The Early Developmental Screening and Intervention (EDSI) Initiative

Goals and Accomplishments

1 April 2011

The Early Developmental Screening and Intervention (EDSI) Initiative designs, tests and spreads better ways of providing developmental care. EDSI works with primary care practices, early care and education settings and community systems to adopt evidence-based care and innovations that produce consistent, improved results for families.

Learn more about how EDSI works and our programs at www.edsila.org.
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The first five years of a child’s life shape their future learning, behavior and health. Respondent to concerns early is better for families and for service systems. Unfortunately, many developmental problems are not identified until children enter school. By this time, intervention is more costly and often less effective. These problems could be addressed earlier with better access to early childhood professionals and better communication between parents, doctors and child care providers. About one-third of parents have concerns about their young child’s development, but few parents are encouraged to share those concerns or receive timely, appropriate response when they do. Research shows that asking parents specific questions about their child’s development – in areas of language and communication, emotions, physical/motor skills, and behavior – identifies most developmental problems when early intervention is most effective. Developmental screening has great value as a launching point for better response to parents by doctors, child care programs and community organizations.

Yet there is a large gap between what we know and what our systems do. Despite frequent visits with a regular health care provider, as of 2007 only 14% of young California children received developmental screening. Change has been slow because there is no system of developmental care. Many different types of organizations and providers can play a role, but they are not organized in a way that parents and their providers can easily navigate. Doctors are often unaware of community resources or how to refer parents to them. Child care programs and preschools often feel ill-equipped to help parents with some behavioral and developmental concerns. As we learn more about how experiences shape early childhood development, providers recognize the impact of family issues such as maternal depression on young children’s development but have few options for referring families for support. Health care providers are concerned that routine developmental screening will open the floodgates of need and overwhelm their ability to respond.

In 2005, First 5 LA charged the Early Developmental Screening and Intervention (EDSI) initiative with designing, testing and identifying ways of spreading promising ways of implementing developmental screening in Los Angeles County. Reaching the First 5 LA strategic goal that young children are ready for kindergarten means narrowing the large gap between what works and what is actually done for families. Changing outcomes for a population of children requires a model for systems improvement that works at the scale of Los Angeles County.

**EDSI’s Approach to Improving Developmental Care for Young Children**

EDSI delivers improvements in developmental care, and then drives the sharing of these improvements, creating a ripple of change in the overall system of care. EDSI uses a proven model of improvement to help practices, programs and community systems make permanent changes in

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1 National studies show that up to 50% of children with delays and up to 70% of developmental problems are not identified until school entry (Glascoe FP, Dworkin PH. Obstacles to effective developmental surveillance: errors in clinical reasoning. *Journal of Developmental and Behavioral Pediatrics.* 14(5):344-9. 1993.).


3 California ranks 44th among states in developmental screening for children living in households with income below the federal poverty level (FPL).
developmental care. EDSI uses an approach to improvement that has achieved breakthrough results in many industries, sectors and systems. The Institute for Healthcare Improvement (IHI) uses this approach to discover how to make major inroads in healthcare gaps and disparities. This approach achieves dramatic results in patient safety, chronic care and health promotion. IHI uses this approach among its thousands of provider partners and experts to build the will for change, cultivate promising ways of improving care, and help health care systems put ideas into practice.

EDSI combines effective improvement strategies with a collaborative learning approach to help Los Angeles area providers discover and spread what works. This strategy means that EDSI’s impact is broader than what participating organizations achieve for their families. It is a system in Los Angeles County for identifying what works, for continuing to develop concepts and tools that can achieve even better and more reliable results, and for testing promising but unproven design ideas among leading practices and organizations. EDSI succeeds because it addresses the reasons that new professional recommendations in health care, and in early care and education, are so slow to spread among providers and reach so many families in need. EDSI is a local innovation process that reduces the time and cost of adoption. This means that improvements can spread more easily and quickly among the thousands of health care providers and early care and education providers who care for young children in Los Angeles County.

**Our Work with Physicians**

The American Academy of Pediatrics (AAP) issued recommendations in 2001 and 2006 in support of structured developmental screening as a regular part of well child care visits for young children. Despite these recommendations, rates of developmental screening have remained quite low. Moreover, a national demonstration project found that even leading practices that successfully incorporated screening into their practices did not effectively link children with services. This is because they did not have the office systems in place to respond effectively to the screening results. EDSI takes a systems approach so that providers adopt not just a single process but an effective approach to families that will lead to better outcomes for children.

