



Child Blood Pressure Instrument

Event Category:	Time-Based
Event:	12M, 24M, 36M, 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:	10 minutes
Multiple Child/Sibling Consideration:	Per Child
Special Considerations:	N/A
Version:	3.0
MDES Release:	4.0

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

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.** Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: NIH, Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0593*). Do not return the completed form to this address.

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Child Blood Pressure Instrument

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Child Blood Pressure 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	<ul style="list-style-type: none"> Limit text to 255 characters
FIRST NAME AND LAST NAME	30	CHARACTER	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.**

CHILD BLOOD PRESSURE INSTRUMENT

(TIME_STAMP_CBP_ST).

PROGRAMMER INSTRUCTIONS

- INSERT DATE/TIME STAMP
- IF **C_FNAME** COLLECTED DURING PVST INSTRUMENT AND RESPONSE ≠ -1, -2 OR -4, PRELOAD **C_FNAME**.
- OTHERWISE, IF **C_FNAME** NOT COLLECTED DURING PVST INSTRUMENT OR RESPONSE = -1, -2 OR -4, DISPLAY “the child”.
- PRELOAD **CHILD_DOB** AND **CHILD_SEX** FROM PVST INSTRUMENT.
- PRELOAD (**AN_CONV_WEIGHT_LBS**)/(**AN_CONV_WEIGHT_OZ**) AND **AN_CONV_RECUMBENT_LENGTH** FROM ANTHROPOMETRY INSTRUMENT.

CBP01000/(BP_INTRO).

DATA COLLECTOR INSTRUCTIONS

- EXPLAIN THE BLOOD PRESSURE PROTOCOL TO THE PARENT OR CAREGIVER.
- IF THE PARENT OR CAREGIVER REFUSED THE BLOOD PRESSURE MEASUREMENTS, SELECT REFUSED.
- OTHERWISE, SELECT CONTINUE.

Label	Code	Go To
CONTINUE	1	BP_EQUIP_ID
REFUSED	-1	

CBP02000/(BP_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	

SOURCE

National Children’s Study, Vanguard Phase (Child BP)

PROGRAMMER INSTRUCTIONS

- IF **BP_REF_REASON** = ANY COMBINATION OF RESPONSE CODES 1 - 3, GO TO **CBP06000**.
- IF **BP_REF_REASON** = -5, OR ANY COMBINATION OF RESPONSE CODES 1 -3

PROGRAMMER INSTRUCTIONS

AND -5, GO TO BP_REF_REASON_OTH.

- OTHERWISE, IF BP_REF_REASON = -7, DO NOT ALLOW SELECTION OF ADDITIONAL RESPONSE CODES AND GO TO CBP06000.

CBP03000/(BP_REF_REASON_OTH). SPECIFY: _____

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

SOURCE

National Children's Study, Vanguard Phase (Child BP)

CBP06000. That's fine. Thank you for your time.

PROGRAMMER INSTRUCTIONS

GO TO TIME_STAMP_CBP_ET.

CBP07000/(BP_EQUIP_ID). RECORD EQUIPMENT ID.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

DATA COLLECTOR INSTRUCTIONS

- SCAN BP MONITOR BARCODE.
- IF THE BARCODE SCANNER IS NOT WORKING, MANUALLY ENTER THE SERIAL NUMBER.

PROGRAMMER INSTRUCTIONS

- FORMAT BP_EQUIP_ID AS ONE OF THE FOLLOWING:
 - o SDT ##### SP.
 - o SH6 ##### SA

CBP08000/(BP_ARM_USED). RECORD ARM USED TO MEASURE BLOOD PRESSURE.

Label	Code	Go To
RIGHT	1	
LEFT	2	
REFUSED	-1	
COULD NOT OBTAIN	-8	

SOURCE

PROGRAMMER INSTRUCTIONS

- IF BP_ARM_USED = -1 OR -8, GO TO BP_MEAS_CNO_REASON.
- IF AN_MID_UPPER_ARM_CIRC_MEAN CALCULATED PREVIOUSLY, PRELOAD AN_MID_UPPER_ARM_CIRC_MEAN FROM ANTHROPOMETRY INSTRUMENT

PROGRAMMER INSTRUCTIONS

AND GO TO ?CBP11000.

- OTHERWISE, IF **AN_MID_UPPER_ARM_CIRC_MEAN** NOT CALCULATED PREVIOUSLY, GO TO **BP_UPPER_ARM_LENGTH**.

CBP09000/(BP_UPPER_ARM_LENGTH). UPPER ARM (HUMERUS) LENGTH.

|_|_|. |_| CM

DATA COLLECTOR INSTRUCTIONS

- IF UPPER ARM CIRCUMFERENCE NOT AVAILABLE FROM ANTHROPOMETRY EXAM, OBTAIN UPPER ARM (HUMERUS) LENGTH NOW.

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

PROGRAMMER INSTRUCTIONS

- REFER TO APPENDIX A (ANTHROPOMETRY EDIT RANGES) IN CHILD ANTHROPOMETRY INSTRUMENT:
 - o IF MEASUREMENT IS < 0 OR > 80 CM, DISPLAY HARD EDIT.
 - o IF MEASUREMENT FALLS OUTSIDE SOFT EDIT RANGE BASED ON AGE AND GENDER, WHERE CHILD AGE IS CALCULATED USING **CHILD_DOB** AND **VISIT_DATE**, DISPLAY SOFT EDIT.
- CREATE DERIVED VARIABLE, **BP_MID_UPPER_ARM_LENGTH_MID** WHERE **BP_MID_UPPER_ARM_LENGTH_MID = BP_UPPER_ARM_LENGTH/2**.

CBP10000/(BP_MID_UPPER_ARM_CIRC). UPPER ARM CIRCUMFERENCE, MEASURED AT {**BP_MID_UPPER_ARM_LENGTH_MID**}.

|_|_|. |_| CM

DATA COLLECTOR INSTRUCTIONS

- TAKE MID UPPER ARM CIRCUMFERENCE AT THE UPPER ARM (HUMERUS) MIDPOINT.

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

PROGRAMMER INSTRUCTIONS

- DISPLAY **BP_MID_UPPER_ARM_LENGTH_MID**.
- REFER TO APPENDIX A (ANTHROPOMETRY EDIT RANGES) IN CHILD ANTHROPOMETRY INSTRUMENT:
 - o IF MEASUREMENT IS < 0 OR > 80 CM, DISPLAY HARD EDIT.
 - o IF MEASUREMENT FALLS OUTSIDE SOFT EDIT RANGE BASED ON AGE AND GENDER, WHERE CHILD AGE IS CALCULATED USING **CHILD_DOB** AND **VISIT_DATE**, DISPLAY SOFT EDIT.

CBP11000. RECOMMENDED CUFF SIZE: {CUFF SIZE}

PROGRAMMER INSTRUCTIONS

- DISPLAY THE APPROPRIATE CUFF SIZE FOR {CUFF SIZE} AS FOLLOWS:
 - o IF **BP_MID_UPPER_ARM_CIRC** ≤ 8 CM OR ≥ 50 CM, DISPLAY “COULD NOT OBTAIN.”
 - o IF **BP_MID_UPPER_ARM_CIRC** > 8 CM AND ≤ 11.9 CM, DISPLAY “INFANT”.
 - o IF **BP_MID_UPPER_ARM_CIRC** ≥ 12 CM AND ≤ 16.9 CM, DISPLAY “CHILD”.
 - o IF **BP_MID_UPPER_ARM_CIRC** ≥ 17 CM AND ≤ 21.9 CM, DISPLAY “SMALL ADULT”.
 - o IF **BP_MID_UPPER_ARM_CIRC** ≥ 22 CM AND ≤ 29.9 CM, DISPLAY “ADULT”.
 - o IF **BP_MID_UPPER_ARM_CIRC** ≥ 30 CM AND ≤ 37.9 CM, DISPLAY “LARGE ADULT”.
 - o IF **BP_MID_UPPER_ARM_CIRC** ≥ 38 CM AND < 50 CM, DISPLAY “THIGH”.

