

## Los Angeles Family and Neighborhood Survey, Wave 2 (L.A.FANS-2)

### HEALTH MEASURES MODULE

#### Notes

Preloads for Child Health Measures Module from earlier sections include:

- Child's name
- Child's age
- Child's sex

#### Questionnaire formatting key

- **Black bold:** Question numbers
- Black normal: Interviewer to read question text
- BLACK UPPER CASE: Interviewer and programming instructions
- ***BLACK BOLD ITALIC UPPER CASE:*** Comments

## PART I. CHILD HEALTH MEASURES MODULE

### INTRODUCTION

#### L1. CAPI: CHILD'S AGE:

1. LESS THAN 2 YEARS OLD (GO TO END)
2. 2 YEARS TO LESS THAN 3 YEARS OLD (GO TO L4)
3. 3 YEARS TO LESS THAN 5 YEARS OLD (GO TO L5A)
4. 5 YEARS OR OLDER (GO TO L6)

**L4.** INTERVIEWER: IS THE CHILD ABLE TO STAND UNASSISTED? IF THIS ISN'T OBVIOUS, ASK THE PARENT WHETHER THE CHILD IS ABLE TO STAND UNASSISTED.

1. CHILD IS NOT ABLE TO STAND UNASSISTED (GO TO END)
2. CHILD IS ABLE TO STAND UNASSISTED

**L4A1.** CAPI: INTRODUCTION FOR PARENT OF CHILD AT LEAST 2 YEARS OF AGE, BUT LESS THAN 3 YEARS OF AGE.

INTERVIEWER: FIND **FORM D** AND GIVE TO RESPONDENT'S PARENT.

This sheet describes health measures for the Los Angeles Family and Neighborhood Survey Wave 2 (L.A.FANS-2) and asks you to give permission for your child [NAME] to participate. Please carefully read the information below and ask any questions you have. Participation in the study is completely voluntary. Your child's participation is very important to the study because no one else in the community is exactly like your child and we cannot use anyone else in his or her place. L.A.FANS is an on-going study, and we may contact you in the future and ask you to participate again.

By signing the attached consent form you are agreeing to let your child participate in the health measures portion of L.A.FANS-2. It will take about 20 minutes to collect the health measures. If you give permission for your child to participate, you or your child can change your mind and stop at any time.

**L4A.** CAPI: INTRODUCTION FOR PARENT OF CHILD AT LEAST 2 YEARS OF AGE, BUT LESS THAN 3 YEARS OF AGE.

INTERVIEWER: GIVE **FORM E** TO RESPONDENT'S PARENT TO SIGN.

As part of the Los Angeles Family and Neighborhood Survey we would like to measure [CHILD]'s height and weight. In a few weeks you will get a letter telling you your child's height and weight and how they compare to other children of [his / her] age group. Let me review the Information Sheet and Parental Informed Consent Form with you now. Please feel free to ask me any questions you have at any point.

**L5.** INTERVIEWER: REVIEW INFORMATION SHEET AND PARENTAL INFORMED CONSENT FORM FOR CHILDREN AT LEAST 2 YEARS OF AGE, BUT LESS THAN 3 YEARS OF AGE

DID PARENT SIGN INFORMED CONSENT FORM AGREEING TO HAVE THEIR CHILD PARTICIPATE IN HEALTH MEASURES? MARK ONE:

1. YES (GO TO L44)
5. NO (GO TO L93A)

**L5A.** CAPI: INTRODUCTION FOR PARENT AND CHILD 3 YEARS TO LESS THAN 5 YEARS OF AGE

INTERVIEWER: READ THIS INTRODUCTION TO THE PARENT AND THE CHILD TOGETHER.

Now that we have completed the first portion of the Los Angeles Family and Neighborhood Survey, I would like your permission and [CHILD]'s "okay" to collect some health measurements. This requires a separate consent

form, so let me take a few moments to describe what is involved. If you agree, today I will measure [CHILD]'s height and weight. I will also ask you to collect three samples of [CHILD]'s saliva. For the saliva, I will leave instructions and a kit to collect the samples.

IF RESPONDENT IS SELECTED FOR DBS: We will then schedule a trained health technician to come to your home at a time that is convenient for you. The technician will take a small sample of blood by pricking [his / her] finger.

In a few weeks, you will receive a letter telling you [CHILD]'s height and weight and how they compare to other children of [his / her] age group. The letter will also include the results of the other health measures and advice on what they may mean.

Let's review the Information Sheet and Parental Informed Consent Form for the child health measures. Both of you should ask me any questions you have at any point.

IF RESPONDENT IS SELECTED FOR DBS: GIVE RESPONDENT'S PARENT **FORM F**.

This sheet describes the Los Angeles Family and Neighborhood Survey (L.A.FANS-2) health measures study and asks you to give permission for your child [NAME] to participate. Please carefully read the information below and ask any questions you have. Participation in the study is completely voluntary. Your child's participation is very important to the study because no one else in the community is exactly like your child and we cannot use anyone else in his or her place.

By signing the attached consent form you are agreeing to let your child participate in the **health measures** portion of L.A.FANS-2. It will take about 30 to 45 minutes to collect the health measures and another 15 minutes to explain how you should collect one additional measure. If you give permission for your child to participate, you or your child can change your mind and stop at any time.

IF RESPONDENT IS **NOT** SELECTED FOR DBS: GIVE RESPONDENT'S PARENT **FORM G**.

This sheet describes the Los Angeles Family and Neighborhood Survey (L.A.FANS-2) health measures study and asks you to give permission for your child [NAME] to participate. Please carefully read the information below and ask any questions you have. Participation in the study is completely voluntary. Your child's participation is very important to the study because no one else in the community is exactly like your child and we cannot use anyone else in his or her place.

By signing the attached consent form you are agreeing to let your child participate in the health measures portion of L.A.FANS-2. It will take about 30 to 45 minutes to collect the health measures and another 15 minutes to explain how you should collect one additional measure. If you give permission for your child to participate, you or your child can change your mind and stop at any time.

IF RESPONDENT IS SELECTED FOR DBS: IF PARENT HAS AGREED TO ALL HEALTH MEASURES GIVE PARENT **FORM H** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF. IF PARENT HAS ONLY AGREED TO SOME OF THE HEALTH MEASURES GIVE PARENT **FORM J** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF.

IF RESPONDENT IS **NOT** SELECTED FOR DBS: IF PARENT HAS AGREED TO ALL HEALTH MEASURES GIVE PARENT **FORM I** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF. IF PARENT HAS ONLY AGREED TO SOME OF THE HEALTH MEASURES GIVE PARENT **FORM K** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF.

**L5B.** INTERVIEWER: REVIEW INFORMATION SHEET AND PARENTAL INFORMED CONSENT FORM FOR CHILDREN 3 YEARS TO LESS THAN 5 YEARS OF AGE.

DID PARENT SIGN PARENTAL INFORMED CONSENT FORM AGREEING TO HAVE THEIR CHILD PARTICIPATE IN HEALTH MEASURES? MARK ONE:

1. YES (GO TO L8)
2. YES, AGREED TO SOME HEALTH MEASURES (GO TO L8)

5. NO (GO TO L93A)

**L6. CAPI: INTRODUCTION FOR PARENT AND CHILD 5 YEARS OF AGE OR AGE OR OLDER**

INTERVIEWER: READ THIS INTRODUCTION TO THE PARENT AND THE CHILD TOGETHER.

Now that we have completed the first portion of the Los Angeles Family and Neighborhood Survey, I would like your permission and [CHILD]'s "okay" to collect some health measurements. This requires a separate consent form, so let me take a few moments to describe what is involved. If you agree, today I will measure [CHILD]'s blood pressure, height and weight, and give [CHILD] a simple breathing test. I will also ask you to collect three samples of [CHILD]'s saliva. For the saliva, I will leave instructions and a kit to collect the samples.

FOR RESPONDENTS SELECTED FOR DBS: We will then schedule a trained health technician to come to your home at a time that is convenient for you. The technician will take a small sample of blood by pricking [his / her] finger.

In a few weeks, you will receive a letter telling you [CHILD]'s height and weight and how they compare to other children of [his / her] age group. The letter will also include the results of the other health measures and advice on what they may mean.

Let's review the *Information Sheet*, *Parental Informed Consent Form*, and [IF CHILD AGE > 6 YEARS] the *Child Assent Form* for the child health measures. Both of you should ask me any questions you have at any point.

IF RESPONDENT IS SELECTED FOR DBS: GIVE RESPONDENT'S PARENT **FORM F**.

This sheet describes the Los Angeles Family and Neighborhood Survey (L.A.FANS-2) health measures study and asks you to give permission for your child [NAME] to participate. Please carefully read the information below and ask any questions you have. Participation in the study is completely voluntary. Your child's participation is very important to the study because no one else in the community is exactly like your child and we cannot use anyone else in his or her place.

By signing the attached consent form you are agreeing to let your child participate in the **health measures** portion of L.A.FANS-2. It will take about 30 to 45 minutes to collect the health measures and another 15 minutes to explain how you should collect one additional measure. If you give permission for your child to participate, you or your child can change your mind and stop at any time.

IF RESPONDENT IS **NOT** SELECTED FOR DBS: GIVE RESPONDENT'S PARENT **FORM G**.

This sheet describes the Los Angeles Family and Neighborhood Survey (L.A.FANS-2) health measures study and asks you to give permission for your child [NAME] to participate. Please carefully read the information below and ask any questions you have. Participation in the study is completely voluntary. Your child's participation is very important to the study because no one else in the community is exactly like your child and we cannot use anyone else in his or her place.

By signing the attached consent form you are agreeing to let your child participate in the health measures portion of L.A.FANS-2. It will take about 30 to 45 minutes to collect the **health measures** and another 15 minutes to explain how you should collect one additional measure. If you give permission for your child to participate, you or your child can change your mind and stop at any time.

IF RESPONDENT IS SELECTED FOR DBS: IF PARENT HAS AGREED TO ALL HEALTH MEASURES GIVE PARENT **FORM H** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF. IF PARENT HAS ONLY AGREED TO SOME OF THE HEALTH MEASURES GIVE PARENT **FORM J** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF.

IF RESPONDENT IS NOT SELECTED FOR DBS: IF PARENT HAS AGREED TO ALL HEALTH MEASURES GIVE PARENT **FORM I** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF. IF PARENT HAS ONLY AGREED TO SOME OF THE HEALTH MEASURES GIVE PARENT **FORM K** TO SIGN. GIVE ONE COPY OF THE FORM TO THE PARENT, AND KEEP ONE YOURSELF

**L7. INTERVIEWER: REVIEW INFORMATION SHEET, THE PARENTAL INFORMED CONSENT FORM, AND**

- FOR CHILDREN 7–14 YEARS, THE HEALTH MEASURES ASSENT FOR CHILDREN
- FOR CHILDREN 15 YEARS OF AGE OR OLDER, THE HEALTH MEASURES ASSENT FOR RESPONDENTS 15 YEARS OF AGE OR OLDER.

DID PARENT SIGN INFORMED CONSENT FORM AGREEING TO HAVE THE CHILD PARTICIPATE IN HEALTH MEASURES? MARK ONE:

1. YES
2. YES, AGREED TO SOME HEALTH MEASURES
5. NO (GO TO L93A)

**L6A. INTERVIEWER: GIVE RESPONDENT **FORM L**. GIVE ONE COPY OF THE FORM TO THE RESPONDENT, AND KEEP ONE FOR YOURSELF.**

Your [mother / father / other guardian] said that if you agree, you can be part of this important study to understand the health of children in your neighborhood. I would like to do a few health checks on you today:

1. I'd like to weigh you and measure how tall you are.
2. I'd like to check and see how well your heart works.
3. I'd like to ask you to blow into a machine to see how well you breathe.
4. I'd like you, with the help of your [mother / father / other guardian], to collect some of your saliva (or spit) three times tomorrow.
5. And, in a day or two, I'd like to have someone prick your finger to get a few drops of blood.

You get to decide if you want to be in the study. You can tell me yes that you want to do all these things or no that you don't. If you say yes, you can change your mind and stop at any time. Do you have any questions for me? Would you like to participate?

1. YES, CHILD ASSENTED TO HEALTH MEASURES
5. NO, CHILD DID NOT ASSENT TO HEALTH MEASURES (END INTERVIEW)

**L6B. INTERVIEWER: GIVE RESPONDENT **FORM M**. GIVE ONE COPY OF THE FORM TO THE RESPONDENT, AND KEEP ONE FOR YOURSELF.**

Your [mother / father / other guardian] said that if you agree, you can be part of this important study to understand the health of children in your neighborhood. I would like to do a few health checks on you today:

1. I'd like to weigh you and measure how tall you are.
2. I'd like to check and see how well your heart works.
3. I'd like to ask you to blow into a machine to see how well you breathe.
4. I'd like you, with the help of your [mother / father / other guardian], to collect some of your saliva (or spit) three times tomorrow.

