



**REDUCING INEQUALITY BY FOCUSING ON THE VERY YOUNG:  
BOA VISTA, BRAZIL, DEEPENS ITS INVESTMENT  
IN EARLY CHILDHOOD DEVELOPMENT, 2009–2016**

*Bill Steiden drafted this case study based on interviews conducted in Boa Vista and Sao Paulo, Brazil, in July and August 2019. Case published October 2019.*

**SYNOPSIS**

Narrowing the gap between rich and poor was a top priority for Teresa Surita, five-time mayor of Boa Vista, Brazil. Surita had long viewed early childhood development services as crucial for improving life chances and attaining that goal, and she had partnered with several programs to expand parent coaching and other opportunities. As her fifth term began in 2017, she turned to a program called Urban95, which called for making a top priority the needs of young children and their families in all of the city's planning and programs. Building on work the city had already done, Surita and her department heads undertook projects that included adapting a neighborhood to the needs of young children and their caregivers and building a cutting-edge data dashboard and alert system designed to ensure citizens would get help when they needed it. The city sought to keep those efforts on track while also extending assistance to families among the refugees fleeing deprivation and violence in neighboring Venezuela. As the term of the initial phase drew to a close in September 2019, municipal officials began to take stock of progress and results. Despite some philosophical disagreements and some uncertainties about the future of vital federal funding, the city was on track to achieve its project goals.

## INTRODUCTION

Beginning in 2012, Boa Vista, Brazil, proudly proclaimed it would invest in children from birth to age six years in order to create what its website said would be “a healthier and more egalitarian society.”<sup>1</sup> Embracing scientific evidence that better health, nutrition, and social engagement in a child’s first three years had a long-term payoff in terms of academic achievement and higher wages later in life, Mayor Teresa Surita sought to make the Brazilian municipality the “Capital of Early Childhood.”

Originally a frontier encampment in the northern Amazon River basin,<sup>2</sup> Boa Vista was the capital of Roraima, one of Brazil’s newest states (figures 1 and 2). Despite dramatic population growth since Roraima gained statehood in 1988, Boa Vista’s estimated 375,374 residents in 2018<sup>3</sup> still lived thousands of kilometers from most of the country’s major cities. On the borders of indigenous areas with restrictions on land use, the city, once a hotbed of gold prospecting, had limited potential as a site for mineral extraction or large-scale industry; and it remained a modest commercial center—more dependent on federal aid than most of the other Brazilian capitals. The inequality that the mayor worried about was largely a product of those circumstances. Although Boa Vista lacked large industrial employers, the city had become a destination for people migrating from the surrounding countryside—an area with some of the highest poverty rates in Brazil.<sup>4</sup> It was also a safe haven for people fleeing an economic crisis in Venezuela.

Though Boa Vista was known for its landscaped parks and attractive city center, festooned with slogans like “Eu Amo Boa Vista” (“I Love Boa Vista”), the poor neighborhoods on the city’s west side presented a sharp contrast. “Sometimes it can feel like there are two different cities,” said



**Figure 1.** Location of the state of Roraima in Brazil. Boa Vista is the capital of Roraima and the home of about two-thirds of Roraima’s population. *Credit: Wikimedia*



**Figure 2.** Aerial view of Boa Vista’s central area. *Credit: Wikimedia*

Jacqueline Baumgratz, head of Bola de Meia, a Brazilian nonprofit involved in addressing early childhood development in Boa Vista.

With plenty of room to expand in its flat, savanna setting, Boa Vista never saw the onset of favela slums like those in the country's larger cities, where poor, rural transplants built tightly packed, ramshackle homes on flood-prone riverbanks and steep hillsides that formal development had bypassed. But like the favelas, the neighborhoods where the migrants settled in Boa Vista experienced elevated rates of poverty, teen violence, and illegal drug use. Many of the residents were of indigenous origin and struggled to overcome prejudices against them.<sup>5</sup>

During a previous term as mayor, Surita had launched an initiative on early childhood development as a way to increase opportunities for youths who grew up in those neighborhoods. These investments were consistent with national policies designed to help address inequality through early childhood education and programs that provided monetary support to households conditioned on keeping kids in school and meeting health appointments.

Beginning in 2017, the mayor sought to improve early childhood development services and widen their reach by aligning parks, clinics, and transportation routes with the needs of very young children and their families. These steps would help scale existing services, she reasoned. The issue she and her leadership team faced was how to best coordinate city departments to achieve this ambition.

## THE CHALLENGE

Surita had abundant experience in government and child development policy. In addition to serving as mayor, she had represented Roraima state in Brazil's national congress, and she had served as national secretary of urban policies in the Ministry of Cities. In those roles, she became a leader in the area of children's issues, wrote a federal law that increased penalties for child abuse, and assembled a coalition of lawmakers that won the bill's passage. She worked closely with fellow National Congress member Osmar Terra, a pediatrician and pioneer in Brazil's movement to make early childhood development a national priority.<sup>6</sup> As a result of her work, Surita participated in the 2012 Executive Leadership program in early childhood development for Brazilian officials at Harvard University, the first of what became an annual series.

