Child Development Infoline's Norwalk Early Childhood Initiative: Creating Systems Change One Step at a Time

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I. Background and Purpose

With the overall goal of ensuring that young children enter school developmentally ready to learn, the Child Development Infoline's (CDI) Norwalk Early Childhood Initiative (started in 2014) has established a Continuous Quality Improvement (CQI) process (2016). This CQI process is guided by a Core CQI team consisting of seasoned experts in various aspects of early childhood. The CQI process is being used to plan and implement a community-wide system for screening, tracking, and promoting young children's development. The screening and tracking tool being utilized is CDI's Ages and Stages Questionnaire (ASQ) Child Monitoring Program which includes an on-line data entry and tracking system.

The initiative includes the following objectives:

Micro level/Short Term Objectives (In progress)

- Involve school readiness and home visiting staff in project implementation by equipping them with the needed knowledge, skills, and resources for effectively partnering with families in promoting children's healthy development, and identifying children at risk for developmental and behavioral problems.
- Support families in understanding, documenting and maintaining their child's developmental history by enrolling in CDI's ASQ Child Monitoring program. Participating families will attend to the individual ways in which their child learns, communicates, and plays, laying a foundation for future learning and addressing any potential problems as early as possible.

Macro level/Long Term Objectives (3 to 5 years)

- Establish a sustainable community-wide system (i.e., via protocol and policy development) for all children enrolled through home visiting and school readiness programs. System components include: regular administration of ASQs; staff training; and support for providers and families in promoting optimal development.
- Establish data collection protocols and mechanisms for tracking child developmental progress and outcomes.
- As protocols are tested and become fully operationalized (i.e., via policy), explore other developmental "touch points" (e.g., pediatrics, head start) where formal collection of ASQs could be introduced, and build similar working relationships with relevant stakeholders.

Achieving measurable improvements in children's developmental readiness to learn, requires continuous and ongoing efforts for creating new service practices, protocols and policy. This brief gives an overview of the progress that has been made since the CQI was instituted in the fall 2016.

II. Establishment of the Continuous Quality Improvement Process

A Continuous Quality Improvement (CQI) process was established in 2016 to 1) determine best strategies for enrolling children in the ASQ program and for utilizing data to inform the project and track child progress and outcomes; 2) develop implementation plan(s); 3) oversee implementation of project tasks; and 4) adopt protocols and policy as needed. Quality improvement will be determined by the degree to which new service practices, protocols and policy improve on children's developmental outcomes (i.e., developmentally ready to learn in kindergarten).

Leading the Change: The CQI Core Team

In addition to the CDI consultants, the Core Team consists of local members all of whom have hands-on knowledge of Norwalk's early childhood services and are in a position to influence practice. Team members represent the following community-based entities: The Family and Children's Agency (FCA), Early Education/Norwalk Public Schools, Norwalk's School Readiness programs and Norwalk ACTS.

The CQI team is using the Plan Do Study Act (PDSA) cyclical approach to plan, implement, test, and institutionalize community-wide processes for developmental screening, tracking, and promoting young children's development. The PDSA approach is an embraceable method that needs little explanation: For this initiative, the CQI is 1) developing a series of small-scale, focused objectives ("plan" stage) for 2) introducing new practices and making necessary changes "on the ground" (the "do" stage), while 3) using quantitative and qualitative data to gauge if a given practice is effective and identifying any snags or challenges not previously apparent ("study" stage), and then 4) making

adjustments as necessary before implementing another PDSA "ramp" and/or moving to a new PDSA goal (the "act" stage) (see Tews et al., 2012 at www.mphiaccredandqi.org).

III. Linking Objectives to the Vision

Through structured discussions held monthly, the team reviews the vision of the initiative and shares their perspectives, all of which is captured on wall sized post-it notes. Team discussions determine what needs to be done, outline strategies, and identify resources and partners needed to accomplish mutually agreed upon tasks. Highlights from these _meeting discussions_ are summarized below.

Goals and related objectives

1. Children enter kindergarten "developmentally ready to learn" _Define "ready to learn" and how to measure it._
2) Increase routine screenings at earliest age possible. _Identify developmental "touch points."_
3) Identify children with developmental concerns and connect to services as needed. _ASQ screen as first indicator of developmental delay, need infrastructure for follow-up and intervention as needed._

Needed partners/stakeholders and strategies

- _Families are key partners_
- _Strategies must engage both families and providers._
- _Who are partners at each of the developmental touch points?_
- _Need to align efforts and foster ownership among partners_
- _Need to think strategically across all developmental touch points_
- _Target recruitment and messaging efforts according to stakeholder involvement or potential involvement_

Strategies for creating an infrastructure for follow-up and referral

- *What do tiered interventions look like- when promoting development or when intervening for child who shows potential or strong risk for developmental delay?*
- *Need to develop family-level intervention and agency-level intervention strategies*
- *What is role of CDI?*
- *What is the role of local agencies serving families with young children?*

Knowing when change has occurred

- *Partners, champions, agencies at all touch points/service sectors are involved*
- *Tracking administration of ASQs, child-level interventions, and programmatic strategies for promoting optimal development*
- *Linking developmental tracking to outcome measures in preschool and kindergarten: ASQ, PELI, and Kindergarten Inventory.*

IV. Use of Research, Process and Outcome Data

Prior to planning, we used available (local) outcome data and also related research on how others approached a similar project, to inform the process, as described below.

