphasis was introduced. The study of nutrition and its relationship to health status gained importance as researchers began to discover links between dietary habits and disease. In response to this concern, under a directive from the Secretary of the Department of Health, Education and Welfare, the National Nutrition Surveillance System was instituted by NCHS. The purpose of this system was to measure the nutritional status of the U.S. population and changes over time. A special task force recommended that a continuing surveillance system include clinical observation and professional assessment as well as the recording of dietary intake patterns. Thus, the National Nutrition Surveillance System was combined with the National Health Examination Survey to form the National Health and Nutrition Examination Survey (NHANES). Five surveys of this type have been conducted since 1970:

1. 1971-75-National Health and Nutrition Examination Survey I (NHANES );
2. 1976-80-National Health and Nutrition Examination Survey II (NHANES II);
3. 1982-84-Hispanic Health and Nutrition Examination Survey (HHANES);
4. 1988-94-National Health and Nutrition Examination Survey (NHANES III); and
5. 1999-05-National Health and Nutrition Examination Survey (NHANES 99).

NHANES I, the first cycle of the NHANES studies, was conducted between 1971 and 1975. This survey was based on a national sample of about 28,000 persons between the ages of 1-74. Extensive data on health and nutrition were collected by interview, physical examination, and a battery of clinical measurements and tests from all members of the sample.

NHANES II began in 1976 with the goal of interviewing and examining 28,000 persons between the ages of 6 months and 74 years. This survey was completed in 1980. To establish a baseline for assessing changes over time, data collection for NHANES II was made comparable to NHANES I. This means that in both surveys many of the same measurements were taken in the same way, on the same age segment of the U.S. population.

While the NHANES I and NHANES II studies provided extensive information about the health and nutritional status of the general U.S. population, comparable data were not available for many
of the ethnic groups within the United States. HHANES, conducted from 1982 to 1984, aimed at producing estimates of health and nutritional status for the three largest Hispanic subgroups in the United States-Mexican Americans, Cuban Americans, and Puerto Ricans-that were comparable to the estimates available for the general population. HHANES was similar in design to the previous HANES studies, interviewing and examining about 16,000 people in various regions across the country with large Hispanic populations.

NHANES III, conducted between 1988 and 1994, included about 40,000 people selected from households in 81 counties across the United States. As previously mentioned, the health status and characteristics of minority groups can be very different from that of nonminority groups. Thus, black Americans and Mexican Americans were selected in large proportions in NHANES III. Each of these groups comprised separately 30 percent of the sample. It was the first survey to include infants as young as 2 months of age and to include adults with no upper age limit. For the first time a home examination was developed for those persons who were unable or unwilling to come into the examination center but would agree to an abbreviated examination in their homes. To obtain reliable estimates, infants and young children ( $1-5$ years) and older persons ( $60+$ years) were sampled at a higher rate. NHANES III also placed an additional emphasis on the effects of the environment upon health. Data were gathered to measure the levels of pesticide exposure, the presence of certain trace elements in the blood, and the amounts of carbon monoxide present in the blood.

NHANES 99, conducted between 1999 and 2005, was the first of the series of surveys designed with the goal of becoming a continuous, annual survey. Each single year, and any combination of consecutive years of data collection, comprises a nationally representative sample of the U.S. population. This new design allows annual statistical estimates for broad groups and specific raceethnicity groups as well as flexibility in the content of the questionnaires and exam components. New technologic innovations in computer-assisted interviewing and data processing result in rapid and accurate data collection, data processing, and publication of results.

The number of people examined in a 12 -month period is about the same as in previous NHANES-about 5,000 a year from 15 different locations across the Nation. The data from the NHANES are used by government agencies, state and community organizations, private researchers, consumer groups, companies, and health care providers.

In addition to NHANES I, NHANES II, Hispanic HANES, and NHANES III, several other HANES projects have been underway since 1982. These projects have been a part of the HANES Epidemiological Follow-up Survey, a multiphase project that has been conducting follow-up interviews with the NHANES I survey population in order to provide a longitudinal picture of the health of the U.S. population.

## $1.2 \quad$ Goals of the Survey

NHANES 2005, the current version of the survey, was designed to continue the collection of information about the health and diet of people in the United States. These data are used to fulfill specific goals. The overall goals of NHANES 2005 are to:

- Estimate the number and percent of persons in the U.S. population and designated subgroups with selected diseases and risk factors;
- Monitor trends in the prevalence, awareness, treatment, and control of selected diseases;
- Monitor trends in risk behaviors and environmental exposures;
- Analyze risk factors for selected diseases;
- Study the relationship between diet, nutrition, and health;
- Explore emerging public health issues and new technologies; and
- Establish a national probability sample of genetic material for future genetic testing.


### 1.3 NHANES Data Accomplishments

NHANES data have been used to influence policy and improve the health of the U.S. population in many ways since the survey series was established. For the past 40 years, the U.S. Public Health Service has been interviewing and examining tens of thousands of Americans. Currently, teams of doctors, nutritionists, and health technologists are conducting the National Health and Nutrition Examination Survey (NHANES) in communities across the United States. Information from the survey will be updated annually.

Some of the contributions of the NHANES data include:

- Pediatric growth charts. Developed by the National Health and Nutrition Examination Survey, the NHANES growth charts are found on the walls of pediatricians' offices and clinics not only across the United States, but also around the world. With new information on younger babies, the current charts have been expanded and improved.
- Vitamins and minerals. The earlier NHANES showed that low iron levels were a serious problem for many people, including women of childbearing age, preschool children, and the elderly. As a result, the government decided to fortify grain and cereal with iron to correct this deficiency. The surveys also showed the need for folate to eliminate another deficiency and prevent birth defects. Today, we have a wealth of information at our fingertips and, indeed, on our food labels to help us make better choices about our diets. Much of that information comes directly from the National Health and Nutrition Examination Survey.
- Cholesterol levels. The first survey in the 1960s led public health officials to sound the alarm about the link between high cholesterol levels and the risk of heart disease. When NHANES started testing, one-third of adults had high cholesterol. Today fewer than 1 in 5 adults have high cholesterol. Changes in diet and lifestyle, all built on information from the national survey, have sharply reduced our risk of dying from a heart attack. These strategies have also helped doctors find ways to better treat heart attack patients and speed their recovery.
- Lead-free gasoline. It was NHANES that gave the first clear-cut evidence that Americans had too much lead in their blood. This led Congress, the Environmental Protection Agency, and others to phase out the use of lead as an additive in gasoline, and the results have been remarkable. By the 1990s, NHANES found that only 4 percent of Americans had elevated lead in their blood, But it remains a problem for certain groups, especially poor children living in old houses, in cities where lead paint was once common. The survey helps public health agencies pinpoint where lead still remains a problem.

As the NHANES survey continues to collect and update health information, there are other ways in which the information will be of use, including:

- Osteoporosis. This condition, in which bones get weaker as people grow old, is blamed for many of the fractures among the elderly. The National Health and Nutrition Examination Survey measures bone density of participants.
- Environmental smoke. Recent NHANES data found that nearly 9 out of 10 nonsmoking Americans were exposed to smoke either at home or on the job.
- Obesity. Despite the public health gains in recent years, more Americans are overweight than ever before. Today, more than half of the adults in the U.S. are overweight, and the number of overweight children and teens has doubled in the past
decade. This has led public health experts to look for ways to improve both diet and fitness.
- Changes in Food/Diet. Today consumers can find a wide range of low fat and light foods in their grocery stores, from dinner entrees to snacks. As the food we eat changes, NHANES helps monitor whether these new foods and dietary changes actually are in the best interest of our health.
- Immunizations. The National Health and Nutrition Examination Survey has turned up important information about the extent of hepatitis B infections, and led to the recommendation that all infants and children be vaccinated against it. Though babies and children are the primary targets for immunizations, the survey also has alerted doctors to the importance of tetanus shots for older people.


### 1.4 National Center for Health Statistics

The Division of Health and Nutrition Examination Surveys (DHANES) is one of the survey divisions at the CDC's National Center for Health Statistics (NCHS).

DHANES is responsible for planning, operations, informatics, analysis, and reporting activities related to the family of health and nutrition examination surveys. These surveys range from the capstone cross-sectional National Health and Nutrition Examination Survey, to longitudinal studies, and more recent efforts with community-based studies. DHANES is comprised of more than 60 Federal employees who have training and expertise in diverse areas including public health, informatics, survey methodology, and statistics. The Federal staff are augmented by contractor staff working on- and offsite.

The Division consists of four branches and the Office of the Division Director. The DHANES Office of the Director coordinates the major activities in the Division. Each of the four branches consists of a multidisciplinary team with specific duties and responsibilities.

### 1.5 Sample Selection

A sample is defined as a representative part of a larger group. Since it is impossible to interview and examine everyone in the United States for NHANES, a representative sample is taken of the U.S. population. By studying a representative sample of the population, it is assumed that the findings would not have been too different had every person in the U.S. been studied. Because generalizations
about the population will be made, it is extremely important that the sample be selected in a way that accurately represents the whole population. Statisticians calculate the size of the sample needed and take into consideration the geographic distribution and demographic characteristics of the population, such as age, gender, race, and income.

An introductory letter is sent to each household in the sample. A few weeks after the letter goes out, interviewers visit each listed household and use carefully designed screening procedures to determine whether any residents are eligible for the survey. If eligible residents are present, the interviewer then proceeds to introduce the study, presents the Sample Person (SP) with a survey brochure, and obtains a signed consent for the household interview. The brochure contains detailed information on the survey, the household interview, and the MEC examination.

A signed consent form must be obtained from each eligible individual before the household interview can be conducted. A refusal to sign the consent form is considered a refusal to participate in the survey. After the interview is completed, the interviewer then explains the MEC exam, obtains another signed consent form for the MEC exam, and contacts the field office to schedule a MEC appointment for the SP. All SPs aged 12 years and older must sign the Examination Consent forms to participate in the MEC examination. Parental consent is also required for SPs under 18 years of age. SPs aged 7-11 years old are asked to sign the Examination Assent form. An additional consent form is required for consent to future general research for both adults (ages $18+$ ) and parents of children under 18 years. This consent form gives permission to store a small sample of blood and urine for future specimen testing. A refusal to sign the MEC consent or assent form is considered a refusal to participate in the examination phase of the survey. Examinations will not be performed on sample persons who do not sign a consent form.

### 1.6 Field Organization for NHANES

There are two levels of field organization for this study - the home office staff and the field staff.

- Home Office Staff from Westat - Project staff from Westat are responsible for overseeing the field teams and field work.
- Field Office (FO) Staff - For this survey, an office will be opened at every survey location (stand). Each field office will have a Study Manager (SM), Office Manager (OM), a Field Manager (FM), and one Assistant Office Manager (AOM).
- The Study Manager (SM) is responsible for the overall management of operations at a stand.
- $\quad$ The Office Manager (OM) is responsible for the stand office operations and is the main conduit for the flow of work and information between the MEC and the household interviewing staff. She or he will supervise one or more local office clerks hired to assist with office activities. The OM reports to the SM.
- $\quad$ The Field Manager (FM) has primary responsibility for the supervision of the household interviewers. The FM also assists the SM and supervises the activities of the Assistant Office Managers. She or he will deal with administrative issues, ISIS problems, and preparations for the next stand.
- The Assistant Office Managers (AOMs) are primarily responsible for data entry into the Integrated Survey Information System (ISIS), editing data collection materials, and verification of interviewer work. The AOMs report to the FM and also work closely with the OM.
- Facilities Specialist - One Facilities and Equipment Specialist will travel with each field office team and caravan to oversee the maintenance and operation of the trailers.
- Household Interviewers - These staff members are primarily responsible for identifying and enrolling the survey participants, conducting the household interviews, and appointing the study participants for the MEC exam. Specifically, household interviewers will locate occupied residential dwelling units, administer the Screener to select eligible sample persons, obtain signed consents to the household interview, conduct the interviews, set up examination appointments, obtain consents for the MEC exam, conduct field reminders for MEC appointments, and assist in rescheduling broken, cancelled, and no-show appointments.

Several times a week, household interviewers visit the field office and report to the field manager. During the course of the study, interviewers also interact on a daily basis with other field office staff and home office staff.

- MEC Staff - These health professionals conduct the health exams. The survey includes two exam teams. There are 16 individuals on each traveling team: 1 MEC manager, 1 MEC coordinator, 1 licensed physician, 3 medical technologists, 4 health technologists, 2 MEC interviewers, 2 dietary interviewers, and 1 phlebotomist. In addition, local assistants are recruited, trained, and employed at each stand to assist the exam staff. A data manager also travels with each team.

The following section describes the steps that are always completed before the opening of a stand and provides an overview of the tasks that interviewers are expected to perform.

Steps completed prior to interviewing include:

1. Statisticians scientifically select certain segments in the sampling area. A segment is an area with definite boundaries, such as a city block or group of blocks containing a cluster of households.
2. Segments are listed by NHANES staff. Listing is the systematic recording on special forms of the address of every dwelling unit (DU) located within the segment. Commercial buildings and other structures not intended as living quarters are not listed.
3. A sample of dwelling units is selected from the listing forms. This sample is the group of addresses that interviewers visit in order to conduct interviews.
4. Immediately before data collection begins, an advance letter is sent to each dwelling unit with a mailing address. This letter briefly describes the study and informs the household that an interviewer will contact them in the near future.

Steps followed by the interviewers at a stand include:

1. Obtain assignment of sampled dwelling units to contact from the field manager.
2. Locate dwelling units using addresses on the Household Folders and listing/mapping materials in the Segment Folder.
3. Contact an adult who lives in the selected household (occupied residential dwelling unit) and administer the Screener using a laptop computer.

- The Screener is an interview that lists all the individuals who live in the household, divides the household into families, and collects all the demographic characteristics necessary to immediately determine if there are persons in the household eligible for further interviewing.
- All instructions necessary to determine eligibility and to select sample persons (SPs) are programmed in the CAPI Screener.

4. If all persons in a household are ineligible, no further work is done with the case. If eligible household members are identified, interviewers continue to conduct all the necessary tasks associated with the case.
5. In eligible households, obtain a signed interview consent form prior to completing the medical history and/or the family questionnaire.
6. Administer the appropriate medical history CAPI interview to eligible respondents. The questions asked depend on the age of the SP.
7. Administer Family questionnaire to one adult family member from each eligible family in the household.
8. Schedule a MEC appointment for each SP, coordinating the MEC schedule and the SP schedule.
9. Obtain signed consent form(s) for each SP for the examination, confirm the examination appointment(s) with the field office, and give each SP an appointment slip.
10. If there is more than one eligible family in a household, repeat this process with each additional family.
11. Record the result of each contact or attempted contact with the household on the Call Record located in the Household Folder.

Interviewers also support the survey by conducting field reminders prior to MEC appointments and reschedule broken, cancelled, or no-show MEC appointments. When an interview has been completed, interviewers edit their work, carefully reviewing all forms for completeness and legibility. Interviewers report in person to the field manager at the stand office for regularly scheduled conferences, usually every other day. During these conferences, interviewers discuss completed cases, discuss problems with incomplete cases, receive new case assignments, and report time, expenses, and production.

To ensure the accuracy and completeness of the survey, all interviewer work is edited by the field office staff, and then validated by recontacting respondents. After this review, supervisors provide interviewers with feedback concerning the quality of the work.

### 1.7 Exams and Interviews in the Mobile Examination Center (MEC)

Examinations and interviews are conducted in a mobile examination center (MEC), which is composed of four specially equipped trailers. Each trailer is approximately 48 feet long and 8 feet wide. The trailers are set up side-by-side and connected by enclosed passageways. During the main survey, detachable truck tractors drive the trailers from one geographic location to another.

Exhibit 1-1 shows a floor plan for the MEC. The interior of the MEC is designed specifically for this survey. For example, the trailers are divided into specialized rooms to assure the privacy of each study participant during exams and interviews. Many customized features have been incorporated including an audiometry room that uses a soundproof booth, a wheelchair lift, and a wheelchair-accessible bathroom available to assist participants with mobility problems. Exhibit 1-2 shows the locations of the various exams within the MEC.

### 1.7.1 Exam Sessions

The MEC operates 5 days a week and includes weekday, evening, and weekend sessions. Two 4-hour sessions are scheduled each day with approximately 10-12 SPs per session. During a stand, workweeks rotate to offer a variety of MEC appointments on weekday mornings, afternoons, and evenings, and every weekend.

Exhibit 1-1. Floor plan of the MEC


Exhibit 1-2. MEC exams and rooms

| Trailer | Room | Room Use |
| :---: | :---: | :---: |
| Trailer 1 | Coordinator | Welcoming and waiting area for SPs |
|  | Vision | Vision tests |
|  | CV Fitness | Cardiovascular fitness test |
|  | OGTT | Oral glucose tolerance Trutol administration |
| Trailer 2 | Physician | Physical examination |
|  | MEC Interview 1 | Health interview |
|  | MEC Interview 2 | Health interview |
|  | Dietary Interview 1 | Dietary interview |
|  | Dietary Interview 2 | Dietary interview |
|  | Ophthalmology | Vision tests |
| Trailer 3 | Phlebotomy/OGTT | Drawing of blood samples |
|  |  | Oral glucose tolerance Trutol administration |
|  | Laboratory | Processing of biological samples |
|  | Label/shipping area | Lab area for labeling and shipping specimens |
|  | Staff area | Staff area that houses main computer system |
| Trailer 4 | Body Composition | Total body composition scans |
|  | Body Measures/PAM | Body measurements and physical activity monitor |
|  | Oral Health | Dental examination |
|  | Audiometry | Hearing tests |

### 1.7.2 Exam Team Responsibilities

There are 16 individuals on each exam team. In addition, a local assistant will be hired to assist the staff in managing examinee flow. The duties of the exam team members are summarized below:

- One MEC manager supervises the exam staff, manages the facility, and supports exam operations.
- One coordinator directs the flow of SPs through the MEC examination process. The coordinator manages all SP appointments, verifies that all components are completed for each SP, and exits SPs from the MEC.
- One physician conducts the medical examination and records results, reviews the results of the complete blood count and pregnancy test, and serves as the safety officer for the MEC.
- Two health (MEC) interviewers administer questionnaires for physical health information.
- Two dietary interviewers administer the dietary questionnaire. The interviewers record a 24 -hour dietary recall of the types and amounts of foods consumed by the SP in the last 24 hours.
- Four health technologists (some with radiologic technology and/or other health training) take and record body measurements, recruit SPs to participate in the physical activity monitor component, perform vision tests, cardiovascular fitness tests, and total body composition (DXA) scans, administer hearing tests, and administer the Trutol solution for the glucose tolerance test.
- Three medical technologists conduct clinical laboratory tests on biological and environmental specimens, record the results of the tests, and prepare and ship specimens to various laboratories.
- One phlebotomist conducts the phlebotomy interview, administers the fasting questionnaire, and draws blood for laboratory tests and special studies like the volatile organic compound special study. The phlebotomist is also responsible for administering the Trutol and drawing a second blood sample for the GTT test. They are trained as a backup examiner for other MEC components like body measures and the physical activity monitor.

Each staff member is part of a team of professional persons with specific assignments that must be completed in order to accomplish the overall objective of the survey. Each individual must be aware of and respect the job demands placed upon other staff members, maintain an attitude of tolerance and consideration for fellow members of the team, and willingly perform extra tasks that may be assigned to support other staff members in the performance of their duties. MEC staff members may be requested to perform tasks not directly related to their specific professional skills in order to implement the overall data collection plan.

### 1.7.3 Examination Components

The full examination for an adult takes approximately $31 / 2$ hours, but the actual length depends on the SP's age. Some exams are done only on certain age groups so the exam profiles vary, even among adult SPs. The exam components are described briefly below and summarized in Exhibit 1-3.

Exhibit 1-3. Examination components

| Examination | Age group |
| :---: | :---: |
| Audiometry | 12-19 and 70+ |
| Body Composition | 8 + |
| Body Measures | All ages |
| Cardiovascular (CV) Fitness | 12-49 |
| Dietary Interview | All ages |
| Glucose Tolerance | 12+ |
| Laboratory | $1+$ |
| Urine Sample | $6+$ |
| MEC (Health) Interview | $8+$ |
| Ophthalmology | 40+ |
| Oral Health | $5+$ |
| Phlebotomy | 1+ |
| Physical Activity Monitor | $6+$ |
| Physician | All ages |
| Blood Pressure | $8+$ |
| Vision | 12+ |
| Volatile Organic Compounds | 12+ |

## - Audiometry

The goals of the hearing exam are to obtain normative data on the hearing status of the adult U.S. population, and to evaluate certain covariates that may be related to hearing loss, such as occupational exposure. The hearing component tests adults by performing pure tone audiometry and tympanometry. Because pure tone screening by itself may not be sensitive enough to detect middle ear disease, tympanometry is conducted to provide an estimate of tympanic membrane compliance.

## - Body Composition

The body composition component will use dual energy x-ray absorptiometry (DXA) to evaluate both body composition and skeletal health on SPs aged 8 years and older. Three DXA scans will be used to (1) monitor secular trends in overweight prevalence; (2) describe the prevalence of obesity; and (3) examine the relationship between overweight and obesity and other examination measures, including blood pressure, glucose intolerance, and a battery of indicators for cardiovascular disease.

DXA will be used to assess overall skeletal changes that often occur with age by measuring bone mineral content (BMC) and bone mineral density (BMD); determine the prevalence of osteopenia and osteoporosis; and provide information on early gender and ethnic changes in the rate of bone accretion; and determine the age when skeletal accretion ceases and when peak bone mass occurs.

## - Body Measures or Anthropometry

All SPs will have body measurements taken. The exam will include height, weight, and other body measurements such as skinfold and arm girth. These measurements will be used to assess growth, obesity, and body fat distribution, and will provide information that can be used as a reference for later studies. Measurements of height and weight will allow for a revision of the child growth charts now in widespread use. Measuring body fat is important because it is associated with hypertension, adult diabetes, cardiovascular disease, gallstones, arthritis, and some forms of cancer. Furthermore, obesity and overweight can have an affect on the mental, physical, and social well-being of individuals.

## - Cardiovascular (CV) Fitness

One important part of overall physical fitness and functioning is cardiorespiratory fitness. To measure this, SPs aged 12 to 49 will be administered a submaximal treadmill test. During this test, SP blood pressure and heart rate will be monitored. This information will provide key data on many health factors including the association between physical fitness and cardiovascular disease and hypertension.

Cardiovascular disease is currently the leading cause of death in the United States for both men and women. A sedentary lifestyle (along with elevated blood cholesterol levels, hypertension, and smoking) is a major modifiable risk factor for cardiovascular disease. According to current data however, only about 24 percent of American adults currently meet the physical activity recommendations outlined in the 1996 Surgeon General's Report.

SPs are carefully screened prior to the treadmill test using questionnaires and measurements of resting heart rate and resting blood pressure. High risk (symptomatic, with disease, etc.) individuals will be excluded, so that only apparently healthy individuals will undergo treadmill testing. The combination of screening, monitoring, and the submaximal nature of the test will all contribute to the safety of this component.

## - Dietary Interview

Dietary information has been collected in NHANES since the 1970s. Researchers and policymakers rely on NHANES data for detailed information about the foods and beverages that are consumed by the U.S. population. In addition to providing important national reference data on food and nutrient intakes that are obtained on all survey participants, the data help us to learn about food patterns of ethnic subgroups, the adequacy of diets consumed by young children and older persons, and the contribution of food to total nutrient intakes. Total nutrient intakes from food and
dietary supplements can be computed by combining NHANES Dietary Recall data with household interview dietary supplement information. Many Federal agencies use NHANES data to evaluate Federal regulations in the areas of food fortification and human risk assessment analyses that are used to measure human exposure to contaminants that are found in food.

Two dietary interviews will be administered to all SPs. The primary dietary interview is administered in person in the MEC (the MEC In-person interview). At the end of the MEC dietary interview, the interviewers will schedule the SPs for a Phone Followup (PFU) 3-10 days later. The PFU is a follow-up dietary interview conducted by telephone by dietary interviewers from the home office. In addition, a selfadministered form, the Food Frequency Questionnaire, will be offered to SPs who complete the MEC dietary interview. It is mailed from and returned to the home office.

The goal of the dietary component is to estimate total intake of foods, food energy and nutrients, nonnutrient food components, and plain drinking water by the U.S. population; and assess dietary behaviors and the relationship of diet to health. Quantitative dietary intake data are obtained for all subjects by means of a 24 -hour dietary recall interview using a computer-assisted dietary data entry system.

## - Oral Glucose Tolerance Test (OGTT or GTT)

The purpose of this test is to reassess the prevalence of diabetes and impaired glucose tolerance (IGT) in the US population. Persons with impaired glucose tolerance (IGT) -15.6 percent of the U.S. population - are at high risk for developing diabetes. Also, IGT is an important risk factor for a number of other adverse health conditions and mortality. IGT is defined on the basis of an abnormal oral glucose tolerance test (OGTT). Persons without diabetes but with an OGTT $2-\mathrm{hr}$ value of $140-199 \mathrm{mg} / \mathrm{dl}$ are considered to have IGT. Recent national and international randomized controlled trials have shown that diabetes can be delayed or prevented among persons with IGT.

The GTT will allow estimation of the prevalence of IGT and, thus, prediabetes in the U.S. population, surveillance of trends in the prevalence and awareness of these conditions, study of the risk factors for IGT and prediabetes, and examination of IGT as a risk factor for health conditions and mortality. Timely data on IGT and prediabetes are particularly important as the Nation initiates efforts to prevent diabetes among persons with prediabetes. These data on IGT and prediabetes are critical to targeting, designing, and evaluating prevention efforts.

A fasting glucose blood test is performed on all participants 12 years and older who are examined in the morning session after a 9 -hour fast. After the venipuncture, participants are asked to drink 75 milligrams of Trutol ${ }^{\circledR}$ and to have a second venipuncture 2 hours (plus or minus 15 minutes) after consuming the Trutol. The blood glucose level from the second venipuncture will be used to determine if an SP has IGT.

## - Laboratory

The laboratory component includes the collection and processing of various biological and environmental specimens including blood for subjects 1 year and older, and urine for subjects 6 years and older. On-site pregnancy testing excludes pregnant women from other examination components such as DXA. Complete Blood Counts (CBCs) are also performed in the MEC laboratory. All other specimen testing is performed by Federal, private, and university-based laboratories under contract to NCHS.

Urine is collected from SPs age 6 and older to assess kidney function, measure levels of mercury, heavy metals, iodine and arsenic, and assess environmental exposures to pesticides such as organophosphates, phthalates, polyaeromatic hydrocarbons, phytoestrogens, and perchlorates.

## - MEC (Health) Interview

SPs aged 8 and older will have a health interview in the MEC. Generally, the questions asked in the MEC are considered to be more sensitive than the questions asked in the household. The MEC "clinic" environment is believed to be a more appropriate setting for the administration of these questions. All SPs will be asked questions in a face-to-face interview. In addition, persons who are 12-59 years old will be asked a series of more personal questions in complete privacy. The SP will listen to questions through a set of earphones and will enter responses by touching a computer screen.

