

Paths to **OPPORTUNITY**

Wows, Worries, and Ways Forward from the 2017
LENA Early Language Conference



LENA[®]

Building brains through early talk

Our mission is to accelerate language development to improve the cognitive, social, and emotional health of children birth to five and close achievement gaps.

Our shared challenge: Closing achievement gaps by closing the talk gap.

During a child's first three years, its brain achieves 80% of the growth it will ever attain. Talk is the biggest single influence on development during this critical period. Children affected by poverty disproportionately suffer from low levels of early talk. LENA develops technology-enabled solutions that directly target this inequity by providing feedback to families and early childhood educators to help them close the talk gap before it starts.

For more detailed information on LENA solutions and on bringing LENA to your community, please see page 14.



LENA captures early talk with a small, child-safe recording device worn in comfortable clothing by a child for a full day. LENA then turns the recordings into data, delivered to families and educators in clear feedback reports, coupled with techniques and coaching to increase daily talk.

The “Paths to Opportunity” conference

In September 2017, LENA hosted a three-day conference in Beaver Creek, Colorado, titled “Paths to Opportunity: Combining Approaches to Boost Early Talk.” In many ways this was a follow-on to the 2015 LENA conference that observed the 20th anniversary of Hart & Risley’s seminal book, *Meaningful Differences*, which first documented the now-accepted truth that talk deficits in the first 36 months of life are the primary cause of gaps in cognitive development, school readiness, and prospects for success in life.

Both conferences brought together a diversity of researchers, practitioners, and funders to tear down silos and consider the problem from multiple perspectives. The 2015 conference produced a consensus that gradual progress toward solutions was being made, but that continuing that progress would require more collaboration, judicious use of technology, and focus on parents and caregivers. The 2017 conclave took the dialogue to another level. Reflecting progress and learnings from the intervening two years, LENA 2017 looked with greater specificity at the practical factors that impede or impel progress.



Five overall themes or trends dominated 2017 presentations and discussions:

- 1. Yes, it really is all about talk — interactive talk.**
- 2. Parents have superpowers.**
- 3. Early childhood educators have great power too — but with it comes great responsibility (ours).**
- 4. The how is just as important as the what.**
- 5. Potential partners on the paths.**

LENA 2017 clarified the multiple pathways that must all be traveled, albeit under different circumstances and perhaps at different speeds, to get everyone to the common destination of a promising future.

Five landmarks on the paths to opportunity

1 Yes, it really is all about talk — interactive talk.

With the growing popularization of the “talk gap” has come resistance by some critics in academia and journalism. They typically complain either that the message “talk more to kids” is too simplistic, that Hart & Risley drew overly general conclusions from a small sample, or — most recently — that the term “gap” engenders deficit thinking among educators that discourages them from expecting academic achievement from students in poverty.

Much content from the 2017 conference shows these concerns to be overblown. While it is certainly important to remember that talk is not a silver bullet or panacea (and Landmark #4, below, speaks to that point), most of these critiques spring from a misunderstanding of the research, which has become ever stronger and more varied in the two decades since *Meaningful Differences* was published.

Perhaps the first point to make clear, to critics and practitioners alike, is that interactive talk is what is most important. The “30 million word gap” (Hart & Risley’s estimate of how many fewer adult words a child in poverty has heard by age four compared to an affluent child) is a great attention-getter but can seem to imply that just talking non-stop to or at a child will magically build the brain.

In fact, conversational turns (also known as serve-and-return transactions) are the real causative factor in brain growth. As Pat Kuhl emphasized, language is inherently about conversation. “Talk is not a one-way street,” Kuhl observed, pointing out that even in infancy, kids play an active role in their communications with adults. Talk-oriented parenting interventions like LENA Start™ therefore emphasize turn-generating strategies such as “Following the child’s lead” and “Repeat what the child says and add words.”

But to some extent, even the simple message “talk more” tends to encourage conversations indirectly. Ariel Kalil’s research shows that as parents develop habits of talking more with their children, the quality of talk also improves. And parent talk itself is a two-way street. New research from the University of Colorado Boulder shows that adult language quality explains about 74% of the variance in language quantity.



And the fact remains that early talk is an amazingly strong predictor of future cognitive development. Jill Gilkerson from LENA delivered initial results of a follow-up study on families who participated in the 2006 statistical norming of LENA measurement of the early talk environment. The children measured 10 years ago are now 9-13 years old. Their current cognitive and language abilities were tested using standard assessment instruments, and were correlated to their language environments as infants and toddlers. Interestingly, the highest correlations were with numbers of conversational turns.