The decision to invest in early childhood development in Boa Vista had evolved gradually. During her 2001 to 2004 term as mayor, Surita had introduced a program called Projeto Crescer (Project Growth), which sought to divert troubled teens from drug use and crime by training them in such skills as product assembly, craft making, data processing, and cooking. But, she said, even though the city claimed the program reduced teen violence by 72%, teens who came from chaotic, violent backgrounds could too easily slip

back into risky behaviors. Therefore, intervention had to come at an early age, she concluded.

In turning her focus to early childhood development after her 2012 election, Surita cited research showing that children's success in learning, applying their intelligence, and building successful lives traced back to the first years of life, when the brain rapidly forms synaptic connections and children develop awareness of the world around them. A mother, a stepmother, and a grandmother of two, she believed in the long-term value of focusing on the formation of affectionate familial bonds during that crucial, early period and of teaching parents how to instill social and learning skills in infants and toddlers.

To act on those ideas, the mayor began working with a Brazilian philanthropy called the Maria Cecilia Souto Vidigal Foundation and other nonprofit partners to institute a program called *Família que Acolhe* (Welcoming Family) in the city (figure 3). Low-income pregnant women who registered for the program, met its requirements for attendance at health checks and in parenting classes (some 30 classes in all, with attendance of 75% mandatory), and continued to participate through their children's first three years received guaranteed day-care placement for their children in one of the city's 33 nurseries, called *Casas Mães* (Mother Houses). They also received a package of baby-care supplies, regular milk allocations, and in some cases, food assistance.



**Figure 3.** *Família que Acolhe* offices in the Pintolândia neighborhood. *Credit: City of Boa Vista*

The city credited the *Família que Acolhe* program with reducing Boa Vista's rate of infant mortality, which fell to 11.9 per 1,000 in 2017<sup>7</sup> (the year for which the most recent figure was available) from 18 per 1,000 in 2012. Brazil's national rate was 12.4 per 1,000 in 2018.

In 2016, Brazil's legislature enacted a law making early childhood development a focal point of the country's social policies, and Terra, then national minister of social development, launched a national home-visiting program, *Criança Feliz* (Happy Child). The program sent social workers to provide training in parenting skills at the homes of expectant mothers and families with young children who were receiving aid under the federal *Bolsa Família* (Family Funds) conditional cash-transfer program. Terra cited *Família que Acolhe* as one of the inspirations for the *Criança Feliz* initiative.<sup>8</sup>

Reaching poor families and coordinating a wide range of city departments to serve more of the city's youngest residents required Surita's leadership team to confront serious challenges.

- Identifying pregnant women who were eligible for Família que Acolhe—and winning their voluntary participation—could be a tall order. City agencies maintained separate databases, and record keeping was often spotty. Eduardo Marino, director of applied knowledge at the Maria Cecilia Souto Vidigal Foundation, said that in the past, the city had even employed workers to approach expectant mothers on the street and urge them to enroll in Família que Acolhe.
- In addition to boosting its knowledge base and data capacity, the municipal government had to develop a system that would facilitate close cooperation among departments that had rarely worked together.
- Transportation and weather posed other challenges. Many of Boa Vista’s poorer women and families depended on public transit, which was limited in the relatively small city, or they traveled on foot or by bicycle—a difficult prospect for those with small children in tow. In some of the informally settled areas established on government-owned land, sidewalks were intermittent or nonexistent. And although the city had few hills, torrential rains often flooded portions of the flat landscape in the equatorial winter, making streets and sidewalks temporarily impassable. Also, summers in Boa Vista could be dangerously hot, with temperatures at times topping 40 degrees Celsius, or near 110 degrees Fahrenheit.
- Despite public enthusiasm for existing programs focused on young children, it was unclear how to best sustain the initiatives beyond the end of the mayor’s term in office.

## FRAMING A RESPONSE

At first, Surita turned to a familiar ally, the Maria Cecilia Souto Vidigal Foundation, as she sought ways to overcome the challenges. The foundation, which had provided expertise and training in the past, helped the city to partner with Grand Challenges Canada to designate Boa Vista as one of the sites for a pilot that would implement and then evaluate the effectiveness of Survive and Thrive, a home visitation program for early childhood development based on a Jamaican-originated model known as ReachUp (text box 1). Federal funds for Criança Feliz helped pay for the pilot.

But the city still had to find ways to make it easier for families to use the services available and to reduce the cost of expanding these programs. Surita decided to sign on to a program called Urban95 that provided support to address just such problems. (text box 2). Introduced by the Netherlands-based Bernard van Leer Foundation, Urban95 helped cities find ways to align transportation, infrastructure, parks, and services so as to better serve young children. The foundation provided a US\$385,000 grant to support a program that would include:



### Textbox 1: ReachUp in Boa Vista

Boa Vista had an international reputation for investments in early childhood development. Its Família que Acolhe program had gradually modified its work, with the help of research on the effectiveness of parent support, book-lending programs, and other initiatives on child language development and cognitive potential.

In 2017, the city began to test the likely impact of scaling a home visitation program that served pregnant women and caregivers of young children in 10 low-income neighborhoods. Modeled on a program called ReachUp, which had been pioneered in Jamaica in the 1970s, Survive and Thrive had proved effective in reducing child mortality in smaller-scale trials in São Paulo, and it was associated with other benefits of early childhood development, including greater success in learning and life. The original Jamaica model was a low-cost home-visiting program that provided nutrition and social stimulation for children as well as parental support of families, with the aim of reducing infant mortality and improving child development indicators. The program had a record of long-term success and was being replicated in many other countries.

