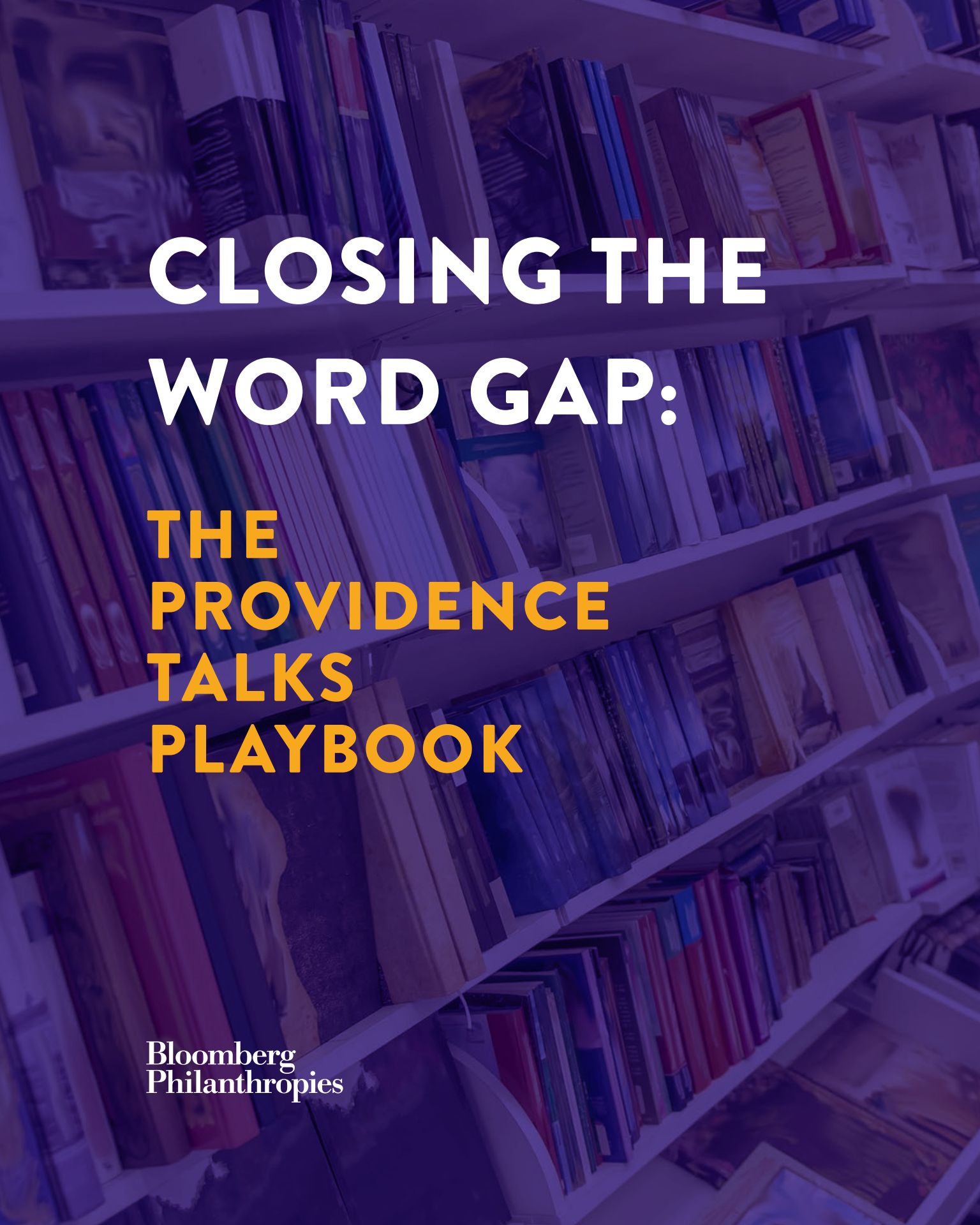




CLOSING THE WORD GAP:

THE PROVIDENCE TALKS PLAYBOOK

**Bloomberg
Philanthropies**

PROVIDENCE

RHODE ISLAND

GRAND PRIZE WINNER OF THE 2013 MAYORS CHALLENGE

Providence Talks was developed during Bloomberg Philanthropies' 2013 Mayors Challenge. The Mayors Challenge is an ideas competition that encourages cities to generate innovative ideas that solve major challenges and improve city life -and that have the potential to spread. The City of Providence was the grand prize winner of the challenge and received \$5 million to implement the initiative.



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· EXECUTIVE SUMMARY ·



FEW THINGS CAN be more precious to children than words. Insufficient exposure to words and language – known as the “word gap” – has a profoundly negative impact on children. Research shows that, by the time they enter kindergarten, children growing up in low-income households in the United States will have heard 30 million fewer words than their peers from middle and high-income households. This “word gap” undermines school readiness and performance - two-thirds of Providence children entering kindergarten fall short on state literacy tests. To address this challenge and change the trajectory of its community’s children, the City of Providence created a program using cutting-edge technology that records and counts the number of words that children are hearing and the amount of “conversational turns” that are taking place in the home. The technology is complimented by monthly visits by coaches who show parents their progress, in turn improving the trajectories for thousands of kids in need.

When Bloomberg Philanthropies announced the inaugural Mayors Challenge (a competition designed to encourage cities to generate bold new ideas that solve urban challenges and improve city life – and have the potential to spread), then-Mayor Angel Taveras knew that the majority of Providence children were entering kindergarten behind. He and his team took the opportunity the Mayors Challenge provided to propose a city-led intervention that would address achievement disparities at the earliest stage possible, taking advantage of children’s rapid brain development between birth and age three.

The resulting program, Providence Talks, is designed to help address the needs of low-income children and works to close the word and learning gap, making profound improvements in the healthy brain development and life trajectories of children who participate.



Providence Talks, now a key initiative of Mayor Jorge Elorza, has reached over 1,300 children. More than 7,000 recordings have been completed, capturing a total of 104 million words, and three million conversational turns—the powerful back-and-forth volleys that build vocabulary. Early results show that nearly 60 percent of children who graduate from the program begin to hear more words. On average, the number of words they hear increases by 50 percent. The program also has benefits far beyond the city — Providence Talks is helping to build the evidence base for the importance of parental talk and engagement, and the program itself has the potential to be replicated in other communities.