CBP12000/(BP_CUFF_SIZE_USED). SELECT BLOOD PRESSURE CUFF SIZE USED FOR MEASUREMENTS.

Label	Code	Go To
INFANT	1	
CHILD	2	
SMALL ADULT	3	
ADULT	4	
LARGE ADULT	5	
THIGH	6	

DATA COLLECTOR INSTRUCTIONS

- RECORD CUFF SIZE USED.

CBP13000. BLOOD PRESSURE 1 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS

- OBTAIN FIRST SET OF BLOOD PRESSURE MEASUREMENTS.

(BP_SYS_MEAS1) SYSTOLIC: |__|__|__| mmHg

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

(BP_DIA_MEAS1) DIASTOLIC: |__|__|__| mmHg

(BP_PULSE_MEAS1) PULSE: |__|__|__| BPM

PROGRAMMER INSTRUCTIONS

- IF DIFFERENCE BETWEEN **BP_SYS_MEAS1** AND **BP_DIA_MEAS1** < 20 MMHG,

PROGRAMMER INSTRUCTIONS

- DISPLAY MESSAGE “THE DIFFERENCE BETWEEN THE SYSTOLIC BP AND DIASTOLIC BP IS LESS THAN 20 MMHG. ARE YOU SURE?” REQUIRE SELECTION OF “YES” OR “NO” TO THIS QUESTION.
- o IF “YES” SELECTED, ACCEPT THE VALUE AND GO TO NEXT FIELD.
 - o IF “NO” SELECTED, DISPLAY MESSAGE “PLEASE ENTER A CORRECTED VALUE FOR SYSTOLIC BP AND/OR DIASTOLIC BP.” ALLOW ENTRY IN **BP_SYS_MEAS1** AND **BP_DIA_MEAS1**.
 - IF DIFFERENCE BETWEEN **BP_SYS_MEAS1** AND **BP_DIA_MEAS1** > 100, DISPLAY MESSAGE “THE DIFFERENCE BETWEEN THE SYSTOLIC BP AND DIASTOLIC BP IS GREATER THAN 100 MMHG. ARE YOU SURE?” REQUIRE SELECTION OF “YES” OR “NO” TO THIS QUESTION.
 - o IF “YES” IS SELECTED, ACCEPT THE VALUE AND GO TO **BP_POSITION_MEAS1**.
 - o IF “NO” SELECTED, DISPLAY MESSAGE “PLEASE ENTER A CORRECTED VALUE FOR SYSTOLIC BP AND/OR DIASTOLIC BP.” ALLOW ENTRY IN **BP_SYS_MEAS1** AND **BP_DIA_MEAS1**.
 - IF **BP_SYS_MEAS1** AND/OR **BP_DIA_MEAS1** > 290:
 - o DO NOT ACCEPT THIS VALUE.
 - o DISPLAY MESSAGE “THIS VALUE IS NOT WITHIN ACCEPTABLE LIMITS. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE (<290).” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - o ALLOW ENTRY IN **BP_SYS_MEAS1** AND **BP_DIA_MEAS1**.
 - IF **BP_DIA_MEAS1** > **BP_SYS_MEAS1**, DISPLAY MESSAGE “DIASTOLIC BP MUST BE LESS THAN SYSTOLIC BP. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ. ALLOW NEW ENTRY IN **BP_SYS_MEAS1** AND **BP_DIA_MEAS1**.
 - IF **BP_SYS_MEAS1** = -1 OR -8:
 - o DO NOT ACCEPT A VALUE FOR DIASTOLIC BP OR PULSE
 - o DISPLAY MESSAGE “PLEASE ENTER A VALUE FOR SYSTOLIC BP.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - o ALLOW NEW ENTRY IN **BP_SYS_MEAS1**.
 - IF **BP_SYS_MEAS1** = 0:
 - o DO NOT ACCEPT THIS VALUE.
 - o DISPLAY MESSAGE “SYSTOLIC BP CANNOT EQUAL ZERO. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE OR SELECT COULD NOT OBTAIN.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - o ALLOW NEW ENTRY IN **BP_SYS_MEAS1**.

CBP14000(BP_POSITION_MEAS1). CHILD’S POSITION FOR BLOOD PRESSURE 1 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS

- SELECT POSITION OF CHILD FOR FIRST SET OF BLOOD PRESSURE MEASUREMENTS.

Label	Code	Go To
SEATED	1	

Label	Code	Go To
SUPINE	2	
UPRIGHT	3	

CBP15000/(BP_STATE_MEAS1). CHILD'S STATE FOR BLOOD PRESSURE 1 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS		
<ul style="list-style-type: none"> SELECT STATE OF CHILD FOR FIRST SET OF BLOOD PRESSURE MEASUREMENTS. 		

Label	Code	Go To
AWAKE	1	
SLEEPING	2	
CRYING	3	

CBP16000/(BP_MEAS1_COM).

DATA COLLECTOR INSTRUCTIONS		
<ul style="list-style-type: none"> ENTER COMMENTS ABOUT THE FIRST SET OF BLOOD PRESSURE MEASUREMENTS, THE CHILD'S POSITION, AND THE CHILD'S STATE. SELECT ALL THAT APPLY. 		

Label	Code	Go To
NONE	1	
CHILD DID NOT REST FOR FIVE MINUTES	2	
LEGS WERE CROSSED	3	
OTHER	-5	

PROGRAMMER INSTRUCTIONS		
<ul style="list-style-type: none"> IF BP_MEAS1_COM = 1, DO NOT ALLOW SELECTION OF ADDITIONAL RESPONSES AND GO TO CBP18000. IF BP_MEAS1_COM = 2 AND/OR 3, GO TO CBP18000. IF BP_MEAS1_COM = -5 OR 2 AND/OR 3 AND -5, GO TO BP_MEAS1_COM_OTH. 		

CBP17000/(BP_MEAS1_COM_OTH). SPECIFY: _____

CBP18000. BLOOD PRESSURE 2 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS		
<ul style="list-style-type: none"> OBTAIN SECOND SET OF BLOOD PRESSURE MEASUREMENTS. 		

