

Project 6

Making and Using Childhood Growth Charts

What to Hand In

- Hand in the 75th percentile curve that you constructed. Include a discussion of how you constructed it, what it tells you, and how it compares to the same CDC curve. Why is it important to construct a smooth curve rather than have a jagged one?
- Answer the following questions, synthesizing what you have learned from the various parts of the project.
 1. What were some of the concerns about the old weight and height charts?
 2. What did you learn about the data that the CDC used for the new tables? Where did it come from? What were some things that were excluded and why? What sort of sample sizes were used?
 3. You learned that the methods the CDC used to produce smooth curves from the data were very complex and impossible to understand. Did you learn anything you can relate here? (Go back to the questions in Part 2 of the “Reading Guide” - maybe question 10 is your best bet here.) How did the CDC produce smooth curves in the old days? How did you produce a smooth curve?
 4. Why is BMI-to-age a good measure? Why is it preferred over weight-to-stature? What are the at-risk categories for BMI-to-age? Discuss the differences between the shapes of the BMI-to-age graphs and the weight-to-stature charts and the significance of these differences (these graphs are in the *Growth Charts* section of the project packet).
 5. From Section 3, which children did you identify visually as being at-risk? Which did you identify by computing BMI? Where was each child on the percentile curves?
 6. What is the significance of the minimum on the BMI-to-age graphs?
 7. Why do the percentile curves fit the data less well at the 95th percentile than at the 50th?
 8. Discuss the issue of error of measurement in assessing risk. How careful does one need to be? Give examples.