ENCAHEY

Physical Measures and Biomarkers Manual



Table of Contents

PRE	FACE
ACK	NOWLEDGEMENTS
I.	LIST OF MEASURES
II.	ENCAHEY CONSENT FORM FOR PHYSICAL MEASURES
III.	BLOOD PRESSURE
IV.	BREATHING TEST
V.	HAND STRENGTH
VI.	BALANCE TESTS:
VII.	WALKING SPEED17
VIII.	HEIGHT
IX.	WEIGHT
X.	WAIST
XI.	ARM CIRCUMFERENCE29
XII.	KNEE HEIGHT
XIII.	UPPER ARM LENGHT
XIV.	ANEMIA
XV.	DRIED BLOOD SPOTS (DBS) PROTOCOLS
REFI	ERENCES

Preface

The Survey of Household Socioeconomic Characteristics in the State of Yucatan (Encuesta de Características Socioeconómicas del Hogar en el Estado de Yucatán, or ENCAHEY) collected data at the individual and household level on health, nutrition, and wellbeing of elderly participants. Specifically, it includes selected biomarkers; dietary practices; self-reported health; stress; depression; food security and availability of food at the household level.

ENCAHEY is a result of the collaborative effort by the Government of the State of Yucatan, Mexico, and the RAND Corporation to design, implement, and evaluate a program to alleviate poverty among the elderly by providing cash benefits to those who are 70 years old or older. The program has been implemented in phases in 37 Yucatan localities over four years. Phases I and II implemented *Reconocer Rural* in rural areas and Phase III implemented *Reconocer Urbano* in the cities of Valladolid and Merida. The program also has an evaluation project, *Escuchar*.

This manual provides protocols and instructions to collect health measurements used during the evaluation of the program in Valladolid, Motul and Merida. The manual is based on the Health and Retirement Survey (HRS), from which we took ten measures: Blood Pressure, Breathing, Hand Strength, Balance Tests (3), Walking Test, Height, Weight and Waist circumference. Furthermore, we added 3 more measures (arm circumference, arm length and height to knee) from the Health, Wellbeing and Aging for Latinoamerica and the Caribbean (Encuesta de la Salud, Bienestar y Envejecimiento en America Latina y El Caribe or SABE) which applied to all respondents, but especially as alternative measures for those older adults who may not be able to stand on their feet and may have problems when getting their height and weight measured. This manual is available in both English and Spanish.

In addition, we included two biomarkers more: dried blood spots (DBS) and an Anemia measurement. The DBS protocols were taken for the first time in the first follow-up survey of Evaluation 3. Dr. Thomas McDade (Northwestern University) and the survey director Beverly Weidmer (RAND) supervised and trained the field team to collect the DBS samples, and how to properly carry, store the DBS cards, and disposing of waste. The anemia test was taken using a portable hemoglobin analyzer and based in the protocols included on the Health and Retirement Survey (HRS). The anemia test was included only in the follow-up interviews.

This research was made possible with funds from the Government of the State of Yucatan; the [U.S.] National Institute of Aging (NIA) (through grants R01AG035008, P01AG022481, and R21AG033312); the RAND Center for the Study of Aging (with grant P30AG012815 from NIA); the RAND Labor and Population Unit; and the RAND Center for Latin American Social Policy (CLASP). Three Mexican institutions collaborated on the program: the Mexican National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía, or INEGI), the Yucatan Cultural Institute (Instituto de Cultura de Yucatán), and the Yucatan State Population Council (Consejo Estatal de Población, or COESPO). The program also is supported by an international advisory board of experts affiliated with the Autonomous University of Yucatan (Universidad Autónoma de Yucatán), Center of Investigation and Advanced Studies (Centro de Investigación y de Estudios Avanzados, or CINVESTAV) Merida Unit, University College London, Yale University, and the RAND Corporation.

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In addition, we renew our thanks to the field and administrative staff in Yucatan and the RAND research team for their dedication and technical and academic framework provided in each stage of the project. We would also like to thank the institutions in Yucatan and all of Mexico as well as the international institutions for their assistance and support in conducting this evaluation study.

This study has benefited greatly from the participation of each and every one of the older adults who participated in the evaluation study. Their contributions will help to improve the future of the next generations of older adults.

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I. LIST OF MEASURES

IWER: Text in *bold and italics* is to be read to the respondent. Normal text is interviewer (IWER) instructions or questions that are to be answered by you.

IWER: Mark an 'X' by each measurement for which respondent (R) is eligible.

- ____ Blood Pressure
- ____ Breathing
- ____ Hand Strength
- ____ Balance Tests
- ____ Walking Test
- ____ Height Record
- ____ Weight
- ____ Waist
- ____ Arm Circumference
- ____ Knee Height
- ____ Arm Length
- ____ Anemia
- ____ Dried Blood Spots (DBS)

IWER: Before beginning the physical measurements, you must have a signed consent form from the Respondent.

II.ENCAHEY CONSENT FORM FOR PHYSICAL MEASURES

You have already agreed to participate in the ENCAHEY funded by the State of Yucatan and conducted by RAND Corporation. The study will help to provide a whole picture of the health and of the overall wellbeing of people 70 years of age and older living in the state of Yucatán,

In addition to completing the questionnaire, you are now being asked to complete some physical measurements. The physical measures conducted will allow researchers to better understand the connections between health status and other indicators of interest such as economic and employment status.

If you agree to participate in this part of the study it means the following:

- a) You may be asked to complete several physical measurements which involve standing, walking, exhaling, gripping an object with your hands and having your blood pressure, height, weight, waist, calf, and arm measurements taken.
- b) Participation in this part of the study is <u>completely voluntary</u>. You are NOT required to do this, and can stop your participation at any time.
- c) The results of the physical measurements will be kept strictly confidential in the same way as the rest of the interview data. You will not be identified in any reports on this study.

TURN OVER

- d) You will be given a copy of the results of all the measurements and tests taken including your blood pressure results as well as an indication if it is above the normal range. If it is above the normal range, you will be instructed to share this information with your doctor.
- e) It will take approximately thirty (30) minutes to complete these physical measures.