You get to decide if you want to be in the study. You can tell me yes that you want to do all these things or no that you don't. If you say yes, you can change your mind and stop at any time. Do you have any questions for me? Would you like to participate?

- 1 YES, CHILD ASSENTED TO HEALTH MEASURES
- 5 NO, CHILD DID NOT ASSENT TO HEALTH MEASURES (END INTERVIEW)

**L6C. INTERVIEWER: GIVE RESPONDENT **FORM N** GIVE ONE COPY OF THE FORM TO THE RESPONDENT, AND KEEP ONE FOR YOURSELF.**

Your [mother / father / other guardian] has agreed to let you be part of this important study to understand the lives of children and teens in your community. I would like to do a few checks on you:

1. I'd like to weigh you and measure how tall you are.
2. I'd like to check and see how well your heart works.

3. I'd like to ask you to blow into a machine to see how well you breathe.
4. I'd like you, with the help of your [mother / father / other guardian], to collect some of your saliva (or spit) three times tomorrow.
5. And, in a day or two, I'd like to have someone prick your finger to get a few drops of blood.

You get to decide if you want to be in the study. You can tell me yes that you want to do all these things or no that you don't. If you say yes, you can change your mind and stop at any time. Do you have any questions for me? Would you like to participate?

1. YES, CHILD ASSENTED TO HEALTH MEASURES
5. NO, CHILD DID NOT ASSENT TO HEALTH MEASURES (END INTERVIEW)

**L6D. INTERVIEWER: GIVE RESPONDENT FORM O. GIVE ONE COPY OF THE FORM TO THE RESPONDENT, AND KEEP ONE FOR YOURSELF.**

Your [mother / father / other guardian] has agreed to let you be part of this important study to understand the lives of children and teens in your community. I would like to do a few checks on you:

1. I'd like to weigh you and measure how tall you are.
2. I'd like to check and see how well your heart works.
3. I'd like to ask you to blow into a machine to see how well you breathe.
4. I'd like you, with the help of your [mother / father / other guardian], to collect some of your saliva (or spit) three times tomorrow.

You get to decide if you want to be in the study. You can tell me yes that you want to do all these things or no that you don't. If you say yes, you can change your mind and stop at any time. Do you have any questions for me? Would you like to participate?

1. YES, CHILD ASSENTED TO HEALTH MEASURES
5. NO, CHILD DID NOT ASSENT TO HEALTH MEASURES (END INTERVIEW)

**L6E. INTERVIEWER: FIND AND GIVE RESPONDENT FORM P.**

Your [mother / father / other guardian] has agreed to let you be part of the health measures section of this important study called the Los Angeles Family and Neighborhood Survey Wave 2 (L.A.FANS-2). If you agree, I would like to do a few health checks on you:

1. I'd like to weigh you and measure how tall you are.
2. I'd like to check your blood pressure.
3. I'd like to ask you to blow into a machine to see how well you breathe.
4. I'd like you, with the help of your [mother / father / other guardian], to collect some of your saliva (or spit) three times tomorrow.
5. And, in the next day or two, I'd like to have a health worker prick your finger to get a few drops of blood to check for risks for future health conditions.

These health measures are fast and easy to do in your home. You get to decide if you want to be in the study. You can tell me yes that you want to do all these things or no that you don't. If you say yes, you can change your mind and stop at any time. Your participation is very important because no one else in the community is exactly like you and we cannot use anyone else in your place.

**INTERVIEWER: GIVE RESPONDENT FORM R TO SIGN. GIVE ONE COPY TO THE RESPONDENT, AND KEEP ONE FOR YOURSELF.**

**L6F. INTERVIEWER: FIND AND GIVE RESPONDENT FORM Q.**

Your [mother / father / other guardian] has agreed to let you be part of the health measures section of this important study called the Los Angeles Family and Neighborhood Survey Wave 2 (L.A.FANS-2). If you agree, I would like to do a few health checks on you:

1. I'd like to weigh you and measure how tall you are.
2. I'd like to check your blood pressure.
3. I'd like to ask you to blow into a machine to see how well you breathe.
4. I'd like you, with the help of your [mother / father / other guardian], to collect some of your saliva (or spit) three times tomorrow.

These health measures are fast and easy to do in your home. You get to decide if you want to be in the study. You can tell me yes that you want to do all these things or no that you don't. If you say yes, you can change your mind and stop at any time. Your participation is very important because no one else in the community is exactly like you and we cannot use anyone else in your place.

INTERVIEWER: GIVE RESPONDENT **FORM R** TO SIGN. GIVE ONE COPY TO THE RESPONDENT, AND KEEP ONE FOR YOURSELF.

**L8.** INTERVIEWER: DID CHILD ASSENT TO PARTICIPATING IN THE HEALTH MEASURES? MARK ONE:

1. YES, CHILD 3–6 YEARS OF AGE PROVIDED VERBAL AGREEMENT TO ALL HEALTH MEASURES
2. YES, CHILD 3–6 YEARS OF AGE PROVIDED VERBAL AGREEMENT TO SOME HEALTH MEASURES
3. YES, CHILD 7–8 YEARS OF AGE PROVIDED VERBAL ASSENT TO ALL HEALTH MEASURES
4. YES, CHILD 7–8 YEARS OF AGE PROVIDED VERBAL ASSENT TO SOME HEALTH MEASURES
6. YES, CHILD 9 YEARS OF AGE OR OLDER SIGNED THE ASSENT FORM FOR ALL HEALTH MEASURES
7. YES, CHILD 9 YEARS OF AGE OR OLDER SIGNED THE ASSENT FORM FOR SOME HEALTH MEASURES
5. NO

GO TO L93A

**L8A.** INTERVIEWER: INDICATE HEALTH MEASURES PARENT OR CHILD DECLINED ON OPT-OUT CONSENT / ASSENT FORM. IF NO HEALTH MEASURES ARE DECLINED, MARK "0"; OTHERWISE, MARK ALL THAT APPLY OF ITEMS 1–6.

0. NONE—PARENT AND CHILD AGREED TO ALL HEALTH MEASURES
1. BLOOD PRESSURE (SKIP L10–L36)
2. HEIGHT (SKIP L44–L51)
3. WEIGHT (SKIP L60–L64)
4. SALIVA (SKIP L86–L93)
5. SPIROMETRY (SKIP L65–L85)
6. DRIED BLOOD SPOT (SKIP L94–L101)

**L9.** CAPI: CHECK CHILD'S AGE.

CHILD IS LESS THAN 5 YEARS OLD (GO TO L44)  
OTHERWISE (GO TO L10)

## **BLOOD PRESSURE MEASUREMENT**

**L10. INTRODUCTION FOR CHILDREN 5 TO 17 YEARS OLD**

INTERVIEWER: READ TO PARENT AND CHILD TOGETHER. AS YOU SPEAK, ADDRESS THE CHILD.

Now I will explain the procedure for measuring your blood pressure. It is important that you remain calm and relaxed and seated for the measurements, which will take about 10 minutes. We need to find a quiet location for the measurements without any disturbances or distractions.

First, I will wrap the blood pressure cuff around your arm. Then I will start the blood pressure machine. The cuff will inflate and you will feel a little pressure on your arm. The cuff will then gradually deflate. I will inflate the cuff at least three times but no more than five times. While I am measuring your blood pressure, it is best that we not

talk. If you have any questions or concerns, I will be happy to answer them for you before or after the measurements are taken.

Before we start, you should use the bathroom if you need to. Also, you should remove any outer clothing and roll up your sleeves.

**L11. INTERVIEWER: IS SETTING APPROPRIATE (SUFFICIENTLY QUIET, CALM, AND RELAXED) FOR BLOOD PRESSURE MEASUREMENT?**

1. YES
5. NO, SPECIFY: \_\_\_\_\_ (GO TO L31C)

**L12. INTERVIEWER: OBSERVE FIRST THE RIGHT ARM, THEN THE LEFT ARM IF NEEDED, FOR CONDITIONS PREVENTING MEASUREMENT.**

- DO NOT PLACE BP CUFFS ON ARMS WITH OPEN SORES, WOUNDS, GAUZE DRESSINGS OR RASHES
- DO NOT USE ARMS WITH CASTS OR SHUNTS
- DO NOT USE ARMS THAT ARE WITHERED, SWOLLEN OR PARALYZED

ARE PREVENTING CONDITIONS PRESENT IN BOTH ARMS?

1. YES, SPECIFY: \_\_\_\_\_ (GO TO L31C)
5. NO

**L13. Do you know of any medical reasons, such as recent surgery, injury, or other health conditions why the blood pressure measurements should not be done?**

MARK "YES" ONLY IF THE PROBLEM EXISTS IN BOTH ARMS.

1. YES, SPECIFY: \_\_\_\_\_ (GO TO L31C)
5. NO

**L14. INTERVIEWER: IF OBSERVED, RECORD; OTHERWISE ASK THE CHILD: Have you had any food, coffee, caffeinated drinks, or cigarettes within the past 30 minutes?**

MARK ALL THAT APPLY

1. FOOD
2. COFFEE
3. CAFFEINATED DRINKS
4. CIGARETTES
5. NONE

**L15. Is [CHILD] currently taking any medication to lower [his / her] blood pressure?**

1. YES
5. NO

**L16. INTERVIEWER: SET UP AUTOMATIC BLOOD PRESSURE MACHINE ON A CLEAN, FLAT SURFACE CLOSE TO AN ELECTRICAL OUTLET.**

CHILD SHOULD BE SITTING QUIETLY AND RELAXED FOR FIVE MINUTES BEFORE THE FIRST MEASUREMENT IN A COMFORTABLE UPRIGHT POSITION WITH LEGS UNCROSSED AND BOTH FEET ON THE FLOOR. CHILD SHOULD BE SEATED SO THAT THE UPPER PORTION OF THE SELECTED ARM IS SUPPORTED AND THE MIDPOINT OF THE ARM IS LEVEL WITH THE HEART.

SELECT THE APPROPRIATE CUFF SIZE USING THE INDICATORS ON THE BLOOD PRESSURE CUFF.



PLACE THE CUFF ON THE SELECTED ARM SO THE BOTTOM EDGE OF THE CUFF IS 2–3 CM ABOVE THE CREASE ON THE INSIDE OF THE ELBOW. THE "ARTERY" ARROW ON THE CUFF SHOULD POINT TO THE MIDLINE OF THE CREASE. CLOTHING SHOULD NOT RESTRICT THE TOP EDGE OF THE CUFF. THE CUFF SHOULD BE SNUG BUT COMFORTABLE ENOUGH TO PLACE TWO FINGERS BETWEEN THE CUFF AND ARM. THE "INDEX" MARKING ON THE EDGE OF THE CUFF MUST FALL WITHIN THE "RANGE" MARKERS ON THE INSIDE OF THE CUFF.

**L17. INTERVIEWER: INDICATE CUFF SIZE SELECTED:**

1. PEDIATRIC CUFF
2. SMALL ADULT CUFF
3. REGULAR ADULT CUFF
4. LARGE ADULT CUFF
5. EXTRA-LARGE ADULT CUFF

**L18. INTERVIEWER: WHICH ARM SELECTED?**

1. RIGHT (GO TO L20)
2. LEFT

**L19. INTERVIEWER: REASON FOR SELECTING LEFT ARM?**

1. INJURY OR RASH
2. CAST, DRESSING, OR BANDAGE
3. PLACEMENT OF EQUIPMENT
4. OTHER, SPECIFY: \_\_\_\_\_

**L20. INTERVIEWER: HAS CHILD RESTED FOR AT LEAST FIVE MINUTES?**

1. YES
5. NO

**L21. INTERVIEWER: PERFORM FIRST BLOOD PRESSURE READING AND INDICATE OUTCOME.**

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO L23)
3. REFUSED (GO TO L31C)

**L22. INTERVIEWER: ENTER FIRST BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L22A. INTERVIEWER: RE-ENTER FIRST BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L23. INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM SECOND BLOOD PRESSURE READING AND INDICATE OUTCOME.**

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO L25)
3. REFUSED (GO TO L31B)

**L24. INTERVIEWER: ENTER SECOND BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L24A.** INTERVIEWER: RE-ENTER SECOND BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L25.** INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM THIRD BLOOD PRESSURE READING AND INDICATE OUTCOME.

