

# Pennsylvania Early Childhood Mental Health Consultation Project



## EXTERNAL EVALUATION REPORT

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## EXECUTIVE SUMMARY

The Commonwealth of Pennsylvania provides statewide access to Early Childhood Mental Health (ECMH) Consultation through the Office of Child Development and Early Learning (OCDEL). ECMH Consultation is an evidence-informed program in which mental health consultants partner with teachers and others who care for young children to build their capacity to promote healthy social-emotional development and prevent or address challenging behaviors (Cohen & Kaufmann, 2000; rev. 2005; SAMHSA, 2014). Program evaluations consistently find that ECMHC positively impacts classroom climate, teachers' skills, and children's social-emotional behavior, and reduces expulsions from child care (Hepburn, Perry, Shivers & Gilliam, 2013). Pennsylvania has implemented statewide, on-call ECMH Consultation in which any early care and education setting participating in the Keystone STARS program can have access to a consultant in their facility as needed.

Pennsylvania Office of Child Development and Early Learning contracted with Dr. Deborah Perry, Ph.D. and Ms. Anna Davis, M.A. at Georgetown University Center for Child and Human Development to conduct an external review of ECMH Consultation in Pennsylvania. The purpose of the external review was to analyze the ECMH Consultation implementation in PA to identify its strengths and potential areas of growth. Topics include: the geographic distribution of services; the selection of centers for consultation services; the selection of students for child-specific consultation; the strategies/approaches used in consultation; the qualifications of the mental health consultants; and any gaps in service access and delivery.

To answer these questions, two main sources of data were used. The Georgetown team had access to two years of administrative data, collected by the consultants and stored in a database managed by the technology team at the Center for Schools and Communities, funded through the Central Susquehanna Intermediate Unit. These data are extensive, and include structured measures collected during consultation, background information on participants, and consultants' contact logs. This information was supplemented by survey data from the consultants. The Georgetown team created and distributed a web-based survey to the consultants, gathering information about consultants' training, tasks, supervision, and populations served.

In addition to the external review, the Georgetown team replicated a set of outcome analyses that had been conducted for several prior fiscal years. These outcome summaries are reported for fiscal year 2014-2015 and 2015-2016 to ensure consistency with previous reports on the ECMH Consultation implementation. They appear in the Appendix of this report and each year's summary is intended as a stand alone document.

## Outcomes Evaluation

Key findings across the two fiscal years:

- Consistent with past findings, ECMH Consultation has statistically significant positive impacts on young children and their teachers.
  - Teacher-reported child behavior significantly improved.
  - Teacher implementation of strategies that support young children’s social-emotional development significantly increased.
  - Teacher stress significantly decreased.
  - 63% of closed cases had a positive outcome, defined as meeting goals set for consultation or receiving an appropriate referral for more intensive services. For the remainder of the cases, the vast majority of outcomes were neutral (32%) as opposed to negative (5%).
- Expulsions from ECE facilities were prevented.
  - 244 children were considered “at risk for expulsion” at the time of the request for ECMH Consultation. Only 29 children involved in consultation were ultimately expelled without transition support.
- Many young children were served, and for each case multiple individuals were impacted.
  - 680 young children were served. For each child, consultants worked with at least one teacher, often two, and also typically collaborated with the child’s parents and the facility’s director.
  - Consultants served 428 different ECE facilities.

## External Review

The external review combined insights gained through the outcomes evaluation as well as data collected through the web-based survey of all current consultants. A number of areas of strength were identified including:

- Wide reach of services, with many young children, teachers, and facilities across the state impacted.
- Effective tailoring of consultant time management to meet the needs of young children and their teachers despite wide variability in the travel time required.
- Adherence to a common model of ECMH Consultation across Regional Keys in which services balance fidelity to the model with case-by-case individualization.
- A highly-skilled workforce of consultants that have diverse educational and professional backgrounds.
- Strong positive outcomes for children and teachers, and high satisfaction with services.
- Sophisticated data collection and management procedures that facilitate continuous quality improvement.

Targeted Recommendations:

1. To better address service areas with high need, the program should mobilize the strong outcomes data to advocate for hiring more consultants.
2. To align with best practices nationally, consider hiring a reflective supervisor and implement a feasible schedule whereby consultants have access to regularly-scheduled, individual supervision.
3. To support continued professional development, reinforce consultants’ education, training, and skills with in-service training in topics that they indicate as relative weaknesses. Support consultants to take on major issues for the field, including stigma for mental health, under-identification of internalizing disorders, and expulsions from early childcare.
4. To build upon the strong foundation of ongoing data collection, add data on children’s race/ethnicity and gender, as well as unique identifiers for teachers, and a more sophisticated measure of expulsion risk.



## OVERVIEW

### Introduction to Early Childhood Mental Health

Early childhood is a time of rapid brain development that lays the foundation for future learning, relationships, and emotional wellbeing. Young children in this key developmental phase are highly influenced by their environments and experiences, and in particular their interactions with important adults such as parents, caregivers, and teachers. In the context of these relationships, they learn, form attachments, and experience and regulate emotions (Shonkoff & Phillips, 2000). In this intensified phase of development, there is great potential to set a child on a positive trajectory (Anda et al., 2005; Duncan, Magnuson, Kalil, & Ziol-Guest, 2012; Shonkoff & Phillips, 2000).

Mental health is one domain that is highly impacted by early experiences. In contrast to conceptions of mental health for older children and adults, mental health in early childhood is defined as “the developing capacity of the child from birth to three to experience, regulate, and express emotions; form close and secure interpersonal relationships; and explore the environment and learn, all in the context of family, community and cultural expectations for young children” (Zero to Three, 2001). Without these foundations of mental wellness, children have social-emotional difficulties, often resulting in challenging behaviors.

Prevalence studies report that rates of behavioral difficulties in young children vary from 3% to 14% (Brauner & Stephens, 2006; Qi & Kaiser, 2003), with rates of 27% to 30% reported among populations of young children living in poverty (Qi & Kaiser, 2003; Raver & Knitzer, 2002), who often experience more risk factors (Evans, 2004). But despite these rates of behavioral difficulties, mental health concerns often are not identified or treated in early childhood (Breitenstein, Hill, & Gross, 2009), most likely because there is limited public understanding of early childhood mental health (National Scientific Council on the Developing Child, 2008). As a result, young children have higher unmet mental health needs than do older children (Kataoka, Zhang, & Wells, 2002). Untreated mental health concerns in young children may persist throughout childhood and adolescence (e.g. Lahey, Loeber, Burke, Rathouz, & McBurnett, 2002; Rose, Rose, & Feldman, 1989; Thompson et al., 2011).

For these reasons, federal, state, and local governments are increasingly committed to providing comprehensive early childhood services. One major area of emphasis has been high-quality early childhood education (ECE), which has been linked with positive outcomes, particularly for at-risk young children (e.g. Burchinal, Peisner-Feinberg, Bryant, & Clifford, 2000). Research demonstrates that social-emotional competencies and academic success are linked (Mashburn et al., 2008; Shonkoff & Phillips, 2000). Even after accounting for variables such as cognitive skills and family background, social-emotional competencies predict success in elementary school (Raver & Knitzer, 2002). As a key component of school readiness, high-quality ECE programs work to foster young children’s early social skills and behavioral regulation, largely in the context of teacher-child interactions. Factors such as teacher warmth and consistency, and classroom enrichment and structure, are foundational to promoting school readiness (Howes, Phillipsen, & Peisner-Feinberg, 2000; Raver & Knitzer, 2002). However, teachers’ capacities to bond with students, use appropriate

discipline strategies, and foster positive climates in the classroom are impacted by their personal psychological characteristics, such as self-efficacy, depressed mood, and emotional exhaustion. For example, teachers with moderate levels of depressed mood are less able to provide emotional support for children (Jennings, 2014).

Given the important role that teachers play in promoting early social-emotional competencies, it is critical to ensure that early childhood teachers have appropriate support and training in this domain. This is particularly necessary given the high rates of behavioral issues in early childhood. Early childhood teachers identify disruptive behavior as their greatest challenge, and report that it is becoming increasingly prevalent (Arnold, McWilliams, & Arnold, 1998). Further, early childhood educators, among all possible topics, indicate that they are most in need of training on handling challenging behaviors, (Fox & Smith, 2007; Yoshikawa & Zigler, 2000), and education professors indicate that their graduates are not fully prepared to address challenging behaviors in young children (Hemmeter, Santos, & Ostrosky, 2008).

## Early Childhood Mental Health Consultation

There is a clear need for services that build teachers' capacities to manage challenging behaviors and foster healthy social-emotional development for the youngest learners. Designed to support early childhood teachers, Early Childhood Mental Health Consultation (ECMHC) is an evidence-informed program that has received a great deal of national attention and is implemented at state and local levels. In ECMHC, mental health consultants with specialized training in early childhood form collaborative relationships with teachers and others who care for young children. They work to build teachers' capacity to promote healthy social-emotional development and prevent or address challenging behaviors (Cohen & Kaufmann, 2000; rev. 2005; SAMHSA, 2014). Consultants work in early education settings alongside teachers to build upon teachers' skills in promoting social-emotional development, to enhance the school climate, and to generate plans to address specific challenging behaviors. Program evaluations consistently find that ECMHC positively impacts classroom climate, teachers' skills, and children's social-emotional behavior, and reduces expulsions from child care (Hepburn, Perry, Shivers & Gilliam, 2013). Results from a recent randomized-controlled trial revealed that an 8-week model of ECMHC significantly reduced children's externalizing behaviors (e.g. hyperactivity and impulsivity; Gilliam, Maupin, & Reyes, 2016). ECMHC is distinct from direct therapy in that consultants work on behalf of current and future students by enhancing the skills of the teachers, thereby taking a preventative approach.

Understanding the potent contextual and cultural factors impacting young children's behavior, ECMH consultants intervene at multiple levels (e.g. classroom, family, school, community). ECMHC's multi-level approach is aligned with The Pyramid Model for supporting social emotional competence in infants and young children (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). The Pyramid Model was developed and disseminated by the Center for Social Emotional Foundations for Early Learning (CSEFEL); this model articulates a tiered approach to enhancing social-emotional development for young children, encompassing promotion, prevention, and intervention practices that match the level of support with the child's needs. ECMH consultants can contribute to schools' implementation of The Pyramid Model at each tier (Perry & Kaufmann, 2009). Consistent with the goals of the base of the Pyramid, consultants work to promote the social-emotional development of all students through tasks such as helping teachers to demonstrate positivity with students and to incorporate social-emotional content into curricula. Among children at-risk for mental health difficulties, consultants assist with preventative activities on the middle tier by meeting with teachers and families to identify and implement needed social-emotional



supports (e.g. help with transitions, praise for on-task behavior). For the children at the top tier of the pyramid who need individualized interventions, consultants work with teachers and parents to develop targeted plans or to identify an appropriate referral for intensive services in the community. In ECMH Consultation, consultants follow The Pyramid Model to identify the level at which to intervene with teachers and/or children; they align their work with the level(s) of the pyramid most in need of intervention to enhance outcomes and program efficiency, as well as to have a positive impact on as many students as possible.

## ECMH Consultation in Pennsylvania

Pennsylvania's ECMHC program is referred to as the Early Childhood Mental Health (ECMH) Consultation Project. The ECMH Consultation Project in Pennsylvania emerged as a response to a 2006 report from the BUILD Infant-Toddler Task Force, which provided recommendations for improving social-emotional outcomes for the state's young children. That same year, ECMH Consultation was piloted in the state. As a result of the project's early success, the Office of Child Development and Early Learning (OCDEL) funded a statewide implementation of ECMH Consultation to continue to work towards improved social-emotional outcomes for young children.

While the program is statewide, it is administered separately by each of the five Regional Keys, with oversight from the Pennsylvania Key. In a large state, this approach allows regions to employ their own cadre of mental health consultants, and to serve early care and education facilities in their area.

Pennsylvania Early Childhood Mental Health Consultation Project has three main goals:

1. Reduce the number of children expelled from child care due to behavior challenges
2. Increase understanding among early care and education practitioners and families of social-emotional development and its impact on educational success, and
3. Link and bridge systems and services of behalf of a child, family, and program.

To be eligible for the ECMH Consultation Project, early care and education facilities must participate in Keystone STARS, the state's quality improvement program for educational settings. Facilities can request ECMH Consultation and a consultant from their Regional Key will work with them to address their concerns. A consultant's work with a facility always begins with a concern about a specific child, but consultants can also work at the broader programmatic level when needed. These cases that combine child-specific work with training for the staff are considered a blended model of ECMH Consultation.

In child-specific consultation, teachers and/or administrators request consultation for assistance managing the challenging behavior of a specific child in the program. With permission from the identified child's parent/guardian, the consultant collaborates with the teachers, administrators, and family members to understand and develop an approach to managing the behavior. The consultant balances practical assistance (e.g. brainstorming strategies for improving the behavior) with other core consultation activities, such as building relationships, enhancing teacher self-reflection, and facilitating communication among adults who care for the child.

