



PILOT FINDINGS & NEXT STEPS

# PROVIDENCE TALKS



## Mission Statement

Providence Talks proposes to do something never before attempted at the municipal level: to intervene at a critically early age, from birth to age three, to close the 30 million word gap at a city-wide scale and ensure that every child in Providence enters a kindergarten classroom ready to achieve at extraordinary levels.

“Providence is ready to become a model for other cities and nations in prioritizing the education and achievement of children and their families. As the grand-prize winners of Bloomberg Philanthropies’ Mayors Challenge, Providence is pioneering ways to close the word gap on a citywide scale and help all our children be better prepared to realize their full potential.”

- Mayor Jorge O. Elorza

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## Section 1: Introduction

In 1995, researchers Betty Hart and Todd Risley discovered a startling correlation between a family's income and their household language environment: low-income children heard less than one third as many words per hour as high-income children, an astonishing 30 million words by age 3. Their follow-up research indicated that children's vocabulary at age three has a profound impact on their literary proficiency and academic success throughout school and into adulthood. The discovery of this word gap (identified as the "early catastrophe" by Hart and Risley) in the context of a persistent, nationwide achievement gap in educational outcomes has long frustrated policymakers and early childhood interventionists.

The City of Providence is no exception to the problem of the achievement gap – approximately two-thirds of prospective kindergarteners will arrive on their first day of school behind on national academic benchmarks. These disheartening outcomes continue as only 52% of fourth grade students in Providence read at grade-level proficiency.<sup>1</sup>

In an effort to remedy this issue at a citywide scale, the City of Providence launched Providence Talks, an innovative initiative working to close the word gap. Providence Talks combines a new technology capable of measuring language environments with a comprehensive coaching curriculum for parents. This model supports parents in improving the language environments of their children, at the time when brain development science indicates that language development is most critical,<sup>2</sup> with a goal of ultimately preparing them for academic success in kindergarten and beyond. The concept was the grand prize winner in Bloomberg Philanthropies' 2013

Mayors Challenge, a competition to generate innovative ideas that solve major challenges and improve city life –and have the potential to spread to cities worldwide.

To date, Providence Talks has completed a pilot phase, serving 170 families by leveraging existing home visiting programs of three high-quality nonprofit organizations (Children's Friend, Family Service of Rhode Island, and Meeting Street). Preliminary pilot results demonstrate gains in key metrics predictive of a child's academic success. All families completing at least 30% of the program improved their average daily adult word counts, with the most significant gains occurring for those with the lowest starting counts. Thanks to the efforts of these families and our nonprofit partners, Providence Talks is making important strides in improving the language environments of Providence's children. Providence Talks will continue to refine and scale up the program using new models to benefit even more families.

The purpose of this report is to update the community on lessons learned from the Providence Talks pilot and the plans for moving the program forward as Providence Talks builds a model that has promising implications for at-risk children nationwide.



<sup>1</sup> PPSD Office of Research, Planning and Accountability, 2011 as cited by the Providence Children and Youth Cabinet in their report: "Education Providence- Action for Change, Baseline Report October 2012"

<sup>2</sup> Thirty Million Words "Building a Child's Brain" by Dana Suskind, MD: ISBN 978-0525-95487-3

## Section 2: The Providence Talks Model

The Providence Talks model is built upon a foundational belief that all parents have the ability to improve their children's futures with the right tools and support. Providence Talks combines innovative technology that measures language environments with a high-quality curriculum and coaching to help children within the City of Providence reach their full potential.

**Innovative Technology:** Small, wearable recording devices, or "word pedometers," record up to sixteen hours of what a child hears in the course of a day. Software automatically analyzes the recording and counts the number of words, interactions (called conversational turns), and media exposure. The recording, which is never listened to, is then securely deleted. A feedback report on the day is generated based on the data from the analysis, which enables families to measure their progress over time. This technology was developed by the Colorado-based LENA Research Foundation.

### **High-Quality Curriculum & Coaching:**

The Providence Talks curriculum trains families on how to improve their homes' language environments by increasing both the number and quality of adult words and the level of interaction between children and their caregivers. It is aligned to Rhode Island's Early Learning and Development Standards and focuses on integrating skill development within the context of family's existing daily routines. By tailoring coaching and delivery of the curriculum to the individual needs and perspectives of each family, Providence Talks can help to ensure the success of all participants.

Each session of the Providence Talks curriculum is composed of several elements to ensure quality and effective delivery of education to the parent/caregiver regarding literacy and language promotion strategies.

### **These include:**

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"Meeting Street is proud to be one of the first partners to Providence Talks. This program provides accessible and relevant opportunities that empower families to impact their child's future academic success. Parents are a child's first and most important teacher. Meeting Street is pleased to be a partner of this tremendous program."

- John Kelly, Executive Director,  
Meeting Street

**1 Data Co-Discovery:** Coaches talk with the family about the feedback report generated from the most recent recording, demonstrating the daily and hourly count of words, conversational turns, and media exposure.