Boa Vista was hosting an experiment to test whether home visits produced better results than the same kinds of support provided through community centers. One group of trained child development agents followed a detailed program with expectant mothers and caregivers during biweekly home visits. And a group of caregivers received instruction at the city's Centros de Referência de Assistência Social. The results would help inform both the city's investments and the design of Brazil's national Criança Feliz home visitation program, which had a less-structured format of weekly home sessions. Grand Challenges Canada was helping fund the program with partners that included the Maria Cecilia Souto Vidigal Foundation.

See *Reach Up, Jamaica*, Center for the Economics of Human Development, University of Chicago, accessed at [cehd.uchicago.edu/?page\\_id=1522](http://cehd.uchicago.edu/?page_id=1522), and REACHUP: *How a Jamaican Early Childhood Intervention Swept the World*, part of a series on scaling social impact in partnership with the Bernard van Leer Foundation, *Apolitical*, April 12, 2018, accessible at [apolitical.co/solution\\_article/reach-up-how-a-jamaican-early-childhood-intervention-swept-the-world](http://apolitical.co/solution_article/reach-up-how-a-jamaican-early-childhood-intervention-swept-the-world). Also see Survive and Thrive Boa Vista Early Childhood Program (STBV), accessible at: [clinicaltrials.gov/ct2/show/NCT03386747](http://clinicaltrials.gov/ct2/show/NCT03386747).

- *Creating an integrated data dashboard that would bring together the various social service, health, education, and other city and federal databases and apply innovative technologies to link information across them.* As envisioned, the system would produce alerts that would notify city officials when a woman was expecting a child, when she was missing health appointments and parenting classes, when a child was showing signs of abuse or neglect, and when certain other indicators arose.
- *Decentralizing some of the Família que Acolhe services to the city's Centros de Referência de Assistência Social, or Social Assistance Referral Centers.* There were seven such federally mandated social-service clearinghouses in Boa Vista where neighborhood residents could receive evaluation of their needs and register for assistance.
- *Creating an infrastructure database.* The city, with assistance from Bernard van Leer Foundation–funded consultants, aimed to create a Territorial Technological Center to train a hundred students from local higher education institutions in Urban95 principles and georeferencing

## Textbox 2: How successful societies, toddlers, and urban planning go together

In 2007, a report in the medical journal *The Lancet* estimated that 200 million children younger than five years of age would fail to reach their lifetime potential in cognitive and socioemotional development because of four causes: malnutrition, iodine deficiency, iron deficiency, and inadequate stimulation. From birth to three years of age, the rapid formation of neural pathways in a child’s brain—at a rate of 1,000 synapses per second, according to *The Lancet*—shapes future achievement, including performance in school, social integration, and labor market success. The societal benefit from investment in early childhood development is possibly as substantial as gains from the prevention and control of endemic disease, researchers reasoned. Commentator Richard Jolly wrote, “The problem is not the lack of knowledge about what to do but the lack of professional and political commitment to mobilize action on the scale required—and for poorer communities in countries throughout the world.”

The United Nations Sustainable Development Goals (SDGs) soon brought that challenge to the attention of governments. SDG Target 4.2 pushed governments to ensure that by 2030 all children would have access to quality early childhood development, care, and preprimary education so that they would be ready for primary education. However, scaling even the best early-childhood-development interventions, such as parent coaching, could be difficult. Many families lived in areas that were hard to reach because of difficult geography, limited infrastructure, or conditions of violence. And staffing costs could deter local governments and other providers. In response to the challenge, the Bernard van Leer Foundation decided to reward creative ideas about how to enable cities, where the majority of the world’s population lives, to serve children younger than five years and their caregivers more effectively and efficiently. The foundation encouraged municipalities to align street design, sidewalks, parks, public transportation, and building hours with one another in an effort to improve access to key services and encourage social interaction while also clustering services that caregivers and children need. Its Urban95 initiative, launched in 2016, asked, “If you could experience a city from 95 centimeters—the height of a three-year-old—what would you change?”

The foundation noted that when children benefit, so do others: “When urban neighborhoods work well for pregnant women, babies, toddlers, and young children, they also tend to nurture strong communities and economic development.”

See Richard Jolly, “Early Childhood Development: The Global Challenge,” commentary in Child Development in Developing Countries series, *Lancet* 369:8-9. *Lancet* series accessible at [www.who.int/maternal\\_child\\_adolescent/documents/lancet\\_child\\_development/en](http://www.who.int/maternal_child_adolescent/documents/lancet_child_development/en). A 2016 *Lancet* series on the same subject appears at [www.thelancet.com/series/ECD2016](http://www.thelancet.com/series/ECD2016). The full Urban95 description appears at [bernardvanleer.org/solutions/urban95/](http://bernardvanleer.org/solutions/urban95/).

techniques. The students would then map neighborhoods to show important details such as sidewalks that failed to meet standards; houses that lacked connections to city utilities, which would indicate the houses likely also were not formally deeded on city records; and the locations of vacant lots that might be converted into so-called pocket parks, where children could play close to their homes.