In the blended model, consultants add targeted programmatic professional development to their child-specific work in a facility. These trainings are provided to facilities where the administrators identify a need for program-wide training on topics relevant to early childhood mental health. In these instances, consultants provide six hours of training from Training Module 1 of the Center

for the Social-Emotional Foundations of Early Learning (CSEFEL) resources. For staff working with infants and toddlers, the module title is “Social-Emotional Development within the Context of Relationships,” and for staff working with preschoolers, the module title is “Building Relationships and Creating Supportive Environments.” These training modules target promotion activities at the base of the pyramid and are often provided to facilities with lower quality rating scores.

## Program Evaluation

This report provides an external review of the strengths and gaps in the current ECMH Consultation Project in Pennsylvania. Consultants collect data from teachers, parents, and administrators as an integral component of consultative work. Given the central role of data collection, the measures and procedures are standardized across the five Regional Keys. Data are used to inform goal-setting and to monitor progress, as well as to evaluate the effectiveness of the program.

To inform this evaluation, data were collected using formal measures and data tracking methods. The formal measures used are described in Table 1. Using an online database, consultants also enter information to keep track of the services provided, the individuals served, demographic/ background information of the facilities, goals for child-specific cases, and more.

**TABLE 1. Measures Collected During ECMH Consultation**

Measure	Purpose	When Completed
Ages and Stages Questionnaire: Social-Emotional (ASQ:SE)	To screen for social-emotional difficulties and assess age-based social-emotional competencies	Pre-consultation
Teaching Pyramid Observation Tool– Short Version (TPOT-S) OR Teaching Pyramid Infant-Toddler Observation Scale – Short Version (TPITOS-S)	To assess the implementation of the Pyramid Model in the classroom	Pre-consultation and post-consultation
Strengths and Difficulties Questionnaire (SDQ)	To determine the impact and severity of behavioral challenges for child-specific cases	Pre-consultation and post-consultation
Childcare Worker Job Stress Inventory (JSI)	To assess teachers’ perceptions of their stress levels	Pre-consultation and post-consultation

In the Appendix are summaries of the positive outcomes for fiscal year 2014-2015 and 2015-2016 that have been achieved by the program: these include statistically significant reductions in teacher-reported child behavior problems as well as teacher stress; significant improvements in the classroom climate were also seen for infant/toddler and preschool classrooms for both years. For both years, more than 95% of the cases had a positive or neutral outcome, with very few children getting expelled from their child care programs. Details about the scope of the program are also highlighted. The next section of the report focuses on the areas of strength and growth for the Pennsylvania ECMH Consultation Project from an external review informed by work across the country in other states and communities.



# EXTERNAL REVIEW

The remainder of this report details findings from the Georgetown team regarding the strengths and potential areas of growth for the ECMH Consultation Project in Pennsylvania. To inform this analysis, multiple data sources were used. First, administrative data from two consecutive fiscal years (FY2014-15 and FY2015-16) were analyzed to assess scope, capacity, and intensity of services. Additionally, all of the consultants completed a web-based survey, reporting on their perceptions of their role, common activities, decision-making processes, and barriers.

The ECMH leadership identified key topics about which they wanted more information and insight into the current functioning of ECMH Consultation in their state. Findings will be organized by the topics of interests to the leadership, and then synthesized into a framework generated by a national study on ECMHC (Duran et al., 2009). Strengths are highlighted, and targeted recommendations are provided.

## Current Capacity

One topic of interest was the current capacity of ECMH Consultation. In a large-scale implementation effort with a central governing agency and local oversight, it can be difficult to track the penetration of services. This section provides details on the consultants' caseloads and the children and teachers served.

### Demand for Consultation

Over two years, there were 890 requests for consultation from 428 different ECE facilities. In the most recent fiscal year (FY2015-16), there were 480 requests from 254 ECE facilities. The number of requests differed by Regional Key (see Table 2).

**TABLE 2. ECMH Consultation Requests per Regional Key**

Regional Key	Number of Requests
Northeast	131
Southwest	111
South Central	99
Southeast	83
Northwest	56

### Consultant Caseload

With 14 full-time and 2 part-time consultants in FY 2015-16, there were 287 cases served (including cases that were still open at the end of the fiscal year). This results in an average caseload of approximately 19 cases per FTE per year. It is important to consider that each case begins when a request is made for a specific child. However, the consultant works with at least one teacher, parent, and administrator per child, thereby impacting multiple individuals per case.

Knowing the annual consultant caseload is informative, but it is also important to consider a consultant's typical caseload. In other words, at a given time, how many active cases does the consultant have? In the survey, consultants reported the typical number of children, teachers, and facilities with whom they work at a given time. Results are averaged across the 16 respondents and rounded to the nearest whole number.

There are more requests for services than there are open slots on consultants' caseloads, meaning that consultants continually open cases from the waiting list when possible. Consultants reported their approach to selecting among the requests for ECMH Consultation when they have an opening. Consultants choose cases:

- If/when have time and space in caseload (n=11)
- As assigned by supervisor (n=5)
- Based on team decisions about geographic proximity (n=3)
- With priority given to facilities with multiple requests (n=3)

**TABLE 3. Average Caseload per Consultant**

Individual	Average Caseload
Children	12
Teachers	22
Facilities	11

## Consistency of Consultant Activities

Because Regional Keys operate somewhat autonomously, administrators at the state level were interested in learning more about the day-to-day experiences, activities, and roles of the consultants.

### Consultant Activities

Across Regional Keys, the common activities/tasks of consultation were largely consistent. Additionally, these activities are well aligned with other statewide models of ECMHC, indicating fidelity to the core components of the program.

On the survey, consultants selected the activities that they engage in during consultation, and ranked the frequency and perceived value of each activity. All 16 consultants engaged in five core activities of consultation:

- Unstructured observation
- Meetings with teacher
- Meetings with parents
- Meetings with administrator
- Training/coaching

The remaining activities were endorsed by nearly all of the consultants:

- Structured observation (e.g. using the TPOT)
- Coordinating a referral for external services
- Working directly with the child

Table 4 presents their rankings of each activity in these two domains, from most to least frequent and most to least valuable.

**TABLE 4. Self-Reported Frequency and Perceived Value of Consultant Activities**

Frequency (most frequent to less frequent)	Perceived Value (most valuable to less valuable)
<ul style="list-style-type: none"> <li>• Unstructured observation</li> <li>• Meetings with teacher</li> <li>• Structured observation (e.g. using the TPOT)</li> <li>• Training/coaching</li> <li>• Meetings with administrator</li> <li>• Assessment</li> <li>• Working directly with the child</li> <li>• Meetings with parents</li> <li>• Coordinating a referral for external services</li> </ul>	<ul style="list-style-type: none"> <li>• Meetings with teacher</li> <li>• Training/coaching</li> <li>• Unstructured observation</li> <li>• Meetings with parents</li> <li>• Coordinating a referral for external services</li> <li>• Meetings with administrator</li> <li>• Working directly with the child</li> <li>• Structured observation (e.g., using the TPOT)</li> <li>• Assessment</li> </ul>

In sum, consultants show high levels of consistency not only in the activities they engage in, but also in the relative frequency of these activities and the extent to which they are considered valuable.

Additional insight was gathered into the variety of evidence-based practices that consultants implemented to meet teachers' and children's needs. In addition to the CSEFEL model, consultants report using the following evidence-based practices:

- PATHS
- TCIT
- Cara's Kit
- Second Step
- Creative Curriculum
- Incredible Years
- Circle of Security
- Conscious Discipline

As another measure of frequency, consultants reported the typical proportions of their face-to-face time spent with each consultee. Specifically, they reported the percent of their face-to-face time spent with administrators, teachers, parents/families, children and others, to add up to 100%. Averages and spread for the 16 consultants are provided below.

**TABLE 5. Percentage of Consultant Time Spent with Different Consultees**

Percentage of face-to-face time spent with:	Mean %	Standard Deviation	Min	Max
Teacher	41.88	19.31	20	80
Children	28.69	15.95	5	50
Administrator	15.31	7.85	5	35
Parents/families	10.94	6.88	5	25
Other	3.19	4.39	0	10

Aligned with their value rating, the largest portion of their face-to-face time is spent with teachers. Surprisingly, given the indirect nature of consultation, they also spend a good deal of face-to-face time with children.



## Frequency, Duration, and Intensity of Consultation Services

It is also important to measure the intensity of services (or “dose”) among cases being served, to better understand the investment in each case. There are many ways to report the “dose” of consultation that cases receive. These include: length of time between opening and closing the case; consultant-reported frequency of contact; number of contacts on behalf of the case; number of hours spent on the case; etc. The data reported here reflect the closed cases from FY2014-15 and FY2015-16.

In terms of the length of time from when the case opened to when it closed, the average case lasted approximately 4 months ( $M=131$  days,  $SD=72$ ), with a range from 0 to 414 days. Some consultants work to form an agreement about the duration of consultation services with the administrator at the outset of the relationship, while others do not attempt to impose a timeframe. When asked how often they arrive at an agreement regarding duration before initiating services, consultants’ responses were: Always ( $n=2$ ), Usually ( $n=3$ ), Sometimes ( $n=7$ ), and Never ( $n=4$ ). Whether or not an agreement was in place, most consultants ( $n=11$ ) reported making decisions to end consultation on a case-by-case basis, depending on the needs and progress of the case.

In terms of frequency of contact on behalf of a given case, half of the consultants ( $n=8$ ) reported that they tailor frequency of work on a case to the stage in consultation. Specifically, they frontload work at the beginning of consultation, visiting the consultee approximately once per week. After a plan is in place and the consultant enters a phase of monitoring and/or refining the plan, their contact with the case tapers off. Most of the rest of the consultants ( $n=5$ ) reported that they typically visit each case every other week for a half-day.

Consultants kept contact logs, listing each activity they engaged in as part of their work for a specific case, as well as the type and length of the activity. There was great variability in the number of contacts that consultants have on behalf of each case and the hours spent on the case, likely reflecting the different needs of each case. See below for a summary of these data:

**TABLE 6. Average Consultant Time per Case**

	Mean	Standard Deviation	Minimum	Maximum
Total Hours	34.81	24.65	0.25	162.25
Average Length of a Contact (hours)	1.83	1.00	0.25	6.97
Total Face-to-Face Time (hours)	19.44	11.82	0.25	88.25
Total Number of Contacts	18.64	12.87	1.00	130.00
Average Length of a Face-to-Face Contact (hours)	2.82	0.91	0.25	6.13

### Importance of “Dose”

Across measures of “dose,” there was a strong trend that higher doses were associated with an increased likelihood of positive outcomes, compared to neutral or negative outcomes. Specifically, positive outcomes were more likely when there were higher values for the following measures of dose:

- Duration of consultation (days) [OR = 1.009,  $p < .001$ ]
- Number of contacts [OR = 1.023,  $p = .006$ ]

- Total time spent on case (hours) [OR = 1.027,  $p < .001$ ]
- Total face-to-face time for case (hours) [OR = 1.044,  $p < .001$ ]
- Average length of contact for case (hours) [OR = 1.476,  $p < .001$ ]

Interestingly, among all of these measures of dose, the strongest predictor of positive outcomes was the average length of contacts, with cases that have longer contacts on average more likely to have a positive outcome.

## Gaps in ECMH Consultation Service Availability and Delivery

To best serve the young children and families of Pennsylvania, it is incumbent upon statewide service providers to critically analyze whether all young children could access these services and benefit from them equally. This is particularly difficult given the size of the state, and the distribution of the population across rural and urban areas. Nevertheless, the ECMH team is striving towards even and equitable penetration of consultation, and seeks to identify any gaps in service provision. Such gaps were analyzed in terms of: 1) the current waitlist, 2) geographic distribution of services, and 3) populations of young children served.

### Waitlist

In July 2016, there were 78 children on the waitlist, representing 16% of total requests for the year. These cases have been on the waitlist for an average of approximately two months ( $M=71$  days, range=9-200). Among all active or closed cases in the past two fiscal years, the average wait time was approximately one month ( $M=30$  days, range=0-207). Because the current wait time is, on average, longer than the wait time for previously opened cases, it is possible that wait time is increasing.

When there is a waitlist, consultants add new cases to their caseloads whenever possible. There is some variability in how consultants choose from among the requests on the waitlist (see Table 7).

**TABLE 7. Consultant Criteria for Selecting a New Case from Waitlist**

Criteria	Number of Consultants
Select a child at risk for expulsion	9
In order received	7
Select a child whose concerns sound most serious	2
Select a child at a facility in which I am currently working	1
Select a child whose presenting problem is a good match for my experience/ areas of expertise	1
Select a location that cuts down on travel time	1
With priority to infants	1

Note: participants could choose multiple responses

Despite consultants' attempts to prioritize children at risk of expulsion, the duration of time those children spend on the waitlist was not significantly shorter than children not at risk of expulsion [ $t(711)=1.17, p=.242$ ]. While a child's risk does not influence their wait time, his/her geographic location may have an impact. The longer the travel time for a consultant to get to the child's facility, the longer the wait time, [ $B=6.19, R^2=.17, t(646)=4.25, p<.001$ ].