(BP_SYS_MEAS2) SYSTOLIC: |__|__|__| mmHg

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

(BP_DIA_MEAS2) DIASTOLIC: |__|__|__| mmHg

(BP_PULSE_MEAS2) PULSE: |_|_|_|_| BPM

PROGRAMMER INSTRUCTIONS

- IF DIFFERENCE BETWEEN **BP_SYS_MEAS2** AND **BP_DIA_MEAS2** < 20 MMHG, DISPLAY MESSAGE “THE DIFFERENCE BETWEEN THE SYSTOLIC BP AND DIASTOLIC BP IS LESS THAN 20 MMHG. ARE YOU SURE?” REQUIRE SELECTION OF “YES” OR “NO” TO THIS QUESTION.
 - IF “YES” SELECTED, ACCEPT THE VALUE AND GO TO **BP_POSITION_MEAS2**.
 - IF “NO” SELECTED, DISPLAY MESSAGE “PLEASE ENTER A CORRECTED VALUE FOR SYSTOLIC BP AND/OR DIASTOLIC BP.” ALLOW ENTRY IN **BP_SYS_MEAS2** AND **BP_DIA_MEAS2**.
- IF DIFFERENCE BETWEEN **BP_SYS_MEAS2** AND **BP_DIA_MEAS2** > 100, DISPLAY MESSAGE “THE DIFFERENCE BETWEEN THE SYSTOLIC BP AND DIASTOLIC BP IS GREATER THAN 100 MMHG. ARE YOU SURE?” REQUIRE SELECTION OF “YES” OR “NO” TO THIS QUESTION.
 - IF “YES” IS SELECTED, ACCEPT THE VALUE AND GO TO **BP_POSITION_MEAS2**.
 - IF “NO” SELECTED, DISPLAY MESSAGE “PLEASE ENTER A CORRECTED VALUE FOR SYSTOLIC BP AND/OR DIASTOLIC BP.” ALLOW ENTRY IN **BP_SYS_MEAS2** AND **BP_DIA_MEAS2**.
- IF **BP_SYS_MEAS2** AND/OR **BP_DIA_MEAS2** > 290:
 - DO NOT ACCEPT THIS VALUE.
 - DISPLAY MESSAGE “THIS VALUE IS NOT WITHIN ACCEPTABLE LIMITS. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE (<290).” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - ALLOW ENTRY IN **BP_SYS_MEAS2** AND/OR **BP_DIA_MEAS2**.
- IF **BP_DIA_MEAS2** > **BP_SYS_MEAS2**:
 - DISPLAY MESSAGE “DIASTOLIC BP MUST BE LESS THAN SYSTOLIC BP. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - ALLOW NEW ENTRY IN **BP_SYS_MEAS2** AND/OR **BP_DIA_MEAS2**.
- IF **BP_SYS_MEAS2** = -1 OR -8:
 - DO NOT ACCEPT A VALUE FOR DIASTOLIC BP OR PULSE
 - DISPLAY MESSAGE “PLEASE ENTER A VALUE FOR SYSTOLIC BP.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - ALLOW NEW ENTRY IN **BP_SYS_MEAS2**.
- IF **BP_SYS_MEAS2** = 0:
 - DO NOT ACCEPT THIS VALUE.
 - DISPLAY MESSAGE “SYSTOLIC BP CANNOT EQUAL ZERO. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE OR SELECT COULD NOT OBTAIN.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - ALLOW NEW ENTRY IN **BP_SYS_MEAS2**.

CBP19000/(BP_POSITION_MEAS2). CHILD’S POSITION FOR BLOOD PRESSURE 2 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS

- SELECT POSITION OF CHILD FOR SECOND SET OF BLOOD PRESSURE MEASUREMENTS.

Label	Code	Go To
SEATED	1	
SUPINE	2	
UPRIGHT	3	

CBP20000/(BP_STATE_MEAS2). CHILD'S STATE FOR BLOOD PRESSURE 2 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS

- SELECT STATE OF CHILD FOR SECOND SET OF BLOOD PRESSURE MEASUREMENTS.

Label	Code	Go To
AWAKE	1	
SLEEPING	2	
CRYING	3	

CBP21000/(BP_MEAS2_COM).

DATA COLLECTOR INSTRUCTIONS

- ENTER COMMENTS ABOUT THE SECOND SET OF BLOOD PRESSURE MEASUREMENTS, THE CHILD'S POSITION, AND THE CHILD'S STATE.
- SELECT ALL THAT APPLY.

Label	Code	Go To
NONE	1	
CHILD DID NOT REST FOR 30 SECONDS	2	
LEGS WERE CROSSED	3	
OTHER	-5	

PROGRAMMER INSTRUCTIONS

- IF **BP_MEAS2_COM** = 1, DO NOT ALLOW SELECTION OF ADDITIONAL RESPONSES AND GO TO **CBP23000**.
- IF **BP_MEAS2_COM** = 2 AND/OR 3, GO TO **CBP23000**.
- IF **BP_MEAS2_COM** = -5 OR 2 AND/OR 3 AND -5, GO TO **BP_MEAS2_COM_OTH**.

CBP22000/(BP_MEAS2_COM_OTH). SPECIFY: _____

CBP23000. BLOOD PRESSURE 3 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS

- OBTAIN THIRD SET OF BLOOD PRESSURE MEASUREMENTS.

(BP_SYS_MEAS3) SYSTOLIC: |__|__|__| mmHg

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

(BP_DIA_MEAS3) DIASTOLIC: |__|__|__| mmHg

(BP_PULSE_MEAS3) PULSE: |__|__|__| BPM

PROGRAMMER INSTRUCTIONS

- IF DIFFERENCE BETWEEN **BP_SYS_MEAS3** AND **BP_DIA_MEAS3** < 20 MMHG, DISPLAY MESSAGE “THE DIFFERENCE BETWEEN THE SYSTOLIC BP AND DIASTOLIC BP IS LESS THAN 20 MMHG. ARE YOU SURE?” REQUIRE SELECTION OF “YES” OR “NO” TO THIS QUESTION.
 - o IF “YES” SELECTED, ACCEPT THE VALUE AND GO TO **BP_POSITION_MEAS3**.
 - o IF “NO” SELECTED, DISPLAY MESSAGE “PLEASE ENTER A CORRECTED VALUE FOR SYSTOLIC BP AND/OR DIASTOLIC BP.” ALLOW ENTRY IN **BP_SYS_MEAS3** AND **BP_DIA_MEAS3**.
- IF DIFFERENCE BETWEEN **BP_SYS_MEAS3** AND **BP_DIA_MEAS3** > 100, DISPLAY MESSAGE “THE DIFFERENCE BETWEEN THE SYSTOLIC BP AND DIASTOLIC BP IS GREATER THAN 100 MMHG. ARE YOU SURE?” REQUIRE SELECTION OF “YES” OR “NO” TO THIS QUESTION.
 - o IF “YES” IS SELECTED, ACCEPT THE VALUE AND GO TO **BP_POSITION_MEAS1**.
 - o IF “NO” SELECTED, DISPLAY MESSAGE “PLEASE ENTER A CORRECTED VALUE FOR SYSTOLIC BP AND/OR DIASTOLIC BP.” ALLOW ENTRY IN **BP_SYS_MEAS3** AND **BP_DIA_MEAS3**.
- IF **BP_SYS_MEAS3** AND/OR **BP_DIA_MEAS3** > 290:
 - o DO NOT ACCEPT THIS VALUE.
 - o DISPLAY MESSAGE “THIS VALUE IS NOT WITHIN ACCEPTABLE LIMITS. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE (<290).” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - o ALLOW ENTRY IN **BP_SYS_MEAS3** AND **BP_DIA_MEAS3**.
- IF **BP_DIA_MEAS3** > **BP_SYS_MEAS3**, DISPLAY MESSAGE “DIASTOLIC BP MUST BE LESS THAN SYSTOLIC BP. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ. ALLOW NEW ENTRY IN **BP_SYS_MEAS3** AND **BP_DIA_MEAS3**.
- IF **BP_SYS_MEAS3** = -1 OR -8:
 - o DO NOT ACCEPT A VALUE FOR DIASTOLIC BP OR PULSE
 - o DISPLAY MESSAGE “PLEASE ENTER A VALUE FOR SYSTOLIC BP.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - o ALLOW NEW ENTRY IN **BP_SYS_MEAS3**.
- IF **BP_SYS_MEAS3** = 0:
 - o DO NOT ACCEPT THIS VALUE.
 - o DISPLAY MESSAGE “SYSTOLIC BP CANNOT EQUAL ZERO. PLEASE ENTER A VALUE WITHIN THE ACCEPTABLE RANGE OR SELECT COULD NOT OBTAIN.” REQUIRE SELECTION OF “OK” TO CONFIRM MESSAGE WAS READ.
 - o ALLOW NEW ENTRY IN **BP_SYS_MEAS3**.

CBP24000/(BP_POSITION_MEAS3). CHILD'S POSITION FOR BLOOD PRESSURE 3 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS

- SELECT POSITION OF CHILD FOR THIRD SET OF BLOOD PRESSURE MEASUREMENTS.

Label	Code	Go To
SEATED	1	
SUPINE	2	
UPRIGHT	3	

CBP25000/(BP_STATE_MEAS3). CHILD'S STATE FOR BLOOD PRESSURE 3 MEASUREMENTS.

