Orange County Developmental Screening Pilot Project

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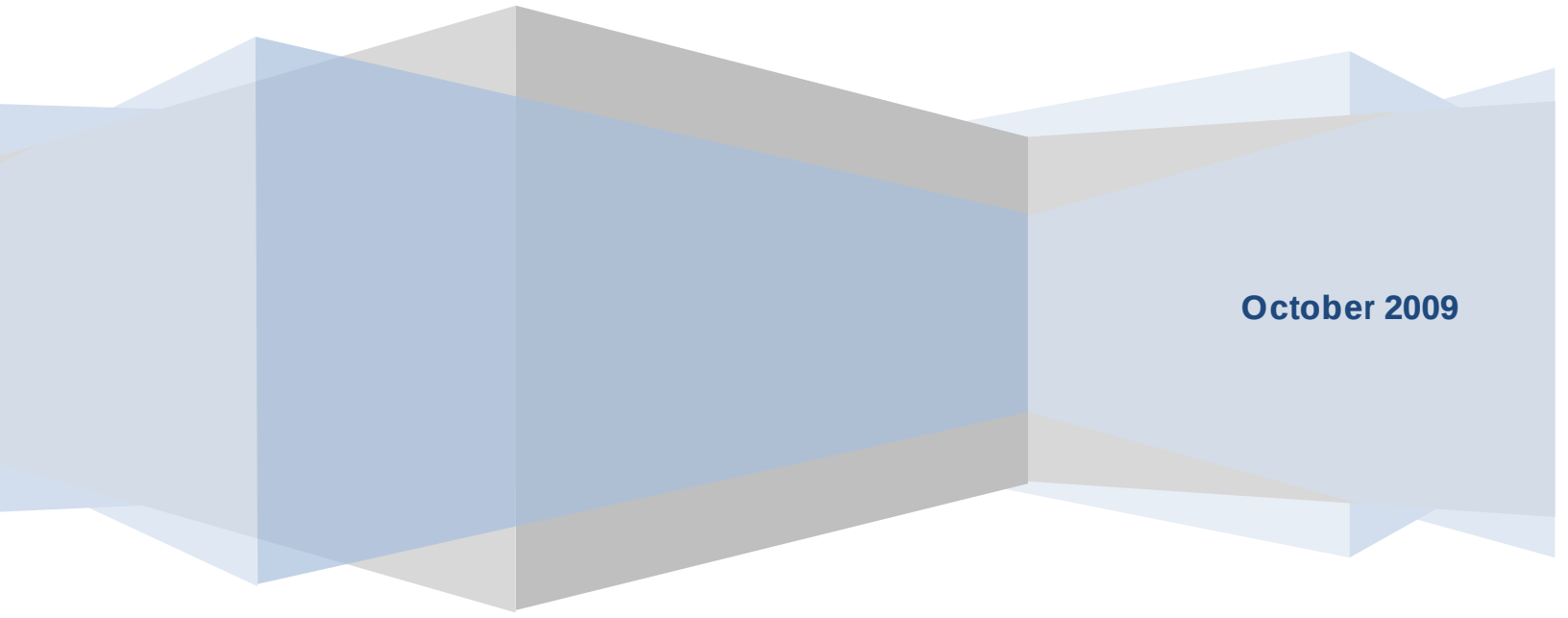

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Orange County Developmental Pilot Project
Executive Summary

Developmental and behavioral disabilities, delays and risks are more prevalent in early childhood than many people realize.[1] According to the Centers for Disease Control and Prevention (CDC), 17% of children in the United States "have a developmental or behavioral disability such as autism, mental retardation, and Attention-Deficit / Hyperactivity Disorder."[2] Additionally, many other children have delays in language or other areas that can detrimentally impact their readiness for school. Despite the prevalence of developmental delays and disabilities in early childhood, the CDC reports that less than 50% of children experiencing delays are identified as having a problem before starting school.[3] Failing to identify delays early results in missed opportunities for effective treatment.

This report focuses on the Orange County Developmental Screening Pilot Project and the four agencies that spearheaded efforts to integrate developmental screenings into well child visits through their participation as pilot sites: The American Academy of Pediatrics (AAP), CalOptima, Help Me Grow Orange County (HMG-OC), and Orange County Health Care Agency's Family Health Department (HCA-FHD). Challenges and lessons learned are documented as well as issues to explore if the community wants to expand the implementation of developmental screening efforts in Orange County.

Findings

- The rates of children screened with no concerns varied for the different projects, likely due to the populations served. For example, 94% of the AAP screenings indicated no concerns and no risk factors; 80% of the HMG-OC screenings had no concerns or risk factors; and 69% of screenings at the HCA-FHD site indicated no concerns or risk factors.
- 13% of the screenings completed noted at least one concern. Throughout the period of the pilot, language or communication was consistently the most common concern identified. The next most common concern was social-emotional/ behavioral.
- There were 325 screenings that led to a referral. The two most common referral agencies were the Regional Center (typically for children under three years old) and school districts (typically for children three and older).

[1] See American Academy of Pediatrics, Committee on Children with Disabilities, Role of the Pediatric Clinician in Family-Centered Early Intervention Services. *Pediatrics*. 2007; 107: 1155-1157; Margaret Dunkle, *High Quality Developmental Screening* (reprinted from dpeds.org, Sept. 2009) available at www.dbpeds.org/screening/; Laura Sices, *Developmental Screening in Primary Care: The Effectiveness of Current Practice and Recommendations For Improvement* (The Commonwealth Fund, Dec. 2007) available at www.commonwealthfund.org/Search.aspx?search=developmental+screening.

[2] Centers for Disease Control and Prevention, "Child Development: Developmental Screening;" available at www.cdc.gov/ncbddd/child/devtool.htm.

[3] See www.cdc.gov/ncbddd/child/devtool.htm.

- In one to two percent of the screenings conducted, a referral was provided when the screening tool indicated that there was no concern. One reason for this could be that the parent did not have a concern but the physician did and decided to refer or the parent had a concern not reflected on the screening tool, such as a qualitative difference in a skill or behavioral concern.

Percent of Screenings with *Referrals*, by Site and Type of Concern

	AAP	HMG-OC	HCA-FHD
No concerns. No risk factors	1%	2%	1%
No concerns. Risk factors present (Questionable)	75%	33%	21%
Concerns, Recommend assessment	80%	59%	91%

Lessons Learned

Identify "Champions" at each site. There is agreement among pilot sites that the project was most successful in those practice sites that had someone to act as a champion. A two-tiered process of identifying champions is recommended. The first tier, identifying a physician, is important for getting an office to participate. The next tier, identifying a day-to-day champion at each site, usually occurs once the project is implemented and a natural champion emerges.

Educate physicians and office staff about child development. Such education includes information about the importance of screening children using a validated tool, early childhood development and milestones, and early intervention referrals. Education about developmental milestones can assist physicians and office staff with interpreting the developmental screenings whereby reducing the chance for under- or over-referrals.

There are many "right" models for scoring screenings. Pilot sites had the option of scoring the screenings themselves or training practice sites to score the screenings in house. In general, the practice site/medical home model for scoring is useful if child needs an authorization for a medical referral. Conversely, having an outside agency (e.g., HMG-OC) score the screen is helpful if there is a need for a community-based referral.

It is feasible to implement developmental screenings without the use of monetary incentives. Providing monetary funds to physicians for completing the developmental screenings did not seem to be a factor in practice sites successfully conducing screenings. In general, the monetary incentive was not enough to get some provider offices to actively participate in the pilot. Incentives such as referral resources, technical assistance, and free access to screening tools are valued as an incentive for offices to participate. In addition, it is important to develop the infrastructure and office flow necessary to implement screenings when feasible.

Recommendations

The process of implementing the Developmental Screening Pilot provided an opportunity to identify the steps necessary for implementing developmental screenings in practices. It has also provided an opportunity to refine the process should the community wish to move forward with expanding implementation of developmental screening efforts in Orange County. The following are recommendations for issues to explore when implementing screening efforts:

Explore ways to follow up on referrals. One piece of the data collection effort that is missing is the link between a referral and the outcome. Once a child receives a referral, it is difficult to track whether the family followed up on the referral, if the child was found eligible for services, and the outcome of the child receiving services. The use of a data management system (e.g., CMIS, CHADIS) would be helpful for capturing information about screenings and referrals. In addition, having a Memorandum of Understanding (MOU) between agencies could assist with the sharing of information.

Identify the service gaps. In general, practice sites know to use the Regional Center as a referral. Unfortunately, they are often unsure about other resources available for children not eligible for Regional Center services due to level of need. Along with provider education about available resources, it is important to promote the use of Help Me Grow. HMG-OC is working to build increased visibility in the county and is actively working with the Regional Center to strengthen their relationship.

Coordinate developmental screening efforts. As more agencies and practices begin to conduct developmental screenings (e.g., Early Head, Head Start, home visiting programs) it will become more important for screening efforts to be coordinated. This includes increased communication between a child's Early Care and Education program and his/her medical home. One way to ensure this is the use of electronic medical records or having a shared database. Such efforts are already occurring in the nation. A first step to take in Orange County is to make sure that families read and sign a consent form that allows their information to be shared with other programs and agencies. The use of MOUs between agencies can also assist with this effort and ensure that once a child is referred s/he does not receive an unnecessary rescreen.

Orange County Developmental Pilot Project:
Final Evaluation Report

A. Importance of Early Developmental Screening and Intervention

It has been widely reported that developmental and behavioral disabilities, delays and risks are more prevalent in early childhood than many people realize.[4] According to the Centers for Disease Control and Prevention (CDC), 17% of children in the United States "have a developmental or behavioral disability such as autism, mental retardation, and Attention-Deficit/Hyperactivity Disorder."[5] Additionally, many other children have delays in language or other areas that can detrimentally impact their readiness for school. While there are risk factors, such as poverty, parental mental illness, and child abuse and neglect, that increase the likelihood of developmental and behavioral delays, such delays and disabilities affect children of all ethnicities across all socioeconomic levels. Based on the national average, over 45,000 Orange County children from birth to 5 are impacted by developmental and behavioral issues.[6]

Despite the prevalence of developmental delays and disabilities in early childhood, the CDC reports that less than 50% of children experiencing delays are identified as having a problem before starting school.[7] Failing to identify delays early results in missed opportunities for effective treatment. There is much consensus on the importance of early intervention in improving outcomes for children with developmental and/or behavioral delays. Dr. Frances Glascoe reports that, "[c]hildren who participate in early intervention programs prior to kindergarten are more likely to graduate from high school, hold jobs, live independently, avoid teen pregnancy, delinquency and violent crime."[8] Early intervention not only helps children reach their full potential, but it has been estimated to save society $30,000 to $100,000 per child; or, as Dr. Glascoe states, society saves $13 for each $1 spent on early intervention.[9]

The cost effectiveness of early intervention can be attributed to a number of factors. By helping children become healthy and productive adults, costs related to incarceration, unemployment, and health care are decreased. Early intervention can also result in cost savings by preventing non-medical issues from requiring medical treatments. Through the early provision of community-based resources, medical treatment for issues

[4] See American Academy of Pediatrics, Committee on Children with Disabilities, Role of the Pediatric Clinician in Family-Centered Early Intervention Services. *Pediatrics*. 2007; 107: 1155-1157; Margaret Dunkle, *High Quality Developmental Screening* (reprinted from dpeds.org, Sept. 2009) available at www.dbpeds.org/screening/; Laura Sices, *Developmental Screening in Primary Care: The Effectiveness of Current Practice and Recommendations For Improvement* (The Commonwealth Fund, Dec. 2007) available at www.commonwealthfund.org./

[5] Centers for Disease Control and Prevention, "Child Development: Developmental Screening;" available at www.cdc.gov/ncbddd/child/devtool.htm.

[6] The California Department of Finance reported that in 2008, there were 267,073 children, age birth to 5, residing in Orange County.

[7] See www.cdc.gov/ncbddd/child/devtool.htm.

[8] Frances P. Glascoe, *Early Detection of Developmental and Behavioral Problems*, Pediatrics in Review. 2000; 21: 272-280.

[9] *Ibid.*

related to parenting skills, management of social-emotional problems, and maternal isolation and depression can be avoided.[10] In addition to being more effective than later intervention due to the adaptability of the brain during the first few years of life[11], early treatment of delays can spare families from more extensive, costly interventions that are typically required when opportunities for early treatment are missed.[12]

Despite the many enumerated benefits of early intervention, research shows that developmental and behavioral disabilities continue to be under-detected during early childhood. According to the 2008 Report on the Conditions of Children, from 1997 to 2006 there was a 118% increase in the number of Orange County children under 18 utilizing Regional Center services, as well as an 72% increase in the number of children under 18 diagnosed with developmental disabilities. While this demonstrates an increase in the diagnosis of, and utilization of services for, developmental disabilities, data show that intervention services for children under the age of 3 are significantly under-utilized. In 2007, approximately 2.5% of infants and toddlers from birth through age 2 were served through Part C of IDEA nationwide, and the percentage decreased slightly to 2.4% for California children served that same year.[13] According to one study, families, on average, report developmental concerns at 7.4 months, but children do not receive referral to Part C of IDEA, early intervention services, and a service plan until almost 16 months of age.[14]

In recognition of the benefits of early intervention and the important role of pediatric health care professionals in identifying developmental and behavioral delays, the American Academy of Pediatrics (AAP) revised its 2001 policy statement on developmental surveillance and screening.[15] The superseding 2006 statement maintains that the detection of developmental concerns, which can later manifest as school failure and social and emotional problems, is a critical component of well-child care.[16] It further recommends that, "Early identification of developmental disorders is critical to the well-being of children and their families. It is an integral function of the

[10] Annie E. Casey Foundation; Center for the Study of Social Policy, *Using Pediatric Care and Practitioners to Ensure Children are Ready to Learn: A Making Connections Peer Technical Assistance Match Between Des Moines, Iowa and Hartford, Connecticut* (August 2007).
[11] Laura Sices, *Developmental Screening in Primary Care: The Effectiveness of Current Practice and Recommendations for Improvement* (The Commonwealth Fund, Dec. 2007).
[12] National Academy of Sciences, *From Neurons to Neighborhoods* (Washington D.C., 2000).
[13] Data Accountability Center. Table C1. "Number and Percentages of Infants and Toddlers Served Under IDEA, Part C, Ages 0-2 by State, 1998 Through 2007." Available at www.ideadata.org/PartCTrendDataFiles.asp.
[14] Don Bailey, et al., *Early Intervention Longitudinal Study: Families' First Experiences with Early Intervention* (Menlo Park, CA: SRI International, January 2003).
[15] American Academy of Pediatrics, Committee on Children with Disabilities. Developmental surveillance and screening of infants and young children. *Pediatrics*. 2001;108:192-195.
[16] American Academy of Pediatrics, Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. *Pediatrics*. 2006; 118(1): 405-420. Available at: http://aappolicy.aappublications.org/cgi/content/abstract/pediatrics;118/1/405.

primary care medical home and an appropriate responsibility of all pediatric health care professionals." In order to identify disabilities and delays as early as possible, the AAP recommends screening all children with formal validated screening tools at the 9-, 18-, and 24- or 30-month visits, as well as any time concerns are raised during ongoing surveillance.[17] Developmental screening is described as the administration of a brief standardized tool to assist with the identification of children at risk of a developmental disorder. A list of recommended tools is provided in the 2006 policy statement, as well as an algorithm "to support health care professionals in developing a pattern and practice of attention to development that can and should continue well beyond 3 years of age."[18]

The 2006 policy statement makes clear that the need to replace the previous statement was due in part to the significant under-detection of developmental and behavioral delays. Despite the fact that clinical judgment identifies less than 30% of children "with mental retardation, learning disabilities, language impairments, or other developmental disabilities," most pediatricians rely on such judgment instead of using validated tools that identify approximately 70% to 80% of children with developmental problems.[19] The under-utilization of validated screening tools as part of well child visits is demonstrated by findings from the National Survey of Children's Health (NSCH) that only 14% of parents of children age 10 months to 5 years reported completing a standardized developmental and behavioral screening tool in California in 2007; this average is less than the national rate of nearly 20%.[20]

The following sections of this report discuss various local and statewide efforts to support physicians in implementing the recommendations contained in the AAP 2006 policy statement. While a number of initiatives will be discussed, the focus of this report is the Orange County Developmental Screening Pilot Project. The report contains a description of the project's implementation and an analysis of the outcomes, as well as a discussion of lessons learned and recommended strategies to improve the rate of developmental screening at well child visits.

[17] 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/.

[18] American Academy of Pediatrics, Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. *Pediatrics*. 2006; 118(1): 405-420.

[19] Margaret Dunkle, *High Quality Developmental Screening* (reprinted from www.dpeds.org, Sept. 2009).

[20] Child and Adolescent Health Measurement Initiative. *2007 National Survey of Children's Health*, Data Resource Center for Child and Adolescent Health website (retrieved Sept. 2009); available at www.nschdata.org.

B. California Efforts to Improve Screening Rates Statewide

As knowledge about the importance of early screening and intervention continues to expand, significant efforts have been made on both national and statewide levels to promote developmental screening using validated tools. Two such national programs include the Bright Futures initiative[21] and Healthy Steps for Young Children[22]. The following section highlights some of the California statewide efforts to increase early screening and intervention capacity through policy and practice change. Specifically, the programs discussed below include the Assuring Better Child Health and Development Program, Statewide Screening Collaborative, Mental Services Act, and the First 5 Early Childhood Mental Health Project.

i. Assuring Better Child Health and Development Program

In 2000, the Assuring Better Child Health and Development (ABCD) program was funded by the Commonwealth Fund to assist states with the improvement of policy and clinical practice in order to identify and treat children's developmental and behavioral conditions at an early age. The program, which was administered by the National Academy for State Health Policy (NASHP), aimed to improve the delivery of early child development services for low-income children ages 0 to 3 and their families by strengthening primary health care services that support healthy development. The first ABCD Consortium (ABCD I) provided grants to four states to develop or expand service delivery and financing strategies to enhance healthy child development for low-income children and their families, specifically those whose health care is covered by state health care programs such as Medicaid.[23]

The second phase of the ABCD initiative (ABCD II), which was launched in 2003, funded the work of five states, which included California.[24] Through ABCD II, states were assisted in building the capacity of Medicaid programs to deliver care to support children's healthy mental development. The project identified barriers to screening and treatment in primary care. System and policy level strategies identified by the initiative to improve access to mental and developmental health services include:

- Enhance incentives and motivation;
- Promote shared vision and engagement;
- Increase community supports for recognition and response;
- Promote leadership and collaboration;
- Increase capability and capacity for care;
- Promote a continuous learning culture; and
- Provide for performance measurement.

[21] For more information about the Bright Futures Initiative, see http://brightfutures.aap.org/.
[22] Information about Healthy Steps for Young Children can be found at http://www.healthysteps.org/.
[23] North Carolina, Utah, Vermont and Washington participated in ABCD I from 2000 to 2003.
[24] The ABCD II initiative, which lasted from 2003 to 2007, funded California, Illinois, Iowa, Minnesota and Utah.

The strategies listed above were developed to support the goals of the ABCD II initiative to: (1) create models of service delivery and financing that promote high quality care supporting children's healthy mental development, especially those with less intense needs (i.e. identified as "at risk" or in need of low-level intervention); and (2) develop policies and programs that assure that health plans and pediatric providers have the knowledge and skills needed to provide care in a manner that supports a young child's healthy mental development.

