

Physician's Developmental Screening Project Final Report

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Children & Families Commission of Orange County



Children & Families
Commission of Orange County

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Acknowledgment

The authors would like to thank and acknowledge the Commission partners on this project: the Orange County Medical Association's Orange County Foundation for Medical Care, California Chapter 4, American Academy of Pediatrics, and Help Me Grow Orange County.

Funded through Proposition 10—the California voter-approved \$0.50 sales tax on tobacco products—the **Children and Families Commission of Orange County** invests in programs and organizations that ensure that all children in Orange County are healthy and ready to learn when they enter school. The Commission developed the Pediatric Developmental Screening project to support health care professionals in developing a pattern and practice for addressing developmental concerns in children which is consistent with the American Academy of Pediatrics policy statement for surveillance, screening with standardized tests, and referral for evaluation and early childhood services.

The **California Chapter 4, American Academy of Pediatrics** (CA4, AAP) is a professional organization that provides continuing medical education and resources for the pediatricians in Orange County who serve the needs of children and their families. The role of the CA4, AAP in this grant was to promote the participation and implementation of developmental screening in physician's offices in order to identify the developmental needs of children at well child visits.

Help Me Grow Orange County (HMG) improves developmental outcomes for young children in Orange County by providing linkage and care coordination to community based developmental services. HMG was enlisted in this project to conduct initial group trainings with physicians on the use of developmental screening tools as well as the individual office-based technical assistance to enable participating physicians in the implementation of developmental screening in their practices.

The **Orange County Foundation for Medical Care** (OCFMC) has 50 years experience in providing medical management services. The OCFMC functions to provide services at reduced fees, maintain strict hospital and physician utilization management, and offer a variety of administrative services, which will help to manage health care expenditures. The role of the OCFMC was to support the goals of this project to implement routine developmental screening in primary care practices.

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1. Background and Introduction

The Children and Families Commission of Orange County (the Commission) supports a number of projects that promote developmental screenings in the county. These projects share the ultimate goal of assuring that “All children in Orange County will have recommended developmental/ behavioral screenings at milestone ages with linkage to appropriate services.” The Physician’s Developmental Screening (PDS) project, which is funded by the Commission, addresses barriers to the expansion of screening during primary care visits. There are five core components of the project, which are listed below:

1. Engaging physicians to improve the quality of care in pediatric practices ;
2. Training providers to use standardized screening tools in conjunction with well-child visits;
3. Supporting providers’ integration of screening in their practices, including both clinical and business issues;
4. Documenting the project’s success in engaging physicians and improving developmental screening rates; and
5. Using information technology to support the application of screenings, documentation and coordination of referrals for children who have positive results for developmental concerns.

To assist local physicians in implementing developmental screenings, the Commission partnered with the OCMA’s Orange County Foundation for Medical Care, California Chapter 4, the American Academy of Pediatrics, and Help Me Grow Orange County. Through this collaboration, 119 providers were trained on validated screening tools endorsed by the AAP and recommended by the Commission. Participating physicians received Continuing Medical Education (CME) credits for attending a six-hour training session; paper or electronic screening tools; six months of ongoing technical assistance to support practice change and the use of standardized tools; referral resources and financial recognition for participation and data collection.

Table 1: Number of Physicians Attending Trainings, by Year

| Year | # of Physicians Attending Trainings |
|--------------|--------------------------------------------|
| 2009 | 64 physicians |
| 2010 | 43 physicians |
| 2011 | 12 physicians |
| Total | 119 physicians |

2. Methodology

To fulfill the overall goal that “All children in Orange County will have recommended developmental/ behavioral screenings at milestone ages with linkage to appropriate services”, at least three outcomes need to be achieved.¹ Table 2 lays out proposed outcomes and

¹ See document, “Logic Model 11.01.07” for a full list of outcomes and indicators, as well as corresponding inputs, strategies, and potential sources.

indicators that measure progress towards that goal. One of the project’s key activities is to document successes by coordinating data collection on outcomes.