DATA COLLECTOR INSTRUCTIONS

- SELECT STATE OF CHILD FOR THIRD SET OF BLOOD PRESSURE MEASUREMENTS.

Label	Code	Go To
AWAKE	1	
SLEEPING	2	
CRYING	3	

CBP26000/(BP_MEAS3_COM).

DATA COLLECTOR INSTRUCTIONS

- ENTER COMMENTS ABOUT THE THIRD SET OF BLOOD PRESSURE MEASUREMENTS, THE CHILD'S POSITION, AND THE CHILD'S STATE.
- SELECT ALL THAT APPLY.

Label	Code	Go To
NONE	1	
CHILD DID NOT REST FOR 30 SECONDS	2	
LEGS WERE CROSSED	3	
OTHER	-5	

PROGRAMMER INSTRUCTIONS

- IF BP_MEAS3_COM = 1, DO NOT ALLOW SELECTION OF ADDITIONAL RESPONSES AND GO TO BP_MEAS_COM.
- IF BP_MEAS3_COM = 2 AND/OR 3, GO TO BP_MEAS_COM.
- IF BP_MEAS3_COM = -5 OR 2 AND/OR 3, AND -5, GO TO BP_MEAS3_COM_OTH.

CBP27000/(BP_MEAS3_COM_OTH). SPECIFY: _____

PROGRAMMER INSTRUCTIONS

- GO TO BP_MEAS_COM.

CBP28000/(BP_MEAS_CNO_REASON).

DATA COLLECTOR INSTRUCTIONS	
<ul style="list-style-type: none"> • ENTER REASON(S) YOU COULD NOT OBTAIN ANY BLOOD PRESSURE MEASURE(S). • SELECT ALL THAT APPLY. 	

Label	Code	Go To
PARENT/CAREGIVER REFUSAL	1	
CHILD REFUSAL	2	
COMMUNICATION ISSUES	3	
PARENT/CAREGIVER ILL/EMERGENCY	4	
CHILD ILL/EMERGENCY	5	
NO TIME	6	
EQUIPMENT FAILURE	7	
SAFETY EXCLUSION	8	
PHYSICAL LIMITATION	9	
DATA COLLECTOR ERROR	10	
OTHER	-5	
NONE GIVEN	-7	

PROGRAMMER INSTRUCTIONS	
<ul style="list-style-type: none"> • IF BP_MEAS_CNO_REASON = -5 OR ANY COMBINATION OF RESPONSES 1 - 10 AND -5, GO TO BP_MEAS_CNO_REASON_OTH. • IF BP_MEAS_CNO_REASON = -7, DO NOT ALLOW SELECTION OF ADDITIONAL RESPONSES AND GO TO BP_MEAS_COM. • IF BP_MEAS_CNO_REASON = ANY COMBINATION OF 1 - 10, GO TO BP_MEAS_COM. 	

CBP29000/(BP_MEAS_CNO_REASON_OTH).

SPECIFY: _____

CBP30000/(BP_MEAS_COM).

DATA COLLECTOR INSTRUCTIONS	
<ul style="list-style-type: none"> • ENTER COMMENTS OVERALL ABOUT THE BLOOD PRESSURE MEASUREMENTS, THE CHILD'S POSITION, AND THE CHILD'S STATE. • SELECT ALL THAT APPLY. 	

Label	Code	Go To
NONE	1	
CHILD DID NOT REST FOR FIVE MINUTES	2	
CHILD DID NOT REST FOR 30 SECONDS	3	
LEGS WERE CROSSED	4	
OTHER	-5	

PROGRAMMER INSTRUCTIONS

- IF **BP_MEAS_COM** = 1, DO NOT ALLOW SELECTION OF ADDITIONAL RESPONSES AND GO TO **CBP32000**.
- IF **BP_MEAS_COM** = ANY COMBINATION OF 2 - 4, GO TO **CBP32000**.
- IF **BP_MEAS_COM** = -5 OR ANY COMBINATION OF 2 - 4 AND -5, GO TO **BP_MEAS_COM_OTH**.

CBP31000(**BP_MEAS_COM_OTH**). SPECIFY: _____

CBP32000. AVERAGE SYSTOLIC BLOOD PRESSURE: {BP_SYS_AVG}
DIASTOLIC BLOOD PRESSURE: {BP_DIA_AVG}
PULSE: {BP_PULSE_AVG}

DATA COLLECTOR INSTRUCTIONS

- RECORD VALUES DISPLAYED FOR SYSTOLIC BLOOD PRESSURE IN "MMHG", DIASTOLIC BLOOD PRESSURE IN "MMHG", AND PULSE IN "BEATS PER MINUTE" ON REPORT OF FINDINGS FORM.
- IF "COULD NOT BE OBTAINED" IS DISPLAYED, CHECK BOX FOR "COULD NOT OBTAIN" FOR BLOOD PRESSURE AND HEART RATE.

PROGRAMMER INSTRUCTIONS

- CREATE AND SAVE DERIVED VARIABLE, **BP_SYS_AVG**, FOR SYSTOLIC BLOOD PRESSURE AVERAGE. CALCULATE **BP_SYS_AVG** AS FOLLOWS:
 - IF 3 VALUES COLLECTED FOR **BP_SYS_MEAS1**, **BP_SYS_MEAS2**, AND **BP_SYS_MEAS3**:
 - IGNORE **BP_SYS_MEAS1**.
 - CALCULATE THE AVERAGE FOR **BP_SYS_MEAS2** AND **BP_SYS_MEAS3**.
 - IF 2 VALUES COLLECTED FOR **BP_SYS_MEAS1** AND **BP_SYS_MEAS2**, USE **BP_SYS_MEAS2** AS **BP_SYS_AVG**.
 - IF 1 VALUE COLLECTED FOR **BP_SYS_MEAS1**, USE **BP_SYS_MEAS1** AS **BP_SYS_AVG**.
 - IF **BP_SYS_MEAS1** = -1 OR -8, SET **BP_SYS_AVG** TO "COULD NOT OBTAIN".
- CREATE AND SAVE DERIVED VARIABLE, **BP_DIA_AVG**, FOR DIASTOLIC BLOOD PRESSURE AVERAGE. CALCULATE **BP_DIA_AVG** AS FOLLOWS:
 - IF 3 VALUES COLLECTED FOR **BP_DIA_MEAS1**, **BP_DIA_MEAS2**, AND **BP_DIA_MEAS3**:
 - IGNORE **BP_DIA_MEAS1**.
 - CALCULATE THE AVERAGE FOR **BP_DIA_MEAS2** AND **BP_DIA_MEAS3**.
 - IF 2 VALUES COLLECTED FOR **BP_DIA_MEAS1** AND **BP_DIA_MEAS2**, USE **BP_DIA_MEAS2** AS **BP_DIA_AVG**.
 - IF 1 VALUE COLLECTED FOR **BP_DIA_MEAS1**, USE **BP_DIA_MEAS1** AS **BP_DIA_AVG**.
 - IF **BP_DIA_MEAS1** = -1 OR -8, SET **BP_DIA_AVG** TO "COULD NOT OBTAIN".
- CREATE AND SAVE DERIVED VARIABLE, **BP_PULSE_AVG**, FOR PULSE AVERAGE. CALCULATE **BP_PULSE_AVG** AS FOLLOWS:

PROGRAMMER INSTRUCTIONS

- o IF 3 VALUES COLLECTED FOR **BP_PULSE_MEAS1**, **BP_PULSE_MEAS2**, AND **BP_PULSE_MEAS3**:
 - IGNORE **BP_PULSE_MEAS1**.
 - CALCULATE THE AVERAGE FOR **BP_PULSE_MEAS2** AND **BP_PULSE_MEAS3**.
- o IF 2 VALUES COLLECTED FOR **BP_PULSE_MEAS1** AND **BP_PULSE_MEAS2**, USE **BP_PULSE_MEAS2** AS **BP_PULSE_AVG**.
- o IF 1 VALUE COLLECTED FOR **BP_PULSE_MEAS1**, USE **BP_PULSE_MEAS1** AS **BP_PULSE_AVG**.
- o IF **BP_SYS_MEAS1** = -1 OR -8, SET **BP_PULSE_AVG** TO "COULD NOT OBTAIN".
- IF AVERAGES WERE CALCULATED, DISPLAY **BP_SYS_AVG**, **BP_DIA_AVG**, AND **BP_PULSE_AVG**.
- OTHERWISE, IF **BP_SYS_MEAS1** = -1 OR -8, DISPLAY "COULD NOT BE OBTAINED".

