The positive economic effect of front-end early intervention services has been clearly demonstrated. Short-term and longitudinal data (even into young adulthood) demonstrate the value of the early childhood intervention focusing on family-centered, coordinated services that support parent-child relationships as the core element of intervention.<sup>1</sup>

#### Richard C. Adams, MD

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The Council on Children with Disabilities

# The Value of Early Childhood Intervention









For over 30 years, Early Childhood Intervention has helped over 800,000 Texas families learn how to be the best teachers for their children with developmental delays or disabilities.

ECI's evidence-based practice of helping families incorporate intervention strategies into daily routines:

- Increases children's rate of growth in key developmental areas.
- Multiplies the opportunities and effects of intervention.
- Increases the return on every dollar spent.

Discover how ECI can help the children and families in your community and healthcare practice.



# ECI uses evidence-based practices to help families

## 7 Key Principles of ECI<sup>2</sup>

The 7 Key Principles for providing early intervention services in natural environments were developed by the national Principles and Practices in Natural Environments Workgroup. This workgroup of subject matter experts and researchers in early intervention agreed that the 7 key principles are the foundations that support the mission of early intervention, which is to build upon and provide supports and resources to assist family members and caregivers to enhance children's learning and development through everyday learning opportunities.

#### **Principle 1**

Infants and toddlers learn best through everyday experiences and interactions with familiar people in familiar contexts.

#### **Principle 2**

All families, with the necessary supports and resources, can enhance their children's learning and development.

#### **Principle 3**

The primary role of a service provider in early intervention is to work with and support family members and caregivers in children's lives.

#### **Principle 4**

The early intervention process, from initial contacts through transition, must be dynamic and individualized to reflect the child's and family members' preferences, learning styles and cultural beliefs.

#### **Principle 5**

Individualized Family Service Plan (IFSP) outcomes must be functional and based on children's and families' needs and family-identified priorities.

#### **Principle 6**

The family's priorities, needs and interests are addressed most appropriately by a primary provider who represents and receives team and community support.

#### **Principle 7**

Interventions with young children and family members must be based on explicit principles, validated practices, best available research, and relevant laws and regulations.

## **Meet Luke Rehurek**



Rebecca and Jay Rehurek of Cedar Park, Texas had been to doctor after doctor trying to figure out why their one-year-old son Luke was experiencing speech delays, exhibiting unusual eating habits, and avoiding interacting or socializing with other kids. "I knew something was wrong, but I didn't have a clue what it could be," said Rebecca.

Rebecca became Luke's strongest advocate, and as she persisted in her efforts to find help for her son,

she was referred to Texas Early Childhood Intervention Services (ECI).

Luke's evaluation and assessment revealed that speech and occupational therapy from specialists in early childhood development could help. ECI professionals and family members identified goals for Luke and developed an Individualized Family Service Plan (IFSP) that would support Luke's family as they helped him develop. The IFSP also serves as the authorization for services. [Principles 3 and 5]

One of Luke's goals was to improve his speech and language. Luke's parents and ECI staff recognized that Luke loved trains. Together they developed strategies that incorporated trains in his everyday family routines to encourage him to become more vocal. Luke began creating stories with his train cars and identifying them by their letter and colors. He really enjoyed building his train set with the assistance of his older sister Kate. "We had a game plan, and it was exciting to see him progressing," said his dad Jay. [Principles 1, 3 and 7]

Jay and Rebecca were also very concerned about Luke's unusual eating habits and behaviors at mealtime. The family reported that visits to restaurants became unbearable, and the family began to feel confined, unable to do things together. Rebecca, unsure of what to do, shared her concerns with the ECI staff. "This is what was great about ECI. It was so easy to change our plan and add new goals. It was always about what was best for Luke," Rebecca recalled. [Principles 3 and 4]

Activities were developed and revised through joint planning, observation, action/practice, feedback and reflection at every visit. "They taught us to use things from around the home to help my child progress better," said Rebecca. [Principles 3 and 6]

Luke is a happy and rambunctious little boy who enjoys playing with his dog Lucy. He enjoys going to school and is academically ahead of his classmates. "Early intervention is absolutely everything. We are so grateful to ECI. I hate to think of where Luke would be if it hadn't been for ECI," said Rebecca. [Principles 2 and 3]

To hear more about Luke, please visit *hhs.texas.gov/eci* and view the video *About Texas ECI*.

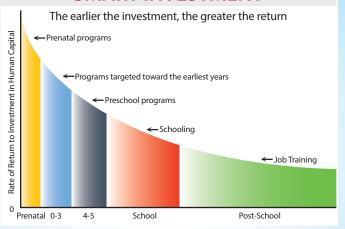
# ECI services increase the return on every dollar spent

**Do The Math**<sup>3</sup> — ECI plans services for infants and toddlers based on research which demonstrates that learning occurs between intervention sessions. During a session, the provider utilizes his/her professional knowledge, skills and expertise to share information with the child's regular caregiver. The caregiver then provides the intervention within the child's daily routines. Consider the following comparison for two children who have similar delays in speech and language development.