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO L27)
3. REFUSED (GO TO L31B)

**L26.** INTERVIEWER: ENTER THIRD BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L26A.** INTERVIEWER: RE-ENTER THIRD BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L27.** CAPI: HAVE THREE BLOOD PRESSURE READINGS BEEN SUCCESSFULLY OBTAINED?

1. YES (GO TO L31B)
5. NO

**L28.** INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM FOURTH BLOOD PRESSURE READING AND INDICATE OUTCOME.

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO L29)
3. REFUSED (GO TO L31B)

**L28A.** INTERVIEWER: ENTER FOURTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L28B.** INTERVIEWER: RE-ENTER FOURTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L29.** CAPI: HAVE THREE BLOOD PRESSURE READINGS BEEN SUCCESSFULLY OBTAINED?

1. YES (GO TO L31B)
2. NO

**L30.** INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM FIFTH BLOOD PRESSURE READING AND INDICATE OUTCOME.

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO L31B)
3. REFUSED (GO TO L31B)

**L31.** INTERVIEWER: ENTER FIFTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L31A.** INTERVIEWER: RE-ENTER FIFTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**L31B.** CAPI: CHECK WHETHER AT LEAST ONE BLOOD PRESSURE READING OBTAINED.

1. YES (GO TO L32A)
5. NO

**L31C.** INTERVIEWER: REASON NO BLOOD PRESSURE MEASUREMENTS OBTAINED? MARK ALL THAT APPLY:

1. CHILD UNABLE TO HOLD STILL OR TOO AGITATED TO MEASURE
2. PARENT REFUSES TO HAVE CHILD MEASURED
3. CHILD REFUSES TO BE MEASURED
4. WITHERED ARMS, INJURY, RECENT SURGERY, DRESSING, RASH (ON BOTH ARMS)
6. FIVE FAILED ATTEMPTS TO INFLATE CUFF
7. NO APPROPRIATE SETTING FOR MEASUREMENT
8. EQUIPMENT FAILURE
5. OTHER, SPECIFY: \_\_\_\_\_

GO TO L44

**L32A.** CAPI: CHECK WHETHER ANY "MISSED" READINGS (RESPONSE="2") IN L21, L23, L25, L28, & L30.

1. YES
5. NO (GO TO L32C)

**L32B.** INTERVIEWER: INDICATE REASONS FOR MISSED READINGS. MARK ALL THAT APPLY:

1. CHILD UNABLE TO HOLD STILL OR TOO AGITATED TO MEASURE
2. INTERRUPTION
3. EQUIPMENT FAILURE
4. OTHER, SPECIFY: \_\_\_\_\_

**L32C.** CAPI: CHECK WHETHER ANY "REFUSED" READINGS (RESPONSE="3") IN L21, L23, L25, L28, & L30.

1. YES
5. NO (GO TO L32E)

**L32D.** INTERVIEWER: INDICATE REASONS FOR REFUSAL OF BLOOD PRESSURE READINGS. MARK ALL THAT APPLY:

1. CHILD UNABLE TO HOLD STILL OR TOO AGITATED TO MEASURE

2. PARENT REFUSES TO HAVE CHILD MEASURED
3. CHILD REFUSES TO BE MEASURED
4. OTHER, SPECIFY: \_\_\_\_\_

**L32E.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF CHILD THAT AFFECTED BLOOD PRESSURE MEASUREMENT.

\_\_\_\_\_

**L32F.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR OTHER PROBLEMS MEASURING CHILD'S BLOOD PRESSURE.

\_\_\_\_\_ (GO TO L44)

## **CHILD'S HEIGHT MEASUREMENT**

**L44.** Now I'm going to measure your height. I would like you to stand with your back against a wall and I will use a triangle and a measuring tape to see how tall you are.

INTERVIEWER: FIND A SECTION OF BLANK, FLAT WALL AGAINST WHICH THE CHILD CAN STAND. THE CHILD SHOULD NOT STAND ON RUGS OR CARPETING. BE SURE TO HAVE ADEQUATE LIGHTING OR HAVE A FLASHLIGHT HANDY.

ASK THE PARENT OR CHILD TO REMOVE CHILD'S SHOES, HAT, HAIR ORNAMENTS, AND ANY HEAVY OUTER GARMENTS. WITH PARENT'S HELP, IF NECESSARY, POSITION CHILD WITH HIS / HER BACK AGAINST THE WALL. SOME COMBINATION OF THE HEAD, SHOULDERS, BUTTOCKS, AND HEELS WILL TOUCH THE WALL DEPENDING ON THE CHILD'S AGE. MAKE SURE CHILD'S LINE OF SIGHT (FRANKFORT PLANE) IS LEVEL WITH THE GROUND. PLACE A 'POST-IT' NOTE ON THE WALL AT THE TOP OF THE CHILD'S HEAD APPROXIMATELY WHERE YOU WILL BE MARKING THE HEIGHT. ASK CHILD TO STAND TALL AND TAKE A DEEP BREATH.

PLACE THE CARPENTER'S SQUARE SO THAT THE TWO SIDES THAT FORM THE RIGHT ANGLE ARE FLAT: (1) ALONG THE WALL AND (2) RESTING ON TOP OF THE HEAD. MARK THE CHILD'S HEIGHT ON THE 'POST-IT' NOTE AND LET THE CHILD STEP AWAY.

MEASURE THE CHILD'S HEIGHT TO THE NEAREST MILLIMETER.

**L45.** INTERVIEWER: SUCCESSFULLY ABLE TO MEASURE CHILD'S HEIGHT?

1. YES (GO TO L47)
2. NO

**L46.** INTERVIEWER: SELECT ALL REASONS WHY UNABLE TO MEASURE CHILD'S HEIGHT. MARK ALL THAT APPLY.

1. CHILD REFUSES TO BE MEASURED
2. CHILD UNABLE TO HOLD STILL OR TOO AGITATED TO MEASURE
3. PARENT REFUSES TO HAVE CHILD MEASURED
4. PARENT OR OTHER ADULT UNABLE OR REFUSES TO ASSIST WITH MEASUREMENT
5. UNSUITABLE SURFACE FOR SETTING UP THE MEASURING BOARD
6. UNABLE TO POSITION CHILD ACCORDING TO PROTOCOL
7. EQUIPMENT FAILURE
8. OTHER, SPECIFY: \_\_\_\_\_

GO TO L33C

**L47.** INTERVIEWER: ENTER CHILD'S HEIGHT IN MILLIMETERS.

\_\_\_ \_\_\_ \_\_\_ MM

**L47A.** INTERVIEWER: RE-ENTER CHILD'S HEIGHT IN MILLIMETERS.

\_\_\_ \_\_\_ \_\_\_ MM

**L48.** INTERVIEWER: IS AN ADJUSTMENT TO THE RECORDED HEIGHT NECESSARY DUE TO CHILD'S HAIR OR SHOES?

- 1. YES
- 5. NO (GO TO L50)

**L49.** INTERVIEWER: USE THE MEASURING TAPE TO MEASURE THE HEIGHT OF THE CHILD'S HAIR AND / OR SHOES.

ENTER THE HEIGHT OF THE CHILD'S HAIR AND / OR SHOES IN MILLIMETERS.

\_\_\_ \_\_\_ \_\_\_ MM ABOVE THE HEAD ADJUSTMENTS (SUCH AS FOR HAIR)  
 \_\_\_ \_\_\_ \_\_\_ MM BELOW THE FEET ADJUSTMENTS (SUCH AS FOR SHOES)

**L49A.** INTERVIEWER: RE-ENTER THE HEIGHT OF THE CHILD'S HAIR AND / OR SHOES IN MILLIMETERS.

\_\_\_ \_\_\_ \_\_\_ MM ABOVE THE HEAD ADJUSTMENTS (SUCH AS FOR HAIR)  
 \_\_\_ \_\_\_ \_\_\_ MM BELOW THE FEET ADJUSTMENTS (SUCH AS FOR SHOES)

**L49B.** CAPI: CALCULATE CHILD'S ADJUSTED HEIGHT AND CHECK THAT ADJUSTED HEIGHT IS WITHIN THE APPROPRIATE RANGE SPECIFIED IN THE "HEIGHT" TABLE AT THE END OF THE DOCUMENT. IF OUTSIDE OF THE APPROPRIATE RANGE, USE A SOFT-CHECK TO INFORM THE INTERVIEWER AND HAVE THEM DOUBLE-CHECK THEIR ENTRY OF CHILD'S HEIGHT AS WELL AS THEIR ABOVE-HEAD AND BELOW-FEET ADJUSTMENTS.

**L50.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF CHILD THAT AFFECTED CHILD HEIGHT MEASUREMENT.

\_\_\_\_\_

**L51.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS WITH OBTAINING CHILD HEIGHT MEASUREMENT.

\_\_\_\_\_ (GO TO L33C)

## **ASSESSMENT OF CHILD'S BLOOD PRESSURE**

**L33C.** CAPI: ONE OR MORE BLOOD PRESSURE READINGS OBTAINED (I.E., L31B=1)? IF NOT, GO TO L60.

USE THE FOLLOWING VALUES OF THE SYSTOLIC BLOOD PRESSURE (SBP) AND DIASTOLIC BLOOD PRESSURE (DBP) READINGS TO DETERMINE WHETHER THE CHILD'S BLOOD PRESSURE READING IS VERY HIGH.

IF **THREE** BLOOD PRESSURE READINGS WERE OBTAINED, USE THE SECOND AND THIRD MEASUREMENTS TO CALCULATE AVERAGES FOR SBP AND DBP.

$$\text{SBP AVERAGE} = (\text{SECOND SBP READING} + \text{THIRD SBP READING}) / 2$$

$$\text{DBP AVERAGE} = (\text{SECOND DBP READING} + \text{THIRD DBP READING}) / 2$$

IF **TWO** BLOOD PRESSURE READINGS WERE OBTAINED, USE THE VALUES OF SBP AND DBP FROM THE **SECOND** MEASUREMENT AS THE SBP AVERAGE AND DBP AVERAGE.

IF **ONE** BLOOD PRESSURE READING WAS OBTAINED, USE THOSE VALUES OF SBP AND DBP AS THE SBP AVERAGE AND THE DBP AVERAGE.

1. AVERAGE SBP (ASBP): \_\_\_ \_\_\_ \_\_\_

2. AVERAGE DBP (ADBP): \_\_\_ \_\_\_ \_\_\_

**L33D.** CAPI: OBTAIN CUT-OFF VALUE FOR VERY HIGH SBP AND VERY HIGH DBP FROM LOOK-UP TABLE BASED ON THE CHILD'S AGE, SEX, AND HEIGHT:

1. VERY HIGH SBP (VHSBP): \_\_\_ \_\_\_ \_\_\_

2. VERY HIGH DBP (VHDBP): \_\_\_ \_\_\_ \_\_\_

**L33E.** CAPI: DETERMINE WHETHER CHILD'S BLOOD PRESSURE READINGS ARE VERY HIGH BASED ON CHILD'S AVERAGE SBP (ASBP) AND AVERAGE DBP (ADBP) FROM L33C AND CUT-OFFS FOR VERY HIGH SBP (VHSBP) AND VERY HIGH DBP VALUES (VHDBP) FROM L33D.

1. ASBP  $\geq$  VHSBP

2. ADBP  $\geq$  VHDBP

3. ASBP < VHSBP **AND** ADBP < VHDBP (GO TO L60)

**L33F.** TYPE OF BLOOD PRESSURE MEASUREMENT: [AVERAGE OF 2nd AND 3rd READING / SINGLE MEASUREMENT]

THE CHILD'S BLOOD PRESSURE READING IS VERY HIGH. FOLLOW THESE STEPS:

1. STOP THE HEALTH MEASURES COLLECTION. DO NOT PERFORM ANY ADDITIONAL HEALTH MEASURES.
2. REMAIN CALM. DO NOT ALARM THE PARENT OR CHILD. TELL THE PARENT THAT THE BLOOD PRESSURE READING IS VERY HIGH.
3. COMPLETE THE REPORT OF VERY HIGH BLOOD PRESSURE FORM. READ IT ALOUD TO THE PARENT. BOTH YOU AND THE PARENT MUST SIGN THE FORM. GIVE ONE COPY TO THE PARENT.
4. IF THE CHILD DOES NOT HAVE A USUAL SOURCE OF HEALTH CARE, SHOW THE REFERRAL INFORMATION SHEET, WHICH IS IN THE PACKET OF INFORMATION YOU PROVIDED. REVIEW THE SHEET WITH THE PARENT TO HELP HIM / HER FIND THE NEAREST (A) PLACE TO GET MEDICAL CARE, (B) EMERGENCY ROOM, OR (C) URGENT CARE CLINIC. HELP THE PARENT FIGURE OUT HOW TO GET THERE.