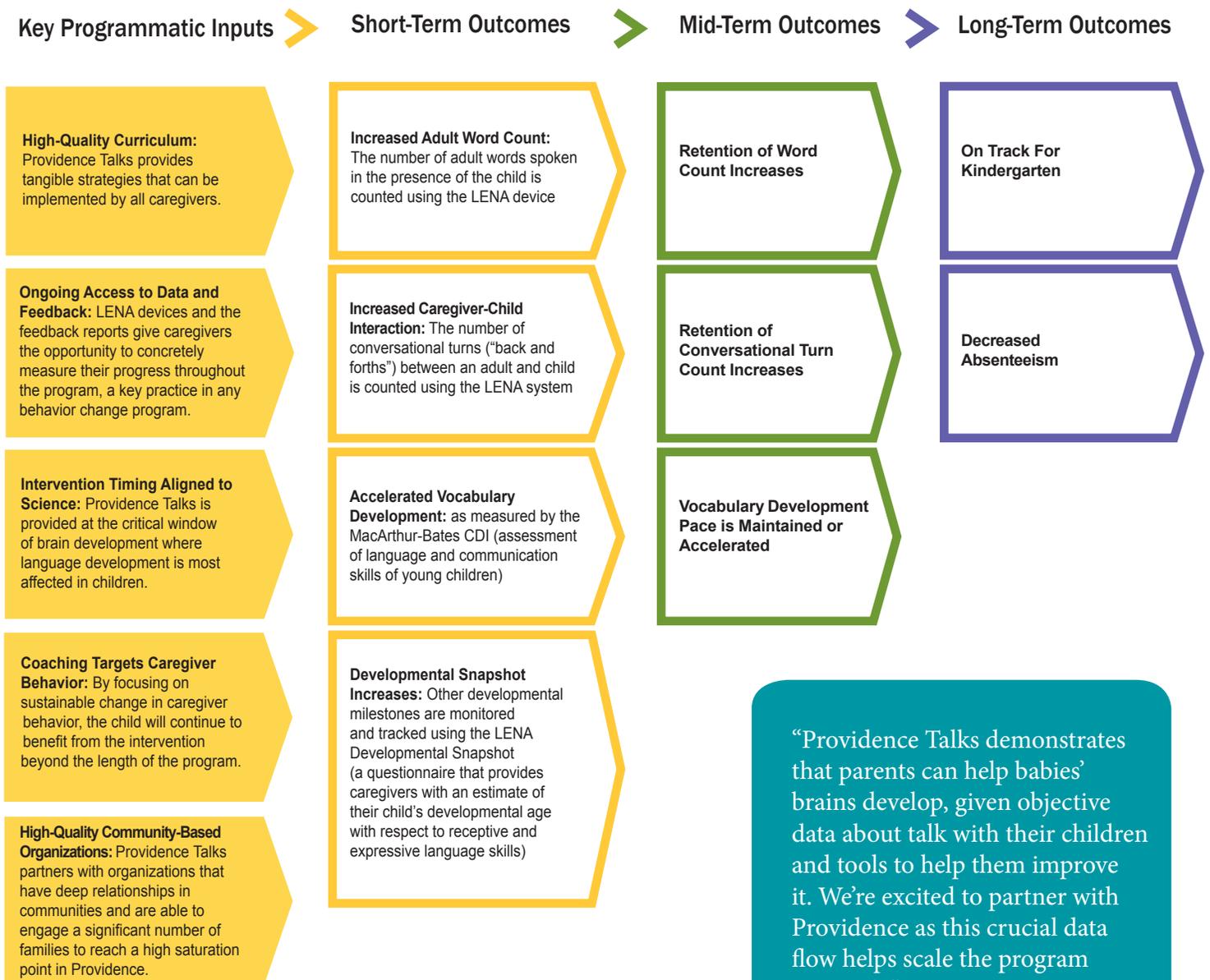
**2 Strategy Coaching:** After reviewing the report, coaches talk to caretakers about strategies that will improve the quality of the home language environment.

**3 Resource Sharing:** The coach provides families with an age-appropriate book at each session. They also go over local events and community-specific information that support the healthy vocabulary development of children.

**4 Goal Setting & Reflection:** Each coaching session is concluded with reflection on previous goals and setting of quantifiable, realistic and encouraging goals for the next session.

# Theory of Change

All parents have the capacity to impact their children’s long-term academic success. By supporting parents in improving their children’s language environment during early brain development, there is long-term impact on children’s readiness for kindergarten. The Providence Talks curriculum and LENA technology ensure that parents can measure their own progress and make long-term changes in their own behavior, which continues to benefit the children long after the program ends.



“Providence Talks demonstrates that parents can help babies’ brains develop, given objective data about talk with their children and tools to help them improve it. We’re excited to partner with Providence as this crucial data flow helps scale the program city-wide.”

- Dr. Stephen M. Hannon,  
President,  
LENA Research Foundation

## Section 3: Providence Talks Pilot

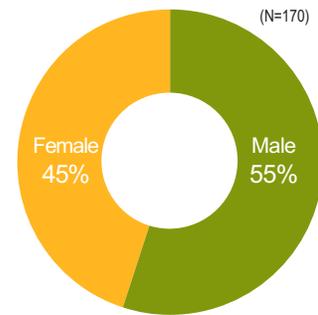
The Providence Talks pilot launched with the first coaching session in November 2013. It leveraged existing home visitation relationships that three local nonprofits (Children’s Friend, Family Service of Rhode Island, and Meeting Street) had with families. The pilot was designed to test the service delivery model for Providence Talks with a small number of agencies and participants, and to learn from that experience and perfect the model before rolling out citywide.

The home visiting model used in the pilot delivered the curriculum through 13 in-home coaching sessions. Sessions were held biweekly for the first five months of the program and then moved to a monthly schedule for the following three months. Two follow-up visits were completed three and six months after completion of the program to assess and support retention of the skills gained throughout the program.

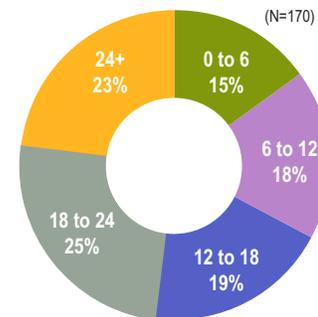
### Characteristics of the Pilot Family Cohort

The pilot cohort consisted of 170 families. All participants resided within the City of Providence at the time of enrollment and were between the ages of two and 30 months. The demographics of families enrolled in Providence Talks broadly mirror the demographics of students enrolled in Providence Public Schools. These charts reflect general demographic data for participants enrolled through July 31, 2015 and are based on parent and organization reports. Data categorized as “unknown” reflects incomplete data collection.