The last phase of the ABCD program was the Screening Academy, which began after the conclusion of ABCD II in 2007. The Screening Academy provided technical assistance to 21 states, including California, to increase the use of a developmental screening tool during well child visits as recommended by the American Academy of Pediatrics (AAP). Through the creation of an electronic resource center, information about all three ABCD initiatives, as well as a database of resources and tools developed by the participating states, is available online.[25]

ii. The Statewide Screening Collaborative

The Statewide Screening Collaborative (SSC) is a key partner committed to the priority of establishing comprehensive screening protocols as part of well child visits. The Maternal Child and Adolescent Health Program convened the SSC in September 2007 as part of the Early Childhood Comprehensive Systems grant. Through SSC, an expanding number of statewide partners are working to identify opportunities for programs to collaborate to ensure children ages 0-5 are healthy and ready for school. The goal of the SSC is to optimize the development of all California children by implementing ongoing and continuous screening, and the following two objectives have been defined to help achieve this goal.

Objective 1: improve synergies among state programs involved in recognition and response activities.

Objective 2: adopt common language, standard tools and screening protocol for families and children that affect healthy childhood development.

To meet these objectives and close service gaps by improving systems integration, SSC brings together collaborative partners from many State Departments and leaders from other non-governmental organizations. For a listing of collaborative partners, see Appendix A.

iii. Mental Health Services Act

The Mental Health Services Act (MHSA) was passed in November 2004 to increase community-based mental health care services available to both children and adults. MHSA will fund new or expanded programs that are evidence-based and proven to be

[25] For more information about the ABCD program, see the electronic resource center at http://abcd.nashpforums.org/abcd-history.

effective. Prevention and Early Intervention (PEI) is one of five components of the MHSA, and through this component, interventions and programs are being developed to help prevent the manifestation of serious emotional or behavioral disorders and mental illness. Funding will be made available to short-duration and low-intensity interventions that can alleviate mental health problems when provided early, thereby reducing the need for more extensive and costly mental health services. PEI services funded through MHSA will serve all age groups; however, at least 51% of the PEI budget must be allocated to individuals between the ages of 0-25 in recognition that "50% of all lifetime mental health disorders start by age 14 and 75% start by age 24."[26] Out of the 6 priority populations identified for PEI programs, 3 focus specifically on children and youth.[27]

PEI efforts in Orange County will address community mental health needs that include disparities in access to mental health services; psycho-social impact of trauma; at-risk children, youth, and young adults; stigma and discrimination; and risk of suicide. To engage individuals prior to the development of serious mental illness, non-traditional mental health providers, such as law enforcement, social services, and health and education professionals, will provide mental health outreach and services. The anticipated long-term outcomes of PEI efforts include the reduction of the following negative outcomes that can result from untreated mental illness:

- School failure;
- Prolonged suffering;
- Incarceration;
- Removal of children from homes;
- Homelessness;
- Unemployment; and
- Suicide

In order to achieve these outcomes, evidence-based services will be provided through 8 PEI program categories that will focus on screening, mental health promotion, and education, as well as short-term early intervention.[28]

[26] Ronald C. Kessler; Patricia Berglund; Olga Demler; Robert Jin; Kathleen R. Merikangas; Ellen E. Walters, *Lifetime Prevalence of Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication* (2005), Arch Gen Psychiatry 2005 Jun; 62(6):593-602.

[27] PEI priorities are listed in the California Department of Mental Health, *Mental Health Services Act: Proposed Guidelines, Prevention and Early Intervention Component of the Three-Year Program and Expenditure Plan* (revised August 7, 2008). Available at www.dmh.ca.gov/Prop_63/MHSA/Prevention_and_Early_Intervention/default.asp. The priority populations include: (1) trauma exposed individuals; (2) individuals experiencing onset of serious psychiatric illness; (3) children/youth in stressed families; (4) children/youth at risk of juvenile justice involvement; (5) children/youth at risk of school failure; and (6) underserved cultural populations.

[28] The 8 program categories were identified by the PEI Subcommittee, which was established by the Steering Committee subsequent to the review of information from stakeholder meetings, community focus groups, and survey data during the Orange County PEI planning process. The program categories include: (1) outreach and engagement services; (2) prevention services; (3) early intervention; (4) screening and assessment services; (5) crisis and referral services; (6) training services; (7) school-based services; and (8) parent education and support services.

iv. First 5 Early Childhood Mental Health Project

The First 5 Early Childhood Mental Health (ECMH) Project is the result of a two-year collaborative process funded by the California Endowment to identify barriers and solutions for the delivery and funding of mental health services for children 0 to 5 and their families. The First 5 Association led the project and convened teams from 22 counties to discuss strategies for developing local and statewide systems of care to support children's social and emotional health.[29] The ECMH project builds on promising practices demonstrated to be effective in counties and other states to meet the goal of creating an effective, accessible and fully coordinated early childhood mental health system in California. The project identified four priorities that address broad systems change and local needs. The four critical priorities are as follows:

1. Establish comprehensive screening protocols for social-emotional, developmental, autism and maternal depression as part of all well child and prenatal visits at appropriate periodicity through age 5 and ensure access to comprehensive assessments;
2. Ensure greater reimbursement for early childhood mental health screening, assessment and treatment;
3. Implement a statewide social marketing campaign to reduce stigma and promote behaviors that enhance young children's social-emotional health; and
4. Establish a statewide system for training multidisciplinary early childhood professionals with uniform competencies.

A number of stakeholders have partnered with the First 5 Association to support the four identified priorities of the ECMH project. One such example is the Statewide Screening Collaborative discussed on page 5, which has collaborated on the ECMH project to promote the goal of optimizing the development of all California children by implementing ongoing and continuous screening.

C. Orange County Developmental Screening Efforts

The statewide efforts have had an impact on developmental screening activities in Orange County. This is due in part to the role played by the Children and Families Commission of Orange County (Commission) as a key partner in the initiatives highlighted above. The Commission has also been able to capitalize on relationships with local community stakeholders and partners in order to support Orange County initiatives that build on the statewide efforts described in the previous section. Some of these local screening initiatives are described in the following subsections, including the focus of this report, the Developmental Screening Pilot Project.

The County of Orange Prevention and Early Intervention Plan is available at http://ochealthinfo.com/mhsa/pei/downloads/PEI-Plan-Final%20.pdf.

[29] The 2-year collaborative began in 2007 and participants included education, mental health, and child care professionals from First 5, Regional Center and many other community-based agencies. More information about the ECMH project can be found at www.first5ecmh.org.

i. Developmental Pathways Leadership Committee

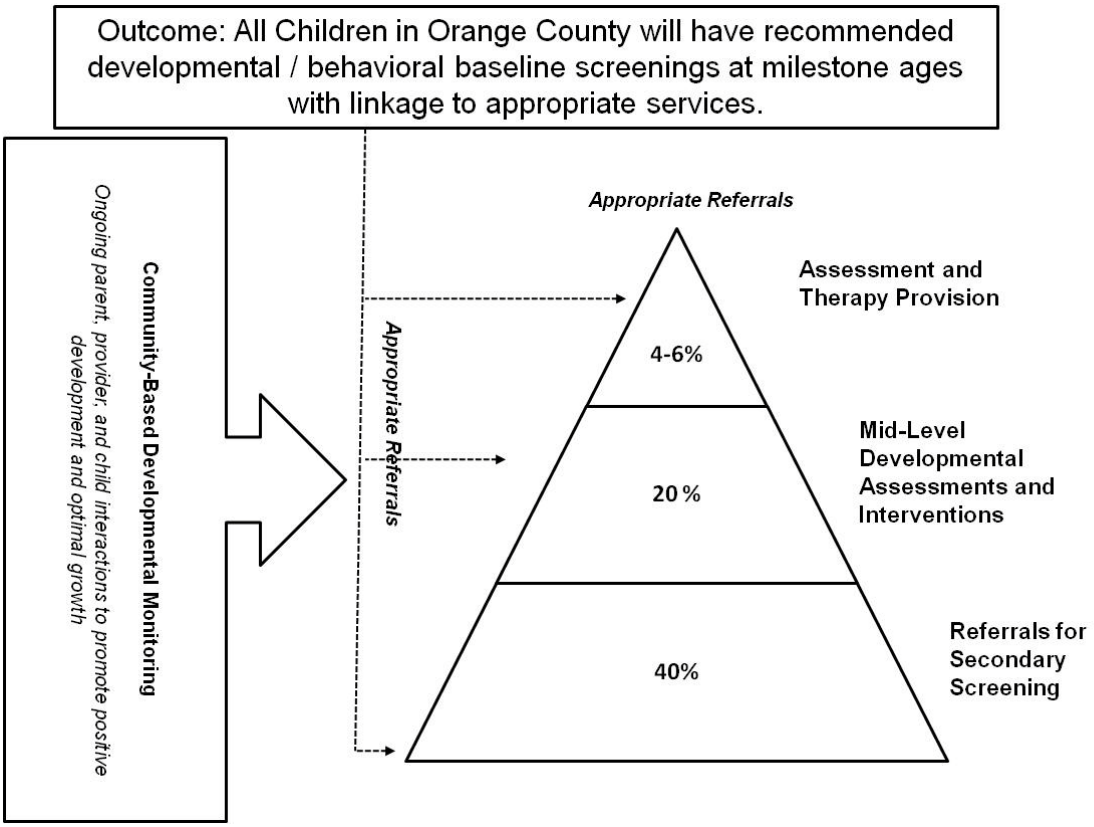
In May 2007, the Commission convened the Pathways Leadership Committee to develop a 3 to 5 year action plan to strengthen the pathway for young children receiving, or in need of, developmental and behavioral services in Orange County. The Leadership Committee was formed to build on the Commission's vision that "all children are healthy and ready to learn when they enter school." To promote its vision, and in recognition of the increasing need for developmental and behavioral services for young children, the Commission has made significant investments in developmental and behavioral services since 2000. While this report will primarily focus on the Developmental Screening Pilot Project, other investments are highlighted in the following subsections. To build on these investments and develop a framework for a model developmental services system in Orange County, the Commission sponsored a 2004 report prepared by the UCLA Center for Healthier Children, Families and Communities and entitled, *Building a Model System of Developmental Services in Orange County*. The Pathways Leadership Committee built on the framework outlined in the 2004 report in order to develop strategies and action steps to make the model developmental services system a reality for Orange County children and families.

The Leadership Committee was made up of a diverse array of professionals from health care, government, education and community-based organizations, all of which are listed in Appendix B. The committee met monthly from May through December 2007 to examine research and existing developmental and behavioral service systems for the purpose of developing recommendations to leverage resources to optimize the existing service delivery system. The Leadership Committee envisioned a system that optimizes the growth and development of Orange County children through ongoing community-based developmental monitoring of all 267,073 children birth through age 5,[30] in addition to the provision for developmental screening, services vary in level of intensity from referrals to community-based early childhood prevention programs to secondary screening and therapeutic services. Consequently, the Committee adapted the framework developed by the UCLA Center, depicted below in Figure 1, and identified the following outcome to guide development of an enhanced developmental and behavioral pathways system over the next 3 to 5 years:

> *All children in Orange County will have recommended developmental/ behavioral baseline screenings at milestone ages with linkage to appropriate services.*

[30] California Department of Finance, www.dof.ca.gov/.

FIGURE 1: PROPOSED MODEL FOR DEVELOPMENTAL PATHWAYS



To achieve the targeted outcome identified by the Committee and depicted in Figure 1, four goals, which are listed below, and corresponding strategies were developed. A complete listing of the goals and strategies is provided in Appendix C.

Goal 1: Develop the infrastructure to ensure the effectiveness of the Orange County developmental/behavioral pathways system.

Goal 2: Develop relationships among community partners that serve children, birth through 5, and their families ensuring effectiveness of the developmental/behavioral pathways system through networking, linkages, collaborative projects and incentives.

Goal 3: Leverage opportunities to effect systematic change in practices and service coordination.

Goal 4: Raise public and professional awareness and understanding around optimizing early childhood development and encouraging the implementation of developmental/behavioral screening for all children.

In order to address gaps in the current service system, which often result in children with developmental delays not being identified and linked to early intervention services at an early age, the plan recommended by the Leadership Committee was designed to

significantly increase the number of children screened and referred, ensure services are family centered, coordinate the referral process through Help Me Grow Orange County, and provide ongoing evaluation of the overall system of care to stimulate improvement and innovation. See Appendix D for progress to date on the developmental pathways framework.

ii. School Readiness Initiatives

To promote school readiness in Orange County, the Commission launched the Local School Readiness Initiative in 2000 to staff the county's 25 elementary and unified school districts with School Readiness (SR) Coordinators. The Local SR Initiative was then used as a platform to implement the State School Readiness Initiative in 2001, which helps schools improve the transition from early care settings to elementary school, as well as increase the capacity of schools and communities to promote the success of young children at low-performing schools.

The State SR Initiative was leveraged to provide an opportunity for the Commission to expand the school nurse approach by using its experience to develop the SR Nurse Initiative in 2004. This initiative expanded school nursing services for children 0-5 by funding SR Nurses in the county's elementary school districts. SR Nurses provide health-related support by conducting health education classes to parents and connecting children to health insurance and a medical home. SR Nurses additionally facilitate early identification and treatment of health and development issues by conducting screenings and providing referrals to meet the health and social service needs of families with children 0-5. In 2008-09 Fiscal Year, SR Nurses provided 7,225 developmental screenings using the Ages & Stages Questionnaire (ASQ) or Parent Evaluation of Developmental Status (PEDS) validated screening tools.

iii. Learning, Early Intervention, and Parent Support (LEAPS)

To further efforts to increase the school readiness of all children in California, the First 5 California Children and Families Commission took action in March 2003 to approve an allocation of $20 million over 5 years for the purpose of funding the First 5 Special Needs Project (SNP).[31] The SNP was designed to ensure early identification of children with disabilities and other special needs and provide early intervention services through coordinated delivery of community-based services. Ten local county commissions committed matching funds to participate in the SNP as demonstration sites.[32] Each of the 10 sites were linked to a First 5 School Readiness Initiative program to accomplish the four goals listed below.

[31] Dana Petersen, *First 5 Special Needs Project: Orange County Demonstration Site Year 2 Case Study*, (Menlo Park, CA: SRI International, Feb. 2007).

[32] The following 10 counties participated in the SNP as a demonstration site: El Dorado, Los Angeles, Mendocino, Merced, Monterey, Orange, Riverside, San Diego, San Francisco, and Sonoma.

1. Improve school readiness for children with disabilities and other special needs and their families;
2. Promote strategies and practices that improve early identification and intervention for children from diverse backgrounds with disabilities, behavioral/mental health concerns, and other special needs;
3. Strengthen the School Readiness Initiative and other First 5 California programs; and
4. Produce evaluation results for evidence-based practices that will serve as a foundation for future program improvement and advocacy efforts.

The Orange County SNP demonstration site, LEAPS, is operated out of the Newport-Mesa Unified School District as an expansion of the Health, Opportunities, Preparation, and Education (HOPE) School Readiness Initiative program. Like the previous school readiness investments, the LEAPS program has helped advance strategies identified to achieve Pathways Goals 1 and 3. The program will continue to build system capacity to increase the early identification and intervention of children with developmental/ behavioral delays through the implementation of a pilot designed to support children's speech and language development and promote school readiness and early literacy efforts.

The program's service model, which is depicted in Appendix E, is divided into three levels. Level I serves as a gateway to universal access to screening in order to identify and treat developmental issues, including social-emotional and behavioral, early. Level I consists of providing universal access to screening, preschool, parent education, and parent/child activities for families with children 0-5 residing in the program's service area, which is the catchment area for Pomona Elementary School in Costa Mesa. Level II ensures families receive pre-referral interventions to address development of identified skills or domains, assistance navigating service delivery systems, and connection to additional resources and interventions. Level III provides ongoing support to families with a higher level of need by ensuring that children 0-5 eligible for special education receive IFSP or IEP services; increases inclusion of young children with disabilities and other special needs in typical child care and developmental settings; and provides parents ongoing education, support and care management.

The LEAPS project serves approximately 500 families annually. In the 2008-09 Fiscal Year, 512 children received a developmental screening using the ASQ. In order to meet the multi-faceted, complex needs of families located in the program's low-income and high need catchment area, the program has developed and strengthened relationships with community partners; established a comprehensive health and developmental screening protocol;[33] and provided training on pre-referral intervention

[33] Key partners for the LEAPS program include but are not limited to: University of California, Irvine, Orange County Mental Health, Providence Mental Health, Matt Kline Head Start, Regional Center of Orange County,

planning and the use of validated screening tools. The program's success led to the creation of a protocol for developmental screening, referral, and follow-up that was based on the LEAPS model and has been implemented in all school-based preschools in the Newport-Mesa Unified School District. Further, the collection of data by the program on developmental screening has enhanced the understanding of Orange County stakeholders regarding the ages of children screened, the outcomes of screening at various ages, and the additional assessments and services identified to address the needs of participating children. The shared knowledge and expertise of LEAPS program staff was valuable to the planning and implementation of the Developmental Screening Pilot project, which is discussed in the next section. While the SNP concluded in June 2009, LEAPS received an extension for an additional year by the Commission in order to build on the program's expertise through the addition of a Speech and Language early intervention component.

iv. Developmental Screening Pilot Project

The conclusion of the Developmental Pathways project, which is discussed above in page 8, gave way to the start of the Orange County Developmental Pilot project in December 2007. Community agencies were assembled by the Commission to promote the targeted outcome of the Pathways Committee that "all children in Orange County, birth through age five, will have recommended developmental/ behavioral baseline screenings at milestone ages with linkage to appropriate services." While the Developmental Pilot project supported a number of the goals developed by the Pathways Committee, its aim was to achieve Goal 3 by laying the groundwork for integration of developmental screening using validated tools at well child visits in order to increase the early identification and treatment of developmental delays.[34] The following four agencies spearheaded this effort to integrate screening into well child visits through their participation as pilot sites:

1. California Chapter 4, American Academy of Pediatrics (AAP);
2. CalOptima;
3. Help Me Grow Orange County (HMG-OC); and
4. Orange County Health Care Agency's Family Health Department (HCA-FHD).

The above-listed agencies met monthly with community partners and stakeholders to share best practices. The Commission facilitated these meetings and provided technical assistance and support; however, each participating agency absorbed the costs of implementing the developmental pilots. The four pilot sites adopted various models, which are described in the table below and will be discussed in greater depth in Section II.

Families Costa Mesa, Harper Assessment Center, Bridges for Newborns Program, Children's Hospital of Orange County, and Hoag Hospital.

[34] Goal 3 of the Pathways Committee is to "leverage opportunities to effect systematic change in practices and service coordination."

TABLE 1: DEVELOPMENTAL PILOT IMPLEMENTATION STRATEGY AND ADMINISTRATION

PILOT SITE	PROJECT TIMEFRAME	TOOL USED	SCREENING INTERVAL(S) (IN MONTHS)	METHOD
AAP	May 2008 to June 2009	ASQ or PEDS; MCHAT	9, 18, 24/30	ASQ or PEDS distributed at physician sites and early care and education centers where administered by staff or a parent liaison. MCHAT used alongside ASQ at some of the physician sites.
HMG-OC	May 2008 to May 2009	ASQ	*Site 1*: 6, 12, 18 *Site 2*: 12 *Site 3*: 9 *Site 4*: 12, 18, 24 *Site 5*: 12, 18, 24 *Site 6*: 8, 10, 18, 24	Family provided ASQ packet at well child visit and asked to complete at home and return to HMG-OC for scoring and follow-up with family and physician. HMG-OC sends additional questionnaires at 6-month intervals.
HCA-FHD	May to November 2008	Buena Park Site: PEDS Santa Ana Site: ASQ	3 to 60	PEDS: administered and scored at well child visits by Pediatric Nurse Practitioner. ASQ: provided to families to complete before the well child visit where it was scored and reviewed with the family. MA, RN, or nursing student helped administer at visit if parent did not bring tool.
CalOptima	January to August 2009	PEDS	12, 15, 18, 24, 36 & 48	PEDS mailed to families with appointment reminder for well child visit. Families of 3 identified high-volume Healthy Family provider sites completed the tool and brought to the appointment. Families at other Health Family provider sites mailed the completed tool to CalOptima for scoring. Results were reviewed with the families at the well child visit.