Table 2: Proposed Outcome and Indicators for Project

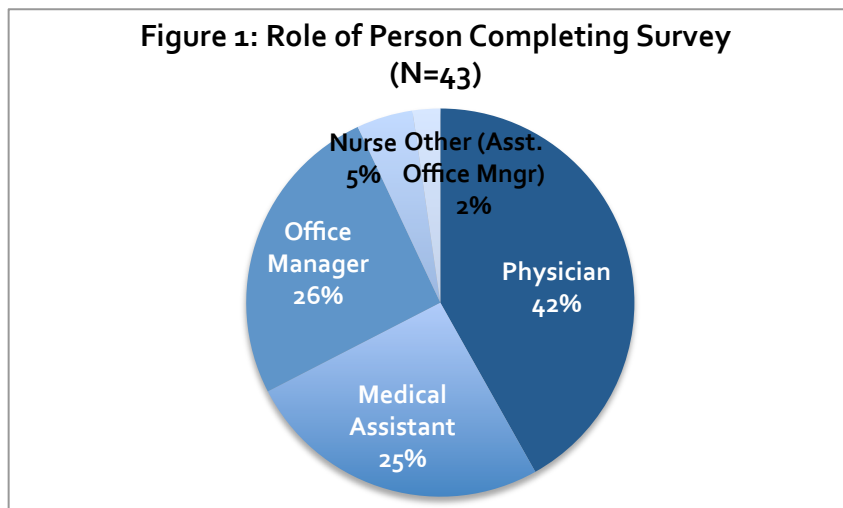
| Outcome | Indicator |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Increase the number of appropriate, high quality developmental screens performed in practice | Number of children 5 years old and younger screened as a percentage of well-child visits |
| Increase the number of age-appropriate referrals to sites that provide developmental services | Number and type of referrals as a percentage of the total number of children screened |
| Increase the number of children ages 0-3 who receive developmental services and family supports | Number of children treated for developmental concerns as percentage of total number of children referred |

An online survey was created using Survey Monkey, which collected information on the number of screenings conducted, screening results, and referrals made. The information from that survey is used in this report to evaluate the impact of the project on increased developmental screening of young children using validated tools in Orange County. Those who completed the surveys received financial payment. Emails were sent requesting data collection at 3 months and 6 months after the recorded start date.

One hundred and nineteen (119) providers were trained to use developmental screening tools and received CME credits. Of these 119 providers, 71 (60%) actually implemented developmental screenings in their practices and received requests to complete and submit data collection. Of these 71, 32 providers (45% of those receiving a request) submitted the first Data Collection Survey at 3 months and of those, 11 (34% of those who submitted the first survey) submitted the second Data Collection survey at 6 months.

3. Survey Results

Most of the surveys were completed by the participating physicians (42%).

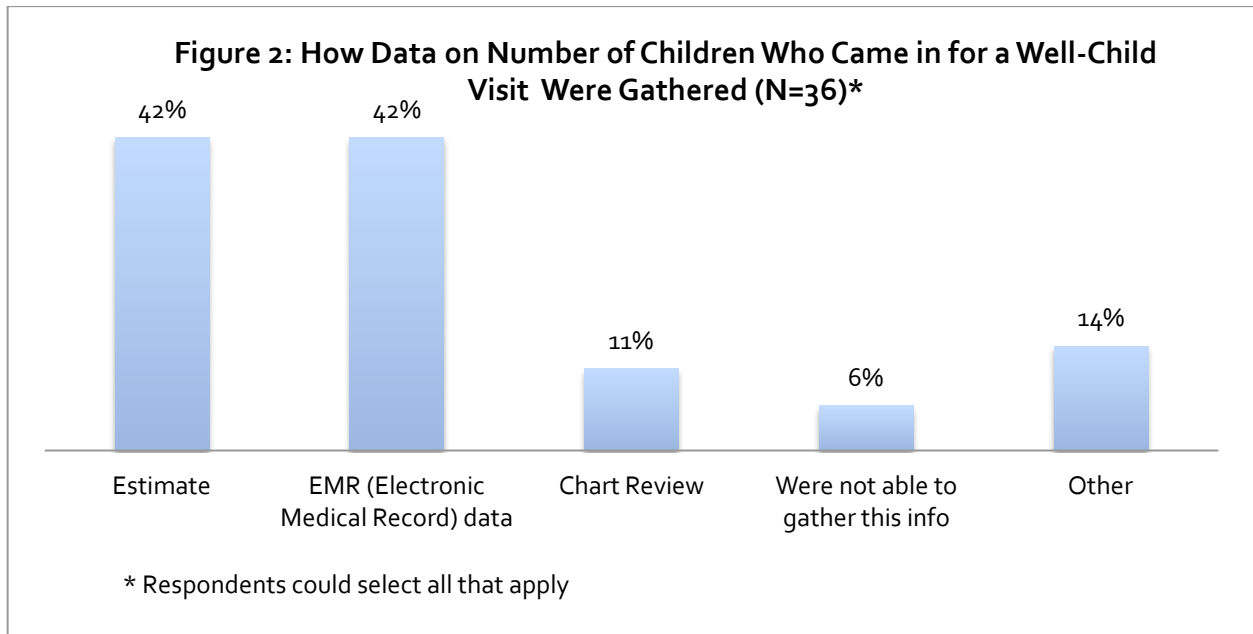


a. Screenings Conducted

There was an estimated 8,911 children who went in for a well-child visit during the time of data collection and 5,248 of them received a developmental screening. This indicates that 59% of children 0-5 years of age received a developmental screening when visiting their physicians. Respondents were asked to indicate the different ways they gathered data on the number of children who came in for well-child visit. A plurality of respondents (42% each) indicated either that this number was an estimate or that they used children's Electronic Medical Records. Fourteen percent (14%) of respondents indicated the "other" ways they gathered data, including:

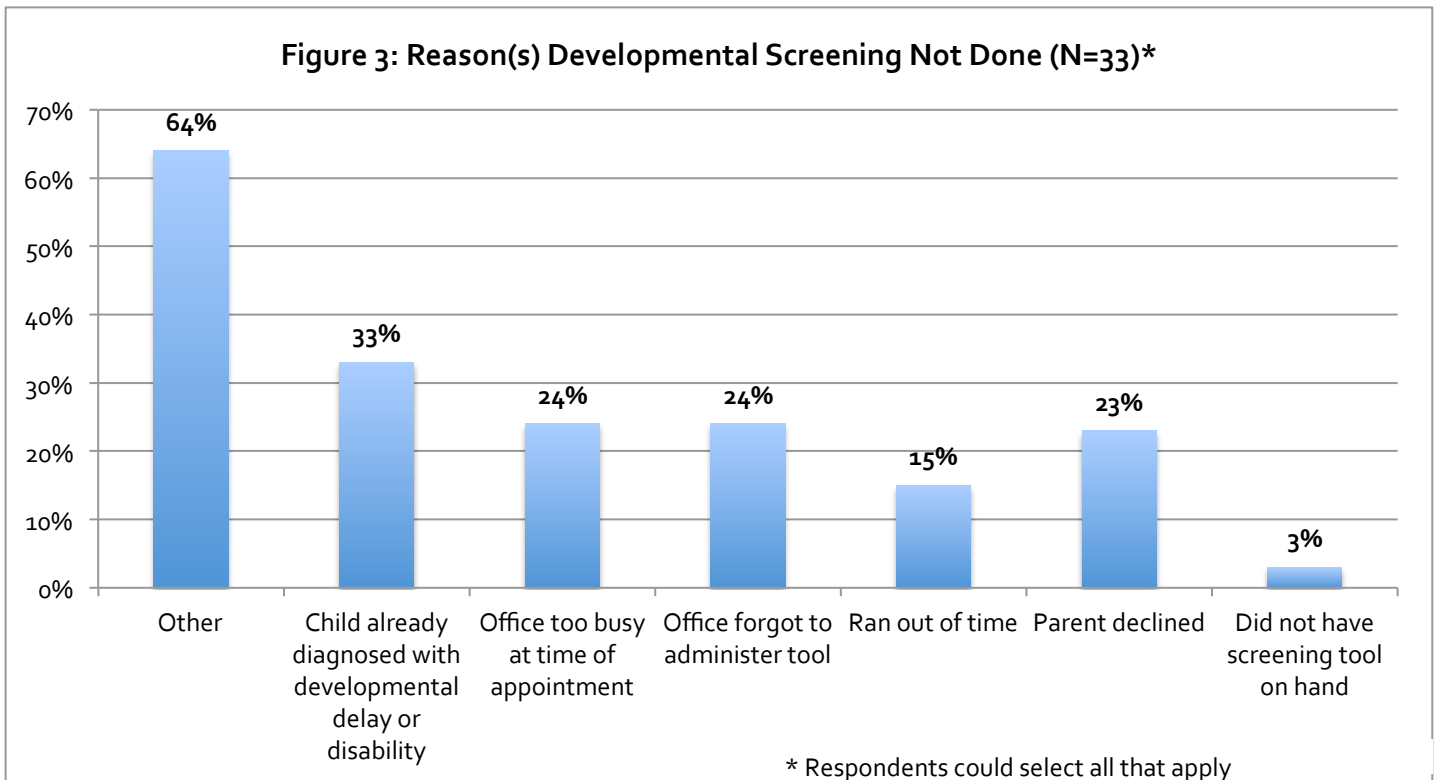
- Daily log sheets kept in their offices
- ASQ-3 Questionnaires
- Counted the appointments
- Separate notebooks with records of all well-child visit procedures
- Use of a data collection tool

Figure 2 below indicates how providers gathered data on children who came in for well-child visits.