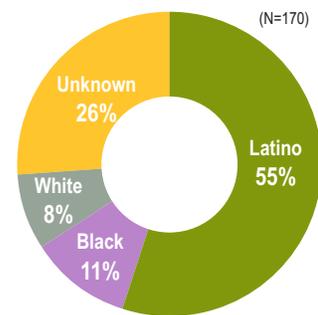
Gender Distribution of Providence Talks Enrollees



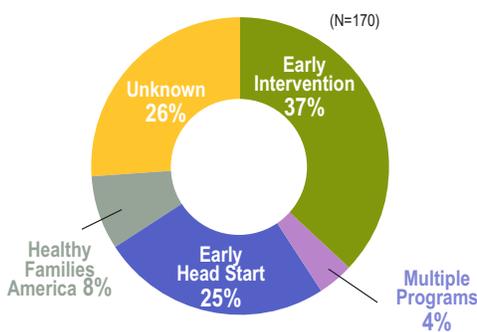
Age Distribution at Time of Enrollment (in months)



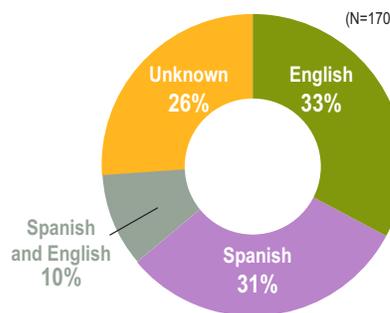
Racial/Ethnic Distribution of Enrollees



Existing Participation in Home Visiting Program



Language Spoken at Home

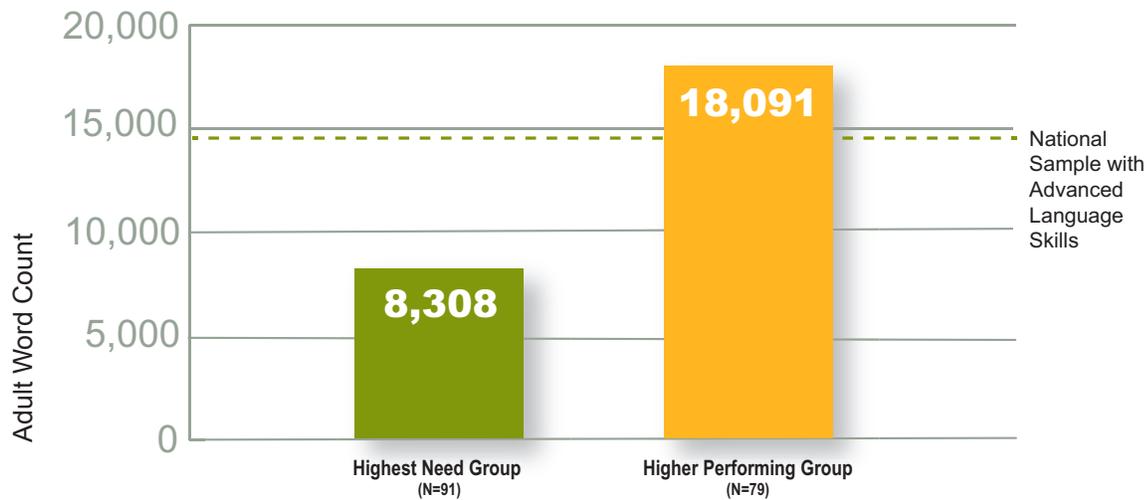


The children enrolled in Providence Talks started the program at very different baselines related to language exposure. More than half of enrolling children were being exposed to very low levels of language in their homes.

For comparison purposes, Providence Talks uses data provided by the LENA Research Foundation based on a database compiled of more than 38,000 hours of spontaneous speech data that took place between January 2006 and December 2008 and compiled speech recording data into the LENA Natural Language Corpus, from which LENA derived normative information for the Adult Word Count estimates (AWC; adult words spoken per day), Conversational Turns estimates (CT; adult-child alternations per day), and Child Vocalization frequency estimates (CV; words, babbles, and prespeech communicative sounds) that are reported in the LENA System.<sup>3</sup>

The baseline average adult word count for all families enrolled in Providence Talks (N=170) is 12,822 words per day. This is significantly lower than the adult word count seen in families within the LENA sample who are characterized as having advanced language skills, whose average word count is 14,690 (73rd percentile). Of the 170 Providence Talks pilot participants, 46% have a first recording that is above the 50th percentile and 54% have a first recording that is below the 50th percentile; as can be seen in the graph below, the difference in adult word count between the two groups is large. Providence children whose first recording is above the norm are hearing an average of 18,000 words, which is on track for healthy language development. Those who start below the national norm start with a great deficit — with only 8,000 words per day, or about 53% of what they should be hearing for healthy vocabulary development.

### Baseline Adult Word Count (N=170)



<sup>3</sup> 2008, Gikerson, J. & Richards J. "The LENA Natural Research Study" [http://www.lenafoundation.org/wp-content/uploads/2014/10/LTR-02-2\\_Natural\\_Language\\_Study.pdf](http://www.lenafoundation.org/wp-content/uploads/2014/10/LTR-02-2_Natural_Language_Study.pdf)

This disparity is further illustrated when assessing interactions between caregiver and child in the group starting with the lowest levels (those starting below the 50th percentile, N=91). Providence Talks assesses “interaction” by counting the number of conversational turns between a caregiver and child, meaning when the caregiver responds to an utterance from the child or vice-versa. For this group, the average baseline number of conversational turns was in the 27th percentile. We can compare this with children possessing advanced language skills; in a LENA Foundation study, children with advanced language skills in a normative sample were being exposed to 14,690 words per day (73rd percentile) and were scoring between the 90th and 99th percentile on independent standard language assessments.<sup>4</sup>

## Results

**1. Providence Talks families are improving the language development environments in their homes. Those who start out at the lowest levels are making the most significant progress, increasing words spoken in the home by 50%.**

On average, all families participating in the Providence Talks pilot who completed at least four coaching sessions improved the quantity of language spoken in their home by 9.4%. For families whose baseline Adult Word Counts were at or below the 50th percentile, this improvement is even more significant. At the time of their enrollment in Providence Talks, children who started the program below the 50th percentile were hearing 8,308 adult words per day. After participating in the program, on average, this number increased by more than 50% to 12,530 adult words.