**Primary Care Practices**

EDSI began working with primary care practices to improve developmental care. EDSI introduced evidence-based changes that work in primary care settings. The initiative includes pediatricians as well as family medicine physicians. Physicians and medical staff in primary care practices improve three related aspects of care: (1) Eliciting and addressing parents informational needs and

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promoting positive parent/child interactions; (2) Identifying children at risk through screening and conversations with parents; and (3) Linking families to community resources. EDSI introduced validated developmental screening tools, giving practices the option of parent questionnaires that work well in primary care settings. These include the Ages and Stages Questionnaire (ASQ) and the Parent Evaluation of Developmental Status (PEDS).

More than 100,000 Los Angeles County children age 0-5 have received improved developmental care since EDSI began in 2005. EDSI increased developmental screening rates among participating physician practices from less than 20% to over 85%. EDSI has worked with large groups of physicians in collaboratives held in 2007, 2008-09, and 2010. These countywide collaborative reached physicians throughout Los Angeles County (Attachment 1).

Exhibit 1 shows monthly improvements by practices in the 2010 Physician Collaborative. Physicians changed their office systems to improve their response to parent concerns, developed community resource lists, and increased follow-up and tracking of referrals to community programs. EDSI also improved the communication between primary care practices and important community resource programs. Physicians developed better communication and feedback processes with the Department of Mental Health and local Regional Centers/Early Start programs that serve children with developmental problems. This cross-agency systems change helped with long-standing barriers to care for young children in Los Angeles County.

Exhibit 1. Improvements in Developmental Care: 2010 EDSI/AAP Physician Collaborative

<table>
<thead>
<tr>
<th>Rate of developmental screening</th>
<th>Rate of maternal depression screening</th>
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<tbody>
<tr>
<td><img src="chart1.png" alt="Graph" /></td>
<td><img src="chart2.png" alt="Graph" /></td>
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<tr>
<td>At baseline, 11% of practices used a screening tool (ASQ or PEDS). The practices increased to 93%.</td>
<td>At baseline, 7% of practices screened for maternal depression. The practices increased to 54%.</td>
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<table>
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<tr>
<th>Rate of preventive services prompting system</th>
<th>Total office systems in place</th>
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<tr>
<td><img src="chart3.png" alt="Graph" /></td>
<td><img src="chart4.png" alt="Graph" /></td>
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<tr>
<td>At baseline, 7% practices used a comprehensive care prompting system. Practices increased to 77%.</td>
<td>At baseline, 2 of 16 evidence-based supportive office systems were in place, increasing to 11.</td>
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Beginning as early as 2005, EDSI focused on laying the groundwork for large-scale spread. It is challenging to spread best practice even in the face of strong evidence. Even well-respected professional organizations such as the American Academy of Pediatrics (AAP) often have limited success in encouraging practicing physicians to adopt new care processes. EDSI uses a tested approach to effective spread. It is well known that providers are more likely to adopt a different approach to care when it is advocated by trusted peers and organizations, and supported by coaching and tools that ease the transition from the old way to the new way. In this approach, successful sites serve as examples to their peers. Their ability to describe how the processes work and to demonstrate that care is easier to provide, or at least no more difficult, is essential. The EDSI model produced consistent positive results in all types of primary care practice settings: community clinics, solo physician practices, private medical group practices, and pediatrics and family residency programs. This is vital for effective spread.

Creating value for providers is the most important strategy to spread and sustain developmental screening. EDSI is one of the few programs – and the only program in California focused on children approved by the American Board of Pediatrics and the American Board of Family Medicine to offer continuing board certification credits for doctors. As of 2010, doctors must earn credits in quality improvement to remain licensed in their specialty of pediatrics or family medicine. EDSI offers physicians a major new incentive to learn quality improvement skills and show that they are improving developmental care in their own practices.

EDSI strives to build permanent capacity of local organizations to take on this important mission. EDSI partnered with the local AAP Southern California Chapter 2 (serving Los Angeles, Kern, Riverside; San Bernardino, San Luis Obispo, Santa Barbara and Ventura counties) and Chapter 4 (Orange County) to co-sponsor the 2010 EDSI/AAP physician learning collaborative. This multi-county effort strengthens reach to young children in Los Angeles County. EDSI is helping AAP chapter leaders learn the process improvement method, which is the first step toward building their own capacity to sponsor such improvement efforts among local physicians. The AAP chapter leaders also learned how to recruit providers and implement an effective improvement initiative for their members. This is creating permanent local capacity to improve not only developmental screening but also topics such as oral health and overweight.