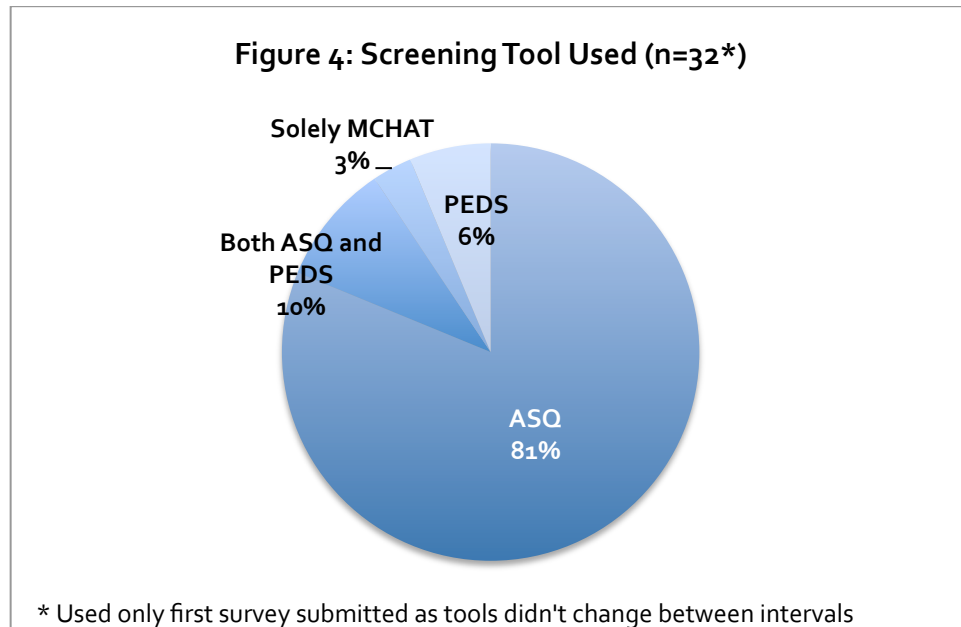
When developmental screenings were not conducted at well-child visits, the main reason provided was that the child had already been diagnosed with a developmental delay or disability (33%). Twenty-four percent (24%) of providers indicated that their office was too busy at the time when the child came in or that they forgot to administer the tool; in 23% of the situations, a developmental screening was not conducted because parents declined to complete one. Respondents could select all reasons that applied. The main reasons for not doing a screening were "Other," including:

- Wrong Screening Interval:
 - Child < 9 months old with no indication of developmental delay
 - At present time only doing at 9m 18m & 24m, 3-4yrs
 - Not 9, 18, 30 month visit
 - Our protocols were for ASQ only at 9, 18 and 24 months or as needed
 - We are strictly doing at 9 month, 18 month & 24 month well child visits
 - We only offered ASQ's to 12-35 mos.
 - We are doing at 9m, 18m & 2-5 years
 - Were seen at WCC interval that did not require ASQ screening
 - Wrong age groups
- ASQ done only on CalOptima patients
- Because they [patients] had one recently for other reasons
- Child not of screening age and did not evince any symptoms of developmental delay
- Insurance did not cover procedure
- Modified when screen was utilized
- The screening tool we use is the M-Chat
- Use other tools and normal screen on last visit, already Regional Center client