IF THE PARENT DECIDES TO CALL 911, REMAIN WITH THE CHILD AND PARENT UNTIL MEDICAL PERSONNEL ARRIVE. DURING THAT TIME PROMOTE A CALM AND QUIET ENVIRONMENT.

INTERVIEWER: YOU MUST NOT DRIVE THE PARENT OR CHILD ANYWHERE.

YOU MUST CALL THE PARENT THE NEXT DAY TO SEE IF ANY ACTION WAS TAKEN. IF NO ACTION TAKEN, YOU SHOULD ENCOURAGE THE PARENT TO DO SO.

GO TO L93A

## **CHILD'S WEIGHT MEASUREMENT**

**L60.** Now I'm going to measure [CHILD]'s weight.

INTERVIEWER: PUT SCALE ON HARD, FLAT SURFACE. SET THE SCALE TO ZERO.

ASK PARENT OR CHILD TO REMOVE CHILD'S SHOES AND ANY HEAVY OUTER GARMENTS (COAT, JACKET, SWEATER, ETC.) AND BLANKETS. ASK PARENT OR CHILD TO REMOVE ANY ITEMS FROM CHILD'S HANDS AND POCKETS. ASK CHILD TO STEP ON SCALE.

OBTAIN WEIGHT OF CHILD IN KILOGRAMS.

**L61.** INTERVIEWER: SUCCESSFULLY ABLE TO MEASURE CHILD'S WEIGHT?

1. YES

5. NO (GO TO L62)

**L61A.** INTERVIEWER: ENTER WEIGHT OF CHILD IN KILOGRAMS.

\_\_\_ . \_\_\_ KG

**L61B.** INTERVIEWER: RE-ENTER WEIGHT OF CHILD IN KILOGRAMS.

\_\_\_ . \_\_\_ KG (GO TO L63)

**L62.** INTERVIEWER: SELECT ALL REASONS WHY UNABLE TO MEASURE CHILD'S WEIGHT. MARK ALL THAT APPLY:

1. CHILD REFUSES TO BE WEIGHED
2. CHILD UNABLE TO HOLD STILL OR TOO AGITATED TO WEIGH
3. PARENT REFUSES TO HAVE CHILD WEIGHED
4. UNSUITABLE SURFACE FOR SETTING UP THE SCALE
5. SCALE INSUFFICIENT FOR CHILD WEIGHT
6. EQUIPMENT FAILURE
7. OTHER, SPECIFY: \_\_\_\_\_

GO TO L65

**L63.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF CHILD THAT AFFECTED WEIGHT MEASUREMENT. MARK ALL THAT APPLY:

0. NONE
1. CHILD WEARING SHOES
2. CHILD WEARING HEAVY CLOTHING
3. CHILD HAD ITEMS IN HANDS OR IN POCKETS
4. OTHER, SPECIFY: \_\_\_\_\_

**L64.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS WITH OBTAINING WEIGHT MEASUREMENT.

\_\_\_\_\_

## **SPIROMETRY MEASUREMENT**

**L65.** CAPI: VERIFY CHILD'S AGE

1. LESS THAN 5 YEARS OLD (GO TO L86)
2. 5 YEARS OF AGE OR OLDER

**L65A.** CAPI: AGE AND SEX OF CHILD.

1. FEMALE, 12 YEARS OF AGE OR OLDER
2. FEMALE LESS THAN 12 YEARS OF AGE (GO TO L66)
3. MALE (GO TO L66)

**L65B.** INTERVIEWER: IS CHILD IS VISIBLY PREGNANT?

1. YES
5. NO (GO TO L66)

**L65C.** Are you in the third trimester of your pregnancy? That is, are you at least 7 months pregnant?

1. YES (GO TO L86)
5. NO

**L66.** Before beginning the next procedure, I have a few questions. Has [CHILD] had any surgery on [his / her] chest or abdomen in the past three weeks?

- 1. YES (GO TO L86)
- 5. NO

**L67.** Has [CHILD] been hospitalized for a heart problem in the past 6 weeks?

- 1. YES (GO TO L86)
- 5. NO

**L68.** Now I'm going to measure your lung function by having you blow into this meter. First, I will explain the procedure.

This is called a spirometer. It measures how quickly you can blow out. You do this by taking a deep breath and then blowing out through the device as hard and as fast as possible until you have no more breath left.

Before we begin, you should loosen any tight clothing. You should stand comfortably with your feet flat on the floor, back straight, and with a non-rolling chair or firm surface behind you. You should first put this clip on your nose and then take a deep breath of air as far as you can breathe in.

Without pausing, you should put the mouthpiece in your mouth and seal your lips tightly around it, with your chin slightly lifted and your neck stretched. Put the mouthpiece between your teeth and seal your mouth around the tube, not allowing any air to leak out the sides.

Then, you should blast out the air as hard and fast as you can! You should keep on blowing out the same breath of air until I say "stop."

**L69.** I have a few more questions before we get started. Is [CHILD] using any respiratory medications such as bronchodilators (inhaler or puffer) or steroids?

- 1. YES
- 5. NO (GO TO L71)

**L70.** Has [CHILD] used an inhaler or puffer in the last hour?

- 1. YES (INTERVIEWER: IF POSSIBLE, DELAY SPIROMETRY UNTIL ONE HOUR AFTER THE LAST INHALER USE)
- 5. NO

**L71.** Has [CHILD] eaten a heavy meal in the last hour?

- 1. YES (INTERVIEWER: IF POSSIBLE, DELAY SPIROMETRY UNTIL ONE HOUR AFTER THE LAST HEAVY MEAL)
- 5. NO

**L72.** Has [CHILD] had a cough, cold, or other illness in the past few days?

- 1. YES
- 5. NO

**L73.** Has [CHILD] had a respiratory infection (such as the flu, pneumonia, bronchitis, or a severe cold) in the past 3 weeks?

- 1. YES
- 5. NO

**L74.** Is [CHILD] currently being treated for tuberculosis?



1. YES
5. NO

**L75.** Let me now demonstrate how the breathing measurement is done using my own mouthpiece and then I'll give you a new one.

INTERVIEWER: DEMONSTRATE HOW TO USE THE MOUTHPIECE. USE YOUR OWN MOUTHPIECE, STAND STRAIGHT WITH A FIRM SURFACE BEHIND YOU, TAKE A DEEP BREATH, BLAST IT OUT, AND DO NOT LEAN.

INTERVIEWER: ALLOW CHILD TO WALK THROUGH THE PROCEDURE. OPEN A NEW MOUTHPIECE AND HAVE THE CHILD GET COMFORTABLE WITH PUTTING HIS / HER MOUTH AROUND IT. HAVE THE CHILD HOLD THE SPIROMETER (WITHOUT THE MOUTHPIECE IN IT).

**L76.** (INTERVIEWER: IF YOU ARE USING THE SPIROMETER FOR THE FIRST TIME TODAY, MAKE SURE TO CHECK SETTINGS AS SPECIFIED IN THE PROTOCOL.)

ENTER THE FOLLOWING INTO THE SPIROMETER:

- THE CHILD'S CASE ID NUMBER
- THE CHILD'S DATE OF BIRTH
- THE CHILD'S HEIGHT (ENTER "150" FOR ALL RESPONDENTS)

FOR ALL OTHER ITEMS, SELECT THE DEFAULT VALUES.

REVIEW THE INFORMATION YOU HAVE ENTERED TO MAKE SURE THERE ARE NO MISTAKES.

Now please stand up and, whenever you are ready, take as deep a breath as you can until it feels like you cannot get any more air into your lungs. Place your mouth around the mouthpiece with your lips tightly sealed, and then breathe out as hard, as fast, and as long as you can. I want you to make the air "BLAST" out of your lungs. Keep breathing out until I tell you to stop.

**L77.** INTERVIEWER: PERFORM FIRST SPIROMETERY MEASUREMENT AND MARK THE RESULT

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L78.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT.

Now for the next one. Remember, take as deep a breath as you can, place your mouth around the mouthpiece, seal your lips around it, and then breathe out as hard, as fast, and as long as you can. Make the air "BLAST" out of your lungs. Keep breathing out until I tell you to stop.

INTERVIEWER: PERFORM SECOND SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L79.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM THIRD SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO L84)
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L80.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM FOURTH SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO L84)
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L81.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM FIFTH SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO L84)
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L82.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM SIXTH SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO L84)
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L83.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM SEVENTH SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO L84)
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L83A.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM EIGHTH SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO L84)
9. CHILD OR PARENT REFUSED (GO TO L83B)

**L83B.** INTERVIEWER: INDICATE REASON FOR MEASUREMENT INCOMPLETE, UNSATISFACTORY, OR NOT DONE. MARK ALL THAT APPLY:

1. CHILD UNABLE / UNWILLING TO UNDERSTAND OR FOLLOW TEST INSTRUCTIONS
2. PARENT REFUSES TO HAVE CHILD PERFORM SPIROMETRY
3. CHILD REFUSED TO PERFORM SPIROMETRY
4. EQUIPMENT FAILURE
5. COUGHS DETECTED
6. EARLY TERMINATION OF EXPIRATION, INSUFFICIENT EFFORT
7. ACUTE ILLNESS (FLU, PNEUMONIA, ETC.)
8. COPD (SEVERE BRONCHITIS, EMPHYSEMA, ASTHMA)
9. ATE HEAVY MEAL
10. INSUFFICIENT TIME AVAILABLE
11. NO APPROPRIATE SETTING FOR CONDUCTING SPIROMETRY
12. CHILD MEDICALLY EXCLUDED FOR SAFETY
13. OTHER, SPECIFY: \_\_\_\_\_

GO TO L86

**L84.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF CHILD THAT AFFECTED SPIROMETRY.

\_\_\_\_\_

**L85.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS PERFORMING SPIROMETRY.

\_\_\_\_\_

TURN THE SPIROMETER OFF.

## **SALIVA COLLECTION GUIDELINES**

**L86.** CAPI: CHECK CHILD'S AGE.

1. CHILD IS LESS THAN 3 YEARS OLD (GO TO L93A)
3. CHILD IS AGE 3 OR OLDER (GO TO L87)

**L87.** Now I will explain the procedure for collection [CHILD]'s saliva.

We would like you to collect saliva at three different times during the same day. We would like you to do this tomorrow. If this isn't possible or convenient, then you can wait until the first day when you can do all three collections on the same day.

The first collection time is as soon as [CHILD] wakes up. The second collection time is 30 minutes after you start the first one. The third collection time is at [CHILD'S] bedtime.

I am going to give you a kit with all the supplies you need to collect the saliva. The kit has [CHILD]'s name on it and includes three collection tubes. Each collection tube is labeled and contains two sponge pops like this

[INTERVIEWER: SHOW SPONGE POP]. The sponge pop will soak up saliva in the mouth. It is a thin triangular-shaped sponge fixed to the end of a stick, like a small lollipop. Two of these sponge pops should be saturated with [CHILD]'s saliva at each collection time.

I'm going to leave you information that describes the entire process in greater detail. It will explain how to write the collection time on labels, how to store samples in the refrigerator, and how to mail the saliva samples. I will also give you a phone number to call if you have any questions after I leave.

Let me review the written instructions and the Quick Reference Guide with you now. Please feel free to ask me any questions you have at any point.

**L88.** REVIEW THE SALIVA COLLECTION INFORMATION SHEET WITH THE PARENT.

INTERVIEWER: DID THE PARENT AGREE TO COLLECT CHILD'S SALIVA SAMPLES?

1. YES (GO TO L88A)
5. NO (GO TO L89)

**L88A.** INTERVIEWER: ENTER BARCODE NUMBER.

\_\_\_\_\_

RE-ENTER BARCODE NUMBER.

\_\_\_\_\_

**L88B.** INTERVIEWER: ENTER FEDERAL EXPRESS TRACKING NUMBER.  
\_\_\_\_\_ (GO TO L90)

**L89.** INTERVIEWER: LIST ALL REASONS WHY PARENT REFUSED TO COLLECT CHILD'S SALIVA SAMPLES

\_\_\_\_\_ (GO TO L93A)

## **CHILD'S HEALTH STATUS AS OBSERVED BY INTERVIEWER**

**L93A.** INTERVIEWER: BASED ON YOUR OBSERVATION OF THIS CHILD, HOW DOES [HIS / HER] HEALTH COMPARE, IN GENERAL, TO THE HEALTH STATUS OF OTHER CHILDREN OF THE SAME AGE AND SEX?

