Optimizing the Electronic Interface of Pediatric Growth Charts to Enhance Care Delivery: A Quality Improvement Project

PURPOSE
The aim of this project was to optimize the functionality and integration of the electronic growth charts (EGC) within the target institutions electronic health records (EHR). Improved functionality of the growth chart includes the addition of key growth data points and the migration of historic growth data.

BACKGROUND
Standard electronic growth charts routinely have the functionality to incorporate growth data of height and weight. The EHR adoption migration from paper GC to EGC risks the loss of historic height and weight measurements.

METHODOLOGY
The design of this project was a continuous quality improvement initiative coupled with Plan-Do-Study-Act model to assess change. Quality measures included a usability inventory and an end-user satisfaction survey with a qualitative measure of a cognitive-walk through tool, each developed for this project.

RESULTS
The project resulted in improved use and functionality, as well as increased user-satisfaction associated with the EGC. A conversion algorithm was developed with proof of concept and feasibility confirmed. The development and integration of growth events flowsheets were successful with incorporation into clinical practice.

IMPLICATIONS
Optimizing the functionality of the EGC supports improved clinical efficiency, the accuracy of recording and reporting data, enhanced clinical decision making, and management of growth-related health concerns. Improved accessibility, share-ability, and usability is an outcome which directly enhances patient care delivery and coordination of care.