The message is plain: “Talk with your baby starting as early as you can, and the impact will persist well into the school years!”



2 Parents have superpowers.

A major theme of the 2015 conference was “parents are the secret sauce.” This year’s participants endorsed that view even more strongly. So, rather than working around or at cross purposes to parents, interventions should recognize the power parents have in their children’s development and use that power for good.

Ariel Kalil spoke out against the assumption that low SES parents, in particular, somehow are less attentive to their children. Most parents enjoy spending time with their kids and know what they need. The problem is more likely to be just fitting developmental activities into the busy, stressful days experienced by many working poor. So concrete help with the “how” is more important than lecturing parents about the “what.”

Economist Flávio Cunha echoed Kalil’s point and added the importance of beliefs. Since parents can’t “borrow resources from the increase in their kids’ future incomes” that developmental activities can produce, they must be convinced that allocating resources — mostly time and effort — will have an impact. It helps immeasurably if they can see some type of results in real time.

Brittany Moore Curtis and Anthony Davidson, reporting on different implementations using LENA feedback, reported that seeing reports of words and turns is motivational, especially in a social group environment, which can produce both friendly competition and mutual support.

Concerns that telling parents how much they actually talk could offend or demotivate them appear to be unfounded. Laura Camp reported that parents take objective feedback in stride, as long as it's presented in the right context: "You don't have to be bad to get better." Changing behaviors is hard work, but seeing results over days and weeks supports the effort needed. Providing tools, but leaving parents in control, delivers the benefits without belittling their abilities or dignity. "Become a choice architect," urged Kristy Stark, urging program designers to present parents with options and the information they need to make decisions appropriate to their situation.



We must guard against preconceived notions about early language that can produce negative outcomes. Anne Larson, presenting data from the development of the Háblame Bebé app, reported that one study showed pediatricians overwhelmingly advised Spanish-speaking new mothers to speak only English to their babies. In fact, research shows parental talk has a much stronger effect on brain development if the parent speaks the language in which he or she is most fluent.

A similar bias is often seen against "motherese," the simplified, "sing-songy" way most moms (and, often, dads) speak to infants. Parents are often urged to

use "grown-up" language with their babies, on the assumption that it's better for their development. To the contrary, Pat Kuhl presented research showing that babies' brains are pre-wired for "motherese," and it has a greater effect on their brains than standard speech.

Finally, we shouldn't assume it's all about moms (important as they are). Natasha Cabrera reported on research showing the unique contribution fathers can, and do, make to their children's development. Fathers who are involved before birth are still engaged during the first three years of the child's life even if they're not living with the mother. They contribute particularly by talking a lot while playing with their children. And while they tend to use more "regulatory language" (discipline-related) than moms, they also ask more open-ended questions. Kids who are close to their dads have fewer behavioral issues. Dads are somewhat less likely to sit down and read to their kids, but when they do, they actually have more impact on language development than moms doing the same thing!

3

But early childhood educators have great power, too — and with it comes great responsibility (ours).

Parents are not the only adults with great potential to build babies’ brains. Early childhood educators — particularly those in infant and toddler rooms — play a key, but often underappreciated, role. Many kids birth-3 spend as much as 60% of their waking hours in childcare, so the talk environment in the classroom is very important.

Unfortunately, society does not reward infant/toddler educators in proportion to their importance. By one estimate, workers with these age groups earn about the same as parking-lot attendants. It is increasingly difficult to recruit qualified educators, and partly as a result, Dianne Haulcy observed, as many as 75% of parents in some cities lack access to center-based childcare. More than 25% of children in childcare are in home-based or family childcare settings (FCC), but FCC providers are also under pressure, due to increasing regulatory demands.

Even when available, childcare may not foster talk as much as desired. Anne Larson reported on her research that the amount of talk occurring in childcare is generally lower than at home – even when compared to low-SES households that often experience lower than average talk. So the need for improvement in ECE may actually be greater than in the home.

Ironically, increased emphasis on academic standards in pre-K and kindergarten may be impeding early talk. Pam Phelps pointed to research — which aligns with her extensive experience working with preschools – that shows decreases in time for play and conversation. Recent research by the Ohio State University shows that while tested skills such as letter identification have improved among kids entering first grade, the socioeconomic gap is widening when it comes to actually reading text.