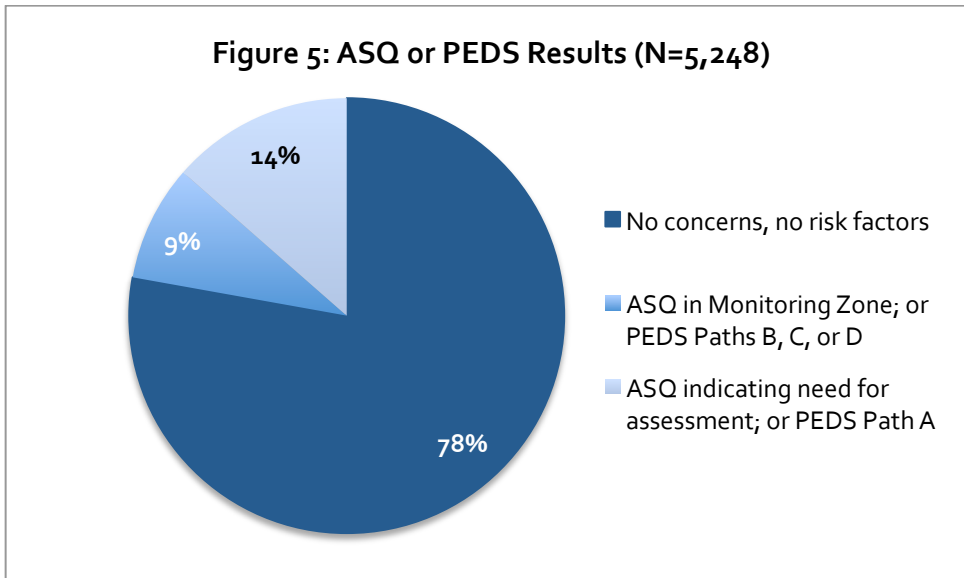
b. Developmental Screening Results

The American Academy of Pediatrics (AAP) recommends screening all children with formal validated screening tools at the 9-, 18-, and 24- or 30-month visits, as well as whenever concerns are raised during ongoing surveillance.² The two most widely used validated tools are the Ages & Stages Questionnaire (ASQ) and the Parent Evaluation of Developmental Status (PEDS). Most of the providers (81%) indicated that they use the ASQ and only 6% indicated they use PEDS. Ten percent (10%) used both PEDS and ASQ. One provider (3%) used solely the Modified Checklist for Autism in Toddlers (MCHAT), which screens for autism. The pie chart below indicates the providers' responses.



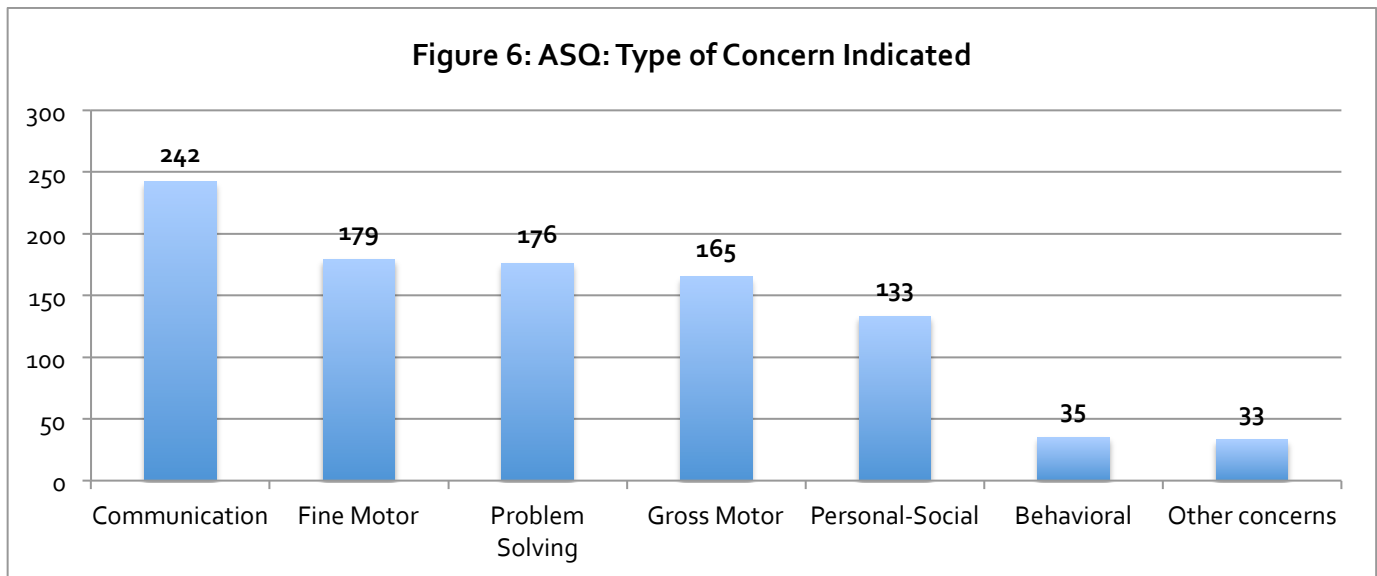
As Figure 5 below indicates, more than three-quarters (78%) of the children screened had no concerns or risk factors present. An additional 9% were in the Monitoring Zone (or PEDS Path B, C, or D), and 14% had an ASQ indicating the need for further assessment (PEDS Path A).

² Surveillance is, “a longitudinal process that commences with routinely eliciting and addressing parents’ concerns, followed by reviewing medical history, maintaining a record of developmental progress, making accurate and informed observations about the child and parent-child interactions, identifying risk and protective factors that often predict developmental risks or resilience, and ensuring that needed interventions are promptly delivered.” Francis P. Glascoe, and Henry L. Shapiro. Introduction to Developmental and Behavioral Screening, (reprinted from dbpeds.org July 2007); available at www.dbpeds.org/screening/.