RECORD YOUR OWN OPINION BASED ON YOUR OBSERVATION

MARK SCORE ON THE FOLLOWING SCALE:

1. MUCH WORSE
- 2.
3. WORSE
- 4.
5. ABOUT THE SAME
- 6.
7. BETTER
- 8.
9. MUCH BETTER

## **DRIED BLOOD SPOT COLLECTION VISIT**

**L94.** CAPI: SEE L8A TO DETERMINE IF CHILD OR PARENT OPTED-OUT OF THE DBS COLLECTION OR IS INELIGIBLE BASED ON CHILD'S AGE.

1. CHILD / PARENT OPTED-OUT OF DBS COLLECTION (GO TO L102)
2. CHILD / PARENT DID NOT OPT-OUT

3. CHILD IS LESS THAN 3 YEARS OF AGE (GO TO L102)

**L94A.** In addition to the health measures we have completed today, we would like to schedule a health technician to visit your home to collect a blood sample from your child. The visit will take about 30 minutes. The health technician will prick a finger and catch drops of blood on special pieces of filter paper. The blood will be tested for the risk of heart disease, blood sugar levels. First, I have some questions for you.

**L94B.** Does [CHILD] have hemophilia or any other type of blood disorder that may affect [his / her] blood's ability to clot?

- 1. YES (GO TO L94D)
- 5. NO

**L94C.** Has [CHILD] had chemotherapy treatments within the past 4 weeks?

- 1. YES
- 5. NO (GO TO L94E)

**L94D.** I'm sorry, but it seems [CHILD] is not eligible to take part in the blood sample portion of the study.

INTERVIEWER: IF CHILD HAS PARTICIPATED IN ALL OTHER PARTS OF THE HEALTH MEASURES, PAY THE \$35 INCENTIVE AND GET A SIGNED RECEIPT.

GO TO L102

**L94E.** Can we schedule a health technician to come to your home?

- 1. YES (GO TO L94E)
- 2. NO, NOT READY TO COMMIT TO BLOOD SAMPLE (GO TO L101)
- 3. NO, NOT INTERESTED IN BLOOD SAMPLE (GO TO L101)
- 4. NO, DUE TO MEDICAL CONDITION, SPECIFY: \_\_\_\_\_ (GO TO L101)

**L94E1.** When would be the best time to schedule an appointment for the health technician to visit your home to collect a blood sample?

DATE \_\_\_\_\_ TIME \_\_\_\_\_

**L95.** To schedule the visit I need some additional information from you. [CONFIRM FULL NAME OF PARENT AND CHILD OR ASK IF UNKNOWN: Can I have your full name?]

PARENT'S NAME: \_\_\_\_\_  
first middle last

CHILD'S NAME: \_\_\_\_\_  
first middle last

[CONFIRM FULL ADDRESS / EDIT AS NEEDED]

ADDRESS: \_\_\_\_\_  
Street Apt. City State ZIP

What is the nearest cross-street to your address?

ENTER CROSS-STREET: \_\_\_\_\_ AND \_\_\_\_\_

**L96.** What is the best telephone number for the health technician to call to reach you and set up an appointment time?

ENTER BEST TELEPHONE NUMBER: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

INDICATE TYPE:

1. HOME
2. WORK
3. CELL PHONE

**L96A.** And what would be the best time to reach you at this number?

ENTER BEST TIME TO CALL THIS NUMBER: \_\_\_\_\_

**L97.** Is there another telephone number where you can be reached if needed?

1. YES
2. NO (GO TO L98)

**L97A.** What is the second telephone number?

ENTER SECOND TELEPHONE NUMBER: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

INDICATE TYPE:

1. HOME
2. WORK
3. CELL PHONE

**L97B.** And what would be the best time to reach you at that number?

ENTER BEST TIME TO CALL THIS NUMBER: \_\_\_\_\_

**L98.** To arrange for a health technician to contact you I need to make a toll-free call.

INTERVIEWER: CALL 888-777-3674. BETWEEN 5 A.M. AND 5 P.M., MONDAY-FRIDAY, AN OPERATOR WILL ANSWER. AT ALL OTHER TIMES YOU WILL GET AN ANSWERING MACHINE. ASK TO USE THE RESPONDENT'S PHONE; OTHERWISE, USE YOUR CELL PHONE.

**L99.** TELL EMSI OPERATOR YOU ARE CALLING FROM L.A.FANS. PROVIDE FOLLOWING INFORMATION TO EMSI OPERATOR.

PARTICIPANT CASE ID: [CASEID]  
CHILD FIRST AND LAST NAME: [CHILD FULL NAME]  
CHILD'S DATE OF BIRTH: [CHILD DOB]  
PARENT NAME: [PARENT'S NAME]  
ADDRESS AND NEAREST CROSS-STREETS: [ADDRESS]  
BEST TELEPHONE NUMBER AND TYPE: [BEST PHONE #, TYPE]  
BEST TIME TO CALL THIS NUMBER: [L96A ANSWER]  
SECOND TELEPHONE NUMBER AND TYPE: [SECOND PHONE #, TYPE]  
BEST TIME TO CALL THIS NUMBER: [L97A1 ANSWER]  
PREFERRED APPOINTMENT TIME: [L94E1 ANSWER]  
IF A SPANISH SPEAKING EXAMINER IS REQUIRED

INTERVIEWER: REMEMBER TO ASK EMSI OPERATOR FOR THEIR NAME, AND TO RECORD THIS IN THE ROC ALONG WITH THE TIME THE CALL WAS PLACED TO EMSI. IF YOU ARE SCHEDULED TO RETURN TO THE HOME, ASK THE EMSI OPERATOR TO SCHEDULE A HEALTH TECHNICIAN TO COME AT THE SAME TIME YOU WILL BE THERE.

**L100.** The health technician who will be making the visit will soon contact you to schedule an appointment. If your home is hard to find, this would be a good time to let the health technician know how to easily find your home.

**L101.** INTERVIEWER: INDICATE THE STATUS OF THE BLOOD COLLECTION

1. R AGREEABLE – CALL PLACED TO EMSI
2. R AGREEABLE – NO CALL PLACED TO EMSI (NO PHONE / UNABLE TO REACH EMSI)
3. MILD RESISTANCE TO FINGER STICK (GOOD POSSIBILITY FOR CONVERSION)
4. FIRM REFUSAL TO FINGER STICK
5. R DECLINES FINGER STICK DUE TO MEDICAL CONDITION

**L102.** That concludes our activities for today. Thank you for participating in the health measures study (IF APPLICABLE: and agreeing to have the health technician return to collect a blood sample).

## PART II. ADULT HEALTH MEASURES MODULE

### INTRODUCTION

**P1.** Now that you've completed the interview portion of L.A.FANS, I would like your permission to collect some health measurements. This requires a separate consent form, so let me take a few moments to describe what is involved.

If you agree, today I will check your blood pressure and measure your height, weight, and the circumference of your waist and hips. I can measure your waist and hips for you or, if you prefer, I can show you how to do it yourself. I will also give you a simple breathing test.

FOR RESPONDENTS SELECTED FOR DBS: We will then schedule a trained health technician to come to your home at a time that is convenient for you. The technician will take a small sample of blood by pricking your finger.

In 4–6 weeks, you will get a letter giving you the results of the health measures and information on what they may mean.

Let's review the *Health Measures Informed Consent Form* together. Please feel free to ask me any questions you have at any point.

FOR RESPONDENTS SELECTED FOR DBS: GIVE RESPONDENT **FORM T**.

This sheet describes the Los Angeles Family and Neighborhood Survey Wave 2 (L.A.FANS-2) health measures and asks you to participate. Please carefully read the information below and ask any questions you have. Participation in the study is completely voluntary. Your participation is very important to the study because no one else in the community is exactly like you and we cannot use anyone else in your place.

By signing the attached consent form you are agreeing to participate in the L.A.FANS-2 health measures. It will take about 30 to 45 minutes to collect the health measures. If you agree to participate, you can change your mind and stop at any time.

INTERVIEWER: IF RESPONDENT AGREES TO ALL HEALTH MEASURES GIVE RESPONDENT **FORM V** TO SIGN. GIVE RESPONDENT ONE COPY OF THE FORM, AND KEEP ONE COPY FOR YOURSELF.

IF RESPONDENT ONLY AGREES TO SOME OF THE HEALTH MEASURES GIVE RESPONDENT **FORM X** TO SIGN. GIVE RESPONDENT ONE COPY OF THE FORM, AND KEEP ONE COPY FOR YOURSELF.

FOR RESPONDENTS NOT SELECTED FOR DBS: GIVE RESPONDENT **FORM U**.

This sheet describes the Los Angeles Family and Neighborhood Survey Wave 2 (L.A.FANS-2) health measures and asks you to participate. Please carefully read the information below and ask any questions you have. Participation in the study is completely voluntary. Your participation is very important to the study because no one else in the community is exactly like you and we cannot use anyone else in your place.

By signing the attached consent form you are agreeing to participate in the L.A.FANS-2 health measures. It will take about 30 to 45 minutes to collect the health measures. If you agree to participate, you can change your mind and stop at any time.

INTERVIEWER: GIVE RESPONDENT **FORM W** TO SIGN. GIVE RESPONDENT ONE COPY OF THE FORM, AND KEEP ONE COPY FOR YOURSELF.

IF RESPONDENT ONLY AGREES TO SOME OF THE HEALTH MEASURES GIVE RESPONDENT **FORM Y** TO SIGN. GIVE RESPONDENT ONE COPY OF THE FORM, AND KEEP ONE COPY FOR YOURSELF.

**P2.** INTERVIEWER: REVIEW HEALTH MEASURES INFORMED CONSENT FORM WITH RESPONDENT. DID RESPONDENT SIGN HEALTH MEASURES INFORMED CONSENT FORM AGREEING TO PARTICIPATE IN HEALTH MEASURES? MARK ONE:



1. YES, AGREED TO ALL HEALTH MEASURES (GO TO P3)
2. YES, AGREED TO SOME HEALTH MEASURES (GO TO P2A)
5. NO (GO TO P79)

**P2A. INTERVIEWER: INDICATE HEALTH MEASURES RESPONDENT DECLINED ON OPT-OUT CONSENT FORM. MARK ALL THAT APPLY:**

1. BLOOD PRESSURE (SKIP P3–P31)
2. HEIGHT (SKIP P32–P38)
3. WEIGHT (SKIP P39–P44)
4. HIP AND WAIST MEASUREMENT (SKIP P45–P58)
5. SPIROMETRY (SKIP P59–P78)
6. DRIED BLOOD SPOT (SKIP P80–P87) [DISPLAY ONLY IF SELECTED FOR DBS]

## **BLOOD PRESSURE MEASUREMENT**

**P3.** Now I will explain the procedure for measuring your blood pressure. It is important that you remain calm and relaxed and seated for the measurements, which will take about 10 minutes. We need to find a quiet location for the measurements without any disturbances or distractions.

First, I will wrap the blood pressure cuff around your arm. Then I will start the automated blood pressure device. The cuff will inflate and you will feel a sensation of pressure on your arm. The cuff will then gradually deflate. I will inflate the cuff at least three times but no more than five times. I will pause about 30 seconds in between each reading. While I am measuring your blood pressure, it is best that we not have any conversation. If you have any questions or concerns, I will be happy to answer them for you before or after the measurements are taken.

Before we start, you should use the bathroom if you need to. Also, you should remove any outer clothing and roll up your sleeves.

**P4. INTERVIEWER: IS RESPONDENT SETTING APPROPRIATE (SUFFICIENTLY QUIET, CALM, AND RELAXED) FOR BLOOD PRESSURE MEASUREMENT?**

1. YES
5. NO, SPECIFY: \_\_\_\_\_ (GO TO P24C)

**P5. INTERVIEWER: INSPECT FIRST THE RIGHT ARM, THEN THE LEFT ARM IF NEEDED, FOR CONDITIONS PREVENTING MEASUREMENT. DO NOT PLACE BP CUFFS ON ARMS WITH OPEN SORES, WOUNDS, GAUZE DRESSINGS OR RASHES. DO NOT USE ARMS WITH CASTS OR SHUNTS. DO NOT USE ARMS THAT ARE WITHERED, SWOLLEN OR PARALYZED. DO NOT USE ARM ON THE SAME SIDE AS MASTECTOMY, UNLESS RESPONDENT HAS HER PHYSICIAN'S APPROVAL**

**ARE PREVENTING CONDITIONS PRESENT IN BOTH ARMS?**

1. YES, SPECIFY: \_\_\_\_\_ (GO TO P24C)
5. NO

**P6.** Do you know of any medical reasons, such as recent surgery, injury, or other health conditions why the blood pressure measurements should not be done?