The length of time a child spends on the waitlist impacts his/her likelihood of ultimately engaging in consultation. As the wait time increases, the likelihood of the child being in the "No Service" category also increases, [ $OR = 1.006, p=.063$ ]. The "No Service" category refers to children for whom ECMH Consultation was requested, but who never received the service. There were a variety of reasons why consultation was never initiated, including the child being expelled, the family moving, and the child's behavior improving. There was also an "other" category for reasons not represented by those options.

### Geographic: Travel Time

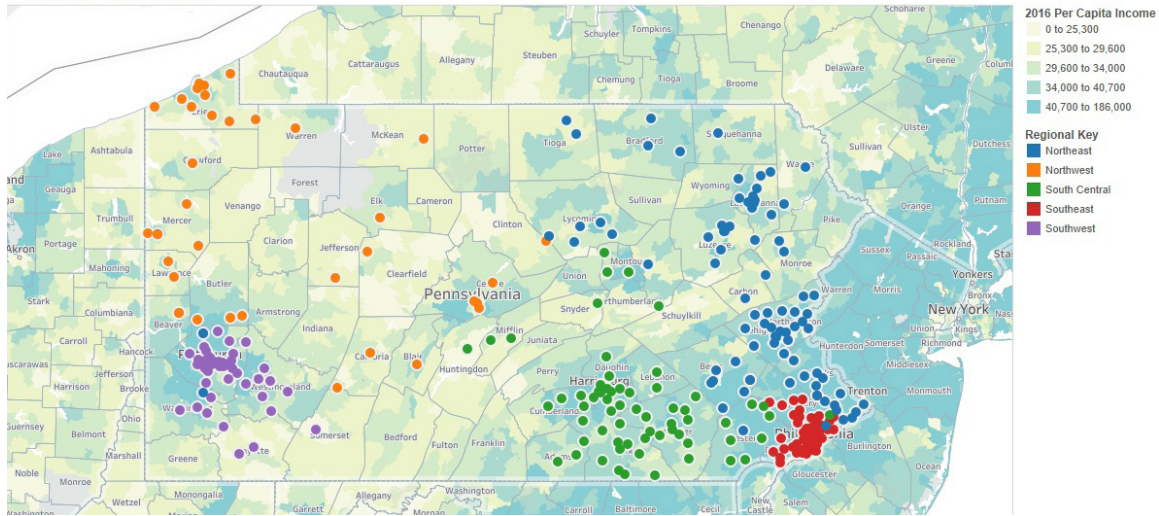
Given the size of the state and spread of the centers in which consultants work, consultants' travel time varies widely. Across all closed cases, the average travel time for a case was an hour and a half ( $M=1.50$  hours). In other words, it took consultants an hour and a half, on average, to get to the facility they were serving. However, this varied widely depending on how close the case was located to the consultants' home, as well as the traffic encountered on route. The range for travel time was wide, with a minimum on a 15 minute drive and a maximum of a five-and-a-half hour drive to a case. After cases were closed, the total number of hours spent travelling to reach the case over the course of consultation was calculated. On average, a case required close to 10 hours of driving time ( $M=9.27$  hours), with a wide range from 15 minutes to 42.5 hours. This variability in the extent of time spent traveling reflects the challenges of working in a large state and attempting to serve densely populated urban areas and sparsely populated rural areas equitably.

Despite long travel times, and travel times that vary considerably from case to case, consultants seem to have refined an approach to serving cases in facilities that are further away with the same fidelity and frequency as cases that are closer to their homes. While it may take longer to open a case that is further away (see above), there was no association between a case's travel time and number of contacts with consultant, [ $B=0.25, R^2=.00, t(560)=.44, p=.657$ ]. Further, consultants tend to allocate their time differently to efficiently serve children that are further away. Longer travel time was associated with longer average face-to-face consultations [ $B=0.33, R^2=.12, t(558)=8.79, p<.001$ ] and more total time spent in phone consultation, [ $B=0.28, R^2=.10, t(536)=2.37, p=.018$ ]. These results indicate that, when children lived farther away, consultants strategically restructure their time to provide quality consultation while minimizing time spent in travel. They maximize face-to-face consultation when they are at the facility, and supplement these visits with phone consultation. It seems that consultants are able to manage the demands of serving a large geographic area by strategically managing their time.

### Geographic: Spread

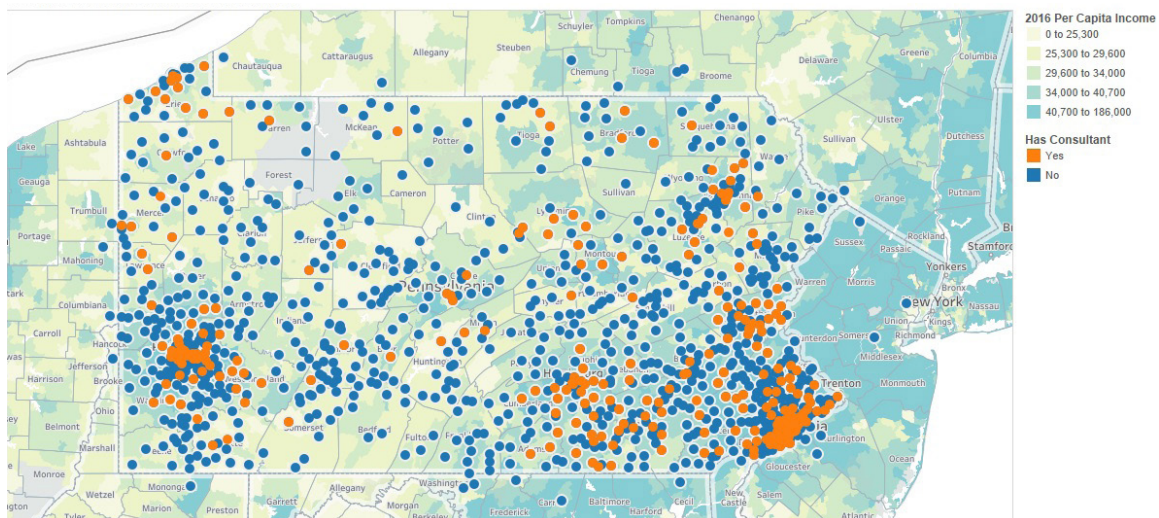
No consultant can be everywhere at once, and Pennsylvania is a large state with great variability in population density.

**FIGURE 1. Facilities by Key and Income**



There appears to be a tendency for services to be clustered in urban areas, as well as areas with a higher per capita income.

**FIGURE 2. Facilities With and Without Consultation**



Of the many ECE facilities in the state, only some are served by this program. The orange dots represent facilities served by this program, and the blue dots represent facilities that are not served by this program. Some of the centers not served may have requested consultation, and others may not have requested it. The number not currently served certainly reflects the size of the consultant workforce, but also the requirement that centers participate in the STARS program.

## Populations

Limited background information on children is available to assess whether certain populations are being under-served. For example, no data were available to determine the racial/ethnic or sociodemographic breakdown of the cases receiving consultation. The only data available to address this question were the maps and consultants' self-report of their caseloads.

The two maps above demonstrate the allocation of services as well as the per capita income by zip code. It appears that consultation services are clustered in higher-income areas. However, without knowing demographics at the child-level, it is not possible to ascertain whether higher-income children are in fact being served at higher rates. An alternative explanation could be that services are clustered in more densely populated areas that have larger populations of young children 0-5 and a greater demand for consultation.

In the survey, consultants answered a broad question about the socioeconomic status, race/ethnicity, and geographic area of the *majority* of their cases. Of all consultants, 93% were serving mostly Caucasian children, and 69% were serving mostly middle- or high-income children. In terms of geographic areas, 56% were serving suburban areas, 25% were serving urban areas, and 19% were serving rural areas. It seems possible that children from ethnic minority groups, children from low-income families, and children living in rural areas may be under-served. However, more extensive data collected at the child level is necessary to answer this question.

Additionally, the reach of this program may be limited by features of the program infrastructure. Consultants suggested that provision of services may be limited by:

- The requirement that facilities must be enrolled in the STARS program
- The size of the consultant workforce that is not able to address all of the requests on the long waitlist
- Limited outreach and awareness of the service

## Consultant Qualifications and Supports

ECMH consultation is a highly specialized career requiring a depth of knowledge that cuts across multiple disciplines including infant mental health and early childhood education, in addition to personal attributes that facilitate the formation of trusting interpersonal relationships. To ensure that program implementation is effective, it is critical to hire, train, and support qualified consultants with a combination of experiences, skills, and knowledge.

### Education/Training

In the survey, consultants provided information on their educational and professional backgrounds, as well as their training for this position. The consultants in Pennsylvania possess a great deal of knowledge and expertise. Because there are currently no formal Master's degree or training programs for ECMH consultants, it is necessary that consultants have access to thorough pre-service and in-service training to round out their skills sets on topics not addressed in their formal education.

Often, mental health consultants have either a mental health background or an early education background. The consultants in Pennsylvania have a variety of educational backgrounds, with Master's degrees in fields such as: social work, early education, marriage and family therapy,



special education, counseling, and public health. In addition to formal education, their professional experiences before beginning this role contribute greatly to their skillsets and preparation for the complex tasks of consultation. Prior to beginning this role, consultants had worked with young children as an early childhood educator (n=14) or a mental health professional (n=9); 7 of them had previous experience in both roles. They had an average of almost 14 years working with young children before beginning their work as a consultant. Consultants vary in their time in their current role, from less than one year to eight years.

In addition to their skills and knowledge from previous educational and professional experiences, in-service training is necessary to supplement and reinforce their expertise. Most consultants (n=12) reported that, after being hired, they were trained in the state's ECMH Consultation Project model and the CSEFEL and/or PBIS models. Some (n=5 to 8) were trained in early childhood mental health (development, assessment, treatment), infant mental health, consultation, or evidence-based practices.

All professionals have a unique profile of relative strengths and weaknesses in their occupation, and particularly given the multifaceted nature of their role, consultants are no exception. On a long list of skills/knowledge, consultants self-reported their confidence in many domains. Overall, they reported strong self-assessed skills/expertise in:

1. Knowledge of typical and atypical early childhood development
2. Ability to communicate and collaborate with families, teachers, and childcare directors
3. Knowledge of infant and early childhood mental health/social-emotional development
4. Ability to use CSEFEL pyramid activities and principles in consultation
5. Ability to facilitate team meetings/manage diverse perspectives

Consultants provided relatively lower ratings for:

1. Knowledge of theories of consultation
2. Implementation of a "wellness approach" that includes promotion and prevention activities
3. Understanding how to enhance motivation in adults

Given the fact that these topics may not be emphasized in higher education for early childhood education or child mental health, it is not surprising that consultants' confidence in these skill sets and bodies of knowledge might be lower.

## Supervision

Reflective supervision is an important component of ECMHC, given the difficulty of this work, the emotional demands on the consultant, and the consultant self-awareness necessary to promote self-reflection in teachers, parents, and administrators. It is often considered a central component of ECMHC, both in facilitating a parallel process and in alleviating consultant burnout. ECMHC standards indicate that consultants should receive weekly, individual, reflective supervision (Heller & Gilkerson, 2009).

To determine the extent to which consultants have access to this support, they were asked about the format and frequency of supervision, as well as the qualifications of the supervisor. Results reveal considerable gaps in access to sufficient supervision. Two consultants reported receiving no supervision of any kind. Half of the consultants (n=8) receive no individual supervision. Half of

the consultants (n=8) receive only one kind of supervision (most often peer, n=4). Of the four who only receive peer supervision, none meet weekly (monthly: n=3; every other week: n=1). More specific information about individual group, and peer supervision is provided in Table 8.

**TABLE 8. Consultant Supervision**

Type of Supervision	Access	Frequency	Supervisor
Individual	8 consultants	Weekly: 1 As needed/available: 4 Monthly: 3	Formal supervisor: 4 Peer: 4
Group	8 consultants	Weekly: 3 As needed/available: 3 Every other week: 2	Formal supervisor
Peer	7 consultants (4 only receive peer supervision)	Every other week: 2 Monthly: 3 As needed: 2	Peer group, no supervisor

It is important to note that no definition of supervision was provided for consultants as they answered this question. It may be that supervision means different things to different people. While some may consider a supervisor primarily someone who offers practical help with specific cases, others may define a supervisor as an advanced practitioner who guides the consultant to reflect on his/her emotional reaction to cases, to expand his/her self-awareness, and to develop as a professional.