Each pilot site followed the guidelines laid out by the ABCD project in determining what to measure. Five outcomes were identified, with corresponding indicators, based on a logic model that was created in alignment with the Pathways Goal 3 of "leveraging opportunities to effect practice change and system improvements and strengthen service coordination." See Appendix F for the complete logic model. The logic model and its outcomes and indicators are discussed in greater depth in Section II of this report. As the four pilots varied in design, each had its own method of collecting

screening data. To help sites collect data, an excel database and paper form were created, which included data fields to measure indicators that corresponded to the project's desired outcomes. Data were submitted to the project evaluator on a monthly basis with client names and identifying information removed. Data from 3 of the 4 pilot sites were analyzed over the 6-month period from August 2008 to January 2009.[35] Below is a summary of the results.

There were 2,229 children eligible[36] for a screening and 985 screenings were conducted. The percent of children who received a formal developmental screening ranged from a low of 38% in November to a high of 74% in December; the 6-month screening average was 44%.

- Out of 985 screenings, 121 did not indicate a concern but had risk factors present or were "questionable". The percentage averaged 12% over 6 months with a low of 10% in October and a high of 14% in November.
- Out of 985 screenings, 110 identified a concern or risk. The percentage of these children averaged 11% over 6 months with a low of 6% in January to a high of 14% in December.
- Of the 110 children with screenings identifying a concern or risk, 96 were referred to developmental services (87%). The referral rate high was 95% in September and the low was 80% in October.
- The most common concerns identified by screenings were
    - Language or communication (97 children)
    - Behavioral (80 children)
    - Other (50 children)[37]
    - Motor (34 children)
    - Personal-Social (26 children)

For more information about the project's methodology and results, see the *Orange County Developmental Pilot Project: Preliminary Evaluation Report* available at the Commission website: http://www.occhildrenandfamilies.org/.

v. Physician's Developmental Screening Project

In July 2008, the Commission directed staff to develop a project to expand existing developmental screening pilots and provide incentives for providers serving low-income children to conduct developmental screening. Consequently, Commission staff developed a project to support health care professionals in the implementation of a

[35] CalOptima did not have data to include for the time period of August 2008 to January 2009, as the pilot was implemented in January 2009.

[36] Where possible, children received screenings at appropriate ages (see Table 1 for screening intervals) but there are fidelity issues with the denominator as there are instances that the number of children screened do not accurately reflect the "eligible" children. For instance, for HCA-FHD's Santa Ana site, the number of eligible children includes those who came in for a well child visit as well as a sick visit. For HMG-OC, due to the nature of their implementation, the ASQ return rate was reported rather than the number of "eligible" children.

[37] Examples of "Other" concern include: appetite, autism, ADHD, dyslexia, gait, weight/height, sleep, and nutrition.

practice for addressing developmental concerns in children that is consistent with the American Academy of Pediatrics (AAP) policy statement for surveillance, screening with standardized tests, and referral for evaluation and early childhood services.[38] Like the focus of this report, the Developmental Screening Pilot, this project works to achieve Pathways Goal 3; however, it should be noted that the project also significantly contributes to Goal 2 through the utilization of incentives to facilitate and sustain relationship-promoting strategies.

The Physician's Developmental Screening pilot 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. Engage physicians in improving quality of care in pediatric practices;
2. Train providers in the use of standardized screening tools in conjunction with well-child visits;
3. Support for providers in integrating screening into practice including both clinical and business issues;
4. Document project success in engaging physicians and improving developmental screening rates; and
5. Utilization of information technology to support application of screenings, documentation and coordination of referrals for children who have positive results for developmental concerns.

In order to realize the five objectives listed above, the Commission partnered with the Orange County Medical Association's (OCMA) Orange County Foundation for Medical Care, California Chapter 4, American Academy of Pediatrics, and Help Me Grow Orange County. Through this collaboration, 100 providers of pediatric services will be trained on validated screening tools endorsed by AAP and recommended by the Commission. Participating physicians receive CMEs for attending a six hour training session; screening tools provided either in paper or electronically via a web-based system[39]; ongoing technical assistance for six months on the use of screening tools, referral resources, and billing challenges; and financial recognition for participation and data collection. At the time of the writing of this report, approximately 85 physicians in Orange County have expressed interest in the pilot and received training on validated screening tools.

[38] American Academy of Pediatrics, Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. *Pediatrics*. 2006; 118(1): 405-420.

[39] The web-based option is offered through the Child Health & Development Interactive System (CHADIS) screening, diagnostic, and management system. For more information about CHADIS, see www.chadis.com.

II. Developmental Screening Pilot Project

A. Purpose and Methodology of Report

This report presents a comprehensive overview of the developmental pathways in Orange County with a focus on the Developmental Screening Pilot Project. We begin by examining data collected from the pilot sites and then hone in on the pilot sites' process of implementing developmental screenings.[40] Next, we analyze the implementation process from the perspective of staff at the practice sites to determine the effect of the developmental screening pilot on their practice. Finally, we document the overall challenges and lessons learned, closing with a discussion of issues to explore if the community wants to expand the implementation of developmental screening efforts in Orange County.

Data presented in this report were gathered using a few different methods.

- **Pre-Implementation Baseline Data.** Where appropriate, practice sites collected baseline data—in general this included 30 chart reviews per site.
- **Post-Implementation Developmental Screening Data**: In order to assist with data collection, a paper form was created, which contained the questions that sites needed to answer. An Excel database was also created, which included all the necessary data fields from the paper forms. The spreadsheet contained tabs that automatically generated reports for the sites, based on the data entered. Sites could choose to use these tools or to provide the necessary information using some other system (e.g., SPSS database). Sites then collected and submitted data to the evaluator, with the client names and identifying information deleted, on a monthly basis for analysis.
- **Surveys with Practice Sites:** An online survey was conducted with the practice site, using Survey Monkey, in order to gain information on lessons learned and challenges related to incentives, billing, data collection, the screening process and referrals. Survey requests were sent out to 16 providers and 14 completed the survey (88% response rate).[41]
- **Interviews with Pilot Sites**: Face-to-face interviews were held with key staff from each of the participating pilot sites. At each of these meetings, the interviewees were asked about recruiting, training, incentives, scoring screenings, billing, and data collection. In addition, a focus group was conducted with members from all of the pilot sites to explore some of the key issues that came up in the individual meetings.

[40] For this report, "pilot" sites are those agencies that oversaw the screening effort (i.e., HMG-OC, AAP, CalOptima, and HCA-FHD) while the "practice" sites are those where the screening efforts were implemented (e.g., a pediatrician's office).

[41] HMG-OC practice sites received a paper survey, which they completed and submitted to the EPIC Coordinator. The evaluator then entered their responses directly into Survey Monkey.

Most of the pilot sites implemented the developmental screening pilot in a physician setting. The Health Care Agency's Family Health Department (HCA-FHD), by the nature of its agency, implemented the developmental screenings in its clinics rather than at private practices. There were four implementation models for the developmental screenings:[42]

Scoring done at practice sites (physician offices):

- **AAP**: *Physicians hand out screenings and score in house.* AAP provided the screening tools to the physician sites and provided the technical assistance for them to properly distribute, score and refer, as necessary.
- **CalOptima**: *Third party agency sends screening tool to families to complete and return to physician at well-child care visits for scoring and follow-up.* CalOptima's Track 1 used this approach. CalOptima mailed the PEDS screening tool to families with appointment reminders for well child visits. Families completed the PEDS and brought them to the well child visits, where they were scored and the results reviewed with the physicians. The PEDS-DM was then administered, if deemed appropriate.

Scoring done at pilot site:

- **HMG-OC:** *Physicians hand out screenings to families, who then complete and send them to a third party for scoring and follow-up.* Practice sites provided families with an ASQ packet at well child visits. The families were asked to complete these at home and mail them back to HMG-OC for interpretation, scoring, referrals and follow-up with the physician. HMG-OC also sent written documentation back to the physician and the families. HMG-OC then sent additional ASQs to families at 6-month intervals.
- **CalOptima:** *Third party sends screening tools to families, who return them for scoring and then that third party sends the results to physicians.* CalOptima's Track 2 used this approach. Families were mailed the PEDS tools with their appointment reminders. However, instead of bringing the tools to the well child visits, as in Track 1, families were asked to complete and return them to CalOptima using a self-addressed stamped envelope. Staff at CalOptima scored the PEDS and provided physicians with copies of the results to review with the families at the well child visits.

County Clinics: the Health Care Agency's Family Health Department (HCA-FHD) implemented screenings at county clinics in Buena Park and Santa Ana. In Santa Ana parents received the ASQ when scheduling a well child visit, which typically occurred in person. Parents were instructed to complete the tool and bring it to the appointment where a medical assistant, registered nurse, or nursing student scored the tool, as well as helped the parents complete another tool if they did not bring it with them to the

[42] See Table 1, pg 13 for a table of the Pilot implementation strategy, by site.

appointment. The results were then reviewed by the physician or nurse practitioner who provided guidance and referrals, as appropriate. At the Buena Park Clinic, the PEDS was administered and scored at the time of the well child visit by a Pediatric Nurse Practitioner. As in Santa Ana, the results were reviewed by a physician or nurse practitioner who counseled parents and provided referrals as needed. The clinics serve mostly low-income, CHDP eligible patients.

Early Care and Education (ECE) Sites: The AAP implemented developmental screenings at four private preschools in South Orange County. The AAP provided sites with the screening tools and offered technical assistance.[43] The ECE staff scored the tools on site.

B. Data Analysis

Sites followed the guidelines laid out by the ABCD project in defining *what* to measure. This included defining a denominator (which children should be screened) as well as a numerator (which children actually received a formal developmental screening).[44] Due to the differing nature of how the screenings were implemented, each site had its own method of collecting the screening data:

- AAP: Practice sites completed paper forms containing the necessary data and sent them to AAP staffers to enter into database semi-monthly. Staffers then sent the database to the evaluator.
- HMG-OC: Data on number of screenings distributed (denominator) were collected from the practice sites.[45] HMG-OC calculated the numerator based on the number of screenings they received. HMG-OC collected data on the screening results and entered these into an SPSS database.
- HCA-FHD: In one of the HCA-FHD sites, Buena Park, all children aged 4 months to 5 years were screened using PEDS. The numerator and the denominator were thus the same. In the Santa Ana site the ASQs were provided to families when they made well child appointments with the request to complete them prior to visit. The denominator reported for this site included all children who attended the clinic for the given month. There may, therefore, have been some duplication in the denominator (e.g., a child came in a second time for an immunization, because he was sick, etc).
- CalOptima: Track 1 providers were not successful in submitting completed screening tools to CalOptima. The number of screenings returned is available for Track 2 but not the type or concerns or referrals. Due to budget cuts, CalOptima has placed their pilot on hold, so data are not available or included in this report.

[43] Data from ECE sites were not reported back to the AAP and so are not presented in this report. See Section E at the end for challenges and lessons learned from implementing developmental screenings at ECE sites.
[44] Neva, Kaye, Jennifer May and Colleen Reuland, *Measurement to Support Effective Identification of Children at Risk for Developmental Delay*, (Portland, ME: National Academy for State Health Policy. April 2009).
[45] Collecting data on ASQs distributed each month was a challenge for some of the practice sites, so there are fidelity issues with the denominator.

i. Baseline Data

Where appropriate, sites collected baseline data in order to assess their screening and referral rates pre-implementation. This included an average of 30 chart reviews per site. Baseline data are available for three of the four sites. As indicated in Table 2, there were a total of 570 charts reviewed for the baseline analysis and only one of the sites (AAP) indicated that the formal screenings were conducted prior to the implementation of the pilot project. For charts indicating that a formal screening was used, the Denver was mentioned in 30 of the charts and the MCHAT in 4 charts.

TABLE 2: BASELINE REVIEW: CHARTS INDICATING A FORMAL SCREENING CONDUCTED

	TOTAL CHARTS REVIEWED	# WITH FORMAL SCREEN	% WITH FORMAL SCREEN
AAP[46]	121	34	28%
HMG-OC	420	0	0%
HCA-FHD	29	0	0%

As Table 3 shows, the percent of charts or screenings indicating concern(s) varied between baseline and post implementation. For one pilot site, there were fewer concerns identified with the integration of formal screenings in the practices; for another pilot site there were more concerns identified with a formal screen; and for a third pilot site, the rate of concern(s) stayed the same.

TABLE 3: % OF CHARTS/ SCREENINGS INDICATING CONCERN(S) AT BASELINE AND POST-IMPLEMENTATION

	BASELINE		POST IMPLEMENTATION
	NO FORMAL SCREEN	FORMAL SCREEN	FORMAL SCREEN
AAP	13%	8%	6%
HMG-OC	10%	0%	14%
HCA-FHD	17%	0%	17%

The data look similar for the charts or screenings that had a *referral* at baseline and post implementation. The one exception is HCA-FHD, which seems to have a higher rate of referrals with the implementation of a formal screening tool.

[46] An additional 210 baseline chart reviews were conducted for 7 of the Southern Orange County Pediatric Associates (SOCPA) doctors, but the data were not made available in time to be included in this report.

TABLE 4: % OF CHARTS/SCREENINGS WITH REFERRAL(S) AT BASELINE AND POST-IMPLEMENTATION

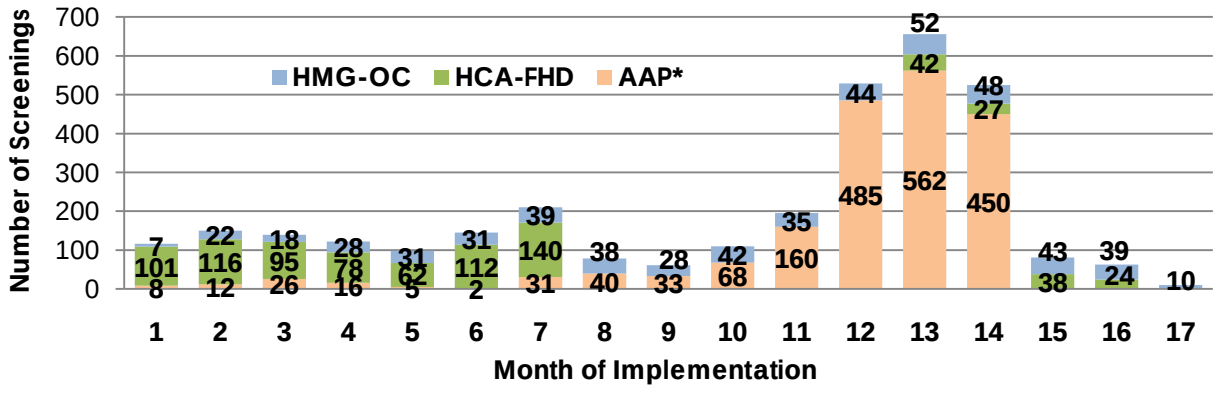
	BASELINE		POST IMPLEMENTATION
	NO FORMAL SCREEN	FORMAL SCREEN	FORMAL SCREEN
AAP	9%	7%	5%
HMG-OC	10%	0%	12%
HCA-FHD	14%	0%	19%

ii. Post implementation data

Data presented in this section include all of the information submitted by the three pilot sites—AAP, HMG-OC and HCA-FHD—which varied by the month they began implementing as well as by the number of months data were collected.[47] AAP's project had a specific start and end date, and all data reported are from July 2008 through June 2009. Although HMG-OC's pilot ran from May 2008 to May 2009, data are reported through August 2009 because HMG-OC extended its pilot. HCA-FHD collected data from its two clinics for the pilot between the months of July 2008 and January 2009. Their Buena Park site, however, continues to collect data, so there are data for HCA-FHD from one site from April through July 2009.

In starting projects—especially a pilot project—there is a need to recognize the ramp-up time needed for implementation. AAP's ramp up took about six months, this is partly because recruiting sites to participate took longer than anticipated (see page 24 for a discussion of recruiting practice sites). On the other hand, there was no ramp-up period for HCA-FHD because the site implemented screenings in its own clinic. HMG-OC took about four months to ramp up to a steady level.

FIGURE 2: NUMBER OF FORMAL DEVELOPMENTAL SCREENINGS, BY MONTH NUMBER AND SITE



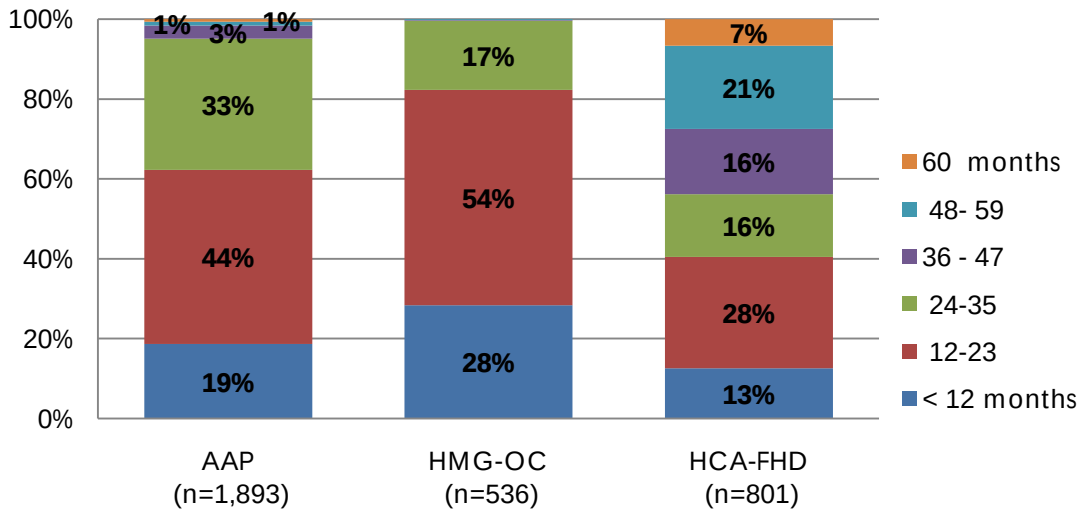
* There are 2 records where the screening month is not indicated.

[47] See *Orange County Developmental Pilot Project: Preliminary Evaluation Report* for a 6-month analysis of data.

Ages of Children Screened

Children screened by the HCA-FHD site tended to be older than children screened by AAP and HMG-OC sties. Forty-four percent (44%) of the HCA-FHD screenings completed were for children 36-60 months of age. For HMG-OC, on the other hand, 81% of the screenings were completed with children under the age of two (23 months or younger) and only two screenings were conducted with children ages three or older (nearly 0%).

FIGURE 3: AGES OF CHILDREN SCREENED (N=3,230)*



* There were an additional 48 screenings where the child was under 1 month or older than 60 months.