c. Concerns—ASQ

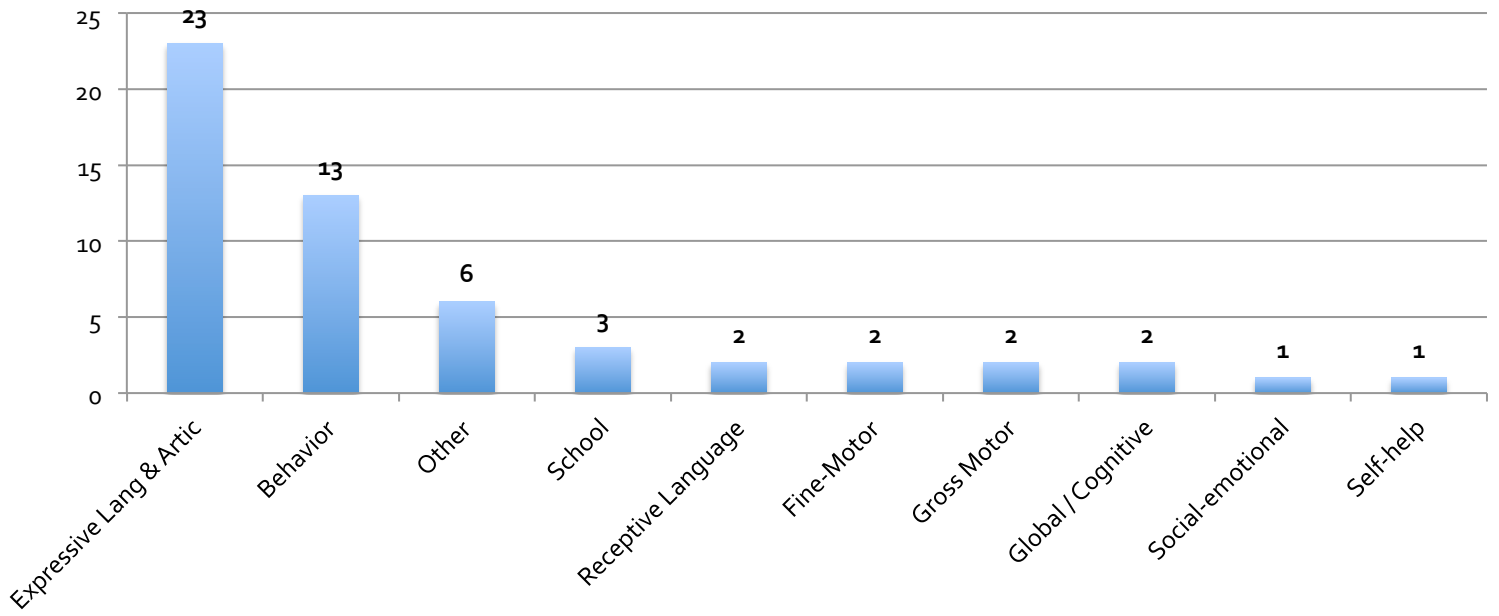
Communication was the most common concern identified (242 screens with this concern) with regard to the ASQ. The next most common concern was fine motor skills (179), followed closely by problem solving (176). There were 33 children with “other” concerns.



d. Concerns—PEDS

Similar to the higher proportion of communications-related concerns with using the ASQ, the most frequent concern indicated with regard to the PEDS was Expressive Language and Articulation (23 children with this concern); Behavior was the next most cited concern (13).

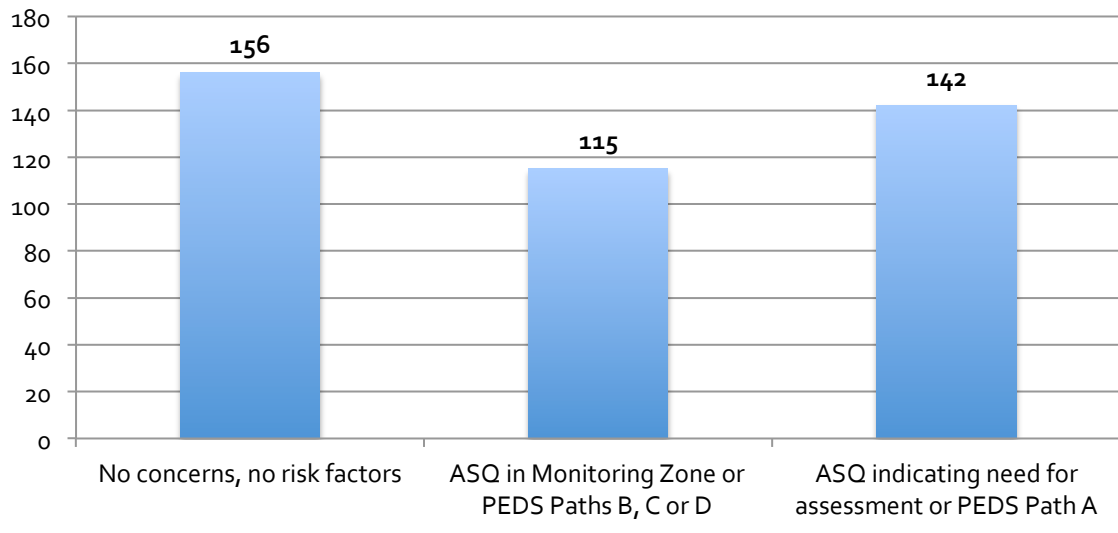
Figure 7: PEDS: Type of Concern Indicated



