

Bioelectrical Impedance Analysis Instrument

|  |  |
| --- | --- |
| Event Category: | Time-Based |
| Event: | 48M, 60M |
| Administration: | N/A |
| Instrument Target: | Child |
| Instrument Respondent: | Primary Caregiver |
| Domain: | Physical Measures |
| Document Category: | Physical Measures |
| Method: | Data Collector Administered |
| Mode (for this instrument\*): | In-Person, CAI |
| OMB Approved Modes: | In-Person, CAI |
| Estimated Administration Time: | 7 minutes |
| Multiple Child/Sibling Consideration: | Per Child |
| Special Considerations: | N/A |
| Version: | 1.0 |
| MDES Release: | 4.0 |

\*This instrument is OMB-approved for multi-mode but this version of the instrument is designed for administration in this/these mode(s) only.

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Bioelectrical Impedance Analysis Instrument

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Bioelectrical Impedance Analysis Instrument

GENERAL PROGRAMMER INSTRUCTIONS:

WHEN PROGRAMMING INSTRUMENTS, VALIDATE FIELD LENGTHS AND TYPES AGAINST THE MDES TO ENSURE DATA COLLECTION RESPONSES DO NOT EXCEED THOSE OF THE MDES. SOME GENERAL ITEM LIMITS USED ARE AS FOLLOWS:

|  |  |  |  |
| --- | --- | --- | --- |
| **DATA ELEMENT FIELDS** | **MAXIMUM CHARACTERS PERMITTED** | **DATA TYPE** | **PROGRAMMER INSTRUCTIONS** |
| ADDRESS AND EMAIL FIELDS | 100 | CHARACTER |  |
| UNIT AND PHONE FIELDS | 10 | CHARACTER |  |
| \_OTH AND COMMENT FIELDS | 255 | CHARACTER | * Limit text to 255 characters |
| FIRST NAME AND LAST NAME | 30 | CHARACTER | * Limit text to 30 characters |
| ALL ID FIELDS | 36 | CHARACTER |  |
| ZIP CODE | 5 | NUMERIC |  |
| ZIP CODE LAST FOUR | 4 | NUMERIC |  |
| CITY | 50 | CHARACTER |  |
| DOB AND ALL OTHER DATE FIELDS (E.G., DT, DATE, ETC.) | 10 | NUMERIC  CHARACTER | * DISPLAY AS MM/DD/YYYY * STORE AS YYYY-MM-DD * HARD EDITS:   MM MUST EQUAL 01 TO 12  DD MUST EQUAL 01 TO 31  YYYY MUST BE BETWEEN 1900 AND CURRENT YEAR. |
| TIME VARIABLES | TWO-DIGIT HOUR AND TWO-DIGIT MINUTE, AM/PM DESIGNATION | NUMERIC | * HARD EDITS:   HOURS MUST BE BETWEEN 00 AND 12;  MINUTES MUST BE BETWEEN 00 AND 59 |

**Instrument Guidelines for Participant and Respondent IDs:**

PRENATALLY, THE **P\_ID** IN THE MDES HEADER IS THAT OF THE PARTICIPANT (E.G. THE NON-PREGNANT WOMAN, PREGNANT WOMAN, OR THE FATHER).

POSTNATALLY, A RESPONDENT ID WILL BE USED IN ADDITION TO THE PARTICIPANT ID BECAUSE SOMEBODY OTHER THAN THE PARTICIPANT MAY BE COMPLETING THE INTERVIEW. FOR EXAMPLE, THE PARTICIPANT MAY BE THE CHILD AND THE RESPONDENT MAY BE THE MOTHER, FATHER, OR ANOTHER CAREGIVER. THEREFORE, MDES VERSION 2.2 AND ALL FUTURE VERSIONS CONTAIN A **R\_P\_ID** (RESPONDENT PARTICIPANT ID) HEADER FIELD FOR EACH POST-BIRTH INSTRUMENT. THIS WILL ALLOW ROCs TO INDICATE WHETHER THE RESPONDENT IS SOMEBODY OTHER THAN THE PARTICIPANT ABOUT WHOM THE QUESTIONS ARE BEING ASKED.