Analysis of ASQ: Social Emotional data (ASQ:SE-2) collected by the Norwalk Community College Learning Lab on 134 children randomly selected across school readiness programs at the end of the 2014/2015 school year: Analysis demonstrated how data could be used to examine descriptive statistics on subscales and total scale scores, and number of children who scored with "strong" or "potential" risk for developmental delay.

Findings from the Help Me Grow Developmental Screening Project (DeVoogd, Schellenback, & Pare, 2014) that introduced community-wide use of the ASQ (as a first indicator for

developmental delay) for reducing risk of delay over time: Presentation of project findings demonstrated how to measure progress during implementation by tracking increase in number of 1) administered ASQ screens, 2) repeat screens, 3) children screened routinely, and 4) community partners who get involved.

V. Setting Objectives

Understanding that there is still much to learn about needed processes and practices, and people do not adopt or adjust to new practices at the same rate (Moore 2007), the CQI Core Team engaged those considered to be "early adopters" (i.e., well-connected administrative and front-line staff who are open to change) to pilot implementation.

Taking the above into account, and all that was discussed and learned over three to four months, the team identified the following goal:

What do we want to accomplish?

Establish protocols for administering ASQ annually for children enrolled in school readiness and home visiting programs and link families and children to supports when needed.

In order to reach this goal, and in line with the PDSA cyclical approach, the CQI Core Team developed the first of a series of small-scale, focused objectives for establishing protocols and making necessary changes "on the ground."

Using the SMART (Specific, Measurable, Achievable, Realistic, and Timely, Ambler, 2006) tool, the CQI Core Team agreed to the following (first) objective:

1st PDSA objective/cycle: Establish protocols for annual administration of the ASQ for all returning and newly enrolled preschool students in the 2017-2018 school year at seven (of the 13) school readiness programs in Norwalk. The seven programs were chosen

after much discussion and with guidance from the school readiness coordinator (a member of the Core Team) because they were already participating in developmental screening in some form, or had some familiarity and/or were interested in getting involved in the initiative.

After identifying the first PDSA objective, the CQI Core Team focused on answering the following related questions (as prescribed by the PDSA method):

How will we know a change is an improvement? Receipt of ASQ screens for all returning and new enrollees at designated school readiness programs.

What ideas do we have that will result in improvement? Work in coordination with participating school readiness administrators and teachers to determine logistics, and describe and implement protocol(s).

What questions do we want to answer with this PDSA cycle?
1. What kinds of administrative and programmatic polices do we need to have in place?
2. Are the protocols transferrable to other preschool programs and to programs and services for younger children (infant/toddlers)?
3. What are the challenges?
4. What are the best forms of communication and messaging related to developmental monitoring - for parents and providers?

What is our prediction?
We will collect ASQ data for all returning and new enrollees at the seven designated school readiness programs. This includes small and large classrooms/programs (ranging from ~ 15 children to almost 200), for an approximate total of 450 children altogether.

VI. Learning from what's Already Been Done
Earlier efforts of the Initiative and related or parallel projects implemented by other groups (i.e., Norwalk Public School and Norwalk ACTS) were used for informing next steps and PDSA action planning.

Previous or parallel projects informative for PDSA planning:
- Pilot for enrolling school readiness children in CDI's ASQ Child Monitoring Program on-line data system at the Norwalk Community College Lab School (starting in 2014). A focus group was conducted with participating teachers in June 2017 to learn protocols that were put in place for ongoing administration of ASQs, and progress and challenges teachers have using ASQs to partner with families for better understanding of children's development.
- Partnership with FCA for monitoring and tracking the development of approximately 100 young children (via CDI's ASQ on-line data system) whose families are participating in home visiting services, and linking families to services when needed.
- Establishment of a centralized access point for home visiting referrals via Child Development Infoline.
- Inclusion of ASQ:SE-2 in Norwalk Public School's kindergarten registration packets starting in 2016.
- Development and implementation of the PELI project by Norwalk ACTS, literacy assessment for 3-4 and 4-5 aged children for all school readiness and head start programs

Lessons learned for anticipating and responding to challenges:
- Engage front-line staff and get their feedback (and buy-in) on processes for regular administration of developmental

screening and support for families (i.e., met with school readiness teachers and administrators in April 2017)

- Provide comprehensive training on the ASQ for school readiness and home visiting staff that includes how to conduct, score, interpret ASQs, and how to discuss/follow up with families (scheduled for September 2017 with the Office of Early Childhood)
- Develop protocols and forms for introducing developmental screening and tracking to families and obtaining their permission to share ASQ information (e.g., with teachers, pediatricians)
- Establish ASQ data collection and data entry process (determine needed resources, e.g., designated staff role)
- Develop protocols (and/or determine needed resources, staff role) for supporting timely follow up with families as needed

VII. Developing the Action Plan for 1st PDSA cycle

To keep on track and as prescribed by the PDSA approach, we developed an action plan that addresses the following questions:

- What do we need to achieve the 1st objective?
- Who is going to do it?
- By When?
- How are we going to measure progress?