Depending upon the age of the SP, the interview may consist of questions about tobacco, drug, and alcohol use, reproductive health (birth control practices, pregnancy and reproductive history, sexual activity), health behaviors (physical activity, weight history), kidney conditions and bowel health, current health status and mental health, and exposure to certain chemicals. Children 8-11 years will only be asked questions about weight history.

## - Ophthalmology

The ophthalmology component consists of two eye examinations completed on all SPs 40 years and above. SPs will be excluded if they have an eye infection, eye patches or blindness. The first exam is visual field testing using Frequency Doubling Technology (FDT) perimetry to test for visual field loss from glaucoma. The second exam is digital fundus photography using an ophthalmic digital imaging system to assess the presence of diabetic retinopathy, age-related macular degeneration, and other retinal diseases.

The leading causes of visual impairment in the United States are primarily age-related eye diseases including cataract, diabetic retinopathy, glaucoma, and age-related macular degeneration. More than 3.4 million Americans aged 40 years and older are either blind or are visually impaired. Glaucoma is the leading cause of irreversible blindness and a prevalent disease associated with aging. Although glaucoma can usually be controlled by early detection and treatment, half of people with glaucoma
are not diagnosed, and glaucoma is still the number one blinding disease among African Americans.

Diabetic retinopathy is the leading cause of new blindness among adults aged 20-74 years. It can affect almost anyone with diabetes, and contribute both to individual and societal burden. Age related macular degeneration (ARMD) is the leading cause of visual impairment and blindness in the United States among people 65 years and older. The frequency of ARMD is expected to increase as the population lives longer.

## - Oral Health

SPs aged 5 and older will receive a simplified oral health exam conducted by health technologists trained to administer the screening assessments. All examinees will be checked for tooth loss, cavities, restorations, and sealants. SPs 25 years and older will also be asked some questions about denture use and will be assessed for dental function.

Oral and dental diseases affect many in the United States. Dental caries and tooth loss remain significant problems affecting the Nation's oral health. Although average dental caries rates for school-aged children have declined, nearly a half of all children still have caries. Additionally, more than 90 percent of adults in the United States have experienced caries. Dental sealants, an effective caries prevention measure, have been underutilized in the United States, with less than one-quarter of children aged 517 having them.

Over the past four decades, oral and dental health characteristics collected in national surveys supported by the Federal Government have been critical for monitoring health status, risk factors for disease, and access to preventive and treatment services. The 2005-06 NHANES oral health component will meet a critical need to continue monitoring trends in dental caries and tooth retention. More specifically, this NHANES will produce oral health data to monitor five oral health objectives in the Healthy People 2010 health promotion: dental caries experience, untreated dental decay, no permanent tooth loss, complete tooth loss, and dental sealants.

## - Phlebotomy

SPs aged 1 and older will have blood drawn. The amount drawn will depend on the person's age. It is important to draw blood from study participants for a number of reasons:

- Knowledge can be gained about how healthy a person is by measuring for various substances in his or her blood.
- Blood tests can provide early warnings of potential health problems, perhaps before physical signs appear. For example, a blood test for lead might indicate exposure to unsafe lead levels before an individual shows any physical signs of lead poisoning. Also, diabetes mellitus will be assessed by measures of plasma glucose, insulin, and glycohemoglobin in examinees ages 12 years and older. Diabetes is a large, growing, and costly public health problem in the United

States and disproportionately affects racial and ethnic minorities. About 17 million Americans have diabetes and more than 1 million new cases of diabetes are diagnosed each year. Alarmingly, type 2 diabetes (formerly considered an adult disease) is now being diagnosed in children and adolescents and there has been a large increase in diagnosed diabetes among adults $<40$ years of age.

- Blood tests will also indicate the presence of STDs such as Chlamydia and gonorrhea, hepatitis, herpes, and HIV infection.
- Blood tests help in monitoring nutritional status, one of the key goals of NHANES. What researchers discover from this data can lead to health policy recommendations - the need for more vitamin fortification, for example.
- The blood testing also provides information about the levels of cholesterol and other blood lipids, another important study goal.


## - Physical Activity Monitor

The purpose of the Physical Activity Monitor component (PAMC) is to assess the physical activity levels of NHANES examinees $6+$ years of age. Approximately 4,000 individuals are expected to participate in this component annually. NHANES examinees wear a physical activity monitor (PAM) to examine physical activity patterns over a 7 -day monitoring period. The monitors detect locomotion-type activities such as walking or jogging. Physical activity data are linked to other household interview and health component data and are used to track changes that occur in body weight, functional status, bone status, and health status over time.

## - Physician

All SPs see the physician. The physician measures blood pressure, explains to female SPs how one examination will be completed and explains the meaning of the STD/HIV test results. The physician explains how SPs receive the results of STD/HIV tests so that the results remain totally confidential to the SP. The physician must be present on the MEC before any exams can be conducted, and the physician is in charge of any medical emergency that occurs on the MEC.

## - Vision

This examination will consist of a near and distance vision acuity test, eyeglass prescription determination when appropriate, and an automated refraction measurement. It will be given to SPs aged 12 and older.

Eye diseases cause suffering, disability, and loss of productivity for millions of people in the United States. In economic terms, eye disease and blindness are estimated to cost the U.S. in excess of $\$ 22$ billion each year. No high-quality, up-to-date information exists on the prevalence of visual impairment and the major causes of visual impairment in the general population. These data are needed in planning health services, in monitoring changes in eye disease prevalence, in research program planning, in developing and testing hypotheses about eye disease etiology.

Data collected more than 20 years ago in the NHANES I (self-reported history questions and full-vision examination with dilation) continue to be the only source of national prevalence data on eye disease and visual acuity impairment and there are no data on visual field impairment. Changes in disease definitions, population demographics, diagnostic capabilities, and treatments for eye diseases make it important to obtain new national data about eye disease. The absence of such data has forced researchers to use blindness registry data that are almost 25 years old. These studies select mostly white populations or non-nationally representative populations.

## - Volatile Organic Compounds (VOC) Special Study

Information on levels of exposure to a selected group of volatile organic compounds is collected on a subsample of the survey population to assist in determining whether regulatory mechanisms are needed to reduce the levels of hazardous air pollutants to which the general population is exposed.

### 1.7.4 Sample Person Remuneration

All examinees receive remuneration for the MEC visit as well as payment for transportation expenses. The MEC visit remuneration is age-related and may include an extra fasting incentive if the SP is eligible. SPs who return the physical activity monitor, and SPs who complete the dietary phone interview and the Food Frequency Questionnaire, also receive an incentive.

### 1.7.5 Report of Exam Findings

Examinees receive the results of many of the tests and exams conducted in the MEC, though some results are used only for research and are not reported.

One report, a Preliminary Report of Findings, is produced on the day of the SP's examination and includes results that are immediately available and require no further evaluation or interpretation. Before the examinee's departure from the MEC, the coordinator prints a report that can include height, weight, complete blood count, blood pressure, and results from the audiometry and cardiovascular fitness examinations. The MEC physician reviews the blood pressure and complete blood count test results for abnormalities and discusses any problems with the SP (or his or her parent.) Approximately 12-16 weeks after the exam, NCHS mails the remainder of the examination results to the SP after appropriate clinical or quality reviews are completed. Seriously abnormal results are reported to the SP via telephone by NCHS before the remaining findings are mailed.

Certain tests, such as those for sexually transmitted diseases (Chlamydia, gonorrhea, herpes simplex, and human papillomavirus) and human immunodeficiency virus (HIV) are released only to the sample person using a specially devised procedure requiring a unique password.

To further assist sample persons, an in-house NCHS survey response team is available to answer calls from NHANES participants regarding the results from the Report of Finding System. The response team effort works both as a triage mechanism and a surveillance system. A receipt and control record is kept on all sample person inquiries. Also available at no cost to sample persons is an 800 tollfree telephone number that can be accessed during regular scheduled business hours. The response team members include a physician, a nurse with a doctorate degree, and other staff who are trained to answer specific questions.

Tests and procedures conducted in the MEC are not considered diagnostic exams and are not a substitute for an evaluation by a medical professional. No clinical treatments or health interventions of any type are performed in the MEC. If a health problem is discovered during the course of the MEC exam, the physician offers to contact the examinee's personal healthcare provider or recommend a local physician or clinic for follow-up care. If a sample person is found to have a serious condition requiring immediate attention, the local rescue squad may be summoned or the SP will be advised to seek immediate medical treatment.

### 1.7.6 Dry Run Day

At the beginning of the examination period, one-half day is devoted to calibrating instruments, practicing MEC procedures, and collecting biological specimens that serve as blind quality control samples. A dry run day is scheduled immediately before the first exam day of every stand to make sure that all equipment is operational, supplies are adequate, and the facility is working properly. All procedures in the dry run are completed as though the actual exam session was being conducted. The only difference is that the examinees are volunteers who are not part of the sample for the survey. Volunteers may include local residents, local officials, or field employees or guests of NCHS.

### 1.8 Integrated Survey Information System (ISIS)

The Integrated Survey Information System (ISIS) is a computer-based infrastructure designed to support all survey operations including sample management, data collection, data editing, quality control, analysis, and delivery of NHANES data. With a collection of customized subsystems, the ISIS links the field office, mobile examination center, Westat home office, and NCHS during field operations. Each component in NHANES such as Dietary Interview has a computer application for direct data entry. Data collected in the Dietary Interview room of the mobile examination center is directly entered in the ISIS system computers. In addition, data from biomedical equipment such as the blood pressure monitor in the CV Fitness room is directly downloaded to the ISIS system where it is displayed on the computer screen and stored in the system database.

### 1.9 Confidentiality and Professional Ethics

All information regarding this study must be kept strictly confidential except as required by law. This includes location of survey sites. Since this study is being conducted under a contract with the National Center for Health Statistics, the privacy of all information collected is protected by two public laws: Section 308(d) of the Public Health Service Act (42 U.S.C.242m) and the Privacy Act of 1974 (5 U.S.C. 552a).

Each person working on the study must be continuously aware of the responsibility to safeguard the rights of all the individuals participating in the study. Each participant should be treated courteously, not as a sample number. Never divulge names or any other information about study participants except to the research team. Refrain from any discussions about study participants, in or out of the MEC, which might be overheard by people not on the survey staff. All of the members of the research team are under the same legal, moral, and ethical obligations to protect the privacy of the SPs participating in the survey. No participant names will be included in any reports prepared about the survey and neither NCHS nor the contractor is allowed to release information that would identify study participants without the consent of the participants.

Cooperation from the public is essential to the success of survey research. A great deal of effort is expended in obtaining cooperation from many national, regional, state, and local officials and the general public. It is the responsibility of every field employee to build on the integrity of the survey to
encourage continued access to study participants during current and future surveys. Professional conduct, both on and off the job, is extremely important.

Each staff member has a responsibility for promoting good public relations. The Public Health Service and the contractor will be judged by the actions of the staff both on and off duty; consequently staff must be discreet in speech and action. Personal appearance and behavior must be governed by these same considerations. Please be aware of the audience at all times and avoid statements or actions that could shed an unfavorable light on the survey.

Staff will be asked to sign a pledge of confidentiality before the survey begins. This pledge states that they are prohibited by law from disclosing any information while working on the survey to anyone except authorized staff of NCHS and the contractor, and that they agree to abide by the contractor's Assurance of Confidentiality.

## 2. INTRODUCTION TO THE DIETARY INTERVIEW

### 2.1 Dietary Interview Component in the National Health and Nutrition Examination Survey (NHANES)

Dietary information has been collected in NHANES since the 1970s. Researchers and policymakers rely on NHANES data for detailed information about the foods and beverages that are consumed by the U.S. population. In addition to providing important national reference data on food and nutrient intakes that are obtained on all survey participants, the data help us to learn about food patterns of ethnic subgroups, the adequacy of diets consumed by young children and older persons, and the contribution of food to total nutrient intakes. Total nutrient intakes from food and dietary supplements can be computed by combining NHANES Dietary Recall data with household interview dietary supplement information. Many Federal agencies use NHANES data to evaluate Federal regulations in the area of food fortification and human risk assessment analyses that are used to measure human exposure to contaminants that are found in food. All of these monitoring and research applications are dependent on the quality and completeness of the dietary interview data.

The dietary interview has always been a core component of the NHANES and all examinees are eligible for the interview. In the current survey, two dietary interviews will be administered to all SPs. The primary dietary interview is administered in person in the MEC (the MEC In-person interview). A follow-up dietary interview is conducted by telephone from the home office and is called "the Phone Follow-up (PFU) interview."

The MEC In-person interview will be administered during the MEC exam along with the other exam components. At the end of the MEC dietary interview, the interviewers will schedule the sample persons (SPs) for a PFU interview 3-10 days later. Dietary telephone interviewers at the Westat home office will conduct the PFU interviews.

The dietary interview is comprised of two sections-the Dietary Recall section and the PostRecall section. The same computer-assisted dietary interview system and similar quality control procedures are used for the MEC In-person and PFU exam dietary interviews. The computerized Dietary Recall interview and data processing systems we currently use were implemented into the survey at the beginning of 2002. These systems were developed by Westat under contract to the Agricultural Research

Service (ARS) of the U.S. Department of Agriculture (USDA). While the two dietary interviews collect similar data, there are some differences that are described below.

MEC In-Person interview. The MEC In-person interview collects 24-hour recall data in the Dietary Recall section and a short set of Post-Recall questions. A set of 3-dimensional measuring guides, including glasses, bowls, mugs, mounds, circles, thickness sticks, spoons, a ruler, cartons, and some 2dimensional tools, such as a grid, two wedges and pictures of shapes, chicken pieces and spreads, are used in the MEC In-person interview to help the respondent estimate the portion size. In addition, the MEC dietary interviewers will schedule the PFU interview, dispense a set of measuring guides, and instruct the respondents on how to use the guides during the PFU interview.

PFU interview. The PFU interview collects Dietary Recall data and a subset of the PostRecall questions. The PFU interviewers are located at the Westat home office in the same area as the NHANES dietary coders. Each SP will receive a reminder call prior to the scheduled interview. The measuring guides used for PFU were given to the SP by the MEC interviewer at the end of the MEC Inperson interview. The guides consist of a set of measuring cups, measuring spoons, a set of household spoons, a 12 " ruler, and a 2-dimensional Food Model Booklet (FMB). The FMB is a spiral booklet that contains pictures of glasses, bowls, mugs, pats/spreads, mounds of food, circles, a grid, a wedge, thickness blocks and pictures of shapes and chicken pieces. Each SP will receive $\$ 30.00$ for his or her participation in the PFU interview.

Other data related to the Dietary Recall interview are collected in the household interview. These dietary behavior and food security status assessment data include questions on dietary practices, participation in food assistance programs, infant feeding practices, type of home water supply, history of anemia, height and weight history, lifestyle eating habits, vitamin/mineral supplement and antacid usage, household food sufficiency, and food security status. In addition to the dietary assessment, the NHANES nutritional assessment components include anthropometric and body composition measurements, nutritional biochemistry and hematology tests, clinical examinations, and physical fitness and physical functioning assessments. These nutritional assessment components of the survey were designed by a team of researchers from NCHS and other government agencies. While the survey was being planned, government agencies were invited to submit research proposals for topics and interview questions that would meet their specific nutrition information needs. The dietary interview system and questionnaire specifications that NCHS provided to Westat reflect these information needs. NCHS and Westat staff will
have primary responsibility for monitoring the quality of data that are obtained during the course of the survey.

### 2.2 The Role of the PFU Dietary Interviewer

The PFU dietary interviewer will be responsible for administering the telephone follow-up dietary interview with all sample persons (SPs). The information will be collected and recorded in an automated Dietary Recall system. In collecting the data for NHANES, the dietary interviewer will be the liaison between the respondent and the dietary coding system.

The primary goal of the 24 -hour recall is to collect a detailed list of all the foods and beverages the SP consumed within a 24 -hour period, time and place of consumption, name of meal or snack, and details needed for accurate food coding. Food models will be used to aid respondents in estimating amount of intake. The dietary interviewer establishes a rapport with the respondent, obtains the most accurate, objective, and complete data, and enters these data into the automated system. Throughout the interview, it is important that the dietary interviewers maintain their professionalism, while creating an environment in which the SP feels comfortable to respond freely.

The 24 -hour Dietary Recall interview is comprised of two parts, the 24 -hour recall and a short set of post-Dietary Recall questions. Information collected from the 24 -hour recall interview will be coded and linked to a database of nutrient composition of foods. Calculations of total daily intakes of energy and 51 dietary components, including 19 individual fatty acids will be derived from these data. At the end of the Dietary Recall section, several questions are asked to collect information on respondent's usual intake and daily consumption of waters. Following the Dietary Recall section, you will complete a set of observation questions.

The dietary interviewer may conduct the interview in English or Spanish. Proxy interviews will be conducted for children less than 6 years old and other SPs who cannot report for themselves because of age or disability. Children who are 6-11 years old will be asked to provide their own data assisted by an adult household member. The preferred proxy is the person responsible for preparing the SP's meals.

Exhibit 2-1. Table of proxy and assisted interviews

| Age of SP | Main Respondent |
| :---: | :---: |
| Under 6 yrs | Proxy |
| 6 Yrs to 11 Yrs | SP, with Proxy Assistant |
| 12 Yrs + | SP* |

*Proxy is used if necessary.

### 2.3 Observers and Visitors

NCHS and Westat staff will conduct the quality control monitoring and data review activities for the component. Representatives from NCHS and Westat will visit the telephone center to talk to the survey staff, observe interviews, and monitor the examination protocols and time requirements.

During the course of the survey there will also be scheduled visits by collaborators and contract staff who are involved with various components of the survey. Collaborators from other government agencies including the U.S. Department of Agriculture (USDA), the Environmental Protection Agency (EPA), the National Institutes of Health (NIH), and the Food and Drug Administration (FDA) may schedule visits to the telephone center (through Westat) and request meetings with the dietary interviewers. You will be notified in advance of any visits by outside groups. Generally speaking, collaborators are interested in learning how the survey "works." For example, they may ask how survey participants respond to a telephone-administered Dietary Recall interview and if they are able to remember what they ate the day before. Some researchers are interested in a particular aspect of dietary methodology such as estimating food portion sizes while others are interested in how particular questions are being answered because they may want to use the same (or similar) instrument in another survey or plan to analyze the data. Interviewers should speak from their own experiences, offering what they have observed while collecting the information rather that offering opinions as to the importance or relevance of the information. If the visitors have specific questions you are not able to answer, they should be referred to NCHS.

Visitors may also ask about the dietary interview system that you use to record the Dietary Recall information. You may be asked to describe the screens and the approach used to record information. A brief description of the interview format, data entry, the food probe screens, data entry fields, online food and brand lists, and data editing is useful. Copies of training manuals, a list of the
measurement aids that are used, and other specific information about the component can be requested through NCHS. If someone requests a hard copy of a screen, it is best to refer him/her to the supervisor. The supervisor in the telephone center can provide them with a copy of some "sample screens" that were used in the dietary training manual. Never share papers with $S P$ information. The survey has strict confidentiality rules.

## 3. GENERAL INTERVIEWING TECHNIQUES

### 3.1 Before Beginning the Interview

Before beginning the interview, take some time to make sure you are thoroughly prepared. Thoroughly review your manual and other materials provided to you during training until you fully understand all aspects of your job. Practice doing the interview until you are comfortable using the automated system and probing. This practice will help in building your confidence so that you can deal with any situations you may encounter when you begin interviewing. Your ability to work comfortably will help keep your respondents interested in the interview and will help your interviews go smoothly. Respondents will quickly lose interest if you are constantly stopping, losing track of your place, and stumbling over questions or probes.

Check to make sure you have all your materials and that they are organized in an orderly way.

### 3.2 Beginning the Interview

When you first make contact with a respondent, your initial task will be to establish a friendly but professional relationship. Your own confident and professional manner will reassure the respondent and set a tone that will enable you to complete the interview in an efficient manner. Experience with past surveys has indicated that there are three main factors that increase the likelihood that a respondent will consent to being interviewed. They include: establishing rapport, convincing the SP of the importance of the survey, and convincingly responding to the SPs questions and objections.

Establishing Rapport. "Rapport" is the term used to describe the personal relationship between you and the respondent. Rapport provides the foundation for good interviewing. Your introductory remarks and the way you answer any questions the respondent may ask will strongly influence the rapport that develops between you. What you say and how you say it should set the tone for the friendly, cooperative, but businesslike relationship that will continue to develop throughout the interview. You must make a concerted effort to engage the SP during the interview. It could be very easy to become so absorbed in the computer screen that you forget you are dealing with a person.

Responding to the Respondent's Questions and Objections. Even respondents who are convinced of the importance of the study may, for a variety of reasons, be reluctant to grant the interview. Your friendly manner, your introductory statements, and your success and confidence in answering the respondents' questions will help you sell both yourself and the survey to the respondents. Your effectiveness will be increased by your knowledge that your job is legitimate and important, and by your thorough understanding of what you are doing and how to do it.

Your own state of mind-your conviction that the interview is important-will strongly influence the respondent's cooperation. Your belief that the information you obtain will be significant and useful will help motivate the respondent to answer fully and accurately. Most people want to be heard and are happy that you have asked their opinions. Those who are reluctant to give specific information will often do so willingly, if they are convinced that good use will be made of it and that their privacy will be protected.

### 3.3 Administering the Interview

Your task is to collect accurate information. You must have a thorough understanding of the general principles for administering the interview and comprehend fully its confidential nature. The material in the following sections of this manual will acquaint you with the general principles and procedures to follow when collecting survey data.

### 3.3.1 Asking the Questions

Collecting accurate and reliable data requires that every respondent hears exactly the same questions read in exactly the same way. Even small changes in the way you ask a question can affect the way a respondent answers and, in the long run, affect the results when researchers combine the answers given by large numbers of respondents. The basic rules for asking survey questions, discussed below, are all designed to ensure uniformity in the way questions are asked of respondents.

Always remain neutral. During the entire interview you must always maintain a completely neutral attitude. As an interviewer, you must never allow anything in your words or manner to express criticism, surprise, approval, or disapproval of the questions you ask or of the answers respondents give.

An important part of your role as an interviewer is to get the respondent actively involved in the interview, to encourage him or her to talk comfortably and freely in response to your questions. While encouraging the respondents to talk freely, however, you must carefully avoid saying or doing anything to influence the content of the respondent's answers. No matter what topics you ask about, no matter how strongly you agree or disagree with the respondent's answers, and no matter how interesting, unusual, or discouraging you might find those answers to be, you must always maintain the same neutral and professional stance during the interview. You are there to ask for and record the respondent's answers, not to influence or advise in any way.

At times, particularly if your respondent is talking freely, you may feel that he or she has already answered a question before you get to it. Do not skip over the question, but confirm the response that you heard.

To be a good interviewer, you must be comfortable with the questions you ask. If you feel uncomfortable with certain questions, such as the food security questions, it is likely that you will transmit something of that feeling to the respondent and influence the answers you receive. If you are uneasy with some questions, you should practice them repeatedly until you can ask them in a simple, straightforward, matter-of-fact way. Occasionally you will find a respondent who refuses to answer some questions, but usually you will find that as long as you can deal with all of your questions in the same relaxed and professional manner, your respondents will answer without hesitation.

Ask all questions as worded. You must read each question completely and exactly as it is worded to ensure the SP understands the meaning. For the answers obtained by different interviewers to be combined, there must be no doubt that each respondent heard exactly the same question before responding. However, there may be situations when you will just confirm a response. For example, when an SP reports the time of an occasion during the QL pass, you can confirm that time during the Time and Occasion pass. If you must repeat a question because the respondent did not hear you the first time or did not understand the question, reread the entire question.

Even though you feel that the question could be worded much more simply, do not improvise. Every word is there for a purpose. Emphasize only those words that are underlined or in bold type. Pause at commas or, when answer categories are included in the question, after each answer category. Read everything in a natural, even-toned manner.

Provide explanation. At times respondents may ask you to define words or to explain some part of a question. We have provided many definitions and explanations in the Question-by-Question Specifications. However, there may be situations when the SP requests clarification about foods or probes that you will need to answer. Use your good judgement in these situations. Do not provide information that will bias the SP, but do provide clarification that will help SPs respond more accurately.

Discourage unrelated conversation. Occasionally a question may lead a respondent to begin reminiscing or to relate a lengthy story having little or no relevance to the survey. As an interviewer, your task is to discourage such irrelevant conversation and keep the discussion focused on the interview. In some ways, this requires that you subtly teach the respondent how to be a good respondent. Maintain a businesslike attitude, acknowledge answers with neutral comments such as "I see," or "OK," and tactfully interrupt rambling and irrelevant answers to bring the conversation back to the question you have asked. The respondent will soon learn how to provide the kinds of answers you need. If you must interrupt a respondent, do it politely, taking care not to antagonize him or her. You might say something like:

- "That sounds very interesting, but what I need to ask is..."
- "I see what you mean, but let me repeat that last question..."


### 3.3.2 Maintaining Rapport

You began your rapport-building process with your introduction and it must be continued throughout the interview. Through accepting and understanding behavior and your interest in the respondent, you can create a friendly atmosphere in which the respondent can talk freely and fully.

Occasionally rapport may be broken during the interview for some reason; for example, the respondent may feel that a particular question is "too personal," such as the food security questions. If this happens, take time to reassure the respondent that he or she may speak freely without fear. Restating the
confidential nature of the interview and the impersonal nature of the survey may help to comfort the respondent. If a respondent refuses to answer a question after you have reassured him or her of confidentiality, do not press the respondent-enter a refusal response. The procedure will be explained later in the manual.

### 3.3.3 Difficult Situations

If the respondent agrees to be interviewed but maintains a hostile demeanor that impacts on the data you collect, you must document this in the observation section of the interview. This is described in Chapter 6.

### 3.3.4 Incomplete Information

Respondents may not always be able to provide complete information about the food consumed. This is very common with proxy interviews. If the SP and the proxy respondent cannot provide complete information about a meal or food, and the SP is less than 12 years old or an adult who requires proxy assistance, you must attempt data retrieval. This procedure is described in detail in Chapter 7.

If the respondent cannot provide complete information because he or she can't remember, follow the procedures for documenting unknown foods (Chapter 7).

## $3.4 \quad$ Probing

The quality of the interview depends a great deal on your ability to probe meaningfully and successfully. During training, we will discuss and demonstrate appropriate probing techniques for each specific part of the dietary interview. The following section is a brief introduction to probing.

### 3.4.1 What is Probing and Why is it Necessary

Probing is the technique you will use to stimulate discussion and obtain more complete information. We probe when a respondent's answer is not meaningful or is incomplete, i.e., when it does not adequately answer the question. There are a number of reasons respondents sometimes do not answer the question to our satisfaction.

In every day social conversation, people normally speak in vague and loose terms. It is understandable that respondents will at first answer our questions in a way that is not clear or specific. It is important to encourage the respondent to express himself or herself more concretely, in very specific terms.