### Barriers

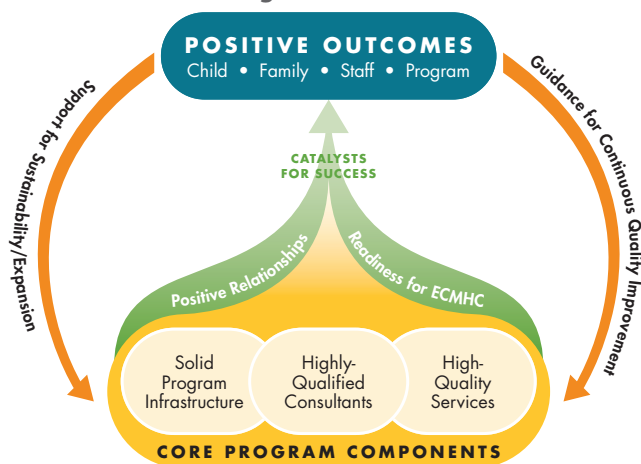
Consultants ranked their common barriers, and these are listed below from most to least common.

- Chaotic or disorganized programs
- Stigma against mental health
- Difficulty engaging teachers
- Difficulty engaging parents
- Difficulty engaging program directors
- Travel time
- Restrictive program policies
- Lack of training for a specific concern or population

# PLACING THE PENNSYLVANIA PROGRAM IN A NATIONAL CONTEXT

The many strengths of Pennsylvania’s implementation of ECMH Consultation, as well as the few targeted areas for growth, are synthesized within the conceptual model for ECMHC developed by Georgetown University Center for Child and Human Development in a report entitled “What Works? A Study of Effective Early Childhood Mental health Consultation Programs” (Duran et al., 2009). This comprehensive document presents findings from a national scan of ECMHC programs, identifying core components of ECMHC across implementations and analyzing key elements of ECMHC that are critical for success and sustainability. This framework provides a structure for feedback from the external review.

**FIGURE 3. ECMHC Logic Model**



## Core Program Components

### 1. Solid Program Infrastructure

#### A. Highlighted Strength:

- i. *There is a clear program model.* Despite serving diverse geographic areas and populations with five decentralized program sites, the consultants demonstrate a high level of consistency in their daily functioning. It appears that the state ECMH team developed a feasible model for this program that can be implemented across regions, and that consultants have adequate support and guidance to implement the model with fidelity.

#### B. Targeted Recommendations:

- i. *Hire more consultants.* With a solid infrastructure in place, the ECMH team should consider expanding the reach of this program by hiring more consultants. These consultants can join an established system, and would address gaps in services and the growing waitlist to ensure that all children have equitable access to ECMH Consultation.

It would be advisable to hire strategically, identifying candidates in under-served areas that can serve their own communities, thereby increasing the penetration of this program and limiting travel time for the other consultants.

- ii. ***Provide reflective supervision for all consultants, every week. This has been done via phone in some states where access to reflective supervision is limited.*** As detailed in the “What Works?” report, reflective supervision is a key support for consultants. Mental health consultation is a highly-skilled and emotionally demanding job. Consultants can experience burnout, which may increase the likelihood of turnover. While most consultants in Pennsylvania have access to supervision, it is recommended that:
  1. The consistency and frequency of supervision is increased.
  2. Greater emphasis is given to reflective capacity building and parallel process.
  3. It is led by an experienced mental health provider and supervisor.
  4. It is a space in which supervisors and consultants discuss how culture, race/ethnicity, and gender (of the consultant, consultees, and children) impact their work and how to have potentially difficult conversations with consultees about these topics.

## 2. Highly-Qualified Consultants

### A. ***Highlighted Strength:***

- i. ***The consultants are highly skilled.*** The consultants represent a variety of educational and professional backgrounds in which those with complementary strengths and learn from one another (e.g. a child therapist and an early childhood educator). Consultants come to the role with a great deal of experience working with young children. They feel confident in their skills, knowledge, and expertise across the wide array of competencies needed for successful consultants.

### B. ***Targeted Recommendations:***

- i. ***Provide targeted in-service trainings.*** While consultants feel confident in most of the skills and bodies of knowledge necessary for their job, it is important to assess their perceived areas of growth. The Regional Keys or state ECMH program could provide training on core topics of consultation about which consultants report feeling less confident. These topics would strengthen the skills of the consultants to help support changes in adult behaviors, including:
  1. Knowledge of theories of consultation
  2. Implementation of a “wellness approach” that includes promotion and prevention activities
  3. Understanding how to enhance motivation in adults

## 3. High-Quality Services

### A. ***Highlighted Strengths:***

- i. ***Cases receive an effective “dose” of consultation.*** The average length of time per case (approximately 4 months) is consistent with other implementations of ECMHC (e.g. in Maryland). Cases receive, on average, close to 20 hours of face-to-face time. Consultants tailor the frequency of their visits to the needs of the case, with more frequent visits in the earlier stages of consultation and then a tapering off as consultees make progress and become more autonomous. These measures of dose suggest that comprehensive services are offered. Importantly, however, there is a great deal of variability in these measures of dose, with some cases receiving considerably more consultant time than

average, and some cases receiving considerably less. The wide range in dosage is appropriate given the diversity of presenting concerns. Some concerns are relatively straightforward and can be resolved quickly, whereas others are multifaceted and complex, requiring large investments of time and expertise from consultants before goals can be met.

- ii. ***Evidence-based practices (EBPs) are used.*** Consultants report engaging in a variety of evidence-based practices with their cases. The use of approaches that have been well-researched is advisable, and the variety of EBPs used indicates that consultants tailor their strategies to the case rather than taking a one-size-fits-all approach. Because individualization is a key tenet of ECMHC, this is another indication of strong fidelity to the model.
  - iii. ***Consultants spend their time wisely to serve all facilities, even distant ones.*** Consultants serve a large state, and each Regional Key may have urban, suburban, and rural areas. There are only two to four consultants per key, and each key represents a large geographic area (or, in the case of Southeast, a densely populated area). Nevertheless, the consultants do not deny services to any ECE facilities, even if they would require considerable travel time. Rather, consultants tailor their approach to provide high-quality services regardless of distance. When facilities are further away, consultants spend equal amounts of time on the case relative to cases that are closer, but they allocate time differently. When they are on site, consultants spend more time face-to-face with consultees, but then supplement their visits with a considerable amount of phone consultation.
- B. ***Targeted Recommendations:***
- i. ***Intensify efforts to train teachers to identify internalizing behaviors in young children.*** Consistently, children are more likely to be identified for consultation when they have externalizing behaviors than when they have internalizing behaviors. This trend, replicated nationwide, likely reflects the difficulty of identifying internalizing concerns, and the greater classroom burden of disruptive behaviors. Nevertheless, it is critical to identify and address internalizing concerns, as they typically persist if left untreated and are often the result of trauma. Consultants may incorporate additional teacher training on the identification of internalizing behaviors in young children, thereby expanding ECMH Consultation access to children with a wider variety of mental health challenges.
  - ii. ***Encourage consultants to advocate for no-expulsion policies.*** Consultants do not always feel comfortable discussing facilities' disciplinary policies with administrators, perhaps considering it to be outside of their role. However, a mental health perspective on discipline—and, in particular, suspension and expulsion—may provide a critical viewpoint that otherwise is not considered in facility policies. As the issue of race- and gender-based disproportionality in early childhood exclusionary discipline gains national attention, consultants are well-positioned and well-suited to advocate for policies that prohibit suspension and expulsion, or that specify the steps that must precede suspension and expulsion (e.g. consultation).

These Core Program Components have led to the Positive Outcomes presented in Appendix 1 and 2 of this report, and summarized here.



## Positive Outcomes

1. **For children and families:** After consultation, teachers report statistically significant improvements in child behavior on the Strengths and Difficulties Questionnaire. It is hypothesized that these changes in child functioning, and/or improvements in the parents' interactions with school staff as a result of changes to teacher perception of the child, benefit the families as well.
2. **For teachers:** Based on consultant observation, teachers' skills in supporting young children's social-emotional development in typical class functioning significantly improve after consultation. Teachers also report significant reductions in stress.
3. **For programs:** Consultation assists programs in meeting the needs of young children with challenging behaviors so that they can limit their use of exclusionary discipline (i.e., suspensions and expulsions). Further, consultants provide group and individual training opportunities for teachers that expand the skillsets and competencies of their staff.

It is theorized that the catalysts for these positive outcomes are positive relationships and readiness for ECMHC. Data have not been gathered on either of these constructs in this statewide implementation. However, some insight into each catalyst has been indirectly gathered.

## Catalyst for Success

### 1. Positive Relationships

#### A. *Highlighted Strength:*

- i. ***High satisfaction with consultation.*** Over 150 staff members completed a satisfaction survey after working with a consultant in FY2015-16. Almost to a person, respondents reported being satisfied with consultation, feeling like their consultant understood the concerns and helped them to learn effective new strategies. Furthermore, staff reported that they would recommend ECMH Consultation to their colleagues, and that they would request ECMH Consultation again. All of these responses indicate that strong, positive, effective relationships were formed in which the difficult work of consultation (often in the form of adult behavior change) could occur.

#### B. *Targeted Recommendation:*

- i. ***Provide reflective supervision.*** The central role of strong relationships is modeled in the supervisor-consultant relationship. When high-quality reflective supervision is in place, the relationship is characterized by empathy, respect, non-judgment, and collaboration. In a parallel process, this supervisor-consultant relationship is thought to set the stage for a similarly strong consultant-teacher relationship in which teachers can explore their own subjective experiences openly. Engaging in a relationship characterized by opportunities for self-exploration demonstrates to the consultants how to create a comparable relationship with consultees, and allows them to experience how effective and powerful it can be.

### 2. Readiness for ECMHC

#### A. *Highlighted Strength:*

- i. ***Many facilities seek consultation.*** It is evident, based on the high level of requests of ECMH Consultation, that many facilities recognize the importance of supporting children's social-emotional development.

B. **Targeted Recommendation:**

- i. **Address stigma.** Consultants report that one of the most challenging barriers to their work is resistance from teachers, administrators, and parents. This likely reflects stigma against the term “mental health” and the cultural beliefs associated with being involved with a mental health professional.

The positive results—brought about by these catalysts for change—are critical to sustainability and quality improvement.

## Support for Sustainability/Expansion

• **Highlighted Strength:**

- **Consultants are already serving a large area.** In a large state with many regional differences, the consultants are responding to requests for consultation at a high level, and never turn away any requests even when they require a great deal of travel. Consultants cope with and have adapted their practice to work efficiently even when they spend a significant portion of their time on travel.

• **Targeted Recommendations:**

- **Use results to advocate for program expansion.** The positive outcomes from the recent years can be leveraged to advocate for expansions of this important program. The maps reveal regional differences in penetration of ECMH Consultation, and the increasing wait time for requests indicates growing need for this service. The demonstrated need, in conjunction with proven results, can be used to make a strong case for the addition of several consultants to the ECMH team. To support the consultants, who are increasingly in demand, a reflective supervisor should be hired to provide weekly individual and monthly group supervision.
- **Address requirement that facilities participate in STARS program.** To be eligible for ECMH Consultation, a program must be enrolled in Keystone STARS, the state’s quality improvement program for educational settings. This requirement renders thousands of early childcare and education facilities ineligible, and thereby limits the reach of this program, potentially decreasing access for higher-risk communities. ECMH leadership may consider either eliminating this requirement, or expanding other supports to encourage more facilities to join the STARS program.

## Guidance for Continuous Quality Improvement

• **Highlighted Strength:**

- **Data collection is comprehensive and efficient.** The scope and comprehensiveness of data collection is a major strength of this program. In just a few years, consultants have implemented new, consistent approaches to data collection, and a user-friendly, efficient database was created. The database is well-maintained and allows program leadership to run reports quickly and easily to gauge their progress towards their goals.

• **Targeted Recommendations:**

- **Collect data on child race/ethnicity, gender, and socioeconomic status.** These data are necessary to analyze the extent to which children of different backgrounds are benefiting from consultation. Further, it would allow Pennsylvania to participate in the national conversation around race- and gender-based disproportionality in early childhood discipline. Despite being otherwise sophisticated in data collection and management, this gap in the background information gathered about children is notable in that most other ECMHC programs do collect this data.

- **Create identification numbers for teachers, in addition to children and facilities.** With this capacity, the data could be analyzed to answer questions such as: do teachers who receive consultation more than once continue to benefit? Is there additional benefit for teachers who engage in the blended model as opposed to the child specific model? When children have two teachers that complete the Job Stress Inventory, how can their pre- and post-consultation data be accurately paired?
- **Measure expulsion risk more accurately.** At the time of the request, directors indicate whether or not they consider the child to be at risk of expulsion. It is important to know whether facilities are considering expelling a child, as consultants may prioritize their requests, and their outcomes may be important for program evaluation. Troublingly, almost half of the children who were ultimately expelled without transition support in two years (n=13) were not flagged as expulsion risks at the time of the request. Additionally, among the children expelled before consultation could begin, seven were not considered expulsion risks. Across all occasions when a child was expelled (with or without transition support, with or without consultation), only 60% were considered at risk for expulsion at the time of the request. It seems that a measure with greater sensitivity and specificity is needed to accurately assess expulsion risk.