This playbook documents the concept, process, and lessons learned by the Providence Talks team and provides resources to help other cities start their own efforts to close the word gap.

A man in a dark suit and red tie is kneeling on a carpeted floor, holding a framed certificate. He is looking down at the certificate. A young girl with long dark hair, wearing a grey sweater with red polka-dot sleeves and pink pants, is standing next to him, looking at the certificate. She is holding several stuffed animals. In the background, two men in suits are standing with their hands clasped. The scene is indoors, possibly in a school or community center. The image has a blue tint.

THE PROBLEM

THE 30 MILLION
WORD GAP

• OVERVIEW •



PROVIDENCE, RHODE ISLAND has twice the percentage of children living in poverty as the national average, and these children urgently need support. There are over twenty times as many children in need of Early Head Start as there are available slots and two-thirds of Providence children entering kindergarten fall short on state literacy tests. This achievement gap also persists as children age, with only 52 percent of fourth-grade students in Providence reading at grade-level proficiency, and a high school graduation rate 10 percent lower than the national average.

One of the factors that influences these children's academic outcomes is the word gap. Researchers have found that children from varying economic backgrounds experience vastly different levels of adult talk and interaction during their early youth. This difference has a profound impact on future academic success. By the time they enter kindergarten, children growing up in low-income households have heard up to 30 million fewer words than their peers from middle and high-income households. This word gap is associated with lower school readiness and later academic performance.

The reason for the word gap's influence on academic outcomes is thought to be both neurological and sociological - hearing language and engaging in conversation helps babies and young children learn and build the brain pathways that set the foundation for continued learning throughout their school years. According to Harvard research, in the first few years of life, 700 new neural connections form in a child's brain every second, and a child's brain reaches 80 percent of its adult size by the age of three¹. Additionally, it is believed that increased conversation leads to higher parental engagement and an improvement in children's social-emotional wellbeing.

NEXT > THE SOLUTION

¹ National Scientific Council on the Developing Child, Harvard University, 2009.



THE SOLUTION

PROVIDENCE TALKS

• OVERVIEW •



PROVIDENCE'S GREAT NEED to assist its children living in poverty set the backdrop for the Providence Talks concept when Bloomberg Philanthropies announced the Mayors Challenge, a competition that encourages cities to generate bold new ideas that solve urban challenges and improve city life — and have the potential to spread. Then-Mayor Taveras and his team developed the idea of a pioneering city-led intervention to address language disparities at as early a stage as possible, taking advantage of the rapid growth of the brain from birth to age three. The resulting program, Providence Talks, is designed to help address the needs of low-income children and work to close the word gap, making profound differences in children's life trajectories. The program also has benefits far beyond the city — Providence Talks is helping to build the evidence base for the importance of parental talk and engagement, and the program itself has the potential to be replicated in other communities.

• HOW IT WORKS •



PROVIDENCE TALKS WORKS directly with the parents and caregivers of children from birth to age three to ensure that every child enters kindergarten fully prepared to succeed. The program equips families with the tools to support child brain development through a combination of coaching and data to measure progress.

Researchers estimate that for healthy brain development, a child needs to hear 15,000 words every day, or 21,000 for optimal development. To monitor progress toward this benchmark and their personal goals, each participating family is given a small, wearable recording device, known as a Digital Language Processor, or “word

pedometer,” to count the number of words their child hears and the number of parent-child “conversational turns,” the amount of parent-child interactions taking place in the home. The Digital Language Processors (DLPs) record all of what a child hears in the course of a day. Software automatically analyzes the recording and counts the number of words, the number of conversational turns, and the amount of time the child is exposed to electronic media. The recordings are never listened to and are securely deleted. Each recording results in an easy-to-read feedback report that shows the family their progress. This technology was developed by the Colorado-based LENA Research Foundation.

Families participating in Providence Talks are paired with a coach who meets with them regularly to explain how they can increase the number of words their children hear, tailoring the program to each family’s unique needs and using the word count and conversation data to measure progress. Every visit with a family includes a free book for the family to keep. Coaches model positive engagement with children, including reading to them. A structured, age-appropriate curriculum provides sample activities to improve both the quantity and quality of parent-child interactions and the language used. The coaching services are delivered through three different models (see Figure 1), each of which uses its own high-quality curriculum to engage families and/or caregivers. The curriculum is aligned with Rhode Island Early Learning and Development Standards and focuses on integrating skill development within the context of each family’s existing daily routines.



EACH PARTICIPATING FAMILY IS GIVEN
A DIGITAL LANGUAGE PROCESSOR, OR
“WORD PEDOMETER”

FIGURE 1:

Models of Providence Talks Service Delivery

In order to operate at city-wide scale, the City of Providence designed three Providence Talks service delivery models to reach families. Each model varies in intensity, application and design, which allows Providence Talks providers to target families with programming that best meets their needs. These models are detailed below.