- *Reworking the school system’s Desbravadores Digitais (Digital Pathfinders) program for 9- and 10-year-olds.*<sup>9</sup> The revised program would teach children the Urban95 principles and then have them use digital tools to perform research and draw up public policy proposals to apply the ideas. The

program aligned with Brazil's new common-core curriculum for primary schools, which called for teaching children how to find information online, how to use word-processing software, and how citizens can interact with government to address societal needs.

- *Investing US\$5.2 million in an urban intervention pilot program for the city's Nova Cidade neighborhood, one of the poorest and most distant from Família que Acolhe offices, which were centrally located in the west side's Pintolândia neighborhood.* The project, paid for with both city and federal funds, would map and build safe and visually stimulating walkways—the Bernard van Leer Foundation called them *child priority zones*—linking residents to such services as the neighborhood's Centro de Referência de Assistência Social (the social service registration center), health clinic, and schools. The city also committed to build a square in Nova Cidade that would contain playground equipment and bathrooms geared specifically to children aged five years and under, as well as other family-friendly facilities. Initially, Boa Vista agreed to undertake a similar project in Pintolândia, but it delayed that work until a later phase.

The funding for development of the digital dashboard and the other project components came from the Bernard van Leer Foundation grant, and the city administration could accept the money without a council vote, Deputy Mayor Arthur Henrique Brandão Machado said. In the Brazilian government system, city councils must approve municipal spending, but that approval was already in place. Local ordinances passed in 2013 and 2015 made promoting early childhood development an official policy of the city, and Boa Vista's councillors had already approved spending for parks and infrastructure improvements during 2018–19. Surita—whose political coalition had a strong council majority—had the discretion to spend the money where needed.

To help implement the Urban95 program and administer funds, the city partnered with Bola de Meia, a nonprofit in São Paulo focused on creative and educational play for children. Together, they formed the Boa Vista Capital Project for Early Childhood, with Baumgratz, head of Bola de Meia, providing some general oversight to ensure partners achieved project goals and signing off on the city's funding requests, though the city itself handled project management. The city also agreed to provide the Bernard van Leer Foundation with a set of performance metrics meant to monitor the progress of various elements of the initiative (text box 3).

To oversee the work, Surita turned to a relatively simple solution. When she and her department heads launched the Família que Acolhe program in 2013, they also formed an executive committee to oversee its management. The original committee, which met regularly with the mayor, included the secretaries of social development, health, communications, education and culture, and special projects. It was led by the secretary of economy,



### Textbox 3: Monitoring performance

To monitor the progress of Urban95-related initiatives, the city of Boa Vista agreed to report to the Bernard van Leer Foundation on a set of indicators as follows.

- Number of children under six years of age reached by the interventions, with a target of 8,500
- Number of caregivers reached, with a target of 9,000
- Number of frontline workers trained
- Number of managers or supervisors trained
- Child development outcomes
- Increase in the amount of time caregivers spent playing outdoors with children
- Increase in number of medical visits during pregnancy
- Increase in number of caregivers supported by the ReachUp model
- Caregiver perceptions of safety, mobility, and isolation
- Percentage of vulnerable families supported by Família que Acolhe
- Percentage of vulnerable families supported by Criança Feliz
- Number of parks and pocket parks implemented per square meter
- Percentage of parks with drinking water, toilets, and other facilities for families
- Percentage of families with pregnant women and children under six years of age who have access to convenient public transportation
- Average speed of traffic in vicinities of public spaces for children
- Number of places for parents and children to stop and rest
- Kilometers of sidewalks to be paved or widened
- Average distance from bus stops to public spaces
- Quality of day care centers

planning, and finance and had a deputy secretary for special projects, who kept account of commitments, schedules, and progress.

Surita broadened the committee's responsibilities to include the Urban95 initiative, and she expanded its membership to include the public works secretary in recognition of the department's role in the pilot project and planned construction. Using the existing committee enabled Surita to ease the challenges of getting various government sectors to cooperate on a project that was outside of their usual lines of work. She said she had spent months persuading committee members of the importance of early childhood development when the group was originally formed. Now able to build on this past effort, the committee was a crucial solution to the interdepartmental coordination challenge that Urban95 presented.

### GETTING DOWN TO WORK

The grant agreement with the Bernard van Leer Foundation took effect in October 2017. The following month, the mayor gathered her secretaries, together with deputies from the agencies that had played the biggest roles in the initiative, for a meeting in which she introduced Urban95. In January 2018, the newly expanded Urban95/Família que Acolhe executive committee

held a two-day strategic-planning session with key staff and the mayor to determine priorities, roles, and responsibilities. Sergio Sintra, a strategic planning expert from Bola de Meia, guided the mayor and the secretaries through the session.

The secretaries talked about the resources that their departments could contribute to the program and how departments could help one another. The team performed a SWOT (strengths, weaknesses, opportunities, and threats) analysis and then set forth three top focus areas: providing children and their caregivers education, health, leisure, safety, and welfare services to promote better physical, social, and psychological development; establishing effective and continuous communication with both citizens and employees of the initiative; and grouping, understanding, and sharing data and information about Urban95 to monitor progress and ensure effectiveness. Other priorities included adapting the city's traffic flow to make it more child friendly and ensuring the comfort and safety of children up to age six years and their caregivers on public transportation. The city created a new organization, the Territorial Technological Center, to aid in collecting the data needed to achieve Urban95 goals.