## Average Increase in Adult Word Count

Participants that started at or below the 50th percentile (N=65<sup>5</sup>)



All Providence Talks Participants (N=122)



<sup>4</sup> The Power of Talk 2nd Edition: Impact of Adult Talk, Conversational Turns, and TV During the Critical 0-4 Years of Child Development (2009: Gilkerson, Jill & Richards, Jeff).

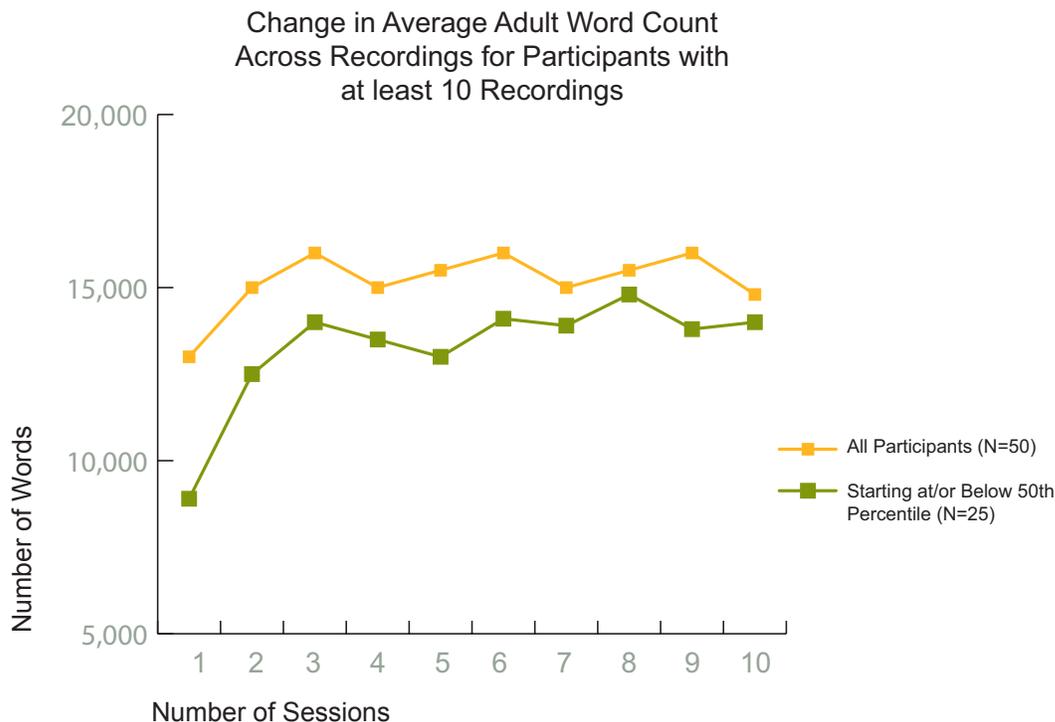
<sup>5</sup> This sample is lower than the previously mentioned sample of families at the lowest levels (91) because only families with 4 or more recordings are included here. The previous group of 91 included families who had a minimum of 1 recording.

## 2. Ongoing coaching helps Providence Talks families maintain their word count gains and make behavioral changes throughout the program.

When looking at the achievements made by families week by week (analysis below reflects data from all families who completed 10 recordings and coaching sessions), there is a significant improvement that is then generally sustained over the life of the program through supportive coaching, attention to data, and ongoing skills development.<sup>6</sup> Again, this impact is even more profound when observing the outcomes for families whose baseline Adult Word Counts were below the 50th percentile.

“Providence Talks offers a promising strategy to “disrupt” the learning gap in Pre-school and kindergarten readiness. With its evidence-based coaching on parent-child communication prior to school attendance, Providence Talks facilitates parental engagement in early literacy. If a substantial number of children from diverse neighborhoods are ready to learn in Pre-K classes, urban schools will experience a narrower achievement gap.”

- Dr. Kenneth Wong, PhD, Brown University



<sup>6</sup> The “all participants” label here refers to all participants with at least 10 recordings. As of 7/30/15, 21 of these participants have graduated, while 29 remain actively enrolled in the program. The 50th percentile in question is based off of a normative sample Providence Talks and LENA Research use for comparison.

### 3. Providence Talks' families are making improvements in the amount of direct engagement between caregivers and children.<sup>7</sup>

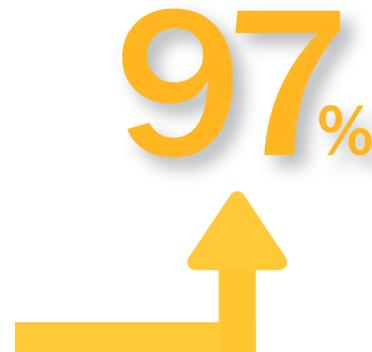
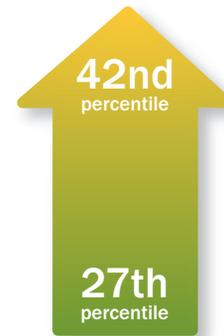
Overall, Providence Talks graduates (those completing 13 coaching sessions) improve the amount of back-and-forth interaction between caregivers and children; they move from the 59th percentile to the 71st percentile upon program completion.

This improvement is even more pronounced, and can be observed even earlier in the program, (our analysis looked at families who participated in four coaching sessions) when analyzing data for those that start below the 50th percentile who increase from the 27th percentile to the 42nd percentile.

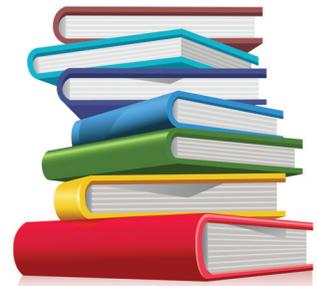
### 4. Overall, families report that being part of Providence Talks is a positive experience where they are learning new skills.