Name of the Respondent (R):

Name of the Interviewer (IWER):

Interviewer's signature as witness of the voluntary participation of the respondent in the taking of the physical measures:

_____ Date: _____

IWER: Did the R sign the Physical Measures consent form? (Circle one)

1.....YES - Consent signed \rightarrow continue to Blood Pressure Measurement

2..... NO - Consent not signed \rightarrow Do not complete these measures.

III. BLOOD PRESSURE

Equipment needed: Omron HEM-780N Monitor, Batteries, Chronometer

"Now let's talk about the first activity. I'd like to measure your blood pressure using this monitor and cuff which I will secure around your left arm. I would like to take three blood pressure measures. I will ask you to relax and remain seated and quiet during the measurements. First, I will place the cuff on your left arm. Once the cuff is placed appropriately on your arm and we are ready to begin, I'll ask you to lay your arm on a flat surface palm facing up so that the center of your upper arm is at the same height as your heart. I will then press the Start button. The cuff will inflate and deflate automatically. After we have completed all three measures, I will give you the results."

IWER: Demonstrate the test.

"Do you have a rash, a cast, edema (swelling) in the arm, open sores or wounds, or a significant bruise where the blood pressure cuff will be in contact?" (IWER: Circle one)

1.....YES \rightarrow do not complete this measure and answer the question in the box below

2.....NO \rightarrow continue

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

1.....YES \rightarrow continue

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why didn't R complete the blood pressure measurement? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the test

4.....R tried but was unable to complete test

5.....R did not understand the instructions

6.....R had a rash, a cast, edema, open sores or wounds, or significant bruise where the blood pressure cuff would contact R's arm

97...... Other (Specify): _____

→ Go To Next Measurement

INSTRUCTIONS FOR ADMINISTERING BLOOD PRESSURE TEST:

- 1) Insert arm cuff plug into jack on the side of the monitor.
- 2) Instruct R to remove bulky clothing from upper left arm.
- 3) Instruct R to sit in a chair with his/her feet flat on the floor and place his/her upper arm on a table.
- 4) Place the cuff on the R's left arm approximately 1/2" above the elbow. Position the blue marker over the brachial artery on the inside of the arm.
- 5) Press the sewn hook material firmly against the side of the cuff. [The cuff should make direct contact with the R's skin]. The R should easily be able to fit his/her index finger between the cuff and the arm.
- 6) Instruct the R to rest his/her arm comfortably on a support (like a table) with palm facing upward so the cuff is at the same level as the heart.
- 7) Press the START/STOP button and instruct the R to remain still. When the ♥ symbol appears on the display, press again the START/STOP button. The cuff will begin to inflate automatically. Numbers will appear on the display and the ♥ symbol will start blinking.
- 8) The cuff will then automatically deflate. The monitor will first display the SYSTOLIC and DIASTOLIC readings. RECORD time of reading and both SYSTOLIC and DIASTOLIC readings in chart below. Record the pulse identified by the letter P.
- 9) Press the START/STOP button to repeat the measure. The cuff does not need to be removed or loosened in between readings. If you receive an ERROR message, remove cuff, reposition and try again.
- 10) Allow approximately 45 seconds to 1 minute between readings and repeat steps 4-9 two more times.
- 11) After the third measurement, remove the cuff from the R's arm.

12) In case you find that the person has high blood pressure or low, leave the card with high blood pressure was found making out of range.

13) WHO considers normal range systolic 120 and diastolic 80, also considered offset 110/70 and 130 /90.

14) The systolic pressure above 150 and diastolic above 110 are considered HIGH PRESSURE. Not necessarily have to be out of range two, one of them is sufficient.

15) Low blood pressure is considered when the systolic is less than 100 and diastolic less than 70

16) If it is found that R has one of the measures out of range, you will leave a card Hypertension HIGH or LOW with the results recorded so that she/he can take it to her/his next appointment with a doctor.

17) On the booklet of anthropometric and biomedical outcomes (copy for the project with 14 tests and for R with 9 tests) record the results and also deliver the HIGH or LOW card to R as appropriate.

18) The NORMAL pulse should be between 80 and 100 beats per minute, depending on the age of the person and the physical activity R is undergoing at the time of interview

IWER: Record measurements in chart: (Enter 993 in first systolic reading if R tried but the measurement could not be completed. Enter 999 if R chose not to do it.) If the lowest systolic reading obtained is greater than 160 or the diastolic greater than 110, fill out the High-Blood Pressure Card and leave it with the respondent.

Measurement #	Time of Reading	Systolic Reading	Diastolic Reading	Pulse
1	: am/pm	mmHg	mmHg	Р
2	: am/pm	mmHg	mmHg	Р
3	: am/pm	mmHg	mmHg	Р

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy to be delivered to R.

If the adult is hypertensive or hypotensive and you leave a high or low blood pressurecard, write it down in the log measurements as "High or Low blood pressure card was given" and specify the case.

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

IV. BREATHING TEST

Equipment needed: Peak flow meter, Disposable mouthpiece(s) packaged in a plastic bag

"Next I'm going to ask you to perform a simple test that will measure how fast you can expel air from your lungs. It is important that you blow as <u>hard</u> and as <u>fast</u> as you can. I would like you to perform the test three times. When we are ready to begin, I'll ask you to stand up. Take as deep a breath as possible. Open your mouth and close your lips firmly around the outside of the mouthpiece, and then blow as hard and as fast as you can into the mouthpiece. Like this..."

IWER: Demonstrate the test.

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

 $1.....YES \rightarrow continue$

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why didn't R complete the breathing test? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the test

4.....R tried but was unable to complete test

5.....R did not understand the instructions

97.....Other (Specify): _____

→ Go To Next Measurement

INSTRUCTIONS FOR ADMINISTERING THE BREATHING TEST:

- 1) Give the R the instrument and a disposable mouthpiece and have the R firmly place the mouthpiece on the instrument.
- 2) R should hold the instrument lightly with the slot facing away from the R's hand so that the R's fingers do not obstruct the slot.
- 3) Ask R to stand up and take a deep breath and then place lips around the outside of the mouthpiece.
- 4) Ask the R to blow as hard and as fast as he or she can.
- 5) Record the value indicated by the marker in the chart below.
- 6) Reset the marker and repeat the test for a total of three tries.
- 7) Allow 30 seconds between tries.