**A REMINDER:**

ALL RESPONDENTS MUST BE CONSENTED AND HAVE RECORDS IN THE PERSON, PARTICIPANT, PARTICIPANT\_CONSENT AND LINK\_PERSON\_PARTICIPANT TABLES, WHICH CAN BE PRELOADED INTO EACH INSTRUMENT. ADDITIONALLY, IN POST-BIRTH QUESTIONNAIRES WHERE THERE IS THE ABILITY TO LOOP THROUGH A SET OF QUESTIONS FOR MULTIPLE CHILDREN, IT IS IMPORTANT TO CAPTURE AND STORE THE CORRECT CHILD **P\_ID** ALONG WITH THE LOOP INFORMATION. IN THE MDES VARIABLE LABEL/DEFINITION COLUMN, THIS IS INDICATED AS FOLLOWS: **EXTERNAL IDENTIFIER: PARTICIPANT ID FOR CHILD DETAIL.**

BIA EXCLUSIONS

**(TIME\_STAMP\_BE\_ST).**

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * INSERT DATE/TIME STAMP. * PRELOAD PARTICIPANT ID (**P\_ID**) FOR CHILD AND RESPONDENT ID (**R\_P\_ID**) FOR ADULT CAREGIVER. PRELOAD FIRST NAME OF CHILD (**C\_FNAME**), **CHILD\_SEX**, AND **CHILD\_DOB** FROM **INSTRUMENT\_ID** = XX (PARTICIPANT VERIFICATION, SCHEDULING, & TRACING QUESTIONNAIRE) * IF **C\_FNAME** ≠ -1 OR -2, DISPLAY APPROPRIATE NAME IN “C\_FNAME” THROUGHOUT THE INSTRUMENT. * OTHERWISE, IF **C\_FNAME** = -1 OR -2, DISPLAY “the child” IN APPROPRIATE FIELDS THROUGHOUT THE INSTRUMENT. * IF **CHILD\_SEX** = 1, DISPLAY “his” IN APPROPRIATE FIELDS THROUGHOUT INSTRUMENT. * IF **CHILD\_SEX** = 2, DISPLAY “her” IN APPROPRIATE FIELDS THROUGHOUT INSTRUMENT. * PRELOAD **AN\_CONV\_STAND\_HEIGHT** FROM **INSTRUMENT\_ID** = XX (ANTHROPOMETRY INSTRUMENT). |

**BE01000/(BIA\_INTRO).**

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * EXPLAIN THE BIA PROTOCOL TO THE ADULT CAREGIVER. * IF THE ADULT CAREGIVER REFUSES THE MEASUREMENTS, SELECT REFUSED. * OTHERWISE, SELECT CONTINUE. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| CONTINUE | 1 | BIA\_AMPUT |
| REFUSED | -1 |  |

**BE02000/(BIA\_REF\_REASON).** I am sorry that you have chosen not to participate in this activity.  Can you please tell me why?

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * ​SELECT ALL THAT APPLY. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| CONCERN ABOUT DISCOMFORT | 1 |  |
| CHILD SICK | 2 |  |
| CHILD TIRED/UNHAPPY | 3 |  |
| OTHER | -5 |  |
| NONE GIVEN | -7 |  |
| REFUSED | -1 |  |
| DON'T KNOW | -2 |  |

|  |
| --- |
| SOURCE |
| National Children’s Study, Vanguard Phase (Child Anthropometry) |

|  |
| --- |
| PARTICIPANT INSTRUCTIONS |
| * IF **BIA\_REF\_REASON** = -7, -1 OR -2, DO NOT ALLOW SELECTION OF OTHER RESPONSES AND GO TO **BE06000.** * IF **BIA\_REF\_REASON** = ANY COMBINATION OF 1-3, GO TO **BE06000.** * IF **BIA\_REF\_REASON** = -5 OR ANY COMBINATION OF 1-3 AND -5, GO TO **BIA\_REF\_REASON\_OTH**. |