**MARK "YES" ONLY IF THE PROBLEM EXISTS IN BOTH ARMS.**

1. YES, SPECIFY: \_\_\_\_\_ (GO TO P24C)
5. NO

**P7. INTERVIEWER: IF OBSERVED, RECORD; OTHERWISE ASK: Have you had any food, coffee, caffeinated drinks, or cigarettes within the past 30 minutes?**

**MARK ALL THAT APPLY**

1. FOOD
2. COFFEE
3. CAFFEINATED DRINKS
4. CIGARETTES
5. NONE

**P8.** Are you currently taking any medication to lower your blood pressure?

1. YES
5. NO

**P9.** INTERVIEWER: SET UP AUTOMATIC BLOOD PRESSURE MACHINE ON A CLEAN, FLAT SURFACE CLOSE TO AN ELECTRICAL OUTLET.

RESPONDENT SHOULD BE SITTING QUIETLY AND RELAXED FOR FIVE MINUTES BEFORE THE FIRST MEASUREMENT IN A COMFORTABLE UPRIGHT POSITION WITH LEGS UNCROSSED AND BOTH FEET ON THE FLOOR. RESPONDENT SHOULD BE SEATED SO THAT THE UPPER PORTION OF THE SELECTED ARM IS SUPPORTED AND THE MIDPOINT OF THE ARM IS LEVEL WITH THE HEART.

SELECT THE APPROPRIATE CUFF SIZE USING THE INDICATORS ON THE BLOOD PRESSURE CUFF.

PLACE THE CUFF ON THE SELECTED ARM SO THE BOTTOM EDGE OF THE CUFF IS 2–3 CM ABOVE THE CREASE ON THE INSIDE OF THE ELBOW. THE "ARTERY" ARROW ON THE CUFF SHOULD POINT TO THE MIDLINE OF THE CREASE. DO NOT LET CLOTHING RESTRICT THE TOP EDGE OF THE CUFF. THE CUFF SHOULD BE SNUG BUT COMFORTABLE ENOUGH TO PLACE TWO FINGERS BETWEEN THE CUFF AND ARM. THE "INDEX" MARKING ON THE EDGE OF THE CUFF MUST FALL WITHIN THE "RANGE" MARKERS ON THE INSIDE OF THE CUFF.

**P10.** INTERVIEWER: INDICATE CUFF SIZE SELECTED:

1. PEDIATRIC CUFF
2. SMALL ADULT CUFF
3. REGULAR ADULT CUFF
4. LARGE ADULT CUFF
5. EXTRA-LARGE ADULT CUFF

**P11.** WHICH ARM SELECTED?

1. RIGHT (GO TO P13)
2. LEFT

**P12.** INTERVIEWER: REASON FOR SELECTING LEFT ARM?

1. INJURY OR RASH
2. CAST, DRESSING, OR BANDAGE
3. PLACEMENT OF EQUIPMENT
4. OTHER, SPECIFY: \_\_\_\_\_

**P13.** INTERVIEWER: HAS RESPONDENT RESTED FOR AT LEAST FIVE MINUTES?

1. YES
5. NO

**P14.** INTERVIEWER: PERFORM FIRST BLOOD PRESSURE READING AND INDICATE OUTCOME.

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO P16)
3. REFUSED (GO TO P24C)

**P15. INTERVIEWER: ENTER FIRST BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**P15A. INTERVIEWER: RE-ENTER FIRST BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**P16. INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM SECOND BLOOD PRESSURE READING AND INDICATE OUTCOME.**

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO P18)
3. REFUSED (GO TO P24B)

**P17. ENTER SECOND BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**P17A. RE-ENTER SECOND BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**P18. INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM THIRD BLOOD PRESSURE READING AND INDICATE OUTCOME.**

1. READING OBTAINED
2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO P20)
3. REFUSED (GO TO P24B)

**P19. ENTER THIRD BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**P19A. RE-ENTER THIRD BLOOD PRESSURE AND PULSE READING.**

SYSTOLIC \_\_\_\_\_  
DIASTOLIC \_\_\_\_\_  
PULSE \_\_\_\_\_

**P19B. CAPI: HAVE THREE BLOOD PRESSURE READINGS BEEN SUCCESSFULLY OBTAINED?**

1. YES (GO TO P24B)
5. NO

**P20. INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM FOURTH BLOOD PRESSURE READING AND INDICATE OUTCOME.**

1. READING OBTAINED

- 2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO P22)
- 3. REFUSED (GO TO P24B)

**P21.** ENTER FOURTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
 DIASTOLIC \_\_\_\_\_  
 PULSE \_\_\_\_\_

**P21A.** RE-ENTER FOURTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
 DIASTOLIC \_\_\_\_\_  
 PULSE \_\_\_\_\_

**P22.** CAPI: HAVE THREE BLOOD PRESSURE READINGS BEEN SUCCESSFULLY OBTAINED?

- 1. YES (GO TO P24B)
- 5. NO

**P23.** INTERVIEWER: WAIT AT LEAST 30 SECONDS SINCE LAST INFLATION OF CUFF. PERFORM FIFTH BLOOD PRESSURE READING AND INDICATE OUTCOME.

- 1. READING OBTAINED
- 2. MISSED READING (EQUIPMENT FAILURE, INTERRUPTION, OTHER PROBLEM) (GO TO P24B)
- 3. REFUSED (GO TO P24B)

**P24.** ENTER FIFTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
 DIASTOLIC \_\_\_\_\_  
 PULSE \_\_\_\_\_

**P24A.** RE-ENTER FIFTH BLOOD PRESSURE AND PULSE READING.

SYSTOLIC \_\_\_\_\_  
 DIASTOLIC \_\_\_\_\_  
 PULSE \_\_\_\_\_

**P24B.** CAPI: CHECK WHETHER AT LEAST ONE BLOOD PRESSURE READING OBTAINED.

- 1. YES (GO TO P24D)
- 5. NO

**P24C.** INTERVIEWER: REASON NO BLOOD PRESSURE MEASUREMENTS OBTAINED? MARK ALL THAT APPLY:

- 1. RESPONDENT UNABLE / UNWILLING TO UNDERSTAND AND FOLLOW INSTRUCTIONS
- 2. RESPONDENT REFUSES TO BE MEASURED
- 3. WITHERED ARMS, INJURY, RECENT SURGERY, DRESSING, RASH (ON BOTH ARMS)
- 4. FIVE FAILED ATTEMPTS TO INFLATE CUFF
- 6. NO APPROPRIATE SETTING FOR MEASUREMENT
- 7. EQUIPMENT FAILURE
- 5. OTHER, SPECIFY: \_\_\_\_\_

GO TO P32

**P24D.** CAPI: CHECK WHETHER ANY "MISSED" READINGS (RESPONSE="2") IN P14, P16, P18, P20, & P23.

1. YES
5. NO (GO TO P25)

**P24E.** INTERVIEWER: INDICATE REASONS FOR MISSED READINGS. MARK ALL THAT APPLY:

1. RESPONDENT UNABLE / UNWILLING TO UNDERSTAND & FOLLOW INSTRUCTIONS
2. INTERRUPTION
3. EQUIPMENT FAILURE
4. OTHER, SPECIFY: \_\_\_\_\_

**P25.** CAPI: CHECK WHETHER ANY “REFUSED” READINGS (RESPONSE=“3”) IN P14, P16, P18, P20, & P23.

1. YES
5. NO (GO TO P27)

**P26.** INTERVIEWER: INDICATE REASONS FOR REFUSAL OF BLOOD PRESSURE READINGS. MARK ALL THAT APPLY:

1. RESPONDENT UNABLE TO HOLD STILL OR TOO AGITATED TO MEASURE
2. RESPONDENT REFUSES TO HAVE BLOOD PRESSURE MEASURED
3. OTHER, SPECIFY: \_\_\_\_\_

**P27.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF RESPONDENT THAT AFFECTED BLOOD PRESSURE MEASUREMENT.

\_\_\_\_\_

**P28.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR OTHER PROBLEMS MEASURING RESPONDENT’S BLOOD PRESSURE.

\_\_\_\_\_

**P29.** CAPI: USE THE FOLLOWING VALUES OF THE SYSTOLIC BLOOD PRESSURE (SBP) AND DIASTOLIC BLOOD PRESSURE (DBP) READINGS TO DETERMINE WHETHER THE RESPONDENT’S BLOOD PRESSURE READING IS VERY HIGH.

[Programmer: Look at previous responses to P14, P16, P18, P20, and P23 and complete appropriate answer.]

IF THREE BLOOD PRESSURE READINGS WERE OBTAINED, USE THE SECOND AND THIRD MEASUREMENTS TO CALCULATE AVERAGES FOR SBP AND DBP:

$$\text{SBP AVERAGE} = (\text{SECOND SBP READING} + \text{THIRD SBP READING}) / 2$$

$$\text{DBP AVERAGE} = (\text{SECOND DBP READING} + \text{THIRD DBP READING}) / 2$$

IF TWO BLOOD PRESSURE READINGS WERE OBTAINED, USE THE VALUES OF SBP AND DBP FROM THE SECOND MEASUREMENT AS THE SBP AVERAGE AND DBP AVERAGE.

IF ONE BLOOD PRESSURE READING WAS OBTAINED, USE THOSE VALUES OF SBP AND DBP AS THE SBP AVERAGE AND THE DBP AVERAGE.

1. AVERAGE SBP (ASBP): \_\_\_ \_\_\_ \_\_\_
2. AVERAGE DBP (ADBP): \_\_\_ \_\_\_ \_\_\_

**P30.** CAPI: DETERMINE WHETHER RESPONDENT’S BLOOD PRESSURE READINGS ARE VERY HIGH.

1. AVERAGE SBP  $\geq$  180
2. AVERAGE DBP  $\geq$  110
3. AVERAGE SBP  $<$  180 AND AVERAGE DBP  $<$  110 (GO TO P32)

**P31.** INTERVIEWER: THE BLOOD PRESSURE READING IS HIGH. CAPI: INSERT THE AVERAGE SYSTOLIC AND DIASTOLIC BLOOD PRESSURE FROM P29:

AVERAGE SYSTOLIC BLOOD PRESSURE: \_\_\_ \_\_\_ \_\_\_  
AVERAGE DIASTOLIC BLOOD PRESSURE: \_\_\_ \_\_\_ \_\_\_

TYPE OF BLOOD PRESSURE MEASUREMENT: [AVERAGE OF 2nd AND 3rd READING / SINGLE MEASUREMENT]

FOLLOW THESE STEPS:

1. STOP THE HEALTH MEASURES COLLECTION. DO NOT PERFORM ANY ADDITIONAL HEALTH MEASURES.
2. REMAIN CALM. DO NOT ALARM THE RESPONDENT. TELL THE RESPONDENT THAT THE BLOOD PRESSURE READING IS HIGH.
3. COMPLETE THE REPORT OF VERY HIGH BLOOD PRESSURE FORM. READ IT ALOUD TO THE RESPONDENT. BOTH YOU AND THE RESPONDENT MUST SIGN THE FORM. GIVE ONE COPY TO THE RESPONDENT.
4. IF THE RESPONDENT DOES NOT HAVE A USUAL SOURCE OF HEALTH CARE, SHOW THE REFERRAL INFORMATION SHEET, WHICH IS IN THE PACKET OF INFORMATION YOU PROVIDED. REVIEW THE SHEET WITH THE RESPONDENT TO HELP HIM / HER FIND THE NEAREST (A) PLACE TO GET MEDICAL CARE, (B) EMERGENCY ROOM, OR (C) URGENT CARE CLINIC. HELP THE RESPONDENT FIGURE OUT HOW TO GET THERE.

IF THE RESPONDENT DECIDES TO CALL 911, REMAIN WITH THE RESPONDENT UNTIL MEDICAL PERSONNEL ARRIVE. DURING THAT TIME PROMOTE A CALM AND QUIET ENVIRONMENT.

INTERVIEWER: YOU MUST NOT DRIVE THE RESPONDENT ANYWHERE. YOU MUST CALL THE RESPONDENT THE NEXT DAY TO SEE IF ANY ACTION WAS TAKEN. IF NO ACTION TAKEN, YOU SHOULD ENCOURAGE THE RESPONDENT TO DO SO.

