



ECHO

Environmental influences
on Child Health Outcomes

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IDeA States
Pediatric Network

Study Summary

Can people living in rural areas accurately measure their height and weight at home?

Study title: Validation of remote height and weight assessment in a rural randomized pediatric clinical trial in primary care settings

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Why was this study conducted?

Children living in rural areas have a greater risk for overweight. It may also be hard for them to join weight management programs or studies that require in-person visits. This study compared the accuracy of at-home height and weight measurements to those taken in person at a clinic.

What was done?

A total of 33 parent/child pairs took part in the study; the children were 6-11 years old. We gave each pair a digital bathroom scale, a tape measure, and instructions on measuring height and weight. Then, we guided them as they took their in-home measurements through a video call. The pairs also came to the clinic for their in-person measurements. Then, we compared the at-home and in-person measurements.

What was found?

There were no significant differences in the overall height and weight measurements taken at home compared to those taken in person at the clinic. However, some individual heights and weights differed significantly between at-home and in-person measurements. Age, race, ethnicity, parent education level, household income, and zip code were not significant predictors of at-home and in-person measurement comparisons.

What do the results mean?

It is possible to use everyday tools and technology to measure the weight and height of children living in rural areas. However, using these tools might reduce the accuracy of the measurements. Researchers and clinicians need to decide how accurate they need measurements to be before using these tools in the home.

Who sponsored this study?

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You may learn more about this publication here: <https://www.nature.com/articles/s41598-023-50790-1>

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