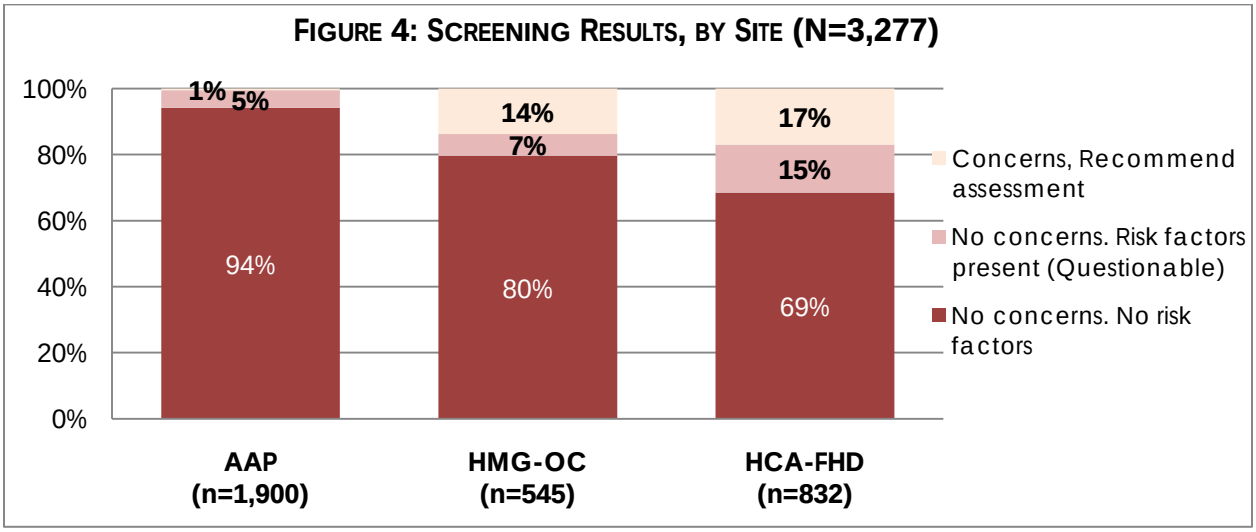
Screening Results

Ninety-four percent (94%) of the AAP screenings indicated no concerns and no risk factors. In general, we would expect this number to be a bit lower.[48] One factor that accounts for this discrepancy is that some AAP practice sites implemented the PEDS along with the MCHAT; therefore, in some cases children received two screenings. From the 1,900 screenings conducted by AAP practice sites, there were 1,362 individual children screened, with 527 of those children receiving both the PEDS and the MCHAT.[49] In comparison, screening results from HMG-OC revealed that eighty percent (80%) of children screened had no concerns or risk factors. Screenings at the HCA-FHD site had the lowest percentage of screenings that indicated no concerns or risk factors (69%).

[48] The percent of parents indicating a concern at AAP sites (1%) is significantly lower than expected with the PEDS tool. PEDS researchers found that based on parent concerns, 11% of the children are expected to have a high risk of disabilities and need referrals for further evaluations. An explanation for this discrepancy could be that doctors discuss identified concerns with parents and then report a "pass". This is an area that deserves future study.

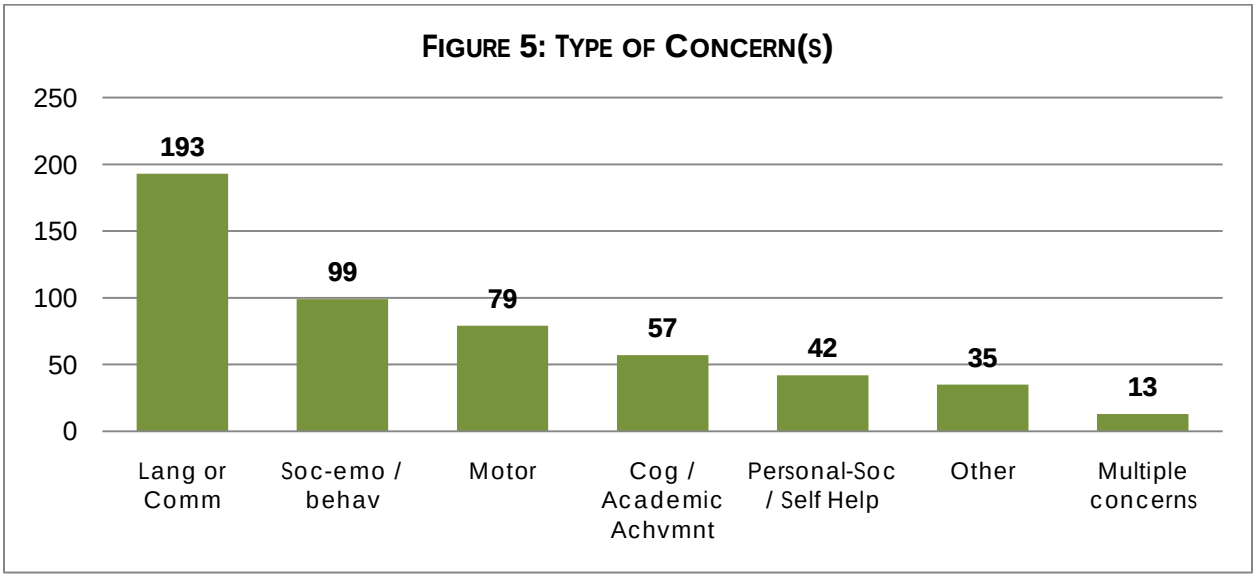
[49] When the data are analyzed by children screened (not by number of screenings each child receives), the percent of children with no concerns or risk factors drops to 92%.

The high percentage of identified concerns or risk factors may be due to the site's population, which is primarily low income, higher need children.



Concerns

There were 425 screenings with at least one concern noted (13% of the screenings completed). Throughout the period of the pilot, language or communication was consistently the most common concern identified. The next most common concern was social-emotional/ behavioral. There were 79 screenings that indicated a motor concern—either fine or gross—and 57 concerns that were for cognitive / academic achievement.[50] There were 13 children with multiple concerns (three or more concerns on one screen). "Other" concerns include issues such as weight (5 concerns), medical (3), appetite (2), hearing (1), and crawling (1).

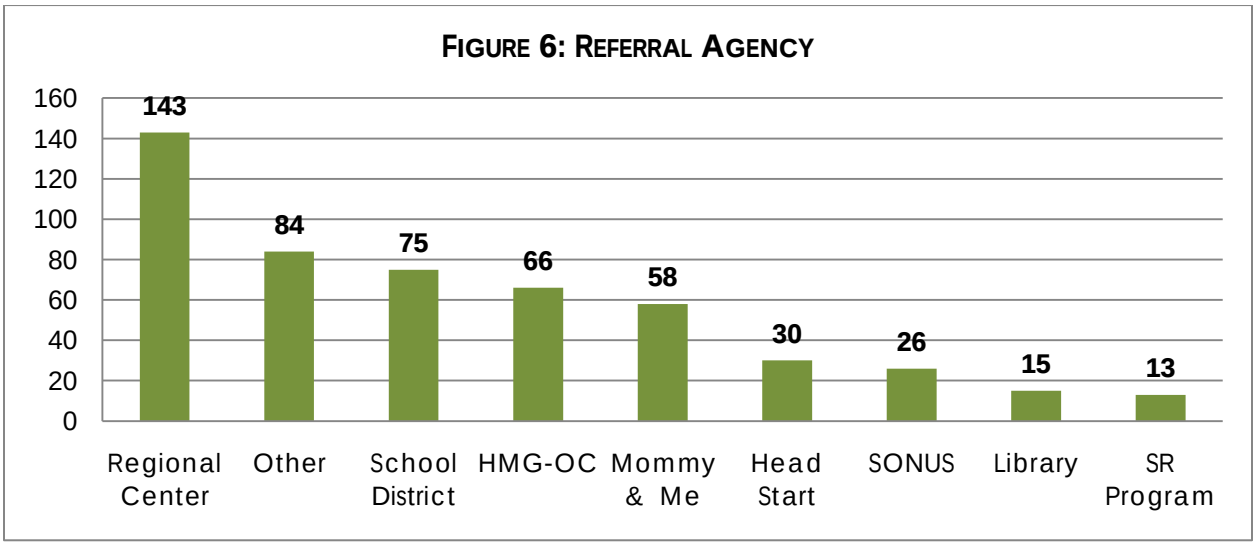


[50] Cognitive/academic achievement concerns include global, learning, problem solving and school concerns.

Referrals

There were 325 screenings that led to a referral, with an average of 1.7 referrals for each child referred. The two most common referral agencies were the Regional Center (typically for children under three years old) and school districts (typically for children three and older). The data suggest that providers are generally well aware of the Regional Center and school district/special education referrals.[51] More education, however, may be needed to access additional resources. The "Other" category of referral agencies or places (and the number of screenings associated with a particular referral) include but are not limited to:

- Family Resource Centers (9)
- CUIDAR (8)
- Providence Speech and Hearing (7)
- For OC KIDS (6)
- Newport Language and Speech Center (5)
- Private/ Plan Provider (5)
- Family Support Network (4)
- SPARKS (4)
- St. Joseph's (4)
- Early Care and Education Centers (3)



In one to two percent of the screenings conducted, a referral was provided when the screening tool indicated that there was no concern. One reason for this could be that the parent did not have a concern but the physician did and decided to refer or the parent had a concern not reflected on the screening tool, such as a qualitative difference in a skill or behavioral concern.

[51] The Regional Center provided data on the number of referrals it received, by month, between January 2008 and June 2009 so that we could analyze whether they started receiving more referrals as a result of the pilot efforts. In general, the data suggest that their referrals fluctuated by month with no consistent increase or decrease.

TABLE 5: PERCENT OF SCREENINGS WITH REFERRALS, BY SITE AND TYPE OF CONCERN

	AAP	HMG-OC	HCA-FHD
No concerns. No risk factors	1%	2%	1%
No concerns. Risk factors present (Questionable)	75%	33%	21%
Concerns, Recommend assessment	80%	59%	91%

As Table 5 above indicates, most of the screenings that indicated a concern or risk were referred for services (59-91% of screenings with concerns). Some of the reasons for the lower referral rate by HMG-OC when a concern was identified include:

- *Lack of direct contact*. HMG-OC could not always get a parent on the phone following screenings, so letters were mailed indicating the concern but no referrals were actually made.
- *Periodicity*. HMG-OC had the ability to resend a questionnaire following a short monitoring period. For example, if a child's scores on the 8-, 9- or 10-month interval indicated risk, some parents wanted to do a short-term intervention at home and rescreen at 12 months. HMG-OC sent these families activities to facilitate skill development within the domains of concern. These children often scored above the cut-off on the 12-month questionnaire.
- *Age*. Because HMG-OC screened children who were typically younger than those at the other sites (see Figure 3), parents may not have been as ready to receive a referral and took more of a "wait and see" approach.

C. Implementation of screenings

The Developmental Screening Pilot project required participating pilot sites—AAP, HMG-OC, HCA-FHD, and CalOptima—to identify and recruit practice sites to participate in the pilot project.[52] This section documents the different stages of implementing the screenings, as well as some of the lessons learned.

i. Recruiting

Each of the pilot sites identified and recruited practices to participate in the developmental screening pilot. They did this using different outreach and recruitment methods, as documented below.

The **AAP** participated in the screening pilot as part of a grant application from tobacco settlement funds. The original period of the grant was from January 2008 through June 2009; however, the pilot continued through July 2009 as the result of a one-month no-cost extension. As part of the grant application, the AAP focused on implementing developmental screenings in an area of the county where there were pediatric sites as

[52] For this report, Pilot Sites are those agencies that oversaw the screening effort (i.e., HMG-OC, AAP, CalOptima, and HCA-FHD) while the practice sites are those where the screening efforts were implemented (e.g., pediatrician's office).

well as early care and education (ECE) providers. They laid out in the grant the following criteria for selecting sites:[53]

1. Geographic area of pilot will be South Orange County.
2. Number of formal developmental screenings completed at well-child visits yearly and ages. Practices that did not complete formalized screenings had higher consideration.
3. Number of pediatric health maintenance visits and/or patients of target ages (6mo – 5yrs) at pilot sites.
4. Types of insurance plans accepted at site. Mixed insurance plans preferred.
5. Physician expresses interest in participating in the project and is willing to follow the established procedures and reporting requirements.

AAP recruited sites by going to community (stakeholder) meetings such as the *Developmental Open Forum* where they asked sites to participate. While the AAP began recruiting in January, they did not get sites to fully participate until March. Eight pediatric sites, one clinic, and two private preschool agencies (representing four preschool sites) participated in the pilot.

Help Me Grow Orange County recruited sites to participate at their Educating Providers in the Community (EPIC) visits. The EPIC Coordinator's role, in part, is to go into the community to provide education to providers about the importance of screening, surveillance, early identification and how to use HMG-OC to assist with referrals in order to facilitate optimal child development. The EPIC Coordinator made initial inquiries at the EPIC meetings and then conducted follow-up recruitment presentations to interested sites. After the recruitment presentations, there was another visit at which the providers were trained on using the screening tools. Initially, there were four offices (with 10 doctors and 1 physician assistant) that participated in the pilot project. Two additional sites came aboard a few months towards the end of the pilot.

At the **HCA-FHD**, the Maternal Child Health Medical Director was interested early on in implementing developmental screenings in a clinic setting and engaged both Orange County clinic sites—Santa Ana and Buena Park—to participate in the pilot.

CalOptima had two tracks, for which they had different recruiting methods:

- *Track 1 (screening tool sent to families to complete and return to physician at well-child care visits for scoring and follow-up).* Track 1 targeted Healthy Families high volume providers' offices. Using a script that was developed to explain the goal and logistics of the pilot, the Medical Director at CalOptima contacted these high volume sites to determine whether they were interested in

[53] Information adapted from *California Chapter 4, American Academy of Pediatrics, Pediatric Developmental Screening Services Final Report: January 8, 2008 – June 30, 2009*.

participating. Nine provider offices were contacted, of which three were recruited to participate in the pilot.

- *Track 2 (CalOptima sent tool to families, which completed and returned them to CalOptima for scoring; results then sent to physicians).* Letters describing the pilot were sent out to all other Healthy Families providers without direct recruitment.

Lessons learned for recruiting sites:

- **Identify an office champion at each site.** Office champions are crucial go-to persons for implementing the developmental screenings and for promoting the use of the screening tools. It is important that champions have the authority to see activities through and are the persons to whom other staff are accountable (e.g., "enforcer").
- **Assess commitment before enrolling in pilot.** It is important to assess the strength of commitment from each site. Some of the practice sites were initially excited about the project, but then had little follow-through.
- **Allow for ongoing recruitment.** Rather than having one primary recruitment period, rolling (ongoing) offers may allow enthusiastic and committed practice sites that were not able to participate during the primary recruitment (e.g., did not know about project, received information about the it from colleague at a later point, etc) to participate.

ii. Training

Part of the charge for implementing the developmental screenings was to train practitioners in using the validated screening tools and, where appropriate, to score the completed tools. In addition, providers needed to be trained on how to interpret the results (i.e. determine the medical validity of parental concerns) and provide guidance to families regarding the results (i.e. communicating results to families and knowledge of referral resources for children with concerns and/or risk factors).

AAP offered an initial meeting and overview of the pilot, which lasted about an hour and a half. At this overview meeting, AAP assessed the training needs of the sites and found that they needed assistance in getting and using the screening tools and collecting data and returning it back to the AAP. Help Me Grow Orange County came out and trained three of the AAP sites. At the on-site trainings the providers—doctors, nurses and support staff—received a review of the screening forms; information on the scoring mechanisms, a review of referral options, data collection process, and the Reach Out and Read (RoR) book process; and using consent forms. Staff changes at the practice sites resulted in delays in implementation, which were often over three weeks from training to the start of developmental screening. An AAP staffer took care of all the follow-ups, which included telephone calls, ongoing technical assistance, and site visits two weeks after the initial training.

HMG-OC's EPIC Coordinator trained participating office staff who had a role in patient intake, visit and referrals (back office and billing staff were excluded from trainings). Each participating site received three on-site trainings: 1) an initial recruitment training, which lasted about 30-40 minutes and included a presentation on AAP policy and the importance of developmental screening; 2) a separate training on using the ASQ tool, which lasted about one hour; and 3) a training on office procedures and the role of HMG-OC, which lasted approximately 45 minutes. Initially, HMG-OC had weekly follow-up visits with sites to provide incentives to staff, replenish screening materials and assist with the display of information. After the first four to six months, the EPIC Coordinator would visit sites about every two weeks in order to obtain data for the month and provide technical assistance.

HCA-FHD implemented the ASQ at one site and the PEDS at another site. A two-day ASQ training, sponsored by Help Me Grow Orange County, was attended by the Nurse Practitioner, and training on using and scoring the PEDS was received by attending an Orange County Medical Association (OCMA) pilot training. HMG-OC's EPIC Coordinator additionally provided formal on-site presentations on the ASQ at the clinics, and Dr. Del Mundo of HCA-FHD conducted a training for about 20 HCA-FHD medical assistants, doctors, nurses and office assistants on screening and office flow.

The two **CalOptima** staff involved in the pilot trained their participating sites' support staff. On average, trainings were 30 to 45 minutes and held at the provider offices with a semi-formal presentation. CalOptima trainers provided the offices with a binder and spent most of the training reviewing the included materials, which are listed below:

- Cover letter
- Description of the pilot
- Provider Instructions (trainings on the tools)
- Provider FAQs
- Summary of the developmental screening tools
- Summary of how to score the PEDS form
- PEDS administration and scoring guide
- Sample scoring documents
- Tips for talking with parents about developmental screenings
- General resources
- Local resources
- AAP Guidelines on developmental screenings
- Provider survey
- Checklist on overall process

After the initial training, CalOptima staff monitored the number of PEDS forms and medical records that were submitted by the provider offices.

Lessons learned to improve trainings:

- **Develop a standardized training and invite multiple sites to participate.** Provide training to all staff at a meeting held outside of regular office hours. The orientation process is more effective with consistent information being provided and working with other sites would be an advantage for the participants.
- **Providers should receive information about early childhood development.** In order to reduce the number of over or under referrals, trainings should include a discussion of the importance of using validated screening tools as well as education on early childhood development and a review of developmental milestones.
- **Create a list serve.** Provide an online user group for all sites to ask questions and discuss concerns they have about the project. This information would be important to share with all sites to improve productivity.

iii. Incentives

Incentives, both monetary and nonmonetary (e.g., technical assistance, screening tools), were used by all sites in order to assist with the recruitment and implementation of the pilot project. Types of incentives varied, but all sites offered, at a minimum, free screening tools.

AAP's grant enabled them to provide a few different types of incentives. Each site received an initial $500 for completing chart reviews and then $20 per subsequent screen. In addition, Reach Out and Read books were provided and three sites were given hourly compensation dollars for their staff to pull charts for a baseline review. At the end of the project, AAP sent out an online survey, and sites that completed the survey received a $25 gift card. AAP also provided two sites with a parent liaison to assist with mail outs and scoring screenings. One half (4 out of 8) of the AAP participants who responded to the online survey indicated that the monetary incentives were important or very important.

The main incentives provided to practices by **HMG-OC** were the enrollment packets, which included the ASQs with a cover sheet and self-addressed stamped envelopes. In addition, HMG-OC scored, interpreted, and contacted the families with appropriate referrals, as necessary, and informed physician of results by providing them a copy of the summary sheet and any referral(s) made. In addition, HMG-OC provided a number of spontaneous, informal incentives that included gift cards for office champions, candy in an HMG-OC mug, and storage containers to help with organization of the ASQ materials. Another incentive was the provision of Continuing Medical Education (CME) credits to qualifying participants at the initial EPIC visit.