GO TO P79

## HEIGHT MEASUREMENT

**P32.** Now I'm going to measure your height. I will have you stand against the wall and then I will use this folding ruler and triangle to get an accurate measurement.

INTERVIEWER: FIND A SECTION OF BLANK, FLAT WALL AGAINST WHICH THE RESPONDENT CAN STAND. THE RESPONDENT SHOULD NOT STAND ON RUGS OR CARPETING. BE SURE TO HAVE ADEQUATE LIGHTING OR HAVE A FLASHLIGHT HANDY.

ASK THE RESPONDENT TO REMOVE SHOES, HAT, HAIR ORNAMENTS, AND ANY HEAVY OUTER GARMENTS. ASK THE RESPONDENT TO STAND WITH HIS / HER BACK AGAINST THE WALL. MAKE SURE RESPONDENT'S LINE OF SIGHT (FRANKFORT PLANE) IS LEVEL WITH THE GROUND. PLACE A 'POST-IT' NOTE ON THE WALL AT THE TOP OF THE RESPONDENT'S HEAD APPROXIMATELY WHERE YOU WILL BE MARKING THE HEIGHT. ASK RESPONDENT TO STAND TALL AND TAKE A DEEP BREATH.

PLACE THE CARPENTER'S SQUARE SO THAT THE TWO SIDES THAT FORM THE RIGHT ANGLE ARE FLAT: (1) ALONG THE WALL AND (2) RESTING ON TOP OF THE HEAD. MARK THE RESPONDENT'S HEIGHT ON THE 'POST-IT' NOTE AND LET THE RESPONDENT STEP AWAY.

MEASURE THE RESPONDENT'S HEIGHT TO THE NEAREST MILLIMETER.

**P32A.** INTERVIEWER: SUCCESSFULLY ABLE TO MEASURE RESPONDENT'S HEIGHT?

1. YES (GO TO P34)
5. NO

**P33.** INTERVIEWER: SELECT ALL REASONS WHY UNABLE TO MEASURE RESPONDENT'S HEIGHT. MARK ALL THAT APPLY:

1. RESPONDENT UNABLE / UNWILLING TO UNDERSTAND AND FOLLOW INSTRUCTIONS
2. RESPONDENT REFUSES TO BE MEASURED
3. RESPONDENT UNABLE TO STAND UNASSISTED
4. UNABLE TO POSITION RESPONDENT ACCORDING TO PROTOCOL
5. UNSUITABLE SURFACE - WALL OR FLOOR - FOR MEASURING
6. EQUIPMENT FAILURE
7. OTHER, SPECIFY: \_\_\_\_\_

GO TO P39

**P34.** INTERVIEWER: ENTER RESPONDENT'S HEIGHT IN CENTIMETERS

\_\_\_ . \_\_\_ CM

**P34A.** INTERVIEWER: RE-ENTER RESPONDENT'S HEIGHT IN CENTIMETERS

\_\_\_ . \_\_\_ CM

**P35.** INTERVIEWER: IS AN ADJUSTMENT TO THE RECORDED HEIGHT NECESSARY DUE TO RESPONDENT'S HAIR OR SHOES?

1. YES
5. NO (GO TO P37)

**P36.** INTERVIEWER: USE THE MEASURING TAPE TO MEASURE THE HEIGHT OF THE RESPONDENT'S HAIR AND / OR SHOES.

\_\_\_ . \_\_\_ CM ABOVE THE HEAD ADJUSTMENTS (SUCH AS FOR HAIR)  
 \_\_\_ . \_\_\_ CM BELOW THE FEET ADJUSTMENTS (SUCH AS FOR SHOES)

**P36A.** INTERVIEWER: RE-ENTER THE HEIGHT OF THE RESPONDENT'S HAIR AND / OR SHOES.

\_\_\_ . \_\_\_ CM ABOVE THE HEAD ADJUSTMENTS (SUCH AS FOR HAIR)  
 \_\_\_ . \_\_\_ CM BELOW THE FEET ADJUSTMENTS (SUCH AS FOR SHOES)

**P36B.** CAPI: CALCULATE RESPONDENT'S ADJUSTED HEIGHT AND CHECK THAT ADJUSTED HEIGHT:

ADJUSTED HEIGHT = P34 – P36\_ABOVE – P36\_BELOW

**P37.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF RESPONDENT THAT AFFECTED HEIGHT MEASUREMENT.

\_\_\_\_\_

**P38.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS WITH OBTAINING HEIGHT MEASUREMENT.

\_\_\_\_\_

## WEIGHT MEASUREMENT

**P39.** Now I'm going to measure your weight.

INTERVIEWER: PUT SCALE ON HARD, FLAT SURFACE. SET THE SCALE TO ZERO.

ASK RESPONDENT TO REMOVE SHOES AND ANY HEAVY OUTER GARMENTS (COAT, JACKET, SWEATER, ETC.). ASK RESPONDENT TO REMOVE ANY ITEMS FROM HANDS AND POCKETS. ASK RESPONDENT TO STEP ON SCALE.

READ WEIGHT OF RESPONDENT IN KILOGRAMS.

**P40.** INTERVIEWER: SUCCESSFULLY ABLE TO MEASURE RESPONDENT'S WEIGHT?

1. YES (GO TO P42)
5. NO

**P41.** INTERVIEWER: SELECT ALL REASONS WHY UNABLE TO MEASURE RESPONDENT'S WEIGHT. MARK ALL THAT APPLY:

1. RESPONDENT UNABLE / UNWILLING TO UNDERSTAND AND FOLLOW INSTRUCTIONS
2. RESPONDENT REFUSES TO BE WEIGHED
3. RESPONDENT UNABLE TO STAND UNASSISTED
4. UNSUITABLE SURFACE FOR SETTING UP THE SCALE
5. SCALE INSUFFICIENT FOR RESPONDENT WEIGHT
6. EQUIPMENT FAILURE
7. OTHER, SPECIFY: \_\_\_\_\_

GO TO P45

**P42.** INTERVIEWER: ENTER RESPONDENT'S WEIGHT IN KILOGRAMS:

\_\_ \_\_ \_\_ . \_\_ KG

**P42A.** INTERVIEWER: RE-ENTER RESPONDENT'S WEIGHT IN KILOGRAMS:

\_\_ \_\_ \_\_ . \_\_ KG

**P43.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF RESPONDENT THAT AFFECTED WEIGHT MEASUREMENT. MARK ALL THAT APPLY:

0. NONE
1. RESPONDENT WEARING SHOES
2. RESPONDENT WEARING HEAVY CLOTHING
3. RESPONDENT HAD ITEMS IN HANDS OR IN POCKETS
4. RESPONDENT IS PREGNANT
5. OTHER, SPECIFY: \_\_\_\_\_

**P44.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS WITH OBTAINING WEIGHT MEASUREMENT.

\_\_\_\_\_

## HIP AND WAIST MEASUREMENT

**P45.** Next, I am going to measure your waist and hips.

INTERVIEWER: ALLOW RESPONDENT THE OPTION OF MEASURING HIS OR HER OWN WAIST.

WAIST MEASUREMENT INSTRUCTIONS: PLACE MEASURING TAPE NEXT TO THINLY CLOTHED SKIN. ASK THE RESPONDENT TO REMOVE ANY HEAVY OR BULKY OUTER GARMENTS, INCLUDING BELTS. DO NOT ASK RESPONDENT TO DISROBE. ASK RESPONDENT TO STAND IN A RELAXED POSTURE AND TO BREATHE NORMALLY. RESPONDENT SHOULD NOT HOLD THEIR BREATH OR ATTEMPT TO "SUCK IN" THEIR STOMACH. LOCATE THE BONY PROMINENCE OF THE RIGHT ILIAC CREST OR ASSIST THE RESPONDENT IN LOCATING IT. RUN THE MEASURING TAPE IN A COMPLETE CIRCLE JUST ABOVE THE ILIAC CRESTS. THE TAPE SHOULD REMAIN PARALLEL WITH THE FLOOR. THE TAPE SHOULD BE SNUG BUT NOT TIGHT ENOUGH TO COMPRESS THE SOFT TISSUE.

HOLD TAPE FIRMLY AND TAKE WAIST MEASUREMENT AT END OF A NORMAL EXHALATION.

**P46.** INTERVIEWER: SUCCESSFULLY ABLE TO OBTAIN WAIST MEASUREMENT?



1. YES (GO TO P48)
5. NO

**P47.** INTERVIEWER: SELECT ALL REASONS WHY UNABLE TO OBTAIN RESPONDENT'S WAIST MEASUREMENT. MARK ALL THAT APPLY:

1. RESPONDENT UNABLE / UNWILLING TO UNDERSTAND AND FOLLOW INSTRUCTIONS
2. RESPONDENT REFUSES TO BE MEASURED
3. RESPONDENT UNABLE / UNWILLING TO STAND UNASSISTED
4. UNABLE TO POSITION RESPONDENT ACCORDING TO PROTOCOL
5. MEASURING TAPE INSUFFICIENT FOR RESPONDENT'S WAIST CIRCUMFERENCE
6. RESPONDENT CHOSE SELF-MEASUREMENT BUT UNABLE TO POSITION TAPE PROPERLY
7. EQUIPMENT FAILURE
8. OTHER, SPECIFY: \_\_\_\_\_

GO TO P52

**P48.** INTERVIEWER: ENTER RESPONDENT'S WAIST MEASUREMENT IN CENTIMETERS:

\_\_\_\_ . \_\_\_\_ CM

**P48A.** INTERVIEWER: RE-ENTER RESPONDENT'S WAIST MEASUREMENT IN CENTIMETERS:

\_\_\_\_ . \_\_\_\_ CM

**P49.** INTERVIEWER: INDICATE WHO MEASURED THE RESPONDENT'S WAIST CIRCUMFERENCE.

1. RESPONDENT
2. INTERVIEWER

**P50.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF RESPONDENT THAT AFFECTED WAIST MEASUREMENT. MARK ALL THAT APPLY:

0. NONE
1. RESPONDENT WEARING THICK CLOTHING
2. RESPONDENT IS PREGNANT
3. OTHER: \_\_\_\_\_

**P51.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS WITH OBTAINING WAIST MEASUREMENT.

\_\_\_\_\_

**P52.** Next, I am going to measure your hip size.

INTERVIEWER: ALLOW RESPONDENT THE OPTION OF MEASURING HIS OR HER OWN HIPS.

HIP MEASUREMENT INSTRUCTIONS: PLACE THE MEASURING TAPE HORIZONTALLY AROUND THE BODY, ACROSS THE MAXIMUM CIRCUMFERENCE OF THE BUTTOCKS. THE TAPE SHOULD REMAIN PARALLEL WITH THE FLOOR. THE TAPE SHOULD BE SNUG BUT NOT TIGHT ENOUGH TO COMPRESS THE SOFT TISSUE.

HOLD TAPE FIRMLY AND TAKE HIP MEASUREMENT.

**P53.** INTERVIEWER: SUCCESSFULLY ABLE TO OBTAIN HIP MEASUREMENT?

1. YES (GO TO P55)
5. NO

**P54.** INTERVIEWER: SELECT ALL REASONS WHY UNABLE TO OBTAIN RESPONDENT'S HIP MEASUREMENT. MARK ALL THAT APPLY:

1. RESPONDENT UNABLE / UNWILLING TO UNDERSTAND AND FOLLOW INSTRUCTIONS
2. RESPONDENT REFUSES TO BE MEASURED
3. RESPONDENT UNABLE TO STAND UNASSISTED
4. UNABLE TO POSITION RESPONDENT ACCORDING TO PROTOCOL
5. MEASURING TAPE INSUFFICIENT FOR RESPONDENT'S HIP CIRCUMFERENCE
6. RESPONDENT CHOSE SELF-MEASUREMENT BUT UNABLE TO POSITION TAPE PROPERLY
7. EQUIPMENT FAILURE
- 8 OTHER, SPECIFY: \_\_\_\_\_

GO TO P59

**P55.** ENTER RESPONDENT'S HIP MEASUREMENT IN CENTIMETERS

\_\_\_\_ . \_\_\_\_ CM

**P55A.** RE-ENTER RESPONDENT'S HIP MEASUREMENT IN CENTIMETERS

\_\_\_\_ . \_\_\_\_ CM

**P56.** INTERVIEWER: INDICATE WHO MEASURED THE RESPONDENT'S HIP CIRCUMFERENCE.

1. RESPONDENT
2. INTERVIEWER

**P57.** INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF RESPONDENT THAT AFFECTED HIP MEASUREMENT. MARK ALL THAT APPLY:

0. NONE
1. RESPONDENT WEARING THICK CLOTHING
2. RESPONDENT IS PREGNANT
3. OTHER, SPECIFY: \_\_\_\_\_

**P58.** INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS WITH OBTAINING HIP MEASUREMENT.

\_\_\_\_\_

## **SPIROMETRY MEASUREMENT**

**P59.** Before beginning the next procedure, I have a few questions. Have you had any surgery on your chest or abdomen in the past three weeks?