**BE03000/(BIA\_REF\_REASON\_OTH).** ​SPECIFY:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| DON'T KNOW | -2 |  |

|  |
| --- |
| SOURCE |
| National Children’s Study, Vanguard Phase (Child Anthropometry) |

**BE06000.** ​That’s fine.  Thank you for your time.

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * GO TO **TIME\_STAMP\_BDC\_ET**. |

**BE07000/(BIA\_AMPUT).** Does {C\_FNAME/the child} have any amputations of his or her legs and feet other than toes?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BDC15000 |
| NO | 2 |  |
| REFUSED | -1 | BDC15000 |
| DON'T KNOW | -2 | BDC15000 |

|  |
| --- |
| SOURCE |
| National Health and Nutrition Examination Study (NHANES). Body Composition Procedures Manual. January, 2006. (modified) |

**BE08000/(BIA\_PACEMAKER).** Does {C\_FNAME/the child} have a pacemaker or automatic defibrillator?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BDC15000 |
| NO | 2 |  |
| REFUSED | -1 | BDC15000 |
| DON'T KNOW | -2 | BDC15000 |

|  |
| --- |
| SOURCE |
| National Health and Nutrition Examination Study (NHANES). Body Composition Procedures Manual. January, 2006. (modified) |

**BE09000/(BIA\_ART\_JOINTS).** Does {C\_FNAME/the child} have artificial joints, pins, plates, or other types of metal objects in his or her body?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BDC15000 |
| NO | 2 |  |
| REFUSED | -1 | BDC15000 |
| DON'T KNOW | -2 | BDC15000 |

|  |
| --- |
| SOURCE |
| ​National Health and Nutrition Examination Study (NHANES). Body Composition Procedures Manual. January, 2006. (modified) |

**BE10000/(BIA\_CORONARY\_STENTS).** Does {C\_FNAME/the child} have coronary stents or metal sutures in his or her body?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BDC15000 |
| NO | 2 |  |
| REFUSED | -1 | BDC15000 |
| DON'T KNOW | -2 | BDC15000 |

|  |
| --- |
| SOURCE |
| National Health and Nutrition Examination Study (NHANES). Body Composition Procedures Manual. January, 2006.(modified) |

**BE11000/(BIA\_DIARRHEA).** ​Has {C\_FNAME/the child} had diarrhea or the stomach flu in the past 2 days (48 hours)?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BDC15000 |
| NO | 2 |  |
| REFUSED | -1 | BDC15000 |
| DON'T KNOW | -2 | BDC15000 |

|  |
| --- |
| SOURCE |
| Dittmar M. Reliability and Variability of Bioimpedance Measures in Normal Adults: Effects of Age, Gender, and Body Mass. American Journal of Physical Anthropology; 122 (4): 361-370, 2003. (modified) |

**BE12000/(BIA\_URINATE).** CHILD URINATED?

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * INSTRUCT THE CHILD TO USE THE BATHROOM. * INSTRUCT THE ADULT CAREGIVER TO ASSIST THE CHILD AS NEEDED. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 |  |
| NO | 2 | BDC15000 |

**BE13000/(BIA\_REMOVE\_METAL).** REMOVED JEWELRY?

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * HAVE THE CHILD REMOVE ALL JEWELRY, EYEGLASSES, HAIR ORNAMENTS, AND OTHER METAL OBJECTS FROM THEIR HAIR AND BODY. * PER PROTOCOL, THIS WOULD INTERFERE WITH DATA QUALITY. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 |  |
| NO | 2 | BDC15000 |

|  |
| --- |
| SOURCE |
| National Health And Nutrition Examination Survey 2003-04 (modified) |

**BE14000/(BIA\_SHOES).** REMOVED SHOES & SOCKS?

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * ​INSTRUCT THE ADULT CAREGIVER TO ASSIST THE CHILD IN REMOVING {HIS/HER} SHOES AND SOCKS. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 |  |
| NO | 2 | BDC15000 |