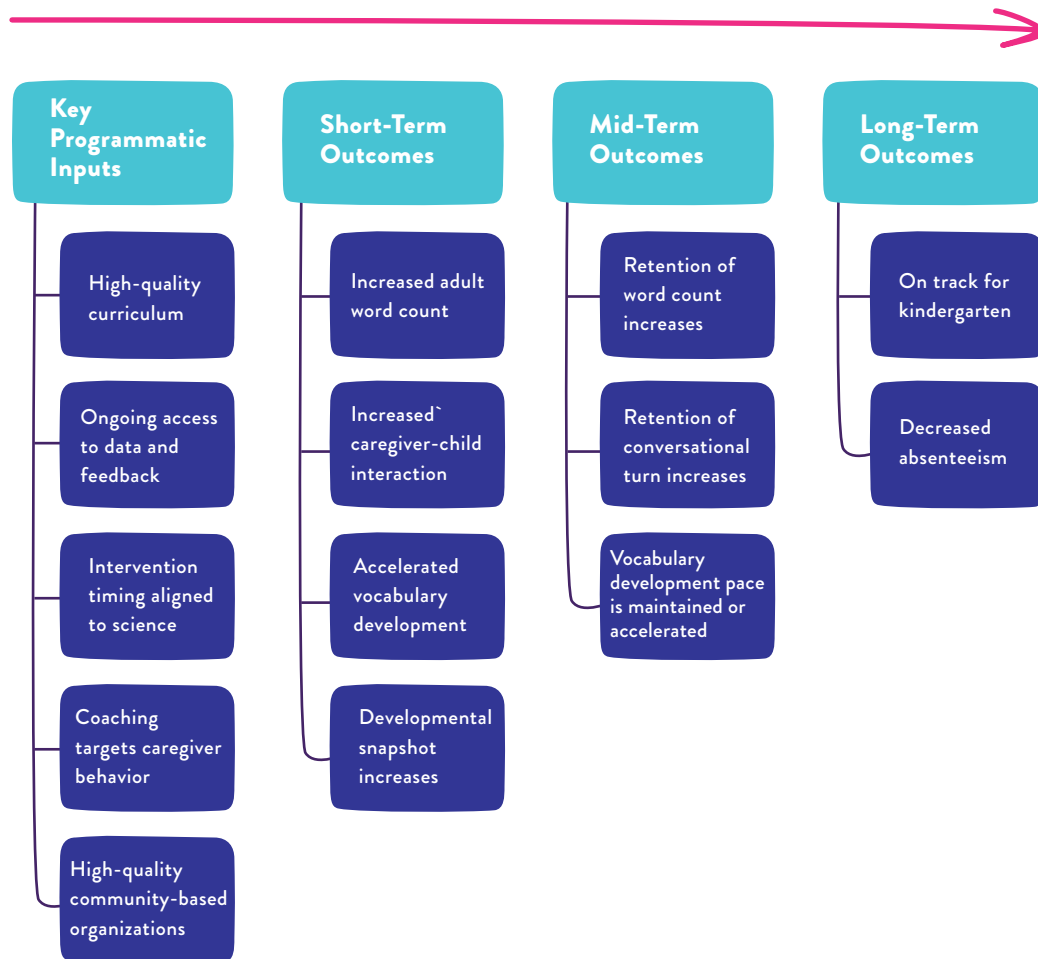
HOME VISITATION	A coach meets with each family 13 times over the course of eight months at home. Each 60-minute session includes time reviewing a recording the family made and coaching the parent or caregiver on ways to increase engagement and overall word count. Families set their own goals for increased engagement. They also participate in two follow-up recordings three and six months after the official coaching period ends.
FAMILY PLAYGROUP	A group leader facilitates six weekly, 60-minute family playgroup sessions, and models ways to sing, read or play with children to increase conversation and engagement. The leader facilitates parent discussions during these sessions, enabling parents to connect with and learn from each other about their children's development. Families make recordings in between each session and the results are shared individually with families so that they can set their own goals for increasing engagement. They also participate in a follow-up recording one month after they complete the six-week series.
CAREGIVER PROFESSIONAL DEVELOPMENT	Early childhood professionals, in both center-based and in-home daycare settings, participate in a six-week professional development series and make weekly recordings of their interaction with children in their care. The series includes six two-hour sessions where trained, experienced facilitators coach educators on ways to increase adult-child engagement and conversation. The series requires a follow-up phase with two additional sessions and one recording to ensure participants have maintained their progress. This service delivery model has the potential to reach far more children at significantly lower cost than the home visitation model. It also identifies and prioritizes a child's educator as a primary caregiver, capable of influencing a child's outcomes. Early childhood professionals are awarded a \$200 stipend and 20 hours of Professional Development approved by the Center for Early Learning Professionals for completing the series. Currently, 90 childcare teachers have received this training.

Currently, the Providence Talks program is administered by the City of Providence through contracts with seven non-profit service delivery organizations. Across these seven organizations, Providence Talks is delivered by 114 trained professionals, including 24 home visitors (also known as coaches) and family playgroup instructors. The affiliated professionals receive a full day of initial training, quarterly refresher sessions and one-on-one mentor coaching. In addition, all home visitors are given direct coaching by an education expert in order to continuously improve their impact on families. These visits happen within six months of their hire and are based on a national best practice professional development assessment tool. Providence Talks has also designed a 123-page operations manual to ensure program fidelity across all agencies.

FIGURE 2:

The Providence Talks Theory of Change

The foundational belief of Providence Talks is that all parents have the ability to improve their children's futures with the right tools and support. This theory of change is summarized in Figure 2 below.



• COACH PERSPECTIVE •

“ I’ve been surprised at how eager the families are to participate, and I think the difference is how concrete and hands on Providence Talks is — the activities we do with the families and the printed reports we give them make it more valuable to provide feedback and show progress. The families get to keep the books we bring, which reinforces what we’re teaching because they are able to practice language opportunities with their child when we aren’t there. Families really like getting the books and the kids love that we do hands-on activities. It’s exciting to see how enthusiastic the parents get because over the weeks when I am not there, they start to save materials from their day-to-day lives that we are able to incorporate, like flyers, water bottles, cereal boxes, cans. That’s how I know I’m making a difference not just when I’m there, but in between visits, too, and that is exactly the purpose and point of this program. Bringing confidence and awareness to parents that they can do simple things with their child that will change their lives. And let’s face it, every parent wants that for their child — to be the best and smartest and most successful person they can be.

ASHLEY CARDIN

Meeting Street

NEXT > EARLY RESULTS

A woman and a young girl are sitting on a dark green leather couch. The woman, on the right, is wearing a blue and white patterned shirt and is smiling. The girl, on the left, is wearing a red long-sleeved shirt under a green and white checkered vest, and a blue and red floral skirt. She is also smiling and looking towards the left. A book is partially visible on the left side of the couch. The background is a solid light blue color.