The HMG-OC staff interviewed believed that the sites would have participated without the use of incentives and that incentives were typically spontaneous and used to show appreciation to the medical assistants, who did the bulk of the work. Their assertion that

HMG-OC practice sites would have participated without incentives was confirmed through the provider surveys. Two of the five HMG-OC providers indicated that the incentives were not at all important in their participation and another two sites indicated that the question was not applicable. Only one site indicated that monetary incentives were very important. On the other hand, all five HMG-OC providers who completed the survey indicated that the referral resources and screening tools were very important and that the ongoing technical assistance was very important (5 responses) or important (one response). See page 36, for more information about provider sites' incentives.

HCA-FHD were provided the screening tools, which were purchased by the co-located Children's Health and Disability Prevention (CHDP) office and the office also provided two staff to help administer the pilot at the Santa Ana clinic. Additionally, while the site did not initially receive monetary incentives, it was eventually able to successfully bill Medi-Cal (Fee for Services) for each completed screening.

CalOptima provided $25 per screening as an incentive for the Track 1 provider offices to distribute the PEDS developmental screening form to their Healthy Families patients, to score and interpret the PEDS forms, and to submit all PEDS documentation along with a copy of the patient's medical records to CalOptima. Track 1 providers were given the training binder and all necessary PEDS documents for screening. In addition, CalOptima provided a $10 Target gift card incentive for all Healthy Families members who completed and submitted a PEDS screening form for their children (this includes Track 1 and Track 2 participants). The costs of incentives were budgeted by the Healthy Families program. Only one of the two CalOptima practice sites responded to the online survey, and that site indicated that the monetary incentive was important.[54] CalOptima staff reported in interviews that it was difficult to gauge whether the provider offices would have participated without the use of incentives. However, even with the incentives, Track 1 providers did not submit any PEDS documents with the medical records, so no provider office has received compensation. CalOptima staff suggested that the incentive may not have been quite enough to induce provider offices to actively participate in the pilot.

Lessons learned for providing incentives:

- **It is feasible to implement developmental screenings in an office without offering monetary incentives.** Suggestions for assisting participating sites if incentives are not provided:
    - Build strong relationships with staff at participating sites, especially the medical assistants, to keep the project moving forward
    - Be a resource for help in organizing

[54] While three CalOptima practices participated, two of the practices were run by the same agency thus only two survey requests were sent out.

- Promote billing code CPT 96110 with eligible sites and support the referral process
- Explore ways to provide sites with screening tools

iv. Scoring Screenings

Some of the pilot sites collected and scored the screening tools on behalf of their practice sites, while other pilot sites trained their providers to score and interpret the tools on-site.

AAP trained participating practices to score their own screenings on site, with AAP staff providing technical assistance as needed. This process was deemed successful by AAP staff. The one change recommended was to provide staff at the practice sites with a review on the accurate scoring of screening tools at the beginning of implementation.

Families sent completed ASQ screenings and sent to **HMG-OC** for scoring. It took HMG-OC approximately 10 minutes from start to finish to score a screen when there were no concerns. The process took approximately 30-45 minutes when concerns were identified because of the time necessary to find and make the appropriate referrals, communicate with the families, and write the families a letter informing them of results. HMG-OC reported that this process of scoring screenings in-house was successful and the only change they would make to the process would be the use of a data management system to keep track of all the children's screenings, as well as information on when they need to be rescreened.

HCA-FHD scored the tools in-house. In Buena Park, all children between 6 months and 5 years of age were screened with the ASQ and in Santa Ana all kids 9 months to 4 years of age were screened with PEDS. In the future, HCA-FHD would use the PEDS tool on all children and then follow up with the ASQ as a secondary screening when concerns are identified. This is because of the time involved in using the ASQ.

CalOptima had different scoring methods for each track:

- *Track 1*: The screening tools were to be scored at the provider offices. The screening process was not very successful for this track, as they did not receive any completed PEDS forms.
- *Track 2*: CalOptima staff scored the screening tools. CalOptima indicated that this track was much more successful than track 1, and they reported that approximately 600 completed PEDS forms were received from members. CalOptima staff indicated that they would like to change the scoring process in the future by focusing on the development of a long-term strategy for Track 2. They would continue to recruit provider offices sites to participate, but would use them as a means for members to obtain the PEDS screening tool. The scoring and interpretation would need to be implemented elsewhere (e.g., at CalOptima).

Lessons learned for scoring screenings:

- **Provide technical assistance early in the process to ensure proper scoring**. A review of the completed screenings at the beginning of implementation can help ensure that screenings are being conducted correctly.
- **Explore the use of a data management system.** (e.g. CHADIS)

v. Billing for Screenings

Some of the sites were eligible to bill for the screenings scored using CPT (Current Procedural Terminology) Code 96110. CPT codes are numbers assigned to every task and service a medical practitioner may provide a patient.

AAP included a discussion about how to bill for screenings in their early meetings. Practice sites seemed set in their decision to bill from the start. AAP found that reimbursement rates varied greatly, from $14 to $90 per screen. According to the online survey, five of the eight AAP sites attempted to bill using CPT Code 96110. Two of the sites that did not bill indicated that they did not do so because they did not know how to document developmental screenings using the CPT code or that the CPT compensation was not worth the time and/or effort.

While the sites **HMG-OC** worked with were aware of CPT code 96110, they did not use it because it was not appropriate for the project, since HMG—not the physician—completes scoring and interpretation of the screening tools.

HCA-FHD was the one pilot site that could consistently bill for CPT Code 96110. Dr. Del Mundo, HCA-FHD's Medical Director, thoroughly researched the billing process, communicated with state experts and worked closely with HCA-FHD's Medical Billing Unit. Initially, the billing unit did not have experience using the 96110 CPT Code, nor did it have knowledge about the reimbursement rate for developmental screening. Learning about the billing protocols required for reimbursement was time consuming but did pay off. Initially, HCA-FHD submitted CPT Code 96110 for billing, but claims were denied because submissions were not paired with the appropriate ICD-9 Code. They were finally successful in billing once the required documentation, which included the ASQ summary sheet or copies of both sides of the PEDS score form, was submitted with the claim form. A challenge to billing for developmental screening using CPT Code 96110 was the lack of information about the proper use of the code by the billing department, and resolving this issue required extensive communication with outside experts and in-house billing unit by Dr. Del Mundo.

CalOptima's participating sites were not eligible to bill for CPT Code 96110.

Lessons learned for Billing Code 96110:

- **Most sites are not eligible to bill using Code 96110 for Medi-Cal clients.** Orange County is a Medi-Cal managed-care county and hence few can bill for fee-for service Medi-Cal.

- **A lot of follow up is needed to ensure reimbursement.** Follow up with each pilot site to submit 96110 billing for each developmental screening completed is essential for reimbursement. Scoring forms for ASQ and PEDS were developed that could be submitted for billing purposes.
- **Allocate technical assistance to ensure successful billing.** A role for the program coordinator or site TA provider could be to support 96110 billing efforts through monthly follow-up with the pilot sites.
- **Document work done to bill CPT Code 96110.** Such information should include the average amount of reimbursement received by each site and what documentation was used by other sites that proved to be effective for reimbursement.
- **At a minimum, use CPT Code 96110 to document that a screening was done.** Documenting each screening conducted, whether reimbursement will follow or not, provides a way to keep track of the screenings taking place statewide.[55]

vi. Data Collection and Submission

The practice sites provided data to an **AAP** staffer, who entered information into a database. The main challenge AAP experienced was that some sites were very slow to submit data.

HMG-OC's participating sites were expected to provide HMG-OC with a list of the ASQ questionnaires distributed each month for HMG-OC to cross-reference with the information they received from completed screenings returned for scoring. This, however, was a challenge for sites and it was difficult and time-intensive for the EPIC Coordinator to learn who was provided an ASQ. HMG-OC completed all data entry and data collection on behalf of their participating sites. According to HMG-OC staff, the graphic display of the data, which was prepared by HMG-OC, was valuable to the participating sites in recognizing the percentage of children identified with concerns by screening. The main challenge of data collection was the time and staff hours needed at both HMG-OC and the practice sites.

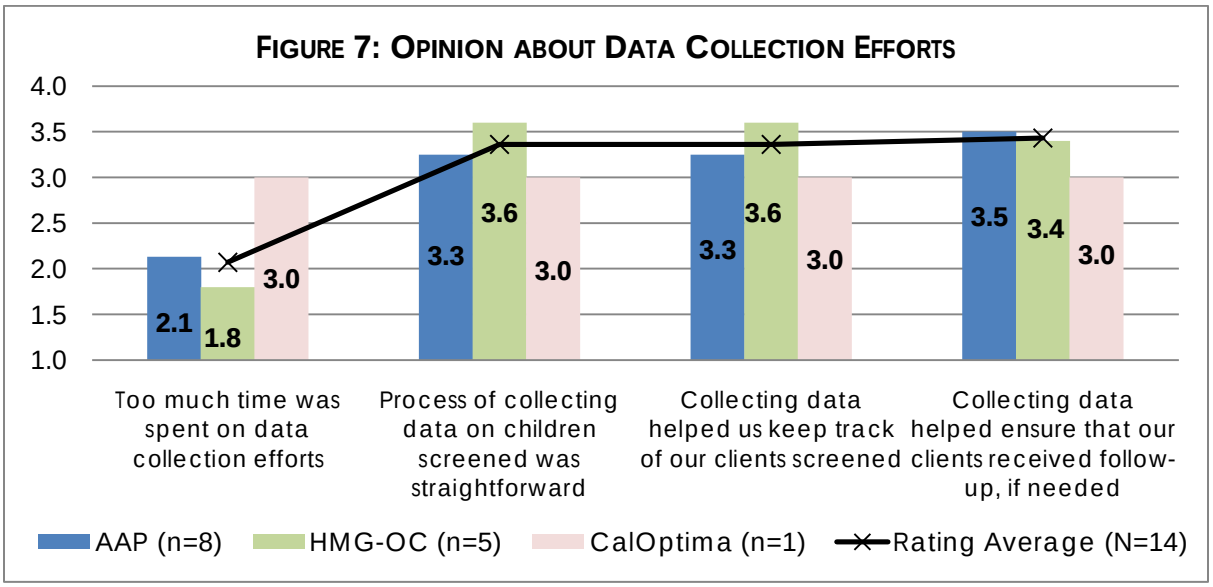
HCA-FHD had one support staffer input data from both clinic sites into an Excel file. The key challenge that HCA-FHD faced was that they were unsuccessful at tracking outcomes (e.g., was there access to services, were referrals appropriate, etc).

CalOptima was supposed to receive all its data from provider office sites where CalOptima staff would enter the data. None of the Track 1 sites submitted completed PEDS tools. For Track 2 providers, families sent completed PEDS tools directly to CalOptima for scoring and data entry. Receiving medical records and scored PEDS tools from participating provider office sites proved to be a significant challenge for CalOptima.

[55] CPT Code 96110 is used to document that a developmental screening was conducted, but the tool does not need to be a validated one. Therefore, there is no current way to know whether a validated screening tool was used—only that a screening was done.

* * * * *

Providers were asked about various aspects of the data collection efforts—from Strongly Disagree (1 point) to Strongly Agree (4 points). Figure 7 below illustrates the results. In general, data collection was not seen as a burden by the pilot sites. The HMG-OC pilot received the lowest score from participating practice sites regarding the time-intensiveness of data collection efforts. This may be attributed to the fact that providers sent information to HMG-OC for data collection and analysis. Survey results for the CalOptima pilot are based on the results received from one practice site.



Lessons learned to improve data collection:

- **Collecting data frequently ensures integrity of data.** Collecting data twice a month or weekly, especially at the beginning of implementation, allows for timely review and follow-up with pilot sites if there are issues.
- **Communicate results of data with practice sites.** Emailing data collection results and referrals to physicians at least monthly allows practice sites to use it in more meaningful ways.

vii. Benefits of Pilot

Overall, the pilot sites found that implementing developmental screenings benefited families, the practice sites, and the pilot sites themselves.

- **Perceived benefits to family:** The developmental screenings benefit the children and families served, as the pilot helped identify children needing early intervention.
- **Perceived benefits to practice sites:** Some of the pilot sites reported that the pilot was valuable because pediatricians appreciate that their patients' development is monitored. Many physicians also received education on AAP's screening policy, as well as child development and local resources. Many of the practice sites sustained the screening effort even after the end of the pilot, without monetary

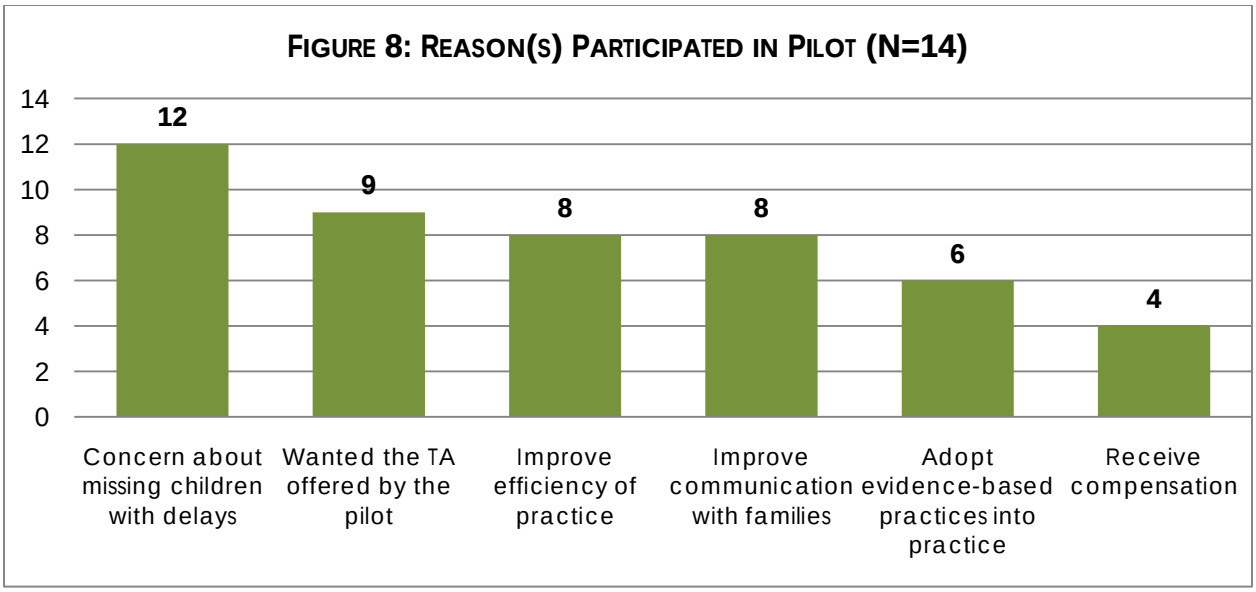
incentives. In addition, the pilot was instrumental in helping some practice sites identify children with mild to moderate delays not severe enough to qualify for Regional Center services.

- **Perceived benefit to pilot site**: Pilot sites indicated that as a result of the pilot, they increased their own visibility and value to pediatricians as a resource. The pilot was also valuable in gathering information about strategies that were successful and those that needed improvement. For example, monetary incentives alone are not necessarily enough to motivate some providers to participate, while others will participate regardless of incentives. For one of the pilot sites, implementing the pilot using both the PEDS and ASQ was also valuable in determining which tool is a better fit for a particular population served and type of practice.

D. Practice Site Perspectives on Implementing Developmental Screenings

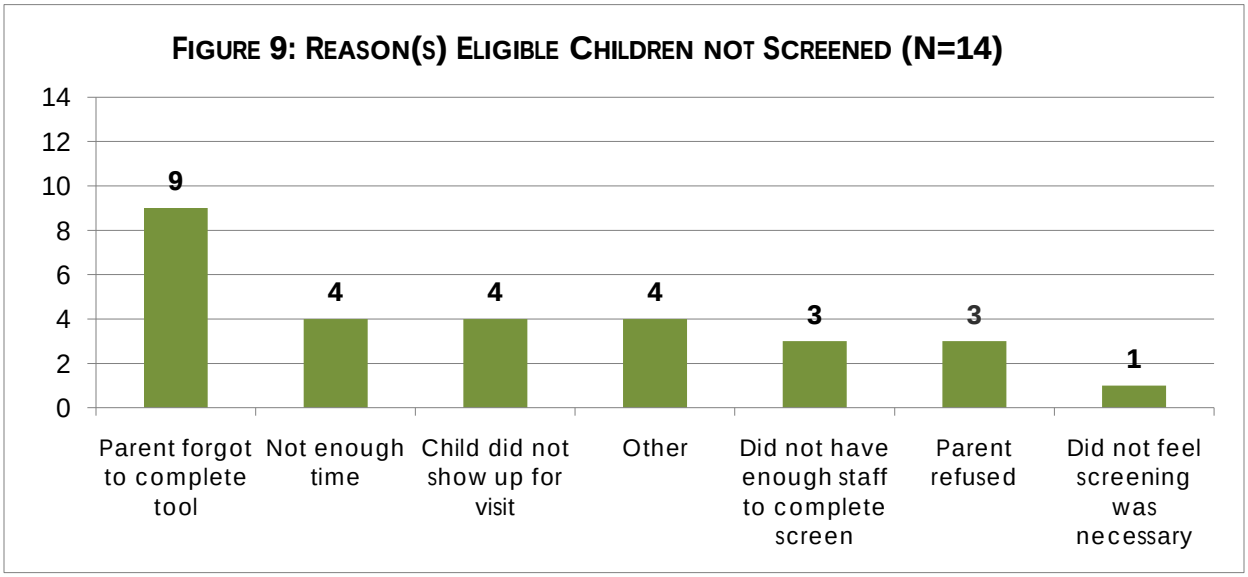
Survey requests were sent to all 16 practice sites that participated in the pilot project. HCA-FHD did not receive a request because it was both the pilot and practice site; input from HCA-FHD was solicited in one-on-one interviews and during a focus group. Fourteen (14) completed surveys were submitted (a response rate of 88%). The practices that responded to the survey all participated in the Developmental Screening Pilot project voluntarily through recruitment. Their reasons for initially participating varied, but almost all respondents (12 out of 14) indicated that they wanted to participate because they had concerns about missing children with early signs of developmental delays.[56] Nine of the respondents were interested in implementing developmental screenings at their practices and wanted the technical assistance offered by the pilot. Eight respondents indicated that they participated because they wanted to improve efficiency of their practice by having parents document their developmental concerns prior to their visit and also to improve communication with families and address their concerns. Four respondents indicated that receiving compensation for developmental screenings was a motivation for participating.

[56] In general, the frequencies (number of respondents) are presented rather than the percents because of the small response size.

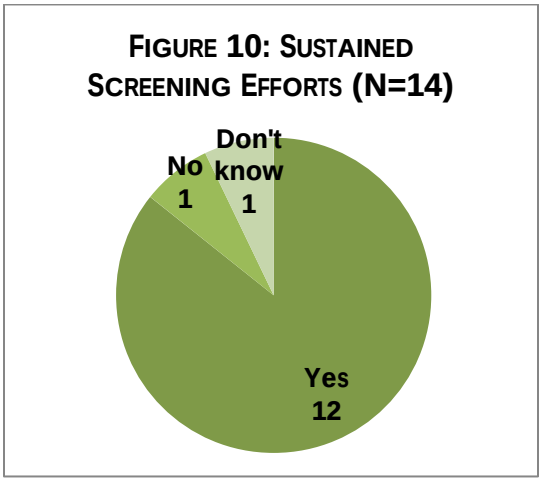


i. Screening Eligible Children

Although the practice sites were instructed to screen all eligible children during the period of the pilot (see Table 1 for a breakdown of the sites' screening eligibility protocol), not all of the eligible children who came in for a well child visit were actually screened. The main reason some eligible children were not screened was that parents forgot to complete the screening tool. Approximately 80% of both AAP and HMG-OC survey respondents indicated this as a reason that not every eligible child was screened. One respondent indicated that a reason children may not have been screened was because they did not feel it was necessary. "Other" reasons provided for not screening eligible children included parents not completing the screening tool, as well as practice sites own forgetfulness.