Providence Talks routinely surveys participants to gather their feedback about their experience in the program. The most recent survey was distributed to 104 Providence Talks participants (anyone who had been active during the past year and for whom a provider had an up-to-date address). At the time of publication of this report, Providence Talks had received responses from 39% of surveyed participants (N=39). The surveys utilized an established measurement instrument which looked at program satisfaction in a home visiting program. The survey featured five statements with a scale for a range of answers from 1 for "Strongly Disagree" to 5 for "Strongly Agree."

Overall, Providence Talks survey respondents had a 97% overall satisfaction rate for the program. Thirty-seven of 39 participants who returned surveys were either satisfied or highly satisfied with services received in the program. The same 97% would recommend the program to a family member or friend.



**Providence Talks has distributed 1,282 books to participating families.**



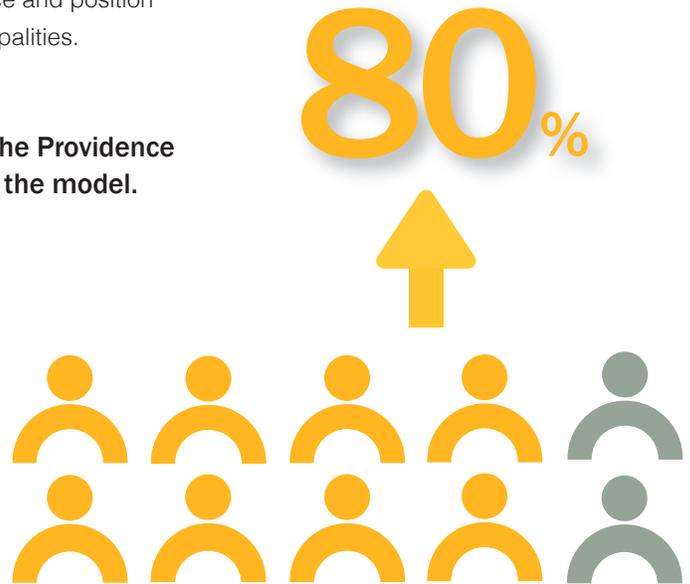
<sup>7</sup> While conversational turns in the target group have increased by over 200 as a raw number, older children are generally expected to speak more. Providence Talks adjusts for this by using increases in percentile as a more accurate way to measure conversational turns. An 8-month-old child engaging in the same number of conversational turns daily as an 18 month old will be at a higher percentile.

# Lessons Learned

Since winning the Bloomberg Philanthropies Mayors Challenge, the Providence Talks team has worked with partners to develop and refine a high-quality home visiting model. An ongoing data review process during the pilot has enabled us to implement efficient and effective improvements to the intervention. Throughout the process, there have been a number of key findings that have implications for the development of this model as we aim to reach significant scale in the City of Providence and position Providence Talks for potential replication in other municipalities.

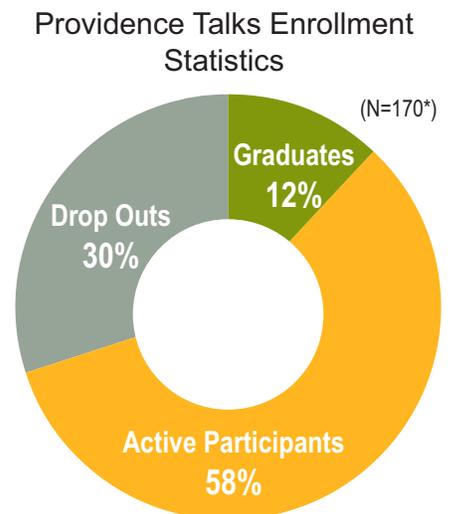
## 1. Families are interested in participating in the Providence Talks program after they learn more about the model.

Eighty percent of the families (170 out of 214 families) who met with a home visitor to learn more about Providence Talks successfully completed a first recording. This conversion rate is consistent with that of similar home visiting models and serves as a promising indicator of the efficacy of Providence Talks' recruitment strategies to date.<sup>8</sup> Based on this, the Providence Talks team will continue to invest in one-to-one outreach to potential enrollees.



## 2. Families who left tended to do so early in the program.

As of July 31, 2015 Providence Talks has enrolled<sup>9</sup> 170 families. Twenty-one families (12%) have graduated, meaning they completed at least 13 recordings and coaching sessions, 98 (58%) families are still actively enrolled, and 51 (30%) families have dropped out of the program.

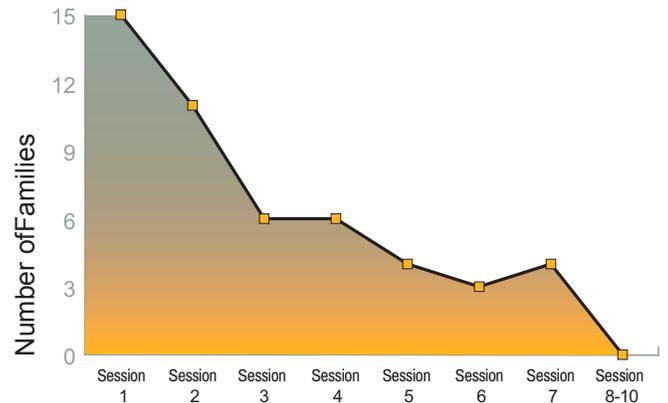


<sup>8</sup> Wagner, Mary, et al. "Parental Engagement in Home Visiting Programs— Findings from the Parents as Teachers Multisite Evaluation." SRI International (2000): 1-69.

<sup>9</sup> Enrollment is defined as the completion of an orientation session and one useable recording.

Further analysis of when families left the program (N=51) reveals that nearly half (49%) left after either the first or second coaching session. The other 51% left between the 3rd and 10th recording with a largely even distribution. While initial attrition is generally expected in any kind of voluntary program, given the high conversion from interest to engagement noted earlier, it is critical that Providence Talks provides extra support for families to keep them focused and motivated as they move through the three initial sessions. Providence Talks will also distribute feedback surveys targeting families who leave the program in order to continue to assess their reasons for leaving and program modifications that can be made to retain families.