EARLY RESULTS

INCREASED PARENT-
CHILD ENGAGEMENT

• OVERVIEW •

PROVIDENCE TALKS HAS already been found to boost participants' language interactions, and researchers are continuing to follow the program's participants to assess long-term impacts. When the pilot of Providence Talks launched in 2014 with over 175 families, more than half of children in the program were hearing far fewer words than they needed for healthy brain development. After completing initial coaching sessions, however, word counts had improved for a significant portion of participants. Families who started out with the lowest levels of engagement made particularly strong progress – these participants increased the words spoken in their homes by 50 percent, moving from an average of 8,000 words per day to an average of 12,500 words per day. Overall, 43 percent of pilot graduates had gains of 20 percent or more in their word counts, 29 percent had gains of 50 percent or more and 10 percent doubled their word counts.

• RESULTS •

AN OUTCOME EVALUATION led by Brown University will document the long-term impact of the program on children's success in kindergarten and beyond. Providence Talks has now enrolled more than 1,300 children and continuously monitors the success of its participants. Near-term indicators that demonstrate the program is beginning to achieve results include²:

PARTICIPANT RESULTS

- **Increased parent-child talk and engagement:** 66 percent of families make progress in the program, as measured either by an increase in the number

² Numbers in this section are from program launch to December 30, 2016

of words a child hears or by the increased number of back and forth volleys between parent and child. Early results show that nearly 60 percent of children who graduate from the program begin to hear more words. On average, the number of words they hear increases by 50 percent.

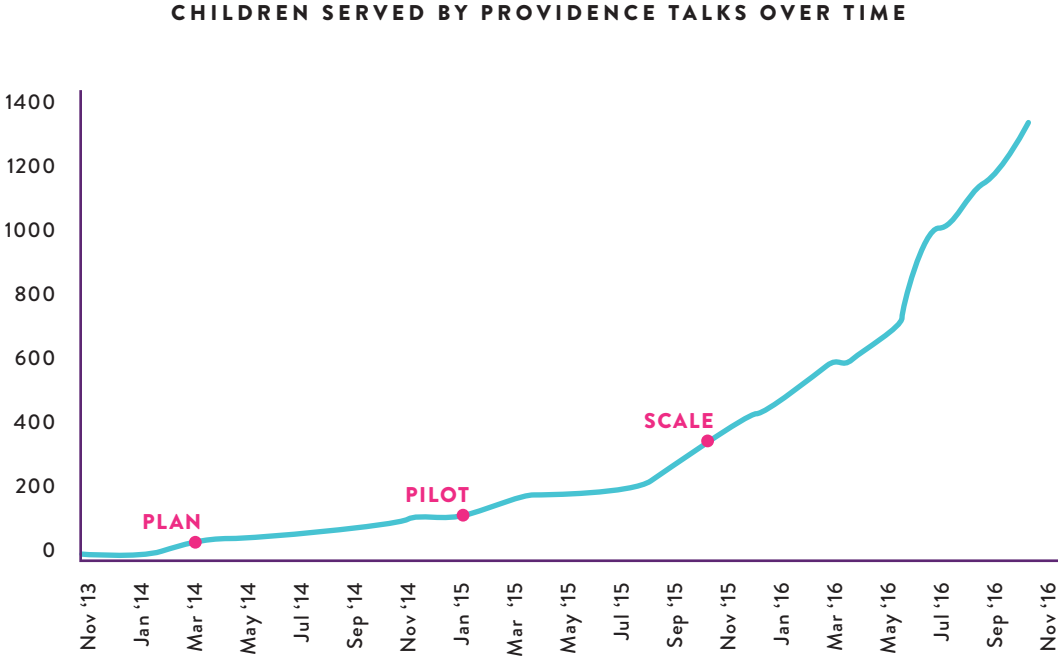
- **Robust gains by those with lowest initial word count:** 54 percent of families enter the program hearing word counts well below what is recommended for optimal brain development, hearing about 8,000 words a day. For these families, their recordings show that parent talk at home has increased by 45 percent.
- **Progress made by families sticks:** 61 percent of families who complete a follow up recording have maintained at least 80 percent of the gains they made in the program. Moreover, 54 percent maintained word counts higher than the starting average.

OPERATIONAL RESULTS

- **High participation and engagement rates:** 1,340 children have enrolled in Providence Talks and have completed at least one recording, and two-thirds of children remain in the program at the halfway mark. According to a number of research studies, this is a considerably higher retention rate than similar home-visitation model programs³. Moreover, 58 percent of all eligible Providence Talks participants have either graduated from the program or are still actively engaged.
- **Rapid programmatic scaling:** Providence Talks has experienced accelerated growth within the last 12 months. Between November 2015 and November 2016 alone the program grew from approximately 200 children served to almost 1,400 (see Figure 3).
- **Excellent participant satisfaction:** Between October 2015 and December 2016, 97 percent of parents reported being satisfied or extremely satisfied

³ The following research studies have looked at evidence-based home visiting retention: Dugan et al 2000; Wagner, 2002; Olds, 2015; McGuigan 2003; Korfmacher, 2008; O'Brien, 2012

FIGURE 3:
The Growth in Providence Talks Enrollment as it Scales



• COACH PERSPECTIVE •

“ Sarah* and her family have thrived with Providence Talks. She’s 10 months old and I’ve seen big changes in the last three months. At first, she wouldn’t even make eye contact. Now, she’s excited when I come and doesn’t want me to leave – she wants to keep doing activities or reading and playing. Her father said to me, ‘I don’t know what you’ve done to my daughter, but every time I come home now she grabs a book and asks me to read to her.’ I can tell we’ve made a difference with Providence Talks because not only is the family buying their own books, they are going to the library and they are now taking the books the pediatrician gives them. They used to just say ‘no thank you’ to those because her mom felt she didn’t need them. Sarah’s mom confided to me that she never read to the kids before we started her in the program. She figured they learned to read at school. Now she sees the value of reading at home for Sarah’s language development. Sometimes when I come I see them reading together as a family and laughing and enjoying it as a family. I can see that the program has made a big difference for them, their recordings keep showing progress, and I can see Sarah becoming much more expressive. She’s made amazing progress and I’m excited for her future. I feel lucky to have a job where I can make a difference in kid’s lives every day.”

VERONICA MONTANEZ

Community Action Partnership of Rhode Island

**Name Changed*



"I CAN SEE SARAH* BECOMING MUCH MORE EXPRESSIVE. SHE'S MADE PROGRESS AND I'M EXCITED FOR HER FUTURE."