CBP33000. BLOOD PRESSURE REFERRAL LEVEL.

DATA COLLECTOR INSTRUCTIONS

- COMPLETE REPORT OF FINDINGS USING INFORMATION DISPLAYED AND THEN GIVE REPORT OF FINDINGS (AND REFERRAL LETTER IF APPLICABLE) TO PARENT OR CAREGIVER.

PROGRAMMER INSTRUCTIONS

- CREATE CATEGORY AND REFERRAL LEVEL BASED ON INSTRUCTIONS IN APPENDICES A THROUGH E:
 - o IF REFERRAL CATEGORY = 1, DISPLAY, "IN THE REPORT OF FINDINGS, CHECK BOXES 'IS WITHIN NORMAL RANGE' AND 'NO ACTION IS NEEDED.' PLEASE NOTE THAT THERE IS NO REFERRAL LETTER."
 - o IF REFERRAL CATEGORY = 2, DISPLAY, "IN THE REPORT OF FINDINGS, CHECK BOXES 'NORMAL BUT AT THE HIGH END OF NORMAL' AND 'DISCUSS THESE FINDINGS WITH A HEALTH CARE PROVIDER AT NEXT VISIT.' PLEASE NOTE THAT THERE IS NO REFERRAL LETTER."
 - o IF REFERRAL CATEGORY = 3, DISPLAY, "IN THE REPORT OF FINDINGS, CHECK BOXES 'HIGH' AND 'SEE A HEALTH CARE PROVIDER WITHIN 2 WEEKS.' GIVE PARENT/CAREGIVER A REFERRAL LETTER."
 - o IF REFERRAL CATEGORY = 4, DISPLAY, "IN THE REPORT OF FINDINGS, CHECK BOXES 'VERY HIGH' AND 'SEE A HEALTH CARE PROVIDER IMMEDIATELY.' GIVE PARENT/CAREGIVER A REFERRAL LETTER."
 - o IF REFERRAL CATEGORY = N/A, DISPLAY "IN THE REPORT OF FINDINGS, CHECK 'N/A' BOX AND DO NOT CHECK A RECOMMENDED ACTION BOX. PLEASE NOTE THAT THERE IS NO REFERRAL LETTER."

CBP34000. {Thank you for taking the time to answer these questions./Thank you for having {C_FNAME/the child} complete these blood pressure measures.}

PROGRAMMER INSTRUCTIONS

- IF **BP_ARM_USED** = -1 OR -8 OR **BP_UPPER_ARM_LENGTH** = -1 OR -8 OR **BP_MID_UPPER_ARM_CIRC** = -1 OR -8 OR **BP_CUFF_SIZE_USED** = -8 OR

PROGRAMMER INSTRUCTIONS

(BP_SYS_MEAS1)(BP_DIA_MEAS1)(BP_PULSE_MEAS1) = -1 OR -8, DISPLAY FIRST BRACKETED PHRASE.

- OTHERWISE, DISPLAY SECOND BRACKETED PHRASE.

(TIME_STAMP_CBP_ET).

PROGRAMMER INSTRUCTIONS

- INSERT DATE/TIME STAMP

APPENDIX A: REFERRAL TABLE

Category	Statement Displayed
N/A	IN THE REPORT OF FINDINGS, CHECK BOX "N/A" AND DO NOT CHECK A RECOMMENDED ACTION BOX. PLEASE NOTE THAT THERE IS NO REFERRAL LETTER.
Category 4	IN THE REPORT OF FINDINGS, CHECK BOX "VERY HIGH" AND "SEE A HEALTH CARE PROVIDER IMMEDIATELY." GIVE PARENT/CAREGIVER A REFERRAL LETTER.
Category 3	IN THE REPORT OF FINDINGS, CHECK BOX "HIGH" AND "SEE A HEALTH CARE PROVIDER WITHIN 2 WEEKS." GIVE PARENT/CAREGIVER A REFERRAL LETTER.
Category 2	IN THE REPORT OF FINDINGS, CHECK BOX "NORMAL BUT AT THE HIGH END OF NORMAL" AND "DISCUSS THESE FINDINGS WITH A HEALTH CARE PROVIDER AT NEXT VISIT." PLEASE NOTE THAT THERE IS NO REFERRAL LETTER.
Category 1	IN THE REPORT OF FINDINGS, CHECK BOX "IS WITHIN NORMAL RANGE" AND "NO ACTION IS NEEDED." PLEASE NOTE THAT THERE IS NO REFERRAL LETTER.

Appendix B: REFERRAL LEVELS BASED ON AGE AND PERCENTILE LENGTH/HEIGHT, BOYS 1-6 YEARS

Boys - Age 1 (11 Months +)

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<49	49-53	54-66	≥ 67
< 94	1	2	3	4
94-97	2	2	3	4
98-110	3	3	3	4
≥ 111	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<50	50-53	54-67	≥ 68
< 95	1	2	3	4
95-98	2	2	3	4
99-111	3	3	3	4
≥ 112	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<51	51-54	55-68	≥ 69
< 97	1	2	3	4
97-100	2	2	3	4
101-113	3	3	3	4
≥ 114	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<52	52-55	56-69	≥ 70
<99	1	2	3	4
99-102	2	2	3	4
103-115	3	3	3	4
≥ 116	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<53	53-56	57-70	≥ 71
< 100	1	2	3	4
100-103	2	2	3	4
104-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<53	53-57	58-71	≥ 72
< 102	1	2	3	4
102-105	2	2	3	4
106-118	3	3	3	4
≥ 119	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<54	54-57	58-71	≥ 72
< 103	1	2	3	4
103-105	2	2	3	4
106-119	3	3	3	4
≥ 120	4	4	4	4

Boys - Age 2

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<54	54-58	59-71	≥ 72
< 97	1	2	3	4
97-100	2	2	3	4
101-114	3	3	3	4
≥ 115	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<55	55-58	59-72	≥ 73
< 99	1	2	3	4
99-101	2	2	3	4
102-115	3	3	3	4
≥ 116	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<56	56-59	60-73	≥ 74
< 100	1	2	3	4
100-103	2	2	3	4
104-118	3	3	3	4
≥ 119	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<57	57-60	61-74	≥ 75
< 102	1	2	3	4
102-105	2	2	3	4
106-118	3	3	3	4
≥ 119	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<58	58-61	62-75	≥ 76
< 104	1	2	3	4
104-107	2	2	3	4
108-120	3	3	3	4
≥ 121	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<58	58-62	63-76	≥ 77
< 105	1	2	3	4
105-108	2	2	3	4
109-122	3	3	3	4
≥ 123	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<59	59-62	63-76	≥ 77
< 106	1	2	3	4
106-109	2	2	3	4
110-122	3	3	3	4
≥ 123	4	4	4	4