## Summary of Recommendations

1. To better address service areas with high need, the program should mobilize the strong outcomes data to advocate for hiring more consultants.
2. To align with best practices nationally, consider hiring a reflective supervisor and implement a feasible schedule whereby consultants have access to regularly-scheduled, individual supervision.
3. To support continued professional development, reinforce consultants' education, training, and skills with in-service training in topics that they indicate as relative weaknesses. Support consultants to take on major issues for the field, including stigma for mental health, under-identification of internalizing disorders, and expulsions from early childcare.
4. To build upon the strong foundation of ongoing data collection, add data on children's race/ethnicity and gender, as well as unique identifiers for teachers, and a more sophisticated measure of expulsion risk.



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## APPENDIX 1 FY 2014-2015 OUTCOME EVALUATION

Program evaluations reinforce the role of effective programs and can contribute to advocacy for their continued funding. Hence, annual evaluations of the ECMH Consultation Project are conducted and shared to describe the positive outcomes of the program and track changes over time. In fiscal year 2014-15, data collected as part of consultation procedures were compiled and statistically analyzed. Results indicate that there was a large, positive impact of this program. This report will describe the population served and the outcomes of consultation on children and teachers.

### Demographic Data

Consultation begins when a teacher or administrator submits a request for ECMH Consultation. Requests are made for a specific child whose behavior is problematic. Each request is considered an individual “case.” Occasionally, there are multiple requests for the same child in the course of one year. In FY 2014-15, there were 410 cases. Of these 410 cases, 390 of the cases were individual requests for an individual child. The remainder of the cases consisted of 10 children, each of whom had two requests. At the time of data analysis (July 2016), all but three of the 410 cases had been closed. The three cases that remained open were not active, but were in a “monitoring” stage in which follow-up or long-term tracking were still ongoing. Consultants worked in a total of 253 different ECE facilities.

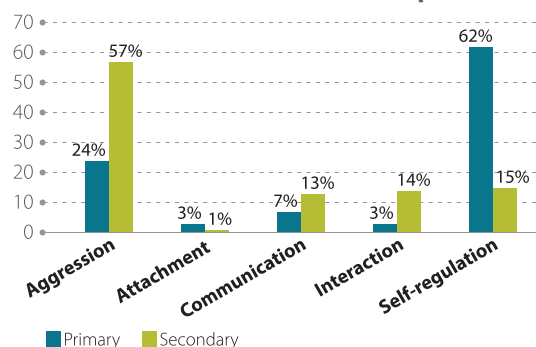
There were 19 consultants employed by the Regional Keys in FY 2014-15. Each consultant had an average of 20 cases, with a wide range from 2 to 32 cases. Six cases were not assigned to a consultant, and 21 cases had missing data for consultant ID.

Basic information about the child is provided in the form submitted when a request is made, including the child’s age, risk for expulsion, and presenting issue. Some information about the facility is also submitted (e.g. STAR rating). This information provides insight into which children are identified and why.

### ECMH Consultation Requests

Upon making a request for ECMH Consultation services, teachers or directors select the challenges that the child is demonstrating from a list of possible presenting problems. Each request lists one or two concerns about the child. Self-regulation is the most common reason for requests, with 62% of cases listing it as the primary concern. Externalizing behaviors vastly outweigh internalizing behaviors in requests; 87% of requests list self-regulation or aggression as the primary concern, with the remaining 13% consisting of internalizing concerns (communication, attachment, or interaction). This trend is consistent with other ECMHC programs, which have demonstrated that teachers often refer fewer children because of internalizing concerns.

**FIGURE 4**  
Reason for ECMH Consultation Request





The severity of behavioral issues is measured with the Ages and Stages Questionnaire: Social-Emotional (ASQ:SE). At the initiation of services, teachers and parents complete this measure to provide information about the child's social-emotional development and difficulties, with scores calibrated by age to account for differences in expectations across early development. The ASQ:SE captures constructs—such as self-regulation, social communication, and interaction styles—that are important components of healthy relationships and school readiness. In this program, the ASQ:SE is used to direct clinical decision-making but not to measure progress over the course of consultation. Hence, it was only collected at the outset of consultation.

Scores reflect whether children's social-emotional competencies match their developmental stage. Total scores classify children in one of the following categories: Below risk threshold, At risk threshold, 1-19% above risk threshold, 20-49% above risk threshold, or >50% above risk threshold.

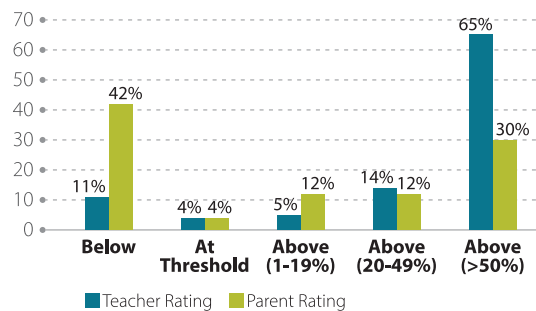
ASQ: SEs were collected from teachers for 366 cases, and from parents for 267 cases. The majority of teachers (65%) rated children referred for ECMH Consultation as at the highest possible level of risk on the measure (> 50% above risk threshold). At the other extreme, only 11% of teachers' rated children below the risk threshold, with the remaining 24% above the risk threshold by less than 50%.

Teachers and parents did not always agree about the presence and severity of social-emotional problems for the young children referred to ECMH Consultation. While teachers' scores indicated that children had severe social-emotional difficulties, parents were more likely than teachers to provide ratings that were below the threshold for risk (42% of all parent reports). It is not unusual for parents and teachers to provide discrepant ratings of young children's social-emotional functioning, reflecting many factors. Teachers have typically

seen a broader range of child behaviors and may therefore better able to identify atypical behavioral patterns. Furthermore, young children's behaviors are particularly influenced by the context, and they may act differently with parents than with teachers and peers. Finally teachers may observe children in challenging situations that parents do not see (e.g. sharing with peers).

**FIGURE 5**

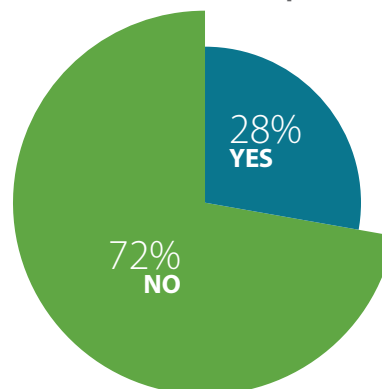
### Teacher and Parent Report of Child Social-Emotional Development



As another indicator of the severity of children's challenging behaviors, directors reported whether each child was at risk of expulsion from the ECE facility. Over one-quarter of the requests for consultation were for children who were considered at risk for expulsion.

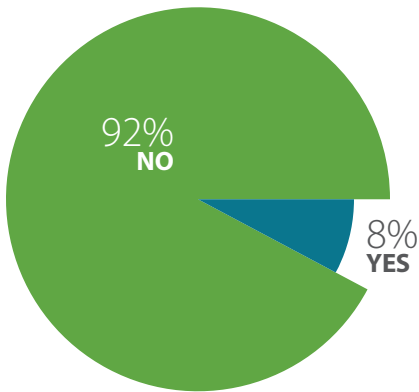
**FIGURE 6**

### Expulsion Risk among ECMH Consultation Requests



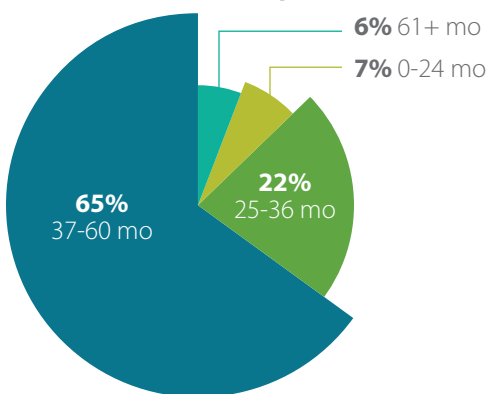
Further, a portion of the requests (approximately one-tenth) were for children with Individualized Education Plans (IEPs) or Individualized Family Service Plans (IFSPs).

**FIGURE 7**  
IEP/IFSPs among ECMH Consultation Requests



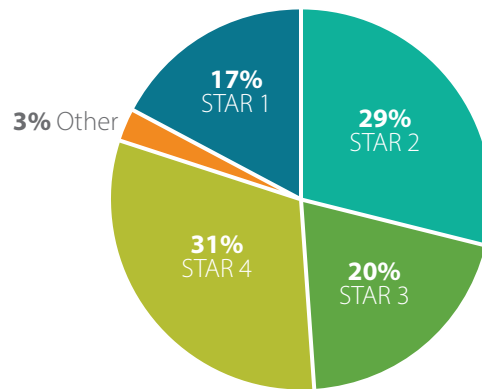
Requests also occur at different rates based on child age. Consistent with previous ECMHC evaluations, preschoolers (3- to 5-years-old) accounted for the majority of requests (65%). The average age for requests was within this range ( $M=43$  months), although the age range was wide (from 1 month to 72 months). There was a slight increase in requests for toddlers (25 to 36 months) from 19% in FY2013-2014 to 22% in FY2014-2015. Requests for infants (0 to 24 months) remain low at 7%. Unlike previous years, more children over the age of 5 were included in ECMH Consultation requests (6%), perhaps indicating decisions to delay kindergarten placements.

**FIGURE 8**  
Age of Children with ECMH Consultation Requests



The number of requests for ECMH Consultation differed based on facility STAR level. STAR 2 and STAR 4 facilities continue to have the highest rates of ECMH Consultation requests (29% and 31%, respectively). The “Other” category includes facilities with a suspended STAR level, no STAR level, and “Start with STARS.”

**FIGURE 9**  
ECMH Consultation Requests by Facility STAR Level



### Summary of Demographics

In sum, there was a great deal of variety in the children for whom consultation was requested. However, there were some factors that increased the likelihood that teachers or administrators would request ECMH Consultation for a particular child. Overall, children with self-regulation issues and other externalizing concerns were most commonly referred for consultation. Teachers—but not necessarily parents—were likely to consider the child’s issue to be developmentally inappropriate and/or severe, to the extent that the child may be at risk for expulsion. Older children (3- to 5-years-old) were more likely to be referred, and requests were most likely to come from STAR 2 or 4 facilities. While there were trends in the referrals, children with a wide variety of characteristics were served.

## ECMH Consultation Service Delivery

### ECMH Consultation Blended Model Delivery

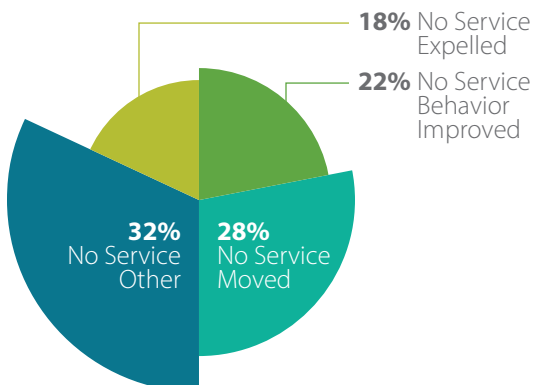
In the Blended Model of ECMH Consultation, the consultant provides targeted professional development for staff in addition to child-specific consultation. Specifically, the consultant delivers six hours of trainings from the Center for Social Emotional Foundations of Early Learning (CSEFEL) Training Module 1. This approach is consistent with The Pyramid Model, in which teachers learn universal strategies to support all children. This Response to Intervention approach emphasizes the foundational role of skills at the base of the pyramid in preventing potential social-emotional concerns through appropriate supports for all children.

The Blended model of ECMH Consultation was implemented in 39 facilities across the five Keys, a small increase from 36 facilities in FY2013-14.

### No Service

The vast majority of requests resulted in consultation services, but 50 cases did not receive services. When requests did not result in the initiation of consultation, consultants selected one of four options to describe why no services were delivered: Behavior Improved, Moved, Expelled, or Other. The 50 cases were fairly evenly split among these options (see Figure 10).

**FIGURE 10**  
Reasons ECMH Consultation was Not Delivered

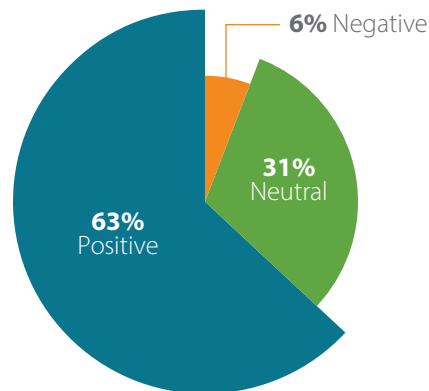


## ECMH Consultation Outcomes

Outcomes of ECMH Consultation can be broadly classified as positive, neutral, or negative. Positive outcomes include when the goals of consultation are met, as well as when children are appropriately referred for community-based services. Outcomes are classified as neutral when parents or facilities decide they no longer wish to engage in consultation. A negative outcome is when the child is expelled from the center.