Sometimes respondents will think that they are answering a question when all they are doing is simply repeating an answer that was already given, or simply repeating parts of the question. A respondent can talk a great deal and still be just repeating the question in different words.

Respondents will sometimes miss the point of the question. Many times they will give responses that seem to answer the question, but when you look further, they are not to the point of the question and are therefore irrelevant. It is easy to be "taken in" by a respondent who is talkative and gives a lengthy and detailed response that is actually quite beside the point; it is not the answer to the question asked. In most cases, a respondent gives an irrelevant response because he or she has missed an important word or phrase in the question.

Probing, therefore, has two major functions. First, probing motivates respondents to enlarge, clarify, or explain the reasons for their answers. Second, probing focuses the respondent's answer so that irrelevant and unnecessary information can be eliminated. All this must be done, however, without introducing bias or antagonizing the respondent.

Some examples of answers that, for different reasons, fail to answer the questions properly are given next. Because of the answers given, each requires probing.

## Examples of answers that require probing:

Question: Now let's talk about plain drinking water. Did (you/NAME) drink any tap water yesterday, including filtered tap water and water from a drinking fountain?

Answer: My doctor says I should drink more water.
Question: Was the amount of food that (you/NAME) ate yesterday much more than usual, usual, or much less than usual?

Answer: Well I usually don't have pancakes at breakfast.

### 3.4.2 Probing Inappropriate Responses

Sometimes a respondent will answer using words different from those in the answer categories you read. When this happens, do not make assumptions about what the respondent intends. If the respondent's answer does not clearly fit one of the provided answer categories, you must probe for a response you can code. Sometimes the best probe is repeating the original question. At other times, the best approach might be to ask, "Well, which comes closest?" and repeat all the answer categories.

At times a respondent will feel that none of the responses are suitable, or that under certain conditions they would choose one answer and under different conditions another. In this situation, you should try to get the respondent to generalize by repeating the question and saying, "Just generally speaking, is it this way or that?" or "Most of the time," or "In most cases," etc. If the respondent insists that he or she can't choose, be sure to enter exactly what is said, and let the home office decide how it should be coded.

## Example:

Question: How much tap water did (you/NAME) drink yesterday?
Answer: Well, not very much.
Probe: I see. But can you tell me, looking at the glasses in the booklet, about how much tap water did (you/NAME) drink yesterday?

Answer: Well, I really can't.

### 3.4.3 Probing Methods Should be Neutral

It is very important to always use neutral probes. By this we mean you should not imply to the respondent that you expect a specific answer or that you are dissatisfied with an answer.

Remember, the reason for probing is to motivate the respondent to answer more fully or to focus the answer, without introducing bias. The potential for bias is great in the use of probes. Under the pressure of the interviewing situation, the interviewer may quite unintentionally imply that some answers are more acceptable than others or may hint that a respondent might want to consider this or include that in giving responses. You must be careful not to do this.

The following example consists of a response from the SP, and two possible probes. The first of these probes is neutral; the other is not.

## Example:

SP: I had a cup of coffee at 9:00 a.m.
Neutral Probe: Did you add anything to your coffee?
Non-neutral Probe: So you probably added cream and sugar?

The non-neutral probe suggests a specific answer to the respondent and thus leads the respondent toward that answer, rather than leaving the range of possible responses completely open for the respondent to specify.

### 3.4.4 Kinds of Probes

There are several different neutral probes that appear as part of a normal conversation that can be used to stimulate a fuller, clearer response.

An expression of interest and understanding. By saying such things as "uh-huh" or "I see" or "yes," the interviewer indicates that the response has been heard, that it is interesting, and that more is expected.

An expectant pause. The simplest way to convey to a respondent that you know he or she has begun to answer the question, but has more to say, is to be silent. The pause allows the respondent time to gather his or her thoughts.

Repeating the question. When the respondent does not seem to understand the question, or misinterprets it, seems unable to decide, or strays from the subject, it is often useful to repeat the question. Many respondents, when hearing the question for the second time, realize what kind of answer is needed.

Repeating the respondent's reply. Simply repeating what the respondent has said is often an excellent probe. Hearing the response just given often stimulates the respondent to further thought.

Asking a neutral question or comment. Neutral questions or comments are often used to obtain clearer and fuller responses. The following are some suggestions for probing questions that may help explore many types of insufficient answers.

## PROBES TO CLARIFY:

- "What do you mean exactly?"
- "What do you mean by...?"
- "Could you please explain that a little? I don't think I quite understand."


## PROBES FOR SPECIFICITY:

- "Could you be more specific about that?"
- "Tell me more about that."


## PROBES FOR RELEVANCE:

- "I see. Well, let me ask you again... (REPEAT EXACT QUESTION)."


## PROBES FOR COMPLETENESS:

- "What else?"
- "What else can you think of?"


### 3.4.5 The Don't Know (DK) Response

The "I don't know" answer can mean a number of things. For instance,

- The respondent doesn't understand the question and says DK to avoid saying he or she doesn't understand;
- The respondent is thinking the question over, and says DK to fill the silence and give himself or herself time to think;
- The respondent may be trying to evade the issue because he or she is afraid of giving a wrong answer, or because the question seems too personal; or
- The respondent may really not know or really may have no opinion on the question.
- Try to decide which of the above may be the case. Don't be in too big a rush to settle for a "don't know" reply. If you sit quietly-but expectantly-your respondent will usually think of something. Silence and waiting are frequently your best probes for a "don't know" reply.
- Always try at least once to obtain a reply to a "don't know" response, before accepting it as the final answer. But be careful not to antagonize respondents or force an answer. If they say again that they "don't know," proceed to the next appropriate question after coding the DK reply.


### 3.4.6 Additional Guidelines for Probing

The following rules and examples provide further guidance to help you select probes that will not bias respondent's answers.

Probe for Clarity and Specificity. Don't ask "Do you mean $\qquad$ or $\qquad$ ?" Such a probe suggests only one or two possible answers, when the respondent may actually be thinking about other possibilities. Do use probes for clarity and specificity when a respondent's answers are unclear.

## Example:

Question: Did you add anything to your cereal?
Answer: Yes, sweetener.

Neutral Probe: What kind was it?
Non-neutral Probe: Do you mean Equal or Sweet 'n Low?

Probe for Completeness. Don't try to sum up in your own words what someone has said, because this may suggest to the respondent that YOUR idea of his or her response is the "right answer." Do use probes for completeness to make certain that you've obtained full answers.

## Example:

Question: How much of the brownie did you actually eat?
Answer: I had two.
Neutral Probe: What was the shape of the brownie?
Non-neutral Probe: Were these square brownies?

### 3.4.7 When to Stop Probing

You should stop probing when you have obtained all the necessary information about the respondent's diet. When you have received sufficient clarification from the respondent so that you (and home office staff) know exactly what he or she had in mind-only then will you have a complete answer, and only then should you stop probing. However, if at any time the respondent becomes irritated or annoyed, discontinue probing. We do not want the respondent to refuse the rest of the interview.

### 3.5 General Rules for Recording Answers

So far, we have talked about how to ask the questions and how to obtain clear and complete answers. Both of these are very important jobs. However, it is also critical that the SP's answers are accurately recorded. Specific rules for recording using the automated system will be discussed throughout training. The following general rules always apply. Recording or entering answers using the automated system is quite simple.

Verbatim recording. When a respondent elaborates on a response, use the respondent's own language word for word. Don't correct or summarize what you think the respondent means; let the
respondent speak for himself or herself. We are as interested in the kinds of words a respondent uses as in the meaning of an answer. If you are conducting the interview in Spanish, enter the responses verbatim in that language. These responses, however, must be translated into English later.

Be sure to include the pronouns (he, she, I, they). Without pronouns the meaning of the answer is frequently not as clear as you think.

### 3.6 Ending the Interview

All people who give their time for an interview are entitled to courteous and tactful treatment. Try to leave respondents with the impression that they have taken part in an interesting and worthwhile experience-one they would be willing to repeat.

After all questions have been asked, indicate your appreciation to respondents by thanking them; also mention that their contribution has been most helpful in providing important information to the study. Remember that the respondent is familiar with your task from the discussion at the beginning of the interview, so don't spend too much time going over the same information. Spend a few minutes answering any additional questions your respondent may have; then close the interview.

## 4. DIETARY INTERVIEW APPLICATION FEATURES

This chapter describes the features of the instruments you will be using to conduct the dietary interview. It includes an overview of the computer and a discussion of the format and navigational features of the instruments.

### 4.1 General Overview of Computer

The computer is connected to a network computer where all the information is downloaded when you finalize the interview. Your computer consists of three components: a monitor, a keyboard, and a mouse. The terminal works through an exchange of messages between the terminal operator (you) and the computer.

Each step in using the computer to conduct the dietary interview will be explained to you: how to turn on the computer and access the program, how to use the keys on the keyboard, and how to conduct the interview. The following diagrams and descriptions have been inserted to give you some insight into the computer and its components. If you do not thoroughly understand a certain key or function, do not be concerned; each will be discussed in much greater detail later in the manual. With practice, the location of the keys on the keyboard, the function of each key, and how everything works together to obtain the necessary data for the 24 -hour recall will become clear.

### 4.1.1 Keyboard

You will use a number of keys on the keyboard to enter data and navigate through the interview. These are described below and shown in Exhibits 4.1 and 4.2.

Backspace Keys. Press the Backspace key to erase any information that you have typed in. The Backspace key erases one character to the left of the cursor if depressed and released, or continues to erase if held down. This function will mostly be useful to you when using comment boxes and OS, and the soup category.

Number keys. Use the top row of the keyboard or the number pad at the far right of the keyboard to enter numbers. Before you can use the number pad to enter numbers, you must make sure that the number lock is on. When you depress the Num Lock key, which is located above the number 7 on the number pad, a small light above the Num Lock key is lit. This must be done each time you turn on the computer.

Exhibit 4-1. Illustration of keyboard with backspace and number keys


Navigation keys. Navigation keys allow the interviewer to efficiently move through the interview. Navigation keys include Home and End keys, Arrow keys, and ALT + and Ctrl + keys.

Cursor Control Keys. The cursor is a flashing, black, vertical bar that tells you where the information you type will appear. The cursor control keys include the Tab and Enter keys. These keys are used alone or in combination with other keys to move the cursor and may be used at some point in the interview.

Exhibit 4-2. Illustration of cursor control keys and navigation keys


### 4.2 PFU Dietary Interview Related Systems

Two programs make up the dietary interview application-the wrapper and the USDA Automated Multiple Pass Method (AMPM) program. The AMPM is specialized software used for collecting the Dietary Recall. The "wrapper" program was designed to go around the AMPM so it would fit into the other NHANES applications.

When you are in the wrapper you will see a hamburger icon in the upper left corner of the screen. In the PFU interview the word "Phone Follow-Up" will appear next to it-indicating the phone follow-up interview.

Exhibit 4-3. Wrapper screen

## Phone Follow-Up Pickup

## Scheduled Appointment Coeds Data Retrieval C Broki

When you are in the AMPM program you will see a yellow and red icon in the upper left corner and the words "Blaise Data Entry" next to it-indicating the software used to create the AMPM program.

Exhibit 4-4. AMPM screen
©4Blaise Data Entry - Q:IcsifitstiCSFII_NHANESI
Forms Answer Nawigate Options Help

Intake

With the exception of a few entry screens, all of the Dietary Recall section of the dietary interview is collected using the AMPM program. The Post-Recall section is collected using the wrapper program. The status code for each section is also collected in the wrapper.

### 4.2.1 Key Features of the Wrapper Program

There are a number of navigational keys you can use to move through the wrapper program. These include:

Tab - moves you from field to field
Enter - moves you from screen to screen

You may also navigate the wrapper program using VCR keys or the blue arrow shown in the screen below.

Exhibit 4-5. VCR keys and blue arrow


The nert questions are about whether you were ahways able to aford enough food in the last 30 days

$$
\begin{aligned}
& \begin{array}{l}
\text { In the last } 30 \text { days, des you ever cuf the size of your meals or ship meale because } \\
\text { there was not enough money for food? Yes }
\end{array} \\
& \text { How many days did this happen in the last } 30 \text { daya? } 77 \text { days DK } \mid \text { REF } \\
& \text { In the last } 30 \text { days, dis you ever aest lass than you fot you shauld because there No } \\
& \text { In the last } 30 \text { dirs, were you ever hungy but did not eat because you could not } \\
& \text { In the last } 30 \text { days, did you lose weight because you dd nut have enough maney for }
\end{aligned}
$$



The VCR keys allow you to move backward or forward in the wrapper. In the center is a rectangle that contains the page number of the current screen. Clicking on the arrow to the immediate left will move you back one page. Clicking on the arrow to the far left will move you back to the first page of the section. Likewise, clicking on the arrow immediately to the right of the number will move you to the next page, while clicking on the far right button will move you forward to the last page of the section. You can also move to the next screen by clicking on the blue arrow in the lower right hand corner of the screen.

### 4.2.2 Key Features of the AMPM Program

The AMPM program is the bulk of the interview. It has a number of features designed to make your life easier.

- The screens are laid out in a standardized manner.
- Each text color has a purpose.
- The text formats have a purpose.
- Special function and navigation keys will help you move around easily in the instrument.

Screen layout. As shown in the example below, the screen is divided into three sections:


- Question pane - the cream-colored background area at the top of the screen where the questions and interviewer instructions appear.
- Response choice pane - the middle part of the screen where the responses are listed.
- Answer pane - the area at the bottom of the screen that contains the fields for recording responses.

Text features. Purple text is used for all question text and response items. Green (or teal) text is used for interviewer instructions, which are in brackets and in upper case. Words that you need to emphasize in the questions and frequently reported responses are printed in bold.

## Exhibit 4-7. Text features

Intake $\mid$ Sorted_RFL $\mid$

| Terri (35, F). $\quad 12.001 . \operatorname{IN} .01 .002 \quad$ (333) 555-7777 |
| :--- |
| Broccoli, 6:30 PM, dinner |
| Was it regular or low sodium? |
|  |
| C 1. Low sodium |
| 2. Regular |
| 91. Other, Specify |

Header information. There are two types of header information: (1) Demographic Header, which includes name, age, and gender, and (2) Food Header, which includes the food name, time, and occasion.

Exhibit 4-8. Header information


Function Keys. The AMPM program includes specific function keys to provide shortcuts for the interviewing process. These keys are described below.

- F1 (Help) - used to call up the source Help screen

Exhibit 4-9. F1 (Help)


- F6 (Remark box) - used to make a remark or comment. When you press F6 you will get this Remark box. The box is associated with the field your cursor is in when you press F6. So, if you need to further explain something the respondent has said, press F6 to access the Remark box and type in the information.

If you want to make a remark about a food that you have already completed, go back to the RFL, put the cursor on the food in the food list using your mouse, and press F6 to make your remark. If the RFL food is greyed out, you can only highlight it by clicking on the mouse as you place it over the Food Field.

Exhibit 4-10. F6 (Remark box)


- F7 (Refusal) - used to record a refusal to a particular question. When you press F7 the program will enter an exclamation mark (!) in the field where you've put the cursor.

Exhibit 4-11. F7 (Refusal)


- F8 (DK) - used to record a DK response. When you press F8 the program will put a question mark into the field where you've put the cursor. DK is an acceptable answer.

Exhibit 4-12. F8 (DK)


- F9 (access sorted RFL) - used to access the sorted RFL. Foods that have been collected with details are sorted chronologically. This feature is very helpful during the interview because it helps you keep track of where you are. You will also refer to it when you need to document the time and occasion for a 'Same as' food. Finally, you can use it to confirm whether you added or misreported a food. For example, in the screener below, the space between breakfast and lunch indicates a food was misreported.

Exhibit 4-13. F9 (Access sorted RFL)


- F10 (return to RFL) - used to return to the RFL at any point in the interview. The first time you access this screen you will need to enter the letters "rfl." After that the field will be automatically filled, and you will only need to press Enter. Use this function key when you need to add a food to the RFL or make a remark on a food that you have already collected.

Exhibit 4-14. F10 (Return to RFL)


F11 (Language) - used to select the language of choice. All questions except the food probes in the Detail and Review cycle have been translated to Spanish. You will not use the help language selection.

Exhibit 4-15. F11 (Language)


- $\mathbf{C t r l}+\mathbf{H}(\mathbf{H H})$ - used to access a roster of HH SPs. This is important when you want to indicate the ID number of another household member who ate the same food reported by the SP. By accessing this roster you can document the pertinent information.

Exhibit 4-16. Ctrl + H (HH)


- End - used to take you to the next appropriate questions. It will be your primary navigation key. When you return to the RFL to enter a food, you will use the END key to get back to the place you left off.


## Exhibit 4-17. End



- Arrow keys - used to help you move through the instrument.
- Down arrow and Right arrow - used to move forward through the completed question.
- Down arrow - used to enter foods on the RFL.

Up arrow and left arrow - used to backtrack to a question.

- Parallel tab - used to access the sorted RFL. The parallel tab is at the top of the screen on the left side. You can access this tab at any time throughout the interview. To exit the parallel tab and get back to your place in the instrument, click on the Intake tab to the far left.

Exhibit 4-18. Parallel tab

| Intake Sorted_RFL |
| :--- |
| Terri (35, F). I2.001.IN. 01.002 (333) 555-7777 <br> Oj, 7:00 AM, breakfast <br> Macaroni and cheese, 12:30 PM, lunch <br> Applesauce, 12:30 PM, lunch <br> Chicken, 6:30 PM, dinner <br> Ice tea, 6:30 PM, dinner <br> Broccoli, 6:30 PM, dinner <br> C1. CONTINUE |

## 5. PHONE FOLLOW-UP CONTACT PROCEDURES

This chapter presents the procedures you will use to prepare for and conduct the Phone Follow-up interviews. Many of these procedures will involve using the Field Follow-up Management System (FFMS). The FFMS has been developed to support appointment scheduling, to contact SPs, and to monitor production of the Dietary Phone Follow-up interviews.

### 5.1 Check Daily Schedule

At the beginning of each shift you will enter the FFMS to check your schedule for the day. Click on the FFMS icon on the desktop to launch the FFMS. The first screen you will see is the FFMS Connect to nhprodweb screen, shown below. Either press enter or click on OK.

Exhibit 5-1. FFMS Connect to nhprodweb


The following screen is the FFMS Log-in screen, shown below. Simply enter your user ID and password and either press Enter or click on the Log in button.

Exhibit 5-2. FFMS Log-in screen


You will need to log into the FFMS about every hour.

After logging in, the system defaults to the Dietary tab and the Appointment Manager. The Appointment Manager module is designed to track the scheduled appointments.

## Exhibit 5-3. Appointment Manager screen



View appointment schedule. You can view the appointment schedule in a number of ways. First, there are two filters at the top of the screen: Interviewer and Appt. Status. The Interviewer filter allows you to filter on only your own appointments while the Appt. Status filter allows you to filter on the different types of appointments. To filter on your own appointments, highlight your name in the Interviewer field in the filter criteria box. To remove the filter, hold down the control key (Ctrl) while clicking on the interviewer's name. Use the same procedure to filter on Appt. Status. After you have decided on the filter, select the tab for the period of time you want to view: a Day, Week, or Month. The filters and sorting periods are shown above. Notice that when you select the "Day" tab, you must highlight the day on the calendar. If you select the 'week' tab you must highlight the week on the calendar by clicking on the '>' icon to the left of each icon representing a week.

Exhibit 5-4. Appointment list


Appointment list. The appointment list is divided into four columns that include the appointment time, the SP name, the appointment status, the interviewer, and the reminder call status. A Note icon may also appear at the end of a row of information to indicate that the MEC interviewer documented additional information about an SP. The example below is sorted by day and illustrates the appointment schedule for December 16. There is a note attached to John Butler 1 and Lydia Lopez 1.

The Appointment List columns include:

- Time - This represents the time of the scheduled or tentative appointments. The appointment list will only show the appointment times on the day on which you filtered.
- SP name - This is the name of the SP. The MEC interviewers will try to schedule family members for PFU interviews on the same day and sequential timeslots. Therefore, you will likely see multiple family members on the appointment list.
- Appointment status - This represents either the status of the appointment as assigned by the MEC interviewer when scheduling the appointment in the MEC, or the status as assigned by a telephone interviewer when attempting to conduct an interview. The status codes include:
- $\quad$ Scheduled, Firm Appointment - SP agrees to be scheduled at a specific time. Status code is generated by the system as a result of MEC or PFU scheduling.
- $\quad$ Scheduled, Tentative Appointment - SP selected a time but may need to change appointment. Status code is generated by the system as a result of MEC or PFU scheduling.
- Not Scheduled, Broken Appointment - SP was not available at scheduled time and the appointment was not rescheduled. Status code is generated only when PFU interviewer attempts the PFU interview.
- Appointment Completed - Interview completed. Status code is generated only when PFU interviewer successfully conducted the interview.
- Appointment Final - Nonresponse - Status code is assigned by telephone supervisor. A comment code must be entered explaining the reason for nonresponse.
- Interviewer - This indicates which interviewer will call the SP.
- Reminder calls - This indicates whether the SP has received a reminder call about the upcoming interview. Generally, reminder calls are made the day before the interview.
- Note icon - This indicates that the MEC interviewer documented additional information about the SP. Place the mouse cursor on the icon to read the note. A box will appear with the note text.

Once you have checked the daily schedule, close the FFMS.

### 5.2 Document Call Attempts

You must document all call attempts that you make to an SP. You can do this from the Phone Follow-up Call Information screen. Once you log onto the Dietary Recall interview and click on the scheduled appointment, the first screen you will see is the Phone Follow-up Call Information screen. This screen, as shown below, contains relevant contact information about the SP, including the name, age, language, proxy interview, phone number and location, and the time and date of the scheduled interview. In addition, it lists the appointments for other household members. You will use the phone number listed to make the call. Once you reach the SP and he or she is willing to be interviewed, you can proceed to the next screen and begin the interview.

Exhibit 5-5. Dietary Phone Follow-up Call Information screen - document attempted contacts


If you cannot conduct the interview, you will follow the steps below.

1st: Click on Call History Button. Click on the Call History button on the Call Information screen. This button opens the Call History module of the FFMS. The module tracks the date and time of each call and the contact code if contact was unsuccessful.

2nd: Log-In. You will need to log into the FFMS every time.

3rd: Enter Call History Module. The next screen, shown below, is the Call History module. The screen displays the history of the calls for the SP identified on the Call Information screen and includes features that you can use to reschedule the SP.

Exhibit 5-6. Call History screen


The features of this screen include:

- Search Criteria bar - Use this when you need to access information about another SP. Enter the SP ID or the first and last name in the search criteria boxes at the top of the screen.
- Contact information - This box provides contact information specific to the SP.
- Contact attempt table - This table lists the history of call attempts for the SP.
- Update Call Info button - This button is used to update the contact status information, after you have entered it into the FFMS (described below).
- Contact status - This section contains the appointment date and time. You will fill in the information and then select a contact status.

4th: Assign Contact Status. You must assign a contact status for every attempt you make to contact the SP when you could not conduct the interview. These status codes will be documented so you and other interviewers can tell what has transpired with previous call attempts to a particular SP. As shown in the screen below, you must enter 'yes' or 'no' as to whether contact was made and whether an appointment was rescheduled. If you do not reschedule the appointment, you must enter a reason from the list of contact codes in the pull-down box.

Exhibit 5-7. Contact status codes

| Attempt <br> No. | Date/Time | Contact <br> Made | Contact <br> Status | Other, Reason | Rescheduled |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $9 / 16 / 2005$ <br> $12: 18 \mathrm{PM}$ | No | Ring, no <br> answer |  |  |
| 2 | $9 / 16 / 2005$ <br> $12: 25 \mathrm{PM}$ | No | Answering <br> machine, <br> message left |  |  |

Record Call History for LISA SIMPSON (4203311) $\quad$ Update Call Info



The contact codes are described below.

- Ring, no answer - Select this code when the telephone number rings indefinitely without a person or an answering machine response.
- Answering machine, message left - Select this code the first time you call an SP and reach an answering machine.
- Answering machine, no message left - Select this code for all other attempts on the same day to reach the SP and you get the answering machines.
- Busy- Select this code when you get a busy signal.
- Initial refusal - Select this code if the SP refuses to complete the interview at any point and does not wish to reschedule. The telephone supervisor will determine whether to conduct refusal conversion or assign a final disposition code.
- Call no appointment - Select this code if you make contact with the household, but the SP is not available. This code indicates that no appointment was made, but you should try again later to reach the SP.
- Nonworking phone/disconnected - Select this code if a number is nonworking. The supervisor will try to trace a working number.
- No phone/did not call in at scheduled time - Select this code when an SP is scheduled to call into the telephone center for an interview, but does not keep the appointment. The supervisor will attempt to find a way to contact the SP and reschedule.
- Call Intercept/Privacy Manager - Select this code when the Privacy Manager System will not allow you to leave a message.
- Other - If none of the above contact codes applies, select 'other' and type in the reason.

5th: Update Call Information. After you enter the information, press the "Update Call Information" button before exiting the module. The button is highlighted in pink and located above the information you updated. The system will assign all scheduled interviews that could not be completed or rescheduled an appointment status of "Not Scheduled, Broken Appointment."

After completing the update, close the FFMS to return to the Call Information screen to continue. Click on Close Exam. The system will take you to the status screen for the Recall interview. It will automatically assign a status of NOT DONE. You must enter a reason for the Done code.

### 5.3 Retry Broken Appointments

You will access a broken appointment from the Phone Follow-up Pickup list by sorting on 'Broken Appointments'.

Exhibit 5-8. Phone Follow-up (PFU) pickup list - broken appointments


Highlight the SP you want to retry and click OK. You will make your call to the SP from the Phone Follow-Up Call Information screen. You will go through the same steps to document the call attempts as described above, until you reach the SP or your supervisor assigns a final status code.

### 5.4 Reschedule Appointments

If you need to reschedule an appointment you can do so from the Call History module. Follow the steps below.

1st: Select 'Yes' for Contact Made and 'Yes' for Reschedule. The system will then display the Appointment Manager module.

Exhibit 5-9. Call History module

## Dietary Gall History

| 831301 | Last Name: | SIMPSON | First Name: | LISA | Suffix: | Stand: 420 | Search |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Current Appointment: Thursday-11/25/2004 8:30 AM
Current Appointment Status: Not Scheduled, Broken Appt., updated on 9/16/2005
Phone No.: $\frac{(420) 333-3333}{}$
Location: Home
Age: $\quad 4$
Proxy Name: Marge Simpson

| Attempt No. | Date/Time | Contact Made | Contact Status | Other, Reason | Rescheduled |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{aligned} & 9 / 16 / 2005 \\ & 12: 18 \mathrm{PM} \end{aligned}$ | No | Ring, no answer |  |  |
| 2 | $\begin{aligned} & 9 / 16 / 2005 \\ & 12: 25 \mathrm{PM} \end{aligned}$ | No | Answering machine, message left |  |  |
| "Yes"'for |  |  |  |  |  |
| Recorntacti History for LISA SIMPSON (4203311) |  |  |  | Update Call Info |  |
| Appointment Date/Timer 11/25/2004 8:30 AM |  |  |  |  |  |
| Contact Made with SP: $\mathbf{\Delta}_{\text {O }}$ Yes ONo |  |  |  | 'Yes' for Reschedule |  |
| Reschedule Appointment |  |  | Ques Ono |  |  |

2nd: Make The Appointment. When you select 'yes' for reschedule, the program launches the FFMS Appointment Manager screen. Follow the sequence listed below and illustrated in the screen shot.