Boys - Age 3

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<59	59-62	63-76	≥ 77
< 100	1	2	3	4
100-103	2	2	3	4
104-116	3	3	3	4
≥ 117	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<59	59-62	63-76	≥ 77
< 101	1	2	3	4
101-104	2	2	3	4
105-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<60	60-63	64-77	≥ 78
< 103	1	2	3	4
103-106	2	2	3	4
107-119	3	3	3	4
≥ 120	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<61	61-64	65-78	≥ 79
< 105	1	2	3	4
105-108	2	2	3	4
109-121	3	3	3	4
≥ 122	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<62	62-65	66-79	≥ 80
< 107	1	2	3	4
107-109	2	2	3	4
110-123	3	3	3	4
≥ 124	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<63	63-66	67-80	≥ 81
< 108	1	2	3	4
108-111	2	2	3	4
112-124	3	3	3	4
≥ 125	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<63	63-66	67-80	≥ 81
< 109	1	2	3	4
109-112	2	2	3	4
113-125	3	3	3	4
≥ 126	4	4	4	4

Boys - Age 4

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<62	62-65	66-73	≥ 74
< 102	1	2	3	4
102-105	2	2	3	4
106-112	3	3	3	4
≥ 113	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<63	63-66	67-74	≥ 75
< 103	1	2	3	4
103-106	2	2	3	4
107-113	3	3	3	4
≥ 114	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<64	64-67	68-75	≥ 76
< 105	1	2	3	4
105-108	2	2	3	4
109-115	3	3	3	4
≥ 116	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<65	65-68	69-76	≥ 77
< 107	1	2	3	4
107-110	2	2	3	4
111-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<66	66-69	70-77	≥ 78
< 109	1	2	3	4
109-111	2	2	3	4
112-119	3	3	3	4
≥ 120	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<66	66-70	71-77	≥ 78
< 110	1	2	3	4
110-113	2	2	3	4
114-120	3	3	3	4
≥ 121	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<67	67-70	71-78	≥ 79
< 111	1	2	3	4
111-114	2	2	3	4
115-121	3	3	3	4
≥ 122	4	4	4	4

Boys - Age 5

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<65	65-68	69-76	≥ 77
< 104	1	2	3	4
104-107	2	2	3	4
108-114	3	3	3	4
≥ 115	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<66	66-69	70-77	≥ 78
< 105	1	2	3	4
105-108	2	2	3	4
109-115	3	3	3	4
≥ 116	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<67	67-70	71-78	≥ 79
< 106	1	2	3	4
106-109	2	2	3	4
110-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<68	68-71	72-79	≥ 80
< 108	1	2	3	4
108-111	2	2	3	4
112-119	3	3	3	4
≥ 120	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<69	69-72	73-80	≥ 81
< 110	1	2	3	4
110-113	2	2	3	4
114-120	3	3	3	4
≥ 121	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<69	69-73	74-80	≥ 81
< 111	1	2	3	4
111-114	2	2	3	4
115-122	3	3	3	4
≥ 123	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<70	70-73	74-81	≥ 82
< 112	1	2	3	4
112-115	2	2	3	4
116-122	3	3	3	4
≥ 123	4	4	4	4

Boys - Age 6

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<68	68-71	72-85	≥ 86
< 105	1	2	3	4
105-108	2	2	3	4
109-121	3	3	3	4
≥ 122	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<68	68-71	72-85	≥ 86
< 106	1	2	3	4
106-109	2	2	3	4
110-122	3	3	3	4
≥ 123	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic	Diastolic (mm Hg)

(mm Hg)	<69	69-72	73-86	≥ 87
< 108	1	2	3	4
108-111	2	2	3	4
112-124	3	3	3	4
≥ 125	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<70	70-73	74-87	≥ 88
< 110	1	2	3	4
110-113	2	2	3	4
114-126	3	3	3	4
≥ 127	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<71	71-74	75-88	≥ 89
< 111	1	2	3	4
111-114	2	2	3	4
115-128	3	3	3	4
≥ 129	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<72	72-75	76-90	≥ 91
< 113	1	2	3	4
113-116	2	2	3	4
117-129	3	3	3	4
≥ 130	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<72	72-75	76-89	≥ 90
< 113	1	2	3	4
113-116	2	2	3	4
117-130	3	3	3	4
≥ 131	4	4	4	4

APPENDIX C-1: MALE RECUMBENT LENGTH (AGE 11.0-24) PERCENTILES

Length (Age 11.0 m - 24 m) Percentiles							
If age in months is greater than or =	and less than	P10 - P24	P25 - P49	P50 - P74	P75 - P89	P90 - P94	P95 - >
11	12	71.55	72.97	74.54	76.11	77.52	78.37
12	13	72.70	74.15	75.75	77.35	78.79	79.66
13	14	73.81	75.28	76.92	78.55	80.03	80.91
14	15	74.87	76.38	78.05	79.72	81.22	82.12
15	16	75.90	77.44	79.15	80.85	82.39	83.31
16	17	76.90	78.47	80.21	81.95	83.52	84.46
17	18	77.86	79.47	81.25	83.03	84.63	85.60
18	19	78.80	80.44	82.26	84.08	85.72	86.70
19	20	79.71	81.38	83.24	85.10	86.77	87.77
20	21	80.59	82.30	84.20	86.1	87.81	88.83
21	22	81.45	83.2	85.14	87.07	88.82	89.86
22	23	82.29	84.07	86.05	88.03	89.81	90.87
23	24	83.10	84.92	86.94	88.96	90.78	91.87
24	25	83.90	85.76	87.82	89.88	91.73	92.84

APPENDIX C-2: MALE STANDING HEIGHT (AGE 24M+) PERCENTILES

Height (Age 24 m +) Percentiles							
If age in months is greater than or =	and less than	P10 - P24	P25 - P49	P50 - P74	P75 - P89	P90 - P94	P95 - >
24	25	82.36	84.49	86.86	89.23	91.36	92.63
25	26	83.11	85.26	87.65	90.06	92.23	93.53
26	27	83.85	86.01	88.42	90.86	93.08	94.41
27	28	84.57	86.74	89.18	91.65	93.90	95.26
28	29	85.27	87.45	89.91	92.41	94.70	96.08
29	30	85.96	88.15	90.63	93.16	95.48	96.88
30	31	86.64	88.84	91.33	93.88	96.23	97.66
31	32	87.31	89.51	92.02	94.60	96.97	98.42
32	33	87.97	90.17	92.70	95.29	97.69	99.16
33	34	88.61	90.83	93.36	95.97	98.39	99.87
34	35	89.25	91.47	94.01	96.64	99.08	100.58
35	36	89.88	92.10	94.65	97.29	99.75	101.26
36	37	90.50	92.72	95.27	97.93	100.41	101.93
37	38	91.09	93.33	95.91	98.59	101.07	102.59
38	39	91.67	93.94	96.55	99.23	101.72	103.25
39	40	92.24	94.54	97.17	99.87	102.37	103.89
40	41	92.80	95.14	97.79	100.51	103.01	104.54
41	42	93.36	95.72	98.40	101.13	103.65	105.17
42	43	93.91	96.30	99.00	101.76	104.28	105.81
43	44	94.46	96.87	99.60	102.37	104.90	106.43
44	45	94.99	97.44	100.19	102.98	105.52	107.06
45	46	95.53	98.00	100.78	103.59	106.14	107.68
46	47	96.06	98.56	101.36	104.19	106.75	108.30
47	48	96.58	99.11	101.94	104.78	107.36	108.91
48	49	97.10	99.66	102.51	105.38	107.97	109.52
49	50	97.62	100.2	103.08	105.97	108.57	110.13
50	51	98.14	100.74	103.65	106.55	109.17	110.74
51	52	98.65	101.28	104.21	107.14	109.77	111.35
52	53	99.16	101.82	104.77	107.72	110.37	111.95
53	54	99.66	102.35	105.33	108.30	110.96	112.55
54	55	100.17	102.88	105.88	108.87	111.55	113.16
55	56	100.67	103.41	106.43	109.45	112.15	113.76
56	57	101.17	103.93	106.99	110.02	112.74	114.36
57	58	101.67	104.46	107.53	110.59	113.33	114.96