NEXT > REPLICATION ROADMAP



1

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REPLICATION ROADMAP

PROVIDENCE TALKS
IN YOUR CITY

• OVERVIEW •

AFTER PROVIDENCE DEVELOPED the idea for Providence Talks, there were five key steps to implementation — plan, prototype, pilot, scale and evaluate. A city that wishes to replicate this program should consider following these same steps to design their own program to close the word gap.

Before launching into the implementation process, cities are encouraged to examine the following factors:

- **Partners:** Do you have partners who can help execute your vision?
Providence Talks is administered through Providence’s Mayor’s office and is operationalized through a network of seven nonprofit service delivery partners. A city’s network of partners that have close connections to community members and potential clients is critical to operating at scale. The network of partners may differ in other communities and could include hospitals, non-profits, social service providers, local and state education departments and libraries.
- **Participant logistical barriers:** Are there logistical barriers that may prevent families from participating in the program, e.g., public transportation? How can your program overcome these challenges?
- **Delivery models:** Is it appropriate for your city to implement all three models of Providence Talks service delivery, or should it start with one and grow over time?
- **Participant outreach:** How can you best reach families? What community resources can you tap into to employ credible messengers in talking about the program? Providence Talks has leveraged relationships with a network of AmeriCorps volunteers and former Providence Talks participants of the program, known as parent ambassadors, to strengthen its grassroots recruitment efforts. Additionally, partnerships with a network of local health

clinics are one of the most robust sources of referrals.

- **Preexisting resources:** What similar programs exist in your community? How can you work in partnership to ensure that resources are leveraged, that families understand the various options, and that referrals are made appropriately?
- **Measuring progress:** How will you measure your progress? What partners do you need to execute the necessary data sharing agreements? Does your education system have a uniform kindergarten readiness assessment?

• STEP-BY-STEP •

CREATING A COHESIVE, shared vision and plan that can be actualized is an essential first step in creating a program like Providence Talks.

- **Set the vision:** Providence wanted to have a broad impact and eventually affect kindergarten readiness outcomes for large numbers of children. To achieve this goal, Providence settled upon a large target population for the program, seeking to reach 2,500 children, a full 20 percent of the “at-risk” children in Providence as defined by the Rhode Island Universal Newborn Risk Assessment. Providence also chose a broad, community-wide implementation of the program, recruiting a wide range of families with varying needs and strengths. This helped establish the model and will allow the Providence Talks team to develop a greater understanding of who benefits most from the program.
- **Create the strategy:** The Mayor’s Office Providence Talks team developed a strategic action plan, which incorporated testing various program models and moving forward with city-wide scaling only after learning from experience. The strategy relied on two primary service delivery models, home visiting and place-based family playgroups, and left open the possibility of new models as

STEP 1: PLAN

the program developed. The project budget accounted for costs for the known models — both the staff costs to manage the program, as well as the fees to service delivery providers and the costs for equipment for the families such as their word-counting DLPs and books.

- **Choose an administrative operations model:** Reaching 2,500 children in the city is a significant undertaking and the team had to decide how to structure its operations. Options under consideration included the city directly employing home visitors and group leaders, contracting with a single agency to manage multiple contracts, and establishing individual contracts with multiple providers. The team ultimately chose for the City of Providence to contract directly with multiple service providers to provide direct services. While somewhat complex, this approach allowed the city to achieve scale quickly while still giving the Providence Talks team some control over program delivery quality. The Mayor's Office Team consists of 3 full time staff members working on Providence Talks. This team is responsible for laying out the strategic vision for the program, developing implementation plans, designing contracts and ensuring that high quality services are delivered across the network of providers. This operating structure has required proactive management of contractor performance and has contributed to the spirit of continuous learning for the project.
- **Define the conceptual model:** Providence Talks decided to use home visitation as the initial service delivery model. This model mimicked the proven Nurse Family Partnership home visiting program, and the pilot relied on three agencies already delivering evidence-based home visiting programs. Before launching the Providence Talks pilot, the team created a detailed conceptual service delivery model and created a curriculum for how each of the home visits would be conducted. The 205-page curriculum is based on early education research and is aligned to the state's Early Learning Standards. Each session outline details not only how to coach families on improving their word count, but also includes interactive activities that the home visitor models

during each visit. By documenting the service model, contractors’ fidelity to the model can be assessed by a written standard.

- **Engage stakeholders:** Providence Talks reached out to the best academic experts in the field and created an advisory board during the planning process. This group met periodically by phone at the start of the project, and these stakeholders continue to be helpful as informal advisors and problem-solvers on specific issues. Stakeholder engagement was also critical to successfully reaching service providers, community organizations, and neighborhood groups. Figure 4 provides a checklist for the types of stakeholders that Providence Talks engaged, as well as their forms of involvement.

FIGURE 4:
Stakeholder Engagement Checklist

This checklist summarizes the major stakeholders for Providence Talks. Although this checklist reflects the specific environment in Providence, it can be a helpful starting point for other cities to think about their relevant stakeholders and ensure that all the appropriate parties are involved.

ENGAGED?	STAKEHOLDER TYPE	PROVIDENCE STAKEHOLDERS	TYPICAL STAKEHOLDER INTERESTS	STRATEGIES FOR INVOLVEMENT
✓	ELECTED OFFICIALS	• Mayor • City Council	• Ability to address achievement gap • Budget impact • Reach to neighborhoods in greatest need	• Brief Mayor on project implementation progress and on results achieved • Brief Council members on key milestones in project progress and on results achieved • Create opportunities for key members of governance to experience the program (e.g. shadow visits)

FIGURE 4:

Stakeholder Engagement Checklist (continued)