Most of the practices (12 out of 14 respondents) indicated that they have maintained the screening effort even following the completion of the pilot. The site that has not sustained the screening effort indicated that they did not do so because it was not practical for them to continue without payment or incentives and that there was too much difficulty and costs involved in getting the screening tool to the parents.

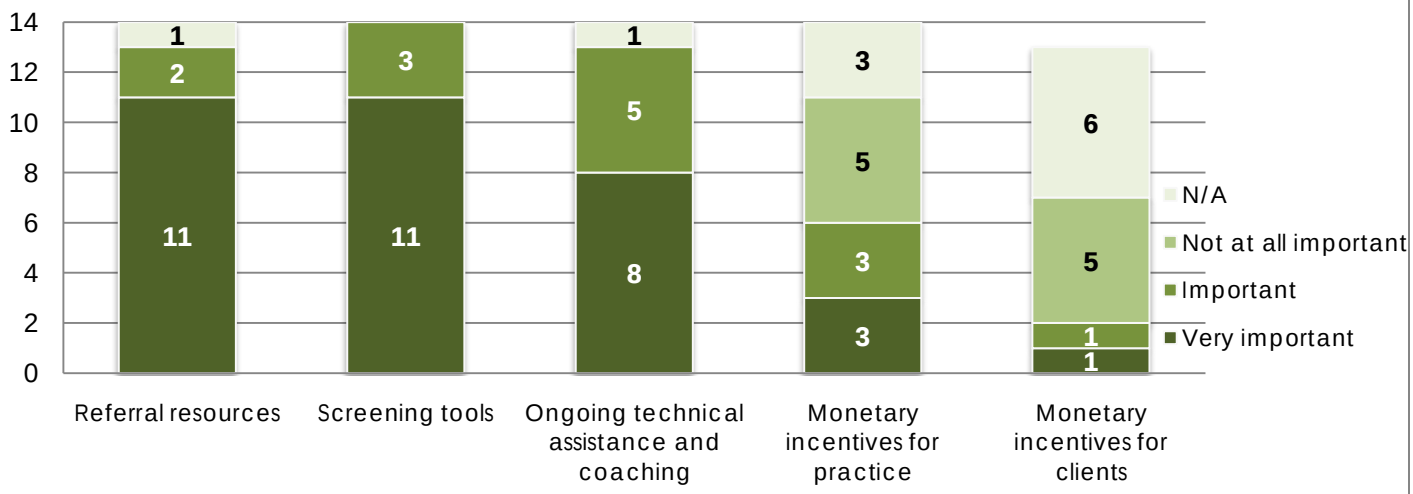


HCA-FHD, while not surveyed because of the nature of their model, did indicate that it has continued with the screening effort at both clinics. The only difference is that both sites are now using PEDS. HCA-FHD reported that it would continue using the PEDS tool even without reimbursement because it draws out rich information while adding only one to two minutes to the visit. The reimbursement would likely not have been sufficient to continue use of the ASQ, which requires much more staff and time resources to incorporate into well child visits.

ii. Incentives

As discussed above (see page 28), sites received some type of incentive—monetary or nonmonetary—to participate in the pilot. At a minimum, sites were all provided with screening tools. Participating sites were asked about the importance of different types of incentives in getting their practice to participate in the Developmental Screening Pilot project. Referral resources and the actual screening tools, both of which are low cost investments, seemed to be the most important incentive for participating pilot sites. Receiving ongoing technical assistance and coaching was also very important. Monetary incentives, either for the practice itself or for their clients, were deemed the least important incentive.

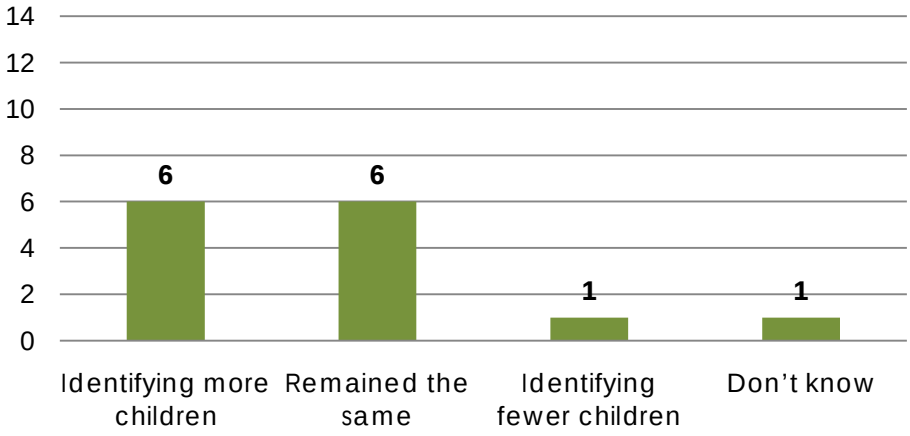
FIGURE 11: IMPORTANCE OF INCENTIVES RECEIVED (N=14)



iii. Identifying Children with Potential Delays

Six of the 14 survey respondents indicated that they were identifying more children with potential delays as a result of implementing formal screenings in their practice. The same number of respondents indicated that the number of children being identified has remained the same. One site indicated that they are identifying fewer children now.

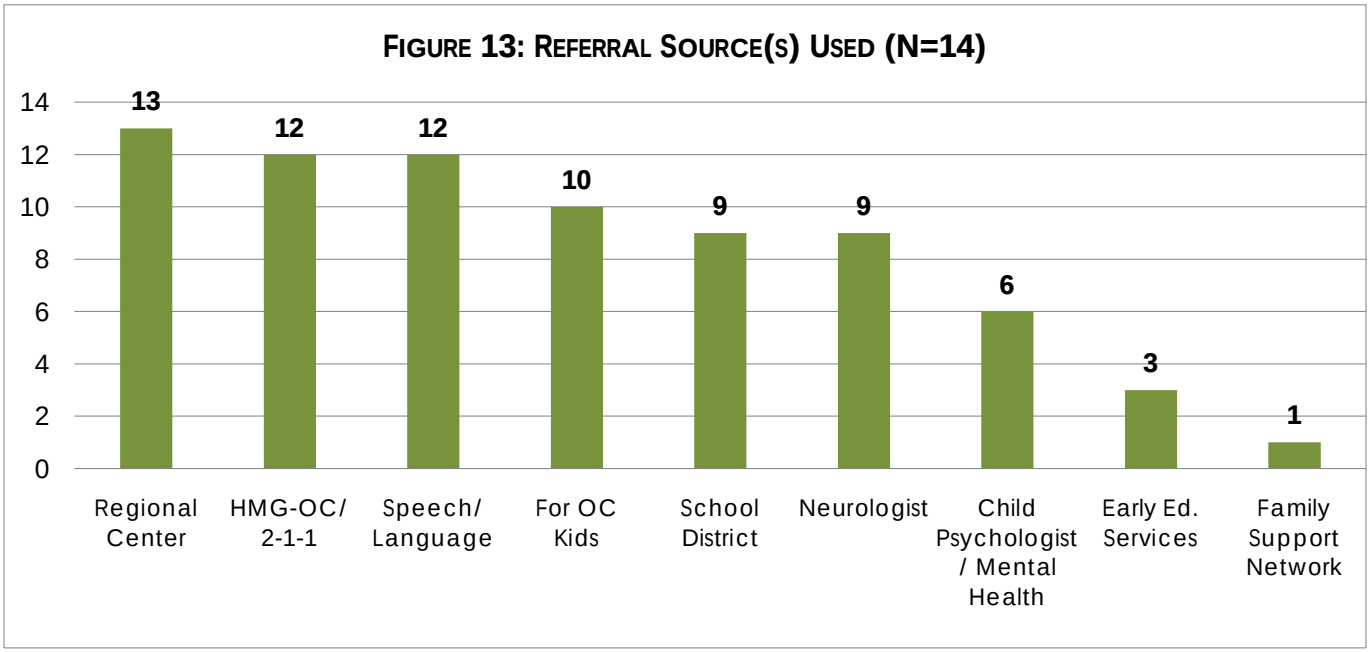
FIGURE 12: CHANGES IN IDENTIFYING CHILDREN WITH POTENTIAL DEVELOPMENTAL ISSUES (N=14)



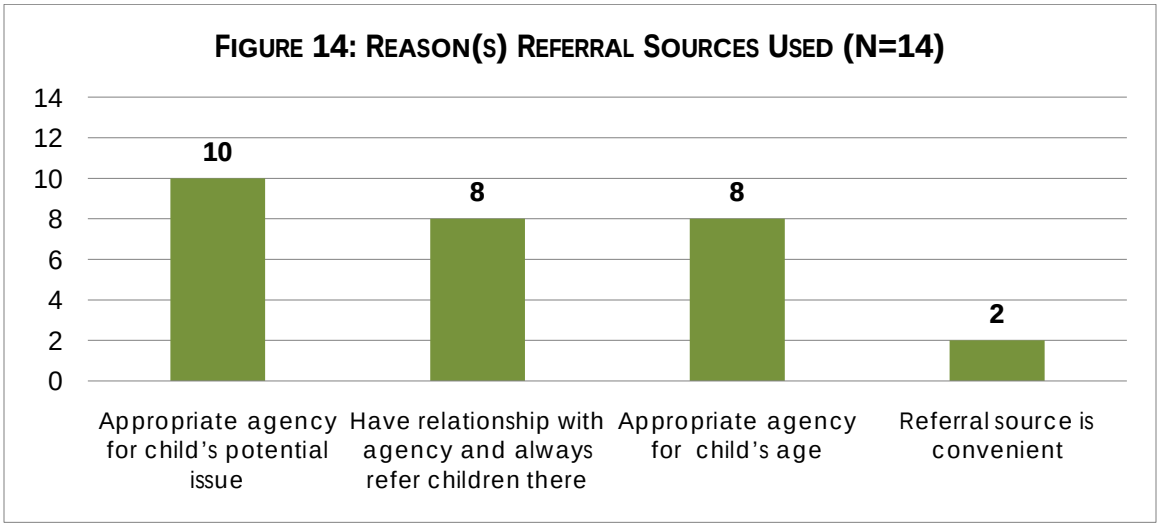
iv. Referrals

As indicated above, knowing of and accessing referral sources in the area of concern is a very important piece of the developmental screening effort for the providers. For the pilot, almost all of the participants indicated that they referred children to the

Regional Center (13 sites) and/or used Help Me Grow Orange County and speech/language sources (12 sites each). The high number of practice sites indicating that they refer to speech / language resources is consistent with the high number of screenings with this type of concern. Nine sites indicated using school districts as a referral source (referrals to school districts are typically for children older than 3 years old). One site indicated using the Family Support Network.



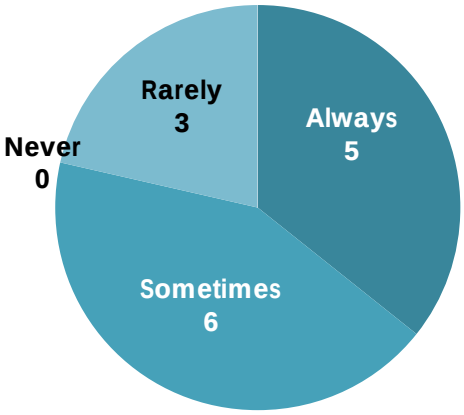
The main reason given for why a potential referral source was used is that that was the appropriate agency for the child's potential developmental issue. Eight sites indicated that they used the above-mentioned referral sources because they have a relationship with the given agency and/or that it was the most appropriate agency given a child's age. Two sites indicated that they used a referral source because it was convenient.



In general, sites reported that they had a referral source to use when needed; however, a few referral resources were identified as lacking by practice sites. One respondent indicated that it was difficult to find an occupational therapist for feeding and sensory issues unless the Regional Center found the child eligible, as well as sources for preschool ADD treatment. Another respondent indicated a need for psychologist/ psychiatrist referral sources.

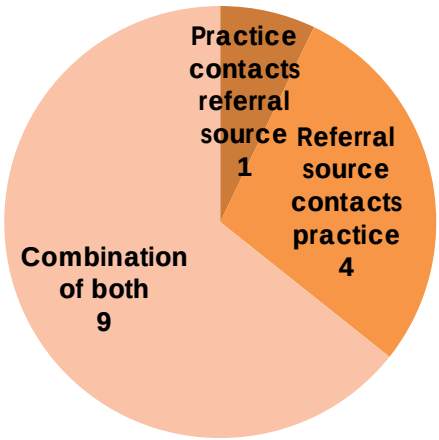
Once referrals are made, providers usually receive feedback from the referral sources. Only 3 practices indicated that they rarely receive feedback, and none indicated that they never receive feedback.

FIGURE 15: FREQUENCY OF RECEIVING FEEDBACK AND/OR EVALUATION RESULTS FROM REFERRAL SOURCE (N=14)



Most of the sites reported receiving feedback by both contacting the referral sources and being contacted by the referral sources. One site indicated that feedback was only received when they initiated communication with the referral source.

FIGURE 16: HOW FEEDBACK/EVALUATION RESULTS OBTAINED FROM REFERRAL SOURCE (N=14)

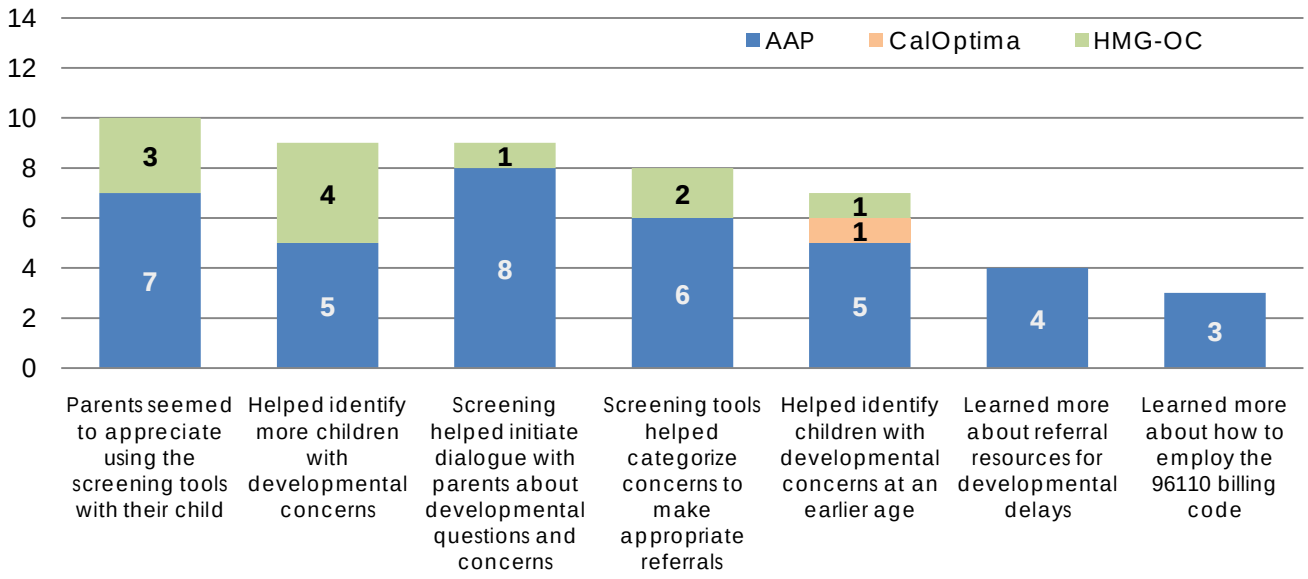


Four of the survey respondents indicated that they have strengthened relationships with referral resources since the beginning of the pilot project; another four indicated that they have not strengthened relationships; and six sites responded that they did not know. Some of the ways that the relationships were strengthened include learning about Help Me Grow Orange County as a resource and increasing communication with referral sources. The types of support that respondents requested to help them strengthen relationships with referral agencies include more work with Help Me Grow and having referral sites send them reports and feedback without persistently having to ask for the information. One respondent indicated that s/he would like to receive feedback for all patients that are seen by the agencies and that getting notes of the evaluation by fax would be a good way to do this.

v. Benefits of Participation

All of the practice sites indicated that they had benefited from participating in the pilot project. All of the AAP sites indicated that the screenings had helped initiate dialogue with parents about developmental questions and concerns, while only one of the HMG-OC sites indicated the same. This is likely because of the different screening models. AAP scored the screenings immediately and on-site and were thus able to more easily initiate a discussion with parents. The HMG-OC model, on the other hand, sent the screening results to the families and to physician offices by mail, so there was less opportunity for immediate physician feedback to parents. Most of the AAP and HMG-OC participants agreed that parents appreciated the use of the screening tools and that the screening tools did help the sites identify more children with developmental concerns. Three of the AAP sites felt that they learned more about using CPT Code 96110. HMG-OC sites were not eligible for this billing code, as screenings were scored and interpreted off site and they were not eligible for fee for service Medi-Cal, and thus did not benefit from this billing option.

FIGURE 17: BENEFITS OF PARTICIPATING IN PILOT PROJECT (N=14)



E. Challenges and Lessons Learned

Each of the pilot sites had different challenges and best practices for implementing the Developmental Screening Pilot project. This section documents some of the challenges from the perspective of each participating pilot site, as well as offers overall lessons learned.

Help Me Grow Orange County:

- **Challenges faced:** The major challenges that HMG-OC faced were securing funding to continue the project, ensuring follow-through from participating office sites and keeping them motivated, and developing the infrastructure needed to implement developmental screenings. In addition, maintaining contact with the site champion when s/he was a physician was challenging at times, because HMG-OC often needed to go through the medical assistant or other office staff for ongoing communication.
- **Overcoming challenges:** Developing relationships and offering incentives is useful. However, some sites just never fully participated and this was generally attributed to a lack of strong leadership or a site champion.
- **Lessons learned:** It is important to have a structural organization and a transition plan at the beginning of the project. The hope of securing funding to continue the screening project conflicted with their perceived need to develop a transition plan. At the conclusion of the pilot, additional funding to continue had not been secured; so HMG-OC decided to maintain the existing sites while they continued to seek external funding.

AAP:

Physician Sites

- **Challenges faced:** Staff recruitment was an issue, as were billing and the lack of a follow-up plan to see if practice changes are maintained.
- **Overcoming challenges:** Persistent effort was key to improving recruitment and supporting billing efforts.
- **Lessons learned:** It is important to fully staff the project and designate a parent liaison from the beginning. Also, AAP would recommend changing the data reporting mechanism to one that has an Electronic Medical Record (EMR) mechanism for screening. Additional recommendations include working with a non-doctor champion due to the difficulty of maintaining consistent communication with physicians; assisting office staff involved with pilot implementation with making changes to their workflow; and providing sites with needed mental health referrals.