**BE15000/(BIA\_CLEAN\_FEET).** CLEANED FEET?

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * ​​CLEAN THE CHILD’S FEET WITH SOAP AND WATER OR AN ALCOHOL-FREE WIPE, OR INSTRUCT THE ADULT CAREGIVER TO ASSIST THE CHILD IN CLEANING {HIS/HER} FEET WITH SOAP AND WATER OR WITH AN ALCOHOL-FREE WIPE. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 |  |
| NO | 2 | BDC15000 |

**(TIME\_STAMP\_BE\_ET).**

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * ​INSERT DATE/TIME STAMP. |

DATA INPUT FOR BIA EQUIPMENT

**(TIME\_STAMP\_DI\_ST).**

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * INSERT DATE/TIME STAMP. |

**DI01000/(BIA\_EQUIP\_ID).** RECORD EQUIPMENT ID.

|\_\_\_|\_\_\_||\_\_\_|\_\_\_||\_\_\_|\_\_\_||\_\_\_|\_\_\_||\_\_\_|\_\_\_|

EQUIPMENT SERIAL NUMBER

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| COULD NOT OBTAIN | -8 |  |

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * SCAN BIA EQUIPMENT BARCODE. * IF THE BARCODE SCANNER IS NOT WORKING, MANUALLY ENTER THE SERIAL NUMBER. |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * FORMAT **BIA\_EQUIP\_ID** AS ONE OF THE FOLLOWING:   + #########   + ######## |

**DI02000/(BIA\_AN\_STAND\_HEIGHT).** STANDING HEIGHT:

|\_\_\_|\_\_\_|, |\_\_\_||\_\_\_|

FEET, INCHES

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * RECORD STANDING HEIGHT THAT IS ENTERED INTO BIA MONITOR. (USE MEASUREMENT FROM ANTHROPOMETRY) |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| CHILD UNABLE TO STAND | -7 |  |
| EXCEEDS CAPACITY | -9 |  |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * IF VALID MEASURE CALCULATED FOR **AN\_CONV\_STAND\_HEIGHT**, CREATE DERIVED VARIABLE **BIA\_AN\_STAND\_HEIGHT** BY CONVERTING **AN\_CONV\_STAND\_HEIGHT** TO FEET AND INCHES WHERE HEIGHT IN FEET = [**AN\_CONV\_STAND\_HEIGHT** / 12].  MULTIPLY THE DECIMAL FRACTION BY 12 AND ROUND TO NEAREST INCH TO GET **BIA\_AN\_STAND\_HEIGHT**. |

**DI03000/(BIA\_AGE).** CHILD'S AGE:

|\_\_\_|

YEARS

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * RECORD CHILD’S AGE THAT WAS ENTERED INTO BIA MONITOR. * CHILD'S AGE IS {**CHILD'S AGE**} |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * USE **CHILD\_DOB** AND CURRENT DATE TO CALCULATE CHILD'S CURRENT AGE. * ROUND AGE DOWN TO NEAREST YEAR. * DISPLAY ROUNDED AGE IN "CHILD'S AGE". |