ENGAGED?	STAKEHOLDER TYPE	PROVIDENCE STAKEHOLDERS	TYPICAL STAKEHOLDER INTERESTS	STRATEGIES FOR INVOLVEMENT
✓	GOVERNMENT	• City departments	• Want to see achievement gap closed • Assess ability to integrate and align program with their existing vision	• Invite to participate as advisors and implementation partners • Invite to submit ideas for testing new service delivery models • Engage in supporting recruitment mechanisms that are complementary to their program structures • Invite leaders of key departments to participate in governance or advisory board structures
✓	TARGET PARTICIPANTS	• Families of eligible children	• Want to help their children learn and be prepared for school	• Direct involvement in the services delivered by Providence Talks • Peer recruitment • Provide feedback about their experience in the program and on the development of new materials
✓	COMMUNITY BASED GROUPS	• General public • Neighborhood groups and community based agencies • Advocacy and issue groups	• Want opportunity for all children to succeed	• Engage for outreach to build awareness of project • Engage as service delivery partners • Engage for idea generation for new program models • Engage in coalition building for allocation of resources to support the program

FIGURE 4:

Stakeholder Engagement Checklist (continued)

ENGAGED?	STAKEHOLDER TYPE	PROVIDENCE STAKEHOLDERS	TYPICAL STAKEHOLDER INTERESTS	STRATEGIES FOR INVOLVEMENT
✓	INFLUENCERS	• Academic experts • Policy and innovation experts	• Advancement of the field and of tools • Sharing of ideas across governments	• Invite to participate on advisory board • Leverage for sharing results
✓	PROGRAM PARTNERS	• Agencies serving low-income families in Providence • Technology provider (LENA) • Evaluator (Brown)	• Invested interest in enhancing the quality of services offered to their clientele	• Deliver program to families • Consult on curriculum development and program design • Pilot ideas for future program development
✓	PRESS/MEDIA	• Local print, TV and radio • National and international media	• Salient and popular articles/posts, etc. that will help grow market presence	• Proactively engage at key milestones, particularly for each release of program outcome results



STEP 2: PROTOTYPE

The City's Providence Talks team has committed to building an implementation culture of prototyping and piloting as opposed to lengthy and arduous planning. Program leadership views the process of testing, learning and adapting as the best way to develop a program that meets the needs of the community and produces the best outcomes. This philosophy also requires that failure be allowed, acknowledged and learned from as a key process of program implementation. The learnings realized from Providence's successful efforts to prototype, pilot, and evaluate the program (outlined below) are valuable. A city wishing to replicate the program can take advantage of these detailed learnings and save valuable time.

- **Engage in early program development:** While still developing the action plan and budget, a half dozen City Hall staff, including the project manager and the Mayor, tried using the word-counting DLPs to make recordings of their home language environment with their own babies or toddlers. This prototype was extremely helpful in understanding how families would experience the program, from understanding common errors in making the first recording to evaluating the results. For example, the first recording for the project manager showed a daily home word count well below the national average, and in a home of two parents who thought they were on the right path of reading and talking to their child. This gave the team insight into how parents may feel when receiving feedback about their baby's language environment, and demonstrated the value of objective measures. This prototype also revealed the importance of looking at data about the day's recording alongside the family's written description of the activities of the day, as this is a helpful way to notice the patterns in the amount of talk that happens during different types of activities.
- **Continuously experiment:** The team intentionally tested each element of the program prior to the official pilot phase. Each wave of the program included a testing phase, where the objective was to experiment and learn. Different approaches were tried so that results could be compared and the best methods assessed. A prototype of the home visiting model reached 175 children using three service providers. Each of the contracted service providers used a slightly different approach or addressed a different target group. For example, two service providers recruited Providence Talks participants from the families already being served by their programs, while another sought to reach families who had not been engaged by their agency before.



STEP 3: PILOT

Providence Talks completed a pilot phase in September 2015, serving 175 families by leveraging existing home visiting programs of three high-quality nonprofit organizations. It was during this pilot that key components of the curriculum and program design were tested, modified and adapted to ensure high quality services were being delivered to families in the City of Providence. These efforts helped to design the full launch of the program to city-wide scale in October of 2015.

- **Pilot at each phase:** The team continued to include tests of each new addition to the model. When launching the group model, two approaches were tried – one where the families would come to the center for meetings and another where the meetings would be held at locations where families were already gathered. Lessons learned from each variant tried in the pilots were incorporated into the revised program model.
- **Reflect:** Throughout the pilot process, the team met with the home visitors to hear about both the successes and challenges of working with families. Home visitor feedback helped to improve the program, from the amount of time and the structure of their training to the best way to encourage families to stay in the program. An anonymous survey of home visitors identified training needs and areas for improvement in program materials. The team also conducted parent focus groups when exploring different models. Brown University conducted a literature review to gather insights to improve the program, and reviewed the implementation process for ways to improve outcomes. A review of the process from a family's initial inquiry to the first recording identified processing delays, and as a result the on-boarding process was streamlined from over 30 days to five.
- **Update model to reflect learnings:** Program design changes reflect insights from the pilot. Early efforts to recruit families were disappointing, with far more choosing not to participate than opting in. Families gave the feedback that the program seemed like a big time commitment with intimidating technology. Providers felt that some families seemed too busy, over-

programmed, or distracted to focus on the program. These families had difficulty adhering to the recording frequency and as a result staff felt strongly that programmatic adjustments needed to be made. Based on this input, the recruiting program was modified to incorporate peer recruiters and parent testimonials, and program enrollment increased in response. Reviewing the data on families in the pilot also showed that participation tapered off considerably after six months. In response, the curriculum was redesigned to be more intensive, with biweekly visits for five months, followed by monthly visits for three months. Furthermore, the initial pilot showed that families who dropped out dropped out early, so additional supports were added to keep families engaged during the critical first month. Initial testing of the family playgroup model suggested that a shorter, more intensive program might be more successful, so the curriculum is currently under consideration as well.

STEP 4: SCALE

Moving from pilot to city-wide scale required the Providence Talks team to closely examine all program areas to ensure the infrastructure was prepared for scale. This included developing plans to ensure the program can be provided with quality and fidelity while also ensuring that recruitment efforts can be maximized to reach the target families.

- **Develop marketing and outreach strategy:** The team contracted a firm that provided a full range of outreach and marketing services, including traditional and new media. Some of the most successful outreach efforts included Spanish language radio interviews with home visitors, which tripled the usual weekly intake rate after a live interview. Facebook ads, which are cheaper than costly print or radio ads and can be targeted to those most likely to enroll, had higher return on investment than traditional ads. Outside help in crafting the program's motto, "Talk to Teach," was helpful not just for the fresh perspective, but also for the ability to test various options with the intended audience.