Residency Training Programs

EDSI also worked with the “pipeline” of new pediatrics and family medicine physicians about to enter primary care practice in Los Angeles County. EDSI enabled six family medicine and pediatrics residency programs to teach new skills to physicians who are just entering the workforce in Los Angeles County. These three year residency training programs prepare medical school graduates to practice either family medicine or pediatrics. EDSI helped these programs introduce developmental screening and improved preventive care into their programs. At the same time, EDSI showed these programs how to teach process improvement to residents. This is important for residency programs because they face new quality improvement training competency requirements from their national accreditation board. EDSI enabled the residency programs to teach quality improvement skills to new primary care physicians, using preventive and developmental care as the focus area, while also building their capacity to teach these skills as well as process improvement skills.
EDSI reached many doctors who are just entering the Los Angeles County workforce. EDSI worked with residency programs that train 40% of new pediatricians and 19% of new family medicine physicians graduating from Los Angeles-based programs. As a result of this collaboration, the primary care physicians graduating from these programs are prepared to continue to offer quality developmental care to young children when they enter practice in Los Angeles County. Having improvement skills coupled with developmental knowledge is essential for these new physicians. EDSI worked with the leading residency programs in Los Angeles County. Many of their graduates take leadership positions in health care organizations, including managed health plans as well as community clinics and large medical groups. Most of these doctors will encounter limited use of screening and other developmental care processes in their new practice settings. Having the skills to change the office systems in these practices is an essential workforce strategy for improving care among the thousands of primary care physicians seeing young children in Los Angeles County.

Our Work with Early Care and Education (ECE) Programs

EDSI worked with center-based and family child care home programs to introduce developmental screening tools. ECE personnel need to be comfortable with having difficult conversations with parents about developmental concerns. The major focus was improving the discussion of developmental topics and screening results between providers and parents. ECE programs included center-based and family child care home settings and a mix of publicly funded sites and those that are privately-owned and operated. The ECE programs developed processes of using structured developmental screening tools regularly with all young children. EDSI introduced the same validated screening tools as physicians – the Ages and Stages Questionnaire (ASQ) or the Parent Evaluation of Developmental Status (PEDS). The ECE programs tested improved ways of having conversations with parents about developmental topics and about the results of screening.

EDSI collaborated with the Los Angeles County Office of Child Care quality rating system program (Steps to Excellence, or STEP) to design the improvement strategy and tools\(^7\). This collaboration introduced a continuous quality improvement approach to STEP. The goal was to create an effective, sustainable way that child care programs rated by STEP could increase their scores in areas of developmental screening and connecting parents with resources for families. The first EDSI ECE collaborative was countywide, including programs from communities in Los Angeles County. EDSI reached ECE programs throughout Los Angeles County (Attachment 2). A second collaborative included ECE programs from the Pacoima/Arleta communities. About half of the Pacoima/Arleta ECE settings were family child care homes in which the staff were exclusively Spanish speaking. A third collaborative was a partnership that linked directly with the Los Angeles County Office of Child Care, Steps to Excellence (STEP) pilot program operated by the City of Santa Monica.

EDSI’s collaboration with the Los Angeles Unified School District (LAUSD) led to adoption of a standardized developmental screening protocol across all LAUSD ECE sites, including the LAUSD

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\(^7\) The Steps to Excellence Project (STEP) is Los Angeles County’s quality rating and improvement system for licensed child care programs caring for children ages 0-5. STEP was developed by the Policy Roundtable for Child Care. It is administered by the Office of Child Care in the Service Integration Branch of the Los Angeles County Chief Executive Office. The STEP system is described at [http://ceo.lacounty.gov/ccp/step.htm](http://ceo.lacounty.gov/ccp/step.htm).
School Readiness Language Development Programs (SRLDP) and its use for LAUSD’s special education screening protocols. Overall EDSI reached over 350 early childhood teachers and 14,000 children throughout Los Angeles County. Permanent changes in LAUSD means that about 13,000 young children annually are being screened with the Ages and Stages Questionnaire (ASQ). Results are shared with parents, and other follow-up processes are now in place.