- Click on calendar to select a day. There will be a warning notice if you try to schedule on the same day of the week that the in-person interview was completed.
- Filter on Spanish Interviewers, if needed.
- Review the list for the time requested by the SP and select an appointment. Notice the list contains appointment slots for all interviewers.
- Click on the 'reschedule appointment' button next to the calendar. This will update the schedule and the Call History screen.

Exhibit 5-10. Appointment Manager screen - make appointment

| Day 1 Week |
| :--- |
| Enter Search Criteria |
| SP ID: 831301 Last Name: SIMPSON |



3rd: Verify Appointment Rescheduled. A confirmation screen will appear to verify the appointment has been rescheduled.

Exhibit 5-11. Appointment Manager screen - verify appointment made


Then close the PFMS and complete the Recall Status in the dietary application.

### 5.5 Reminder Calls

Reminder calls will be made 1 to 2 days before the scheduled appointment. The telephone supervisor will schedule one person daily for the reminder calls and tell you the appointment days for which you should make the calls. You will enter the Reminder Call module by clicking on the module icon at the top of the screen. As shown in the screen below, you will click on the filter for the particular day the supervisor requests.

Exhibit 5-12. Reminder Calls module


Call Reminder Script. You will read the call reminder script that is documented on a handcard. Do not ask for the SP or proxy respondent, but read the script to whomever answers the phone. If the person you are talking with asks questions, refer them to the number listed in the script. You may leave this message on an answering machine.

Hello, my name is \{interviewer Name\}. I am calling for the National Health and Nutrition Examination Survey. I am calling to remind MR. /MRS. \{SP/PROXY\} that his or her dietary telephone interview is scheduled for (DAY, DATE) AT (TIME). Please have the bag containing the measuring guides near the phone for the interview. If you or he or she has any questions, he or she may call 1-888-458-4762 toll free. Thank you.

## 6. CONDUCTING THE 24-HOUR RECALL INTERVIEW

### 6.1 Introduction of the PFU Dietary Interview using the USDA Automated Multiple Pass Method (AMPM) Instrument

The dietary interview is comprised of two sections: the Dietary Recall section and the PostRecall section. The Dietary Recall section includes the 24 -hour Dietary Recall, a set of health-related questions, and data retrieval questions if foods have been flagged for data retrieval. The Post-Recall section includes observation questions that you will complete.

With the exception of a few entry screens, all of the Dietary Recall section of the interview is collected using the AMPM program and all of the Post-Recall session is collected using the wrapper program. The status code for each section is also collected in the wrapper.

## The Dietary Recall Section

The 24-hour Dietary Recall collects a list of all the foods and beverages an SP consumed within a 24-hour period; the time of consumption and the name of the eating occasion; detailed food descriptions and amounts of the reported foods; where it was obtained; and whether it was eaten at home or not. The recall is followed by a set of health-related questions. The data will be collected using the new USDA AMPM instrument. Information collected from the 24 -hour Dietary Recall will be coded and linked to a database of foods and their nutrient compositions. Calculations of total daily nutrient intakes will be derived from these data. The information obtained will be used to describe the food and nutrient intake of the population.

The health-related questions collect information about the SP's usual intake.

## The Post-Recall Section

The observation questions document your observations about the interview. They include questions that identify language used, the main respondent, and who helped, and also ask whether there was difficulty with the interview, and if so, reasons for the difficulty.

### 6.1.1 Key Features of the 24-Hour Dietary Recall

## The 24-hour Dietary Recall

This section is divided into five steps that collect different kinds of information about foods consumed during the 24 -hour period of the previous day. The different steps encourage respondents to think about their intake in different ways and from different perspectives. This methodology is designed to maximize respondents' opportunities for remembering and reporting foods they have eaten.

There are five steps to the 24 -hour Dietary Recall summarized below.

Step 1: The Quick List is the first step and is designed to get a quick report of easily remembered foods. The interviewer first defines the task for the SP:

First we'll make a list of the foods you ate and drank yesterday, (DAY). It may help you remember what you ate by thinking about where you were, who you were with, or what you were doing yesterday, like going to work, eating out, or watching television.

Please tell me everything you had to eat and drink all day yesterday, (DAY) from midnight to midnight. Include everything you had at home and away, even snacks, coffee, soft drinks, water, and alcoholic beverages. I'll ask you for specific details and amounts of the foods in a few minutes. At this time, just tell me what you had.

Step 2: The Forgotten Foods List is the second step. In this step you will encourage SPs to think about specific categories of foods that are frequently forgotten. The categories include non-alcoholic beverages, alcoholic beverages, sweets, snacks, fruits/vegetables/cheese, and breads.

Step 3: The Time and Occasion questions are the third step. They are designed to encourage additional recall and reporting by helping respondents think about their eating patterns over the past 24 hours.

Step 4: The Detail and Review Cycle is the fourth step. This step includes the following:

- Probes for food descriptions and food amounts (from Food Categories);
- A probe for the source of each food (RECSource), that is, where the food was obtained;
- A review of each occasion (RECReviewofEvent) to see if the SP remembers any additional foods;
- A probe for where each occasion was eaten (RECEventLocation); and
- A review of the period between occasions (RECBetweenIntervalProbe) to see if the SP remembers any additional foods.

Each food in an occasion goes through a and b and then the program cycles each occasion through $\mathrm{c}, \mathrm{d}$ and e before taking you to the $5^{\text {th }}$ step.

Remainder foods are probed after the last interval probe. Remainder foods are foods the SP remembers during the interview that were consumed before the time period being discussed. Remainder foods will be stored by the AMPM until the end of the Recall portion of the interview to maintain the flow of chronological order.

Step 5: The Final Review probe is the last step. This step concludes the 24 -hour recall portion of the interview by asking SPs one more time if they can remember anything else they ate or drank in the previous day.

### 6.2 Accessing the Program

Log into the Dietary exam program by clicking on the hamburger icon on your desktop and then select 'phone' on the drop-down file menu. All your scheduled appointments will be listed on the interviewer pick list as shown below.

Exhibit 6-1. Phone follow-up (PFU) pickup list — scheduled appointments


Highlight and click on the desired appointment to bring up the 'Dietary Phone Follow-up Call Information' screen.

### 6.3 Introduction to Respondent

The Call Information Screen has all the contact information necessary to contact the SP. Once you have reviewed the Dietary Phone Follow-up Call Information screen, you will dial the SP's telephone number. This is explained in more detail in Chapter 5.

Exhibit 6-2. Phone follow-up call information sheet - contact information


If you cannot conduct the interview with the respondent, click on the Call History button to document the interview attempt. This is explained in more detail in Chapter 5. If you make contact with the SP or proxy, you will go to the next screen.

The next screen is the Phone Follow-up Introduction Script. Read the text to start the interview.

Exhibit 6-3. Phone follow-up introduction script


Make sure that you read the last sentence in the first paragraph, "For quality control purposes, my supervisor may listen in to this interview" verbatim. This informs the SP and provides an opportunity for him or her to decline to be observed. If, in the rare case the SP refuses to be monitored, accept the request and immediately inform the supervisor so she can block the interview from being monitored. If the SP needs to reschedule, read the text after the instructions in caps.

## (IF SP NEEDS TO RESCHEDULE):

We can schedule another appointment for the interview. Is there a time that will be convenient?

You are then instructed to go to the PFMS to reschedule. Using the arrow key in the lower left corner of the screen, go back to the Call Information screen and click on the Call History to get to the PFMS.

If the SP will not reschedule, you need to attempt refusal conversion by reading the text after the instruction in caps.

## (IF SP IS NOT WILLING TO RESCHEDULE):

We cannot ask everyone in the country to be in our study. You are special because you have been chosen to participate. No one else can take your place. We hope that you will help us with this interview. It will only take about 20 minutes, you will receive $\$ 30$ for participation, and it is such an important part of the health survey.

If the SP is willing to reschedule, go to the PFMS and set a new appointment.

If the SP is unwilling to continue, read the text after the instructions in caps.
(IF SP STILL SAYS NO):

Thank you for your time.

The next screen asks whether the interview is a 'back-to-back' interview. Back-to-back interviews are interviews completed with the same respondent, one right after the other, for example, when an SP does her own recall and then acts as the proxy for her young child. Only select 'yes' when the respondent is the same respondent from the prior interview.

Exhibit 6-4. Back-to-back interview screen


Is this Intake interview being conducted "back-to-back" with another Intake interview in this household?

C1. YES
C2. NO

Once you answer this question, the AMPM intake instrument is launched.

The next screen you will see is about the measuring guides that the respondent was given after the in-person interview in the MEC.

Select " 1 " if the SP will use the measuring guides and Food Model Booklet, select " 2 " if the SP will use his or her own guides, and select " 3 " if the SP does not have any guides. After selecting the appropriate guide response, continue on to the Quick List.

Exhibit 6-5. Have food model guides screen


### 6.4 Step 1: The Quick List Pass (QL)

The Quick List (QL) pass is the first step of the instrument. It introduces the SP to the concept of the 24-hour Dietary Recall and collects all the foods they remember eating.

The first screen asks the respondent to recall all of the foods and beverages they ate and drank the day before the interview. You must read the statement verbatim. Press " 1 " and ENTER to continue with the rest of the QL Introduction.

Exhibit 6-6. Recall foods and beverages screen


You will record all the Quick List foods on the second screen called the Respondent Food List (RFL) screen. Read the statement at the top and enter the food information in the FoodName column.

If reported, you may also enter any helpful comments (if time permits), times, and occasions that the respondent reports. You will return to this screen later to collect the times and occasions for every food reported at the QL pass.

Exhibit 6-7. RFL screen


Statement. Read the statement exactly as it is written on the screen. The SP must understand that you are interested in everything they ate or drank during the 24 hours of the previous day, from midnight to midnight. If the SP does not understand the time frame, re-explain, guiding the SP to Tab 1 of their Food Model Booklet titled "Yesterday's Food Intake. . . Midnight to Midnight" (see Section 6.7.3.5 for details on the Food Model Booklet). For example, for an interview on Thursday, you might say, "We'll be talking about the period from 12 midnight, Wednesday night, all day yesterday, until 12 midnight, last night." The exact time period is from 12:00 midnight to 11:59 PM.

Exhibit 6-8. Yesterday's food intake card

## Yesterday's Food Intake ...



## Midnight to Midnight

Emphasize that the respondent is to tell you everything they ate or drank including snacks and food they ate or drank at home or away from home. You do not need to collect information about vitamins and mineral supplements in a pill or liquid form. Do not interrupt or probe while the respondent is listing the foods on the QL pass. However, if you cannot understand the respondent or if they report their foods too fast for you to enter them, you may ask them to repeat or clarify what they've said.

Column 1. FoodName Column. Notice that the cursor is in a blank field in the FoodName column which is the first column of the RFL. Foods reported by respondents are entered in this column.

Exhibit 6-9. FoodName column


As you begin to type a food name, you will access the Main Food List (MFL). The MFL is a list of over 2,600 foods that you will use any time you enter foods on the RFL QL (see Section 6.4.1 for details on the MFL).

In most cases, you must enter at least three letters of a food name to access the MFL. In general, the more letters entered, the greater the likelihood of a match. However, certain two-letter abbreviations will access frequently reported foods (see Section 6.4.1 for details on MFL search strategies).

Exhibit 6-10. Trigram search


If the highlighted food is not a match, use the DOWN ARROW key to scroll down the list and select the food that is the best match for what the respondent reported. Once the food is highlighted, press the ENTER key to select the highlighted food. The food will be placed in the RFL FoodName field.

To get to the next available FoodName field, use the DOWN ARROW key. If the respondent changes a reported food or if you have selected an incorrect food, use the UP ARROW key to go back to the original food line and enter the change or enter 'Error' to delete it.

Exhibit 6-11. RFL screen - columns 2-4


Column 2. Comment Field. The Comment field is for your use only. You can enter any information the SP reports about a food that will be helpful later. For example, if the SP reports "rice with gravy," enter "rice" in the Quick List and "gravy" in comments.

Columns 3 \& 4. Time and Occasion Fields. Respondents may report an eating time and/or occasion as they remember what they ate. You may enter this information in either the comments field or the time and occasion fields. Press the ENTER key to go across the screen to the appropriate field. Do not ask for the times or eating occasions of any foods while on the Quick List pass. Procedures for entering the Time and Occasion are discussed in more detail in Section 6.6.

As you move through the QL Pass, try not to interrupt SPs while they report their foods, but use the information provided to help you select the best choice from the Main Food List. You may ask respondents to restate or clarify a food if you do not understand them.

Your goal during the QL Pass is to let respondents report everything they ate or drank. If respondents seem unable to recall what they ate in the 24 -hour period (or for a particular eating occasion), use a prompt. For example, you can say something like, "Perhaps it will help you to think about where you were on Wednesday" or "Perhaps it will help if you think about what you were doing at that time." Be careful, however, not to use probes that suggest specific meals or foods such as, "What did you have for breakfast?" or "Do you usually have orange juice first?"

It is crucial that respondents really understand what is being asked. Explain the procedure carefully and let the respondents know that you will be patient while they try to recall the information.

### 6.4.1 The Main Food List (MFL)

The Main Food List (MFL) is a list of more than 2,600 foods from which you will select foods eaten by the SP during the previous 24 hours. The MFL links the food to the appropriate category of probes needed. The MFL lists foods in the ways respondents will likely report them. The goal when searching the MFL is to find a food quickly and, if possible, get a "direct hit." A direct hit occurs when the letters you enter bring up the food you want.

The USDA AMPM program searches for foods on the MFL through a mechanism called "Trigram searching." "Trigram searching" operates basically as a word-matching process initiated after you type in all or part of a food name. The combination of letters you type in is called a "search term." After a search term has been entered, the trigram search mechanism finds all foods that have three-letter combinations of the search term. For example, if you type in the word "French fries" the trigram will search for the following three-lettered combinations: FRE, REN, ENC, NCH, CH_, H_F, _FR, FRI, RIE, and IES. The program will display all foods that have this combination of letters.

As shown below, typing in only part of the word "French fries" (Fren fri) brought up "French fries" at the top of the list (a direct hit). The search also brought up all foods containing the threelettered combinations of the word "Fren Fri" including foods not associated with French fries such as "Chicken fried rice, Chinese."

Exhibit 6-12. Main Food List (MFL)

| bw C: \CSFII_NHANES\Testing\Externals\IntakeLookups\MFL - Database Browser |  |  |  | $\square \times$ |
| :---: | :---: | :---: | :---: | :---: |
| FoodName | FIBCategory | PrecodeVarA | PrecodeVarB | $\wedge$ |
| French fries | 080030 | 6 |  |  |
| BK french fries | 080030 | 6 | 1 |  |
| Chicken fricassee | 100010 | Fricassee, chicken |  |  |
| Arbys french fries | 080030 | 6 | 1 |  |
| Chicken fried steak | 090010 | Chicken fried steak |  |  |
| School french fries | 080030 | 6 | 4 |  |
| Wendys french fries | 080030 | 6 | 1 |  |
| Fast food french fries | 080030 | 6 | 1 |  |
| McDonalds french fries | 080030 | 6 | 1 |  |
| Chicken fried rice Chinese | 100050 | Fried rice Chinese, chicken |  |  |
| Din fries | 080030 | 5 |  |  |
| French roll | 030020 | 4 | French roll |  |
| French bread | 030010 | French bread |  |  |
| French toast | 030110 |  |  |  |
| $\begin{array}{\|l\|l}  \\ \hline \end{array}$ | nannon | 1 |  | $\stackrel{\square}{-}$ |
| Search: |  |  | Key typeC IrigramFood C AlphaFood |  |
| fren \|ri |  |  |  |  |

As illustrated above, the trigram uses spaces and characters in the word(s) you have typed to search. Typing fewer letters or two words with no space will bring up a different combination of letters. For example, typing "Fre fri" brings up "home fries." Typing "toa" brings up "Texas toast," but typing "toast" brings up "toast." As you become more familiar with the MFL, you will learn which strategies are best for you when searching for foods on the MFL.

Strategies for searching. There are a number of strategies you can use to quickly and accurately find the correct food on the MFL. These include:

- Entering words or partial words that uniquely identify a food (e.g., "wat add" for "water as an addition"; "cof" for "coffee"). See table on next page.
- Learning efficient search terms for the most frequently reported foods (e.g., "1 milk" for " $1 \%$ milk," "toast" for "toast," and "grapef ju" for "grapefruit juice");
- Entering generic food names (e.g., "soda" instead of "caffeine-free soda", "Happy meal" instead of "McDonalds Happy Meal"), when you know that level of detail is not on the MFL;
- Entering food and brand name abbreviations (e.g., "oj" for "orange juice," "pbj" for "peanut butter and jelly sandwich" and "WWAT" for "Weight Watchers");
- Entering eating occasions and places (e.g., "appetizers," "school lunch," and "Chinese food") if the respondent does not give you specific foods on the QL; and
- Entering place holders for unknown foods and situations when the SP was fasting.

These strategies are discussed below:

Unique Identifiers for Frequently Reported Foods - Becoming familiar with the most frequently reported foods will save you time when entering foods into the RFL. Following is a list of foods that were reported most frequently in USDA's Continuing Survey of Food Intakes by Individuals (CSFII) conducted in 1994-96, along with their appropriate search term.

Exhibit 6-13. Table of unique identifiers on MFL

| FOOD | SEARCH STRING | FOOD | SEARCH STRING |
| :---: | :---: | :---: | :---: |
| Apple | app | Half and half | half |
| Banana | ban | Hot dog | hot |
| Beer | beer | Ice cream | ice cre |
| Bread | bre | Jam | jam |
| Brownie | brow | Jelly | jelly |
| Burger | burg | Juice | jui |
| Butter | butt | Lettuce | lett |
| Cake | cak | Luncheon meat | lunchm |
| Cantaloupe | cant | Margarine | marg |
| Carrots | carr | Mayonnaise | mayo |
| Cereal | cereal | Milk | mil |
| Cheerios | cheerio | Onions | oni |
| Cheese | cheese | Orange juice | oj OR ora jui |
| Cheddar cheese | chedd | Pancake | panc |
| Chicken | chicken | Peanut butter | pea but |
| Chips | chips | Pickle | pic |
| Coffee | cof | Pie | pie |
| Coke | cok | Pizza | piz |
| Cola | col | Potato | pota |
| Cookie | coo | Potato chips | pot chips |
| Corn flakes | corn fl | Pretzel | pre |
| Crackers | crac | Rice | ric |
| Cream | cre | Roll | rol |
| Egg | egg | Sausage | saus |
| Frankfurter | fran | Sugar | sug |
| French fries | fren frie | Soft drink | sof |
| Fries | fren frie | Soda | sod |
| Fruit | fru | Syrup | syr |
| Fruit punch | fru pun | Tea | tea |
| Fruit drink | fruit dri | Tomatoes | toma |
| Grapes | grap | Vegetables | veg |
| Ground beef | gro bee | Water as addition | wat add |
| Gravy | gra | Wine | wine |
| Ham | ham |  |  |
| Hamburger | hamb |  |  |

Generic Food Names. The MFL contains a number of generic foods such as "milk," "bread," and "soda" that you can use to get a "direct hit" if you are unsure whether the reported food is on the MFL. For example, if a respondent reports anadama bread and you are unsure how to enter the food name, you may enter "bread" and write "anadama" in the comments field. Following is a list of the generic foods in the MFL.

Exhibit 6-14. Generic food names

| Generic Foods |  |
| :--- | :--- |
| Alcoholic drink | Meal replacement powder |
| Alcoholic mixed drink | Meat |
| Appetizer | Mexican food |
| Baby formula | Milk |
| Bf | Milkshake |
| Bf cereal | Mixed drink |
| Bf fruit | Nonalcoholic drink |
| Bf vegetable | Nuts |
| Bf dinner | Oil |
| Bf juice | Pasta |
| Bread | Pastry |
| Breakfast bar | Pie |
| Cake | Pizza |
| Candy | Poultry |
| Casserole | Powdered breakfast drink |
| Cereal | Pop |
| Cheese | Protein powder |
| Cereal bar | Protein supplement drink |
| Chicken | Pudding |
| Chinese food | Punch |
| Chips | Rice |
| Coffee | Salad |
| Cookie | Salad bar |
| Crackers | Salad dressing |
| Cream | Sandwich |
| Curry | Sauce |
| Dessert | Seafood |
| Dip | Seeds |
| Drink | Shake |
| Dumpling | Smoothie |
| Egg | Snack |
| Fast food biscuit | Soda |


| Generic Foods |  |
| :--- | :--- |
| Fast food sandwich | Soft drink |
| Fish | Soup |
| Flavored drink | Spaghetti |
| Formula | Spread |
| Frozen breakfast | Stew |
| Fruit | Stir fry |
| Hamburger | Sugar substitute |
| Happy meal | Sushi |
| Hot Cereal | Syrup |
| Ice cream | Tea |
| Juice | Tempura |
| Kids meal | Vegetables |
| Liquor | Water |
| Meal Replacement bar | Wine |
| Meal replacement drink | Yogurt |

Abbreviations. Abbreviations are used throughout the MFL and can be classified into 4 categories:

- Food Names such as "0j" for Orange juice;
- Forms of food such as "bbq" for Barbeque;
- Brand names such as "BK" for Burger King and "WWAT" for Weight Watchers;
- Descriptive terms such as " ff " for Fat free and " lf " for Lowfat; and
- Other helpful abbreviations such as " $w$ " for With.

The table below contains a complete list of abbreviations. It is essential that you learn these abbreviations to ensure you match the reported foods with a food on the MFL. Keep in mind that these abbreviations are used everywhere possible. For example, the abbreviation "bbq" is used when an SP reports eating "barbeque" and also when an SP reports eating "bbq ribs" (barbecued ribs). Note that when searching for a food, you may enter either upper case or lower case. Upper case is used in the MFL to provide you with visual cues on the screen.

Exhibit 6-15. Table of abbreviations on MFL

| MFL Abbreviation |  |
| :--- | :--- |
| 1 milk | $1 \%$ milk |
| 2 milk | $2 \%$ milk |
| Bf | Baby food |
| Bbq | Barbecue |
| BG | Budget Gourmet |
| BK | Burger King |
| BLT | Bacon, lettuce, and tomato sandwich |
| Din | Dinner fries |
| Ff | Fat free |
| frz | Frozen |
| GS | Girl Scout |
| HC | Healthy Choice |
| KFC | Kentucky Fried Chicken |
| LC | Lean Cuisine |
| lite | Light |
| LD | Little Debbie |
| lf | Low fat |
| oj | Orange juice |
| PB | Peanut butter sandwich |
| pbj sandwich | Peanut butter and jelly sandwich |
| red fat | Reduced fat |
| RR | Roy Rogers |
| SW | Snack Wells |
| TB | Taco Bell |
| TCBY | The Country's Best Yogurt |
| WWAT | Weight Watchers |
| w | With |
|  |  |

Ethnic Foods - There are many ethnic foods on the MFL, particularly Mexican and Chinese foods. The foods are listed below. You should familiarize yourself with these lists so that you can enter the ethnic food as it is reported. However, generic names of foods are also available.

Exhibit 6-16. Table of Mexican foods on MFL

| Mexican Foods |  |
| :--- | :--- |
| Asopao de gandules | Mexican rice |
| Bean burrito | Mexican Pozole soup |
| Bean enchilada | Mexican sopa seca dry noodle soup |
| Beef and bean burrito | Minestrone soup |
| Beef burrito | Mondongo soup Mexican |
| Beef enchilada | Pupusa |
| Beef fajita | Quesadilla |
| Beef flauta | Soft taco |
| Beef taco | Sopa Seca de Fideo |
| Beef tostada | Sopa caldo de Res |
| Breakfast burrito | Sopa caldo de pollo |
| Burrito | Sopa de Albondigas |
| Chalupa | Sopa de Fideo Aguada |
| Cheese burrito | Sopa de ajo |
| Cheese enchilada | Sopa de carne y fideos |
| Cheese quesadilla | Sopa de pescado |
| Chicken burrito | Sopa de platano |
| Chicken enchilada | Sopa de pollo con arroz |
| Chicken fajita | Sopa de tortilla |
| Chicken flauta | Sopa ranchera |
| Chicken taco | Sopa seca de arroz |
| Chicken tostada | Sopes |
| Chilaquile | Steak fajita |
| Chimichanga | Taco |
| Enchilada | Tamale |
| Fajita | Taquito |
| Flauta | Tostada |
| Gordita | Vegetable fajita |
| Menudo soup Mexican |  |
|  |  |

Exhibit 6-17. Table of Chinese foods on MFL

| Chinese Food |  |
| :--- | :--- |
| Almond chicken Chinese | Moo shi |
| Beef and broccoli Chinese | Moo shi pork |
| Beef fried rice | Nissin noodle soup |
| Beef lo mein | Orange beef Chinese |
| Beef w vegetables Chinese | Orange chicken Chinese |
| Cashew chicken | Pad thai noodles |
| Chicken chow mein | Pepper steak |
| Chicken fried rice | Pork fried rice |
| Chicken lo mein | Pork lo mein |
| Chicken teriyaki | Pork w vegetables Chinese |
| Chicken w broccoli Chinese | Pot sticker |
| Chicken w vegetables Chinese | Sesame beef |
| Chinese rice | Sesame chicken |
| Chinese string beans | Sesame pork |
| Chop suey | Shrimp fried rice |
| Chow mein | Shrimp lo mein |
| Crab Rangoon | Shrimp teriyaki |
| Dim sum | Shrimp toast |
| Egg drop soup Chinese | Shrimp w lobster sauce |
| Double cooked pork | Shrimp w vegetables Chinese |
| Egg foo young | Spring roll |
| Egg roll | Steak teriyaki |
| Fried rice | Stir fry |
| Garden roll | Summer roll |
| Garlic chicken Chinese | Sweet and sour beef |
| General Tsos | Sweet and sour chicken |
| General Tsos chicken | Sweet and sour pork |
| Hot and sour soup Chinese | Sweet and sour shrimp |
| Hunan beef | Szechuan beef |
| Hunan chicken | Szechuan chicken |
| Hunan pork | Szechuan pork |
| Hunan shrimp | Szechuan shrimp |
| Kung Pao | Tofu w vegetables Chinese |
| Kung Pao chicken | Vegetable fried rice |
| Lemon chicken Chinese | Vegetarian egg roll |
| Lo mein | Vegetable lo mein |
| Lumpia | Wonton |
| Miso soup | Wonton soup Chinese |
| Moo goo gai pan |  |

The MFL also includes a number of other ethnic foods such as Indian and Vietnamese foods. If you cannot find the food the respondent reports on the MFL, you can enter the ethnicity, such as "Indian," "Chinese," and "Mexican" and get a list of many of the foods common to those countries. If the food you are looking for does not come up right away, enter the generic version of the food (e.g., "soup," "appetizer," "beverage," "casserole," "vegetable"). If you do not know the generic version, enter the term "unknown food" (see below).

Occasions/Places. Popular eating occasions and places are listed on the MFL. If the respondent reports "appetizers" or a "fish fry" you may enter these terms on the Quick List and then ask about the specific foods when you collect the food details for that occasion.

Exhibit 6-18. Table of occasions, places, and generic foods on MFL

| Occasions/Places/Generic Foods on the MFL |  |
| :--- | :--- |
| Appetizers | Hors d'oeuvres |
| Bar | Kid's meal |
| Breakfast | Lunch |
| Buffet | Mexican food |
| Chinese food | Mistic |
| Church supper | Salad bar |
| Cocktail party | School breakfast |
| Dessert | School lunch |
| Dinner | Snack |
| Drink | Snapple |
| Fasting | Spread |
| Fish fry | Unknown food |
| Happy meal | Unknown meal |

Unknown Foods/Fasting. When a respondent reports a food that is not on the MFL or is unfamiliar to you or to the respondent, and therefore difficult to fit into a generic food, you can select the term "Unknown food" from the MFL and make a note in the comment field. Later in the interview the AMPM will bring up probes to help you identify the food and enter the descriptive information. Do not ask the respondent to describe the food at the QL pass.

The MFL contains the term "fasting." If SPs report that they fasted on the recall day, enter "Fasting" on the QL. Procedures for completing an interview for a fasting SP are discussed in Chapter 7. A copy of the MFL can be found in Appendix A.

### 6.4.2 Leaving the Quick List (QL) Pass

There are several steps you must follow before leaving the QL pass. First, once you have listed all the foods the respondent remembers, ask the "Anything Else?" probe. If the respondent reports any foods, list them on the next available line on the RFL. While collecting the Quick List, you can remove mistakenly reported foods by typing "error" over the food name on the list or type over the incorrect food. Finally, on the last available line on the QL, type "XXX" and press ENTER twice to go to the next screen.

Exhibit 6-19. Leaving the QL pass


A maximum of 40 foods can be entered on the RFL. If more foods are reported, you will record them in the Remark Box (F6 function key). See Chapter 7 for details on recording 40+ foods.

### 6.5 Step 2: The Forgotten Foods List (FFL)

The Forgotten Foods List (FFL) is Step 2 of the instrument. It is comprised of seven probes: six of the probes ask about specific food groups and the seventh asks if the respondent remembers any other foods for the recalled day:

- Beverages: Coffee, tea, soft drinks, milk, or juice
- Other Drinks: Beer, wine, cocktails, or other drinks
- Sweets: Cookies, candy, ice cream, or other sweets
- Snacks: Chips, crackers, popcorn, pretzels, nuts, or other snack foods
- Fruits, Vegetables, Cheese: Fruits, vegetables, or cheese
- Breads: Breads, rolls, or tortillas
- Anything else

Exhibit 6-20. Forgotten foods list (FFL) screen


For each group of foods, type " 1 " (Yes), " 2 " (No), or " 3 " (Had other food(s)). If you enter " 1 " for Yes, the AMPM will take you back to the RFL to enter the remembered food(s). If you enter " 2 " for No, the AMPM will take you to the question about the next group of FFL foods. You will enter " 3 " when the respondent remembers a food that does not belong in the group of foods for which you are probing. For example, if a respondent remembers eating bread when you are asking about remembered sweets, do not wait to enter the remembered bread at the Bread probe. Type " 3 " and the AMPM will take you back to the RFL to enter the food.

Exhibit 6-21. FFL - Code all that apply (CATA) responses


Notice that on the screen, there are boxes to the left of the response items. This indicates that you may choose more than one answer. There may be times a respondent remembers more than one food at an FFL probe and the foods may be associated with different FFL probes. For example, if the respondent at the Beverage category probe remembers drinking one soda and eating some potato chips, you will select both " 1 " for the soda and " 3 " for the potato chips. You can select both answers by using the mouse to click on the boxes or by inserting a space (or dash) between 1 and 3 (13;1-3).

Questions such as this one, where the respondent can give more than one answer, are called Code All That Apply (CATA) questions. The boxes next to the response items distinguish these questions as CATA questions. One-answer questions have circles next to the response options. CATA questions can also be displayed in three other ways. They will be discussed in more detail later in this chapter.

Even though this is a CATA question, not all answers can be combined. An answer cannot be both " 1 and 2 " (Yes and No). If you accidentally recorded "1-2," you will see the Edit Message below and will need to correct your entry.

Exhibit 6-22. FFL — Edit messages for impossible answers


You will see Edit Messages throughout the Intake Instrument. This particular message lets you know that the response items entered (Yes and No) are an impossible combination. As shown, a Hard Edit Message appears telling you that the response entered is invalid. It is called a "Hard" edit because entry of an impossible combination of responses is not permitted by the AMPM. When a Hard Edit Message comes up on the screen, you must re-enter the responses in order to continue with the interview. If you press ENTER when this message appears, the program will take you back to the question that needs to be changed. Edits are discussed in more detail later in this chapter.

When the SP remembers a food at one or more of the FFL probes, the program will take you back to the RFL to add the food(s). To leave the RFL screen, type "XXX" on the next available RFL line. Press ENTER twice and END to navigate to the next appropriate question. The steps are summarized below.

Exhibit 6-23. Type XXX to leave RFL

(1) Enter food on RFL;
(2) Ask "Anything Else?" probe (and enter new foods on the RFL);
(3) Type "XXX" and press ENTER twice;
(4) Press END.

Make sure the respondent understands that you are asking about foods in addition to the ones reported on the Quick List. Do not record duplicate foods. When you have finished reading the entire Forgotten Foods List, and recorded all remembered foods, the AMPM instrument will guide you to Step 3, the Time and Occasion Pass.

Exhibit 6-24. FFL - Anything else question


After the last probe of the FFL, "Anything Else," you will see an Edit screen asking you to enter the time for the first reported food.

Exhibit 6-25. Edit screen to go to time and occasion pass


You may press ENTER or use the mouse to activate the Goto button to go to Step 3 in the interview to collect the Time and Occasion for all foods on the RFL.

The Time and Occasion pass is Step 3 of the AMPM. It asks the respondent times and eating occasions for each of the food items recorded in the RFL. The cursor will appear on the first blank time or occasion field. Time and Occasion are asked for each food in the order that the respondent reported the foods on the Quick List (QL) pass. If you recorded time and/or occasion for any foods during the QL, you can confirm the information as you go through the list of foods. You do not have to ask the time and/or occasion again. Also, when you confirm a time, use terms such as "in the morning," "in the afternoon," or "in the evening" rather than always asking "was that AM or PM?" For example, you may say, "you said you had your toast at 7 in the morning, is that correct?" Press the ENTER key to move across the screen to the Occasion field.

Exhibit 6-26. Time question on RFL


As shown in the above example, the cursor will be in the first time field. For this case it is in the Time field for toast.

In rare instances the respondent may report all of the time and occasion information during the QL or FFL. If this occurs, the AMPM will move the time for the first food on the RFL to the comments field (Comments) and the cursor will be in the Time field. You must reenter the time for the first food to continue with the interview. Then confirm the occasion for the first food and the time and occasion for the other foods on the QL.

The Time Question asks the respondent about what time she began to eat/drink the food. Type " a " or " p " for AM or PM. If you do not enter " a " or " p " then the AMPM program will default all times to AM. If the respondent reports in a whole hour, such as " $6: 00$ " you can enter " 6 ." If the respondent reports in hour and minutes you need not enter a colon (except for the 12 o'clock hour).

Exhibit 6-27. Enter time on RFL


As shown in the example below, the interviewer entered " 6 " in the time field and the program displayed 6:00AM as the default.

Exhibit 6-28. Time defaults to AM


In this example, the interviewer typed " 1 " and " $p$ " to enter "1:00PM".

Exhibit 6-29. Enter "PM"

| bu Blaise Data Entry - C:ITest-P2-Intake-LocalilnstrumentsilNTAKE |  |  |  |  |  | - 可 | x |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Forms Answer Navigate Options Help |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Intake Sorted_RFL $^{\text {a }}$ |  |  |  |  |  |  |  |
| Sample (23, F], E1.001.IN.18.001 (301) 555-1212 <br> About what time did you begin to eat/drink the McDonalds Big Mac? <br> [ENTER HOUR, MINUTE AND AM OR PM] <br> [IF SP IS NOT SURE OF TIME, ASK FOR BEST ESTIMATE. IF SP IS UNABLE TO ESTIMATE TIME, REFER TO HANDCARD] |  |  |  |  |  |  |  |
|  | Food Name | Comment | Time | Occasio | OnOccasion, 05 |  | - |
| Food[1] | Toast | cream cheese | 6:004M | 1 |  |  |  |
| Food[2] | Oi |  | 6:00AM | 1 |  |  |  |
| Food[3] | McDonalds Big Mac |  | 1PM |  |  |  |  |
| Food[4] | McDonalds french fries |  |  |  |  |  |  |
| Food[5] | McDonalds milkshake |  |  |  |  |  |  |
| Food[6] | Nachos Mexican |  |  |  |  |  |  |
| Food[7] | Beer |  |  |  |  |  |  |
| Food[8] | Margarita |  |  |  |  |  |  |
| Food[9] | Tortilla chips | salsa |  |  |  |  | $\checkmark$ |

If respondents report different meals at the same time, you will see a hard edit, as shown below. You will read the text, which informs the respondent of the discrepancy and asks whether the time or the occasion should be changed. You will also see an edit if you enter the same occasion 12 hours apart. For example, if you enter breakfast at 7 AM and breakfast at 7 PM , the program will alert you to make sure your entry is correct.

Exhibit 6-30. Hard edit when entering different meals at same time

| Hard Error |
| :--- |
| Let me confirm that I heard you correctly. |
| I recorded that at 7:00AM you had Coffee for Breakfast and at the same time you |
| had Sandwich for Lunch. I cannot record two different occasions at the same |
| time. Should I change the time or the occasion? |
| Questions involved Value <br> (REC035) Breakfast <br> (RECO35) Lunch <br> (RECO30) 7:00AM <br> (RECO30) $7: 00 \Delta \mathrm{M}$ |

Let me confirm that I heard you correctly.
I recorded that at 7:00AM you had Coffee for Breakfast and at the same time you
had Sandwich for Lunch. I cannot record two different occasions at the same
time. Should I change the time or the occasion?

If respondents don't know the exact time the eating occasion began, you must probe for an approximate time. If they cannot provide an approximate time, you will enter a default time for the occasion reported. As a reference, you will be provided a handcard containing a list of the default times for each reported occasion. Do not state the time during the Details pass, but say the occasion.

Exhibit 6-31. Default times when SP doesn't know the time

| Default Times |  |
| :--- | :--- |
| Breakfast | $8: 00 \mathrm{AM}$ |
| Morning Snack | $10: 00 \mathrm{AM}$ |
| Lunch | $12: 00 \mathrm{PM}$ |
| Afternoon Snack | $3: 00 \mathrm{PM}$ |
| Dinner | $6: 00 \mathrm{PM}$ |
| Evening Snack | $9: 00 \mathrm{PM}$ |

The Occasion Question asks the respondent to name the eating occasion at which each food was eaten or drunk. As stated in the interviewer instructions on the screen, make sure you refer the respondent to the yellow page in the Food Model Booklet. Have the SP pick an occasion from the Eating Occasions list. If an SP seems uncertain about how to classify a one-food occasion such as a soda or a bag of pretzels, you can suggest a "Drink" or a "Snack." Do not assume that breakfast is the first meal of the day, lunch is second, and so on.

The response items for an eating occasion are listed on the screen below.

Exhibit 6-32. Eating occasion question on RFL


If the respondent reported the eating occasion while completing either the QL or the FFL pass, confirm the occasion you have already recorded in the Occasion column on the RFL screen.

Most of the occasions are self-explanatory; however, a few need further explanation.

- Feeding-infant only - This occasion should only be chosen for children under 2 years of age. Procedures for collecting information on infants are discussed in more detail in Chapter 7.
- Extended consumption - This occasion should only be chosen when an eating activity is virtually continuous without distinct periods of consumption, such as sipping cups of coffee from an 8 -cup pot or drinking soda from a 2 -liter bottle throughout the day. Use this code very sparingly. SPs should be encouraged to report eating occasions at distinct times if they can. A rule of thumb for using Extended Consumption is that the respondent is (1) unable to recall the times a new cup or glass of liquid or handful or bowl of snack/cereal/etc. was started; and/or (2) they can more easily recall the total amount consumed. For example, if an SP reported drinking coffee from her coffee pot all day and couldn't tell you how often or how much she drank in each cup she poured, but did know that she drank the whole 8 -cup pot, record as Extended Consumption.
- Other, Specify - If the respondent indicates that none of the occasions on the list describe the eating occasion, ask what they would call the occasion. As shown below, you will type " 91 " (Other, Specify) and type the response verbatim in the blank field under the Occasion OS column.

Exhibit 6-33. Eating occasion - Other specify


If the respondent remembers a food during the Time and Occasion pass, finish entering/confirming the times and occasions for all listed foods, and then put the cursor in the next available food field (FoodName column) and enter the remembered food(s). Remember to ask "Anything else?" You will ask the details about the foods in Step 4. If the respondent misreports a food during the time and occasion pass, type "error" over the food name on the RFL. The time and occasion will not be collected for any misreported foods.

When you have finished the T/O pass, follow the steps below.
(1) Press ENTER.
(2) Press END.

The AMPM program will sort the occasions (meals) in chronological order and will group them together for Step 4 of the Intake Interview.

Before you leave this screen, it is very important that you check the foods and the times and occasions to make sure all the information is correct. For example, make sure you didn't inadvertently enter 'am' for a dinner occasion, or enter a generic food when the SP reported something more specific. This is your opportunity to make sure the information you collected is correct. It will make the entire interview go more smoothly.

### 6.7 Step 4: The Detail and Review Cycle (DRC)

The Detail and Review Cycle (DRC) is Step 4 of the instrument. All the food detail and amount information for all foods listed on the RFL will be collected in this step. The AMPM organizes the foods so that they can be collected in the order the SP ate them (rather than the order the respondent remembered and reported them).

As shown in the flowchart on the opposite page, the DRC flows in chronological order, beginning with the interval between midnight and the first occasion and with the period between the last occasion and midnight. In between are eating occasions represented by the boxes. Probes for collecting the details and amounts eaten of each food are located in food categories. For each reported food the program accesses the appropriate food category.

Exhibit 6-34. Detail and Review Cycle


### 6.7.1 Measuring Guide Instructions Screen

The first screen introduces the respondent to the measuring guides. The text of the screen is determined by the response entered at the beginning of the interview. Read the screen then the enter ' 1 ' and continue.

Exhibit 6-35. Measuring guide instructions screen


### 6.7.2 Midnight to First Occasion Probe

This probe covers the time period between midnight and the SP's first eating occasion for the recalled day. This is the first of several between interval probes. Between interval probes ask about the time periods in-between the eating occasions the SP has reported.

Exhibit 6-36. Midnight to first occasion probe


Note that the Probe is prefilled with the time and eating occasion (6AM Breakfast). If the occasion had only one food, for example "toast," the probe would read:
"First, did you have anything to eat or drink between midnight yesterday and your 6AM toast?"

If the respondent remembers some foods in response to this probe, enter " 1 " for "YES." The AMPM will take you back to the RFL screen where you will enter the food names on the next available line in the FoodName Column. The program will take you through the details for this food later in this step.

Then ask "Anything else?" and record any other foods. Collect or confirm the Time and Occasion for the new food(s). After recording time and occasion for each food, follow the steps below.

[^0]If the remembered foods were eaten during the period you are probing for, the program will bring up the details and amounts probes at this time. If they were eaten at a later time, the program will guide you to the details later in the interview.

### 6.7.3 Collecting Details and Amounts

The AMPM physically moves you to another part of the instrument that requires you to progress through some navigation screens. These will be discussed in detail in this section.

You will collect details on two types of food: primary foods and additions to primary foods. Primary foods refer to the original or "main" food that was reported. Additions refer to foods that were added to the primary food.

If the respondent remembers a primary food at any time while you are collecting the food details, you may return to the RFL by pressing "F10" and typing "RFL" in the tag box.

Exhibit 6-37. Type "F10" in box to go to RFL


If a respondent remembers an addition to a primary food, you will go back to the primary food and add the addition. Procedures for adding a remembered addition are detailed in Section 7.10.

### 6.7.3.1 Sequence of Screens

The screen shown below is called the Continue/Redo Screen. It begins the sequence of collecting details and amounts. Notice the food header at the top of the question pane. It includes the Time, Occasion, and Food Name for the food you are about to probe at the top of the question pane.

Notice that there are two possible responses for this screen: " 1 " for "Continue" and " 2 " for "Redo." If this is the first time you have been presented with this screen, say something like, "You said you had toast at 6AM" and press " 1 " for "Continue." If you have completed the details for this food but need to make a change to a response, press " 2 " for "Redo." You can only choose 'Redo' after you have answered the Source question at the end of the Food category. The program will take you back into the Food Category to change the response items.

Exhibit 6-38. Continue/Redo screen


The next screen, shown below, is the Category Start screen that links the Food Categories within the AMPM.

Exhibit 6-39. Category start screen


There are four response items listed on this screen that represent the status of the food. The definitions of the status codes are as follows:

1. Include in intake: Select for all foods that are to be included in the Dietary Recall.
2. Misreported: Select for foods that a respondent reported but later remembered he did not eat. If you enter this code, the AMPM will take you to the next reported food.
3. Needs data retrieval: Select for a meal when a respondent cannot describe and cannot quantify. This code can only be selected for children less than 12 years old and adults who cannot report for themselves. You will return to this screen to change the code from " 1 " ("Include in intake") to " 3 " ("Needs data retrieval") after completing the Food category details. Data Retrieval procedures are discussed in Section 7.3.
4. Same as: Select for identical foods that a respondent reported earlier. Also use for identical foods that another SP in the household has already reported. You may only refer to intakes you previously collected. You will return to this screen to change the code from " 1 " (Include in intake") to " 4 " ("Same as"). The procedures for collecting the necessary information are described in Section 7.8.

When you enter " 1 " for "Include in intake," the AMPM will take you to the food probes for that food. By choosing the "Redo" option on the Continue/Redo screen, you can return to this screen at any time to change the answer (i.e., "misreport," "needs DR," or "Same as").

After you collect the food details and amount information for a particular food in the food category, the screen shown below will appear. This signifies that you have completed the food probes.

Exhibit 6-40. Category end screen


Notice that the interviewer instructions tell you to select 1-ENTER-END to continue. This navigation will take you to the next appropriate question.

### 6.7.3.2 Food Category Details

There are 131 food categories in this instrument. With the exception of breast milk (which is discussed in Chapter 7), all foods on the MFL are linked to a food category. The AMPM program allows you to access some categories more than others. You can enter most 5 times but some, such as coffee or condiments and sauces, can be entered 10 times. In the rare instance when a food is reported more frequently than allowed, an edit message will appear. See Chapter 7 for a list of food categories than can be entered 10 times, and for more details on the procedures to follow when you are denied access to a category.

Types of food categories. The food categories can be divided into four groups:

- Group 1 - Includes the simple categories that ask a few detail questions and the amount eaten. More detail is not needed to code the food. Examples are MIL (Milk), FRU (Fruit), or BIS (Biscuit).
- Group 2 - Has more complex categories that collect details on ingredients or preparation that describe the food. Examples include POU (poultry), STW (stew), or MXD (mixed dish).
- Group 3 - Comprises categories that collect information on the amount of the reported ingredients. Examples are sandwiches, green salads, and hamburger on bun.
- Group 4-Contains a few categories that do not fit in the other groups. These are SOU (soup), which collects ingredients in a unique way; FMA (formula), BJU (baby juice), and JBF (jarred baby food), which ask about added foods as part of the food detail.

See Appendix B for a complete list of food categories sorted by group.

Specific probes. Every food category contains specific probes for each food or group of foods. The probes are designed to collect detailed description about foods and beverages reported, and the amounts eaten. Each question is on a separate screen and the question names are displayed on the bottom half of the screen. Read the probes exactly as written.

The first probe in many categories asks "What kind was it?" A follow-up probe is in parentheses. Ask the follow-up probe if the respondent hesitates or doesn't respond or understand the first probe. Note that the follow-up probe ends in the words "or something else." This probe is written in this way to allow the respondent to give responses other than the ones you read.

Exhibit 6-41. Specific probes


There are a number of common features about the food categories that will help you conduct a smooth and effortless interview. They are listed below:

- KIND. "What kind was it?" Often refers to the flavor or variety of a food such as juice (orange or apple) or cheese (Cheddar or Swiss). May also refer to a name of a food such as Chicken a la King or Cobb salad. This probe is 'prefilled' most often from the MFL.
- BRAND. "What was the brand name?" Refers to brand names of a product, including names of fast food places. Examples are Weight Watchers (WWAT), Little Debbie (LD), and McDonald's (McD).
- FAT USED. "Was any fat or oil used in cooking or preparing this food?" Refers to any kind of fat being used in cooking or preparing a food.
- FORM. Was it fresh, canned, frozen, dried, or something else? Refers to a food's form.
- HOME RECIPE. Was it made from a home recipe? This refers to foods that are made from scratch or from more than one ingredient and not from just a commercial mix.
- PREP. Was it baked, broiled, fried, or something else? Refers to how a food was cooked or prepared.
- TYPE. Was it regular, diet, lowfat, or something else? Refers to fat, caloric, sugar, salt, and/or caffeine content.
- INGREDIENTS. What were the ingredients? Ingredients are components of foods. There are 23 food categories that may ask for ingredients:
- Alcoholic mixed drinks*
- Baby food cereal
- Breakfast bars
- Hamburger on bun*
- Dips
- Eggs (scrambled or omelet)
- Jello
- Gravy
- Green salads*
- Hamburger helpers
- Hot dogs*
- Ice cream (sundaes)*
- Macaroni and cheese
- Mexican foods*
- Milk shakes*
- Other salads (not green salads)
- Potatoes (mashed)
- $\quad$ Rice (mixtures)
- Sandwich categories*
- Soups
- Stews
- $\quad$ Stuffings
- $\quad$ Trail and snack mixes
*Some categories also ask for the amounts of the ingredients. These categories are starred above.

Prefilled responses. The program will "prefill" the response for some of the probes based on what was reported on the QL. This reduces the burden on the respondent and the interviewer by limiting the number of questions that must be asked. For example, if the respondent reports a Big Mac for lunch, the AMPM will "prefill" all the food detail probes (fast food sandwich, brand, and sandwich name). The only question you ask is whether anything was added to the food as illustrated in the two screens below. See Appendix A for a complete list of the prefilled foods.

Exhibit 6-42. Prefilled responses - Screen 1

| b4 Blaise Data Entry - C:ITest-P2-Intake-LocalilnstrumentsilNTAKE |  |  |  | - 可 x |
| :---: | :---: | :---: | :---: | :---: |
| Forms Answer Navigate Options Help |  |  |  |  |
|  |  |  |  |  |
| Intake \|Soted_RFL | |  |  |  |  |
| Sample (23, F). E1.001.1N. $18.001 \quad$ (301) 555-1212 |  |  |  |  |
| McDonalds Big Mac, 1:00 PM, lunch |  |  |  |  |
| [SELECT FROM One of these four options: |  |  |  |  |
| 1. COLLECT FOOD DETAIL <br> 2. DROP FOOD FROM INTAKE <br> 3. needs data retrieval <br> 4. REFER TO SAME FOOD IN SP INTAKE OR HH CASE |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| match number to response listed below.] |  |  |  |  |
| 1. INCLUDE IN INTAKE2. MISREPORTED3. NEEDS DATA RETRIEVAL4. SAME AS |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| SameAsinstuction |  |  | SandBiscuitkind | $\wedge$ |
| OthS andFastFood | $\bigcirc$ | FastFood | SandBiscuilkindOS | - |
| FassFoodSandBrand | $\sqrt{18}$ | McDonalds | SandRolleunkind |  |
| FastFoodSandBrandOS |  |  | SandRolliunkindOS |  |
| FastFoodS andName Big Mac, McDonalds |  |  | SandBreadGrain |  |
| -1] |  |  |  | $\bullet$ |



How to record probe responses. You must record a response to every probe asked in the food categories. The response choices will be either listed on the screen or listed in a table called a LookUp Table (LUT). Food probes that have too many response choices to fit on a screen will store the responses in LUTs. Almost all probes allow the response choice 'Other Specify.' This choice permits an open-ended response if none of the choices listed is reported by the respondent.

In most cases the response choices are listed in alphabetical order. However, there are some categories that list response items in an order that we think will make more sense to you than alphabetical order. As in the example below, when probes ask for the kind of milk drunk or used in a recipe, it makes sense to choose " $1 \%$ " and $2 \%$ " by selecting " 1 " or " 2 ". See screen example below.

Exhibit 6-44. Response items


Unit response items are typically grouped in like units such as volume, weight, general units, and food models; and listed in ascending order of volume or size. Details on recording unit responses are described in Section 6.7.3.4.

You must enter a response item code or record the respondent's answer in one of six ways described below.

1. Choose one response from the numbered list. Enter the response item number or use the mouse to click on one response item.

Exhibit 6-45. Number list responses

2. Choose one response from Look-Up Tables. When there are too many response items to fit on a screen, a Look-up Table (LUT) is used to hold the responses. You will know when a food probe contains a LUT because there will be no response items to choose from on the screen. LUTs are used for both single response and multiple response probes. Searching for a food on the LUT is the same as the trigram searching discussed in the MFL section (6.4.1). The LUT shown below will appear when you enter a response to the kind probe for bread.

Exhibit 6-46. Look-up Table (LUT) responses


As in the MFL trigram search, the search finds the foods that best match the search term, in this case "wheat bread." You cannot use the abbreviations on the MFL to search the Look-Up tables. Once the food is highlighted on the search screen, press ENTER to select the food.

Probes that commonly, but not always, have response items in LUTs include: KIND, TYPE, and INGREDIENTS.
3. Choose multiple responses - Code all that apply (CATA). Some probes can have more than one answer. This is called a Code All That Apply or CATA. Food probes that are commonly, but not always, CATA's include: TYPE, FAT, and INGREDIENTS.

There are three different ways of entering CATA responses, depending on the information requested.