**(TIME\_STAMP\_DI\_ET).**

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * INSERT DATE/TIME STAMP. |

BIA DATA COLLECTION

**(TIME\_STAMP\_BDC\_ST).**

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * INSERT DATE/TIME STAMP. |

**BDC01000/(BIA\_WEIGHT1).** WEIGHT:

|\_\_\_|\_\_\_|\_\_\_|.|\_\_\_| KILOGRAMS

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * IF UNABLE TO AUTOMATICALLY DOWNLOAD RAW DATA FROM BIA MACHINE TO COMPUTER, CAPTURE RAW DATA MANUALLY. * CHILD DATE OF BIRTH: {BIA\_AGE}. * CHILD SEX: {CHILD\_SEX}. * CHILD HEIGHT: {BIA\_AN\_STAND\_HEIGHT}. * ENTER INTO THE EQUIPMENT THE 1.0 LBS FOR THE WEIGHT OF THE CHILD’S CLOTHING. SELECT ENTER. * SELECT THE CHILD’S SEX FROM THE OPTIONS DISPLAYED BY THE EQUIPMENT. SELECT ENTER. * ENTER THE CHILD’S AGE IN YEARS INTO THE EQUIPMENT. SELECT ENTER. * ENTER THE CHILD’S HEIGHT IN FEET AND INCHES INTO THE EQUIPMENT. SELECT ENTER. * PROMPT THE CHILD TO STEP ON THE EQUIPMENT WITH HIS OR HER FEET ALIGNED WITH THE SENSORY PADS. |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * DISPLAY **BIA\_AGE**. * DISPLAY **CHILD\_SEX**. * DISPLAY **BIA\_AN\_STAND\_HEIGHT.** |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

**BDC02000/(BIA\_BODY\_FAT\_PERC1).** BODY FAT PERCENTAGE:

​|\_\_\_|\_\_\_|.|\_\_\_| %

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * IF UNABLE TO AUTOMATICALLY DOWNLOAD RAW DATA FROM BIA MACHINE TO COMPUTER, CAPTURE RAW DATA MANUALLY. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

**BDC03000/(BIA\_COLLECT1).** ​WERE YOU ABLE TO COLLECT ALL OF THE RAW DATA FROM THE BIA MONITOR?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BIA\_COMMENTS1 |
| NO | 2 |  |

**BDC04000/(BIA\_REASON\_NOT\_COLLECT1).**

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * ENTER REASON(S) YOU COULD NOT OBTAIN BIA MEASUREMENT(S). * SELECT ALL THAT APPLY. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| ADULT CAREGIVER REFUSAL | 1 |  |
| PARENT/CAREGIVER UNABLE TO UNDERSTAND INSTRUCTIONS OR TASK | 2 |  |
| ADULT CAREGIVER ILL/EMERGENCY | 3 |  |
| CHILD ILL/EMERGENCY | 4 |  |
| NO TIME | 5 |  |
| EQUIPMENT FAILURE | 6 |  |
| CONCERNS ABOUT THE CHILD'S SAFETY | 7 |  |
| PHYSICAL LIMITATION OF THE CHILD | 8 |  |
| DATA COLLECTOR ERROR | 9 |  |
| OTHER | -5 |  |
| NONE GIVEN | -7 |  |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * IF **BIA\_REASON\_NOT\_COLLECT1** = ANY COMBINATION OF 1 - 10, GO TO **BIA\_COMMENTS1.** * IF **BIA\_REASON\_NOT\_COLLECT1**= -7 DO NOT ALLOW SELECTION OF OTHER VALUES AND GO TO **BIA\_COMMENTS1.** * IF **BIA\_REASON\_NOT\_COLLECT1** = -5 OR ANY COMBINATION OF 1-10 AND -5, GO TO **BIA\_REASON\_NOT\_COLLECT1\_OTH.** |

**BDC05000/(BIA\_REASON\_NOT\_COLLECT1\_OTH).** ​

SPECIFY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BDC06000/(BIA\_COMMENTS1).** DO YOU HAVE ANY COMMENTS ABOUT THE FIRST BIA MEASUREMENT?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 |  |
| NO | 2 | BIA\_WEIGHT2 |

**BDC07000/(BIA\_COMMENTS1\_OTH).** SPECIFY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BDC08000/(BIA\_WEIGHT2).** WEIGHT:

​|\_\_\_|\_\_\_|\_\_\_|.|\_\_\_| KILOGRAMS

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * DISPLAY **CHILD\_DOB**. * DISPLAY **CHILD\_SEX**. * DISPLAY **AN\_CONV\_STAND\_HEIGHT**. |