- **Use smart contracting:** When Providence Talks went from pilot to city-wide scale for home visiting, the improvements were all codified in the provider contracts, which incorporated performance incentives to align their goals to the city's goals. Monthly provider reports track their individual progress and benchmark them against peers. Performance incentives are paid quarterly for meeting enrollment and quality metrics. Beginning in October 2015, enrollment increased exponentially as a result of these new contracts.
- **Document:** Training new provider staff to reach city-wide scale was a major undertaking and required very detailed documentation of each step of the process, from enrolling a family to invoicing for services provided. Detailed operations and training manuals were developed and every step in the process was digitized and shared on the Providence Talks website, lowering the cost of producing paper documents and improving accuracy and completeness of project documents. The 123-page operations manual includes 23 appendices and includes everything a provider needs to properly run the program and document results.
- **Report out learnings:** After reflecting with Brown University on their research findings from the pilot, and discussing with the LENA Research Foundation their latest insights, the team published a report describing the pilot and sharing the results. A public event shared the findings and sought to advance the public conversation on closing the word gap in Providence. This event generated both press attention and momentum for newly on-boarded providers.
- **Support neighborhood-based recruitment:** Several months into the process of scaling city-wide, it was clear that providers were having trouble recruiting families. Providence Talks engaged AmeriCorps staff in city neighborhoods as recruiters and ambassadors for the program and asked each provider to identify a neighborhood-based peer recruiter. For calendar year 2016, this direct recruitment method has produced six times as many enrollments as more traditional recruitment methods. Moreover, those who are enrolled via direct outreach are staying in the program at higher rates.



STEP 5:

EVALUATE

Evaluation can help assess program efficacy, and can provide helpful insight to improve process.

- **Conduct formal evaluations:** At the start of the project, Providence Talks contracted with Brown University for an objective evaluation of program outcomes. Brown provided process evaluation feedback for the pilot, and is also conducting a rigorous study to compare the progress of children in Providence Talks with children in nearby cities who do not participate in the program. Brown's evaluation will measure both the results achieved during the program period and the long-term impact of the program.
- **Use informal continuous feedback loops:** Even at scale, Providence Talks strives for continuous learning. Program staff receive periodic coaching to support their professional development in line with national standards, and quarterly feedback sessions among provider executives share best practices so that all can benefit from any insights in the network. The semiannual data analysis from Brown also provides a formal assessment of the program outcomes.

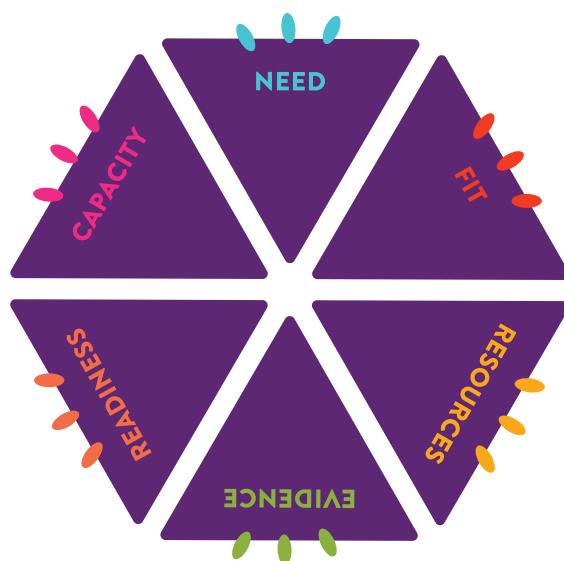
• HEXAGON TOOL •



THE HEXAGON TOOL can be used as a planning tool for cities to evaluate if a proven or promising innovation might be appropriate for implementation locally. The tool shown here is adapted from the Hexagon Tool created by the National Implementation Science Network (NIRN) and describes the conditions for successful replication of Providence Talks.

FIGURE 5:

Hexagon Tool for Evaluating Replication Potential⁴



NEED	• Word gap for children starting kindergarten • Achievement gap persisting during K-12 education • At-risk newborn, early childhood, and preschool population	READINESS	• Leader understands Providence Talks model, theory of change, and implementation process • Leader understands local strengths and how best to apply elements of Providence Talks to local needs • Vision for reducing word gap, and implementation plan in place
FIT	• Aligns with mayoral priorities • Aligns with broader education and social service delivery vision and infrastructure	CAPACITY	• Existing service delivery providers for early childhood programs, or resources to build service delivery capacity • Management experience to oversee service delivery providers • Leader able to think creatively about best model for delivering Providence Talks, able to make difficult decisions, forge alliances, build capacity, and proactively manage for results
RESOURCES	• Strong project leader • Support from mayor • Sufficient funding to achieve results • Responsive provider community able to deliver services with program fidelity	EVIDENCE	• Documentation of achievement gap • Documentation of risk among newborn and early childhood population • Providence Talks results demonstrate potential of model for interested cities

⁴This tool is adapted from the work of the National Implementation Research Network, <http://implementation.fpg.unc.edu/resources/hexagon-tool-exploring-context>.



EVALUATION CAN HELP ASSESS PROGRAM EFFICACY, AND CAN PROVIDE HELPFUL INSIGHT TO IMPROVE PROCESS.

NEXT > LESSONS LEARNED



LESSONS LEARNED



• OVERVIEW •



WHILE THE IDEA for Providence Talks is based on research and evidence, a city-wide word gap initiative had never been previously attempted. The team in Providence is the first to use evidence on the word gap to create a program vision and to translate that vision into action. Reflecting on the challenge of putting research insights to practical use in program design and implementation, Providence Talks learned the following lessons.

