**Title:** Improving Access to Developmental Monitoring Over Time in a Neurodevelopmental Assessment Clinic

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**Introduction:** Neurodevelopmental assessment programs have been at the forefront of tracking outcomes for children with a variety of developmental concerns. Yearly re-evaluation is often a standard recommendation for many developmental evaluations, given the importance of continued comprehensive assessment to developmental monitoring especially in young children (Nicholas, Carpenter, Kind, Jennings, & Charles, 2009). This has led to many developmental assessment programs to face a significant backlog of referrals for re-evaluation. This can lead families to have to wait over a year after referral for developmental re-evaluation. This study looks to shorten wait times for developmental monitoring services by collecting data on which components of evaluation clinicians, families, pediatricians, and teachers find most important, redesigning how the service is delivered, creating new written evaluation products to create efficiencies for clinical providers, implementing a performance index to evaluate the quality and impact of developmental monitoring services, and structuring smaller evaluation teams to focus on access to care. All components of this quality improvement initiative will lead to recommendations to develop a more responsive protocol to manage long term developmental monitoring of children with developmental disabilities within a developmental assessment program. Similar techniques have been used in the past to decrease wait times for initial evaluations, and hopefully a systematic approach will improve access to care for continued re-evaluation and developmental monitoring (Austin, Manning-Courtney, Weber, Johnson, Murray, & Ratliff-Schaub, 2016).

**Methods:** This study is currently being completed at Nationwide Children’s Hospital’s Child Development Center, where approximately 10 re-evaluations occur weekly. Participants for this quality improvement study include the parents; clinicians, and teachers of a child who is being evaluated after having an initial evaluation diagnose some form of developmental concern (e.g. Autism, Intellectual Disability, Global Developmental Delay, etc.). Using a quality improvement science methodology, series of small tests of change will be implemented to target possible interventions to impact the key drivers impacting long wait times related to developmental monitoring.

**Results:** The aim of this quality improvement project is to increase developmental monitoring capacity from a baseline of 10 patients per month to a new sustained capacity of 80 patients per month. At this point, the quality improvement project has been initiated. Patient and clinician perspectives related to the goals of the re-evaluation service are being collected in survey format. The clinician perspective data has been collected with about 13% of the program’s clinicians. Initial impressions about clinician responses to the questionnaire suggest the clinician’s belief that re-evaluation services were necessary, and that their recommendations would significantly change the child’s current services. Clinicians are also indicating less confidence that the data they would collect from the previous evaluation would be significantly different from previous data. Ultimately, this project will present data as a run chart and as a control chart (consistent with QI science methods) that provides a statistical test of the various PDSA (Plan-Do-Study-Act) cycles used to develop interventions. We anticipated more than a half-dozen PDSAs and more than one shift in baseline performance over a 4 month period of QI efforts.

**Discussion:** Clearly, using re-evaluation as a tool for developmental monitoring is not going to be successful if families have to wait for over a year for re-evaluation. The information that this study will provide will give insight into both parental and clinical expectations of a re-evaluation, data related to alternative models of developmental monitoring, and the impact of QI methods to change psychological practice for children with intellectual and developmental disabilities. This could lead to other service lines that can supplement re-evaluation as a useful clinical tool. Possible supplementary interventions that may be implemented and could be commented upon include direct referral to behavior intervention, brief behavior consultation, educational consultation, or referral to other sources that will not require a long wait (e.g. helping the family take advantage of school resources). This study will help to promote data driven decision making to help solve problems in access to developmental
monitoring services as well as suggest possible best practices in developmental monitoring models of care. This study will also extend the conversation about QI science in developmental disabilities.

**Key References**