Just as it had decided that the Família que Acolhe executive committee would oversee the Urban95 initiative, the city realized it also had certain other structures in place that it could adapt for Urban95 purposes. For example, the technology and digital inclusion department could connect the digital dashboard for social services to the Cidade Social (Social City) database serving Família que Acolhe. Also, rather than establish new sites for decentralized Família que Acolhe services, the city could use space in its seven Centros de Referência de Assistência Social. In addition, the city's 32 medical clinics could administer health requirements for Família que Acolhe.

In order to obtain community participation and feedback with regard to the planning of Urban95 interventions, Surita's team decided on a program called Braços Abertos (Open Arms), which was already facilitating interaction between government agencies and residents about neighborhood plans and issues. It played an especially important role in helping residents weigh in on the plans for the Nova Cidade pilot project, holding rounds of meetings about the proposal that influenced the final project.

### *Monitoring and evaluating*

Many of the projects planned by the Bernard van Leer Foundation grant initiative were still under way as the grant period drew to its October 2019 close, and uncertainty existed regarding monitoring and evaluation procedures and policies. Although the city had committed to a list of indicators on which it was to report, city leaders could point to no one official whose job it was to conduct such monitoring, and in September 2019, the city expressed uncertainty about what would constitute those measures.

In reporting on progress, Boa Vista focused on documenting the Urban95 project goals it had achieved (such as the number of new parks). While it could easily monitor these *implementation benchmarks*, it took more staff time and new procedures to collect information on *intermediate achievements* (such as growth over time in usage numbers for new parks, increased participation in Família que Acolhe of families who used improved transportation access or sidewalks, or improved interaction between children and caregivers). The city and its partners were still mobilizing to capture this type of information.

Reporting on *broad outcomes* that resulted from the goals required additional steps. The relatively brief time span of the initial grant did not allow for measurement of outcomes that accrued only over long periods. To assess gains from greater participation in services Família que Acolhe and other programs offered, for example, the larger question was whether children who had completed the program went on to display significant and lasting improvements in areas like academic performance, long-term health, and, ultimately, success in life. Then the city would have to identify whether improved access to services or better tracking increased completion rates and therefore boosted performance overall. At this early stage in the program, the city had to work with partners to devise a research design and to begin to collect the data that would eventually help it answer these questions.

Surita acknowledged the challenge and noted that the first children who had participated in Família que Acolhe were turning six years old in 2019. A planned study with the Maria Cecília Souto Vidigal Foundation proposed to measure the differences the program had made in their lives. But to get evidence of lasting results from the Família que Acolhe interventions and the Urban95 initiatives, the mayor said, would take far longer. “I need 15 years,” she said. “I need more time.”

#### *Making information more accessible*

The first step in broadening participation in the city’s early childhood development initiative was to ensure the program reached every pregnant woman who should be enrolled in Família que Acolhe. The health department recorded pregnancies in its database, but the information was separate from the Família que Acolhe database, Cidade Social. There also were separate databases for other city units and federal agencies that contained home addresses, e-mail addresses, phone numbers, information about family composition, and other details that could be useful in identifying potential recipients of services, establishing their eligibility, and ensuring they were getting the help they needed. Combining the databases into a single repository was a crucial step toward improving the monitoring of children’s and their families’ progress in Família que Acolhe and had potential applications for other city services as well, such as identifying overlooked

health care needs for young children and expectant mothers that the city's clinics could fill.

Work on a multiuser digital dashboard began in earnest in January 2018. Plans called for a new data warehouse for information from the relevant databases, which users could access via a new interface in Cidade Social. Initially, Machado, secretary of technology and digital inclusion at the time, was responsible for the project. Heading up the work was his deputy, Filipe Rocha, who later became technology chief when Machado shifted to new roles as deputy mayor and education and culture secretary. (As Machado took on new duties, he continued to represent the data project on the Urban95 executive committee.)

With help from consultants, the city devised a method for gleaning the relevant information about expectant mothers and children up to age six years from disparate sources: Família que Acolhe; Minha Casa Minha Vida (My Home, My Life), a federal housing-assistance program; Cadastro de Pessoas Físicas (Register of Physical People), a general Brazilian registration database that contained city-level health and school information; Escolinha de Esporte (Sports School), a Boa Vista city athletic program; and Produtor Rural (Rural Producer), a city registration for people engaged in agricultural production.

By April 2018, the dashboard was up and running, enabling users in the city's social development department, and other city departments, to search databases so they could identify and locate people in need of Família que Acolhe services or other aid. After creation of the dashboard, Machado said, "If you can't find [a woman's] number in the health system, you can go to the education system and find it there. Another thing is a child who has stopped going to school. You can look at various platforms and try to find out what's going on."

Workers seeking such information still had to search data separately from each source, but Rocha was working to create an interface that would enable a unified search that yielded a single set of results. Though Rocha left his job with the city in June 2019 to pursue business opportunities, he continued work on the project by contract and was devising an alert system scheduled to be rolled out in late 2019. Alerts that connected data about individuals across the databases would identify 10 potential concerns, including

- expectant mothers enrolled in Bolsa Família and expectant teenage mothers who had not registered with Família que Acolhe;
- Família que Acolhe participants who had stopped attending parenting-skills sessions;
- children three years and under who had no record of receiving vaccinations or pediatric care;
- and children who had had three or more hospital admissions for such reasons as injuries suffered as a result of aggression.

The alerts also would identify children who had been admitted with their caregivers to shelters for abused and threatened women.

Access to the alerts was limited to authorized supervisors in social services, education, and health agencies, who could then forward the alerts to caseworkers, teachers, or clinicians for follow-up. The alerts included suggested courses of action—for example, by identifying the resources available in the neighborhood of the individual in question for addressing a particular issue.

The system would sort the alerts and information by category so that, for instance, education alerts would go only to high-level supervisors in the sector directly involved, as required under Brazil's 2018 General Data Protection Law and other privacy statutes. Despite that, Rocha acknowledged that such information could raise privacy concerns, such as when the system matched an expectant teen mother for whom there was no known telephone number with a phone number for the teen's parent in another database—thereby creating the possibility of revealing information about a condition the teen wanted withheld from her parent. Rocha said it was the responsibility of the authorized recipients of the information to determine whether, under the law, distribution and use of the information were permissible.

The indicators that formed the basis for the alerts were similar to those formulated for projects elsewhere, such as an Urban95 pilot program in Recife, Brazil, and the Every Woman Every Child initiative launched at the United Nations Millennium Development Goals Summit in 2010. Using indicators others had established—instead of devising new ones—represented major savings in time and expense, Rocha said.

Initially, the alerts were vulnerable to information mismatches across the various databases. Machado said the next step would be to reduce information imprecision in the system and better pinpoint individuals, their addresses, and their contact information. Computer programs, too, would smooth out irregularities, would correct common errors like minor misspellings, and would connect information about individuals in the various databases. A technology known as block chain would share the most-accurate, best-confirmed information automatically between the systems and secure it from unauthorized alterations, he said.

Still, Rocha said, eliminating major errors in initial data entry had emerged as a stumbling block, even though department heads insisted their records were complete and accurate. He cited as an example an entry that identified a Haitian immigrant as Venezuelan. He also offered the example of a handwritten doctor's log of patients at a city clinic that, as entered into the health database, omitted two of the patients. Persuading administrators that their record keeping needed improvement and then working with them to ensure they carried out such measures as double checking of entries became more time-consuming than he had anticipated.



Machado said another problem was that the state government was in charge of the regional maternity hospital, and it did not immediately report when women gave birth. The delay meant it could be weeks before a woman and her newborn got needed assistance from Família que Acolhe. The solution, Machado said, might be to generate an alert in Cidade Social a few weeks before a woman's due date, so that city workers could begin monitoring her by other means, such as check-in phone calls.

In July 2019, the Bernard van Leer Foundation approved a US\$1.05-million second-phase grant for the city that contained \$473,000 in funding for the ongoing database work through 2021. Among the goals would be the automation of alerts and their delivery via text messages and e-mails. Plans also envisioned making it possible to monitor general indicators for social programs and for residents to register with Família que Acolhe and other social services by using their smartphones.

The code devised for the city system would ultimately become available to any other city or government seeking to adapt it for appropriate purposes.

#### *Making help more accessible*

In June 2018, Família que Acolhe began to decentralize, expanding some services to make them more accessible to more citizens across the city. The agency launched a parenting class on reading to young children at the Centro de Referência de Assistência Social in the União neighborhood in Boa Vista's northwest. By May 2019, various classes were available at all seven of the city's Centros de Referência de Assistência Social. In the Casas Mães, the city's public nurseries, parent meetings expanded to three a month from two, with the third devoted to discussing how parents could improve their interaction with their children aged two to four years in order to boost learning and psychosocial skills.

Thayssa Cardoso, the city's secretary of special projects, said the option had proved popular, though it was not yet clear how many mothers were attending Família que Acolhe sessions who would not have if the classes had remained solely at the program's offices in the Pintolândia neighborhood. She said that recruiting Família que Acolhe employees and training Centro de Referência de Assistência Social workers to run the remote classes were not difficult. In fact, in some instances, teaching at a remote site gave Família que Acolhe employees an opportunity to work closer to their homes. However, Cardoso remained concerned that it would be hard to match instructors to far-flung locations on a consistent basis and that if instructors varied from week to week they would lose the bonds they developed with caregivers and children who attended programs at the main offices, thereby leading to attrition.

A project under the second phase of the Bernard van Leer Foundation grant for Urban95, beginning in late 2019, would make it possible to use Cidade Social to assign Família que Acolhe participants to classes in places

that were easiest for them to reach and that were the most compatible with their schedules.

### *Reengineering neighborhoods*

The city had committed to build a pilot project that would determine what it would take to create child priority zones—special walkways connecting homes to services in low-income neighborhoods served by Família que Acolhe. The first neighborhood for testing the approach was Nova Cidade, the home of a Centro de Referência de Assistência Social serving 5,661 families that had registered for some form of social assistance.

The first step was to map the neighborhood in order to identify its resources and possible locations for improvements and amenities. To do that, the technology and digital inclusion department invited local higher-education institutions to join in the creation of a Territorial Technological Center. About a hundred students from colleges and universities would be enrolled in a program that would use georeferencing computer software and simple site-surveying techniques to draw up maps containing the desired information.

The Federal University of Roraima, the State University of Roraima, and Estácio College accepted the invitation. Aiding in baseline planning was the Arnaiz Institute, the philanthropic arm of a Spanish urban architecture firm that had previously worked with the city, and which had worked with governments throughout Latin America on strategies for meeting the United Nations' Sustainable Development Goals. Arnaiz identified information to collect, and it provided the open-source georeferencing program and base maps by using systems it had developed for previous projects in Colombia



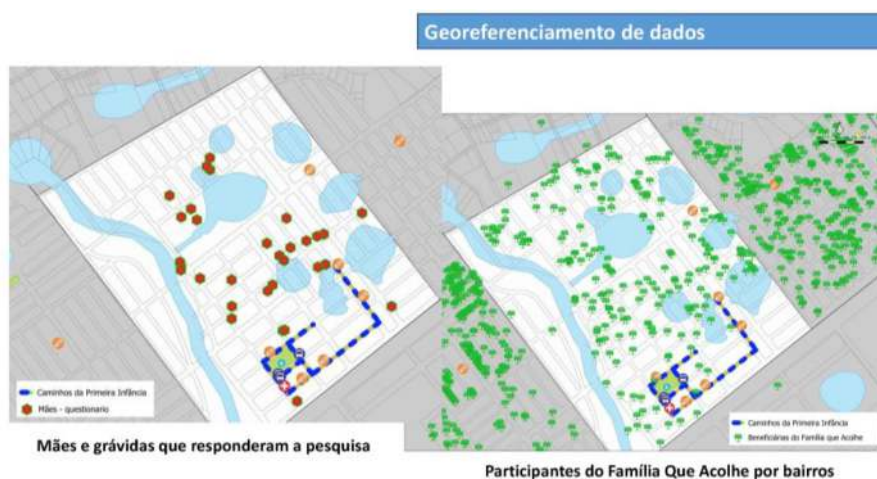
**Figure 4.** Students from the Territorial Technical Center document field information in Nova Cidade and then enter it into a georeferencing program. *Credit: City of Boa Vista*

and the Dominican Republic. The students then received instruction in how to conduct the surveys and apply their findings to the base maps (figure 4). After completing their classroom work, the students took to the field to document such information as locations and condition of sidewalks in Nova Cidade. In Brazil, sidewalks were the responsibilities of property owners. They tended to vary in width, height, and condition, and in some cases were simply missing. The students used a crude but effective technique—poles cut to the required minimum sidewalk width—to check whether the walkways met the standard. They also made note of gaps in sidewalks and other problems.

Other issues they documented included locations of schools, clinics, and other public buildings; streets in the vicinities of schools and other public facilities, whose speed limits should be reduced from the standard 40 kilometers per hour; locations of street crossings and whether they were marked properly; and locations of streetlights, bus stops, and places to rest like benches and vacant lots, which could become sites for so-called pocket parks.

The georeferencing software also made it possible for planners to amend the maps with such information as locations of households with Bolsa Família recipients (figure 5). Rocha said the students' work was not perfect but was acceptable—especially considering the minimal cost and the educational value.

The compiled maps then went to city planners and Elisabete Soares in the Boa Vista special projects secretariat, who coordinated Braços Abertos, a city initiative that since 2015 had communicated with neighborhood residents about their concerns and needs. Soares said the Urban95 approach emphasized the importance of neighborhood residents', including children's, participation in decision making with regard to the forms the interventions



**Figure 5.** Georeferencing maps of Nova Cidade overlain with the locations (left) of homes housing expectant mothers and (right) households receiving Bolsa Família cash transfers. *Credit: City of Boa Vista*

would take. To facilitate those conversations, Soares first met with the planners to discuss the data from the Territorial Technological Center and their responses to it. Then Braços Abertos gathered residents in a series of small-group meetings at local schools so that the residents could learn about the possible improvements, could view preliminary plans—which were posted on the walls of the meeting rooms—and could talk about their reactions, frequently with the mayor present.

The residents also traced on the maps the routes they took to and from public facilities. For instance, Nova Cidade, in addition to its Centro de Referência de Assistência Social, had three schools, a Casa Mãe, and a health clinic; and the sidewalks between them had lengthy gaps that forced people to walk in the streets. Braços Abertos had residents identify the homes of mothers with children and interviewed some of the neighborhood children to learn which amenities the children would like to see and their expectations for a playground in the planned square (figure 6).

The modified maps and information then went to the public works secretariat, which used them to draw up plans for a child priority zone that included improved sidewalks on the identified access routes, crosswalks, and a new square, which would have a playground and a bathroom intended specifically for children five years and under. Another feature of the park was a family picnic ground.

As the city prepared for the pilot project, the Bernard van Leer Foundation sponsored some key officials—including deputy special projects secretary Andréia Neres Ferreira; and public works secretary Alessandra de Almeida Pimenta Pereira—to visit Copenhagen for a study tour led by Gehl Architects and the Gehl Institute, which had partnered with the foundation in devising Urban95. Also making the trip was Angélica dos Santos Leite, executive director of city nonprofit Empresa de Desenvolvimento Urbano e Habitacional (Urban and Housing Development Company).