- **Start with a clear vision:** The earliest planning for Providence Talks focused on one thing only – closing the word gap. This enabled all decisions to connect to the vision and remain focused on achieving a common goal. While there are many aspects of related research, the City’s team stayed focused on the core insight about increasing both word count and conversational turns for children. This focus helped the project stay on track and deliver results.
- **Build a culture of adaptability and test everything early:** In Providence, the team’s openness to change and the philosophy of continuous learning were the most important factors in the program’s success. The original concept for Providence Talks relied on existing home visiting service providers and program delivery primarily via home visits. During the pilot, the team realized that this approach would not allow the program to reach city-wide scale at a sustainable cost. The home visiting model is resource-intensive, with the home visitor making weekly and then biweekly visits to the family for individual coaching and to pick up the recording devices. After launch of the project, the team determined that including additional one-to-many models would be necessary to achieve scale while maintaining planned cost. There are now three program delivery models, each prototyped on a very small scale to test and learn before developing a model for wider implementation: home visitor, family playgroup, and early childhood professional.

- **Learn fast and early, but plan for longer-term evaluation:** At the start of the project, Providence Talks contracted with Brown University for the evaluation of both the initial pilot and the long-term impact of the program on kindergarten readiness. Providence needed early feedback to make sure the program was working as intended, and Brown also had to be involved in the program design to ensure all the data was being captured that would allow them to do a formal evaluation later in the program's implementation. Involving a research partner early helped foster a culture of continuous learning and set their formal evaluation up for success. In addition to formal evaluation, Providence put in place a system to continuously gather feedback from participants, home visitors and other partners to refine and improve the model.
- **Secure investment from leadership:** Providence Talks benefited greatly from complete mayoral commitment to the team's success through two administrations. Mayor Angel Taveras completed the Mayors Challenge grant application; his personal commitment to early childhood programs comes from the fact that he is a Head Start graduate himself. When Mayor Jorge Elorza took office in 2015, Providence Talks was completing its pilot phase. As a graduate of Providence Public Schools, Mayor Elorza shared Mayor Taveras' passion for early childhood education and strongly supported the growth of Providence Talks, making it one of his administration's key initiatives. When trying something new with projected long-term impacts, the support of the mayor is critical to sustain periods of experimentation and refinement.
- **Use existing evidence to guide decisions:** Not only is the concept for Providence Talks based on research and evidence, but many of the programmatic decisions also draw upon evidence from the early education and social services fields. The original service delivery model was home visiting, which mimics the evidence-based Nurse Family Partnership home visiting program, and the pilot relied on three agencies already delivering evidence-based home visiting programs. Before launching the Providence Talks pilot,

the team created a detailed conceptual service delivery model and created a curriculum for how each of the home visits would be conducted. The 205-page curriculum is based on early education research and is aligned to the States' Early Learning Standards. This adaptation of evidence-based models provides legitimacy to a new innovation.

- **Stay informed, stay flexible:** While built on research available, the team wanted to continue to reflect on and adapt to any emerging insights from the field. To keep abreast of the best current relevant research, Providence Talks reached out to the best academic experts in the field and created an advisory board. The team also participated in national conferences to stay current with all the work in the field. Through this engagement, it became clear that no one was addressing the language environments of children in daycare. Given that many low-income children go to daycare each day, Providence launched a small pilot with child-care providers to educate them on the importance of talking and to increase the words children in daycare hear each day.
- **Build routines and documentation to ensure high-quality services:** Initial pilot results showed that service delivery quality varied widely across the handful of providers. This raised concern about the ability to launch a quality program consistent with the research findings at city-wide scale. In response, the Providence Talks team built a strong training model for providers, and created monthly metrics to track quality of service delivery and fidelity to the program model. Experienced staff provides coaching to all home visitors and group program leaders.
- **Build a coalition and do it early:** Providence Talks forged key partnerships very early in the program's development process. The LENA Research Foundation provided technology, equipment, and training, as well as technical and analytic support. Brown University has served as an outside evaluator, completing a process evaluation of the pilot and initiating a rigorous outcome evaluation of the program as it achieves city-wide scale. Several early childhood education providers helped with program design and piloting of the home visiting model.

• CONCLUSION •

PROVIDENCE TALKS IS attempting 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 succeed. Providence Talks is a revolutionary approach to early childhood education, and the results demonstrate its potential: Providence Talks is reaching the kids who need it most, parents are talking more with their children, and the results are sticking.

Furthermore, Providence Talks is helping to build the evidence base for the importance of parental talk and engagement, and the program itself has the potential to be replicated in other communities. Closing the word gap and ensuring that children enter school ready to succeed are critical, in any city, and Bloomberg Philanthropies and the City of Providence are committed to sharing the resources and lessons learned from the implementation of Providence Talks.

Learn More:

Providence Talks Website: providencetalks.org

Mayors Challenge Website: mayorchallenge.bloomberg.org

• RESOURCES •

THE PROVIDENCE TALKS team has made many helpful documents available for potential replicators. These materials can be modified and reused by another city to implement a similar program and can be found on the Resources page of the Providence Talks website.

- I. 2016 Implementation Plan
- II. Provider data report
- III. Request for Proposals for outreach and marketing
- IV. Operations manual
- V. Curriculum
- VI. Participant recruitment brochures
- VII. Video testimonials
- VIII. Parent satisfaction survey
- IX. LENA snapshot form

• GLOSSARY •

Achievement gap: The gap between academic achievement in school of low-income children and their higher-income peers. Often, this can be used to refer to a gap in achievement between racial and ethnic groups. The achievement gap can refer to achievement gap at any level of schooling, and has been documented in research to exist as early as kindergarten.

Adult word count: Same as daily word count. The DLP only counts adult words, or those spoken by someone at least 15 years of age.

Baseline: The score reported on the first recording for a child participating in Providence Talks.

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

Curriculum: The Providence Talks 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 Rhode Island 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, Providence Talks 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.

DLP: Digital Language Processor - see "talk pedometer".

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.

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 the 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.

LENA Research Foundation: A 501(c)(3) public charity located in Boulder, Colorado. LENA is an acronym for Language Environment Analysis. LENA provides Providence Talks with the technology used to capture the language environment of children enrolled in the program.

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 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.

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 Early Learning and Development Standards: Rhode Island's standards for assessing and determining appropriate, age-level development in children. The Rhode Island 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 it.

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.



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ABOUT THE MAYORS CHALLENGE

The Mayors Challenge is an ideas competition that encourages cities to generate innovative ideas that solve major challenges and improve city life – and have the potential to spread to other cities.

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