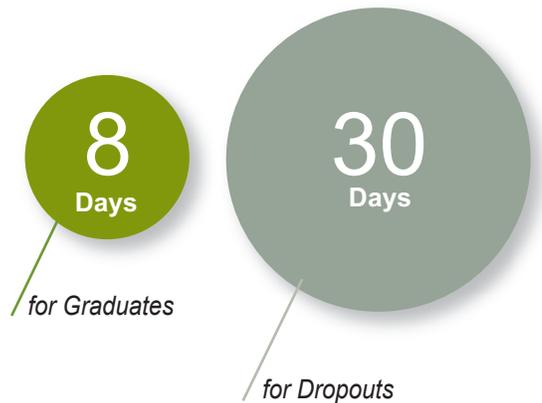
Providence Talks Attrition by Visit (N=51)



### 3. The time between a family’s enrollment and the completion of the first recording and coaching session is critical to ensuring they remain in the program.

Among Providence Talks graduates (N=21), the average time between enrollment and their first recording is eight days. For those who left (N=51), the average time between enrollment and their first recording is 30 days.<sup>10</sup> This data indicates that families who complete their first recording and home visit in a timely manner upon enrollment are far more likely to actively participate in the program. Given this finding, Providence Talks has dedicated resources to ensuring families receive service soon after enrollment. By shortening the average time between enrollment and home visit, Providence Talks hopes to decrease its attrition rate and increase overall program impact.

Average Time (Days) between Enrollment and First Recording



<sup>10</sup> Families who completed an invalid recording are considered, in this context, to have not completed any recordings. An invalid recording results in no data being available for review.

## **4. While TV time has decreased slightly for graduates, progress in Adult Word Counts and conversational turns is not necessarily related to a reduction in TV time.**

The feedback reports provided at each coaching session (see page 14 for a sample report) include a measure of the child's exposure to TV and other media hourly over the course of the day. Given the importance of talk, and of back and forth engagement between caregivers and children, TV time is measured because it is time when the adult and child may be less likely to be engaging in vocabulary-building back and forth. This allows Home Visitors to help families make connections between where they may have lower periods of engagement and higher amounts of TV time. On average, Providence Talks children are exposed to 117 minutes of media time when they enter the program. Despite anecdotal reports from home visitors that they do see progress when families are focused on increasing engagement, to date, there isn't enough evidence to draw a direct correlation. This is an area that the Providence Talks team will be monitoring to see if there are ways to reduce media time and increase talk.

## **Section 4: Taking the Program to Scale**

**Providence Talks is at a critical phase of implementation. Significant work has been done to develop a promising model and now it is time to bring that model to scale across the City of Providence. The Providence Talks team has engaged in an intensive planning process and has developed the following key strategies for the next phase of implementation:**

**Step 1: Scaling the home visiting model. The current Providence Talks home visiting model will expand across additional partner organizations to reach an increased number of families.**

The data from the implementation of the pilot program indicates that Providence Talks has the potential to improve the language development environments of families which could impact the future academic success of children in Providence. With a fully-defined model, Providence Talks will now expand home visiting across five agencies to serve a targeted 1,300 families over the next two years. The data from this expansion will allow Providence Talks to further assess the efficacy of the home visiting model.

**Step 2: Building a strong infrastructure.**

To ensure that the model is implemented with fidelity as it is brought to scale, the central Providence Talks team has worked with provider organizations to develop a host of tools to support implementation of the model going forward. In addition to finalized curriculum materials and a comprehensive operations manual, a Providence Talks Program Specialist will observe home visits across providers to ensure model fidelity and quality. These additional resources for efficient operation in Providence will be made broadly available for potential replication by other cities.

“Providence Talks offers the opportunity to change the life trajectory of Providence’s most vulnerable inner-city children. The LENA feedback provided to parents is an incredible motivator showing them the powerful beneficial effect they can have on their child’s language development by simply talking more with their children. I look forward to seeing the effects of this cost-effective and easy-to-implement intervention on Kindergarten readiness.”

- Dr. Betty Vohr, Women & Infants Hospital  
Providence Talks Advisory Board Member

### **Step 3: Creating additional models.**

Recognizing that the home visiting model used in the pilot will not be appropriate to engage all families in Providence, additional implementation models (e.g., group sessions) will be developed that draw upon the key practices of the home visiting model but are able to reach a larger number of potential families. Providence Talks has released an open invitation for partners ([www.providencetalks.org](http://www.providencetalks.org)) that encourages groups from across Providence to propose potential implementation strategies for Providence Talks. Additionally, Providence Talks will continue to examine data to understand the families who benefit most from the various models and refine how those families can be targeted to receive services.

### **Step 4: Thinking broadly about recruitment and expanding eligibility.**

The pilot of Providence Talks targeted families who were already enrolled in an existing home visiting program. While these families will continue to be engaged, each organization will also expand their outreach more broadly into the community. Providence Talks providers will employ Recruitment Specialists who will be representative of the target population and in some cases may be graduates of the program. Additionally, a central referral line will be launched that Providence residents can call to be linked to a Providence Talks provider.

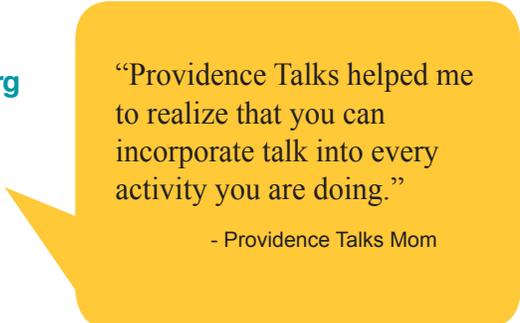
### **Step 5: Developing a rigorous evaluation plan.**

Providence Talks has been working closely with Brown University to assess the early implementation of the model. This work will continue as Providence Talks finalizes and implements a robust independent evaluation that will evaluate its efficacy and cost effectiveness. Additionally, Brown will continue to support the evaluation of Providence Talks through the development of fidelity measures and assessment of the Fall implementation.