IWER: Record measurements in chart: (Record 30 if less than 60; Record 890 if past last tick mark; Record 993 if R tried but was unable; or Record 999 if R chose not to do it.)

Measurement #	Measurement Reading
1	e e e e e e e e e e e e e e e e e e e
2	
3	

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

IWER: How much effort did R give to this test? (Circle one)

1.....R gave full effort

2.....R was prevented from giving full effort by illness, pain, or other symptoms or discomforts

3.....R did not appear to give full effort, but no obvious reason for this

IWER: What was R's position for this test? (Circle one)

1.....Standing

2.....Sitting

3.....Lying down

V. HAND STRENGTH

Equipment needed: Dynamometer

"Now I would like to assess the strength of your hand in a gripping action. I will ask you to take this device and elevate your arm until it forms a 90° angle with your body, then I need you to squeeze the device as hard as you can, just for a couple of seconds and then let go. I will take alternately two measurements from your right and your left hands."

IWER: Demonstrate the test with your dominant hand.

"Before we begin, I'd like to make sure it is safe for you to do this test. Have you had surgery or experienced any swelling, inflammation, severe pain, or injury in one or both hands within the last 6 months?" (IWER: Circle one)

1.....YES \rightarrow continue with the next question

2.....NO \rightarrow skip the next question

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

1.....YES \rightarrow continue

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why didn't R complete the hand strength test? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the test

4.....R tried but was unable to complete test

5.....R did not understand the instructions

6.....R had surgery, injury, swelling, inflammation or severe pain on both hands

97.....Other (Specify): _____

 \rightarrow Go to Next Measurement

INSTRUCTIONS FOR ADMINISTERING THE HAND STRENGTH TEST:

1) "Which is your dominant hand? (Which hand do you use the most?)" (IWER: Circle one)

1.....Right hand

2.....Left hand

3.....Both hands equally dominant

2) Suggest R removes rings and other hand jewelry.

3) Position the respondent correctly, standing with arms at sides.

4) Adjust dynamometer to hand size by turning the lever.

5) Reset arrow at zero.

6) Explain the procedure once again.

7) Let respondent have a practice with her/his dominant hand.

8) Reset the marker and repeat for a total of two tries.

9) Record the results in the table below. For example: 10.3 Kg or 21.4 Kg.

IWER: Record measurements in chart:

Measurement #	Left Hand	Right Hand
1	kg	kg
2	kg	kg

Record the test results in the Road Project anthropometric and biomedical measurements and the in copy that will be delivered to R.

IWER: Record 993 if R tried but was unable. Record 999 if R chose not to do it.

IWER: How much effort did R give to this test? (Circle one)

1.....R gave full effort

2.....R was prevented from giving full effort by illness, pain, or other symptoms or discomforts

3.....R did not appear to give full effort, but no obvious reason for this

IWER: What was R's position for this test? (Circle one)

1.....Standing

2.....Sitting

3.....Lying down

IWER: Did the R rest their arm on a support while performing the test? (Circle one)

1.....Yes

2.....No

 \rightarrow Go to next measurement.

VI. BALANCE TESTS A). SEMI-TANDEM – ALL RESPONDENTS

Equipment needed: Chronometer

"I would now like you to try to stand in different positions. I will first describe and show each position to you. Then I'd like you to try to do it. If you cannot stand in a particular position, or if you feel it would be unsafe to try to do it, tell me and we'll move on to the next one. Let me emphasize that I do not want you to try to do any activity that you feel might be unsafe."

"For the first one, I want you to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 10 seconds. You may put either foot in front, whichever is more comfortable for you. like this..."

IWER: Demonstrate the test.

"Before we begin, do you have any problems from recent surgery, injury or other health conditions that might prevent you from standing up from a chair and balancing?" (IWER: Circle one)

1.....YES → discuss with him/her whether s/he should attempt each test given his/her physical problems after describing each test. Do not assume a respondent is too physically limited to attempt a test without discussing it with him/her.

 $2.....NO \rightarrow continue$

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

 $1.....YES \rightarrow continue$

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why didn't R complete the semi-tandem stand? (Circle all that apply)

- 1.....R felt it would not be safe
- 2.....IWER felt it would not be safe
- 3.....R refused or was not willing to complete the test
- 4.....R tried but was unable to complete test
- 5.....R did not understand the instructions
- 6.....R had surgery, injury or other health condition that prevented R from standing
- **97**.....Other (Specify): _____
- → Go To Side-by-Side

INSTRUCTIONS FOR SEMI-TANDEM:

- 1) Ensure R is wearing appropriate footwear (shoes with very low or no heel).
- 2) Ensure floor is level, preferably has no carpet or low-pile carpet.
- 3) Ask the R to stand up.
- 4) Stand next to the respondent.
- 5) Instruct the R to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 10 seconds.
- 6) Instruct the R that he/she may put either foot in front, whichever is more comfortable for him/her.
- 7) Instruct the R that he/she may use his/her arms, bend his/her knees or move the body to maintain balance, but try not to move his/her feet.
- 8) If necessary, provide gentle support to the respondent's arm to help him/her get into the semi-tandem position.
- 9) Instruct the R to try to hold this position until you tell the R to stop.
- 10) Let go of R's arm. Say "Ready, begin." and start the Chronometer immediately.
- 11) Stop the chronometer and say "*Stop*" after 10 seconds or when the participant steps out of position or grabs your arm.
- 12) Answer the questions in the box below. If the participant is unable to hold the position for 10 seconds, record the time in seconds to two decimal places in the box below.

IWER: Did R hold semi-tandem stand for a full 10 seconds without stepping out of place or grabbing hold of anything? (Circle one)

1.....Yes

2.....No \rightarrow Enter amount of time R held stand in seconds to two decimal places _____

993.....R tried but was unable

999.....R chose not to do it

IWER: Did R use any compensatory movements of his/her trunk, arms or legs to steady him/herself during semi-tandem stand? (Circle one)

1.....Yes

2.....No

IWER:

- If R <u>was able</u> to complete the semi-tandem for the full 10 seconds without stepping out of place or grabbing a hold of anything \rightarrow Go To Full-Tandem.