ECE Sites

- **Challenges faced:** The AAP pilot was implemented at both physician offices and ECE settings. There was less success with implementation at the ECE sites. Some of the challenges were a difficulty in maintaining ongoing communications, accessing staff, and providing ongoing technical assistance. Staff turnover at ECE sites was also an issue. In addition, teachers did not receive compensation for the pilot project (they did receive the screening tools and attempted technical assistance) and were thus not motivated to implement them.
- **Overcoming challenges:** AAP was not able to overcome these challenges, though AAP was very persistent in attempting to provide technical assistance and coaching.
- **Lessons learned:** Routine follow-up with sites is key.

HCA-FHD:

- **Challenges faced:** Convincing staff of the importance of using developmental screening was initially a challenge. In addition, HCA-FHD felt that ASQ administration was time-intensive and that they did not have adequate staffing. Other challenges include not being able to track outcomes (e.g., did family access the referral(s) and what were the results) and a lack of readily available information to help with successful billing. HCA-FHD also found that training/education was needed on developmental milestones for pediatricians (especially for PEDS) to avoid over- and under- referrals, and that it was necessary to have knowledge of early childhood development to interpret parent responses in order to determine if parent concerns were real concerns or represented unrealistic expectations.
- **Overcoming challenges:** Successful billing for screenings helped incentivize the staff to conduct the screenings. Cal State University Fullerton students and CHDP Office

administration staff assisted with the administration and scoring of the ASQs on site at the Santa Ana Clinic.

- **Lessons learned:** Involve medical assistants and registered nurses more at the beginning of the project. It is also important to access training on PEDS earlier in the process. HCA-FHD now uses the PEDS tool as first level screening for all children and then the ASQ as a secondary screening for children identified with possible delays. In addition, it is important to incorporate a review of developmental milestones into future trainings and to involve medical providers earlier in the process.

CalOptima:

- **Challenges faced:** Getting the offices to respond to their phone calls and communication requests was an ongoing challenge. Members in Track 1 were inconsistent in submitting completed PEDS forms to the offices and handing out the PEDS forms to eligible CalOptima and Healthy Families members. Track 1 sites also had difficulty scoring and submitting forms and medical records to CalOptima. In addition, providers lacked knowledge about how and why to use the screening tools, as well as the importance of developmental screening in general. Even when Track 2 providers were provided with the scored and interpreted screenings, they still were not sure how to use the information.
- **Overcoming challenges:** Continue to call the provider office sites for completed screenings and medical records. Examine the reason(s) why provider offices did not submit the screening tools with the medical records by surveying members to determine if they received the PEDS form and if they submitted the completed forms to their physicians at the office visits. Focus on sustaining Track 2, as that approach appeared to be the more successful of the two.
- **Lessons learned:** Keep Track 2 and enhance the follow-up for each member, specifically those who have a predictive concern. Ensure that the provider follows up with patients who have a predictive concern. Modify Track 1 so that high-volume provider offices that want to participate become sites for the distribution of PEDS to families, and collection of completed screenings from families, while no longer being responsible for scoring and interpreting the PEDS forms. CalOptima would take on the role of systematically collecting the completed from offices, scoring the screenings at CalOptima, and providing offices with the results.

Overall Lessons Learned

In addition to the specific lessons learned by the individual pilot sites that are discusses above in this report, there are also a number of overarching lessons learned that are discussed below.

Identify "Champions" at each site. There is agreement among pilot sites that the project was most successful in those practice sites that had someone to act as a champion. There is a role for both physician and non-physician champions. A physician champion

is necessary to make the decision to implement the developmental screenings, to set up expectations for staff and to ensure buy-in of the project. In addition, identifying someone who is responsible for the day-to-day administration and coordination of the screenings is also crucial in ensuring the success of the project. Ideally this person has authority and feels invested in the project. The day-to-day champion is usually a nurse, medical assistant, or office manager rather than a physician since it is more difficult to maintain ongoing contact with physicians. Smaller practice settings are an exception.

A two-tiered process of identifying champions is recommended. The first tier, identifying a physician, is important for getting an office to participate. Champions could be recruited and identified through network events (e.g., AAP Quarterly Dinners, HMG-OC's Connection Cafes), as well as through direct contact and word of mouth. The next tier, identifying a day-to-day champion at each site, usually occurs once the project is implemented and a natural champion emerges. This person is usually the one who does the bulk of the work to implement the screenings. To keep physicians engaged, monthly updates that include data about the children screened, their concerns, and referrals made should be provided.

Educate physicians and office staff about child development. Such education includes information about the importance of screening children using a validated tool, early childhood development and milestones, and early intervention referrals. Education about developmental milestones can assist physicians and office staff with interpreting the developmental screenings whereby reducing the chance for under- or over-referrals. Education about AAP's policy recommendations for screening children can help increase the number of practitioners who screen children using a validated tool. Strategies for educating professionals include providing in-office trainings, offering CME credits, and utilizing the maintenance of certification process to advance quality care through developmental screening. Other recommendations include reaching students in pre-professional college programs where they are still operating under the "ideal" setting. Strategies for educating/training pre-professionals could include providing lectures to medical residents at CHOC and UCI, nursing students at Cal State University-Fullerton, and medical assistants in training at community colleges throughout the county, as well as increasing field work opportunities where developmental screening can be practiced outside of the classroom.

There are many "right" models for scoring screenings. Pilot sites had the option of scoring the screenings themselves or training practice sites to score the screenings in house. In general, the practice site/medical home model for scoring is useful if child needs an authorization for a medical referral. Conversely, having an outside agency (e.g., HMG-OC) score the screening is helpful if there is a need for a community-based referral. Regardless of where the scoring is done, providers need the following resources:

- Easy access to the materials (e.g., developmental screenings)

- Written policies and procedures that are enforced
- Office staff for follow up
- Technical assistance. If on-site scoring, then this includes providing technical assistance in administering, scoring, and relaying results.

The key difference in providing the resources mentioned above is that of intensity. For instance, if scoring in-house, then the practice needs to dedicate more staff time for scoring activity.

It is feasible to implement developmental screenings without the use of monetary incentives. Providing monetary funds (i.e., a certain amount of money per screening or a one-time grant) to physicians for completing the developmental screenings did not seem to be a factor in practice sites successfully conducing screenings. In general, the monetary incentive was not enough to get some provider offices to actively participate in the pilot. Incentives such as referral resources, technical assistance, and free access to screening tools are valued as an incentive for offices to participate. In addition, it is important to develop the infrastructure and office flow necessary to implement screenings when feasible.

F. Recommendations and Conclusion

The process of implementing the Developmental Screening Pilot provided an opportunity to identify the steps necessary for implementing developmental screenings in practices. It has also provided an opportunity to refine the process should the community wish to move forward with expanding implementation of developmental screening efforts in Orange County. The following are recommendations for issues to explore when implementing screening efforts:

Explore ways to follow up on referrals. One piece of the data collection effort that is missing is the link between a referral and the outcome. Once a child receives a referral, it is difficult to track whether the family followed up on the referral, if the child was found eligible for services, and the outcome of the child receiving services. The Regional Center of Orange County often calls the referral source with the referral results, but there is no systematic way to follow up on other referrals (e.g., school districts, speech and language therapists). Currently, the most reliable way to follow up on referrals is by calling the individual families and asking them directly. The use of a data management system (e.g., CMIS, CHADIS) would be helpful for capturing information about screenings and referrals. In addition, having a Memorandum of Understanding (MOU) between agencies could assist with the sharing of information.

Identify the service gaps. In general, practice sites know to use the Regional Center as a referral. Unfortunately, they are often unsure about non-Regional Center resources. Along with provider education about available resources, it is important to promote the use of Help Me Grow Orange County. HMG-OC is working to build increased visibility in

the county and is actively working with the Regional Center to strengthen their relationship.

Coordinate developmental screening efforts. As more agencies and practices begin to conduct developmental screenings (e.g., Early Head, Head Start, home visiting programs) it will become more important for screening efforts to be coordinated. This includes increased communication between a child's Early Care and Education program and his/her medical home. One way to ensure this is the use of electronic medical records or having a shared database. Such efforts are already occurring in the nation. For instance, Rhode Island uses its vaccine registry to report screening data that can be shared. The Statewide Screening Collaborative is also exploring ways to coordinate screening efforts. A first step to take in Orange County is to make sure that families read and sign a consent form that allows their information to be shared with other programs and agencies. A Universal Consent form, signed by families permitting them to share information with relevant agencies, has been developed in Orange County (see Appendix H). The use of MOUs between agencies can also assist with this effort and ensure that once a child is referred s/he does not receive an unnecessary rescreen.

APPENDIX A: Agencies Participating in the Statewide Screening Collaborative

I. Partners in State Departments:

- Alcohol and Drugs
- Developmental Services (Early Start)
- Education (child care, child development and special education)
- First 5 California
- Health Care Services (Medi-Cal Managed Care and Fee-For Service, CCS and CHDP)
- Managed Health Care Services
- Managed Risk Medical Insurance Board (MRMIB)
- Mental Health
- Public Health (MCAH)
- Social Services

II. Partners Outside of State Departments:

- Advancement Project
- ARC of California
- CA Academy of Family Physicians
- California American Academy of Pediatrics
- California Association of Health Plans
- Center for Families, Children and the Courts
- First 5 Association and County Commissions
- Lucile Packard Children's Hospital
- UC Davis and UCLA
- University Centers in Excellence for Developmental Disabilities
- WestEd

APPENDIX B: Pathways Leadership Committee Representation

- American Academy of Pediatrics, California Chapter 4
- CalOptima
- Children and Families Commission of Orange County
- Children's Hospital of Orange County
- CHOC-UCI Neurodevelopmental Programs
    - For OC Kids Neurodevelopmental Center
    - CUIDAR
    - Early Developmental Assessment Center
    - Help Me Grow
- Coalition of Orange County Community Clinics
- County of Orange Health Care Agency
    - California Children's Services
    - Behavioral Health Services
- County of Orange Social Services Agency
- Family Support Network
- HealthCare Foundation for Orange County
- Kaiser Permanente
- Newport-Mesa Unified School District
- Orange County Department of Education
- Regional Center of Orange County
- University of California, Irvine Medical Center

APPENDIX C: Goals and Strategies Defined by the Pathways Leadership Committee

GOAL 1: **Develop the infrastructure to ensure the effectiveness of the Orange County developmental/behavioral pathways system**.

Strategy 1: Build system capacity to maximize the identification of all children with developmental/behavioral needs and ensure resources are available to address their identified needs upon referral.

Strategy 2: Adopt a universal release of information form to assist in authorizing information sharing to improve care coordination and delivery of services to young children and their families.

Strategy 3: Promote implementation of validated assessment and screening tools that are recommended by the American Academy of Pediatrics (AAP).

Strategy 4: Support ongoing system monitoring and evaluation to continually assess and promote innovation and improvement in the developmental/behavioral pathways system.

GOAL 2: **Develop relationships among community partners that serve children, birth through five, and their families ensuring the effectiveness of the developmental/behavioral pathways system through networking, linkages, collaborative projects and incentives.**

Strategy 1: Promote networking opportunities among community partners that provide services to children birth through five and their families to ensure effective collaboration and service coordination.

Strategy 2: Develop and sustain linkages among community partners to ensure that children and families are referred to needed services.

Strategy 3: Develop and sustain collaborative projects that promote relationships among community providers.

Strategy 4: Utilize incentives (e.g. policies, innovative financing, etc.) to facilitate and sustain relationship-promoting strategies.

GOAL 3: **Leverage opportunities to effect systematic change in practices and service coordination**.

Strategy 1: Build strategic alliances as existing and new opportunities emerge to improve the delivery of coordinated developmental and behavioral services.

Strategy 2: Implement developmental/behavioral screenings of children, birth through age 5, with community partners and in coordination with other state and national screening initiatives such as the ABCD pilot.

Strategy 3: Ensure and sustain a trained and culturally competent workforce to support screening, assessment, and provision of needed intervention and treatment services.

Strategy 4: Support increased surveillance of children, birth through age 5, by early education and community-based service providers (e.g., WIC, social service agencies). Ensure providers have the tools and skills to recognize children who may be at risk of a developmental delay or behavioral issue and to provide the appropriate referrals.

GOAL 4: **Raise public and professional awareness and understanding around optimizing early childhood development and encouraging the implementation of developmental/behavioral screening for all children.**

Strategy 1: Launch a public awareness campaign aimed at Orange County families, providers and the general public.

Strategy 2: Encourage all parent education programs to support families in promoting health childhood development.

APPENDIX D: Developmental Screening Pathways—Progress to Date (as of Sept 30, 2009)

Goal 1: Develop the infrastructure to ensure the effectiveness of the Orange County developmental/behavioral pathways system.		
Strategy	**Action Steps**	**Progress**
Strategy 1: Build system capacity to maximize the identification of all children with developmental / behavioral needs and ensure resources are available to address their identified needs upon referral.	Explore implementation of an early intervention pilot for children, ages 3 to 5, in the Newport Mesa Unified School District. The pilot would teach Spanish-speaking parents how to support their children's speech and language (S&L) development in order to reduce the risk of early speech and language delays, support school readiness efforts, and expand capacity of early literacy resources to provide services to at-risk children. The pilot would include a review of best practices to identify the optimal program model and would be linked to the Commission's Early Literacy Program aimed at promoting school readiness and success through community, family, and school-based partnerships.	• The Hannen, "You make the Difference" pilot classes were completed with great success in the 2008-09 school year. The classes will be duplicated in 2009-10 by offering six sessions for families who reside in the NMUSD school district.
	Continue to support School Readiness Nurses (SRNs) in their unique and important role to provide support within communities around developmental services in the areas of surveillance, screening and referrals. Work to ensure that SRNs have the necessary resources, tools and training to: • Establish linkages with primary care providers and community-based service providers serving children, birth through age five, and their families; • Utilize validated screening tools that are	• In 2008-09 FY, new guidelines regarding the developmental screening tools the SRNs were to use were fully implemented. All SRNs are now using the PEDS or ASQ. In the 2008-09 school year, the SRN's had a goal of completing 5,835 developmental screenings with follow ups, as necessary. They successfully completed 7,225 for the year (24% more than the target). • Help Me Grow has been an ongoing resource, providing ASQ trainings for the SRN's and being a referral resource. • The SRN Program Manager as well as the AAP Chapter

Goal 1: Develop the infrastructure to ensure the effectiveness of the Orange County developmental/behavioral pathways system.		
Strategy	**Action Steps**	**Progress**
	recommended by the American Academy of Pediatrics (AAP) in their July 2006 Policy Statement; • Foster strong relationships with their school districts and have a thorough understanding of the intervention services offered by their district; • Develop the skills and knowledge to create individualized intervention plans for all at-risk children; • Utilize AAP as a resource for school nurses; • Utilize Help Me Grow as a resource for families; and share best practices among the SRN network.	Coordinator provide ongoing training and support in tool education, ordering, and information for the SRN's. • The SRN's have continued to refer to multiple resources as needed, such as Help Me Grow, UCI Neurodevelopmental Clinic, School Districts, Western Youth Services, Readiness on the Road and the YMCA, Family Support Network, Regional Center, and CUIDAR.
Strategy 2: Adopt a universal release of information form to assist in authorizing information sharing to improve care coordination and delivery of services to young children and their families.	Implement pilot to test universal consent prototype, assess its value and review challenges. Ensure the form addresses the following principles: • Written at 4th grade reading level • Available in English, Spanish and Vietnamese • Clients will be advised that services will not be withheld should they choose not to sign the universal consent • Compliant with HIPAA, FERPA, CA law • Non-covered entities would need to follow the standard of covered entities	• Universal consent form, which conforms to the principles laid out, has been created, piloted and distributed. • Next steps include exploring the extent to which agencies are using the form and the barriers to use.
Strategy 3: Promote implementation of validated assessment and screening tools that are recommended by the American Academy of Pediatrics (AAP).	Promote implementation of validated assessment and screening tools that are recommended by the American Academy of Pediatrics (AAP).	• Activity is in progress and being carried out through the following initiatives: o Developmental Screening Pilot Project o OCMA- Physician's Developmental Screening (PDS) Project o Pretend City Museum

Goal 1: Develop the infrastructure to ensure the effectiveness of the Orange County developmental/behavioral pathways system.		
Strategy	**Action Steps**	**Progress**
		• Have negotiated discounted rates for validated screening tools across the state.
Strategy 4: Support ongoing system monitoring and evaluation to continually assess and promote innovation and improvement in the developmental/behavioral pathways system.	Establish processes and outcome metrics to measure system performance and encourage innovation including setting continuous improvement goals.	• A logic model with standardized process and outcomes metrics has been developed and is being implemented as feasible (e.g., with Developmental Screening Pilot, OCMA- PDS Project). • Participated in ABCD Screening Academy. The ABCD project, now known as the "Statewide Screening Collaborative" aims to find ways to implement developmental screenings statewide and standardized ways to measure progress. • Developed final report for ABCD pilot.

GOAL 2: Develop relationships among community partners that serve children, birth through five, and their families ensuring the effectiveness of the developmental/behavioral pathways system through networking, linkages, collaborative projects and incentives.		
Strategy	**Action Steps**	**Progress**
Strategy 1: Promote networking opportunities among community partners that provide services to children birth through five and their families to ensure effective collaboration and service coordination.	Help Me Grow, in collaboration with several strategic partners, will sponsor regional networking breakfasts for organizations providing services to young children, with a focus on developing relationships among Orange County community programs and service providers.	• HMG-OC has been sponsoring network breakfasts. In 2008-09 FY, HMG-OC conducted seven "Connection Café" networking events with 409 participants. • The Commission has leveraged regional Technical Assistance with other First 5 Commissions in Southern California. • In addition to the participating pilot sites, the Developmental Screening Pilot project brought together several different agencies that implemented the pilots along with other key agencies including Regional Center, FSN, LEAPS, State Medicaid agency, etc. • Many Commission-funded programs have embedded formal developmental screenings in their projects (e.g., home visitation programs, SR Nurses).
Strategy 2: Develop and sustain linkages among community partners to ensure that children and families are referred to needed services.	Ensure Help Me Grow, in partnership with community providers, serves as a key linkage between families, pediatricians, and developmental/behavioral resources.	• Ongoing. HMG-OC has been serving as a link.
	Help Me Grow and High Risk Infant Follow-up (e.g., CCS/EDAC/Regional Center/other) will partner to pilot enrollment of infants at-risk for developmental delays or behavioral issues due to perinatal difficulties but who do not meet eligibility criteria for enrollment in High Risk Infant Follow-up, into the Help Me Grow Ages and Stages Developmental Monitoring Program. Help Me Grow will inform primary care physicians of	• At very early stage of pilot.

GOAL 2: Develop relationships among community partners that serve children, birth through five, and their families ensuring the effectiveness of the developmental/behavioral pathways system through networking, linkages, collaborative projects and incentives.		
Strategy	**Action Steps**	**Progress**
	families in their practice who enroll into the monitoring program.	
Strategy 3: Develop and sustain collaborative projects that promote relationships among community providers.	Develop and sustain collaborative projects that promote relationships among community providers.	• This has occurred through the Developmental Screening Pilot Project.
Strategy 4: Utilize incentives (e.g. policies, innovative financing, etc.) to facilitate and sustain relationship-promoting strategies.	Utilize incentives (e.g. policies, innovative financing, etc.) to facilitate and sustain relationship-promoting strategies.	• This is occurring through the OCMA-PDS project as well as the Developmental Screening Pilot.