- Table format - A table format allows you to enter multiple responses to a question in separate fields. Responses are selected from an enumerated list or a LUT. Generally, when you see a table format, follow-up information is required about the responses (i.e., amount or type). However, CATA responses chosen from a LUT will always be in a table format, even if they do not have a follow-up question. Generally you can enter 15 responses into the table; however, for 'type' questions the limit is 5 , and for Lunchables, the limit is 3 .

The instruction "ENTER ALL THAT APPLY IN SEPARATE FILES" tells you that multiple responses are allowed for a question.

If a respondent reports more than one answer, enter the response in the field and continue adding responses in additional blank fields until the SP finishes reporting responses. Then press ENTER on the blank line, and the program will go to the next detail probe.

You will type in the LUT responses one-by-one and list the enumerated responses by number.

Exhibit 6-47. Table format enumerated responses


Exhibit 6-48. Table format LUT responses


- Enumerated list - CATA enumerated responses that require no follow-up questions are entered into a single response field and are separated by a dash. These CATA response choices have a square button to the left of the responses. An example of a food probe with CATA responses from an enumerated list is shown below. All answers go in one field.


## Exhibit 6-49. Enumerated responses



- Type in format - For the soup category, CATA are answered by typing in the SP's responses. Responses must be typed in verbatim, using the standard abbreviations listed in Appendix E.

Exhibit 6-50. Type in format responses

4. Choose Refused (F7). If the respondent will not provide the details of a food, select F7 for Refused to skip through the probes and continue with the interview. Use this key very sparingly and only when it is evident that the respondent cannot or will not provide the details.

Exhibit 6-51. Refused response

5. Choose Don't Know (F8). If the respondent does not know the answer, select F8 for a Don't Know response. DK is an acceptable answer.

Exhibit 6-52. Don't know response

| bw Blaise Data Entry - C:ITest-P2-Intake-LocalilnstrumentsilnTAKE |  |  |  |  | - 吕 | 可 $x$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Forms Answer Navigate Options Help |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Intake Sorted_RFL $^{\text {a }}$ |  |  |  |  |  |  |
| Sample (23, F), E1.001.IN.18.001 (301) 555-1212 <br> Nachos Mexican, 6:30 PM, supper <br> What kind of filling or topping did it have? (Was it beef, chicken, pork, cheese, bean or something else?) |  |  |  |  |  |  |

6. Other, Specify ( $\mathbf{9 1} \mathbf{~ o r ~ O S}$ ) - If the respondent's answer is not listed as one of the possible response options, you can select "Other, Specify" (OS). The OS is included on an enumerated list or a LUT.

- If Enumerated list - Enter "91" to select OS and type the answer in the text field that opens up in the answer pane portion of the screen.
- If LUT - Type "OS" in a LUT and press ENTER to access the text field and type in the answer.

Exhibit 6-53. Other specify response


Linking Between Food Categories. A total of 51 of the 131 food categories have links to other food categories to allow you to ask the correct food probes for a particular food. Some of the food categories only link to one other category, while others link to as many as 25 different categories. For example, if respondents report "coffee" on the QL but in the details cycle describe it as an alcoholic beverage such as "Irish coffee" or "Coffee Royale," those two response items will link to the Nonalcoholic and Alcoholic Beer, Wine, Cocktails, Liquor category. Conversely, if a respondent reports a mixed dish on the QL but describes it in the food details cycle as a pot pie, jambalaya, baked beans, quiche, macaroni and cheese, or another specialty mixed dish, the program will link those response items to new categories.

The screenshot below shows that the respondent reported 'cereal' on the Quick List pass. 'Cereal' links to the ready-to-eat cereal category. Because the respondent said the cereal was cooked, the program links to the cooked cereal category.

Exhibit 6-54. Linking between food categories - Screen 1, Original category


This screen appears when the program is leaving the ready-to-eat cereal category and linking to the cooked cereal category.

Exhibit 6-55. Linking between food categories - Screen 2, Finish original category

| bedklaise Data Entry - C:ITest-P2-Intake-Localilnstrumentsilintake |  | -可x |
| :---: | :---: | :---: |
| Eorms Answer Navigate Qptions Help |  |  |
|  |  |  |
| Intike Soted__RFL $^{\text {a }}$ |  |  |
| Sample (58, MM). E1.001.1N. $18.001 \quad$ (3011) 555-1212Cereal, 8:00AM, bead RestIPRESS 1, ENTER AND END.] |  |  |
|  |  |  |
|  |  |  |
| O1. CONTINUE |  |  |
| Cerealifemodelevel |  |  |
| Cerearite Modellevel0 |  |  |
| CereafRTEBoxWUUni |  |  |
| Cerearitebowwunios |  |  |
| Cerealifiteox ${ }_{\text {a }}$ |  |  |
| Fibend |  |  |

The next screen that appears is the Transition screen.

Exhibit 6-56. Linking between food categories - Screen 3, Transition screen


This screen lets you know that you are moving to another food category to collect the food details.

The next screen that appears is the Continue/Redo screen for the Cooked Cereal.

Exhibit 6-57. Linking between food categories - Screen 4, Continue/Redo new category


Notice that the food name in the Food Header is "cereal" rather than "cooked cereal." That is because the Food Header information comes from the information you entered on the RFL. However, there is an asterisk $\left({ }^{*}\right)$ next to the food name and also an asterisk next to the food label.

Finally, you will see the beginning screen for Cooked Cereal.

Exhibit 6-58. Linking between food categories - Screen 5, New category


You will never have to decide to link to a Food Category. The AMPM program automatically links the categories.

The table below lists the 51 food categories that contain response items that link to other categories. The table also presents the number of response items within each category that link to other categories, and the number of new categories the original category links to. For example, the category Barbecue, Sloppy Joe contains one response item that links to one other category while the Beef, Lamb, Veal, and Game Meats category contains 43 response items that link to one other category. The Bread (Not Sweet), on the other hand, contains 9 responses that link to 4 other categories. A complete list of the response items that link to new categories can be found in Appendix B with the food category listing.

Exhibit 6-59. Table of categories that link to other categories

| Category Name | \# Response items <br> that link to other <br> Categories | \# Categories <br> response items <br> link to |
| :--- | :---: | :---: |
| Barbecue, Sloppy Joe | 1 | 1 |
| Bacon, Sausage, BLT Sandwiches | 1 | 1 |
| Biscuits | 1 | 1 |
| Beef, Lamb, Veal, Game Meats | 43 | 1 |
| Bread (Not Sweet) | 9 | 4 |
| Hamburger on Bun or Bread (not from fast food) | 11 | 1 |
| Cakes, Cupcakes, Snack Cakes | 51 | 5 |
| Ready-to-Eat Cereals | 24 | 1 |
| Cheese | 3 | 2 |
| Coffee, Specialty Coffees | 2 | 1 |
| Cream, Creamers, Whipped Toppings | 1 | 1 |
| Condiments, Sauce, Salsa | 5 | 4 |
| Dry Baby Cereal | 1 | 1 |
| Egg, Egg Salad Sandwiches | 1 | 1 |
| French Fries, Tater Tots | 1 | 1 |
| Fish, Shellfish | 10 | 4 |
| Flavored Milk Drinks | 1 | 1 |
| Fruits, Berries | 7 | 1 |
| Grilled Cheese and Cheese Sandwiches | 2 | 5 |
| Gravy | 3 | 2 |
| Green Salads | 11 | 2 |
| Ice Cream, Sherbet, Tofu Desserts, Frozen Dairy Desserts, Frozen Yogurt, | 11 | 2 |
| Sundaes | 1 | 1 |
| Jarred (Not Dry) Baby Foods |  | 1 |
|  |  | 1 |

Exhibit 6-59. Table of categories that link to other categories (continued)

| Category Name | \# Response items that link to other Categories | \# Categories response items link to |
| :---: | :---: | :---: |
| Juices (100\%), Drinks, Ades | 5 | 3 |
| Macaroni and Cheese | 1 | 1 |
| Salad Dressings, Mayonnaise | 1 | 1 |
| Milk | 7 | 3 |
| Meat Substitutes, Meat Alternates, Vegetarian and/or "Meatless" Versions of Meat, Poultry, or Fish Entrees | 15 | 9 |
| Mixed Dishes, Casseroles | 60 | 25 |
| Nuts, Seeds, and Mixtures of Nuts and Seeds | 3 | 1 |
| Beef, Ham, Pork, Chicken, Turkey, Vegetarian, Other Sandwiches | 96 | 10 |
| Other Salads | 6 | 4 |
| Pasta: Noodles, Macaroni | 18 | 6 |
| Peanut Butter Sandwich, Peanut Butter and Jelly Sandwich | 1 | 1 |
| Pies, Tarts | 4 | 2 |
| Ham or Pork | 15 | 7 |
| White Potatoes | 5 | 3 |
| Poultry | 15 | 7 |
| Popsicles, Ices, Frozen Fruit Bars, Sorbets, Slurpees, Smoothies | 4 | 1 |
| Rolls, Buns, Bagels, English Muffins | 14 | 3 |
| Rice | 1 | 1 |
| Sweet Breads, Coffee Cakes, Sweet Rolls, Pastries, Muffins (not corn), and Croissants | 7 | 4 |
| Shepherd's Pie | 1 | 1 |
| Sodas, Pop, Soft Drinks | 4 | 1 |
| Soups | 11 | 1 |
| Spaghetti Sauce | 3 | 3 |
| Stews, Guisado, Goulash | 7 | 4 |
| Sugars | 2 | 1 |
| Tortillas, Taco Shells, Gordita Shells, Sope Shells, Chalupa Shells | 2 | 2 |
| Unknown Foods | 441 | 121 |

Edit Messages. As discussed earlier, an Edit Message appears when you have entered a response that is illogical or out of range. Edits occur at the Time and Occasion Probes and with certain food characteristics. The message identifies the problem and asks you to change it.

There are two kinds of edits: soft and hard. Soft edits ask you to confirm the answer that you just recorded. Soft edits allow you to leave the screen without changing the response if the respondent confirms that the answer was correct. To leave the screen you can either enter "ALT S" or use the mouse to select the "Suppress" button. If the answer recorded is incorrect, press ENTER to activate the "Goto" button which will move the cursor to the answer.

Exhibit 6-60. Edit messages


A hard edit message occurs when you enter a response that is not allowed. Unlike soft edits, you must change the answer before continuing with the interview. An example of a hard edit is illustrated on page 6-30.

### 6.7.3.3 Additions

An addition is any food that is added to the primary (original) food. Examples include butter, margarine, jelly, or peanut butter added to breads, milk, and cream added to cereal or coffee. Additions may be added by the SP or by someone else. For instance, butter is an addition to bread whether the SP butters it at the table or someone else butters it and puts it on the plate. You will collect descriptive and quantitative information about all additions.

Because additions to foods are easily forgotten by respondents, almost every food category asks the question "Did you add anything to the food?" If, after asking the additions question the respondent seems puzzled or asks for clarification, you should say "Did you put anything (on/in) the (FOOD) before you (ate/drank) it?" Following are procedures for collecting and recording additions.

First, type " 1 " (YES) to the question "Did you add anything to the food?"
Exhibit 6-61. Addition screen


Next, you will notice that a blank text field labeled ADDFoodName opens up for you to type the first addition. The AMPM program accepts up to five additions per food. If a food has more than five additions, record the other additions including their description and amounts, in the Remark Box (F6 function key).

Exhibit 6-62. Addition screen - Use Trigram search


When you begin to type, the MFL trigram search screen comes up.

After you select the food on the MFL and press ENTER, the food will appear in the text field. Always ask "Anything else? after the respondent has reported an addition to a food.

Once all the additions have been entered, press ENTER on the blank line to move to the next probe.

Exhibit 6-63. Addition screen - Multiple additions


Do not record salt, ground pepper, spices, and herbs as additions. However, foods like salsa and hot peppers should be collected and probed.

Also, the AMPM has been programmed so that it will not ask the additions questions for a food reported as an addition. For example, milk reported on the RFL has an addition probe. But when milk is reported as an addition (e.g., milk added to coffee) there is no additions probe.

Any food can be an addition if the respondent describes it as having been added to the portion of food. However, there are some foods that are more commonly reported as additions. These include:

- Butter and margarine
- Salad dressing
- Sauce, gravy, and salsa
- Mustard and catsup
- Mayonnaise and tartar sauce
- Dip (to crackers, chips, vegetables)
- Relish
- Cream and milk (to cereal, coffee, etc.)
- Sugar and sweeteners
- Jam, jelly, and syrup
- Water*
*When water is reported as an addition, choose "Water as an addition" on ADDFoodName.

If the respondent reports an addition to a food when reporting the QL, you may add that food in the Comments field. This information will then be displayed along with the primary food name, time, and occasion when you collect the details for the primary food. Do not enter an addition on the RFL because then it won't be associated with the primary food.

Exhibit 6-64. Add additions in comments field during QL pass


## Adding Additions

Procedures for adding remembered adds or misreported additions are detailed in Chapter 7, Section 7.10.

### 6.7.3.4 Obtaining Quantities

This question asks for the actual amount of the food item eaten. Do not accept a range value for quantity. If an SP reports eating 10 to 20 potato chips, ask: "Can you give me your best estimate of the number of chips you ate? or What would you like me to enter here?"

There may be situations when the respondent cannot give you one amount. For example, respondents may report multiple bean bags, or a size between two circles. In those situations, type " 1 " on the amount screen and enter OS (91) on the unit screen. Enter the SP's response verbatim in the OS field. Make sure the response you enter will be helpful to the coders.

Only record the amount eaten- not the amount served. Probe carefully when an SP reports sandwiches, chicken parts, and meats such as pork chops. SPs may be so intent on describing the size of the serving to you that they forget that the whole portion wasn't eaten.

If the SP seems unsure of the quantity, suggest possible ways to respond from the list of units on the amount screen. If the SP is unable to provide the amount eaten, code DK (F8 function key). This can be done at either the amount or unit screen. However, if you code DK for an amount, the unit probe is not asked.

Order of Units on Screen. There are four categories of units you may see on a food category screen: Volume Units, Weight Units, General Units, and Food Model units. In general, like units within each category are grouped and listed in ascending order of volume or size.

- VOLUME UNITS are ordered as: teaspoon, tablespoon, cup, then fluid ounce, pint, quart, half gallon, and gallon, then milliliter and liter.
- WEIGHT UNITS are ordered as: weight ounce, gram, and pound.
- GENERAL UNITS include a number of different types of units: item or food names, general sizes, container units, and category specific units.
- Relative Sizes are ordered as: miniature, small, medium, large, and extra large.
- Container Units are ordered as: bottle, can, carton, container, drink box, juice box, pouch, and school lunch carton. If you choose these units you will see a screen asking for the volume of the container if it is needed.
- Category Specific Units are listed in ascending order. For example, the Cake Category includes the units "cupcake," snack cake," and "whole cake."
- Meat Specific Units includes the units in alphabetical order: chop, cutlet, patty, rib, and steak.
- FOOD MODELS include 7 models and are listed in alphabetical order.
- Vessel Models (glasses, mugs, bowls) will have a follow-up question about the fill level of the vessel.


### 6.7.3.5 Measuring Guides

Each household was given a set of measuring guides when they were scheduled for the telephone interview. Included in the set of measuring tools are both 2-dimensional (2D) and 3dimensional (3D) guides. 2D guides are drawings of vessels and shapes. The 2D guides are consolidated into a booklet called the Food Model Booklet, or FMB. 3D guides are actual tools and include household spoons, measuring cups and spoons, and a ruler.

To ensure that data are recorded in a consistent manner, you must be thoroughly familiar with the portion size models and their correct use. Improper entry of food models can result in either overestimation or underestimation of nutrient intake. When the respondent uses the mugs, bowls, and glasses, have them show you the line that best describes the amount they ate. They may report between the lines or to the top of the vessels. If they use the measuring cups, spoons, or the household spoons to describe the amount they ate, make sure they estimate the amount of a level spoonful. This section will provide more details on recording amounts of foods using the measurement aids.

General guidelines for using the measuring guides are described below.

2-D FOOD MODEL BOOKLET (FMB). The FMB will be your primary measuring guide during the telephone interview. The FMB contains pictures of glasses, mugs, bowls, mounds/pats/spreads, and circles that are the same size as the 3D models used in the MEC in-person interview. In addition it includes a grid, two wedges, and a page of shapes and chicken pieces. The guides are listed below with directions on how to instruct the respondents to use the guides.

GLASSES (G1-G8). There are 8 glasses of various sizes and shapes on 3 pages of the booklet as shown in the examples below. The glasses will be used most often to report the amounts of liquids, but may also be used to report solid foods. You will ask SPs to choose the glass that best represents the volume of the beverage they drank and identify the glass and the amount by the label and the red lettered level line. If they report a quantity between the lines, enter it in OS.

Exhibit 6-65. 2D glasses


Glass instructions - Behind Tab 2 of the FMB are three pages of glasses. Choose one and then tell me the number and the red line that shows the amount you drank.

MUGS (MG1-MG3). There are three different sizes of mugs. The mugs will be used most often to report the amounts of liquids, but may also be used to report the amounts of solid foods. Have the SPs choose the mug that best represents the volume of the beverage they drank and identify the amount by the label and the green lettered level line for that volume. If they enter a quantity between the lines, enter it in OS.

Exhibit 6-66. 2D mugs


Mug instructions - Turn to the mugs on the front of Tab 3. There are three mugs on this page. Choose one and then tell me the number and the green line that shows the amount you drank.

BOWLS (B1-B5). There are 5 bowls of varying sizes on 2 pages of the booklet. An example is shown below. The bowls are used to report both liquid and solid foods such as soup, spaghetti, and vegetables. As with the glasses and the mug pages, each bowl is labeled and has blue lettered level lines. Ask the SPs to choose the bowl that best represents the size of the vessel they ate from and report the label and the blue lettered level lines for the volume. If the SP reports an amount protruding from the top, have them estimate using another model. If they report a quantity between the lines, enter it into OS.

## Exhibit 6-67. 2D bowls



Bowl instructions - Behind Tab 3, there are two pages of bowls. Choose one and then tell me the number and the blue line that shows the amount you ate.

PATS and SPREADS (M1 and M2). There is 1 page of spreads. There are 2 knives on the page with a pat on the knife and a spread below it, as shown in the example below. The pats and spreads at each knife are the same amounts. Use the pats and spreads to estimate small amounts of food such as butter, jam, cream cheese, mayonnaise, and peanut butter. Have the SP report the label that best represents the amount consumed. Do not ask the SP whether it was a spread or pat.

## Exhibit 6-68. 2D pats and spreads



M2

Pat/spread instructions - Behind Tab 4, on the left, are drawings of pats and spreads. Please tell me the one that looks like the amount you ate. If none of these look like the amount you ate, it is okay to use part of one or more than one.

MOUNDS (M3-M9). There are 7 mounds of increasing size on 3 pages of the booklet. The mounds will be used for foods that mound on a plate such as spaghetti, vegetables, and potato salad. Within the booklet these mounds are on a see-through sheet with a plate beneath them. You may have the SP pick the sheet up if it helps him to visualize his food better. Each mound is identified with a label. Have the SP report the label of the mound that best represents the amount of food he consumed. The SP may report part of a mound or combinations of mounds.

Exhibit 6-69. 2D mounds


Mound instructions - Behind Tab 4 on the right are three pages of drawings that represent different amounts of food. Please tell me the one that looks like the amount you ate. If none of these look like the amount you ate, it is okay to use part of one or more than one.

CIRCLES (C1-C10). There are 10 circles from $1 "$ to $10 "$ in diameter on one page of the booklet. Circles C1-C9 are on a see-through sheet with a plate beneath them. The plate represents the 10 " circle. Use the circles to estimate the diameter of round foods such as tortillas, pancakes, biscuits, and pies. The circles, like the mounds, are on a see-through page with the plate beneath. As with the mounds, you may have the SP pick up the sheet and lay it on the plate if that helps them to visualize the amount they ate. Have the SP choose the circle that best represents the size of his food. The SP may report the label or the color of the circle (for example, C3 or red). A size between two circles may also be reported.

Exhibit 6-70. 2D circles


Circle instructions - Behind Tab 5 is a set of colored circles that you can use to estimate the size of your (FOOD). If the size of your food was between two circles, tell me that.

GRID. The grid is on one see-through page with a plate beneath and is a square with 1 -inch columns and rows with $1 / 2$ inch delineations. Use the grid to estimate the dimensions of foods such as meatloaves, cake, or brownies. There is a star in the lower left-hand corner so that the SP can orient his food and visualize it on the grid. The SP may report the number on each side of the grid, or between the numbers. It does not matter which side is used to report length or width.

Exhibit 6-71. 2D grid


Grid instructions - Behind Tab 6, there is a grid you can use to estimate the size of your (FOOD). Imagine your (FOOD) is placed in the corner next to the star. Estimate its size by using the numbers or colors on each side of the grid.

WEDGES. There are two wedges: a large 9 " wedge and a small 5 " wedge. Each wedge has an overlapping arrow pointer that moves along the arc of the wedge. The wedge has a star in the lowerleft corner so that the SP can orient his food and visualize it on the wedge.

- The small wedge is 5 inches in length. Use the numbered increments along the length (radius) of the wedge and move the arrow to the alphabetized segments to estimate the size of wedge shaped foods (e.g., 5E). This wedge is used primarily for cakes and pies.
- The large wedge is 9 inches in length. Use the numbered increments along the length (radius) of the wedge and move the arrow to the alphabetized segments to estimate the size of wedge shaped foods (e.g., 9E). This wedge is used primarily for pizza.

Introduce the wedge by saying something like "Now let's recreate your piece of (Food)."
Exhibit 6-72. 2D wedge


Wedge instructions. Behind Tab 7 are two wedge shapes. Use the (small/large) one for your (FOOD). Move the arrow to the bottom line. Now, imagine the tip of your food in the corner next to the star. Starting from the large purple star, use the numbers on the bottom line to tell me the length of your (FOOD). Now with your finger on the arrow at that number, move the arrow up until the space between the arrow and the bottom line looks like the size of the piece you ate. Tell me the letter that is closest to the point of the arrow.

THICKNESS BLOCKS. The thickness blocks are located to the left of the circle, grid, and wedge pages. They are labeled with the size in inches. For example, 'T3' equals 3" thick. Have the SP use these blocks to report the height or thickness of foods when it is needed.

Exhibit 6-73. 2D thickness blocks


Thickness blocks instructions. Now look at the black blocks on the opposite page. Choose the one that looks like the thickness of your (FOOD) and tell me the number.

SHAPES AND CHICKEN PIECES. This chart is on the last page of the FMB. Use the shapes to describe the amount of food eaten with one or two dimensions. Since there are some foods that are not easily represented by food models, the shapes offer the respondent another alternative. The chart can also be used along with the ruler. Use the chicken pieces to specify the particular part of the chicken consumed.

3D GUIDES. In addition, you can refer the respondents to the 3D guides. They include household spoons, measuring cups, measuring spoons, and a ruler.

HOUSEHOLD SPOONS: (Tablespoon, Teaspoon) There are 2 household spoons of different sizes. Use the household spoons to estimate the volume of small amounts of liquid and solid foods. Have the respondent identify the spoons as 'small metal' or 'large metal' spoon and report in level spoonfuls.

Exhibit 6-74. Household spoons


MEASURING CUPS: $(\mathbf{1} / \mathbf{4}, \mathbf{1 / 3}, \mathbf{1} / \mathbf{2}, \mathbf{1 C})$ The set of measuring cups is comprised of 4 cups of different sizes. Use the measuring cups to estimate the volume of most foods. For example, these cups would be used to report liquids such as beverages and soups, solids such as potato salad, rice, or casseroles, and semi-solids such as ice cream and pudding. The AMPM will automatically probe for form (e.g., sliced, chopped, shredded) when it is required. Make sure the respondent estimates the amount of a level cup.

MEASURING SPOONS: (1/4 tsp., $\mathbf{1 / 2}$ tsp., $\mathbf{1}$ tsp., $\mathbf{1}$ Tbsp.) The set of measuring spoons is comprised of 4 spoons of different sizes. Use the measuring spoons to estimate small amounts of liquids or solid foods. Have the respondent report level spoonfuls. Make sure the respondent estimates the amount of a level spoon.

Exhibit 6-75. 3D measuring cups and spoons


RULER: (L, W, H) Use the ruler to estimate dimensions in inches. For example, the ruler could be used to estimate the length, width, and height of a piece of cornbread, and the length and width of a piece of meat or poultry (height would be estimated from the thickness sticks).

Exhibit 6-76. 12-inch ruler
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### 6.7.4 Food Source Question

The Food Source question is part of the Detail and Review Cycle. After you collect all the detail and amount information about a food, you will see a category screen that instructs you to enter 1-ENTER-END. As discussed earlier, this screen indicates that the program is moving you from the Food Categories cycle back to the program.

This Food Source question follows the category end screen. This question is asked for each food reported within an occasion, because foods eaten at a single occasion may come from more than one source. For example, an SP may have gotten a hamburger at McDonalds, but when he took it home to eat it, he also drank a can of soda he had purchased earlier from the store.

Since the most frequent source of foods is from the "store," the first question you ask will be
"Did you get (this/most of the ingredients for this) \{FOODNAME\} from the store?"

If the response is "No," you will ask,
"Where did you get (this/most of the ingredients for this) \{FOODNAME\}?"

Foods eaten together, that were prepared at home, may come from more than one source. For example, an SP may have prepared a salad that included ingredients from both the store and the garden. Therefore, when you ask the question for a multiple ingredient food, ask,
"Did you get most of the ingredients for this \{FOODNAME\} from the store?"

And if the answer is "No" then ask,
"Where did you get most of the ingredients for this \{FOODNAME\}?"

Exhibit 6-77. Source question screen

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| Intake \| Sorted_RFL| |  |  |  |
| Sample (58, M), E1.007.1N.18.000 (3001) 555.-1/1. |  |  |  |
| Did you get (this/most of the ingredients for this) Mashed potatoes from the store? |  |  |  |
| [THIS question must be answered before proceeding with any other action in the intake.] |  |  |  |
| $\begin{aligned} & \text { O1. YES } \\ & \text { O2. NO } \end{aligned}$ |  |  |  |
| Lobel | Mashed potatoes | Label | $\wedge$ |
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| RECSOurceOlther |  | RECSourceOther |  |
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| RECFish |  | RECFish |  |
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| -7] |  |  | $\stackrel{\square}{ }$ |

If the respondent hesitates when you ask the follow-up source question, read the question in parenthesis. When you read this for the first time, make sure you read the complete question so that the respondent understands the type of answer expected. All of the possible response options are listed on the screen. The OS (91), RF (F7), and DK (F8) are acceptable responses to both the Food Source question and the follow-up question.

Exhibit 6-78. Source question - Follow-up screen


If the respondent mentions the source of the food earlier in the interview (e.g., McDonald's hamburger), you may confirm the source. For example, say something like:

Interviewer: "You obtained the hamburger from a fast-food place. Is that correct?"