- If R <u>was not able</u> to complete the semi-tandem for the full 10 seconds without stepping out of place or grabbing a hold of anything \rightarrow Go to Side-By-Side.

Record the test results in the Road Project anthropometric and biomedical measurements and the in copy that will be delivered to R.

B). SIDE-BY-SIDE

Equipment needed: Chronometer

"Now I will show you the next movement. I want you to try to stand with your feet together, side-by-side for about 10 seconds. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop. Like this..."

NOTE: This test will be performed only if R could not perform the Semi-Tandem.

IWER: Demonstrate the test.

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

 $1.....YES \rightarrow continue$

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why didn't R complete the Side-by-Side standing up? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the test

4.....R tried but was unable to complete test

5.....R did not understand the instructions

6.....R had surgery, injury or other health condition that prevented R from standing

97.....Other (Specify): _____

 \rightarrow Go to Full-Tandem

Record the test results in the Road Project anthropometric and biomedical measurements and the in copy that will be delivered to R.

INSTRUCTIONS FOR SIDE-BY-SIDE:

- 1) Ensure R is wearing appropriate footwear (shoes with very low heel or no heel).
- 2) Ensure floor is level, preferably has no carpet or low-pile carpet.
- 3) Ask the R to stand up.
- 4) Stand to the side of the respondent.
- 5) Instruct the R to try to stand with feet together, side-by-side for about 10 seconds.
- 6) Instruct the R that he/she may use his/her arms, bend his/her knees or move the body to maintain balance, but try not to move his/her feet.
- 7) If necessary, provide gentle support to the respondent's arm to help him/her get into the side-by-side position.
- 8) Instruct the R to try to hold this position until you tell the R to stop.
- 9) Let go of R's arm. Say "*Ready, begin.*" and start the Chronometer immediately.
- 10) Stop the Chronometer and say "*Stop*" after 10 seconds or when the participant steps out of position or grabs your arm.
- 11) Answer the questions in the box below. If the participant is unable to hold the position for 10 seconds, record the time in seconds to two decimal places in the box below.

IWER: Did R hold side-by-side stand for a full 10 seconds without stepping out of place or grabbing hold of anything? (Circle one)

1.....Yes

2.....No \rightarrow Enter amount of time R held stand in seconds to two decimal places _____.

993.....R tried but was unable

999.....R chose not to do it

IWER: Did R use any compensatory movements of his/her trunk, arms or legs to steady him/herself during sideby-side stand? (Circle one)

1.....Yes

2.....No

IWER: Record the type of floor surface that the balance measures were conducted on. (Circle one)

 $1 \dots Linoleum/tile/wood$

2.....Low-pile carpet

3.....High-pile carpet

4.....Concrete

97..... Other (Specify): ____

IWER: How compliant was R during the balance measurements? (Circle one)

1.....R was fully compliant

2.....R was prevented from fully complying due to illness, pain, or other symptoms or discomforts

3.....R was not fully compliant, but no obvious reason for this

→ Go to Walking Speed

Record the test results in the Road Project anthropometric and biomedical measurements and the in copy that will be delivered to R



C). FULL-TANDEM

Equipment needed: Chronometer

"Now I want you to try to stand with the heel of one foot in front of and touching the toes of the other foot for about 30 seconds. You may put either foot in front, whichever is more comfortable for you. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop. Like this..."

NOTE: This test will be performed only if R could complete the Semi-Tandem.

IWER: Demonstrate the test.

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

1.....YES \rightarrow continue

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why didn't R complete the full-tandem stand? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the test

4.....R tried but was unable to complete test

5.....R did not understand the instructions

6.....R had surgery, injury or other health condition that prevented R from standing

97.....Other (Specify): _____

→ Go To Next Measurement



INSTRUCTIONS FOR FULL-TANDEM:

- 1) Ensure R is wearing appropriate footwear (shoes with very low heel).
- 2) Ensure floor is level, preferably has no carpet or low-pile carpet.
- 3) Ask the R to stand up.
- 4) Stand to the side of the respondent.
- 5) Instruct the R to try to stand with the heel of one foot in front of and touching the toes of other foot for about 30 seconds.
- 6) Instruct the R that he/she may use his/her arms, bend his/her knees or move the body to maintain balance, but try not to move his/her feet.
- 7) If necessary, provide gentle support to the respondent's arm to help him/her get into the full-tandem position.
- 8) Instruct the R to try to hold this position until you tell the R to stop.
- 9) Let go of R's arm. Say "*Ready, begin.*" and start the Chronometer immediately.
- 10) Stop the Chronometer and say "*Stop*" after 30 seconds or when the participant steps out of position or grabs your arm.
- 11) Answer the questions in the box below. If the participant is unable to hold the position for 30 seconds, record the time in seconds to two decimal places in the box below.

IWER: Did R hold full-tandem stand for a full **30** seconds without stepping out of place or grabbing hold of anything? (Circle one)

1.....Yes

2.....No \rightarrow Enter amount of time R held stand in seconds to two decimal places _____

993.....R tried but was unable

999......R chose not to do it

IWER: Did R use any compensatory movements of his/her trunk, arms or legs to steady him/herself during full- tandem stand? (Circle one)

1.....Yes

2.....No

IWER: Record the type of floor surface that the balance measures were conducted on. (Circle one)

 $1 \dots Linoleum/tile/wood$

2.....Low-pile carpet

3.....High-pile carpet

4.....Concrete

97..... Other (Specify): ____

IWER: How compliant was R during the balance measurements? (Circle one)

1.....R was fully compliant

2.....R was prevented from fully complying due to illness, pain, or other symptoms or discomforts

3.....R did not appear to be fully compliant, but no obvious reason for this

 \rightarrow Go To Next Measurement

Record the test results in the Road Project anthropometric and biomedical measurements and the in copy that will be delivered to R



VII. WALKING SPEED

Equipment needed: Tape measure, Chronometer, Masking Tape

"Next, I would like to test whether you can walk a very short distance comfortably (using a walking stick or other aid if necessary). First, I want to make sure it is safe to carry out the test. Do you have any problems from recent surgery, injury, or other health conditions that might prevent you from walking?" (IWER: Circle one)

1.....No apparent restriction \rightarrow continue

2.....Yes, recent surgery \rightarrow do not complete this measure and answer the question in the box below

3.....Yes, injury \rightarrow do not complete this measure and answer the question in the box below

4.....Yes, other health condition \rightarrow do not complete this measure and answer the question in the box below

"Now let's find a place where we can conduct the test. We will need a clear space about 12 feet long in a non-carpeted area, if possible. I'm going to place the measuring tape alongside the space where the walk will take place."