EDSI developed a community college course on communicating with families about development to sustain these goals. This course was piloted by Santa Monica College in 2010, reaching 35 community ECE providers and generating a waiting list of 85 individuals. Evaluations were very strong, leading Santa Monica College to plan a second offering in 2011.

**Our Work with Community Systems**

EDSI is pioneering improvement networks within communities. These networks of physicians, ECE programs and other organizations serving families are implementing cross-sector, community-wide approaches to organizing care for families. No formal systems currently link these providers together around common processes and outcomes. EDSI brought together key agencies in Los Angeles County including the Los Angeles Unified School District, the seven (7) Early Start and Regional Centers in Los Angeles County, the three largest Women, Infants and Children (WIC) programs, the Los Angeles County Department of Mental Health, and a number of regional agencies. This led to streamlined referral processes for physicians and ECE programs. EDSI worked with public and private agencies, in multiple sectors, throughout Los Angeles County (Attachment 3).

EDSI’s goal with the community systems approach was to improve how doctors, ECE programs and county and local agencies work together to improve access to effective services and supports for young children. EDSI worked to achieve this goal by:

- aligning improvement goals with current roles of diverse public and private agencies;
- encouraging innovation;
- increasing accountability and expectations for results;
- providing real-time data on current care for children in the community;
- making resources easier to understand and navigate; and
- supporting mutually reinforcing improvements across organizations so that providing care is easier and more streamlined.

Innovation within any complex system requires new methods and tools for collaboration. EDSI forged partnerships that created new pathways for professionals to collaborate across disciplines and professional silos. EDSI worked with two communities – Pacoima and the Magnolia Community Initiative in Metro Los Angeles – to create systems of developmental care, using proven methods of how organizations and large systems successfully make and sustain change. The goal was to test improvements in these communities that could be spread countywide. Physicians, ECE settings and other community organizations began working as a network to offer the services and supports that should be consistent for families. They measured monthly progress toward specific target goals, and test changes that can be sustained and brought to scale. Many early childhood providers are striving to improve the care that they provide within their own walls. EDSI focused on optimizing and balancing those activities to have a population impact.
EDSI introduced the Community Data Dashboard as a way to mobilize providers and residents to take effective actions that improve care and outcomes (see Exhibit 2). The Dashboard shows real-time measures, on a quarterly basis, to show how well the system of care is improving. Doctors, ECE programs and community agencies collect and contribute a small amount of data on a quarterly basis. The Dashboard shows providers, leaders and community residents how much progress is being made and what needs to be done to close the gap.

EDSI introduced the Early Development Instrument (EDI) as a school readiness measure that helps neighborhoods engage in collective actions that support all young children. This measure of developmental progress shows how many children in the community are vulnerable on a specific domain of development: communication and knowledge, physical health and well-being, language and cognition, social competence and emotional maturity. This provided a school readiness outcome that all providers could work toward. It also mapped the school readiness outcome across communities to show which neighborhoods are doing better, and less well, to help mobilize residents and parents toward change.

Exhibit 2. Community Data Dashboard: Supporting a System of Care
Our Work with Parents

The Women, Infants and Children (WIC) programs have regular contact with over half of young children in Los Angeles County. WIC also has regular contact and exchanges health information with primary care physicians caring for WIC participants. Cultural/linguistic competency and neighborhood locations of WIC centers offer an opportunity for feasible, sustainable ways to support parents in receiving better developmental care for their child. Although WIC programs do not have the responsibility or mission to conduct developmental screening for participants, WIC can promote parent activation and preparation. EDSI worked with local WIC programs to find acceptable, sustainable roles for WIC programs in promoting better developmental care and outcomes.

Building parent skills in discussing development

EDSI partnered with local WIC programs to teach parents how to talk to their child’s doctor about development. EDSI and WIC programs developed a curriculum for parents to help them prepare for doctor visits and make sure that their concerns are addressed. Parents learned that they are the best observers of their child’s development, that doctors rely on parents to understand how children are developing, and that parents should persist if their concerns are not fully addressed.

Since 2007, more than 500,000 families received this education, which became a permanent part of the local WIC programs. An evaluation showed modest gains in visit preparation, with a total of about 93,000 parents reporting that they now approached their child’s doctor visits differently. About 43% of parents who received the session used the parent handout to prepare for their child’s next week child visit. This curriculum was quite popular with WIC staff and participants.