Try to fit the respondent's answer into one of the response items on the screen. There may be situations where you need to help the respondent decide the source of the food item. The following list defines the food sources and can be accessed as a Help Screen using the F1 key. The Help screen is only
available at the second question. This screen is a 'quick reference' when a respondent is not certain how to report or needs clarification on a code. Additional information can be found in Appendix C.

- Code 1, Store - This code refers to any type of store. It also includes gas stations, produce stands, convenience stores such as 7-11, and farmers' markets. If the respondent uses the word "store" in his or her answer, use this code. Other stores that might be the source of food include toy stores, department stores, delis, and specialty stores such as Starbucks, Krispy Kreme, and Dunkin Donuts.
- Codes 2 and 3, Restaurant - Code 2 refers to a restaurant and code 3 refers to a fast food place or a pizza place. A restaurant is distinguished from a fast food place by waiter/waitress service. If a respondent is not sure which answer to choose, ask her if the place has waiters and waitresses. If the response is "yes" code 2. If the response is "no," the source is either a fast food place (3) or a cafeteria (6). Respondents can usually distinguish between fast food places and cafeterias.

If the respondent reports "pizza place," code 3 regardless of the type of service. Also code pizzas that are delivered as 3 .

All carryout and delivery food should be coded as " 3 ."

- Code 4, Bar/Tavern/Lounge - This code includes bars, taverns, cocktail lounges and other "drinking places." If a respondent is having difficulty deciding between codes 2 and 4 , ask her if she considers the place to be an "eating place" or a "drinking place."
- Code 5 - Use this code if the respondent reports restaurant with no other description. When you select code 5 , you will see the follow-up question below.

Exhibit 6-79. Source question - Type of restaurant


If the respondent cannot categorize the restaurant to one of the four options above (Codes 2, 3, 4, or 5), then code "DK" (F8 function key).

- Code 6, Cafeteria, not school - This code refers to all cafeterias except school cafeterias.
- Code 7, Cafeteria, school - This code refers to a school cafeteria and is defined as food provided by the school cafeteria, not food that the respondent may have gotten from a friend at school (code 16) or brought from home. Remember, this question asks about the source of the food, not where it was eaten.
- Code 8, Child care center - This code refers to food obtained at child care centers.
- Code 9, Family/Adult day care center - This code refers to family day care homes, which are private homes that provide day care for adults or children. The distinction
between a family day care home and "someone else('s)" home (code 16) is that the family day care home provides day care for a fee; that is, it is paid "babysitting."
- Code 10, Soup Kitchen/Shelter/Food pantry - This code refers to emergency food sources and includes soup kitchens, shelters for the homeless, battered women, etc., and food pantries and food banks that provide food for people who cannot afford to buy food for themselves. This code describes a higher level of desperation than the food assistance programs included in code 12.
- Code 11, Meals on Wheels program - "Meals on Wheels" is a community program that provides meals to homebound elderly and disabled persons.

■ Code 12, Community food program - This code refers to community food assistance programs that provide food to recipients on a regular basis. This code can be distinguished from codes 10 and 11 as it includes sources that provide food on a regular basis rather than an emergency basis. For instance:

- Women, Infants, and Children (WIC) program when the respondent's food came directly from the WIC office rather than from a store using WIC vouchers (which would be coded 1).
- Senior citizens centers that offer meals on a regular basis, and state and federally-sponsored congregate meal sites.
- Code 13 - This code refers to community programs that the respondent cannot describe more specifically. This code brings up the following question:

Exhibit 6-80. Source question - Type of community program


If the program the respondent reports is not one of the first four listed, then select " 5 " for "Community Food Program."

- Code 14, Vending machine - This code refers to any food purchased from a vending machine.
- Code 15, Common coffee pot or snack tray - This code refers to a common coffee pot or snack tray. Such sources are often found in office buildings or other work sites.
- Code 16, From someone else/gift - This code includes gifts and foods that were prepared or eaten in someone else's home. It includes all sources not listed elsewhere when the respondent (or another household member) did not pay for the food.
- Code 17, Meal order purchase - This code only includes foods purchased by mail order by the household. It does not include gifts that may have arrived by mail (which would be coded 16).
- Code 18, Residential dining facility - This code refers to residential dining facilities. For example, a senior citizen community where the meals are eaten in a dining hall
would be coded 18. It does not include federally-sponsored programs that are free for senior citizens (that would be coded 12).
- Code 19, Grown or caught by you or someone you know - This code, "grown or caught by you or someone you know," refers to homegrown foods such as vegetables, as well as hunted game, such as deer.
- Code 20, Fish caught by you or someone you know - This code, "fish caught by you or someone you know," refers to fish or seafood. Choosing this response brings up the following question:

Exhibit 6-81. Source question - Where caught fish came from


Respondents will probably only know the answer to this question if they caught the fish. Otherwise, DK is an acceptable response.

- Code 24, Sport recreation, or entertainment facility -This code refers to sports stadiums, sporting events, amusement parts, concerts, fairs, festivals, movie theaters, etc.
- Code 25, Street vendor, vending truck - This code refers to street concession stands, hot dog stands, coffee carts and food trucks.
- Code 91, Other specify - For answers that do not fall into an existing code, select " 91 " and record the answer verbatim in the open text field. If you are not sure how to code a respondent's answer, select "91."

You will continue to ask Details, Amounts, and Source for each food within an occasion. Once you complete all foods for one occasion, you will ask the Review of Occasion (Event) probe.

### 6.7.5 Review of Occasion

The Review of Occasion probe reviews the entire eating occasion and asks if the SP had any other foods/beverages at that occasion.

Notice in the example below that the primary food mashed potatoes, and its addition, gravy, are also listed on the review screen.

Exhibit 6-82. Review of occasion screen


Read the screen as written. Since beverages are the most frequently forgotten foods, emphasize the word 'drink.' For example, if you were reviewing the screen above you would say,

Interviewer: "For a snack, you had mashed potatoes with gravy. Did you eat or drink anything else?"

Emphasize the word "drink" when you read this review question since SPs often forget beverages they consume during the day. If the SP reports any new food, you will follow the steps below.
(1) Enter " 1 " for "Yes". The CATI will take you to the RFL.
(2) Enter food, time, occasion on RFL.
(3) Ask "Anything else?"
(4) Type "XXX" and press ENTER twice.
(5) Press END.
(6) Begin to collect details for the remembered food(s).
(7) Ask Source question.

In this interview, details about reported foods are collected in chronological order. Therefore, if the SP remembers a food for a different or new occasion, the AMPM will bring up the probes at the appropriate time. Foods eaten earlier than this occasion will be asked about at the end of the recall, and foods that were eaten at a later occasion will be probed in chronological order. Section 7.11 of Chapter 7 describes the procedures to follow if an SP remembers a food when RFL is full.

When you have probed for details about all remembered foods for the occasion, you will then ask the respondent if the meal was consumed at home.

### 6.7.6 Occasion Location Question

This question asks if the meal (occasion) was consumed at home. The response choices are "at home" or "not at home." "At home" is defined as the SP's dwelling unit and the surrounding areas that are used solely by the occupants of that dwelling unit. For example, meals eaten in the backyard would be considered "Home."

Exhibit 6-83. Occasion location question screen


If the SP ate the meal at home, select " 1 " for "YES." If the SP reports any place other than home, select " 2 " for "NO." You will ask this question for the entire occasion. If the respondent reports beginning a meal at one place and ending it at another, code the Location Question where the meal/event began. For example, if an SP began breakfast at home but finished it in the car on the way to work, you would choose "at home."

If the occasion is made up of one single food, the prefilled text will be the name of the food rather than the occasion. For example, if the SP ate only a hamburger for lunch, then the probe would read:
"Did you eat/drink this 12:00PM hamburger at your home?"

It is possible that respondents may remember more foods as they think about the source of the food and where it was eaten. In this case return to the RFL by pressing F10, and record the food in the next available RFL line.

Once you have asked the location for an occasion, you will ask the Between Interval Probe to determine if any food was eaten between the occasion you just collected and the next occasion reported.

### 6.7.7 Between Interval Probe

This probe reviews the period between one occasion and the next and asks if the SP had any other foods/beverages between the two occasions.

Exhibit 6-84. Between interval probe screen

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|  |  |
| Sample (58, M). E1.001.IN. $18.001 \quad$ (301) 555-1515 <br> Did you have anything between your breakfast and $3: 00 \mathrm{PM}$ when you had your Pbj sandwich? |  |
| $\begin{aligned} & \text { O1. YES } \\ & \text { O2. NO } \end{aligned}$ |  |
| RECBetweenIntervalPro <br> RECLastOccTomidnt |  |

If the respondent remembers a food at this interval that was eaten during this interval, you will enter " 1 " for yes and the system will take you back to the RFL. After recording the foods on the RFL, the AMPM will take you to the detail and amount probes. If the respondent remembers a food at this interval that was eaten later, the instrument will sequence the food so that you will collect the details and amounts when you get to that time period in the interview. Foods that are remembered at this interval but eaten earlier in the day will be collected at the end of the interview, before you complete the Final Review of the 24 -hour Dietary Recall. These foods are called "remainder foods" and will be discussed in Section 6.7.9.

### 6.7.8

 Last Occasion to Midnight ProbeAfter you review the foods reported for the last occasion, you will ask the Last Occasion to Midnight Probe.

Exhibit 6-85. Last occasion to midnight probe screen


This probe covers the period between the last eating occasion reported and midnight. If a food(s) is remembered, the program will take you back to the RFL to add the foods. Follow the steps below.
(1) Select " 1 " for "Yes". The AMPM will take you back to the RFL.
(2) Enter food on RFL.
(3) Collect or confirm the time and occasion.
(4) Ask "Anything else?"
(5) Type "XXX" and press ENTER twice.
(6) Press END.
(7) Collect details and amounts for each new food.

### 6.7.9 Collection of Remainder Foods

The USDA AMPM program orders foods chronologically throughout the interview, guiding the collection of detailed information about each food in the sequence in which it was eaten. However, if a food was remembered at a point in the recall day that came before the time period you are collecting, the program will store the food until the end of the Recall portion of the interview. The stored foods are called "remainder foods." For example, if an SP remembered drinking orange juice at 7 AM for breakfast while you were reviewing the 1 PM lunch, the program would classify it as a remainder food.

If a remainder food is reported for an existing occasion (e.g., remembered drinking orange juice with waffles that have already been collected for 9 AM breakfast), you will only collect the details, amounts, and source for the food. However, if the remainder food is a new eating occasion (e.g., reported drinking orange juice at a time that was different from all other reported occasions), you will also collect the location of the occasion.

Remainder foods will be probed in the same way that all other foods are probed, beginning with the Continue/Redo Screen and ending with the Source question. However, the Interval review probes will not be asked for these foods because the period of time has already been covered.

### 6.8 Step 5: The Final Review Probe (FR)

The Final Review Probe is the last opportunity the respondent will have to remember any new foods or drinks. If the SP remembers a food at this time, enter " 1 " for YES. The AMPM will take you to the RFL. Add the food to the next available RFL line. Collect the time and occasion for the food(s). Ask "Anything else?" probe. Type XXX on the next RFL Line and press ENTER twice. Press END. You will then collect details, amounts, and source for the food(s). If the food(s) creates a new eating occasion, you will also ask the location. Like remainder foods, the Interval Review probes will not be asked for these new foods.

Exhibit 6-86. Final review probe screen


After you have administered the Final Review probe, continue with the health-related questions section of the intake.

## 6.9 Intake Health-Related Questions

The Intake Instrument includes a series of questions that are asked at the end of each interview. The Phone Follow-up exam only asks about intake amount.

### 6.9.1 Usual Intake

The Usual Intake question is the first question that follows the 24-Hour Recall portion of the interview. This question asks the respondent to make a judgment as to whether the amount of food and drink reported in the interview was usual, less than, or more than usual.

Exhibit 6-87. Usual intake question screen


Respondents may have difficulty deciding whether the intake reported was really different from usual. Don't lead the respondents - let them decide. If they ask you to define the terms, just repeat the question with slight emphasis on the word amount. Remind them that it is their judgment.

After you select the response for the amount question, press ENTER to continue.

The closing screen for the phone follow-up interview is as follows:

Exhibit 6-88. Final Dietary Recall screen

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### 6.10 Dietary Recall Section Status

This screen indicates the status of the Dietary Recall section of the interview. When you arrive at this screen, the interview status will indicate "Partial," "Not Done," or "Complete."

If the status is "complete," continue to the Post-Recall Section.

Exhibit 6-89. Dietary Recall section status screen


If the status is "Partial" or "Not Done," a reason must be selected from the drop-down menu in the Comments field.

The choices in the Comments field are:

| Safety exclusion | Interrupted |
| :--- | :--- |
| SP refusal | Proxy no information |
| No time | Needs DR (Data Retrieval) |
| Physical limitation | Other, specify |
| Communication problem |  |
| Equipment failure |  |
| SP ill/emergency |  |

If you choose "Other, specify," the "Other" field will open and you must type an appropriate comment.

Exhibit 6-90. Dietary Recall section status screen with comment codes


This completes the Dietary Recall portion of the exam.

After you have confirmed the status of the dietary intake, you will continue the interview with a short series of Post-Recall observation questions.

### 6.11.1 Physical Activity Monitor (PAM) Appointment Reminder

The first screen you may encounter in the Post-Recall is the PAM Appointment Reminder screen. If the SP has an outstanding Physical Activity Monitor a script will come up that reminds the SP that we are expecting their PAM in the mail. You must read the screen and then advance to the next screen.

Exhibit 6-91. PAM appointment reminder screen


### 6.11.2 Scheduling Allergen Appointments

Your last task is to schedule appointments for the allergen component. Allergen technicians will later go to the SP's home to collect allergen samples. The SPs are aware of this component, as they have signed a consent and also received a handout during the home interview. They will also be asked to sign a second consent when the tech arrives at the home for the actual appointment.

Once a family is eligible for this component, (To be eligible, all SPs in the family must be MEC examined and older than 1 year.) you will find three screens that assist in the process. They will appear in your Post-Recall section, after the PAM reminder (if there is one) and before the Observation screens.

The first screen is a basic introduction, reminding the SPs of the component and letting them know that now you want to schedule a time for the tech to come and collect the sample. This screen is translated in Spanish and if necessary you can toggle from English to Spanish (Utilities Menu).

Exhibit 6-92. Allergy Introduction - 1


If the SP refuses to schedule the allergy appointment, then you will need to follow a specific process. You check the Refusal box and select a reason from the drop-down pick list. At the end of the pick list is 'Other, Specify.' If you select this as the reason for Refusal, the 'Other, Specify' text field opens and you must type in your comment/reasons.

Exhibit 6-93. Allergy Introduction - 2


If you mark an SP as refusing, this will conclude the screens you see regarding this component. You will proceed directly to the Observation screen.

Exhibit 6-94. Allergy Appointment Schedule - 1


The Scheduling screen has three sections: The top is basic SP information and was designed to be similar to your 'Call Information' screen at the beginning of your phone interviews. It includes who you are talking to, his or her ID, age, the language used in the MEC dietary interview, and if he or she needs/has a proxy, the proxy's name, and if he or she was the SP in the family that was given the Guides.

The middle section has Phone Follow-Up information on the rest of the family. You may want to use this to determine who in the family is the best person to schedule for the appointment. Specifically, you may want to use the 'Guides Given' information to help you determine who in the family is the best person to schedule for the appointment. When the MEC interviewer gives the Guides, he or she sees the family in person, gets a sense of the most responsible family member, and gives the Guides to that person (typically the adult female head of household).

The last section of the Screen has the available appointments for the SP/family. It lists the date, day of week, time, AT, whether the tech speaks Spanish, and a check box for the tentative appointment. It includes a filter language, one for showing All Appointments, and a place to indicate not scheduled folks, as well as a place for you to add notes.

In what we hope to be the typical scenario, you will offer the first available appointment date and time and the SP will agree. You will check the Tentative box and add an 'Appointment Note' as to who you have scheduled for the appointment. For example, "Mike." We ask that you always leave a note with a name so the ATs will know who to ask for when they call to firm up the appointment.

The appointments that are listed are driven by the AT's geographical area to which they are assigned and the dates and times they are working. The appointments will typically begin 3 days from the current date.

Exhibit 6-95. Allergy Appointment Schedule - 2


If for some reason the SP does agree to the appointment but cannot be scheduled at this time, you will need to check the 'Not Scheduled' box and select a Reason from the drop-down pick list.

For example, if the SP is $<18$ you will need to ask to speak with an adult and/or the person who received the guides and attempt to schedule with them. However, if there is no adult available to schedule with, check the 'Not Scheduled' box and select reason 'Appropriate person unavailable.' This will enable the allergy scheduling screens to continue to come up at the conclusion of the dietary interview for the rest of the family. Basically there will be a "pass" on scheduling this SP so you can try to schedule with another SP in the family.

When the screens come up for the next family member you will notice that the 'Not Scheduled' box will be checked and any notes that were previously entered will display.

If you select any of these other reasons for 'Not Scheduled,' the case passes on to the AT for scheduling and you will not see the Scheduling Screens for the rest of the family.

Exhibit 6-96. Allergy Appointment Schedule - 3


The final screen has a script that confirms the SP's phone number to ensure the ATs have a good number to call to firm up the appointment. This screen is translated in Spanish and if necessary you can toggle from English to Spanish (Utilities Menu).

Exhibit 6-97. Allergy Phone Confirmation - 1


In most cases you will indicate 'Yes' from the options and move on.

Exhibit 6-98. Allergy Phone Confirmation - 2


In some instances you may want to add a number. You will select 'No' from the pick list, check the 'Other Number' box and enter the new number. Then you will select the type of phone from the drop-down pick list.

Exhibit 6-99. Allergy Phone Confirmation - 3


If we have on record any other numbers for the SP you may find them in the field next to "Which of the following numbers is best to reach you at?"

Exhibit 6-100. Allergy Phone Confirmation - 4


If the SP called in for the Dietary Phone Follow-Up interview because they have no phone, check the box 'No phone/way to contact.' This will let the ATs know that they will just need to arrive at the home at the appointed time without the luxury of making a prior call to firm the appointment.

Exhibit 6-101. Allergy Phone Confirmation - 5


### 6.11.3 Observations Screen

The Post-Recall Evaluation Screen is a data entry screen with four questions for you (the interviewer) to complete. You must answer all the questions on this screen before going to the status screen.

Exhibit 6-102. Observations screen


The first question asks you what language was used for the interview. The response categories include "English," "Spanish," "English and Spanish," and "Other." You can select the appropriate option by typing the first letter of your choice (e.g., "S" for Spanish). For the "English and Spanish" choice, enter "E" two times. You can also click on the down arrow to see the choices, and select one by pointing and clicking. If you select "Other" you must specify what other language was used in the following field which will become enabled.

The second question asks you who the main respondent was for the interview. That is, the SP, a proxy (e.g., a parent or grandparent), or a combination of the SP and proxy (e.g., when a parent assists a child). You may select one of the twelve options by typing the first letter of your choice, or you
may click on the down arrow to see the choices and select one by pointing and clicking. If you select "Other Specify" you must specify what other person was the main respondent.

## Exhibit 6-103. Observations - Difficulty question



The third question asks you who helped in responding for the interview. You may make your selection by simply typing the first letter of who helped of the thirteen choices including typing " N " for "No One." If you answer "Other Specify," the "Other Specify" field will open and you must enter the other person. If more than one person helped with the interview, select Other Specify and enter both persons.

The last questions ask whether you or the respondent had difficulty or any comments about the interview. If you select "Yes," then a follow-on question is enabled. Here you must indicate the reason for the difficulty or your comments about the interview. This is a Code All that Apply question so you can choose more than one answer. There are sixteen selections to choose from on the picklist or you may choose "Other Specify" and specify the reason. If you answer "Yes" and have indicated that the reason for the difficulty is either "Intake may be incomplete," or "Unreliable," you must specify the reason in the remark field that is enabled. If you feel the interview was difficult for more than one reason, select Other Specify and enter the reasons in the text field.

### 6.11.4 Post-Recall Section Status Screen

This screen will automatically indicate that the section status is "Complete" if all of the questions in this section were answered. If you had to end the interview before completing any or all screens, the section status will indicate either "Not Done" or "Partial."

If the screen indicates a "Not Done" or "Partial" status, you must enter a comment before finishing the interview. Comments include:

| Safety exclusion | Equipment failure |
| :--- | :--- |
| SP refusal | SP ill/emergency |
| No time | Interrupted |
| Physical limitation | Proxy no information |
| Communication problem |  |

Exhibit 6-104. Post-Recall section status screen


To close the interview, press the "Finish" button on the bottom of the screen.

## 7. ADDITIONAL INTAKE PROCEDURES

This chapter discusses procedures that are specific to the Dietary Recall interview. The procedures include:

- Conducting proxy and assisted interviews;
- Interviewing children;
- Data retrieval;
- Documenting special situations such as skipped meals, missing meals, fasting SPs, and breast-fed infants;
- Referring to foods previously reported by SP or other HH member;
- Misreporting primary foods;
- Adding or misreporting additions;
- Recording information when program limits are activated (40+ foods and excess accessions to categories); and
- Collecting water reported during the intake.


### 7.1 Proxy and Assisted Interviews

Proxy and assisted interviews will be conducted primarily on child SPs. However, there may be situations when you will need to conduct proxy or assisted interviews for adult SPs who cannot report for themselves because of physical or mental limitations.

As shown in the following table, proxy interviews will be conducted for all child SPs under 6 years of age. Interviews for child SPs between 6 and 8 years of age will also be conducted with proxies, but the child must be present to assist the proxy during the interview. Assisted interviews will be conducted with child SPs 9 to 11 years old. SPs in this age range will be asked to provide their own data assisted by an adult household member (referred to as the assistant). The preferred proxy/assistant is the person most knowledgeable about what the SP ate the day before the interview.

Exhibit 7-1. Table of proxy and assisted interviews

| SP Age | Interview | Adult Present | Child Present |
| :--- | :--- | :---: | :---: |
| $<6$ yrs | Proxy | Yes | No |
| $6-8$ yrs | Proxy/Assistant | Yes | Yes |
| $9-11$ yrs | SP/Assistant | Yes | Yes |
| $12-15$ yrs | SP | No | Yes |

### 7.1.1 Proxy Interviews with Child SPs Under 9 Years of Age

There are two types of proxy interviews for children in this age group: (1) an interview where the proxy is the sole respondent, and (2) an interview where the child SP assists the proxy. A proxy will always respond for children under the age of 6 , as we assume that they cannot reliably report for themselves. A proxy will also be the primary respondent for children between 6 and 8 years of age. However, because children in this age group can often contribute useful information about meals eaten away from home, the interview will be conducted with the child present to assist in reporting intake information. The proxy for children under 9 years of age may be the parent, grandparent, baby-sitter, or any other person knowledgeable about the child's intake. If the child has more than one caregiver, several individuals may need to contribute to the Intake data.

It is likely that you will need to collect information from children between 6 and 8 years of age about what they ate in the school cafeteria, at a day-care center, a baby-sitter's, or some other caretaker's. It may be necessary to collect not only information about school lunch, but also breakfast and after-school snacks.

If the preschool child has a meal(s) outside the home, the proxy or other family member may be able to tell you what foods were sent with the child, but probably not what foods were eaten. Be patient and persistent in trying to collect as much information as possible from the sampled child, if the proxy cannot be of assistance.

As with the standard introduction, explain the information you need, and define the time frame for the proxy. Since infants frequently have feedings during the night, it is important that the proxy understands the period of time. Use the Yesterday's Intake handcard in the front of the Food Model Booklet to reinforce the time period.

### 7.1.2 Assisted Interviews with Child SPs 9 to 11 Years Old

Our procedures assume that children between 9 and 11 years old are capable of selfreporting their intake, but to collect complete and accurate information, they would benefit from the assistance of an adult knowledgeable about their intake.

The child should try to answer all of the intake questions and the health-related questions. If the child and assistant provide conflicting information, give them an opportunity to reconcile the response on their own. If they cannot, record the SP's response on the intake grid and proxy comments in the Remark Box (F6 function key).

### 7.1.3 Proxy or Assisted Interviews with Adults Unable to Report for Themselves

You may need to interview some respondents older than age 11 who are not capable of responding for themselves due to physical or mental limitations. In these cases, an acceptable proxy or assistant would be the person most knowledgeable about the respondent's food consumption.

### 7.2 Interviewing Children

An adult (18 years or older) should be present to conduct an interview with a child SP under 16 years old. The age and ability of the child will determine how much of the telephone interview you conduct with the child. Following are the procedures to follow for each age group.

- SPs under 6 years old - The entire interview will be conducted with the proxy. The child does not need to be present. However, if the child is present for the interview, the proxy may refer questions to the child.
- SPs 6-8 years old - The proxy will be the primary respondent, but the child SP must be present. If appropriate, you may conduct part of the interview with the child SP. Begin the interview with the proxy. If the proxy feels the child can better respond to the Quick List or answer the food probes, have the child join the interview. When you feel you have obtained all the information the child can provide, direct your questions to the proxy.
- SPs 9-11 years old - The child SP will be the primary respondent, but will be assisted by an adult. Begin the interview with the child by asking the Quick List. After the child reports the Quick List, address the next statement to both the child and the assistant: Say something like "Now I'm going to ask you specific questions about the foods and beverages we just listed. When you remember anything else you ate or drank as we go along, please tell me." Invite the assistant to participate in the interview and encourage the assistant to help the child report completely and accurately.

Use your judgement throughout the interview to determine whether the information you are obtaining would be more complete, or the interview would go more smoothly (or quickly), if you were interviewing the assistant. In that case, ask to speak to the assistant.

- SPs 12-15 years old - The child SP will be the primary respondent but an adult should be present while the SP is being interviewed.

Interviews with young children can be either pleasant and amusing encounters, or tedious and exhausting experiences. How you conduct the interview can affect both the quality of the interview and the interaction itself. Following are some tips to remember when interviewing children.

- Use child-related events and terms when probing. For example, if a child refers to an activity such as gymnastics or baseball when reporting foods in the Quick List, follow through with that activity when you get to the descriptive probes (e.g., "tell me about that juice you said you had before baseball practice," rather than "you said you had some juice at 3 o'clock").
- If children have difficulty recalling foods on the Quick List, help them think through the day by asking about where they went and what they did. Then ask whether or not they ate or drank anything. For example, you might ask a child, "Where did you go right after school yesterday? " If the child says something like "to my friend's house," ask an orientation question such as "what did you do there?". Then ask, "Did you eat or drink anything while you were at your friend's house?"
- Adult approval or disapproval can easily influence children, so you must encourage them to participate while remaining completely neutral.
- Keep your sense of humor and enjoy the conversation. It can be quite delightful.


### 7.3 Data Retrieval Procedures

If the SP or proxy/assistant cannot provide enough descriptive information about the foods, or the quantity eaten, the data may need to be collected from someone outside the household. This section
describes the procedures for identifying and documenting missing data that needs to be retrieved from an outside source.