“Kindergarten is the new first grade,” commented one of the researchers involved, but that is not necessarily working out for the best. Given Pat Kuhl’s comments that the circuits for deep reading and conversation have to be built in the early years, it may be proving counterproductive to shift more and more time from language interaction to drilling on skills. At the very least it is even more important to build language abilities during the birth-3 years before (as of right now) the emphasis on academic standards takes hold. Yet the needed support is generally not appearing. “Early childhood is the holding tank till they get to the testing years,” said Chris Sciarino.

The consensus was that infant and toddler educators need more help — better pay, more professional development, more tools to help them make the best use of the time during which they are caring for kids whose brains are growing faster than they ever will again. As Sciarino concluded, “We need to provide more user-centered solutions that support and motivate rather than require and demand.”



4

The how is just as important as the what.

So with all the research about early talk, and years of experience with programs designed to increase it, what stands in the way of closing the gaps completely and permanently? The conference panel on research concluded that we know what to do but have a scaling problem. Scott McConnell observed there are actually too many interventions competing for attention and resources. “Birth to 3 is an ungodly mess” was his summary. Sometimes requirements set by funders or government agencies for statistical proof based on randomized control trials (RCTs) are so rigid they get in the way of delivering useful help.

Several presenters urged more emphasis on taking the point of view of parents and caregivers. Judy Montgomery put it this way: “Roadblocks occur when gatekeepers think in terms of working ‘on’ rather than ‘with’ the people who need help.” Partly as a result, recruitment and retention remain huge problems. Kalil pointed out that even programs with proven positive results often experience dropout rates of 30-50%. Some of this dropoff is reaction to one-size-fits-all approaches. As Cunha declared, the statistics correlating issues with talk and other developmental factors are only statistics: they are not true of all low-income families.



So it is increasingly important to connect specific problems with solutions and make clear choices available to the people we want to serve. It’s also important to know what we expect from a given solution and how to measure whether it’s meeting those expectations. “Our investments aren’t aligned with our intentions,” commented Kelly Kulsrud. A broad-based but low-touch program can’t be expected to produce large effects. To measure programs’ success, we need to be sure we’re measuring impact (early language development, parent reading, caregiver self-efficacy) and not just implementation (number of books or kits distributed, parent recall of messages).

In keeping with growing emphasis in the field on layering, sequencing, and adapting interventions, many presenters advocated starting with communications — with the people involved, and among the providers. Richard Garcia put it best, from years of experience: “If you want to help families, listen to what they need. . . parent leaders are the secret.” Dianne Haulcy made a similar point about early childhood educators — if we want to keep more of them in the field, we need to know what they’re looking for. But horizontal communication is also vital. As one presenter put it, identifying grass-roots solutions doesn’t help if the “grass tops” don’t talk to each other.

Combining resources can make the whole greater than the parts. Sally Fuller advocated creating a “community map” of resources and what benefits they provide to what populations. Participants in the panel on citywide implementation advanced promising examples of cities coordinating existing resources and publicizing them to those who need them. Cunha and other researchers emphasized that combining solutions, based on data, can have a multiplier effect.

5

Potential partners on the paths.

The good news is that, more than 20 years after Hart and Risley published their groundbreaking research on early talk, the importance of language birth-3 has become widely accepted beyond just the research and education communities. Community partners in implementation are easier to come by and more motivated than ever. Charlie Greenwood recommended two such types of organizations: the faith-based community and Hispanic groups such as Hispanic Chambers of Commerce.

One widespread type of organization increasingly involved in early childhood solutions is public libraries. Both Beth Crist of the Colorado State Library and Emily Samose of the Urban Libraries Council spoke of their organizations' commitment to supporting parents and childcare providers in early literacy. For parents particularly, the local library is often a trusted and convenient source of services. An example is the LENA Start parent-group intervention — three of the 16 implementations so far nationwide have involved library systems.

Support can also come from a group with a vested interest in the future of its community: local businesses. Improving early childhood education makes sense to enlightened companies. Flávio Cunha's analysis makes the dollars-and-cents argument employers understand: the demand for skills is growing today at the same rate it did throughout the 20th century, but the supply of skills has been growing at a slower and slower rate for the past 40 years. If the supply of skilled labor decreases to the point where productivity stops growing, GDP stops growing too — and everyone suffers stagnation and reduced opportunity.



