Conducting the BSS Combined Height and Weight Measure

**Height and Weight Indicators**

Two trials of each measurement will be performed and recorded for each student. If the two measures differ by more than 2/8\textsuperscript{th} inch, take a third measure and record. Height will be measured twice and recorded to the nearest 1/8\textsuperscript{th} inch. If the two measures differ by more than 2/8\textsuperscript{th} inch (the same as 1/4\textsuperscript{th} inch), a third measure will be obtained. The mean of two or three values will be recorded on the health screening result form sent to parents.

**Height**

Standing height will be measured using the height board.

1. The weight of the student is distributed evenly on both feet.
2. The arms hang freely at the sides of the body, with the palms facing the thighs. The student is asked to place the ankles or knees together, whichever come together first (often they will come together simultaneously). If the student has knock-knees, the feet are separated so that the medial borders of the knees are in contact but not overlapping.
3. The scapulae and buttocks are in contact with the vertical board if possible, or the part of the body that touches the board first. The student will be standing erect with the mid-auxiliary line perpendicular to the floor. Verify on the right side of the body. The heels, buttocks, scapulae, and posterior aspect of the cranium (head) of some students cannot be placed in one vertical plane while maintaining a reasonable natural stance.
4. The students are positioned so that only the buttocks and the heels or the cranium are in contact with the vertical board.
5. The student's head is positioned in the Frankfort Horizontal plane. In this position an imaginary line can be drawn from the bottom of the eye socket (orbital margin) to the external opening of the ear (external auditory canal).
6. The student is asked to **inhale deeply and maintain a fully erect position** without altering the load on the heels.
7. Reposition the head in the Frankfort plane if necessary.
8. The moveable headboard is brought onto the most superior point on the head with sufficient pressure to compress the hair. The measurement is recorded to the nearest 1/8\textsuperscript{th} inch.
9. The measurement is called out by the measurer as follows: “Height, 48 inches.” The recorder then says “48 inches” and writes down the number.

The child is asked to step away and then step back into the same position for a second measurement. If measures are more than 2/8\textsuperscript{th} inch difference, a third measure will be taken.

Prior to the height measurement the student should remove his/her shoes. If the student has a hair accessory or hairstyle that interferes with the measurement, she/he will be asked to remove the accessory or change the hairstyle (e.g/ take out ponytail band). If the student refuses to comply with regard to hairstyle or accessory, then she/he will still be measured, and the measurer will make a note in the comments section of the Height and Weight Measurement Form.

**Weight**

Body weight will be measured using a digital scale. Please be sure the scale is set-up to **record the weight in pounds** (lbs.) - not kilograms (kg). The student stands over the center of the scales with the body weight evenly distributed between both feet, and arms hanging freely by the sides of the body. The student should hold the head up and facing forward. Weight is recorded to the near pound. The measurer calls out the measurement as follows: “Weight 85 lbs.” The recorder then says, “Weight
85 lbs.” and writes down that number. This should be done quietly. The weight is a sensitive issue to students and parents.

Weight will be measured twice and recorded to the nearest 0.1 pounds. If the two measures differ by > 0.2 pounds, a third measure will be obtained. The mean of two or three values will be recorded on the health screening result form sent to parents.

Prior to the weight measurement the subject should remove his/her shoes. In addition, heavy items that the subject may be carrying (e.g. toys in pocket) or wearing (e.g. heavy jacket) should be removed and set aside during the measurement.

**Data Collection**

Two staff members are required for the collection of height and weight data. One person will be responsible for conducting the measurements, and the other will record the data on the Data Collection Form. The person responsible for conducting the measurements will also be responsible for making sure the instruments (height board and scale) are properly set-up and calibrated. Additional duties of the person responsible for recording measurements may include escorting students to and from the measurement area and handling the data collection forms.

**Lessons Learned:**

Development of the BSS and Height and Weight Measure survey requires additional training and resources. Conducting Height and weight measures is appropriate in collaboration with the BSS. A child centered approach is necessary when recording height and weight to be private and sensitive.

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