Height (Age 24 m +) Percentiles							
If age in months is greater than or =	and less than	P10 - P24	P25 - P49	P50 - P74	P75 - P89	P90 - P94	P95 - >
58	59	102.17	104.98	108.08	111.16	113.92	115.56
59	60	102.67	105.5	108.63	111.73	114.5	116.16
60	61	103.17	106.03	109.18	112.3	115.09	116.75
61	62	103.67	106.55	109.72	112.87	115.68	117.35
62	63	104.17	107.07	110.26	113.43	116.27	117.95
63	64	104.67	107.59	110.81	114	116.85	118.55
64	65	105.17	108.11	111.35	114.56	117.44	119.15
65	66	105.66	108.62	111.89	115.13	118.02	119.75
66	67	106.16	109.14	112.43	115.69	118.61	120.34
67	68	106.66	109.66	112.97	116.26	119.19	120.94
68	69	107.16	110.18	113.51	116.82	119.78	121.54
69	70	107.66	110.7	114.05	117.38	120.36	122.14
70	71	108.16	111.21	114.59	117.94	120.94	122.74
71	72	108.66	111.73	115.12	118.5	121.53	123.33
72	73	109.16	112.25	115.66	119.06	122.11	123.93
73	74	109.66	112.76	116.2	119.62	122.69	124.53
74	75	110.16	113.28	116.73	120.18	123.27	125.12
75	76	110.66	113.79	117.27	120.74	123.85	125.72
76	77	111.16	114.31	117.8	121.29	124.43	126.31
77	78	111.66	114.82	118.33	121.85	125.01	126.9
78	79	112.16	115.34	118.87	122.4	125.59	127.5
79	80	112.66	115.85	119.4	122.96	126.16	128.09
80	81	113.16	116.36	119.93	123.51	126.74	128.68
81	82	113.65	116.87	120.46	124.06	127.31	129.27
82	83	114.15	117.38	120.98	124.61	127.88	129.85
83	84	114.64	117.88	121.51	125.15	128.45	130.44
84	85	115.14	118.39	122.03	125.7	129.02	131.02
85	86	115.63	118.89	122.55	126.24	129.59	131.6
86	87	116.11	119.39	123.07	126.78	130.15	132.18

Appendix D: BLOOD PRESSURE REFERRAL LEVELS BASED ON AGE AND PERCENTILE LENGTH/HEIGHT, GIRLS 1-6 YEARS.

**Child Blood Pressure Values
Girls - Age 1 (11 Months +)**

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<52	52-55	56-69	≥ 70
< 97	1	2	3	4
97-99	2	2	3	4
100-113	3	3	3	4
≥ 114	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<53	53-56	57-69	≥ 70
< 97	1	2	3	4
97-100	2	2	3	4
101-113	3	3	3	4
≥ 114	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<53	53-56	57-70	≥ 71
< 98	1	2	3	4
98-101	2	2	3	4
102-114	3	3	3	4
≥ 115	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<54	54-57	58-70	≥ 71
< 100	1	2	3	4
100-103	2	2	3	4
104-116	3	3	3	4
≥ 117	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<55	55-58	59-71	≥ 72
< 101	1	2	3	4
101-104	2	2	3	4
105-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<55	55-58	59-72	≥ 73
< 102	1	2	3	4
102-105	2	2	3	4
106-118	3	3	3	4
≥ 119	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<56	56-59	60-72	≥ 73
< 103	1	2	3	4
103-106	2	2	3	4
107-119	3	3	3	4
≥ 120	4	4	4	4

Girls - Age 2

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<57	57-60	61-74	≥ 75
< 98	1	2	3	4
98-101	2	2	3	4
102-114	3	3	3	4
≥ 115	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<58	58-61	62-75	≥ 76
< 99	1	2	3	4
99-102	2	2	3	4
103-115	3	3	3	4
≥ 116	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<58	58-61	62-75	≥ 76
< 100	1	2	3	4
100-103	2	2	3	4
104-116	3	3	3	4
≥ 117	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<59	59-62	63-75	≥ 76
< 101	1	2	3	4
101 - 104	2	2	3	4
105-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<60	60-63	64-76	≥ 77
< 103	1	2	3	4
103-106	2	2	3	4
107-119	3	3	3	4
≥ 120	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<61	61-64	65-77	≥ 78
< 104	1	2	3	4
104-107	2	2	3	4
108-120	3	3	3	4
≥ 121	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<61	61-64	65-77	≥ 78
< 105	1	2	3	4
105-108	2	2	3	4
109-121	3	3	3	4
≥ 122	4	4	4	4

Girls - Age 3

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<61	61-64	65-78	≥ 79
< 100	1	2	3	4
100-103	2	2	3	4
104-116	3	3	3	4
≥ 117	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<62	62-65	66-78	≥ 79
< 100	1	2	3	4
100-103	2	2	3	4
104-116	3	3	3	4
≥ 117	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<62	62-65	66-79	≥ 80
< 102	1	2	3	4
102-104	2	2	3	4
105-118	3	3	3	4
≥ 119	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<63	63-66	67-79	≥ 80
< 103	1	2	3	4
103 - 106	2	2	3	4
107-119	3	3	3	4
≥ 120	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<64	64-67	68-80	≥ 81
< 104	1	2	3	4
104-107	2	2	3	4
108-120	3	3	3	4
≥ 121	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<64	64-67	68-81	≥ 82
< 106	1	2	3	4
106-108	2	2	3	4
109-121	3	3	3	4
≥ 122	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<65	65-68	69-81	≥ 82
< 106	1	2	3	4
106-109	2	2	3	4
110-122	3	3	3	4
≥ 123	4	4	4	4

Girls - Age 4

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<64	64-67	68-75	≥ 76
< 101	1	2	3	4
101-104	2	2	3	4
105-111	3	3	3	4
≥ 112	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<64	64-67	68-75	≥ 76
< 102	1	2	3	4
102-105	2	2	3	4
106-112	3	3	3	4
≥ 113	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<65	65-68	69-75	≥ 76
< 103	1	2	3	4
103-106	2	2	3	4
107-113	3	3	3	4
≥ 114	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<66	66-69	70-76	≥ 77
< 104	1	2	3	4
104-107	2	2	3	4
108-114	3	3	3	4
≥ 115	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<67	67-70	71-77	≥ 78
< 106	1	2	3	4
106-109	2	2	3	4
110-116	3	3	3	4
≥ 117	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<67	67-70	71-78	≥ 79
< 107	1	2	3	4
107-110	2	2	3	4
111-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<68	68-71	72-78	≥ 79
< 108	1	2	3	4
108-111	2	2	3	4
112-118	3	3	3	4
≥ 119	4	4	4	4

Girls - Age 5

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<66	66-69	70-77	≥ 78
< 103	1	2	3	4
103-106	2	2	3	4
107-113	3	3	3	4
≥ 114	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<67	67-70	71-77	≥ 78
< 103	1	2	3	4
103-106	2	2	3	4
107-113	3	3	3	4
≥ 114	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<67	67-70	71-78	≥ 79
< 105	1	2	3	4
105-107	2	2	3	4
108-115	3	3	3	4
≥ 116	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<68	68-71	72-78	≥ 79
< 106	1	2	3	4
106-109	2	2	3	4
110-116	3	3	3	4
≥ 117	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<69	69-72	73-79	≥ 80
< 107	1	2	3	4
107-110	2	2	3	4
111-117	3	3	3	4
≥ 118	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<69	69-72	73-80	≥ 81
< 109	1	2	3	4
109-111	2	2	3	4
112-119	3	3	3	4
≥ 120	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<70	70-73	74-80	≥ 81
< 109	1	2	3	4
109-112	2	2	3	4
113-119	3	3	3	4
≥ 120	4	4	4	4