## **Section 5: Conclusion**

Providence Talks has the potential to become a national model for ensuring that families have the tools and resources they need to support their children in being on track for success. While these goals are lofty, developing models that support families from the earliest stages of a child's development is critical to the development of a successful plan to improve educational outcomes and close the achievement gap. Providence Talks have learned many important lessons from the pilot phase that have prepared us to scale the program up to reach even more families. Providence Talks are positioned to lead the way in work that will be crucial for policymakers and partners across the country as they grapple with these issues.

To stay involved, please visit [www.providencetalks.org](http://www.providencetalks.org)



“Providence Talks helped me to realize that you can incorporate talk into every activity you are doing.”

- Providence Talks Mom

# Sample of LENA Data report provided to families at each coaching session

3/27/2015

LENA Mobile™

**CONFIDENTIAL**

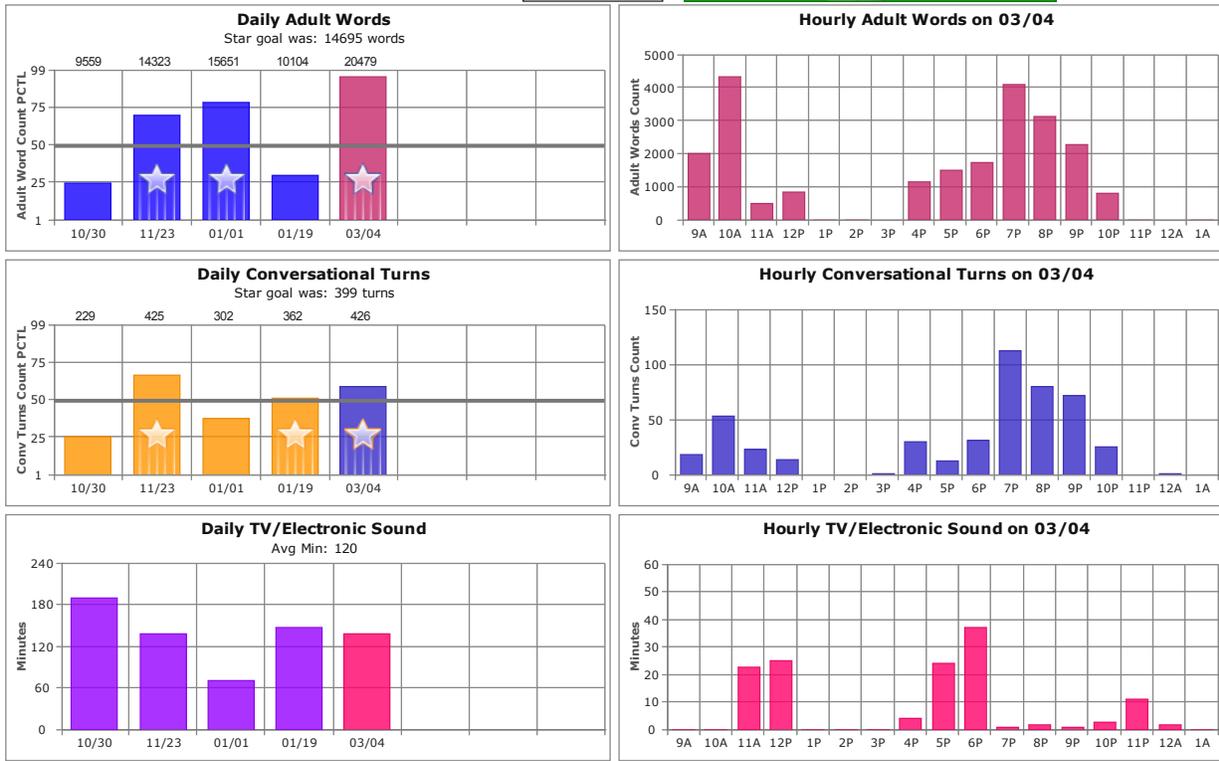


Name: RCT\_B\_PROV\_MS\_0062  
 ID: RCT\_B\_PROV\_MS\_0062  
 Age: 17 months

**PCTL Legend**  
 High: 75-99  
 High Avg: 50-74  
 Low Avg: 25-49  
 Low: 1-24

**Daily Book Reading**  
 Daily Minimum by Age  
 Month 1-11: 10 min  
 Month 12-23: 20 min  
 Month 24+: 30 min  
 5 minutes per day as of 12/23

Total Stars earned through this Report  
 6



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In addition to the LENA Recording Reports, Providence Talks uses three additional qualitative measures to assess the participating child’s skill development throughout the program.

These tools include:

**MacArthur-Bates CDI Short Form:** A communicative development inventory designed for assessing language and communication skills in infants and young children. These are parent report forms that identify how many words a child “uses” and “understands.”

**Ages & Stages Questionnaire:** Social Emotional: A screening tool designed to identify children who may be at risk for social or emotional difficulties. This tool does not diagnose serious social or emotional disorders. Rather, it should be seen as a first step in identifying young children who may benefit from more in-depth evaluation and/or preventative interventions.

**LENA Developmental Snapshot:** An assessment tool designed to gauge a child’s developmental age and skills. The Snapshot is an assessment tool designed to gauge the child’s language developmental age and language skills.

# Glossary

**Absenteeism** – Chronic Absenteeism is defined as a student missing more than 10% of school time (excused or unexcused.) A typical school year is 180 days, so chronically absent students miss at least 18 days, or almost a month of instruction or more. Nationwide, nearly 10% of kindergarteners and 1st graders are chronically absent. Providence Talks home visitors integrate conversations about the importance of Kindergarten attendance with families through the program.

**Achievement gap** –the gap between academic achievement in school of low-income children and their higher-income peers. Often used to refer to gap in achievement between racial and ethnic groups. Can refer to achievement gap at any level of schooling. Has been documented in research to exist as early as kindergarten.