e. Referrals

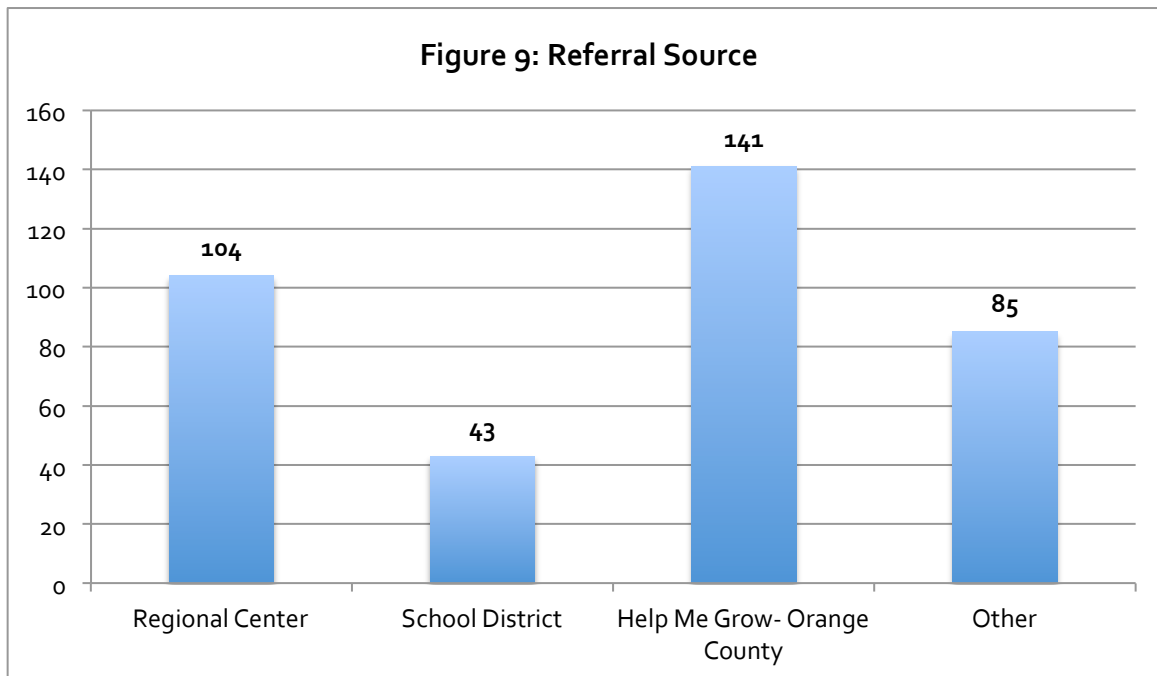
There were 156 children whose screenings indicated no concerns or risk factors who received some type of referral (4% of children with no concerns/risks). An additional 115 children who were in the ASQ Monitoring Zone or PEDS Path B, C, or D received a referral (25% of children with this score received referrals) and 142 of the children whose ASQ indicated a need for assessment, or PEDS Path A, received a referral (20% of children with risks received referrals).