GOAL 3: Leverage opportunities to effect systematic change in practices and service coordination.		
Strategy	**Action Steps**	**Progress**
Strategy 1: Build strategic alliances as existing and new opportunities emerge to improve the delivery of coordinated developmental and behavioral services.	Collaborate with County Health Care Agency to pursue funding opportunities through Proposition 63 and EPSDT that support the planning and implementation of developmental/behavioral services, with a particular emphasis on ensuring services for at-risk populations.	• The Mental Health Services Act (MHSA)—Proposition 63—approved the expansion of Parent Child Interaction Therapy (PCIT) in April of 2009. The Commission has worked closely with EPSDT providers to fund training and technical assistance to bring this best-practice children's therapeutic model to the county. This expansion will increase geographical offerings of this service as well as increase service capacity by 60 families per year.

GOAL 3: Leverage opportunities to effect systematic change in practices and service coordination.		
Strategy	**Action Steps**	**Progress**
		• The MHSA steering committee approved funding for the following early childhood behavioral health programs: o Postpartum Depression o Triple P o Group-based parent training programs o School Readiness Program • These future investments should improve support services to decrease preschool expulsion, reduce out of home placements and increase the resiliency of at-risk families so that children are healthy and ready to learn.
	Collaborate with California Children's Services (CCS) to ensure effective implementation in Orange County of their High Risk Infant Follow-up Quality Improvement Initiative to maximize the neurodevelopmental outcomes of California's high-risk infants by age three years.	• All infants born since January 2009, who meet the criteria, are being registered into the system. • EDAC is in the top 5 of programs across the state in number of infants registered. • EDAC staff remain active with the executive committee that meets quarterly, the HRIF Coordinators who conference monthly, and is now in the stakeholder group for California looking at the Title V needs assessment. •
Strategy 2: Implement developmental/behavioral screenings of children, birth through age 5, with community partners and in coordination with other state and national screening initiatives such as	Launch an American Academy of Pediatrics (AAP) pilot program to train and support primary care provider offices, health clinics, and child care facilities in South County to effectively screen 1600 children.	• Pilot program has been implemented and completed June 2009. AAP finished and submitted a report. • 1,900 children were screened in South County.
	Implement a physician incentive program, coordinated by CalOptima, to encourage primary care provider screenings of	• OCMA-PDS Project is underway and to date 85 physicians have participated and are receiving

GOAL 3: Leverage opportunities to effect systematic change in practices and service coordination.		
Strategy	**Action Steps**	**Progress**
the ABCD pilot.	children, birth through age 5, in Santa Ana and Anaheim. The pilot will include the development of internal capacity to train all participating provider offices through a "train-the-trainer" model.	follow-up Technical Assistance by HMG-OC.
	Implement a pilot through Help Me Grow to develop and coordinate an Ages and Stages Questionnaire monitoring program to support health care providers' screening efforts. Pilot will include, but not be limited to, the distribution of a screen tool, scoring and tracking of screenings over time, and providing results to individual families and health care providers.	• Part of Developmental Screening Pilot Project. • Pilot completed.
	Establish a group, convened by the Children and Families Commission, to coordinate primary care provider outreach and training activities by all participating pilots to prevent overlap in provider outreach and enrollment and manage future expansion of pilot initiatives.	• This was done through the Developmental Screening Pilot and is now occurring as needed. AAP and HMG-OC coordinate efforts to make sure there was not an overlap in the providers they were reaching and targeting.
Strategy 3: Ensure and sustain a trained and culturally competent workforce to support screening, assessment, and provision of needed intervention and treatment services.	Develop, in collaboration with Help Me Grow and AAP, a comprehensive and standardized training curriculum that will be used Countywide to train all participating ABCD pilot sites (pilots listed under Strategy 2) and other screening initiatives, with specific modules for medical providers, early education/child care providers and community-based organizations. ▪ Develop specific modules for medical providers, early	• This has occurred and continues to take place through the OCM-PDS project, the Developmental Screening Pilot and other programs, as needed. • HMG-OC has taken the lead on standardizing the tool and training content.

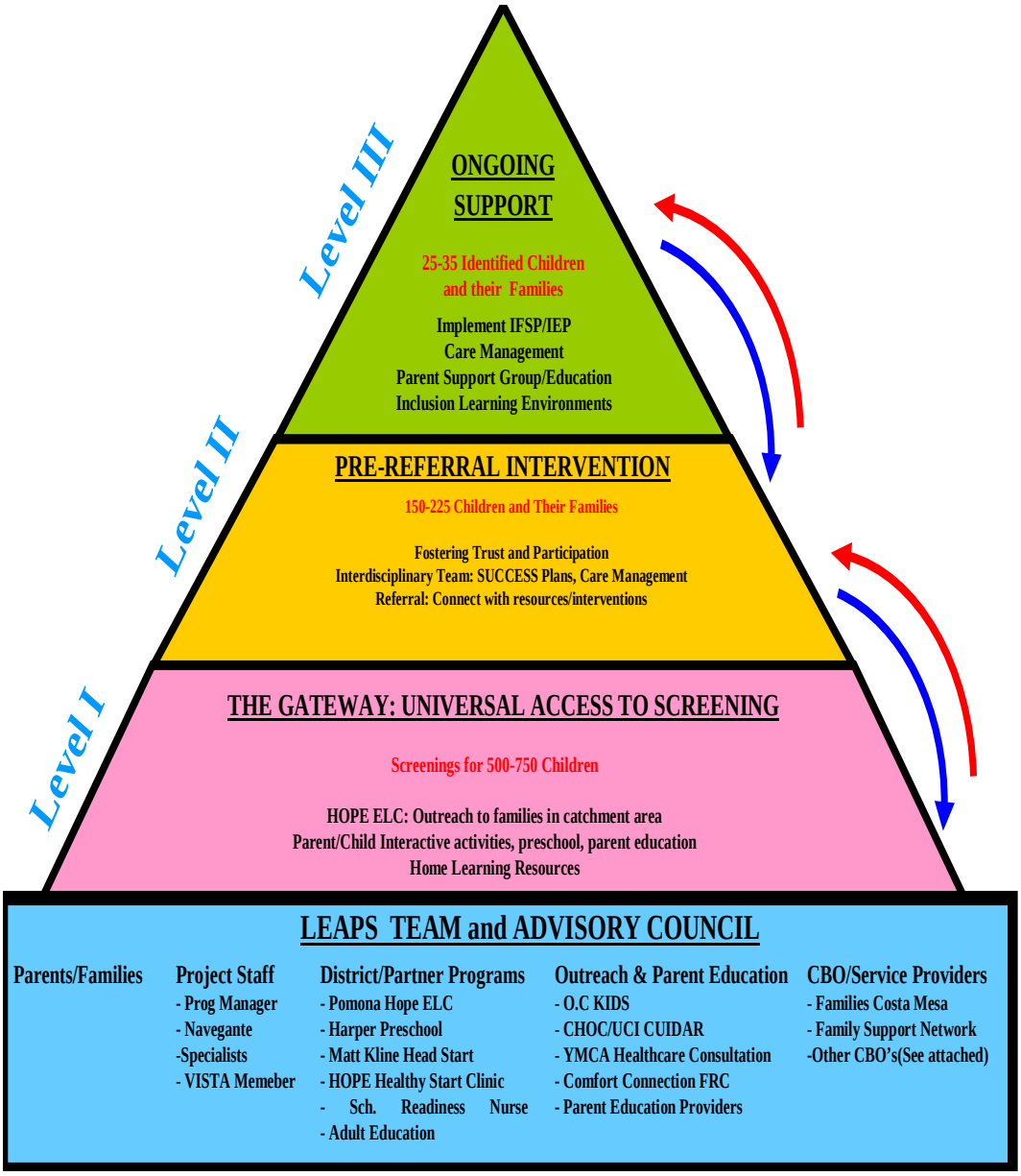
GOAL 3: Leverage opportunities to effect systematic change in practices and service coordination.		
Strategy	**Action Steps**	**Progress**
	education/child care providers and community-based organizations, including a "train-the-trainer" module to be used by pilot programs to train participating providers. ▪ Develop a surveillance, screening and resource referral algorithm, tailored for usage by medical and non-medical providers, to serve as a guide to the appropriate referral process.	
	Convene a multi-agency working group that would consult on the review and evaluation of existing training resources and best practices to support the adaptation of these materials for use in a training curriculum for early care educators and community-based service providers working with children and their families. The training would include information about key early childhood developmental issues, surveillance methods, and information about appropriate referral and screening resources. The working group would also assist in identifying the target population to be trained and explore opportunities for partnering with other institutions around training (e.g., Children's Home Society, resource and referral agencies, community colleges).	• Discussions have taken place. Next steps include a critical review and recommendations for moving forward.
Strategy 4: Support increased surveillance of children, birth through age 5, by early education and community-based service providers (e.g., WIC, social service agencies). Ensure providers have the	Support increased surveillance of children, birth through age 5, by early education and community-based service providers (e.g., WIC, social service agencies). Ensure providers have the tools and skills to recognize children who may be at risk of a developmental delay or behavioral issue and to provide the appropriate referrals.	• This is occurring through the SR Nurses, home visitor programs and through Connection Café. • Commission has started communication with WIC.

GOAL 3: Leverage opportunities to effect systematic change in practices and service coordination.		
Strategy	**Action Steps**	**Progress**
tools and skills to recognize children who may be at risk of a developmental delay or behavioral issue and to provide the appropriate referrals.		

GOAL 4: Raise public and professional awareness and understanding around optimizing early childhood development and encouraging the implementation of developmental/behavioral screening for all children.		
Strategy	**Action Steps**	**Progress**
Strategy 1: Launch a public awareness campaign aimed at Orange County families, providers and the general public.	Launch a public awareness campaign aimed at Orange County families, providers and the general public. The campaign would focus on the following key areas: ▪ Understanding of appropriate healthy child development/behavioral health; ▪ Need for recommended developmental/behavioral screenings for all children at milestone ages; and ▪ Role of Help Me Grow and the services it provides.	• This has been done through a few different venues/ initiatives: o The OC Social Services Agency in collaboration with Regional Center of OC, Family Support Network, Help Me Grow, OC Department of Ed. and the Commission developed a brochure to aid the Social Services Agency in meeting the Child Abuse Prevention and treatment Act (CAPTA) mandate of referring children who are 0 to 36 months and involved in substantiated cases of child abuse and neglect to Early Intervention Services (i.e. Regional Center). Community partners and service providers were brought to the table so that the brochure would promote developmental surveillance and screening for all young children in a family friendly language that does not focus on the identification of red flags, as well as provide information about early intervention services in Orange County. The brochure

GOAL 4: Raise public and professional awareness and understanding around optimizing early childhood development and encouraging the implementation of developmental/behavioral screening for all children.		
Strategy	**Action Steps**	**Progress**
		can be used by any Orange County agency that is willing to pay for its own printing costs. o This is occurring at the Pretend City Museum. o Through the Statewide Screening Collaborative, will have a campaign kick off in October, have developed website, op-ed pieces and news articles.
Strategy 2: Encourage all parent education programs to support families in promoting health childhood development.	Encourage all parent education programs to support families in promoting health childhood development. Parent education programs would provide culturally appropriate information on child developmental milestones and behavioral health; inform, motivate and activate parents to seek out developmental/behavioral screenings, and promote parents' active role in their child's development.	• This is happening at Pretend City Museum. • Have conducted a review of Commission-funded parent education program. • Reviewed the Triple P (parenting curriculum) with Mental Health Services Act staff to consider feasibility of implementing curriculum in Orange County. • AAP has developed parent information that links child's developmental milestones with potential dangers and injuries.

APPENDIX E: LEAPS Service Delivery Model



APPENDIX F: Developmental Pilot Project Logic Model

Goal: All children in Orange County will have a baseline screening at milestone age(s) with linkage to services				
Child Outcomes	**Inputs**	**Strategies/ Activities**	**Indicators**	**Potential Sources**
Increase the number of appropriate, high quality developmental screenings performed in practice	* Screening tools: * ASQ * PEDS * ASQ:SE (Social-emotional) * Parenting Stress Index (PSI) * Autism screen (M-CHAT) *Trained staff administer screenings * Parent Developmental Liaisons	* Train office staff to implement change in practice procedures and to assure completion of the screening tool in the practice * Children screened at 9, 18, and 24 months * Trained parent liaison is provided to support the parents completing the developmental tool in the physician office * Developmental screenings promoted at child care sites geographically linked to the practices and promote effective communication to medical homes	Number of children ages 0-3 screened as percentage of well-child visits	* Claims data * Medical chart review * Parent report

Goal: All children in Orange County will have a baseline screening at milestone age(s) with linkage to services				
Increase the number of age-appropriate referrals to sites that provide developmental services	* Screenings below cut-off score * Streamlined referral tools * Knowledge of community resources that treat developmental concerns	* Providers are trained on surveillance and screening process (e.g., what to do with screening tools once complete; if screening tool out of range, etc) * Relationships are established between clinics, pediatric practices, and community agencies so that there is awareness of community resources and established referral patterns * Process is created for streamlining referrals from pediatric practice or community clinics to external services (e.g., Regional Center, School Districts) * Providers link families to available OC systems to promote further treatment as appropriate for identified developmental concern * Children identified at risk are referred to external services, as appropriate * System is in place to encourage transparent information on referrals	Number and type of referrals as a percentage of the total number of children screened Programs document where no resources exist	* Medical chart * Parent report (e.g., PHDS)

Goal: All children in Orange County will have a baseline screening at milestone age(s) with linkage to services				
Increase the number of children ages 0-3 who receive developmental services and family supports	* MOUs in place for data sharing * Consent forms from families signed (if applicable) * Regional Centers, School Districts, Other agencies	* Office staff confirm that children are receiving services	Number of children treated for developmental concerns as percentage of total number of children referred	* Medical chart * Parent report * Billing/ encounter data * Report for developmental services agencies
Developmental screenings are routine at well-child visits in the pediatrician's office	* Standardized screening tools * Developmental processes protocols	* Standardized screening tool is adopted * Protocol is in place that indicates time frame for when children are screened (e.g., 9, 18, 24 months) * Surveillance process is implemented to ensure that children are getting developmental screenings	Children with identified risks have documented follow-up plan	* Medical chart * Parent report
Parents understand developmental milestones/ behaviors and ways to facilitate healthy development	* Parent Developmental Liaison * Educational materials for parents (e.g., Kid Builders)	* Develop and disseminate parent education materials about child development * Respond to parents' developmental concerns * Programs are culturally and linguistically responsive to families	Percent of parents who demonstrate an increased knowledge in their child's development	* Parent surveys

APPENDIX G: Example Data Collection Form

CLIENT INFORMATION

Date of Screening (mm/dd/yy):

Child's Name: Chart ID:

Child's DOB (mm/dd/yy):

Screening tool used:

☐ ASQ ☐ PEDS ☐ M-CHAT ☐ Clinical Observation (informal screening)

Age Interval:

☐ 9 months ☐ 18 months ☐ 30 months

☐ 12 months ☐ 24 months ☐ Other: _____

Result of screening:

☐ No concerns. No risk factors ☐ No concerns. Risk factors present ☐ Recommend for assessment

Risk Factors:

☐ None ☐ Behavioral ☐ Fine Motor ☐ Other: _____

☐ Communication ☐ Gross Motor ☐ Problem Solving

APPENDIX H: Example of Orange County's Universal Consent Form

[NAME OF AGENCY, ADDRESS & PHONE #]
CONSENT FOR USE, DISCLOSURE AND/OR RELEASE
OF PERSONAL AND HEALTH INFORMATION
Developmental Screening Program

YOUR INFORMATION:

LAST NAME	FIRST NAME	MIDDLE NAME	RELATIONSHIP TO CHILD

CHILD'S INFORMATION:

LAST NAME	FIRST NAME/MIDDLE INITIAL	DATE OF BIRTH	CHILD IDENTIFYING #
ADDRESS	CITY, STATE	ZIP CODE	PHONE NUMBER

I. PERSON OR AGENCY PROVIDING THE INFORMATION:

The persons or agency may release my child's personal, health, and/or education information: (The information to be released is described in Section II below.)

Agency/Name:
Address:
City, State, Zip Code:
Telephone No.:

II. INFORMATION THAT MAY BE RELEASED:

The persons or agencies marked in Section III below may view, copy, release and exchange the information or records marked below *(please check all that apply to your child's needs now and in the future)*. This information may be shared verbally, in writing, and/or by email or fax:

- ☐ Medical Information, including but not limited to operative, emergency, radiology, consultations, progress notes.
- ☐ Occupational/Physical Therapy Information
- ☐ Medication Information
- ☐ Educational Records
- ☐ Speech/Language Information
- ☐ Other Developmental Information
- ☐ Other:
- ☐ Other:

SPECIFIC AUTHORIZATIONS:

The following information will not be released unless you specifically authorize it by marking the relevant box(es) below:

☐ I specifically authorize the release of information pertaining to mental health diagnosis or treatment or psychological information (Welfare & Institutions Code, §§5328, et seq)

MY CHILD'S INFORMATION MAY BE USED TO:

1. Get more services for my child after the screening.
2. Fill the requirements so that my child may go to school.
3. Evaluate screening programs by the [NAME OF PROGRAM AND AGENCY.] and the Children and Families Commission of Orange County. I know that my child's name will not be released in any evaluation reports that may be made public.

III. INFORMATION MAY BE RELEASED TO THE FOLLOWING PERSONS OR AGENCY(IES):

(Referring Agency: If you check a box marked "other," please ensure that the position of agency contact and name of agency are specified**.)**

I know that the service team includes the persons and/or agencies marked below *(Please check all that apply to your child's needs now and in the future.)*:

Orange County Health Care Agency (including California Children Services and Behavioral Health)

- ☐ Nurse
- ☐ Physician
- ☐ Therapist
- ☐ Social Worker
- ☐ Psychologist
- ☐ Other:_____

Orange County Social Services Agency

- ☐ Social Worker
- ☐ Case Manager
- ☐ Other:_____

Regional Center of Orange County

- ☐ Service Coordinator
- ☐ Other:_____

☐ Primary Health Care Provider

☐ Other:

School District (specify:_____)

- ☐ Teacher
- ☐ School Psychologist
- ☐ School Counselor
- ☐ School Administrator
- ☐ Speech/Language Therapist
- ☐ Case Manager / Community Facilitator
- ☐ School Nurse
- ☐ Other:_____

Pediatric Health Services (CUIDAR, For OC Kids NDC, EDAC, Asthma/Chronic Lung, Metabolic)

- ☐ Nurse Practitioner
- ☐ Physician
- ☐ Social Worker
- ☐ Psychologist
- ☐ Family Support Worker
- ☐ Other:_____

CalOptima

- ☐ Insurance Enrollment Staff
- ☐ Other:_____

Help Me Grow

- ☐ Care Coordinators/Liaisons

☐ Other:

VOLUNTARY: I know that I do not have to sign this consent form. I can refuse to sign this consent form, and it will not affect the services my child gets from the [ORGINATING AGENCY].

LENGTH OF TIME: This consent will be valid from the date that I sign this form until _____(date). If no date is entered, the form will be valid for one year after the date that I sign the form.

WITHDRAWAL: I know that I can withdraw this consent at any time. To withdraw my consent, I must send a written note to the person or agency in Section I. The withdrawal will be valid as soon as the person or agency gets my note, but will not apply to information that has already been shared after I signed the consent form.

SHARING OF INFORMATION: I know that my child's information may be shared more than once by the persons and/or agency(ies) in Sections I and III. The information may no longer be protected by the Health Insurance Portability and Accountability Act of 1996 (HIPAA). It may still be protected by other State and Federal laws.

COPY: A copy of this consent form will be as good as the original. I know that I have a right to get a copy of this consent form if I ask for one.

Signature:	Date: