# HOME VISIT PROTOCOL

***Measures to be completed during a home visit (in priority order)***

1. SAQ (includes medications, follow priority list for SAQ)
2. Height
3. Weight
4. Grip Strength
5. Chair Stands
6. 6 Meter Usual Pace Walk
7. Activity Monitor
8. Clinic Interview
9. Mini-Mental
10. Trails B
11. Resting Blood Pressure
12. Circumferences

***Measurements that will not be completed during a home visit***

1. DXA
2. Narrow Walk
3. Blood and Urine Collection
4. Nottingham
5. Ankle-arm blood pressure
6. Sexual Function Questionnaire
7. QCT (BI and PO)

A home visit should only be offered when a participant refuses to come into the clinic for a complete visit. If a participant is willing to come to the clinic for a limited set of measures, sites may schedule a clinic visit to obtain any measure that could not be obtained at the home (this includes DXA, specimen collection, ankle-arm blood pressure). Any follow-up visit should take place within 30 days of the original visit. Sites should be sure to mark the appropriate location that a measure was obtained on the MrOS TELEforms.

This protocol contains information about all measurements that will be part of MrOS home visits. Please see the individual protocols for more information for each measurement.

## 1. Instructions and Questionnaire

The self-administered questionnaire should be sent to the participant at least one week prior to the home visit. Tell the participant to complete the questionnaire by the time of the visit. Consent should also be sent if possible according to your institutions regulations.

In addition, instructions for participants on how to prepare for the home visit are mailed one week prior to the visit. Instructions cover the following:

**Footwear:** To eliminate the effect of different footwear on test performance, these tests should be performed in tennis shoes or other shoes with minimal or no heels. The participant should not

wear slippers. The participant may perform the tests in stocking feet if appropriate footwear is not available and floor surface is not slippery.

**Clothing:** Participants should wear comfortable, loose fitting slacks and tops.

**Medications:** Participants are asked to collect pill bottles and containers for all prescription and non-prescription medications they have taken in the past 30 days for review by the examiner. If they no longer have the container, they should try to locate a copy of the prescription, or write down the name and/or reason for taking the medication. They may also be asked to complete the worksheet that is part of the SAQ.

**Questionnaire:** Participants are asked to complete as much of the questionnaire as possible prior to the home visit. Participants should flag any questions that they did not understand or have questions on.

**Informed consent**: Participants are asked to review the informed consent prior to the visit. Any questions can be reviewed with the interviewer. This procedure may differ slightly clinic to clinic.

## 3. Hazardous conditions and health/social service needs

If a potentially dangerous situation is encountered in a home visit, such as an uncontrollable dog, someone carrying a weapon, an abusive person, or threatening neighbors, **leave the situation**. If it appears to be a situation that is easily resolved, call the home from another location and discuss it with the participant. If the situation cannot be resolved, cancel the interview.

The home visit staff should be alert to health or life-threatening situations in the home that may need to be investigated by social service or health care personnel. Examples include: hunger/malnutrition, extremely unsafe dwellings (fire, electrical hazards), extreme isolation, unattended serious health problems, severe unattended cognitive impairment, threat of suicide or violence, or abuse.

Serious health or psychiatric problems should be referred to the study physician at your clinic who may contact the subject's physician. A release from the participant is required to contact the participant's physician. Please also refer to the individual measurement protocols for more information about alert values and follow-up.

Non-emergency issues regarding safety, competency, or other such problems should be discussed with the participant. If the participant is receptive to outside help, say that you will make some inquiries about available services in the area and get back in touch with the participant to discuss the next step.

Record any problems encountered during the home visit on the Home Visit Problem Report page of the interview form (see Appendix A). Appropriate follow-up should be assessed on a case by case basis at each clinical site.

## 4. Questionnaire and Clinic Interview

The questionnaire for the home visit is the same as for the clinic visit. A home visit problem report form is included.

The interview should be performed with both the participant and the interviewer seated comfortably. Sit close enough to the participant to communicate effectively and maintain eye contact. Sit at the same level as the participant. Speak clearly and loud enough for the participant to hear without having to repeat what was said.

If others are present in the residence, try to conduct the interview in relative privacy. However, if a spouse wants to be present, particularly if they can be helpful with a subject that has hearing or cognitive problems, then the interviews may be conducted in their presence.