IWER: Set up the course (2.5 meters)

"This is our walking course. I am going to time you as you walk the course. I will be asking you to walk the course two times. I'll walk along side you the whole time during the test. Now I'd like to demonstrate how to do the test. You will start by lining your feet up at the starting point."

IWER: Demonstrate the test.

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

1.....YES \rightarrow continue

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why didn't R complete the walking speed test? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the test

4.....R tried but was unable to complete test

5.....R did not understand the instructions

6.....R had surgery, injury, or other health condition that prevented R from walking

7.....No suitable space available

97.....Other (Specify): _____

 \rightarrow Go To Next Measurement

INSTRUCTIONS FOR THE WALKING SPEED TEST:

- 1) Ensure that the respondent is wearing appropriate footwear at this point. If not, ask R to change shoes or to put shoes on.
- 2) Instruct R to stand with his/her feet lined up to the front of the tape.
- 3) Say the following to the R "I am going to time you as you walk the course at your normal pace. I will be asking you to walk the course at your usual pace a total of two times. I'll walk along side you the whole time during the test. I'd like you to stand here with your feet lined up. Start walking when I say 'Begin'. Walk all the way past the other end of the tape before you stop. Are you ready to go now? Begin."
- 4) Start Chronometer when either foot is placed down on the floor across the start line.
- 5) Walk behind and slightly to the side of the R.
- 6) Stop the Chronometer when R's foot crosses the tape and touches the floor. Record the time in chart below.
- 7) Repeat the measurement: "Now I want you to repeat the walk. Remember to walk at your usual pace and go all the way past the other end of the course. I'd like you to stand here with your feet lined up. Start walking when I say 'Begin'. Are you ready to go now? Begin."

IWER: Record measurements in chart: (Record 993 if R tried but was unable. Record 999 if R chose not to do it)

Measurement #	Walking Speed Time
1	(seconds)
2	(seconds)

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

IWER: R	ecord type of floor surface. (Circle one)
1	Linoleum/tile/wood
2	Low-pile carpet
3	High-pile carpet
4	Concrete
97	Other (Specify):
IWER: R	ecord type of aid used. (Circle one)
1	None
2	Walking stick or cane
3	Elbow crutches
4	Walking frame
97	Other (Specify):
IWER: H	low compliant was R during this measurement? (Circle one)
1	R was fully compliant
2	R was prevented from fully complying due to illness, pain, or other symptoms or discomforts
	3 R was not fully compliant, but no obvious reason for this

R was not fully compliant, but no obvious reason for this

VIII. HEIGHT

Equipment needed: Rigid Tape measure, Rafter's square, Pencil, Self-adhesive note (post-it)

"Next, I would like to measure your height. To complete this measurement, I'll be asking you to take off your shoes and stand up against a wall. I will then place this rafter's square on top of your head and mark your height on this post-it note."

"Do you feel it would be safe for you to do this test? I'm going to take the measure three times". (IWER: Circle one)

1.....YES \rightarrow continue

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why weren't you able to measure R's height? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the measurement

4.....R tried but was unable to complete measurement

5.....R did not understand the instructions

6.....Respondent too tall, interviewer could not reach R's height

7.....There was no suitable space available

97.....Other (Specify): _____

 \rightarrow Go To Next Measurement

INSTRUCTIONS FOR MEASURING HEIGHT:

- 1. Ask R to indicate a place where you can take the measure.
- 2. Ask R to take off the shoes and remove hat or cap if he/she is wearing any of those and women should undo any bun.
- 3. Stick the adhesive note (post -it) on the wall at the height of the top of the head of R.
- 4. Please make sure that R is standing up as much straight as he/she can without being uncomfortable. R's head, back, calves, ankles and gluteus should be in contact with the wall and the arms should fall naturally along the body with ankles and shoulders against the wall.
- 5. Make sure the feet are in the right position (with the ankles together forming a V).
- 6. Draw an imaginary line (Frankfort line) which is going from the ear's orifice to the base of the eye orbit. This line must be parallel to the base of the rafter's square and form a right angle with respect to the wall.
- 7. Position your rafter's square with one of the sides of the right angles against the wall and the other side over the R's head. This line should be parallel to the floor, resting on the R's head slightly touching but not pressing on it.
- 8. Make a mark on the self-adhesive note at the bottom of the rafter's square.
- 9. Ask the R to move away from the wall.
- 10. Position the tip of the tape measure on the floor holding it with the feet or under the floor molding and expanse the tape from the floor to the mark on the self-adhesive note.
- 11. Record R's height in <u>meters and centimeters</u> on self-adhesive note on the wall and remove it from the wall.

Example: 1.78 meters

IWER: Record measurement in chart:

Measurement #	Measurement
1	meters
2	meters
3	meters

If the difference between the first and second measurements is greater than 0.5 cm, perform a third measurement.

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

IWER: Record the type of floor surface (Circle one)

1.....Linoleum/tile/wood

2.....Low-pile carpet

3.....High-pile carpet

4.....Concrete

97.....Other (Specify): _____

IWER: Was R wearing shoes during the measurement? (Circle one)

1.....Yes

2.....No

IWER: How compliant was R during this measurement? (Circle one)

1.....R was fully compliant

2.....R was prevented from fully complying due to illness, pain, or other symptoms or discomforts

3.....R was not fully compliant, but no obvious reason for this

IX. WEIGHT

Equipment needed: Scale

"Now, I'd like to measure your weight. To measure your weight, I will ask you to stand on this scale, with your shoes off, while I read the display. I will weight you three times".