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * CHILD DATE OF BIRTH: {BIA\_AGE}. * CHILD SEX: {CHILD\_SEX}. * CHILD HEIGHT: {AN\_STAND\_HEIGHT\_MEAN}. * IF USING PAPER AND PENCIL INSTRUMENT TO RECORD RESULTS, COPY **AN\_CONV\_STANDING\_HEIGHT** AND **CHILD\_SEX** FROM PHYSICAL MEASURES CHILD ANTHROPOMETRY INSTRUMENT. * ENTER INTO THE EQUIPMENT THE 1.0 LBS FOR THE WEIGHT OF THE CHILD’S CLOTHING. SELECT ENTER. * SELECT THE CHILD’S SEX FROM THE OPTIONS DISPLAYED BY THE EQUIPMENT. SELECT ENTER. * ENTER THE CHILD’S AGE IN YEARS INTO THE EQUIPMENT. SELECT ENTER. * ENTER THE CHILD’S HEIGHT IN FEET AND INCHES INTO THE EQUIPMENT. SELECT ENTER. * PROMPT THE CHILD TO STEP ON THE EQUIPMENT WITH HIS OR HER FEET ALIGNED WITH THE SENSORY PADS. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

**BDC09000/(BIA\_BODY\_FAT\_PERC2).** BODY FAT PERCENTAGE:

​|\_\_\_|\_\_\_|.|\_\_\_| %

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * CREATE DERIVED VARIABLE, **BIA\_CALC\_BMI2,** AND CALCULATE BY:   + DIVIDING **BIA\_WEIGHT2** BY THE PRODUCT OF **AN\_CONV\_STAND\_HEIGHT** AND **AN\_CONV\_STAND\_HEIGHT**AND MULTIPLY THE QUOTIENT BY 703. * CREATE DERIVED VARIABLE, **BIA\_CALC\_BMR2**, AND CALCULATE BY:   + IF **CHILD\_SEX** = 1 (MALE):     - CALCULATE THE SUM OF 66, THE PRODUCT OF 6.23 AND **BIA\_WEIGHT2**, AND 12.7 TIMES THE **AN\_CONV\_STANDING\_HEIGHT**; SUBTRACT FROM THE SUM 6.8 TIMES THE**CHILD\_AGE\_YRS**   + IF **CHILD\_SEX** = 2 (FEMALE):     - CALCULATE THE SUM OF 665, THE PRODUCT OF 4.35 AND **BIA\_WEIGHT2**, AND 4.7 TIMES THE **AN\_CONV\_STANDING\_HEIGHT**; SUBTRACT FROM THE SUM 4.7 TIMES THE **CHILD\_AGE\_YRS**. * CREATE DERIVED VARIABLE, **BIA\_CONVERT\_BODY\_FAT2**, BY DIVIDING **BIA\_BODY\_FAT\_PERC2** BY 100. * CREATE DERIVED VARIABLE, **BIA\_WEIGHT\_FAT\_DIFF2**, AND CALCULATE BY  TAKING THE DIFFERENCE BETWEEN **BIA\_WEIGHT2**AND THE PRODUCT OF **BIA\_WEIGHT2**AND **BIA\_CONVERT\_BODY\_FAT2**. |

**BDC10000/(BIA\_COLLECT2).** ​WERE YOU ABLE TO COLLECT ALL OF THE RAW DATA FROM THE BIA MONITOR?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BIA\_COMMENTS2 |
| NO | 2 |  |

**BDC11000/(BIA\_REASON\_NOT\_COLLECT2).**

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| DATA COLLECTOR INSTRUCTIONS |
| * ENTER REASON(S) YOU COULD NOT OBTAIN BIA MEASUREMENT(S). * SELECT ALL THAT APPLY. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| ADULT CAREGIVER REFUSAL | 1 |  |
| PARENT/CAREGIVER UNABLE TO UNDERSTAND INSTRUCTIONS OR TASK | 2 |  |
| ADULT CAREGIVER ILL/EMERGENCY | 3 |  |
| CHILD ILL/EMERGENCY | 4 |  |
| NO TIME | 5 |  |
| EQUIPMENT FAILURE | 6 |  |
| CONCERNS ABOUT THE CHILD'S SAFETY | 7 |  |
| PHYSICAL LIMITATION OF THE CHILD | 8 |  |
| DATA COLLECTOR ERROR | 9 |  |
| OTHER | -5 |  |
| NONE GIVEN | -7 |  |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * IF**BIA\_REASON\_NOT\_COLLECT2** = ANY COMBINATION OF 1 - 10, GO TO **BIA\_COMMENTS2.** * IF **BIA\_REASON\_NOT\_COLLECT2** = -7 DO NOT ALLOW SELECTION OF OTHER VALUES AND GO TO**BIA\_COMMENTS2.** * IF **BIA\_REASON\_NOT\_COLLECT2** = -5 OR ANY COMBINATION OF 1-10 AND -5, GO TO **BIA\_REASON\_NOT\_COLLECT2\_OTH.** |