## 5. Examinations

**List of equipment:** The following is the list of equipment needed to carry out the assessments in the home.

- measuring tape in metric units (20 ft carpenters tape for measuring the walking course or pre-measured 3, 4, 5, and 6 meter strings)
- floor markers for gait test (starting and ending line, X for target)
- hand-held dynamometer
- right angle for height
- portable scale
- measuring tape for circumferences
- stopwatch
- armless, straight backed, hard seated chair (can use a chair fitting this description that is in the participant's home)
- pencils - at least 2
- post-its
- clipboard
- extra set of data collection forms
- "Close Your Eyes" card for Mini-Mental
- Intersecting Pentagons Worksheet for Mini-Mental
- Trails B Sample and Worksheet
- Several pieces of blank paper
- Wristwatch
- Social and Economic Status Worksheet
- Any response cards being used (functional status, life space)
- BPTru Blood Pressure Monitor
- Blood Pressure Cuffs
- Activity Monitor that has been activated (laptop computer if activating at the participant's home)

- Instruction forms for the Activity Monitor
- Activity Diary

Equipment calibration: The scale should be calibrated the morning of any scheduled home visit day using a 25kg or 2-12.5kg weights. If equipment is unused for more than a day, then recheck calibrations. Calibrations on home visit equipment are especially important since the equipment is moved around so often. Keep a log of these calibration checks at the clinic.

## HOME VISIT PROTOCOLS

***If the subject is injured during the home visit, call a local emergency number (911).***

### SAQ

Please review the SAQ for completeness. Follow-up with the participant if there are any missing answers or inconsistencies during the home visit. **See the SAQ protocol.**

### STANDING HEIGHT

#### 1. Equipment

Height is measured in centimeters against a wall using a right angle on the top of the scalp and a measuring tape. Find a blank wall in a room with a bare floor or thin (low pile carpeting) with adequate space on the side for the examiner to stand to make an accurate measure.

#### 2. Subject preparation

Height is measured without shoes.

If it helps the participant stand straighter (and/or it is needed to stay erect), allow him to use his cane or walker during this measurement.

#### 3. Measurement Procedure

**a)** The participant stands with his back against the wall with the heels together and both heels touching the wall. The back (scapulae) and buttocks should be in contact with the wall.

"Please stand against the wall. Your heels should be together (as close as possible) and both heels should be touching the wall (or molding). Look straight ahead. (If necessary say: I will position your head so that I can measure your height more accurately.)"

**b)** Be sure that in this position the participant maintains erect posture, i.e., no slouching. Heels should be together with the weight equally distributed and the head in the "Frankfort Horizontal Plane." The line through the lowest point on the inferior orbital

margin (orbitale) and the upper margin of the external auditory meatus (tragion) should be horizontal. The right angle is brought down firmly onto the top of the head. It may be necessary, upon occasion, to remove or alter the hairdress of some of the participants. This is necessary for the right angle to make contact with the top of the scalp.

Occasionally, it will be impossible to position the participant's heels, buttocks, scapulae and the back of the head in one vertical plane against the wall and still have him stand naturally and comfortably. If the back is arched due to large buttocks, move the participant forward and have only one part (usually the buttocks) in contact with the wall. Similarly for participants with severe spinal curvature, if the spine is the part that protrudes the farthest, then that should be the part that is touching the wall.

**c)** Once in position, say:

"Take a deep breath."

Have the participant inhale deeply, again not altering position by, for example, raising the heels off the floor.

**d) Stature is measured just <u>before</u> exhaling**. Mark the position where the bottom of the right angle touches the wall with a small piece of tape or a post-it.

"Exhale."

**e)** Ask participant to step away from the wall. Measure the distance from the floor at the base of the wall to the piece of tape. Record height to the nearest millimeter.

**f)** Repeat procedure obtaining second height measure.

If height values differ by more than 4mm, obtain third and fourth measurement.

## WEIGHT

### 1. Equipment

Weight is measured in pounds using a portable scale. Pounds should be converted to kilograms once back at the clinic.

The scale should be calibrated in the clinic prior to each home visit day using 1-25kg or 2-12.5kg weights.

### 2. Subject preparation

Weight is measured without shoes and without outer clothing or heavy sweaters. All heavy objects, such as keys or change, should be removed from participant’s pockets.

### 3. Measurement Procedure

**a)** The participant should stand in the center of the scale with weight equally distributed on both feet and not touching or supporting himself on anything.

"In order to measure your weight, I would like you to remove your shoes (and any heavy outer clothing) and step forward onto the center of the scale."

**b)** Some participants may require support while being weighed. If it is necessary for the participant to use a cane for support while weighing, weigh yourself with and without the participant's cane, walker, etc., to determine its weight. Subtract the weight of the aid from the participant's weight before recording. In the event that it is necessary for the examiner to support the participant during weighing, provide the minimum support that is safe.

**c)** Weight is recorded to the nearest pound (half pound if scale allows it). Convert pounds to kilograms for data entry when back at the clinic.

## GRIP STRENGTH

Procedure will be same as described for clinic visit. **See Neuromuscular Function Protocol**.

## CHAIR STANDS

Procedure will be the same as the clinic visit. **See Neuromuscular Function Protocol.**

Issues that may be addressed due to completing the procedure in the home rather than in the clinic:

- You may use a chair that is available in the participant's home if it fits the description of the chair used for this measure. You may need to bring a chair to use for the test. A straight-backed, armless, hard seated chair approximately 45 centimeters (18 inches) high at the front edge should be used. The seat should incline no more than a few degrees from front to back.

