**Charts for Body Composition: (Course 1, section on defining and detecting obesity)**

Many health organizations use charts to define body composition and obesity. The developmental growth charts are used to track a child’s growth compared to norms and map the trajectory of growth in an individual child over time.

This assignment can be delivered a variety of ways. Consider individual writing assignments to be completed outside of class, or alternately a small-group format in which students explore the resources together and respond to the discussion prompts verbally or in an online discussion forum.

1. Students should access at least two examples of growth charts (some references below).
2. Students should examine these charts and the related materials.
3. Prompt students to respond to the following discussion questions:
   * Why do doctors and care providers map growth over time rather than checking in discrete periods?
     + Note the aspects of growth that are being measured beyond weight and height.
   * What types of conditions are detected through tracking child growth?
   * Identify causes and consequences of both undernutrition and overnutrition in children. (This final question may be saved to address at the conclusion of a chapter, to provide a contrast to the discussion of body composition in children and adults).
     + Are these causes and consequences equally likely across age groups or more likely to occur during specific developmental periods?
     + Where are these conditions most likely to occur?
     + Why do pediatric doctors and care providers emphasize early detection of these conditions?

**Related references:**

American Academy of Pediatrics (last updated 2021), ‘How to read a growth chart: Percentiles explained’, retrieved from <https://www.healthychildren.org/English/health-issues/conditions/Glands-Growth-Disorders/Pages/Growth-Charts-By-the-Numbers.aspx>

Centers for Disease Control (last updated 2017), ‘Clinical growth charts’, retrieved from <https://www.cdc.gov/growthcharts/clinical_charts.htm>

Royal College of Pediatrics and Child Health (n.d.), ‘Growth charts’, retrieved from <https://www.rcpch.ac.uk/resources/growth-charts>

World Health Organization (n.d.), ‘Child growth standards’, retrieved from <https://www.who.int/toolkits/child-growth-standards>