As part of the Moving to Opportunity (MTO) final, or long-term, evaluation survey, interviewers measured the height and weight of adult and youth survey respondents. The information below is an excerpt from the interviewer training manual used by the Institute for Social Research (ISR), which administered the MTO final surveys. The MTO measurement protocols were based on another ISR-administered survey, the Health and Retirement Survey.
Protocol for Measuring Height

You will measure height on all Respondents, both Head of Household and Youth. Let’s review the height measurement. If the Respondent is not able to stand on his/her own, or either you or the Respondent determines that it is not safe to perform this measure, record that in the Blaise instrument and move on to the next measurement.

The next step is to find an appropriate area for the measurement. The kitchen may be a good place to do this measurement.

Look for space that has the following:
The surface should be flat, even, and smooth. A hard floor such as wood, linoleum, concrete, or tile is ideal. A low pile carpet may also be used. If necessary, the test may be conducted on another floor surface.
There must be a wall or doorframe next to the appropriate surface. It should be flat so the Respondent can stand against it and you can put a self-adhesive note on it.

It is best to ask the Respondent where you can measure their height and let them know that you will need to place an adhesive “post-it” note on the wall but you will remove it after you have measured their height.

You may need to move to a different part of the home in order to find a suitable area. If that is the case, be sure to bring the necessary materials with you:
- self-adhesive notes
- rafter’s square (plastic triangle)
- pen/pencil
- metal tape measure
- scale
- Respondent Report Form

The area where you complete the height measurement may be appropriate for the weight measurement, too.

Once you have found an area which will meet the needs of the measurement, ask the Respondent to remove his or her shoes. It is best if you measure the Respondent’s height without shoes. If the Respondent will not or cannot remove their shoes, you may conduct the height measurement anyway.

To measure the Respondent’s height, ask him or her to stand near the wall, so you can figure out approximately where the top of his or her head is. After asking the Respondent’s permission, place the self-adhesive note in the middle of that area of the wall. Then ask the Respondent to stand up against the wall again in front of the self-adhesive note. The Respondent should stand as straight as comfortable, with his or her heels and shoulders as close to the wall as comfortable. So as not to crowd the Respondent or seem threatening, you will stand to the side of the Respondent while taking the measurement. Place the rafter’s square on the Respondent’s head. It should rest lightly or just touch the head, but not press on it. Put the widest edge along the head, with the diagonal edge facing away from the wall.
Make a mark on the self-adhesive note underneath the wide edge of the rafter’s square, and ask the respondent to step away from the wall. If the respondent is significantly taller than you, and you cannot reach to put the rafter’s square on his or her head or to make the mark, you may use a stepstool. If no stool is available, skip the measurement section and answer the question about why the measurement was not taken.

Now you must determine the Respondent’s height by measuring the height of the mark you made on the self-adhesive note. Put the end of the measuring tape on the floor. If there is a convenient piece of molding or a door jam, you may place the end of the tape under there. However, be careful that it is not raised from the floor. Your best bet may be to step on the end of the tape, since that will put it right against the floor. Measure up to the mark on the self-adhesive note, round the measurement to the nearest quarter inch, and mark it on the Physical Measurement Report Form in feet and inches following the examples below:

- 5 feet 0 inches = 5 feet 0.0 inches
- 5 feet ¼ inch = 5 feet 0.25 inches
- 5 feet ½ inch = 5 feet 0.5 inches
- 5 feet ¾ inch = 5 feet 0.75 inches

If the height measurement could not be taken, the Blaise program will ask you for the reason the measurement was not taken, and you will be instructed in the Blaise instrument to ask the Respondent to report his/her own height. It is our strong preference to obtain height and weight measurements directly, but because this information is so important, we will accept self-report of these measurements if direct measurement is not possible.
Protocol for Measuring Weight

You will measure weight on all respondents, both Head of Household and Youth. The items needed for the weight measurement are the scale, a pencil or pen, and the Physical Measures Report Form.

Weight can most likely be measured in the same area as the height measurement was taken. If a Respondent is unable to stand on his/her own, you should not complete this measure. If a Respondent tells you that he/she needs a special scale, or weighs 390 pounds or more, skip the weight measurement. The scale will measure up to 390 pounds. Weight should be measured in a location with a flat, even, and smooth surface. A hard floor such as wood, linoleum, concrete, or tile is ideal. The scale will not work properly on carpeting. A very, very low pile carpet may work, but please measure your own weight first to see if the scale correctly records your weight. If the scale does not correctly measure your weight and there is no uncarpeted area available, skip the weight measurement.

Before beginning with the weight measure, ask the Respondent to remove his/her shoes, any heavy objects from his/her pockets, and any heavy or bulky outer sweaters or jackets. Most Respondents who complete the weight measurement will also have completed the height measurement, so they should have their shoes off already. If the Respondent is unwilling or unable to remove his or her shoes, the weight measurement may be done anyway. Removing heavy objects or sweaters is also optional, but highly recommended. You will be able to measure the Respondent’s weight more accurately without those items.

Place the scale on the floor, making sure you can see the display area clearly. Stand to the side of the Respondent. Tell the Respondent you will ask him or her to step on the scale and will take the reading as soon as the reading stabilizes. You will need to record the reading very quickly after the display stops flashing.