	Michael		Luke	
Day	Activity	Mins	Activity	Mins
M	Names pictures and reads book during speech therapy session	45	<ul> <li>Luke and parents work on speech strategies. Luke plays with trains. Discussion of last week's daily activities and progress/needs. ECI staff observes difficulties and provides feedback. Jointly plan to use trains for labeling, prompting, imitation, etc., to promote speech in daily activities. Mom demonstrates understanding by looking at train book with Luke and labeling objects around the train. Parents and ECI staff discuss other daily activities to incorporate these strategies.</li> <li>Mom labels foods and objects in grocery store with Luke</li> <li>Dad names colors of train toys and Luke's body parts during bath</li> </ul>	30 10
Т			Mom names foods at breakfast and Luke repeats	10
•			Mom and Luke sing songs in car to child care	15
			Class colors trains and teacher names colors with class repeating	15
			Older sister shares picture book, naming pictures together	15
			Dad names and gives pajama choices to Luke; Luke points to choice	5
W			Mom stops for train and they count the cars as train goes by	10
			• Teacher reads Things That Go and class repeats the sound each object makes, including trains	15
			Plays "card" game with sister and mom — cards are train-shaped	15
			Dad and Luke name food at dinner; Luke requests more	5
Т	Sings songs and labels	45	Mom and Luke play "find the bus, find a truck" while in car	10
	toys and actions		Teacher and class sing alphabet song and point to letters while singing	15
	during speech therapy		Luke names foods at dinner and Dad names new foods with Luke repeating	10
	session		• Luke and sister play with trains saying "ready, set, go" before passing it back and forth	15
F			Mom and Luke name food at breakfast	10
			Mom and Luke sing songs in car to child care	15
			Luke names clothes with Dad while undressing	5
			Luke "reads" train book to Dad and names pictures	15
Total time 90		90		300

## EARLY CHILDHOOD DEVELOPMENT IS A

## **SMART INVESTMENT**



"The highest rate of return in early childhood development comes from investing as early as possible, from birth through age five, in disadvantaged families. Starting at age three or four is too little too late, as it fails to recognize that skills beget skills in a complementary and dynamic way. Efforts should focus on the first years for the greatest efficiency and effectiveness."

James J. Heckman, Ph.D., Henry Schultz Distinguished Service Professor of Economics at the University of Chicago and Nobel Laureate in Economics

Studies found that children who participate in high-quality early intervention/early childhood development programs tend to have:

- · Less need for special education and other remedial work.
  - Greater language abilities.
  - Improved nutrition and health.
  - Experienced less child abuse and neglect.4

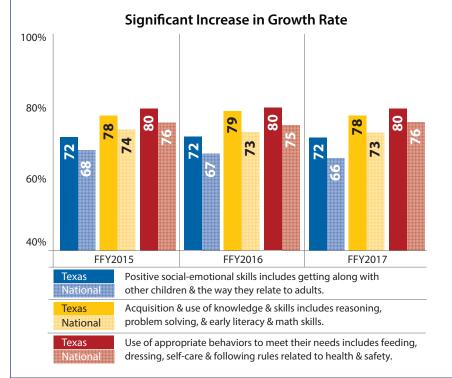
## **ROI** and ECI

Economic analysis demonstrates programs that intervene early to improve child outcomes have returns on investment (ROI) from \$2.50 to \$17.07 for every dollar spent on early intervention services.<sup>5</sup>

# Results show that early intervention works

#### **Texas Child Outcomes from ECI Services**

The Individuals with Disabilities Education Act (IDEA) Part C programs are required to collect data on child outcomes. This data is compiled and reported to the federal Office of Special Education Programs (OSEP). Children entering and exiting early intervention services are assigned a rating for functional skills on the three Global Child Outcomes that are listed below. These results show Texas children significantly increased their rate of growth in these key areas through their participation in ECI, and that Texas' child outcomes consistently exceed the national average.



"Our Health plan, as well as others across the State, enthusiastically endorses the ECI model as the only evidence-based and successful approach to assist children with disabilities or at risk for developmental delays. The richness and variety of services available, the coordination of care, targeted case management, training of family and caregivers to provide therapies, family support with social and behavioral counseling, and skills training is unique to ECI. It is the only model that teams with the family to develop and implement a customized program that promises the fastest and best response in the child's natural environments. We are forming strong coalitions with our ECI providers to promote and increase referrals so that these vulnerable children can be afforded the wealth of proven ECI services."

# William B. Brendel, MD, FAAP, CHCQM Driscoll Health Plan, Medical Director

## Making a referral to ECI

## Who can make a referral to ECI?

A parent, grandparent, family member, doctor, day care provider, anyone in the child's life.

## How do you make a referral to ECI?

- Call the HHS Office of the Ombudsman at 877-787-8999.
- Visit hhs.texas.gov/eci to find an ECI program in your area.

## National Early Intervention Longitudinal Study (NEILS) Special Education and Part C Programs

National longitudinal research on Part C programs tracked children with a developmental delay and found 46% did not need special education by the time they reached kindergarten as a result of early intervention services. Texas was part of the sample in the NEILS. Results of the NEILS indicate<sup>6</sup>:

- 36 percent had no disability, and were not receiving special education services.
- 10 percent were reported to have a disability, but were not receiving special education.
- 54 percent were receiving special education services.

## Brain development from birth to 3

- Neural circuits create the foundation for learning, behavior and health. These circuits are most flexible from birth to 3.
- High-quality early intervention services can change a child's developmental trajectory and improve outcomes for children, families, and communities.
- Intervention is likely to be more effective and less costly when it is provided earlier in life rather than later.
- Early social/emotional development provides the foundation upon which cognitive and language skills develop.<sup>7</sup>

#### Citations

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