**BDC12000/(BIA\_REASON\_NOT\_COLLECT2\_OTH).** ​

SPECIFY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BDC13000/(BIA\_COMMENTS2).** DO YOU HAVE COMMENTS ABOUT THE SECOND BIA MEASURE?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 |  |
| NO | 2 |  |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * IF **BIA\_COMMENTS2** = 2, GO TO PROGRAMMER INSTRUCTIONS AFTER **BIA\_COMMENTS2\_OTH.** * OTHERWISE, GO TO **​BIA\_COMMENTS2\_OTH.** |

**BDC13100/(BIA\_COMMENTS2\_OTH).** ​

SPECIFY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * IF **BIA\_WEIGHT1** ≠ -1 OR -8 AND **BIA\_WEIGHT2** ≠ -1 OR -8, THEN CREATE DERIVED VARIABLE, **BIA\_WEIGHT\_DIFF1,** AND CALCULATE **BIA\_WEIGHT\_DIFF1** BY TAKING THE ABSOLUTE VALUE OF THE DIFFERENCE BETWEEN **BIA\_WEIGHT1** AND **BIA\_WEIGHT2**:   + IF **BIA\_WEIGHT\_DIFF1** > 0.7 LBS, GO TO **BIA\_WEIGHT3**.   + IF **BIA\_WEIGHT\_DIFF1** < 0.7 LBS, GO TO **BDC14000**. |

**BDC13200/(BIA\_WEIGHT3).** WEIGHT:

|\_\_\_|\_\_\_|\_\_\_|.|\_\_\_| KILOGRAMS

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * IF UNABLE TO AUTOMATICALLY DOWNLOAD RAW DATA FROM BIA MACHINE TO COMPUTER, CAPTURE RAW DATA MANUALLY. * CHILD DATE OF BIRTH: {CHILD\_DOB}. * CHILD SEX: {CHILD\_SEX}. * CHILD HEIGHT: {AN\_STAND\_HEIGHT\_MEAN}. * ENTER INTO THE EQUIPMENT THE 1.0 LBS FOR THE WEIGHT OF THE CHILD’S CLOTHING. SELECT ENTER. * SELECT THE CHILD’S SEX FROM THE OPTIONS DISPLAYED BY THE EQUIPMENT. SELECT ENTER. * ENTER THE CHILD’S AGE IN YEARS INTO THE EQUIPMENT. SELECT ENTER. * ENTER THE CHILD’S HEIGHT IN FEET AND INCHES INTO THE EQUIPMENT. SELECT ENTER. * PROMPT THE CHILD TO STEP ON THE EQUIPMENT WITH HIS OR HER FEET ALIGNED WITH THE SENSORY PADS. |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * DISPLAY **CHILD\_DOB.** * DISPLAY **CHILD\_SEX.** * DISPLAY **AN\_STAND\_HEIGHT\_MEAN.** |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

**BDC13300/(BIA\_BODY\_FAT\_PERC3).** BODY FAT PERCENTAGE:

​|\_\_\_|\_\_\_|.|\_\_\_| %

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| REFUSED | -1 |  |
| COULD NOT OBTAIN | -8 |  |

**BDC13400/(BIA\_COLLECT3).** ​WERE YOU ABLE TO COLLECT ALL OF THE RAW DATA FROM THE BIA MONITOR?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 | BIA\_COMMENTS3 |
| NO | 2 |  |