For almost two-thirds of all cases (63%), ECMH Consultation had a positive outcome. Of the 112 children at risk of expulsion, only 20 were expelled this year, for a 6% rate of negative outcomes. The remainder of the cases (31%) had neutral outcomes. Compared to FY 13-14, the rate of positive outcomes increased slightly from 60% to 63%, the rate of negative outcomes increased by the same amount, from 3% to 6%, and the rate of neutral outcomes has decreased from 37% to 31%.

**FIGURE 11**  
Consultant-Reported Case Outcomes



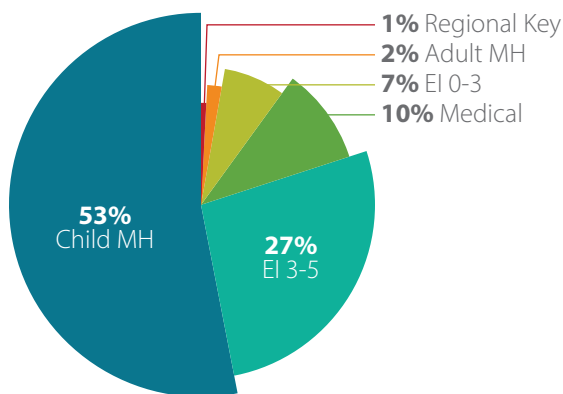
It should be noted that these data include cases opened within FY 2014-15 and closed by July 2016. This analysis does not include cases that were opened in FY 2013-14 and closed in FY 2014-15. Further, it does not include cases where there was a request for ECMH Consultation but, for a variety of reasons, no services were initiated (see Figure 10 for more details). As

a result, these outcomes capture 86% of the cases in FY 2015-15 (354 of the 410 cases).

### Referrals

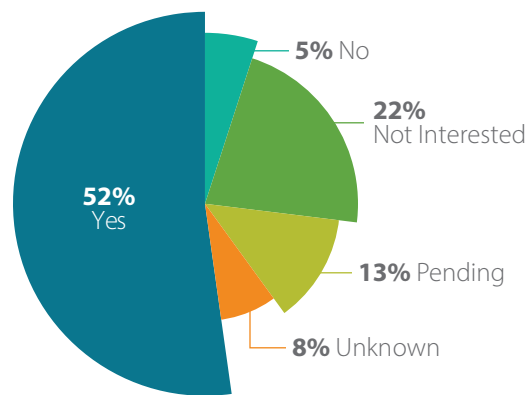
One major goal of ECMH Consultation is to facilitate appropriate referrals to community-based resources for more intensive services as needed. In FY2014-15 referrals were made for 218 cases. Of these 218 cases, 163 cases had one referral, 47 cases had two referrals, six cases had three referrals, and two cases had four referrals, for a total of 283 referrals. The most common referral was for Child Mental Health services (53% of referrals), followed by Early Intervention 3-5 (27% of referrals). Ten percent of referrals were for medical services.

**FIGURE 12**  
**Referrals for Community-Based Services**



Not all referrals resulted in engagement in the recommended service. While the proportion of families that follow through on their referrals is unknown, the community agencies confirmed that 52% of these referrals qualified for services, while 5% did not qualify. For a variety of reasons, some families (22%) were not interested in engaging in the recommended service. The status of the remainder of referrals is unknown or pending.

**FIGURE 13**  
**Status of Referrals**

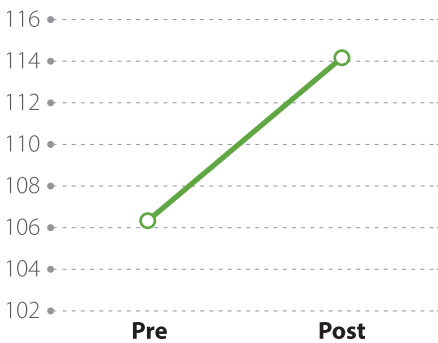


### Adherence to The Pyramid Model

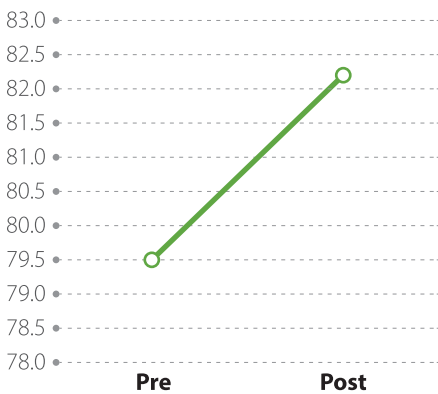
The Teaching Pyramid Observation Tool–Short Version (TPOT-S) and Teaching Pyramid Infant Toddler Observation Scale–Short Version (TPITOS-S) were designed to assess the extent to which classrooms implement strategies, structure the environment, and develop relationships to be consistent with The Pyramid Model. The 35-item TPOT-S is specific to preschool settings, while the 24-item TPITOS-S is specific to infant/toddler settings. Pre- and post-consultation, the consultants completed the TPOT-S/TPITOS-S by conducting a classroom observation and completing the scale based on their observations.

Paired t-tests were used to determine if there was change in this measure of teacher and classroom quality over the duration of consultation. Results for preschool (TPOT-S) and infant/toddler (TPITOS-S) classrooms are provided separately.

Matched pre- and post-consultation TPOT-S data was available for 278 cases. Possible scores ranged from 34 to 136. There was a statistically significant increase in scores on the TPOT-S from  $M=106.37$  to  $M=114.08$  [ $t(277)=-13.04$ ,  $p<.001$ ], indicating that implementation of practices consistent with The Pyramid Model increased after consultation.

**FIGURE 14****Change in Adherence to Pyramid Model (Preschool Teachers)**

For the TPITOS-S, matched pre- and post-consultation data was available for 71 cases. Possible scores ranged from 24 to 96. Despite the smaller sample size, there was still a statistically significant increase in scores. Average scores increased from  $M=79.52$  at pre-consultation to  $M=82.28$  at post-consultation,  $[t(70)=-4.40, p<.001]$ , indicating that adherence to The Pyramid Model increased after consultation.

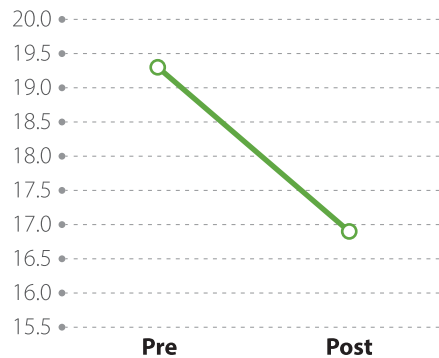
**FIGURE 15****Change in Adherence to Pyramid Model (Infant/Toddler Teachers)**

Teachers are improving their abilities to engage in promotion, prevention, and intervention with their young students. This benefits all children in the classroom, not only the child referred for consultation.

**Child Behavior**

For each case, teachers completed the Strengths and Difficulties Questionnaire (SDQ) before and after engaging in consultation. On this measure, they provided their perceptions of the child's behavior. Positively and negatively worded questions cover relational, emotional, and behavioral domains, with higher scores indicating greater levels of difficulty.

Matched pre- and post-consultation data were available for 238 cases. On this 25-item scale, possible scores ranged from 0 to 40, with higher scores indicating more behavioral concerns. After consultation, teachers' reports of children's difficulties were significantly reduced, from  $M=19.34$  to  $M=16.99$ ,  $[t(237)=6.63, p<.001]$ . This finding suggests that teachers perceived children's behaviors to be less negative after engaging in consultation. This change may reflect improvements in the child's behavior, changes in the teachers' understanding of developmentally appropriate behavior, or both. SDQ scores after consultation had decreased, but the average score remained in the moderate range, indicating continued behavioral difficulties or a need for additional professional development on identification of child strengths and appropriate expectations for young children.

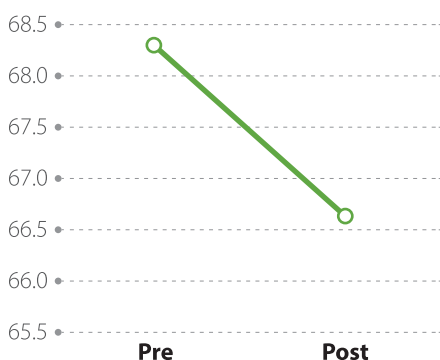
**FIGURE 16****Change in Teacher-Reported Child Behavioral Concerns**

## Teacher Stress

On the Child Care Worker Job Stress Inventory (JSI), teachers self-reported their stress levels. This measure was included because early childhood professionals often experience high levels of stress, and challenging child behaviors often contribute to their stress. It was hoped that the assistance and support of a consultant would have an impact on teachers' stress. It was hypothesized that the impact of consultation on teacher stress would be significant but small because there are many variables that influence perceptions of stress that are outside of the consultants' sphere of influence, such as teachers' personal life concerns.

There were 225 matched pre- and post-consultation JSIs. On this 27-item scale, possible scores ranged from 27 to 135, with higher scores reflecting more stress. At the end of consultation, teachers reported significantly reduced stress levels, from  $M=68.32$  to  $M=66.68$ ,  $t(224)=2.14$ ,  $p=.033$ . This finding suggests that consultation may provide a support or buffer for professionals in a career characterized by high levels of burnout and turnover. Challenging behaviors are a source of stress for teachers, and they report that they do not have enough training to manage these concerns in the classroom. Teachers may feel less overwhelmed after a consultant works with them to develop their skills in understanding and addressing behavioral concerns.

**FIGURE 17**  
Change in Teacher Stress Levels



This analysis was limited by an inability to accurately pair many of the pre- and post-consultation JSIs. In the database, children have unique identifiers but teachers do not, so when two teachers for the same child filled out the questionnaires, their responses could not be distinguished. It may be that the results would be different if all cases could have been included.

## Generalized Impact

When teachers' skills, practices, and emotional wellbeing improve, all children in the class benefit, and the impact of ECMH Consultation extends beyond the target children. This year, 319 classrooms worked with a consultant, and each classroom had an average of 14 students. While the target children in each classroom were impacted, so were, on average, 13 other children in each class. Hence, there was a generalized effect of consultation on over 4,000 children (4,147 children).

## Summary

The implementation of ECMH Consultation in Pennsylvania for the 2014-15 fiscal year demonstrated consistent positive impacts on young children and their teachers. Across the five Regional Keys, nineteen mental health consultants provided services for 354 cases, some of which were ongoing at the time of data analysis. Of the 112 children flagged as "at risk" of expulsion at the time of the request for ECMH Consultation, only 20 were expelled. Sixty-three percent of cases had positive outcomes, defined as meeting their goals or being appropriately referred for community services (283 referrals were made). Observational data revealed statistically significant increases in teacher's implementation of classroom practices that supported social-emotional development consistent with The Pyramid Model, which may have a generalized impact on all of their students (over 4,000). Teachers' self-reported stress decreased over the course of consultation. Finally, teachers perceived improvement in target children's behavior by



the end of consultation. These broad-based results indicate that ECMH Consultation continues to prevent expulsions and address behavioral concerns in young children, and provide an important support for early childhood teachers.



## APPENDIX 2

### FY 2015-2016 OUTCOME EVALUATION

Program evaluations reinforce the role of effective programs and can contribute to advocacy for their continued funding. Hence, annual evaluations of the ECMH Consultation Project are conducted and shared to describe the positive outcomes of the program and track changes over time. In fiscal year 2015-16, data collected as part of consultation procedures were compiled and statistically analyzed. Results indicate that there was a large, positive impact of this program. This report will describe the population served and the outcomes of consultation on children and teachers.

### Demographic Data

Consultation begins when a teacher or administrator submits a request for ECMH Consultation. Requests are made for a specific child whose behavior is problematic. Each request is considered an individual “case.” Occasionally, there are multiple requests for the same child in the course of one year. In FY 2015-16, there were 480 cases. Of these 480 cases, 451 of the cases were requests for an individual child. The remainder of the cases consisted of 13 children with two requests and one child with three cases opened for him/her.

At the time of data analysis (July 2016), only 211 of the 480 cases were closed. This indicates that many cases from FY 2015-16 are continuing into FY 2016-17. This report only has outcome data for all of the cases that were closed by the end of the fiscal year, and as such may not fully represent the ongoing work of consultation. For the cases that had not been closed by the end of the fiscal year, most cases were either still actively in consultation (n=76) or on the waitlist

(n=77). Seventy-eight of the requests did not result in consultation, for a variety of reasons. Consultants were continuing to monitor 29 cases, and one case was pending. Consultants worked in a total of 254 different ECE facilities.

There were 16 consultants (14 full-time and 2 part-time) with an average of 27 cases per consultant, with a range from 14 to 37 cases. There were 23 cases that were not assigned to a consultant, and 30 cases had missing data for consultant ID.