### 7.3.1 Data Retrieval Criteria

Missing dietary data will be retrieved on two groups of SPs:

- SPs under 12 years old, and
- SPs over 12 years old requiring proxy or assisted interviews.

For SPs described above, the data will be retrieved for the following situations:

- Eating occasion reported but no foods. An eating occasion is reported, but not the individual foods or beverages consumed at the occasion. For example, a mother may know that a child ate lunch at daycare, but may not know what the daycare provider served. Data should be retrieved for the individual foods and amounts.
- Eating occasion reported with some foods. An eating occasion is reported, but only some of the individual foods or beverages in the occasion are recalled. For example, a mother may know that her child's school served a hot dog for lunch, but may not know what else was served. Data should be retrieved for the other foods and amounts.

For SPs described above, the data will NOT be retrieved for the following situations:

1. When a food is reported that is not a part of a missing meal, but the details cannot be recalled. For example, milk is reported, but not the kind of milk.
2. When a food is reported that is not a part of a missing meal, but the amount cannot be recalled.

### 7.3.2 Flagging Eating Occasions for Data Retrieval

You will flag an eating occasion for data retrieval if the SP or proxy respondent reports an occasion but cannot report ALL OF THE foods consumed for that occasion. The procedures you use to flag the occasion for data retrieval will depend on whether the respondent reported any foods for the occasion.

Reported occasion but no foods. If the SP or proxy respondent reports an occasion (e.g., 'school breakfast,' 'school lunch'), but cannot report what the SP ate for the occasion, follow the steps below:

1. Record the eating occasion during the QL pass. From the MFL pick 'school breakfast,' 'school lunch,' 'unknown meal,' or some other occasion that describes the meal.
2. UNKNOWN Food category. When you get to that occasion in the interview, the program will automatically link you to the Unknown food category. The first question you will read will ask the SPs if they can tell you what they had for that occasion. If the respondent reports 'No,' enter DK and continue.

Exhibit 7-2. Unknown food category screen - School breakfast

| School breakfast, $7: 00$ AM, breakfast |
| :--- | :--- |
| Can you tell me what you had for the School breakfast? |
| O1. Return to the RFL to enter foods |
| AnkFoodName |
| UnkFoodDescription |
| UnkFoodMultipleltems ? |
| AddAnything |
| ADDFoodName |

The next screen asks the amount eaten only for school breakfast and for school lunch, not for other responses. Notice the interviewer instruction that tells you to record what portion of the meal was eaten. While children may not be able to tell you what they ate, they can often tell you whether they ate it all. This is a text field so you will type in the text "ate all" or " $1 / 2$," etc.

Exhibit 7-3. Unknown food category screen - School meal amount eaten question

| XXX (15, F), 12.001 .IN. 01.002 (11) 999-7890 |
| :--- | :--- | :--- |
| School breakfast, $7: 00$ AM, breakfast |
| How much of this school meal did you eat? |
| [DOCUMENT WHAT PORTION OF THE MEAL W/AS EATEN - ALL, HALF, A THIRD. ETC.] |

Once you have entered the amount, do the following:
(1) Arrow back to the category Start screen and change " 1 " (Include in Intake) to " 3 " (Needs Data Retrieval) and press 'End' to get to the Source question;
(2) Ask the Source question; and
(3) Continue with the interview.

Example: A child SP reports 'school breakfast' during the QL pass. When you ask the details about 'school breakfast' the respondent cannot remember any foods. Flag 'school breakfast' for data retrieval and continue with the interview.

Reported eating occasion on QL, then reported some, but not all, foods for the occasion. If the SP or proxy respondent cannot report all the foods the SP ate for the reported occasion, follow the steps below:

1. Record the eating occasion during the $\mathbf{Q L}$ pass. From the MFL pick 'school breakfast,' 'school lunch,' 'unknown meal,' or some other occasion that describes the meal.
2. UNKNOWN Food category. When you get to that occasion in the interview the program will automatically link you to the Unknown food category. The first question you will read will ask SPs if they can tell you what they ate for the occasion. When you enter ' 1 ' for "yes," the system will take you back to the RFL to add the foods.

Exhibit 7-4. Unknown food category screen - School lunch

3. Ask 'anything else.' After you enter the remembered foods on the MFL, ask 'anything else.'

Exhibit 7-5. RFL when remembers foods in school meal

| [IF SP REMEMBERS A NEW FOOD. USE COMMENT FIELD ONLY IF SP PROVIDES DETAILS.] |
| :--- |
| [ASK OR CONFIRM BOTH TIME AND OCCASION FOR EACH FOOD BEFORE LEAVING THE RFL SCREEN.] |
|  |

If the respondent indicates that the SP had more foods than were reported for that occasion, but doesn't know what they were, do the following:
(1) Type in 'unknown meal' on RFL along with the time and occasion.
(2) Enter ' XXX ', press enter twice, and END to continue.
(3) When you get to the 'unknown meal' category, enter ' 1 ' (Continue) on the Continue/Redo screen, and ' 3 ' (Needs Data Retrieval) on the category Start screen.
(4) Enter DK to the question about what foods were in the meal.
(5) Enter 1-Enter-END to continue with the interview.

Example: During the QL pass a proxy mother reports her son ate 'school lunch.' When you ask the details about 'school lunch' the SP reports he ate a hamburger. Mom says she knows he ate more then that for his school lunch. When on the RFL, add 'unknown meal' and flag for data retrieval when you get to the details.

Reported foods on QL, then reported missing foods for same occasion. If an SP or proxy respondent reports, during the QL , eating a food for an occasion, and then states that other foods were also eaten, but cannot report the other foods, follow the steps below:

1. Add the eating occasion to the RFL (e.g., 'school breakfast,' 'school lunch,' 'unknown meal').
2. UNKNOWN food category. When you get to the unknown eating occasion, do the following:
(1) On the category Start screen enter " 3 " for Needs Data Retrieval;
(2) Press 'End' to exit the food details and ask the Source questions; and
(3) Continue with interview.

Example: A child SP reports pancakes on the QL for school breakfast. He later remembers that he ate other foods, but can't remember the other foods. Enter 'school breakfast' on the MFL and then flag the occasion for data retrieval.

### 7.3.3 Documenting Data Retrieval Source Information

If you labeled any foods or eating occasions as "Needs data retrieval," you will be prompted at the end of the Dietary Recall interview to obtain information about who to call to retrieve the missing data. You will ask for the source name, location, and telephone number. The source may be a school, babysitter, daycare, or relative. Before asking for contact information you must get the proxy's permission to conduct data retrieval with a source outside the household.

Data Retrieval Source Information. Data retrieval questions will only be asked when the "Needs data retrieval" flag was chosen at the FIBStart screen. If the Dietary Recall needs data retrieval, you will collect information about the data retrieval source(s) here.

The first screen asks for a list of contacts who can answer the data retrieval questions. Up to five contacts can be entered. When you have entered all the contact names, press ENTER to continue.

Exhibit 7-6. Data retrieval source screen


The following screen determines the relationship between the SP and the contact person. There are four possible responses. If the contact person is a relative or babysitter, the AMPM will continue on to ask the phone number of that person.

Exhibit 7-7. Data retrieval source screen - Relationship to SP question


If the contact person is from a school or daycare, the AMPM will ask the name of the school or daycare place.

Exhibit 7-8. Data retrieval source screen - Name of school or daycare question


Three separate screens collect the contact person's phone number (area code, exchange, and local).

Exhibit 7-9. Data retrieval source screen - Source phone number


Once the number has been entered, you will confirm the number and make any changes necessary.

Exhibit 7-10. Data retrieval source screen - Source phone number confirmation

| bâu Blaise Data Entry - C:ITest-P2-Intake-LocallinstrumentsilNTAKE |  |  |  |  | - 可x |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Eorms Answer Navigate Options Help |  |  |  |  |  |
|  Intake \|Sorted_RFL| |  |  |  |  |  |
|  |  |  |  |  |  |
| Sample (1, F) E1.001.IN.18.001 (301) 555 [CONFIRM NEW TELEPHONE NUMBER] <br> NEW NUMBER: (301) 555-1515 Is this correct? |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| $\begin{aligned} & \text { O1. YES } \\ & \text { O2. NO } \end{aligned}$ |  |  |  |  |  |
| Label <br> RECDRCOntactName[1] RECDRContac:Name[2] RECDRCOntactivame[3] RECDRCOntactName[4] RECDRContactName[5] | Doata Retieval | RECDRContactsoure | $\Gamma$ | Childd aycare |  |
|  | Mama Sue | RECDRContactsource 0 |  |  |  |
|  | Mis Josy | RECDRNameOfflace | Mama Sue's Playhou |  |  |
|  |  | RECDRPhonearea | 301 |  |  |
|  |  | RECDRPhoneExchange | 555 |  |  |
|  |  | RECDRPhonelocal | $\sqrt{1515}$ |  |  |
|  |  | BECPhone Confim | $\Gamma$ |  |  |

The next data retrieval screen allows you to enter any comments that will assist in the data retrieval process. The AMPM system will ask these questions for each contact name reported.

If more than one food is flagged for data retrieval and more than one service is identified for contact, you will document the source to be contacted for each food in the comments box. You should also use the comment box to clarify any data retrieval information to be collected. The comment box is shown below.

Exhibit 7-11. Data retrieval source screen - Additional comments


### 7.3.4 Data Retrieval Collection Procedures

When "needs data retrieval" is selected for any food during an interview, the record is flagged as "needing data retrieval." A report is automatically printed immediately after the interview is closed, that contains a list of foods needing DR and the contact source information for that interview.

The telephone supervisor will assign you data retrieval responsibility on a daily basis. You should try to contact the source within 24 hours of the time the interview was completed. If it was completed on a Saturday, contact the source within 72 hours.

The record will be assigned a status code of "Partial" for the Dietary Recall section. To collect the missing data, you need to follow these steps:

1. Select Data Retrieval (DR) on the drop-down file menu at the initial dietary exam screen.
2. Use the DR report to obtain the telephone number to initiate contact with the source.
3. Launch the partial intake and scroll down to the first eating occasion needing DR. The food details will appear in RED.
4. Select 'Redo' and then 'Include in Intake' to access the food details. All details collected during the Primary exam will be filled in.
5. Collect the missing data.
6. Press 'End' to exit the food's details.
7. Scroll to the next food needing DR and repeat the process until all foods on the DR report have been addressed.
8. If at any time the DR contact cannot provide the necessary details, leave a remark (F6) describing why DR was not successful.
9. Close the intake. Note that the section status is now complete.

If you cannot contact the source in the time frames noted above, enter the case and navigate to the unknown eating occasion(s), select 'Redo' and 'Include in Intake.' Then press F6 to leave a remark in the remark box stating 'Data Retrieval unsuccessful.'

### 7.4 Documenting Missing Meals (if Data Retrieval is Not Required)

If the Dietary Recall does not meet the guidelines for data retrieval and the SP can remember consuming foods and beverages at a particular meal, but cannot remember what was consumed, the meal is considered missing. You will record the missing meal by entering the eating occasion on the Quick List, for example "dessert" or "snack." The program will link those terms with the Unknown Food category. If the SP cannot report the foods consumed, enter a question mark for 'DK' and continue.

### 7.5 Documenting Skipped Meals

A missing meal is distinguished from a skipped meal. A skipped meal is a meal that the respondent might have been expected to eat or drink, but did not. For example, if an SP reports eating no food before 1:00 in the afternoon. At any point in the interview you may access the Remark Box and record any information the respondent offers (e.g., "I didn't eat breakfast"), to indicate that a meal is not missing. Be careful not to suggest to SPs that they should have had a meal, or ask if they had a particular meal.

### 7.6 Documenting Fasts on the Recall Day

There may be times when a respondent reports fasting on the recall day. If this occurs follow the steps below:
(1) Enter "Fasting" on the QL;
(2) Proceed with the interview, asking the FFL probes; and
(3) Ask health-related questions

### 7.7 Documenting Breast-fed Infants

When a proxy reports that an infant SP was breast fed, you will record the term "breast milk" on the QL and continue with the interview. Try to document every time the SP was fed (rather than
reporting the feedings as extended consumption). At the time and occasion pass, record the time the feeding began and code the occasion as "feeding - infant only" (code 8). The program will not ask detail, amount, or source probes for 'breast milk.' In addition, if 'breast milk' is the only food in the occasion, the program will not ask the location question.

If a proxy reports that an infant is exclusively breastfed you do not need to read all the text on the Measuring Guide Instructions Screen. You can simply read the first sentence and go to the next screen. (Now we're going to fill in your list with more detail.) However, for bottle-fed infants the screen must be read since foods may be added to the bottle that may require the SP to report quantities using the guides.

Furthermore, if the infant was exclusively breast fed you may follow these steps:

1. On the Quick List in the FoodName column enter "Breast milk" only one time and type 'XXX' to continue.
2. Proceed to the Forgotten Food List screens and ask and answer all of the probes.
3. Highlight the Breast milk on the RFL and press F6 to enter a Remark. In the remark box enter all of the times the baby was nursed/fed.
4. At the Time and Occasion Pass enter the first reported time the infant was breastfed. Enter Feeding-infant only ('8') for the occasion.
5. Enter ' 1 ' to continue [As stated above you do not need to read all of the Measuring Guide Instructions Screen text ("Now we are going to fill in your list with more details" for inperson interviews/ "When I ask how much you ate..." for phone interviews).
6. Ask the Midnight to First Occasion Probe.
7. Read the Review of Event screen.
8. Reword the Last Occasion to Midnight Probe: "Did (NAME) have anything else to eat or drink between these feedings and midnight last night?" while noting the times documented the Remark box.

To make the interview more efficient, you may refer to a previously described food in an SP's intake or in another household member's intake. To do this, you will go the Category Start screen (Include in Intake) and select " 4 " for "Same as." Then, if other respondents in the household ate the same foods, the food coders can refer to the main meal preparer's dietary record rather than you documenting an identical detailed description.

You may not determine that this food was eaten by another SP until you are into the category. In that situation you can back up to the Start screen and select " 4 " for "Same as." Instructions and a text box will appear that will prompt you for the following information:

- Eating Occasion or Time;
- Reference Person's SP \#; and
- 1 st MEC, Phone Follow-up, 2nd MEC exam.

Exhibit 7-12. "Same As" screen


If you are referring to a food reported earlier in the interview, you will only need to document the time and occasion.

If you are referring to the Dietary Recall for another household member, you must also enter the reference SP's number. To access a roster of Household SPs and their respective SP numbers, press Ctrl H. A drop-down box will appear that includes SP number, name, age, and gender. Once you have entered the 'SameAs' information, you must ask the additions and amount eaten probes for the food and then continue with the interview. You may only refer to another household member if you completed the interview that collected that information.

## 7.9 Procedures for Misreporting Foods

There are several situations during the interview in which you may have to misreport a food. The procedure for misreporting the food will depend on the reason for the misreport and when the misreport occurs.

There are three reasons you may need to misreport a food: the SP didn't eat a reported food on the recall day; the SP changed the time of the eating event while in the food details; or the food name didn't match the details reported by the SP. The procedures for misreporting each scenario are described below.

SP Did Not Consume Food on Recall Day. When a food on the RFL is incorrect because either the respondent mistakenly reported it or you entered it incorrectly, you must remove the food from the Dietary Recall. The procedures for removing the food depend on where the misreport occurs.

- QL or Time and Occasion Pass: Type 'error' over the food name. 'Error' can only be used to remove a food from the RFL during the Time and Occasion Passes. The program will not allow 'Error' beyond this point and the food must be misreported as explained below.
- Food Details Pass: Arrow up to the category Start screen and select 'Misreport.' Press " 1, " enter, and "END" to continue.
- After Collected Food Details: Arrow up to the Continue/Redo screen and select 'Redo.' Select 'Misreport' on the category Start screen. If it is a primary food, this procedure will misreport both the primary food and any additions collected with it. Press " 1 ," enter, and "END" to continue. This can occur any time in the interview, including during the health-related questions.

Changing Time While Collecting the Food Details. If the respondent changes the time a food was consumed while collecting that food's details, the food must be misreported and re-entered on the RFL with the correct time.

1. Arrow up to the category Start screen and select 'Misreport.'
2. Press " 1, " enter, and "END," as instructed on screen, to continue to the next food.
3. Press F10 and type 'rfl' to access the RFL.
4. Arrow down to the "XXX" and enter the food name with its corrected time and occasion. Remember to include any details already collected (to avoid repeating
questions a second time). (For example, if SP reported candy at $10 \mathrm{a} . \mathrm{m}$. but changed the time to 2 p.m. after telling you it was a Milky Way bar in the details for the candy, enter "Milky Way bar" on the RFL with the new time.)
5. Press "END" to continue with the Intake. The re-entered food will now be collected at the appropriate time and occasion.

Changing Food Name or Prefilled Details. On occasion, a respondent will change the food name or kind while in the food details. Since the program prefills some details based on the RFL food name, and prefilled items cannot be changed, you must misreport the food and re-enter the corrected food name on the RFL. You will know you must misreport when the SP seeks to clarify their initial response once you are in the food details. For example, this would happen when the respondent reports "OJ" on the Quick List but remembers that it was "pineapple-orange juice" in the details when you asked, "Was the orange juice $100 \%$ juice?" Or, they could change a food such as sugar to sugar substitute when you ask, "How much sugar did you actually eat?" In each case, the food must be misreported and re-entered on the RFL. You will use the same procedure that is used to change time while collecting food details.

1. Arrow up to the category Start screen and select 'Misreport.'
2. Press " 1, ," enter and "END," as instructed on the screen, to continue to the next food.
3. Press the F10 key to access the RFL.
4. Arrow down to the "XXX" and enter the corrected food name with time and occasion.
5. Press "END" to continue with the collection of the food's details.

### 7.10 Adding Remembered Additions

The procedures for adding remembered additions to the Dietary Recall are different from those for adding primary foods. While a remembered primary food can be documented by accessing the RFL and adding the food (discussed in Chapter 6), remembered additions must be tied to the appropriate primary food. For instance, if the respondent adds sugar to his coffee, the sugar must be added within the coffee details, not entered onto the RFL as a separate food. Thus, when the respondent remembers an addition to a primary food that was collected earlier in the intake, you must return to the primary food and add the addition there.

To add a remembered addition to a previously collected primary food:

1. Arrow up to the Continue/Redo) screen for the appropriate primary food.
2. Select 'Redo' and then 'Include in intake'.
3. Scroll down to the additions question. If the food already has additions, continue scrolling down to the first available ADDFoodName line and type in the remembered addition. If the primary food did not have previously reported adds, change the additions question from 'No' to 'Yes' and type in the ADDFoodName.
4. Press 'END' to continue. The program will collect details for the remembered addition(s) and then continue on with the rest of the intake.

### 7.11

## RFL IS FULL (Documenting 41 or more Reported Foods)

There may be situations when a respondent reports more foods than the RFL can store. The RFL can only hold 40 foods. It is made up of all the foods reported on the QL as well as all additions to primary foods and all misreported foods. When you try to enter a food that exceeds the 40 -food capacity the program will instruct you on how to document the information. You will always record the information in a Remarks box, but where you record it depends on whether it is a primary food or an addition.

- Primary food - press HOME KEY and then F6 to open the remark box.
- Addition to primary food - type 'Error' over the addition, go to AMOUNT SCREEN for primary food and press F6 to open the remark box.


### 7.11.1 RFL IS FULL - Recording Primary Foods During the Dietary Recall

Any time you are in the AMPM application and you try to enter a primary food that exceeds the 40 -food capacity, you will get the following edit:

## RFL IS FULL

## 1. SELECT 'Suppress' KEY TO SUPPRESS THE EDIT.

2. PRESS HOME KEY AND THEN F6 TO OPEN A REMARKS BOX.
3. ENTER TIME, OCCASION, NAME, DETAILS, AND AMOUNT. INCLUDE ADDS.
4. SAVE REMARK AND PRESS 'END' TO CONTINUE.

After suppressing the edit and pressing the home key, the program will take you to the QL overview screen. All text will be grayed out except for an instruction that reads:
[IF COLLECTING INFORMATION ABOUT FOODS WHEN THERE IS NO MORE ROOM ON THE RFL, PLEASE ENTER THE FOOD NAME, TIME, OCCASION, DETAILS, AND SOURCE IN A COMMENT BOX (F6).]

### 7.11.2 RFL IS FULL - Recording Primary Linked Foods During the Dietary Recall

When a respondent reports a food that links to a different category during collection of the FIB details, and there are 40 foods on the RFL, a hard edit will appear. For example, if the respondent reported pasta on the QL but she says it was ravioli in the FIB details, the program will try to link to the ravioli (stuffed pasta) category. If there are already 40 foods on the RFL, there is no place to 'list' the new category. Follow the instructions in the edit below:

## RFL IS FULL.

## 1. PRESS "ENTER" AND SELECT "Misreported" AT category Start SCREEN.

2. PRESS 1, ENTER AND END.
3. PRESS HOME KEY AND THEN F6 TO OPEN A REMARK BOX.
4. ENTER TIME, OCCASION, FOOD NAME, DETAILS, AND AMOUNT. INCLUDE ADDS AND SOURCE INFO.
5. SAVE THE REMARK AND PRESS "END" TO CONTINUE.

You must misreport the original food (e.g., pasta) in order to leave the category. If you press the HOME KEY without misreporting the food, you will remain in the original category.

Since you will be entering the linked food details into the remarks box, they will not be documented on the RFL. Therefore, they will not appear on the review of event screens nor on the Sorted RFL.

### 7.11.3 RFL IS FULL - Recording Primary Foods While Collecting Health-Related Questions

If a respondent remembers primary foods while answering the health-related questions at the end of the Dietary Recall section of the interview and there are already 40+ foods on the RFL, the program cannot access the RFL to add the remembered foods. A Blaise program error message will appear when you press the F10 key and type in 'rfl.'

## "Tag not found or currently not on route."

This error message will differ from those discussed above in that no instructions are given on the screen. However, the procedure is the same as described for primary foods:

```
1. CLOSE ERROR MESSAGE.
2. PRESS HOME KEY AND OPEN A REMARK BOX.
3. ENTER TIME, OCCASION, NAME, DETAILS, AND AMOUNT. INCLUDE ADDS AND SOURCE INFO.
4. SAVE REMARK AND PRESS "END" TO CONTINUE.
```

This procedure only applies to primary foods remembered in the trailer section. Any additions remembered at this point in the interview should be entered by arrowing back to the correct primary food and following the on screen instructions for remembered additions.

### 7.11.4 RFL IS FULL - Recording an Addition to a Primary Food

When a respondent reports an addition and you enter it in the addition field and hit ENTER, a hard edit appears. The edit says:

## RFL IS FULL.

1. TYPE "Error" OVER ADD FOOD NAME.
2. GO TO PRIMARY FOOD AMOUNT SCREEN AND PRESS F6 TO OPEN A REMARK BOX.
3. ENTER ADD FOOD NAME, DETAILS, AMOUNT AND SOURCE.
4. SAVE REMARK BOX AND PRESS "END" TO CONTINUE.

### 7.12 ACCESS DENIED (Reporting Food Details When Program Denies Access to Categories)

There is a limit to the number of times you can enter a food category to ask food probes. Some categories can only be entered 5 times, while others can be entered up to 10 times. The number of times a category can be accessed is dependent on how frequently, in our experience, the foods in the category are reported. For example, the vegetable category can be entered 10 times because it would not be uncommon for a vegetarian to report eating vegetables 10 times over a 24 -hour period. On the other hand, the biscuit category can only be accessed 5 times since biscuits are not frequently consumed. The table below lists the 38 categories that can be entered 10 times.

Exhibit 7-13. Table of food categories that can be accessed 10 times

| Alcohol | Juice drinks/ades |
| :--- | :--- |
| Baby juice | Mayo/salad dressings |
| Breast milk | Milk |
| Bread | Mixed dishes |
| Butter | Nuts/seeds |
| Candy | Oil |
| Ready to eat cereal | Powdered beverage drinks |
| Cooked cereal | Pie |
| Coffee | Poultry |
| Cookies | Popsicles |
| Chips | Rolls, buns, bagels |
| Creamer | Soda |
| Condiments/sauces | Soup |
| Dry baby cereal | Sugar |
| Fish | Sweetener |
| Formula | Syrup |
| Fruit | Tea |
| Gravy | Vegetables |
| Jarred baby food | Water |

Documenting Primary Foods and Additions When Access Denied. When access is denied to a food category you will follow procedures similar to when the RFL is full. When you enter "continue" on the Continue/Redo screen, a soft edit will appear:

## NUMBER OF ACCESSIONS EXCEEDED FOR THIS CATEGORY

1. SELECT "Suppress" TO GO TO SOURCE QUESTION.
2. PRESS F6 TO OPEN A REMARK BOX.
3. IF FOOD IS A PRIMARY FOOD, ENTER NAME, DETAILS AND AMOUNT. IF FOOD IS AN ADD, ENTER NAME DETAILS, AMOUNT, PRIMARY FOOD NAME.
4. SAVE REMARK AND CONTINUE.

Follow the instructions by suppressing the edit and asking the source question. Press F6 to open the Remark box and enter the foods details as described above. If the food is an addition, make sure you include the name of the primary food.

### 7.13 Water Tips

- Enter all water reported on the QL or as a remembered food.
- Collect the details in the Intake.
- When water is added to another food or beverage, enter it as "water as an addition" in the ADDFoodName field.


## 8. QUALITY CONTROL

A variety of quality control procedures will be used to assure that data are collected accurately. You (the interviewer) will complete some of these QC tasks, while Westat home staff will perform others. Key components of the QC process include:

- Observations;
- Data retrieval, and
- Review of data collected


### 8.1 Observations

For quality control purposes, you will be observed on a regular basis by project staff, as well as staff from NCHS and USDA. As part of the training process, in the early weeks of production you will be monitored daily and will receive feedback to help you perfect your skills using the new application. Observations will include evaluation of the following:

- Introduction and confidentiality statement;
- Flow of the interview;
- Use of neutral probes;
- Proper use of automated system; and
- Proper use of food models


### 8.2 Data Retrieval

The overall quality of the data goes hand in hand with completeness; thus data retrieval is an integral part of quality control. To complete the dietary documentation on some SPs (particularly children) you may have to retrieve data from an outside source. The procedures for conducting data retrieval are described in detail in Chapter 7. When you complete your data collection on a recall that
required data retrieval, and have recovered as much information as possible, the Dietary Recall status changes to 'Complete.'

If data retrieval was unsuccessful, open the Remark box for the meal you are trying to retrieve, and enter the statement: 'Data Retrieval Unsuccessful.'

### 8.3 Review of Data Collected

The home office staff will review your work and provide feedback if needed. In particular, they will review the information that you enter into the Other specify (OS) text box and the Remark box to determine whether you could have coded the information using an existing response item. They will also monitor the procedures you use to misreport and add foods to the Dietary Recall. The feedback that you will receive is designed to help you collect accurate data as concisely as possible.


[^0]:    (1) Ask anything else?
    (2) Type "XXX" and press ENTER twice; and
    (3) Press END.