1. YES (GO TO P79)
5. NO

**P60.** Have you been hospitalized for a heart problem in the past 6 weeks?

1. YES (GO TO P79)
5. NO

IF RESPONDENT IS MALE GO TO P61

**P60A.** Are you in your third trimester of pregnancy? That is, are you at least 7 months pregnant?

1. YES (GO TO P79)
5. NO

**P61.** Now I'm going to measure your lung function by having you blow into this meter. First, I will explain the procedure.

This electronic device is called a spirometer. It measures how effectively and how quickly your lungs can be emptied of air. You do this by taking a deep breath and then blowing out through the device as hard and as fast as possible until you have no more breath left.

Before we begin, you should loosen any tight clothing. You should stand comfortably with your feet flat on the floor, back straight, and with a non-rolling chair behind you. You should first put this clip on your nose and then take a deep breath of air as far as you can inhale.

Without pausing, you should put the mouthpiece in your mouth and seal your lips tightly around it, with your chin slightly elevated and your neck stretched. Put the mouthpiece between your teeth and seal your mouth around the tube, not allowing any air to leak out the sides.

Then, you should blast out the air as hard and fast as you can! You should keep on blowing out the same breath of air until I say "stop."

I have a few more questions before we get started.

**P62.** Are you using any respiratory medications such as bronchodilators (inhaler or puffer) or steroids?

- 1. YES
- 5. NO (GO TO P64)

**P63.** Have you used an inhaler or puffer in the last hour?

- 1. YES (INTERVIEWER: IF POSSIBLE, DELAY SPIROMETRY UNTIL ONE HOUR AFTER THE LAST INHALER USE)
- 5. NO

**P64.** Have you eaten a heavy meal in the last hour?

- 1. YES (INTERVIEWER: IF POSSIBLE, DELAY SPIROMETRY UNTIL ONE HOUR AFTER THE LAST HEAVY MEAL)
- 5. NO

**P65.** Have you had a cough, cold, or other illness in the past few days?

- 1. YES
- 5. NO

**P66.** Have you had a respiratory infection (such as the flu, pneumonia, bronchitis, or a severe cold) in the past 3 weeks?

- 1. YES
- 5. NO

**P67.** Are you currently being treated for tuberculosis?

- 1. YES
- 5. NO

**P68.** Let me now demonstrate how the breathing measurement is done using my own mouthpiece and then I'll give you a new one.

INTERVIEWER: DEMONSTRATE HOW TO USE THE MOUTHPIECE. USE YOUR OWN MOUTHPIECE, STAND STRAIGHT WITH A FIRM SURFACE BEHIND YOU, TAKE A DEEP BREATH, BLAST IT OUT, AND DO NOT LEAN.

INTERVIEWER: ALLOW RESPONDENT TO WALK THROUGH THE PROCEDURE. OPEN A NEW MOUTHPIECE AND HAVE THE RESPONDENT GET COMFORTABLE WITH PUTTING HIS / HER MOUTH AROUND IT. HAVE THE RESPONDENT HOLD THE SPIROMETER (WITHOUT THE MOUTHPIECE IN IT).

**P69.** INTERVIEWER: IF YOU ARE USING THE SPIROMETER FOR THE FIRST TIME TODAY, MAKE SURE TO CHECK SETTINGS AS SPECIFIED IN THE PROTOCOL.

ENTER THE FOLLOWING INTO THE SPIROMETER:

- THE RESPONDENT'S CASE ID NUMBER
- THE RESPONDENT'S DATE OF BIRTH
- THE RESPONDENT'S HEIGHT (IF RESPONDENT DECLINED TO BE MEASURED OR YOU WERE UNABLE TO MEASURE HIS / HER HEIGHT, ENTER "150")

FOR ALL OTHER ITEMS, SELECT THE DEFAULT VALUES.

REVIEW THE INFORMATION YOU HAVE ENTERED TO MAKE SURE THERE ARE NO MISTAKES.

INSERT THE RESPONDENT'S MOUTHPIECE INTO THE SPIROMETER AND HAND IT BACK TO THE RESPONDENT.

Now please stand up and, whenever you are ready, take as deep a breath as you can until it feels like you cannot get any more air into your lungs. Place your mouth around the mouthpiece with your lips tightly sealed, and then breathe out as hard, as fast, and as long as you can. I want you to make the air "BLAST" out of your lungs. Keep breathing out until I tell you to stop.

**P69A.** INTERVIEWER: PERFORM FIRST SPIROMETERY MEASUREMENT ON RESPONDENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
9. RESPONDENT REFUSED (GO TO P76)

**P70.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT.

Now for the next one. Remember, take as deep a breath as you can, place your mouth around the mouthpiece, seal your lips around it, and then breathe out as hard, as fast, and as long as you can. Make the air "BLAST" out of your lungs. Keep breathing out until I tell you to stop.

INTERVIEWER: PERFORM SECOND SPIROMETERY MEASUREMENT ON RESPONDENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
9. RESPONDENT REFUSED (GO TO P76)

**P71.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM THIRD SPIROMETERY MEASUREMENT ON RESPONDENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"

3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO P77)
9. RESPONDENT REFUSED (GO TO P76)

**P72.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM FOURTH SPIROMETERY MEASUREMENT ON RESPONDENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO P77)
9. RESPONDENT REFUSED (GO TO P76)

**P73.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM FIFTH SPIROMETERY MEASUREMENT ON RESPONDENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO P77)
9. RESPONDENT REFUSED (GO TO P76)

**P74.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM SIXTH SPIROMETERY MEASUREMENT ON RESPONDENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO P77)
9. RESPONDENT REFUSED (GO TO P76)

**P75.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM SEVENTH SPIROMETERY MEASUREMENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"
2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO P77)
9. RESPONDENT REFUSED (GO TO P76)

**P75A.** WAIT 1 MINUTE BEFORE NEXT MEASUREMENT. INTERVIEWER: PERFORM EIGHTH SPIROMETERY MEASUREMENT ON RESPONDENT AND MARK THE RESULT.

1. SPIROMETER SAYS "DON'T HESITATE"

2. SPIROMETER SAYS "BLAST OUT FASTER"
3. SPIROMETER SAYS "BLOW OUT LONGER"
4. SPIROMETER SAYS "WAIT UNTIL BUZZ BEFORE BLOWING OUT"
5. SPIROMETER SAYS "GOOD EFFORT, DO NEXT"
6. SPIROMETER SAYS "DEEPER BREATH"
7. SPIROMETER SAYS "SESSION COMPLETE" (GO TO P77)
9. RESPONDENT REFUSED (GO TO P76)

**P76. INTERVIEWER: INDICATE REASONS FOR MEASUREMENT INCOMPLETE, UNSATISFACTORY, OR NOT DONE. MARK ALL THAT APPLY:**

1. RESPONDENT UNABLE / UNWILLING TO UNDERSTAND OR FOLLOW TEST INSTRUCTIONS
2. RESPONDENT REFUSES TO PERFORM SPIROMETRY
3. EQUIPMENT FAILURE
4. COUGHS DETECTED
5. EARLY TERMINATION OF EXPIRATION, INSUFFICIENT EFFORT
6. ACUTE ILLNESS (FLU, PNEUMONIA, ETC.)
7. SEVERE BRONCHITIS, EMPHYSEMA, ASTHMA
8. ATE HEAVY MEAL
9. INSUFFICIENT TIME AVAILABLE
10. NO APPROPRIATE SETTING FOR CONDUCTING SPIROMETRY
11. RESPONDENT MEDICALLY EXCLUDED FOR SAFETY
12. OTHER, SPECIFY: \_\_\_\_\_

**P77. INTERVIEWER: NOTE ANY OBSERVABLE PHYSICAL CHARACTERISTICS OF RESPONDENT THAT AFFECTED SPIROMETRY.**

\_\_\_\_\_

**P78. INTERVIEWER: DESCRIBE ANY DEVIATIONS FROM THE PROTOCOL OR PROBLEMS PERFORMING SPIROMETRY.**

\_\_\_\_\_

TURN THE SPIROMETER OFF.

## **RESPONDENT'S HEALTH STATUS AS OBSERVED BY INTERVIEWER**

**P79. INTERVIEWER: BASED ON YOUR OBSERVATION OF THIS RESPONDENT, HOW DOES [HIS / HER] HEALTH COMPARE, IN GENERAL, TO THE HEALTH STATUS OF OTHER PEOPLE OF THE SAME AGE AND SEX?**

RECORD YOUR OWN OPINION BASED ON YOUR OBSERVATION

MARK SCORE ON THE FOLLOWING SCALE:

1. MUCH WORSE
- 2.
3. WORSE
- 4.
5. ABOUT THE SAME
- 6.
7. BETTER
- 8.
9. MUCH BETTER



**P82A.** And what would be the best time to reach you at this number?

ENTER BEST TIME TO CALL THIS NUMBER: \_\_\_\_\_

**P83.** Is there another telephone number where you can be reached if needed?

1. YES
2. NO (GO TO P84)

**P83A.** What is the second telephone number?

ENTER SECOND TELEPHONE NUMBER: \_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_

1. HOME
2. WORK
3. CELL PHONE

**P83 B.** And what would be the best time to reach you at that number?

ENTER BEST TIME TO CALL THIS NUMBER: \_\_\_\_\_

**P84.** To arrange for a health technician to contact you I need to make a phone call.

INTERVIEWER: CALL 888-777-3674. BETWEEN 5 A.M. AND 5 P.M. MONDAY THROUGH FRIDAY, AN OPERATOR WILL ANSWER. AT ALL OTHER TIMES YOU WILL GET AN ANSWERING MACHINE. ASK TO USE THE RESPONDENT'S PHONE; OTHERWISE, USE YOUR CELL PHONE.

**P85.** TELL EMSI OPERATOR YOU ARE CALLING FROM L.A.FANS. PROVIDE FOLLOWING INFORMATION TO EMSI OPERATOR.

RESPONDENT NAME: [NAME]  
PARTICIPANT CASE ID: [CASEID]  
RESPONDENT'S DATE OF BIRTH: [DOB]  
ADDRESS AND NEAREST CROSS-STREETS: [ADDRESS]  
BEST TELEPHONE NUMBER AND TYPE: [BEST PHONE #, TYPE]  
BEST TIME TO REACH RESPONDENT AT THIS NUMBER: [P83A ANSWER]  
SECOND TELEPHONE NUMBER AND TYPE: [SECOND PHONE #, TYPE]  
BEST TIME TO REACH RESPONDENT AT THIS NUMBER: [P83B ANSWER]  
PREFERRED APPOINTMENT TIME: [P81D1 DATE AND TIME]  
IF A SPANISH SPEAKING EXAMINER IS REQUIRED

INTERVIEWER: REMEMBER TO ASK EMSI OPERATOR FOR THEIR NAME, AND TO RECORD THIS IN THE ROC ALONG WITH THE TIME THE CALL WAS PLACED TO EMSI. IF YOU ARE SCHEDULED TO RETURN TO THE HOME, ASK THE EMSI OPERATOR TO SCHEDULE A HEALTH TECHNICIAN TO COME AT THE SAME TIME YOU WILL BE THERE.

**P86.** The health technician who will be making the visit will soon contact you to schedule an appointment. If your home is hard to find, this would be a good time to let the technician know how to easily find your home.

**P87.** INTERVIEWER: INDICATE THE STATUS OF THE BLOOD COLLECTION

1. R AGREEABLE – CALL PLACED TO EMSI
2. R AGREEABLE – NO CALL PLACED TO EMSI (NO PHONE / UNABLE TO REACH EMSI)
3. MILD RESISTANCE TO FINGER STICK (GOOD POSSIBILITY FOR CONVERSION)
4. FIRM REFUSAL TO FINGER STICK
5. R DECLINES FINGER STICK DUE TO MEDICAL CONDITION

**P88.** That concludes our activities for today. Thank you for participating in the health measures study [and agreeing to have the health technician return to collect a blood sample].