- Place the back of the chair against a wall to steady it. Stand next to the participant to provide assistance in case he loses his balance.

## 6 METER USUAL PACE WALK

**Footwear**: The subject should wear comfortably fitting shoes for each of the tests in this section. Do not perform these tests with the subject wearing high heels (≥ 1 inch) or slippers. If no other options are available, perform the tests with the subject in stocking or bare feet.

Procedure same as for clinic visit. However, the Narrow Walk will not be completed at the home visit. **See Walking Speed Protocol.**

Issues that need to be addressed in the home:

Identify an obstacle free pathway, as close to 6 meters if possible. If possible, use an area with bare floor or thin (low pile) carpeting. There should be about an extra meter of space on either

end of the course for stopping. If space is limited, then the course can be designed to have the participant just walk in one direction, returning to the same starting point for each trial. Less space would be required at the starting line, with just the toes behind the starting line and then at least one meter on the other side of finish line.

Ideally, the walking course will cover just one type of surface (i.e. bare floor or low pile carpeting). However, if necessary, the course can be set up across two different surfaces to get an adequate length. The participant probably walks these areas in his home on a daily basis and thus they should not incur any undo hazard.

If possible, choose an area where the examiner can view the subject from the side about midway between the end markers, such as by standing in a doorway along a hallway. The examiner may need to walk next to very frail subjects or those with severe postural instability. In this case, choose an area with enough space for two people to walk side by side.

Use the tape measure or premeasured 3, 4, 5, and 6 meter strings to set up the course. Flexible (plastic or cardboard) floor starting and ending line markers, about 1 meter long (marked with a red line at 1/2 meter) and 5 centimeters wide should be placed flat across both ends of the obstacle free pathway. Place an X on the other side of the finish line as a goal for the participant to walk to.

**Please mark the home visit bubble and record the length of the course and the type of surface that the course covered on the TELEform.** Please note that the questions about the 20cm Narrow Walk on the TELEform should not be completed for home visits.

## ACTIVITY MONITOR

Sites may choose one of two ways to enter the needed information into the activity monitors before giving them the device to wear. **See the Activity Monitor Protocol for more detailed information regarding activating and initializing the device and for explaining the device to participants.**

1) A laptop can be taken to the participant's home. After the height, weight, handedness and smoking status has been obtained, the armband can be initialized using a laptop computer. Procedures are the same as the clinic protocol.
2) Staff can enter any information they can before leaving the clinic for the home visit. The fields for height and weight (and handedness and smoking status if not known) should be left blank. Upon receiving the armband back from the participant, height and weight (and any other field that was originally left blank) should be entered before saving the file. The software should prompt you to enter this information. The file must be saved after the updated information has been entered in order for the program to accept the changes.

## CLINIC INTERVIEW

Procedures will be same as used in the clinic visit. **See Clinic Interview Protocol.**

## COGNITIVE FUNCTION TESTS

Procedure will be same as described for clinic visit. Please try to find a quiet place in the home to administer the cognitive function tests. **See Cognitive Function Protocol**.

**RESTING BLOOD PRESSURE AND PULSE**

Procedure will be same as described for the clinic visit. Please try to find a quiet place in the home to measure blood pressure. If it is not possible to leave the room for the 5 minute resting period, staff should remain quiet and try not to distract the participant during this time. **See Blood Pressure Protocol.**

**CIRCUMFERENCES**

Procedure will be same as described for clinic visit. **See Circumferences Protocol.**

## 4. FILLING OUT THE TELEFORM

The same set of TELEforms will be used for the in-clinic visit and the home visit forms. All TELEforms from the SAQ and Clinic Visit sets should be submitted to the data system regardless of the type of visit that was completed. If a home visit is completed the sexual function questionnaire would not need to be sent into the data system.

Staff should properly indicate where a particular measure was obtained on the TELEforms. We have made every attempt to make the forms easy to complete for both types of visits and to reduce the number of edits that show up when a measure wasn't done because it was a home visit. The forms that are for measures that will not be conducted as part of home visit, have a 'Home Visit' bubble on the top of the page. If a measurement wasn't completed because it was a home visit this bubble should be marked. No other question on the page will need to be completed (except ID, Acrostic and Staff ID). The data system will be set-up so no missing edits are generated for these pages. The one exception is the Walking Test form. There is a 'Home Visit' bubble on this page. If you are completing a home visit, this bubble should be marked and the questions about the 6 Meter Usual Pace walk should be marked. You should also record the type of floor surface and length of course. The questions about the Narrow Walk should not be answered so that no missing edits will be generated.

**Appendix A**

## Home Visit Problem Report Form
## MrOS Home Visit – Visit 3

Record any problems encountered during the home visit, such as dangerous situations, health or life threatening situations in the home, serious health or psychiatric problems and other non-emergency issues. Each clinic should determine follow-up for situations encountered in their area.