Action planning involved making a list of all required tasks with key milestones including preparatory tasks, and tasks related to running the test (the do" stage), for tracking and reviewing progress (the "study" phase), and for formalizing protocols, scaling up, and moving onto the next PDSA objective.

Development of the action plan enables all stakeholders (internal and external) to see how we are managing the initiative, and shows

commitment by all responsible parties (i.e., CQI Core Team). In addition, the action plan is reviewed by the CQI Core Team on a regular basis to assess and keep all informed on progress, document changes (and update the plan), and discuss or address any new challenges that have been identified.

VIII. Piloting the new practice

Within the past 3 months, the CQI Core Team initiated an action plan for running the 1st PDSA cycle - - developmental screening and tracking of 450 children enrolling in (or returning to) School Readiness programs in the 2017/2018 school year.

In addition to preparatory tasks, much of which have been mentioned above (e.g., under lessons learned), the action plan includes development and implementation of the "ASQ Process for School Readiness Programs" (i.e., the test) which delineates the process of introducing the ASQs to families, administering, collecting, and scoring ASQs, sending ASQ results to families and others (with caregiver permission) and following-up with families if there is any concern. Responsible parties are school readiness and CDI personnel.

Monitoring and measuring success:

To gauge progress and learn of any snags or challenges, qualitative feedback from teachers is currently being gathered by School Readiness and Early Childhood Coordinators (reviewed by members of the CQI Core Team in July).

In addition, a "run chart" or a line graph that plots number of school readiness children enrolled in CDI's ASQ Child Development Monitoring Program will be reviewed every two weeks, from July through September, to determine progress and to better understand any patterns in number of children enrolling from one two-week period to the next and to identify any increases or especially decreases

that may need to be further explored or explained.

Process mapping (e.g., charting of actions for administering, collecting, and scoring ASQ information within participating programs), baseline measurements (e.g., "run charts" or line graphs) and tracking of other positive effects (e.g., staff experience using the ASQ before and after training), will be used to make adjustments as needed. Importantly, review of action plans, process mapping, and run charts will help to determine administrative and programmatic protocols and policies that need to be put in place.

IX. Next PDSA Cycles

The 1st PDSA will inform development of protocols and related policy that can be used for 1) implementing the next PDSA ramp, i.e., testing new protocols with other school readiness programs (same PDSA objective but change or improvement in implementation) and 2) extending developmental screening and tracking to home visiting and other early childhood programs servicing younger children (requiring new PDSA objective and planning).

Note that when implementing more than one new change or a change in a number of areas, initiation of each new PDSA objective/cycle will be staggered starting at original pilot sites when applicable or where there is the most support.

As the CQI Core Team has developed a hands-on understanding of how the PDSA cyclical or iterative approach can guide development of the system change, efforts have become increasingly task focused. The Core Team is now ready to implement multiple cycles, staggered (or in parallel), with one informing the next.

1st PDSA Objective (Test 2): Implement newly developed protocols for annual administration

of the ASQ for all returning and newly enrolled preschool children at *all thirteen* school readiness programs in Norwalk.

2nd PDSA Objective: Establish protocols for regular administration of the ASQ for children participating in home visiting starting in infancy.

3rd PDSA Objective (New aim): Starting with the original seven school readiness pilot sites, the CQI Core Team will develop and implement protocols for using ASQs to promote optimal child development (i.e., tiered intervention for children who are on track, and for children who are showing potential or strong risk for delay).

4th PDSA Objective: Establish data collection and data linking mechanisms for tracking child progress (from prenatal/infancy through 5 years), including tracking of any developmental concerns, follow-up intervention as needed and outcomes over time (with Norwalk ACTS)

X. Policy Implications for Informing Norwalk's Early Childhood Initiatives, Other Communities, and the State

By creating a systems change in early childhood services one step at a time as described in this brief, CDI's Norwalk Initiative will identify:

- Best practices proven to be successful from the perspective of families, providers and Norwalk coalitions
- An accurate assessment of needed resources rather than relying on "best guess" or assumptions
- Processes that are developed and tested by all involved stakeholders resulting in mutually obtained and agreed on protocols
- Methods for utilizing, sharing, and linking data to show and track progress