Wait a moment until the reading stops fluctuating, and then record it on the Physical Measures Report Form and in the Blaise instrument. The scale automatically rounds to the nearest half pound, so you should write down every digit displayed. It is best if you stand next to the Respondent, to their side, while this measurement is being taken. This will allow you to view the reading on the scale without getting in the Respondent’s way.

The Respondent may indicate that he or she wants to use his or her own scale. If this happens, explain to the Respondent that, because readings vary across different types of scales, it is important for the consistency of the study to use the MTO scale. If the Respondent wishes to be weighed on his or her scale in addition to the MTO scale, that is fine, but the reading that you should record is the one from the MTO scale. If the Respondent refused to be weighed on the MTO scale, skip the measurement and check “refusal” in answer to the question regarding why the measurement was not completed. As with height, if you cannot measure the Respondent’s weight directly, we have questions in the interview asking the Respondent to report his/her own weight.
Moving to Opportunity Adult Health Assessment

As part of the Moving to Opportunity final evaluation, your interviewer has been trained and certified to do in-home physical health measurements. You will be asked to stand to have your height, weight and waist measured. Your interviewer will also ask to measure your blood pressure and collect a few drops of blood to measure cholesterol and a few other health indicators. This page tells you a little more about the measures.

Preparing for the measures:
Your interviewer will ask you to take off any outer clothing such as your shoes or big jackets that might get in the way of taking your measurements.

The Measures

Height, weight and waist size
When height is put together with other measurements such as weight or waist size, estimates of being either overweight or underweight can be created.

Blood Pressure
Blood pressure is an important indicator of heart health. While low blood pressure can be a problem for some adults, high blood pressure happens more often. A healthy diet and exercise can help keep your blood pressure at a good level. We will be measuring your blood pressure two times using an automated blood pressure cuff that fits over your upper arm. The American Heart Association suggests keeping your blood pressure at 120/80 or lower.

Blood Analysis
We would like to take a small amount of blood by finger prick. Your interviewer will first clean your finger with alcohol and then will prick your finger. The blood that forms will be dropped onto a small card and mailed to a laboratory. The blood spots will be analyzed for total cholesterol, HDL-cholesterol, and Hemoglobin A1c (a measure related to blood sugar), and C-reactive protein (a measure of inflammation related to heart disease). The following levels are recommended by the American Heart Association:

- Total cholesterol < 240 ml
- HDL cholesterol > 40 ml
- HgA1c <7 mg/dl
- CRP < 3mg/L

Your results
Your interviewer will give you the results of your measurements if you would like them. We will make your blood test results available to you at a later date.

More information
You can get more information on diabetes or heart disease from the American Diabetes Association (1-800-342-2383, http://www.diabetes.org ) or the American Heart Association (1-800-242-8721, http://www.americanheart.org ).
Moving to Opportunity Adult Physical Measures Report Form

Below are the results of your physical measurements, taken by the University of Michigan interviewer for the Moving to Opportunity project. We encourage you to keep these for your records and share them with your doctor on your next visit.

Date of measurement: ________________, Time: _______________ am / pm

**Height:** _____ feet, _____ inches  **Weight:** _________ pounds  **Waist:** _______ inches

**Blood pressure measurements**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>1st Measurement</th>
<th>2nd Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic Reading</td>
<td>mmHg</td>
<td>mmHg</td>
</tr>
<tr>
<td>Diastolic Reading</td>
<td>mmHg</td>
<td>mmHg</td>
</tr>
<tr>
<td>Pulse</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Irregular Heartbeat Indicator*</td>
<td>☐ Yes*</td>
<td>☐ Yes*</td>
</tr>
<tr>
<td></td>
<td>☐ No</td>
<td>☐ No</td>
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</tbody>
</table>

*If the Irregular heart beat indicator is marked “yes”, it means the blood pressure machine indicates some irregularity in your heartbeat. Although this can be normal, if you have not already talked about this with your doctor, we suggest that you do so.

If you gave a blood sample, your results will be ready in about four weeks. To get your results, call the number below and ask to speak with Customer Service. When you give them your ID number, the operator will tell you your blood test results and the normal range for each test.

**Your blood sample ID number is:** ________________

**Results for blood tests will be made available to you when the lab work has been completed.**

When you receive your results, write your results in the spaces below. We encourage you to share the information with your doctor on your next visit.

Total cholesterol: _________ ml  HgA1c: _____________ mg/dl

HDL cholesterol: ________ ml  C-Reactive Protein: _________ mg/L

Thank you for your participation in the Moving to Opportunity project!

*University of Michigan toll free lines: 1-877-647-2122 (English) 1-800-643-7605 (Spanish)*
Moving to Opportunity Youth Health Assessment

As part of the Moving to Opportunity final evaluation, your interviewer has been trained and certified to do in-home physical measurements. You will be asked to stand to have your height and weight measured. Your interviewer will explain each measurement to you, show what will be done, and then take your measurements. This page tells you a little more about the measures.

Preparing for the measures:
Your interviewer will ask you to take off any outer clothing such as your shoes or big jackets that might get in the way of taking your measurements.

The Measures

Height and weight
Height and weight are put together to create estimates of being either overweight or underweight.

Below are the results of your physical measurements, taken by the University of Michigan interviewer for the Moving to Opportunity project.

Date of measurement: ___________________, Time: ________________ am / pm

Height: _____ feet, _______ inches

Weight: ___________ pounds

Thank you for your participation in the Moving to Opportunity project!
University of Michigan toll free lines: 1-877-647-2122 (English) 1-800-643-7605 (Spanish)