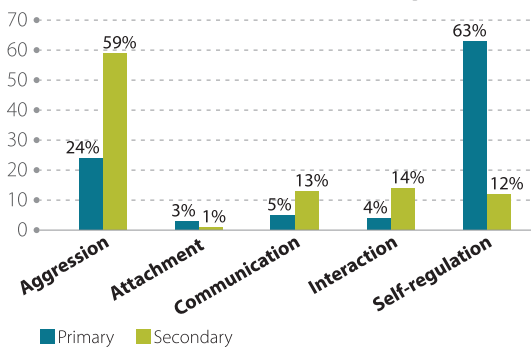
Basic information about the child is provided in the request, including the child’s age, risk for expulsion, presenting issue. Some information about the facility is also submitted in the request (e.g. STAR rating). This information provides insight into which children are identified and why.

### ECMH Consultation Requests

Upon making a request for ECMH Consultation services, teachers or directors select the challenges that the child is demonstrating from a list of possible presenting problems. Each request lists one or two concerns about the child. Consistent with other ECMHC programs, externalizing behaviors (such as self-regulation and aggression) motivate requests for services much more often than internalizing behaviors (such as interaction, communication, and attachment). Self-regulation was the most common primary presenting concern by a wide margin, (63% of primary requests), followed by aggression (almost one-quarter of the primary requests). These two combined indicate that 88% of ECMH Consultation requests were primarily motivated by concerns about externalizing

behaviors. Among requests that included a secondary concern (n=298), over half (59%) selected aggression. Combined, the three categories reflecting internalizing concerns (interaction, communication, and attachment) accounted for only 12% of primary requests and 28% of secondary requests.

**FIGURE 18**  
**Reason for ECMH Consultation Request**



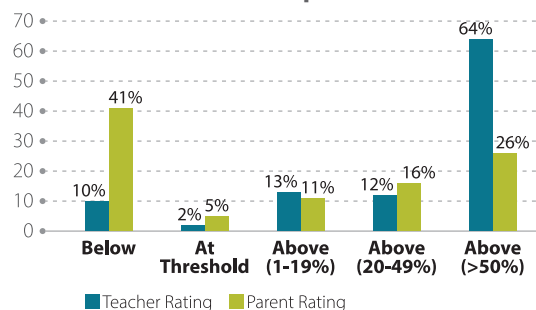
The severity of behavioral issues is measured with the Ages and Stages Questionnaire: Social-Emotional (ASQ:SE). At the initiation of services, teachers and parents complete this measure to provide information about the child's social-emotional development and difficulties, with scores calibrated by age to account for differences in expectations across early development. The ASQ:SE captures constructs—such as self-regulation, social communication, and interaction styles—that are important components of healthy relationships and school readiness. In this program, the ASQ:SE is used to direct clinical decision-making but not to measure progress over the course of consultation. Hence, it was only collected at the outset of consultation.

Scores reflect whether children's social-emotional competencies match their developmental stage. Total scores classify children in one of the following categories: Below risk threshold, At risk threshold, 1-19% above risk threshold, 20-49% above risk threshold, or >50% above risk threshold.

ASQ:SEs were collected from teachers for 229 cases, and from parents for 176 cases. The majority of teachers (64%) rated children referred for ECMH Consultation as at the highest possible level of risk on the measure (> 50% above risk threshold). At the other extreme, only 10% of teachers' rated children below the risk threshold, with the remaining 26% above the risk threshold by less than 50%.

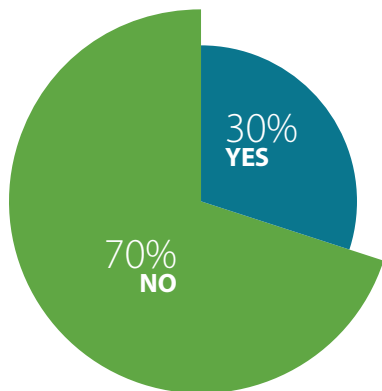
Teachers and parents did not always agree about the presence and severity of social-emotional problems for the young children referred to ECMH Consultation. While teachers' scores often indicated that children had severe social-emotional difficulties, parents were more likely than teachers to provide ratings that were below the threshold for risk (41% of all parent reports). It is not unusual for parents and teachers to provide discrepant ratings of young children's social-emotional functioning, reflecting many factors. Teachers have typically seen a broader range of child behaviors and may therefore be better able to identify atypical behavioral patterns. Furthermore, young children's behaviors are particularly influenced by the context, and they may act differently with parents than with teachers and peers. Finally teachers may observe children in challenging situations that parents do not see (e.g. sharing with peers).

**FIGURE 19**  
**Teacher and Parent Report of Child Social-Emotional Development**



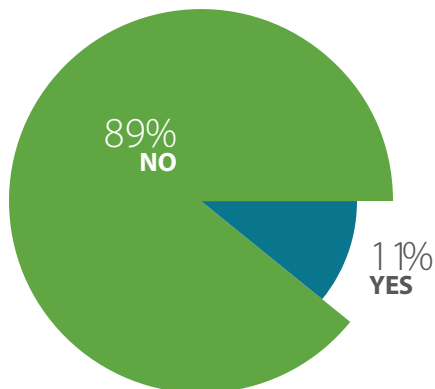
As another indicator of the severity of children’s challenging behaviors, directors reported whether each child was at risk of expulsion from the ECE facility. Close to one-third of requests were for children who were considered at risk for expulsion.

**FIGURE 20**  
**Expulsion Risk among ECMH Consultation Requests**



Further, a portion of the requests (over one-tenth) were for children with Individualized Education Plans (IEPs) or Individualized Family Service Plans (IFSPs).

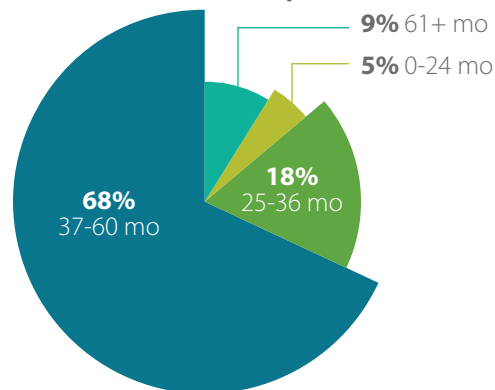
**FIGURE 21**  
**IEP/IFSPs among ECMH Consultation Requests**



Requests also occur at different rates based on child age. Consistent with previous ECMHC evaluations, preschoolers (3- to 5-years-old) accounted for the majority of requests (68%). The average age for requests was within this range (M=45 months), although the age range was wide (from 6 to 74 months). Infants and

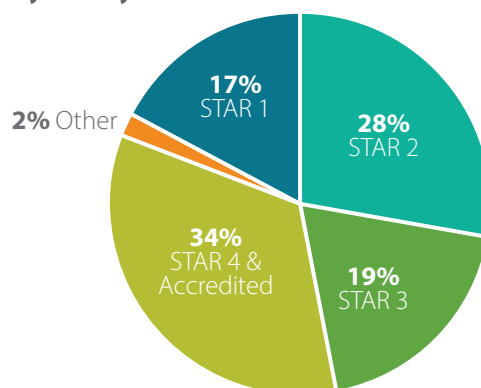
toddlers continue to be identified as needing consultation services at lower rates. Requests for toddlers (25 to 36 months) accounted for 18% of all requests—lower than the rate in FY2014-15 (22%), and similar to the rate in FY2013-14 (19%). Requests for infants (0 to 24 months) remained low at 5%. Almost one-tenth of requests were for children over the age of 5, perhaps indicating decisions to delay kindergarten placements.

**FIGURE 22**  
**Age of Children with ECMH Consultation Requests**



The number of requests for ECMH Consultation differed based on facility STAR level. Consistent with prior years, STAR 2 and STAR 4 facilities continue to have the highest rates of ECMH Consultation requests (28% and 34%, respectively). The “Other” category includes facilities with a suspended STAR level, no STAR level, and “Start with STARS.”

**FIGURE 23**  
**ECMH Consultation Requests by Facility STAR Level**



### Summary of Demographics

In sum, there was a great deal of variety in the children for whom consultation was requested. However, there were some factors that increase the likelihood that teachers or administrators would request ECMH Consultation for a particular child. Overall, children with self-regulation issues and other externalizing concerns were most commonly referred for consultation. Teachers—but not necessarily parents—were likely to consider the child’s issue to be developmentally inappropriate and/or severe, to the extent that the child may be at risk for expulsion. Older children (i.e. 3-5) were more likely to be referred, and requests were most likely to come from STAR 2 or 4 facilities.

## ECMH Consultation Service Delivery

### ECMH Consultation Blended Model Delivery

In the Blended Model of ECMH Consultation, the consultant provides targeted professional development for staff in addition to child-specific consultation. Specifically, the consultant delivers six hours of trainings from the Center for Social Emotional Foundations of Early Learning (CSEFEL) Training Module 1. This

approach is consistent with the Pyramid Model, in which teachers learn universal strategies to support all children, not just target children. This Response to Intervention approach emphasizes the foundational role of skills at the base of the pyramid in preventing potential social-emotional concerns through appropriate supports for all children. This year, the Blended Model of ECMH Consultation was implemented in 35 facilities across the five Keys. Out of the 147 teachers and administrators who completed the Program Feedback Summary, one-quarter indicated that they had participated in the Blended Model.

It appears that the trainings contributed greatly to teachers’ functioning. After participating in the CSEFEL Module, staff reported a high likelihood that they would apply the content of the training to their classrooms (see Table X). These trainings seem to be effective at increasing teachers’ skills and providing them with tools to support young children’s social-emotional development.

### No Service

The vast majority of requests resulted in consultation services, but 78 cases did not receive services, an increase from 50 in

**TABLE 9. Infant/Toddler CSEFEL Training Feedback**

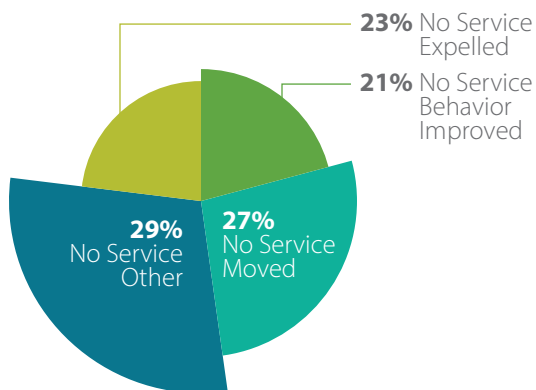
What is the likelihood that you will do the following in your classroom?	EXTREMELY LIKELY n(%)	LIKELY	NEUTRAL	UNLIKELY	EXTREMELY UNLIKELY
Use of observation to build strong relationships with infants, toddlers and their families.	20 (69%)	7 (24%)	2 (7%)	0 (0%)	0 (0%)
Use of strategies that support responsive caregiving.	20 (69%)	7 (24%)	2 (7%)	0 (0%)	0 (0%)
Use of strategies that help you to read infant/toddler behavioral cues.	17 (59%)	10 (35%)	2 (7%)	0 (0%)	0 (0%)
Knowledge of temperament traits that help to build relationships with the children you care for.	18 (62%)	9 (31%)	1 (3%)	0 (0%)	0 (0%)
Use of strategies that help you form and sustain relationships with infants, toddlers, and families.	19 (66%)	8 (28%)	1 (3%)	0 (0%)	0 (0%)

**TABLE 10. Preschool CSEFEL Training Feedback**

What is the likelihood that you will do the following in your classroom?	EXTREMELY LIKELY n(%)	LIKELY	NEUTRAL	UNLIKELY	EXTREMELY UNLIKELY
Use of strategies that can be used to build positive relationships with children.	30 (75%)	9 (23%)	1 (3%)	0 (0%)	0 (0%)
Use of strategies that can be used to design my classroom so that it supports social emotional development and prevents challenging behaviors.	27 (68%)	12 (30%)	1 (3%)	0 (0%)	0 (0%)
Use of schedules and routines that support social emotional development and prevents challenging behaviors.	28 (70%)	11 (28%)	1 (3%)	0 (0%)	0 (0%)
Use of positive feedback and encouragement that will effectively support children's positive social behaviors.	29 (73%)	10 (25%)	1 (3%)	0 (0%)	0 (0%)
Knowledge of what behaviors are developmentally appropriate for specific age groups that will help me to have developmentally appropriate expectations for my classroom and the children I care for.	28 (70%)	11 (28%)	1 (3%)	0 (0%)	0 (0%)

FY 2014-15. When requests did not result in the initiation of consultation, consultants selected one of four options to describe why no services were delivered: Behavior Improved, Moved, Expelled, or Other. The 78 cases were fairly evenly split among these options (see Figure 24).

**FIGURE 24**  
**Reasons ECMH Consultation was Not Delivered**



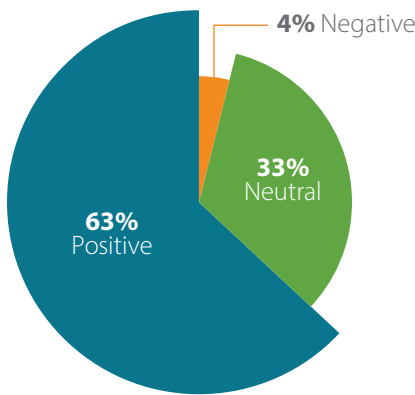
## ECMH Consultation Outcomes

Outcomes of ECMH Consultation can be broadly classified as positive, neutral, or negative. Positive outcomes include when the goals of consultation are met, as well as when children are appropriately referred for community-based services. Outcomes are classified as neutral when parents or facilities decide they no longer wish to engage in consultation. A negative outcome is when the child is expelled from the center.