Figure 8: Number of Referrals Received, by ASQ or PEDS Results

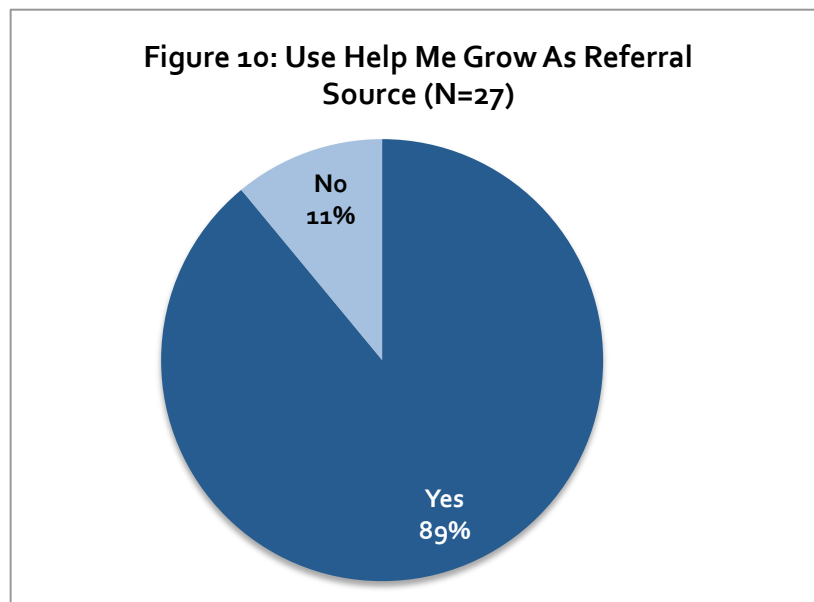


The most common referral source used was Help Me Grow Orange County (141 referrals). There were 104 referrals to the Regional Center of Orange County and another 43 to individual school districts. There were 85 referrals to “other” sources, which included (number of referrals in parenthesis):

- Speech and Language:
 - Audiology (5)
 - Speech—General (5)
 - Providence Speech & Hearing Center (5)
 - Newport Language (1)
- Mental Health (2)
- Family Support Network (1)
- Nutritionist / Weight (2)
- Neurodevelopmental Clinic (2)
- Physical Therapy (1)
- Orthopedist (2)
- Endocrinology (2)
- Health Bridge Children's Hospital (1)



Most of the providers (89%) indicated that they use Help Me Grow as a referral source.



4. Findings and Recommendations

The survey responses analyzed in this report may encourage physicians to implement developmental screenings in their practices as well as to make systems changes. There are a few key findings from the data that warrant additional activities and recommendations.

Finding #1: A few challenges came up related to implementing developmental screening tools in medical practices. A major barrier for conducting a screening was that the parent declined to fill out the ASQ or PEDS (23% of respondents indicated this as one of the barriers— see page 5). Another major reason screenings were not conducted was because the age-interval was not one recommended by AAP (9-, 18-, and 24- or 30-month visits).

→ **Recommendation 1:** Educate parents about the value of having a developmental screening conducted on their child.

→ **Recommendation 2:** Support physicians' implementation of business practices that make the use of screenings more effective.

Finding #2: Only 20% of children whose screenings indicated risk and 25% of children in the "monitor" zone were actually referred for services. This suggests that there is a larger population of children who could benefit from early intervention but are not receiving that linkage.

→ **Recommendation:** Continue to outreach to physicians about the value of linking children who are identified with risks to further assessments and early intervention services; and the value of Help Me Grow in assisting physicians and families in making this link.

Finding #3: Local physicians are aware of Help Me Grow (89% of respondents) and use the agency for referrals.

→ **Recommendation:** Continue educating doctors about Help Me Grow services. Once practitioners know about it, they tend to use it.

Finding #4: In general, the main issues identified in this project by the ASQ are Communication and Fine Motor. There were relatively few children (35) for whom Behavior was identified as a concern. This does not follow national and other local patterns, where Behavioral issues are typically the most commonly identified.

→ **Recommendation:** Follow up with practices to identify whether the lack of Behavioral identification is a training issue or whether the populations served by practices in this project are different.

Finding #5: 42% of respondents indicated that they use Electronic Medical Records (EMR) to estimate the number of children who came in for a well child visit.

→ **Recommendation 1:** Continue to support the use of EMRs.

→ **Recommendation 2:** Educate physicians who are using EMRs that Help Me Grow can provide the referral information electronically so that it can be attached in the child's medical record.

Finding #6: Based on qualitative feedback received from survey respondents, physicians would like more information on the outcomes once the referrals are sent to the Regional Center, school districts, or other service agencies. Physicians would like to know if child is eligible and/or receiving services

→ **Recommendation 1:** Develop a mechanism with Help Me Grow to improve communication between physicians making a referral and the referring agencies. This includes operationalizing a feedback loop between referrer and referee.

→ **Recommendation 2:** Support Help Me Grow in developing Care Coordination that not only provides referral information to the parents and the child's primary care physician but also the outcomes once a parent has been confirmed "eligible" and/or "connected" to a service. Help Me Grow can improve communication by implementing a second level of feedback to the physicians with the outcome of the referrals.

→ **Recommendation 3:** Help Me Grow and the AAP to collaborate at regular intervals during the year to promote the referral resources available through Help Me Grow and also to reinforce the need to implement and identify young children at risk for developmental concerns – as early as 6 months.

A final recommendation concerns the overall use of developmental screenings. As the county, state and nation are moving towards health system improvements, the leadership in Orange County should consider continued participation in discussions related to developmental screenings, recognizing them as an essential preventative health strategy.