Increasing parent activation

EDSI and the South Los Angeles Health Projects WIC program co-developed a pilot project to examine the feasibility of WIC staff using periodic eligibility recertification visits with parents to elicit their concerns. WIC programs have regular contact with families at the critical ages when concerns often arise and are not discussed between parents and their child’s doctor. The WIC program introduced a modified screening tool into recertification visits for parents with children ages 18-36 months. This is the age range when concerns about communication and behavior are most common and can be effectively addressed if caught early. WIC staff successfully added developmental questions to these visits to elicit concerns and reinforce messages about preparation and communication with the doctor. EDSI has continued to work with the WIC program to help WIC centers more easily connect parents with community programs that offer developmental supports, case management or parent empowerment support.

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8 The U.S. Department of Agriculture (USDA) Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program is a food and nutrition education program funded and administered by the USDA for pregnant, breastfeeding and postpartum women, infants, and children under the age of five with low income (up to 185% of the federal poverty level) and at nutritional risk. WIC is designed to influence lifetime nutrition and health behaviors of the women and children it serves. WIC provides food supplements and education/counseling during pregnancy, infancy and early childhood. The three largest WIC programs in Los Angeles County – operated by Public Health Foundation Enterprises, Inc. (PHFE), South Los Angeles Health Projects, and Northeast Valley Health Corporation – cover about 85% of all local WIC participants.
Sustaining Change through Policy

EDSI developed an organized systems change process that knitted efforts together, creating synergy without adding complexity. It leveraged other First 5 LA investments and public and private sector initiatives in Los Angeles County, helping them create better value through alignment and use of effective improvement processes. EDSI strengthened existing initiatives so that public and private organizations with the mandate to improve care would be more capable of doing so.

EDSI has focused on large-scale results that change systems of agencies as well as doctors and child care programs. Examples of systems change included co-developing tools with the Los Angeles County Office of Child Care Steps for Excellence (STEP) program and introducing an improvement process that helps ECE programs increase their quality ratings. In targeted communities, EDSI connected the Los Angeles Unified School District’s First 5 LA-funded Saturday Intervention and Prevention program with providers who were actively testing ways of improving their own care and seamless ways of connecting parents with resources. This strategy increased referrals to the Saturday Intervention and Prevention program and increased the capacity of referring providers to act on the advice provided to parents through the LAUSD program. EDSI has also supported an improvement process for the Los Angeles County Chief Executive Office (CEO) pilot integration initiative in the Magnolia Community Initiative catchment area.

Our Local and National Significance

EDSI’s place-based, cross-sector approach to improving community systems of care has been adopted by a national network of communities funded by WK Kellogg Foundation and supported by United Way Worldwide. The national Transforming Early Childhood Community Systems (TECCS) initiative uses this systems change approach in more than 15 states, cities and counties throughout the U.S. EDSI created tools, measures and maps of early childhood outcomes that communities across the nation are starting to use. Communities in Australia and Canada have begun to employ the tools and approaches that EDSI developed. EDSI’s impact has extended beyond a specific service. Primary care practices and ECE settings began using developmental screening as a means of engaging parents in their child’s health and development. The increasing role of local professional organizations such as the American Academy of Pediatrics Chapter 2 set the foundation for real sustainability of First 5 LA’s goals with EDSI. This partnership has opened the door to offering quality developmental care and to working more effectively with families on additional topics valued by First 5 LA such as nutrition, prevention of overweight/obesity, management of chronic conditions such as asthma, and promotion of child safety.
Acknowledgements

First 5 LA is a major partner and primary funder in EDSI’s innovative efforts to improve developmental care.

The UCLA Center for Healthier Children, Families & Communities promotes children’s lifelong health, development and well-being by creating and translating innovative ideas into optimal practice, systems and policies.

The Center for Health Care Quality is dedicated to improving the health of children by creating a structured approach to accelerate the integration of health systems research and bedside application.

Recommended Citation

The Early Developmental Screening and Intervention (EDSI) Initiative: Goals and Accomplishments. April 2011. UCLA Center for Healthier Children, Families and Communities: Los Angeles, CA.
Attachment 1 - Countywide Location of Physician Practices Reached by EDSI

Map shows location of participating physician primary care practices, by Supervisorial District in Los Angeles County.
Attachment 2 - Countywide Location of ECE Programs Reached by EDSI

Map shows location of participating child care and preschool programs, by Supervisorial District in Los Angeles County.
Map shows location of participating county and local agencies, by Supervisorial District in Los Angeles County. These agencies include the Los Angeles...