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

 $1.....YES \rightarrow continue$

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why weren't you able to measure R's weight? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the measurement

4.....R tried but was unable to complete measurement

5.....R did not understand the instructions

6.....R is not able to stand

97.....Other (Specify): _____

 \rightarrow Go To Next Measurement

INSTRUCTIONS FOR MEASURING WEIGHT:

- 1) Ask R for location to conduct measurement a hard-surface floor or thin pile carpet.
- 2) Make sure R's shoes are off or ask him/her to remove shoes.
- 3) Ask R to remove heavy objects from pockets and/or heavy sweaters as needed.
- 4) Position scale, where the floor is even and smooth so you can see the display while R is standing on it.
- 5) Turn scale on, tap middle of scale with foot, and wait for 000.0 to appear on the screen.
- 6) Ask R to stand on scale.
- 7) Record the exact weight without rounding
- 8) R can sit down and put shoes back on.

IWER: Record the exact weight in kilograms with one digit for the grams in the box below: (Enter 993 if the Respondent tried but an error message appeared.)

Record measurement in chart: (Enter 993 if R tried but received an error message.)

Example: 70.6 Kilograms

Measurement #	Weight Measurement
1	Kilograms
2	Kilograms
3	Kilograms

If it should be greater than 0.5 Kg. difference. between the first and second measurements, perform the third.

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

X. WAIST

Equipment needed: Soft Tape measure

"Next I'm going to ask you to perform a simple measurement of your waist circumference. For this measurement it is important for you to be standing up. I would like to ask you to identify where on your body your navel (belly button) is located. I will then ask you to place this cloth measuring tape around your waist, over your clothing, holding it securely at the level of your navel. Once the tape measure is placed appropriately around your waist then we are ready to begin. I will ask you to take a normal breath and exhale, holding your breath at the end of the exhale. I will then record the measurement."

IWER: Demonstrate the measurement.

IWER: Ask R if it is necessary:

("Before we begin, do you feel you are able to stand while we do this measurement?") (IWER: Circle one)

1.....YES \rightarrow continue

2.....NO \rightarrow do not complete this measure and answer the question in the box below

"Do you feel it would be safe for you to do this test?" (IWER: Circle one)

1.....YES \rightarrow continue

2.....NO \rightarrow do not complete this measure and answer the question in the box below

IWER: Why weren't you able to measure R's waist? (Circle all that apply)

1.....R felt it would not be safe

2.....IWER felt it would not be safe

3.....R refused or was not willing to complete the measurement

4.....R tried but was unable to complete measurement

5.....R did not understand the instructions

6.....R is not able to stand

97.....Other (Specify): _____

 \rightarrow Go To Next Measurement

INSTRUCTIONS FOR MEASURING WAIST CIRCUMFERENCE:

- 1) Indicate R to remove bulky clothing in case of wearing it.
- 2) R should be in the standing position and measuring tape should be applied over the clothing around the waist at the level of the navel.
- 3) Ask Respondent to point to his/her navel.
- 4) Instruct R to place the tape around his/her waist at the level of the navel. The R should hold tape in place at the navel. The tape should be snug but not tight. If R is not able to put the tape around his/her waist, you may have them hold one end of the tape measure at their navel, and walk around the R with the other end.
- 5) Check that the tape is horizontal all the way around the R.
- 6) Instruct R to take a normal breath and exhale holding breath at end of exhale.
- 7) Read the measurement on the tape after the R exhales.
- 8) Record the measure

IWER: Record measurements in chart. If the measure is less than 100 centimeters, add a 0 in the left side of the measure. (Enter 993 if R tried but was unable to do it. Enter 999 if R chose not to do it.)

For example: <u>0 9 6</u>. <u>5</u> centimeters

Measurement	Waist
#	Measurement
1	centimeters
2	centimeters
3	centimeters

If the difference. between the first and second measurements is greater than 0.5 cm, perform the third.

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

IWER: What difficulties occurred during this measurement? (Circle all that apply)

1.....None

2.....R had breathing difficulties

3.....R was unable to hold breath at the end of the exhale

4.....R was prevented from giving full effort by illness, pain, or other symptoms or discomforts

5.....R did not appear to give full effort, but no obvious reason for this

97.....Other (Specify): _____

IWER: How compliant was R during this measurement? (Circle one)

1.....R was fully compliant

2.....R was prevented from fully complying due to illness, pain, or other symptoms or discomforts

3.....R was not fully compliant, but no obvious reason for this

IWER: Who completed the measurement? (Circle one)

1.....R completed the measurement

2.....IWER completed the measurement

IWER: Was the R wearing bulky clothing during this measurement? (Circle one)

1.....Yes

2.....No

XI. ARM CIRCUMFERENCE

Equipment needed: Flexible Tape Measure

"Now, I'm going to ask you to let me take a very simple measurement of the circumference of your arm. I will only measure your arm and record the measurement. "

IWER: Demonstrate the measure IWER: Ask if necessary:

"Do you feel it would be safe for you to let me measure your arm?"

(INTERVIEWER: Circle one)

1 YES \rightarrow continue

 $2 \text{ NO} \rightarrow \text{do not complete this measure and answer the corresponding question in the box below}$

INTERVIEWER: Why didn't R complete the arm circumference measure? (Circle all that apply)

 $1 \hdots R$ considered that it would not safe

2IWER felt it would not be safe

3R refused or was not willing to complete the measure

 $4 \dots R$ tried but it was unable to complete the measure

97 Other (specify): _____

 \rightarrow Go To Next Measurement

INSTRUCTIONS FOR TAKING THE MEASURE OF THE ARM CIRCUMFERENCE:

1. Ask R to remove clothing from the arm, or at least to fold his/her shirt sleeves.

2. Check that the tape measure is horizontally all around the circumference of the R's arm.

3. Read the measurement on the tape measure. Record the measurement in the box below.

INTERVIEWER: Record the measurement in the table below. If the measure is less than 100

centimeters, add a 0 in the left side of the measure (Enter 993 if R tried but he could not. Enter 999 if R chose not to do it.).

Measurement	Arm Circumference
#	Measurement
1	centimeters
2	centimeters
3	centimeters

If it should be greater than 0.5 cm difference. between the first and second measurements, perform the third.