**Adult word count** –Same as Daily word count. Device only counts adult words, or those spoken by someone at least 15 years of age.

**Baseline** – The score reported on first recording for a child participating in Providence Talks.

**Conversational turn** – Simple conversations between child & adult; one speaks (or in cases of young children, makes an utterance), the other responds.

**Curriculum** – The PT Curriculum aims to approach parents and caregivers from a strength-based perspective and work collaboratively with these families to promote the importance of language exposure and development from their child. This curriculum is aligned to RI Early Learning Standards and focuses on integrating skill development within the context of the family's existing daily routines. By tailoring coaching to the individual needs and perspectives of the family, PT can help to ensure the success of all participating members.

**Daily word count** – The number of adult words heard by the child. In the case of Providence Talks, as recorded by the Digital Language Processor.

**Developmental snapshot/LENA developmental snapshot** – The Snapshot is an assessment tool designed to gauge the child's language developmental age and language skills. The Snapshot consists of a series of questions that the parent answers about their child's expressive and receptive language skills. This tool is used to assess a child's progress during their participation in Providence Talks.

**Dropout** – Families who have not completed a usable recording in 45 days.

**Enrollment** – Families are enrolled after they consent to participation in the program and complete one usable recording.

**Fidelity measures** – metrics of Providence Talks provider performance that measure the degree to which their home visits are being conducted according to established protocols. Fidelity measures are intended to improve the consistency of delivery across home visitors and across providers, and to assure high quality service is provided to every participating child.

**Graduate** – Families graduate from Providence Talks when they have completed the 13th recording and coaching session.

**Home visiting program** – Social service agency program that sends highly trained coaches into the home of a family, to deliver direct one-to-one support on topics such as parenting, nutrition, or in the case of Providence Talks, early language learning. For Providence Talks pilot, families eligible to participate had been enrolled already in an existing home visiting program at one of the three pilot provider agencies.

**Language environment/language development environment** - the process by which and environment that children come to understand and communicate language during early childhood.

**LENA device** – see talk pedometer

**LENA report/LENA feedback report** – A one-page summary analyzing the output from one day-long recording produced by a family participating in Providence Talks. These reports also compare to previously completed recordings so that parents can view progress. Documents reading minutes as well as electronic/media noise. Differentiates between daily counts and “hourly counts” for families.

**Media exposure** – number of minutes during a recording on the Digital Language Processor (talk pedometer) that the language environment includes the sound of television, radio or other media. Note that the DLP filters out this media/electronic noise in order to generate a more accurate representation of the child’s language environment, specifically engagement.

**Norm, national norm** – The number of adult words heard or conversational turns experienced at the 50th percentile for a child of a certain age, compared to a nationally-representative sample of children of the same age (in months).

**Operations manual** – the Providence Talks operations manual is made available to every participating provider and describes both how home visitors will complete their recruitment, visiting and documentation tasks, as well as how the provider organization will account for visits, maintain inventory of books and materials, and send invoices to Providence Talks for reimbursement.

**Percentile** – Percent rank comparing the child to children of the same age.

**Rhode Island’s Early Learning and Development Standards** - The State’s standards for assessing and determining appropriate, age-level development in children. The RI Early Learning and Development Standards are intended to provide guidance to families, teachers, and administrators on what children should know and be able to do as they enter kindergarten.

**Talk pedometer** – The DLP measures the amount of talk in a child’s environment. It is a tiny wearable digital recorder with specialized software which provides families with feedback on their child’s language environment and how to improve.

**Word gap** – The idea that children’s vocabulary skills are linked to their economic backgrounds. Children in low-income families hear dramatically fewer words than their middle and high-income peers. This early measure often sets them behind in school and beyond.

## Providence Talks Partners

### Bloomberg Philanthropies

Bloomberg Philanthropies' mission is to ensure better, longer lives for the greatest number of people. The organization focuses on five key areas for creating lasting change: Arts, Education, Environment, Government Innovation and Public Health. Bloomberg Philanthropies encompasses all of Michael R. Bloomberg's charitable activities, including his foundation and his personal giving. In 2014, Bloomberg Philanthropies distributed \$462 million.

The Government Innovation Team at Bloomberg Philanthropies promotes public sector innovation capacity and spreads proven and promising solutions among cities worldwide. The Mayors Challenge is an ideas competition that encourages cities to generate innovative ideas that solve major challenges and improve city life worldwide.

### Brown University Education Department

Located in historic Providence, Rhode Island and founded in 1764, Brown University is the seventh-oldest college in the United States. Brown is an independent, coeducational Ivy League institution comprising undergraduate and graduate programs. The Education Department at Brown offers a master's level program leading to an A.M. in Urban Education Policy.

### Children's Friend

Children's Friend (CFSRI), a non-profit organization founded in 1834, is Rhode Island's oldest child welfare organization and a leading provider of child welfare, family support, mental health, and child development services. With centers in Providence, Pawtucket and Central Falls, Children's Friend serves more than 30,000 of Rhode Island's most vulnerable children and their families each year.

### Family Service of Rhode Island

Family Service of Rhode Island (FSRI) is one of the oldest and largest non-profit human service agencies in Rhode Island. Centralized in Providence, FSRI is accredited and state licensed for behavioral health services and substance abuse treatment. It is also state-certified and state-contracted to provide a wide variety of developmental and mental health services for children and adults of all ages.

### LENA

The LENA Research Foundation, located in Boulder, Colorado, is an innovative institution that is at the forefront of language development research within the United States. LENA's cutting edge Digital Language Processor provides researchers and educators with a mechanism for analyzing the language environments of children, which has allowed for major advances in research, education and public policy.

### Meeting Street

Meeting Street is a non-profit organization located in Providence that provides high-quality individualized attention to children of all ages and abilities. Staffed by highly trained educators, Meeting Street has a long track record for bringing out the best in every child through a dedication to teamwork, strategy sharing and solution synthesis.



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TALK TO TEACH