**BDC13500/(BIA\_REASON\_NOT\_COLLECT3).**

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| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * ENTER REASON(S) YOU COULD NOT OBTAIN BIA MEASUREMENT(S). * SELECT ALL THAT APPLY. |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| ADULT CAREGIVER REFUSAL | 1 |  |
| PARENT/CAREGIVER UNABLE TO UNDERSTAND INSTRUCTIONS OR TASK | 2 |  |
| ADULT CAREGIVER ILL/EMERGENCY | 3 |  |
| CHILD ILL/EMERGENCY | 4 |  |
| NO TIME | 5 |  |
| EQUIPMENT FAILURE | 6 |  |
| CONCERNS ABOUT THE CHILD'S SAFETY | 7 |  |
| PHYSICAL LIMITATION OF THE CHILD | 8 |  |
| DATA COLLECTOR ERROR | 9 |  |
| OTHER | -5 |  |
| NONE GIVEN | -7 |  |

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| IF **BIA\_REASON\_NOT\_COLLECT3** = ANY COMBINATION OF 1 - 10, GO TO**BIA\_COMMENTS3.** IF **BIA\_REASON\_NOT\_COLLECT3 = -**7 DO NOT ALLOW SELECTION OF OTHER VALUES AND GO TO **BIA\_COMMENTS3.** IF **BIA\_REASON\_NOT\_COLLECT3 = -**5 OR ANY COMBINATION OF 1-10 AND -5, GO TO**BIA\_REASON\_NOT\_COLLECT3\_OTH.** |

**BDC13600/(BIA\_REASON\_NOT\_COLLECT3\_OTH).** ​

SPECIFY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BDC13700/(BIA\_COMMENTS3).** DO YOU HAVE COMMENTS ABOUT THE THIRD BIA MEASUREMENT?

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| YES | 1 |  |
| NO | 2 | BDC14000 |

**BDC13800/(BIA\_COMMENTS3\_OTH).** SPECIFY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BDC14000.** ​Thank you for having {C\_FNAME/the child} complete these BIA measures.

|  |
| --- |
| PROGRAMMER INSTRUCTIONS |
| * GO TO **TIME\_STAMP\_BDC\_ET**. |

**BDC15000.** ​Thank you for answering these questions.

**BDC16000/(CHILD\_EXC\_REASON).** ENTER REASON CHILD WAS EXCLUDED FROM BIA MEASUREMENT(S)

|  |
| --- |
| DATA COLLECTOR INSTRUCTIONS |
| * ENTER REASON CHILD WAS EXCLUDED FROM BIA MEASUREMENT(S). |

|  |  |  |
| --- | --- | --- |
| Label | Code | Go To |
| ADULT CAREGIVER REFUSAL | 1 | TIME\_STAMP\_BDC\_ET |
| LEG OR FOOT AMPUTATION | 2 | TIME\_STAMP\_BDC\_ET |
| PACEMAKER | 3 | TIME\_STAMP\_BDC\_ET |
| ARTIFICIAL JOINTS | 4 | TIME\_STAMP\_BDC\_ET |
| CORONARY STENTS | 5 | TIME\_STAMP\_BDC\_ET |
| REFUSED TO REMOVE METAL | 6 | TIME\_STAMP\_BDC\_ET |
| DIARRHEA | 7 | TIME\_STAMP\_BDC\_ET |
| REFUSED TO URINATE | 8 | TIME\_STAMP\_BDC\_ET |
| REFUSED TO REMOVE SHOES | 9 | TIME\_STAMP\_BDC\_ET |
| REFUSED TO CLEAN FEET | 10 | TIME\_STAMP\_BDC\_ET |
| OTHER | -5 |  |

**BDC17000/(CHILD\_EXC\_REASON\_OTH).** SPECIFY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**(TIME\_STAMP\_BDC\_ET).**

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| --- |
| PROGRAMMER INSTRUCTIONS |
| * INSERT DATE/TIME STAMP. |