

Title: One size does not fit all: Increasing access to specialized growth curves for pediatric populations

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#### Background/gap

Assessing the growth pattern of pediatric patients using standardized growth curves is the gold standard for monitoring nutritional status of children. The CDC and WHO growth curves are reference tools available in the Cerner EMR system currently used at UNMH. These tools are used to plot the height, weight and head circumference of children to ensure appropriate growth throughout development.

There are pediatric populations in which the CDC or WHO standardized growth curves may not be ideal. Some pediatric conditions present with unique growth patterns and require assessment of growth on both standardized and specialized charts. We have identified a lack of access to specialized pediatric growth curves and a lack of education on the clinical use of these specialized curves. This was the case of a patient with Cerebral Palsy who was misdiagnosed as severely malnourished based on CDC growth charts contributing to CYFD placement. Our suspicion was that specialty growth curves were being infrequently utilized leading to over-diagnosis of malnourishment. 57 pediatric providers at UNMH (both residents and attending physicians) voluntarily completed our anonymous survey regarding growth curve utilization. 80.7% felt it was extremely important to utilize appropriate growth curves for specialty pediatric populations. However, the majority of respondents felt unconfident in identifying resources (31.6%) for specialized growth curves, and that it was not easy to utilize these specialty growth curves (31.6%) or track growth (40.4%) of these particular patients when the growth curves were not part of the EMR. 36.8% felt it was not easy to identify malnutrition in these patients. Based on survey results, we identified that lack of access to growth curves was the primary area for improvement.

#### Intervention:

Our initial intervention focused on lack of access to specialized growth curves for pediatric populations. Appropriate growth curves for Cerebral Palsy, Turner's Syndrome, DiGeorge Syndrome, Achondroplasia, and Down Syndrome were scanned into a central smart sheet utilized by our pediatric group. Providers were notified via email and in-person announcement regarding the upload of these growth curves.

#### Data/measure of change:

In one month, we will re-survey pediatric providers at UNMH with the same set of questions to see if comfort levels have increased regarding access to specialized growth curves. Based on this data, we plan to refocus efforts to improve access and aid in focused growth curve utilization.

Keywords: Growth, growth curve, malnutrition