But businesses have another, even more urgent reason to support early childhood development: because many of their employees are young parents themselves. Laura Camp of "Talk to Me," the Cherokee County (South Carolina) early language program, reports that the local Wal-Mart has expressed interest in adopting their LENA Start parent-group program for their employees. Corrie Norrbom from Wausau, Wisconsin, has found local businesses taking leadership in adopting LENA Start for Marathon County, for both economic and employee retention reasons. And the list goes on.

Ultimately, our children are the future of the economy and of society. This is why we are all in this work, and why it resonates with an increasingly wide network of people and organizations. As word of the problem gets out, so too we need to get the word out about the proven paths forward, getting more people involved in being part of the solution.

Conference Agenda

To see the complete 2017 conference program, please visit www.LENA.org/conference.

Tuesday, September 12

Time	Activity
2:00 pm - 7:00 pm	Registration
5:20 pm - 5:30 pm	Welcoming Remarks
5:30 pm - 6:00 pm	Patricia Kuhl: "Early Language Input: The Key Factor in Language Growth and Brain Development"
6:00 pm - 7:00 pm	Oktoberfest Welcome Reception Featuring Invited Posters

Wednesday, September 13

7:30 am - 9:00 am	Breakfast	
9:00 am - 9:20 am	Opening Remarks	
9:20 am - 10:00 am	Ariel Kalil: "Paths to Opportunity: Improving Parental Engagement and Children's Early Learning"	
10:00 am - 10:30 am	Break	
10:30 am - Noon	Morning Breakouts	Families: Strengthening Parents and Caregivers
		Childcare: Empowering the Educator
		Research: Putting Learning into Action
Noon - 1:00 pm	Lunch	
1:00 pm - 1:30 pm	Jill Gilkerson: "10 Years Later: Predicting Longitudinal Outcomes from LENA Measures"	
1:30 pm - 2:30 pm	Panel: "Blending Perspectives: Implementer Insights"	
2:30 pm - 2:45 pm	<i>Making a Difference Award</i> in memory of Terry Paul	
2:45 pm - 3:15 pm	Break	
3:15 pm - 4:15 pm	Pathfinding Workshops	Natasha Cabrera and Ruti Levtoy: "The Father Factor"
		Tara Jahn: "Human-Centered Program Design"
4:30 pm - 5:45 pm	LENA Sparks! Talks	
6:00 pm - 7:00 pm	Reception	

Thursday, September 14

7:00 am - 8:30 am	Breakfast	
8:30 am - 9:15 am	Flávio Cunha: "Paying it Forward: The Economics of Closing Opportunity Gaps"	
9:15 am - 10:15 am	Panel: "It Takes More than a Village: Scaling to Sustainable Citywide Implementations"	
10:30 am - 11:25 am	Interactive session: "Clearing the Traffic Jams: Solving Challenges in Our Work"	
11:25 am - 11:50 am	A Conversation with Richard Garcia	
11:50 am - Noon	Closing Remarks	

Conference Presenters

Anne Larson, Utah State University

Anthony Davison, School Readiness
Department, Hunstville City Schools

Ariel Kalil, University of Chicago

Beth Crist, Colorado State Library

Brittany Moore Curtis, Kids Klub Learning
Center

Carly Roberts, Overdeck Family
Foundation

Chris Sciarrino, Early Learning Lab

Cindy Decker, CAP Tulsa

Connie Beecher, Iowa State University

Dianne Haulcy, Think Small

Emily Bustos, Denver's Early Childhood
Council

Emily Samose, Urban Libraries Council

Flávio Cunha, Rice University

Jason Yaun, University of Tennessee Health
Science Center

Jennifer Calderon, Providence Talks

Jess Simmons, LENA

Jill Gilkerson, LENA

Justin Milner, Pay for Success

Kelly Kulsrud, Lectio

Kristy Stark, Harvard University

Laura Camp, Cherokee County School
District

Ljubica Ilic-Downing, University of Dayton

Melissa Baralt, Háblame Bebé

Mike Baum, LENA

Natasha Cabrera, Family Involvement
Laboratory, University of Maryland

Patricia Kuhl, I-LABS, University of
Washington

Richard Garcia, Colorado Statewide Parent
Coalition

Robin Lamott Sparks, Coalition for New
Britain's Youth

Ruti Levtoy, Promundo

Scott McConnell, University of Minnesota

Sheetal Singh, Early Learning Lab

Stephen Hannon, LENA

Tara Jahn, Createdu

Tonja Rucker, National League of Cities

Traci Martin, LENA

Yolie Flores, Campaign for Grade-Level
Reading

Poster Presentations

Bridging the Word Gap Research Network (BWGRN)

