Using Infant Growth Charts in MTN-016

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What are growth charts?

- MTN-016 uses the WHO growth standards to monitor growth for infants up to one year of age.
- Growth charts are not diagnostic instruments. They are screening tools that help you form an overall clinical impression for the child being measured.
- The positions of the individual points on the graph are less important than the overall trajectory of the growth curve over time.
How to use a growth chart

- Accurately measure weight and recumbent length
- Plot measurements on appropriate chart
- Use the percentile lines to assess body size and growth, and *monitor growth over time*
- Gather additional history, exam as needed
- Discuss growth pattern with parent/caregiver and agree on subsequent action if required
If the plotted point is right on or near the percentile line, then in practice the child is described as being at that percentile:

- E.g. If Point A is on or near the 50th percentile, the child is described as being “at the 50th percentile”
- For the MTN-016 CRF: Enter the number 50 as the percentile
If the plotted point is between percentile lines, then in practice the child is described as being between the two percentiles:

- E.g. If Point A is between the 50\(^{th}\) and 75\(^{th}\) percentile, the child is described as being “between the 50\(^{th}\) and 75\(^{th}\) percentiles”

- For the MTN-016 CRF, we cannot report “between percentiles” so instead we estimate a percentile in blocks of 5-10\% (e.g. 55\(^{th}\), 60\(^{th}\), 65\(^{th}\), 70\(^{th}\) percentile) and record this number on the CRF.
Normal growth in a healthy infant

- Typically follows the same growth curve or trajectory over time.
- A normal growth curve is between the 2\textsuperscript{nd} and 98\textsuperscript{th} percentile and parallels the 50\textsuperscript{th} percentile growth trajectory.
- Weight should be proportional to length.
- An infant should regain birth weight by two weeks of age and then will typically gain 15-30 grams (0.5-1 ounce) per day*.
When further investigation is needed

- Unexplained growth including:
  - Sharp upwards or downwards trend over a short period of time when child crosses one major percentile curve and may be close to crossing a second major percentile curve
  - Growth at <2\textsuperscript{nd} percentile or >98\textsuperscript{th} percentile
  - Consistent flat growth trend
  - Concerns such as poor nutritional intake, presence of a chronic illness, etc.