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

INTERVIEWER: What difficulties arose for this measure? (Circle all that apply) **1**None 2R failed to make the necessary effort because of illness, pain or other symptoms or discomforts 3R did not put too much effort, but not for obvious reasons **97**Other (specify): _ INTERVIEWER: What was the attitude of R when taking these measurements? (Please circle the appropriate option) 1R agreed enthusiastically to take the measure 2R did not agree to the complete the measure because illness, pain or other health symptoms 3R did not agreed enthusiastically, but not for obvious reasons INTERVIEWER: Who took the measure? (Please circle the appropriate option) 1R took the measure 2IWER took the measure INTERVIEWER: Was R wearing thick or bulky clothing when taking this measurement? (Please circle the appropriate option) **1**Yes 2No \rightarrow Go to the next measure

XII. KNEE HEIGHT

Equipment needed: Tape measure

"Now, I'm going to ask you to let me measure your leg to the knee. I will only measure the length of your lower leg to the knee and record the measurement."

IWER: Demonstrate the measure IWER: Ask if necessary:

"Do you feel it would be safe for you to let me do this measure?"

(INTERVIEWER: Circle one)

1 YES \rightarrow continue

 $2 \text{ NO} \rightarrow \text{do not complete this measure and answer the corresponding question in the box below}$

INTERVIEWER: Why didn't R complete the arm circumference measure? (Circle all that apply)

- $1 \dots R$ considered that it would not safe
- 2IWER felt it would not be safe
- 3R refused or was not willing to complete the measure
- $4 \dots R$ tried but it was unable to complete the measure

97 Other (specify): _____

 \rightarrow Go To Next Measurement

INSTRUCTIONS FOR MEASURING THE KNEE HEIGHT:

1. Ask R to remove clothing from knee to the feet.

2. Read the measurement on the tape measure. Record the measurement and record it in the box below.

INTERVIEWER: If the measure is less than 100 centimeters, place a 0 in the left side of the measure. (Enter 993 if the Respondent tried but could not. Enter 999 if R chose not to do it.) Example: 0 ± 7.2 cm

Measurement	Knee Height Measurement
1	centimeters
2	centimeters
3	centimeters

If it should be greater than 0.5 cm difference. between the first and second measurements, perform the third.

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

INTERVIEWER: What difficulties arose for this measure? (Circle all that apply)

1None

2R failed to make the necessary effort because of illness, pain or other symptoms or discomforts

3R did not put too much effort, but not for obvious reasons

97Other (specify): ____

INTERVIEWER: What was the attitude of R when taking these measurements? (Please circle the

appropriate option)

1R agreed enthusiastically to take the measure

2R did not agree to the complete the measure because illness, pain or other health symptoms

3R did not agreed enthusiastically, but not for obvious reasons

INTERVIEWER: Who took the measure? (Please circle the appropriate option)

 $1 \dots R$ took the measure

2IWER took the measure

INTERVIEWER: Was R wearing thick or bulky clothing when taking this measurement? (Please circle the appropriate option)

1Yes

2No

 \rightarrow Go to the next measure

XIII. UPPER ARM LENGHT

Equipment needed: Flexible Tape Measure

"Now I will ask you to let me take a very simple measure your arm from the tip of the middle finger at the start of your sternum. I'm only going to measure the length of your arm and I'll record the measurement."

IWER: Demonstrate the measure IWER: Ask if necessary:

"Do you feel it would be safe for you to let me do this measure?"

(INTERVIEWER: Circle one)

1 YES \rightarrow continue

 $2 \text{ NO} \rightarrow \text{do not complete this measure and answer the corresponding question in the box below}$

INTERVIEWER: Why didn't R complete the arm circumference measure? (Circle all that apply)

 $1 \dots R$ considered that it would not safe

2IWER felt it would not be safe

3....R refused or was not willing to complete the measure

4R tried but it was unable to complete the measure

97 Other (specify): _____

 \rightarrow Go To Next Measurement

INSTRUCTIONS FOR MEASURING THE UPPER ARM LENGTH:

1. Ask the R to "stretch the arm at the shoulder parallel to the floor."

2. Read the measurement on the tape. Record the measurement and record in the box below.

INTERVIEWER: If the measure is less than 100 centimeters, place a 0 in the left side of the measure. (Enter 993 if the Respondent tried but could not. Enter 999 if R chose not to do it.) Example: $0 \ge 6.9$ cm

Measurement #	Upper Arm Length Measurement
1	centimeters
2	centimeters
3	centimeters

If it should be greater than 0.5 cm difference. between the first and second measurements, perform the third.

Record the test results in the Road Project anthropometric and biomedical measurements and in the copy that will be delivered to R.

INTERVIEWER: What difficulties arose for this measure? (Circle all that apply)

1None

2R failed to make the necessary effort because of illness, pain or other symptoms or discomforts

3R did not put much effort, but not for obvious reasons

97Other (specify): _____

INTERVIEWER: What was the attitude of R when taking these measurements? (Please circle the

appropriate option)

 $1 \ \ldots \ R$ agreed enthusiastically to take the measure

 $2 \dots R$ did not agree to the complete the measure because illness, pain or other health symptoms

3R did not agreed enthusiastically, but not for obvious reasons

INTERVIEWER: Who took the measure? (Please circle the appropriate option)

1R took the measure

2IWER took the measure

INTERVIEWER: Was R wearing thick or bulky clothing when taking this measurement? (Please circle

the appropriate option)

1Yes

2No

 \rightarrow Go to the next measure

XIV. ANEMIA

Equipment and Materials

- Latex gloves
- Alcohol wipes
- HemoCue
- 4 type AA batteries
- Lancets
- Lancet device
- Gauze
- Biohazard disposal container
- HemoCue Microcuvettes
- HemoCue cleaner swab

How to get a sample

Prepare the HemoCue scanner, turn it on and open the container tray.

Wear latex gloves after the arterial blood pressure measurement.

To draw the blood, use the purple and white lancet, positioned in level 3, if you are using a pen-lancet,

set it to level 5 to achieve a deeper penetration of the lancet.

Ready the alcohol wipe, gauze and microcuvette and keep the HemoCue at hand.

Clean the finger were the lancet will be used and allow the surface to dry.

Preferably, puncture the middle finger or the ring finger of the less dominant hand of the adult.