Judith J. Carta, PhD¹, Dale Walker, PhD¹, **Charles R. Greenwood, PhD¹**, Alana G. Schnitz, PhD¹,
The Leadership Team¹ ¹*Juniper Gardens Children's Project, University of Kansas*

Closing the Achievement Gap Through Parent Education and Quantitative Linguistic Feedback: The Use of LENA Start™ to Improve the Home Linguistic Environment and Parental Knowledge of Child Development

Craig K. Van Pay, MS¹, Constance Beecher, PhD¹ ¹*School of Education, Iowa State University*

Enhancing Early Intervention Children's Communication with their Depressed Mothers: Using LENA at the Crossroads of Early Intervention and Maternal Depression

Marcia Mandel, PhD¹, Anne C. Wheeler, PhD², Maureen J. Baker, MSN, RN³, Doré LaForett, PhD⁴,
Maria Martinez, PhD³, Yui Matsuda, PhD⁵, Samantha Meltzer-Brody, MD⁶, Casey Okoniewski,
PhD², Rebecca Salomon, MSN, RN, PMHNP-BC³, Julee Wa Idrop, DNP³, Linda Beeber, PhD³

¹*Durham Children's Developmental Services Agency/Early Intervention Branch/Division of Public Health/North Carolina Department of Health and Human Services*, ²*RTI International*, ³*University of North Carolina at Chapel Hill School of Nursing*, ⁴*Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill*, ⁵*University of Miami School of Nursing and Health Studies*, ⁶*University of North Carolina at Chapel Hill School of Medicine*

Grow With Me: An Infant Toddler Quality Initiative Using LENA and CLASS Assessments that Folds in Coaching and Professional Development to Connect the Dots

Vicki Nall Pugh¹ ¹*Early Learning Coalition Escambia*

LENA Start Parents Show Increases in Parenting Domains Beyond those Measured by LENA

Jill Gilkerson, PhD¹, Rosemary Russo, MA¹ ¹*LENA Research Foundation*

Look Who is Talking: Understanding the Linguistic Environments of Family Child Care Homes

Rihana S. Mason, PhD¹, Gary E. Bingham, PhD¹, Nicole Venuto¹, Nicole Patton-Terry, PhD¹ ¹*Urban Child Study Center, Georgia State University*

Poster Presentations

Maternal Involvement as a Predictor of Early Infant Conversational Turns in the Neonatal Intensive Care Unit (NICU)

Megumi Mori, BA¹, Alicia Hersey, BA², Richard Tucker, BA³, Betty R. Vohr, MD³, **Elisabeth C. McGowan, MD³** ¹*Brown University*, ²*Warren Alpert Medical School*, ³*Women & Infants Hospital (WIH), Providence, RI*

Ready4K: An Evidence-Based Text Messaging Intervention for Increasing Parental Engagement and Improving Child Outcomes

Benjamin N. York, PhD¹ ¹*ParentPowered Public Benefit Corporation*

The Relationship between Quality and Quantity in Parental Language Input to Deaf or Hard-of-Hearing Children

Jeffrey A. Coady, PhD¹, Mallene Wiggins, PhD, CCC-SLP¹, Allison L. Sedey, PhD, CCC-SLP, CCC-A¹, Christine Yoshinaga-Itano, PhD, CCC-A¹ ¹*Institute of Cognitive Sciences, University of Colorado-Boulder*

Starting with Start: Building a Broad and Sustainable Infrastructure for Research and Intervention in Early Language Development

Scott R. McConnell, PhD¹, Erin Lease, MA¹ ¹*University of Minnesota*

Talk To Teach — Providence Talks & Brown University's Early Evaluation Findings

Kevin D. Slattery, MPA¹, Megan Boben, MA² ¹*Providence Talks*, ²*Brown University*

Texas Children's Hospital upWORDS: Baby — More Than Just Words

Cary Cain, MPH, RN^{1,2}, **Maura Dugan, MA, CCC-SLP³**, Christopher Greeley, MD, MS¹, Kimberly K. Lopez, DrPH¹ ¹*Baylor College of Medicine*, ²*The University of Texas Health Science Center at Houston*, ³*Texas Children's Hospital*

About the LENA Solutions

The LENA System™ is available in three solutions tailored to fit the settings that have the greatest impact on children's lives: parenting education, early childcare, and home visitation.