Girls - Age 6

Percentile of length/height = Less than 10 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<68	68-71	72-85	≥ 86
< 104	1	2	3	4
104-107	2	2	3	4
108-120	3	3	3	4
≥ 121	4	4	4	4

Percentile of length/height = 10-24 %

Systolic (mm Hg)	Diastolic (mm Hg)			
	<68	68-71	72-85	≥ 86
< 105	1	2	3	4
105-108	2	2	3	4
109-121	3	3	3	4
≥ 122	4	4	4	4

Percentile of length/height = 25 - 49%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<69	69-72	73-85	≥ 86
< 106	1	2	3	4
106-109	2	2	3	4
110-122	3	3	3	4
≥ 123	4	4	4	4

Percentile of length/height = 50 - 74%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<70	70-73	74-86	≥ 87
< 108	1	2	3	4
108-110	2	2	3	4
111-124	3	3	3	4
≥ 125	4	4	4	4

Percentile of length/height = 75 - 89%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<70	70-73	74-87	≥ 88
< 109	1	2	3	4
109-112	2	2	3	4
113-125	3	3	3	4
≥ 126	4	4	4	4

Percentile of length/height = 90 - 94%

Systolic (mm Hg)	Diastolic (mm Hg)			
	<71	71-74	75-88	≥ 89
< 110	1	2	3	4
110-113	2	2	3	4
114-126	3	3	3	4
≥ 127	4	4	4	4

Percentile of length/height = 95% and higher

Systolic (mm Hg)	Diastolic (mm Hg)			
	<72	72-75	76-88	≥ 89
< 111	1	2	3	4
111-114	2	2	3	4
115-127	3	3	3	4
≥ 128	4	4	4	4

APPENDIX E-1: FEMALE RECUMBENT LENGTH (AGE 11.0-24 M) PERCENTILES

Length (Age 11.0 m -36 m) Percentiles							
If age in months is greater than or =	and less than	P10 - P24	P25 - P49	P50 - P74	P75 - P89	P90 - P94	P95 - >
11	12	69.54	71.07	72.77	74.47	76.00	76.92
12	13	70.72	72.28	74.02	75.75	77.31	78.25
13	14	71.85	73.44	75.22	76.99	78.59	79.54
14	15	72.94	74.57	76.38	78.19	79.82	80.80
15	16	74.00	75.66	77.51	79.38	81.02	82.02
16	17	75.02	76.72	78.61	80.49	82.19	83.20
17	18	76.02	77.75	79.67	81.59	83.32	84.36
18	19	76.99	78.75	80.71	82.67	84.43	85.48
19	20	77.93	79.72	81.72	83.71	85.51	86.58
20	21	78.84	80.67	82.70	84.74	86.56	87.66
21	22	79.73	81.60	83.67	85.73	87.60	88.71
22	23	80.61	82.50	84.60	86.71	88.60	89.74
23	24	81.45	83.38	85.52	87.66	89.60	90.74
24	25	82.28	84.24	86.42	88.59	90.55	91.72

APPENDIX E-2: FEMALE STANDING HEIGHT (AGE 24M +) PERCENTILES

Height (Age 24 m +) Percentiles							
If age in months is greater than or =	and less than	P10 - P24	P25 - P49	P50 - P74	P75 - P89	P90 - P94	P95 - >
24	25	80.92	83.04	85.4	87.75	89.86	91.13
25	26	81.74	83.89	86.29	88.68	90.84	92.12
26	27	82.54	84.73	87.16	89.59	91.77	93.08
27	28	83.32	85.53	88	90.46	92.68	94.01
28	29	84.08	86.32	88.81	91.3	93.55	94.9
29	30	84.82	87.07	89.58	92.11	94.39	95.76
30	31	85.52	87.8	90.33	92.88	95.19	96.58
31	32	86.21	88.49	91.05	93.63	95.96	97.36
32	33	86.86	89.16	91.74	94.34	96.7	98.12
33	34	87.48	89.8	92.4	95.02	97.4	98.84
34	35	88.08	90.41	93.03	95.67	98.08	99.53
35	36	88.65	91	93.63	96.3	98.73	100.19
36	37	89.2	91.56	94.21	96.9	99.35	100.83
37	38	89.75	92.12	94.8	97.51	99.98	101.47
38	39	90.29	92.68	95.37	98.11	100.6	102.11
39	40	90.82	93.23	95.95	98.71	101.23	102.75
40	41	91.35	93.78	96.52	99.3	101.84	103.38
41	42	91.88	94.32	97.08	99.89	102.46	104.01
42	43	92.4	94.87	97.65	100.48	103.07	104.64
43	44	92.93	95.41	98.21	101.07	103.69	105.27
44	45	93.45	95.95	98.78	101.66	104.3	105.9
45	46	93.98	96.49	99.34	102.25	104.91	106.53
46	47	94.5	97.03	99.9	102.84	105.53	107.16
47	48	95.03	97.58	100.47	103.42	106.14	107.79
48	49	95.55	98.12	101.03	104.02	106.76	108.42
49	50	96.08	98.66	101.6	104.61	107.37	109.06
50	51	96.61	99.21	102.17	105.2	107.99	109.69
51	52	97.14	99.76	102.74	105.8	108.61	110.33
52	53	97.67	100.31	103.31	106.39	109.23	110.97
53	54	98.21	100.86	103.89	106.99	109.86	111.61
54	55	98.75	101.42	104.46	107.59	110.48	112.25
55	56	99.29	101.97	105.04	108.2	111.11	112.89
56	57	99.83	102.53	105.62	108.8	111.74	113.54
57	58	100.37	103.09	106.2	109.41	112.37	114.18
58	59	100.92	103.65	106.79	110.01	113	114.83
59	60	101.46	104.22	107.37	110.62	113.64	115.48
60	61	102.01	104.78	107.96	111.23	114.27	116.13
61	62	102.56	105.35	108.54	111.84	114.91	116.78
62	63	103.11	105.92	109.13	112.45	115.54	117.43
63	64	103.66	106.48	109.72	113.067	116.18	118.08
64	65	104.21	107.05	110.31	113.68	116.81	118.73
65	66	104.76	107.62	110.9	114.29	117.45	119.39

Height (Age 24 m +) Percentiles							
If age in months is greater than or =	and less than	P10 - P24	P25 - P49	P50 - P74	P75 - P89	P90 - P94	P95 - >
66	67	105.31	108.19	111.49	114.9	118.08	120.04
67	68	105.87	108.76	112.076	115.52	118.72	120.69
68	69	106.42	109.32	112.66	116.13	119.35	121.33
69	70	106.96	109.89	113.25	116.74	119.99	121.98
70	71	107.51	110.45	113.84	117.35	120.62	122.63
71	72	108.06	111.02	114.42	117.95	121.25	123.27
72	73	108.6	111.58	115.01	118.56	121.87	123.91
73	74	109.15	112.14	115.59	119.16	122.5	124.55
74	75	109.69	112.7	116.16	119.76	123.12	125.18
75	76	110.23	113.26	116.74	120.36	123.74	125.81
76	77	110.76	113.81	117.31	120.95	124.35	126.44
77	78	111.29	114.36	117.88	121.54	124.96	127.06
78	79	111.82	114.9	118.45	122.13	125.57	127.68
79	80	112.35	115.45	119.01	122.72	126.17	128.3
80	81	112.87	115.98	119.57	123.29	126.77	128.91
81	82	113.39	116.52	120.13	123.87	127.36	129.51
82	83	113.9	117.05	120.68	124.44	127.95	130.11
83	84	114.41	117.58	121.22	125.01	128.53	130.7
84	85	114.91	118.1	121.76	125.57	129.11	131.29