Clean off the first drop of blood with a sterile gauze (avoid massaging the finger to avoid contaminating of the sample).

Fill the microcuvette with the second drop of blood. Wipe off excess blood from the outside of the microcuvette with gauze.

Place the microcuvette into the HemoCue and close the tray to wait for the result.

Give the adult a gauze to clean her/his finger.

Once the scanner alarm buzzes take out the sample and place it with the lancet on the biohazard disposal container.

Clean the HemoCue tray with the cleaner swab before put it away.

Record the test results in the Road Project anthropometric and biomedical measurements.

INTERVIEWER: Were there any difficulties to take the measurement?

1....Yes

2.....No

Comments:

XV. DRIED BLOOD SPOTS (DBS) PROTOCOLS

Glucose HbA1c, c- Rective Protein CRP, and Triglycerides sTG

Equipment and materials:

DBS Cards Desiccant pouches Individual ziploc bags Masking tape Lancets

HOW TO DO THE TEST

First write in DBS card the following data:

- Name of the older adult
- Prim key of the older adult (the first 14 digits correspond to the household and the 15th is the rtid of the elder)
- Date of the test
- Time of day of the test
- In the upper right corner, the number of the supervisor (S1, S2, S3, ..., etc.)..

<u>IMPORTANT</u>: This information must be written down before taking the sample to avoid the alteration of the sample when writing on it. It is very important to write down the rtid of the elder because if there is more than one elder in the household it is the only way to identify them.

1. After obtaining the sample to test anemia, the milking the finger must be from the base to the tip. Ensure that older adult's hand is below the level of the heart (if you consider that R's hands are cold, ask the older adult to rub or shake down his/her hands, which might help the blood to flow down to the fingertips).

2. Clean the first drop with a gauze and wait until the second drop is large enough to put on the card (the finger should not touch the card to avoid contamination).

3. Clean the finger and reorder the second drop (the cleaning is done to prevent clotting before obtaining the sample to the card) and so on to get the 5 samples.

4. It is very important that the samples are large enough to cover the surface of the circle without breaking the limit, because from each drop are obtained 14 tests.

5. If the sample is too small and does not cover the full circle, DO NOT FILL WITH ANOTHER DROP, just leave it as it is and do not count it as a full sample.

5.- If the adult does not have enough blood, try to get at least 3 good samples so that they can perform the tests in the laboratory. Preferably collect 5 drops.

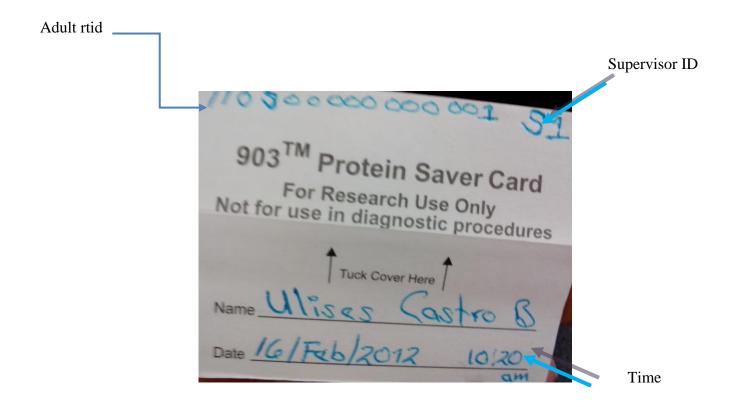
PROCEDURE TO COMPLETE THE SURVEY DOCUMENTS

CONSENT FORM FOR	Read the format as it is and explain in a way that the
SAMPLING BLOOD	Elder understands it.
	 DO NOT FORGET TO DO THE FOLLOWING: Write the full name of the older adult If authorization is obtained, collect the signature of the older adult Date Signature of Interviewer• Even if the Senior did not consent, the fields are filled, the only remaining gap is the space for the adult's signature.
BLOOD SAMPLE CARD	Write at the top of the blood sample card the ID of the adult (not the house because if there is more than one eligible adult then it's not possible to distinguish among them).
	In the corresponding lines, record the name of the elderly person, date and time. In the upper right corner write down the number of the supervisor
	NOTE: IT IS VERY IMPORTANT TO COMPLETE THE CARD INFORMATION BEFORE TAKING THE SAMPLE.
	This format is appended behind the Log Sheet Biomedical measurements and anthropometric data (copy to the Project) It is very important to read the instructions for proper filling
	inning
QUESTIONAIRE DRIED BLOOD SAMPLE TEST	 DO NOT FORGET TO MAKE THE FOLLOWING: Record date and time (AM or PM) Interviewer name and identification number Name of the elderly ID of the elder person, not only of the house (as in case of more than 1 eligible, you will not know who owns the information.) NOTE: EVEN IF CONSENT WAS NOT GRANTED THIS DATA SHEET MUST BE

PROCEDURE FOR FILLING THE SAMPLE DOCUMENTS

QUESTIONAIRE DRIED BLOOD SAMPLE TEST	SURVEY SAMPLING OF BLOOD If the Senior did not consent, circle option 2 of the first question and then only fill the box at the bottom of the page.
QUESTIONAIRE DRIED BLOOD SAMPLE TEST Glucose HbA1c, c- Rective Protein CRP, and Triglycerides sTG	If the elder gave his consent, circle option 1 of the first question and continue with the other two. NOTE: IN THIS CASE THE BOX BELOW WILL NOT BE FILLED. If there is a problem turn the sheet and, circle the options that apply to the case. Please do not mark 97 and write that there was no blood if the answer to the question on how many circles are filled you circled 5, because that is an inconsistency (probably was hard to get samples but were obtained and that is not a problem). Continue answering the questionnaire. In the question How many circles could you fill? If you got 5 drops but one of them is very small and not sufficient to obtain a sample, do not count it and write only 4 (the drop must have sufficient diameter to pass as good). Ensure that the sample does not exceed the edges of the circle.

Note: Glucose "HbA1c";C- Reactive Protein "CRP" and Triglycerides "STG" studies that were conducted were added to the samples.



"Thank you for your cooperation. This concludes the physical measures and biomarkers portion of the interview. Before we continue with the interview, I need a moment to enter a few pieces of information in the computer."

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