Parent-group classes to strengthen your community.

- Supports scalable, community-wide outreach by serving groups of parents who have children aged birth to 30 months, up to 20 families per group.
- The curriculum quickly and clearly teaches parents how to build babies' brains through early language, and practical Talking Tips™ and shared book reading transform participants' home environments.
- Easy to implement: full content for 13 sessions included, in Spanish and English.



Professional development for early childhood educators.

- Provides educators regular feedback on talk in their classrooms; plus, short coaching sessions help them increase interactions and build language.
- Reports show progress from recording to recording and provide a unique view into the room audio environment, indicating if and when noise may be interfering with learning.
- Technical assistance, implementation support, and coaching resources included.

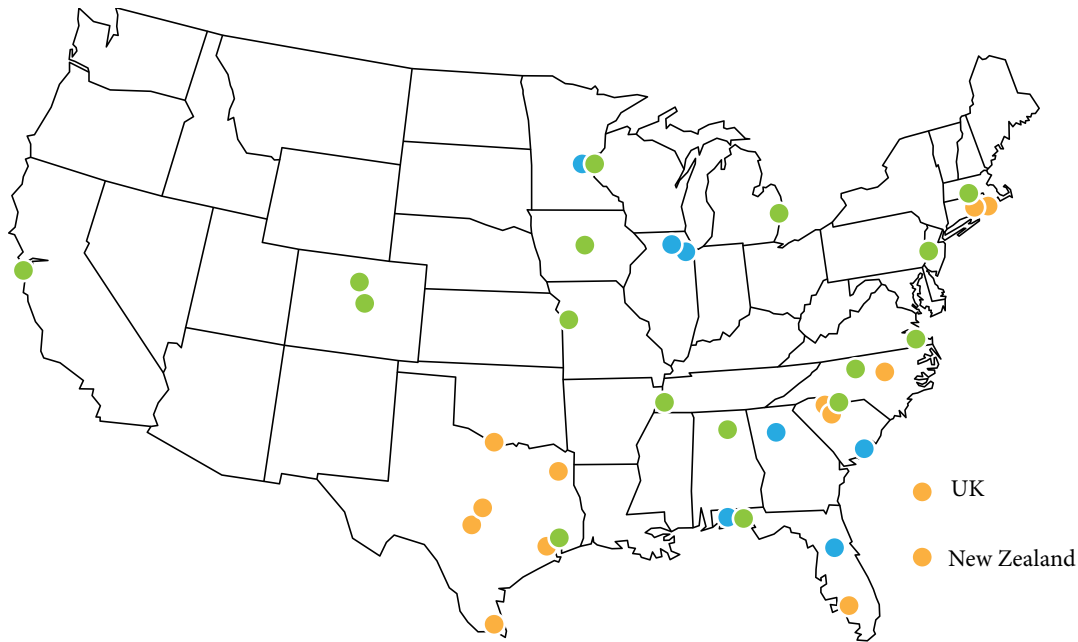


Early-language focus for any home-visiting program.

- Supports home visitors focused on increasing interactive talk in the home.
- A menu of coaching topics and a flexible schedule of recordings (weekly or every other week) integrate with any parenting curriculum.
- Resources guide using LENA with parents; video vignettes and print materials provided.
- Software configuration, technical training, and one year of technical assistance included.

Programs designed to scale:

Where we're working in 2017.



LENA Start



LENA Grow



LENA Home

- In 2015, its first year of rollout, **LENA Start** was implemented in two locations. By the end of 2017, LENA Start will be serving families in 16 cities nationwide in partnership with hospitals, school districts, libraries, and other service organizations.
- **LENA Grow** piloted in late 2016 with the Early Learning Coalition of Escambia County at childcare centers in Pensacola. By the end of this year, it will be providing professional development to early childhood educators in six cities.
- **LENA Home** was developed through two years of piloting and testing with the Providence Talks program. At year's end, home visitors will be using LENA Home with families at 15 sites nationwide.

Partnering with LENA can move the needle on the achievement gap in your community. Learn more by contacting us at [866-503-9918](tel:866-503-9918) or by visiting LENA.org.