Overview and Background Significance

- The Pyramid Model is a multi-tiered system of support addressing the social, emotional, and behavioral development of young children (Fox, L., Dunlap, G., Hemmeter, M. L., Joseph, G., & Strain, P., 2003).
- Adoption and early implementation was supported through the Technical Assistant Center for Social Emotional Intervention (TACSEI).
- Minnesota is currently in year 4 of statewide implementation of the Pyramid Model in early childhood programs.
- Continuing dissemination, professional development, as well as data-based feedback and evaluation are managed through Minnesota’s Centers of Excellence for Young Children with Disabilities (MN COE).

Professional Development through the Minnesota Centers of Excellence for Young Children with Disabilities

- MN COE is managed by the Minnesota Department of Education to create a forum for all sectors contacting young children (www.mncoe.org).
- Practitioners work with their program to apply for participation in professional development (2 year commitment for program).
- If accepted, a MN COE Professional Development Facilitator in their region coordinates access to training and coaching with MN COE Master Cadre Members.
- Professional development includes multi-day workshops, onsite coaching for practitioners, monthly calls for coaches, and data-based performance feedback.

Preliminary Examinations of the Impact on Systems, Practitioners, and Children in Early Childhood Programs

Benchmarks of Quality (BOQ) Measuring Key Indicators for Implementation at the Program Level

- Thirty three programs (of 54 enrolled in cohorts 1-3) self-reported performance using the Benchmarks of Quality ratings in the fall and spring.
- Significant improvements demonstrated from fall to spring in first year of implementation (F(1, 32) = 74.73, p < .000, r² = .70).
- Exploratory analysis of change by program type:
  - Main effect of time though no time by program interaction effect, suggesting all types of programs improved at comparable rates (F(1, 26) = 53.80, p < .000, r² = .674).
  - Significant effect at the intercept (F(1, 26) = 323.77, p < .000, r² = .926), suggesting possible need for differentiated supports over time to reach desired level of implementation.
  - Further exploration of 17 programs having participated for two years suggest possible differences in growth models by program type.
  - Independent of time and program type, most programs continue to fall below the generally accepted goal of demonstrating 80% implementation of all components.

Teaching Pyramid Observation Tool (TPOT) Measuring Key Indicators for Implementation at the Practitioner Level

- Within the first year, significant changes to overall implementation were observed for 76 practitioners (F(1,75) = 129.38, p < .000, r² = .63).
- When program type was added to the model, a significant interaction between program type and changes to implementation was observed (F(6,69) = 2.27 p = .047, r² = .17), attributed primarily to the significant differences in the intercept.
- Further analyses of each subset of the TPOT (Universal Preventative Practices, Responsive Interactions, Secondary Supports, and Targeted Intervention) and over time by program type suggest that there may be emerging patterns of differentiated implementation within subsets by program type. This will be important to watch as this may suggest areas in which professional development needs to be personalized.

Preliminary Exploration of Impact on Child Outcomes

- Ratings from ASQ-SE available for cohorts 1-3, representing 2,744 children within 7 types of programs associated with 26 school districts.
- Overall, observe significant reduction in percent of children at high risk for social emotional problems.
- Program, school district, and regional differences are being explored.

Methods and Procedures for Data Collection

- Programs commit to data collection each fall and spring for two years.
- Professional development and data management is supported through the Minnesota Department of Education.
- Focus to date on measuring implementation at the program and practitioner level across the multi-tiered system of the Pyramid Model.

Discussion Points and Next Steps

- Preliminary analyses highlight possible opportunities for training, coaching, and performance feedback that may be data driven and personalized by program needs that may be different initially and over time.
- As a whole, enhanced implementation of the Pyramid Model at a systems level (BOQ) and a classroom level (TPOT) are being observed within the first year.
- Patterns of implementation are highly variable between types of programs when implementation moves to its second year.
- There are many questions that require an enhanced data collection and management system if there is to be an empirical basis for:
  - Improving the professional development system.
  - Who is delivering training to which programs and practitioners?
  - What is the fidelity of the delivery of training?
  - Who is coaching on-site, how often are they coaching, and what is the content of the coaching?
  - More fully evaluating implementation of all components within the Pyramid Model.
  - Who is observing implementation using the TPOT and how reliable are their observations?
  - The TPOT measures certain aspects of the Pyramid Model, what about the decision making process and intervention implementation for children needing secondary and targeted interventions?
  - Thoughtfully considering impact on child outcomes.
  - ASQ-SE is one option for measuring child outcomes, but it is not intended for this use. What alternatives are feasible and would be used reliably statewide?
  - When a child is identified as being at high risk (above the cut-off on the ASQ-SE), what do practitioners and programs really do?
  - What are the characteristics of the children that may interact with exposure to the Pyramid Model when examining impact?
  - Aside from training fidelity, accuracy of observations and use of appropriately sensitive outcome measures, there is a need to examine additional factors (drivers, etc.) are crucial to successful and sustained implementation.