For almost two-thirds of all cases (63%), ECMH Consultation had a positive outcome. Of the 132 children at risk of expulsion, only nine were expelled this year, for a 4% rate of negative outcomes. This was a decrease from 20 expulsions in 2014-15 and a 6% rate of negative outcomes. The remainder of the cases (33%) had neutral outcomes.



**FIGURE 25**  
**Consultant-Reported Case Outcomes**



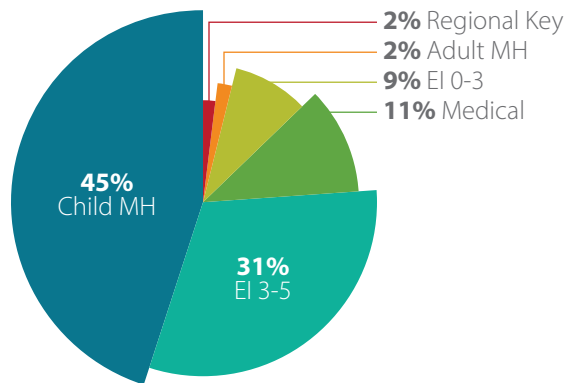
It should be noted that these data include cases opened *and* closed within FY 2015-16. This does not include cases that were still active (n=76) or on the waitlist (n=78) at the end of the fiscal year (n=76), nor does it include cases that were opened in FY 2014-15 and closed in FY 2015-16. Further, it does not include cases where there was a request for ECMH Consultation but, for a variety of reasons, no services were initiated (see Figure 24 for more details). So, these outcomes only capture 44% of the cases in FY 2015-16 (211 of the 480).

**Referrals**

One major goal of ECMH Consultation is to facilitate appropriate referrals to community-based resources for more intensive services as needed.

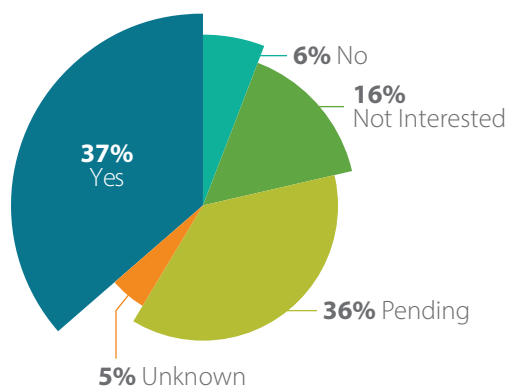
This year, 115 referrals were made for 98 cases. The most common referral was for Child Mental Health services (45% of referrals), followed by Early Intervention 3-5 (31% of referrals). Over ten percent of referrals were for medical services, and 9% of referrals were for Early Intervention 0-3. Compared to FY 2014-15 when 218 cases received referrals, there was a reduction in the number of referrals this year. However, it may be that cases that are active or waiting will ultimately receive referrals at a future point in consultation.

**FIGURE 26**  
**Referrals for Community-Based Services**



Of these referrals, not all resulted in engagement in the recommended service. While the proportion of families that follow through on their referrals is unknown, the community agencies confirmed that 37% of these referrals qualified for services, while 6% did not qualify. Some families (16%) were not interested in engaging in the recommended service for a variety of reasons. The status of the remainder of referrals was unknown or pending at the point of data analysis (July 2016).

**FIGURE 27**  
**Status of Referrals**



### Staff Feedback Survey

At the end consultation services, staff completed a survey regarding their experiences with consultation, including perception of child outcomes, satisfaction with consultation, and strategies implemented post-consultation.

Responses were available from 159 teachers and administrators. Of the staff surveyed, 84% indicated that the child's behavior had improved since working with the consultant. Data were also collected about the activities that staff engaged in to support the child as a result of consultation. Respondents selected from a list of possible options, with the most frequent items being: "teach expected behavior" (77%), "change my interactions with child; allow time for individual attention" (73%), "offer quiet/private space for child to be alone" (70%), and "adapt routine or instruction to meet child's needs" (67%).

Staff reported high levels of satisfaction with consultation services. This is strongly supported by the fact that 100% of respondents indicated that they would recommend ECMH Consultation to other facilities, and that all but one indicated that he/she would request ECMH Consultation again. Staff also indicated that consultants were able to understand and respond to their concerns. For example, all but one responded "Yes" to the item "Do you feel that the consultant understood your perception of the challenging behaviors?"

In terms of consultants' helpfulness, almost all respondents indicated that the recommendations in the action plan were helpful, and that the consultant's feedback during plan implementation was helpful (97% of responses on both items). When items were applicable, most respondents indicated that the activities of consultation were "somewhat helpful" or "very helpful" (see Table 11).

### Adherence to The Pyramid Model

The Teaching Pyramid Observation Tool–Short Version (TPOT) and Teaching Pyramid Infant Toddler Observation Scale–Short Version (TPITOS) were designed to assess the extent to which classrooms implement strategies, structure the environment, and develop relationships to be consistent with The Pyramid Model. The TPOT-S is specific to preschool settings, while the TPITOS-S is specific to infant/toddler settings. Pre- and post-consultation, the consultants completed the TPOT/TPITOS-S by conducting a classroom observation and completing the scale based on their observations.

Paired t-tests were used to determine if there was change over time in this measure of teacher and classroom quality over the course of consultation. Results for preschool (TPOT) and infant/toddler (TPITOS) classrooms are provided separately.

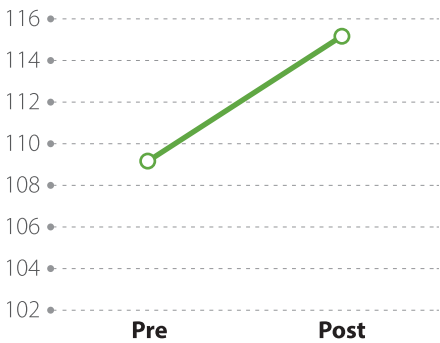
Matched pre- and post-consultation TPOT-S data was available for 132 cases. Possible

**TABLE 11. Perceived Helpfulness of Consultation Activities**

ECMH Consultation Activity	Percent "somewhat helpful" or "very helpful" (when applicable)
On-site assistance	100%
Professional development session suggested or delivered by consultant	100%
Resource materials	100%
Referrals to other services	97%
Support with child's family	96%

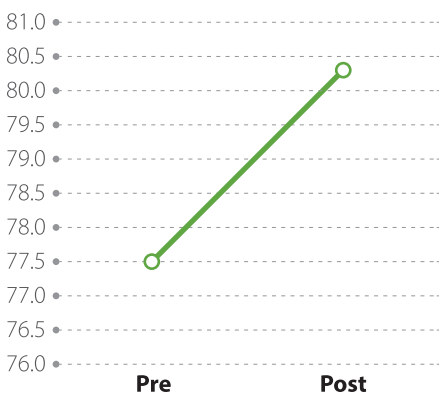
scores ranged from 34 to 136. There was a statistically significant increase in scores on the TPOT-S from  $M=109.32$  to  $M=115.25$ ,  $[t(131)=-6.86, p<.001]$ , indicating that implementation of practices consistent with The Pyramid Model increased after consultation.

**FIGURE 28**  
**Change in Adherence to Pyramid Model (Preschool Teachers)**



For the TPITOS-S, matched pre- and post-consultation data was available for 33 cases. Possible scores ranged from 24 to 96. Despite the smaller sample size, there was still a statistically significant increase in scores. Average scores increased from  $M=77.52$  at pre-consultation to  $M=80.30$  at post-consultation,  $[t(32)=-2.84, p=.009]$ , indicating that adherence to The Pyramid Model increased after consultation.

**FIGURE 29**  
**Change in Adherence to Pyramid Model Infant/Toddler Teachers)**

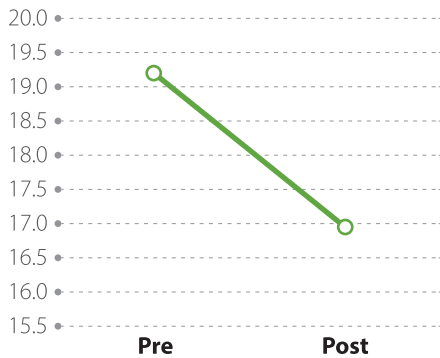


Teachers are improving their abilities to engage in promotion, prevention, and intervention with their young students. This benefits all children in the classroom, not only the child referred for consultation.

### Child Behavior

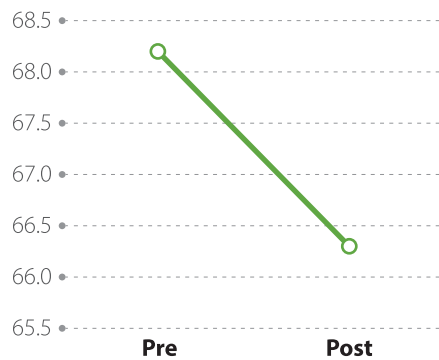
For each case, teachers completed the Strengths and Difficulties Questionnaire (SDQ) before and after engaging in consultation. On this measure, they provided their perceptions of the child's behavior. Positively and negatively worded questions cover relational, emotional, and behavioral domains, with higher scores indicating greater levels of difficulty.

Matched pre- and post-consultation data were available for 121 cases. On this 25-item scale, possible scores ranged from 0 to 40, with higher scores indicating more behavioral concerns. After consultation, teachers' reports of children's difficulties were significantly reduced, from  $M=19.22$  to  $M=16.94$ ,  $[t(120)=4.87, p<.001]$ . This finding suggests that teachers perceived children's behaviors to be less negative after engaging in consultation. This change may reflect improvements in the child's behavior, changes in the teachers' understanding of developmentally appropriate behavior, or both. SDQ scores after consultation had decreased, but the average score remained in the moderate range, indicating continued behavioral difficulties or a need for additional professional development on identification of child strengths and appropriate expectations for young children.

**FIGURE 30****Change in Teacher-Reported Child Behavioral Concerns****Teacher Stress**

On the Child Care Worker Job Stress Inventory (JSI), teachers self-reported their stress levels. This measure was included because early childhood professionals often experience high levels of stress, and challenging child behaviors often contribute to their stress. It was hoped that the assistance and support of a consultant would have an impact on teachers' stress. It was hypothesized that the impact of consultation on teacher stress would be significant but small because there are many variables that influence perceptions of stress that are outside of the consultants' sphere of influence, such as teachers' personal life concerns.

There were 163 matched pre- and post-consultation JSIs. On this 27-item scale, possible scores ranged from 27 to 135, with higher scores reflecting more stress. At the end of consultation, teachers reported significantly reduced stress levels, from  $M=68.23$  to  $M=66.35$ , [ $t(162)=2.42$ ,  $p=.017$ ]. This finding suggests that consultation provides a support or buffer for professionals in a stressful career characterized by high levels of burnout and turnover. Challenging behaviors are a source of stress for teachers, and they report that they do not have enough training to manage these concerns in the classroom. Teachers may feel less overwhelmed after a consultant works with them to develop their skills in understanding and addressing behavioral concerns.

**FIGURE 31****Change in Teacher Stress Levels**

This analysis was limited by an inability to accurately pair many of the pre- and post-consultation JSIs. In the database, children have unique identifiers but teachers do not, so when two teachers for the same child filled out the questionnaires, their responses could not be distinguished. It may be that the results would be different if all cases could have been included.

**Generalized Impact**

When teachers' skills, practices, and emotional wellbeing improve, all children in the class benefit, and the impact of ECMH Consultation extends beyond the target children. This year, 281 classrooms worked with a consultant, and each classroom had an average of 14 students. While the target children in each classroom were impacted, so were 13 other children in each class. Hence, there was a generalized impact of consultation on over 3,500 children (3,653 children).

**Summary**

The implementation of ECMH Consultation in Pennsylvania for the 2015-16 fiscal year demonstrated consistent positive impacts on young children and their teachers. Across the five Regional Keys, fourteen full-time and two part-time mental health consultants provided services for 316 cases some of which were ongoing at the time of data analysis. Of the 132 children flagged as "at risk" of expulsion at the time of the request for ECMH Consultation,

only 9 were expelled. 63% of cases had positive outcomes, defined as meeting their goals or being appropriately referred for community services (115 referrals were made). Teachers and administrators reported high levels of satisfaction with consultation, as well as gains in their knowledge regarding children's social-emotional wellbeing. Observational data revealed statistically significant increases in teacher's implementation of classroom practices that support social-emotional development consistent with The Pyramid Model, with a generalized impact on all of their students (over 3,500). Teachers' self-reported stress decreased over the course of consultation. Finally, teachers' perception of target children's behavior significantly improved by the end of consultation. These broad-based results indicate that ECMH Consultation continues to prevent expulsions, address behavioral concerns in young children, and provide an important support for early childhood teachers.