In Copenhagen, the Boa Vista delegation saw examples of Urban95-style projects and learned about implementation tools. Public works secretary



**Figure 6.** Project map of Nova Cidade, showing walking routes to be improved (green and yellow) and with locations of public facilities numbered: the new square (1); the Casa Mãe and schools (2); other city facilities, including the Centro de Referência de Assistência Social (3); and the health clinic (4). Religious institutions are (5).  
*Credit: City of Boa Vista*



Pereira said the information and ideas she encountered helped change her perspective. She said she had previously not understood why concern about facilities for young children should extend beyond schools, and she had previously thought Urban95 “was just about installing” premade playground equipment. Pereira said the visit also provided insights that would be valuable in overcoming initial resistance by engineers in her department. She recalled devoting considerable time and effort to individual conversations in which she urged them to take ownership of Urban95 initiatives.

Ultimately, Pereira said, the engineers caught on and came up with their own ideas. One that made its way into the planning for Nova Cidade drew its inspiration from a child who had complained about the difficulty of getting a turn on playground equipment when older children were using it. For a playground on a square, the engineers drew up a plan that was divided diagonally, with equipment for different age groups in each half and a central walkway from which parents could monitor which children played in which half.

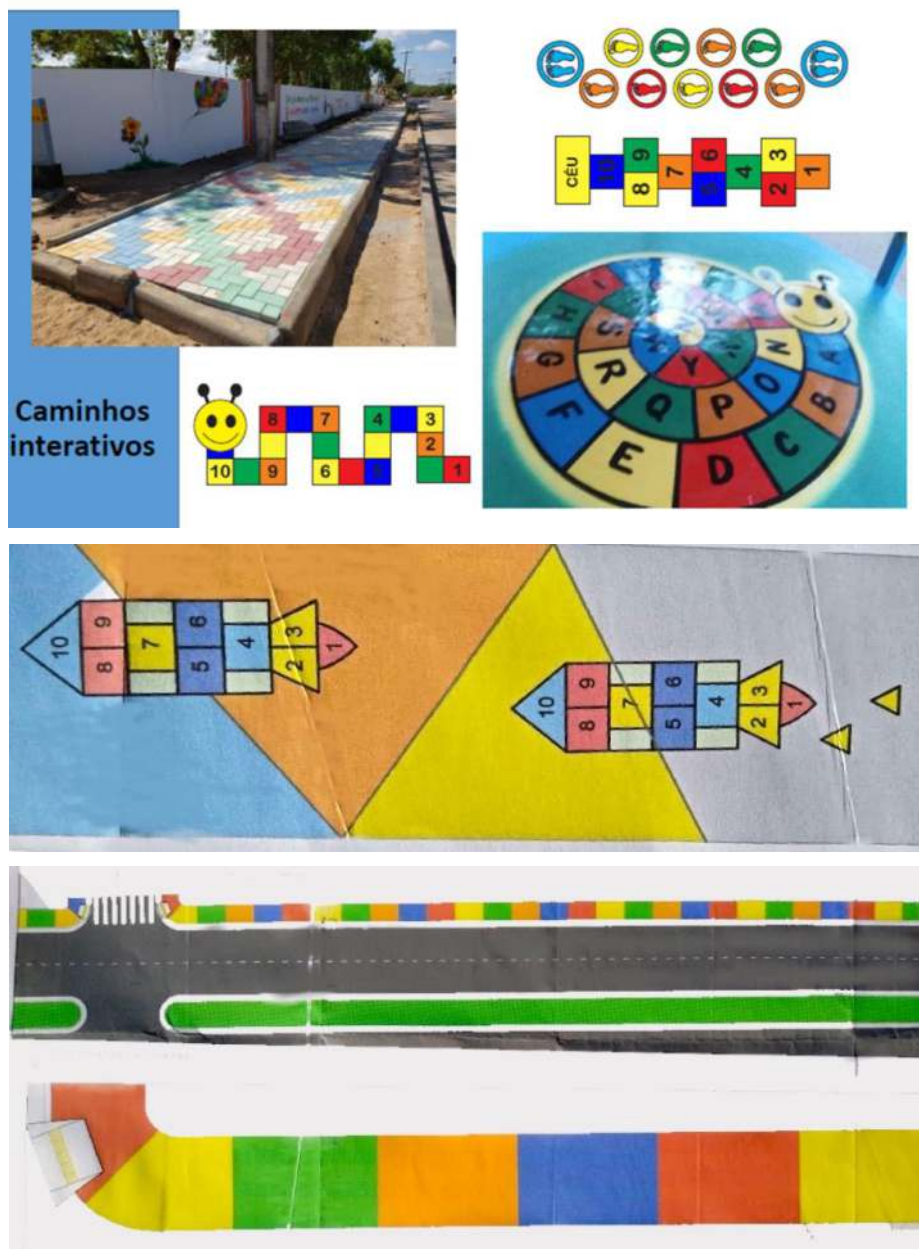
The planners and Surita held a final meeting with residents before construction began, with the city paying for the walkway improvements and federal funds covering the cost of building the square. Work at least partially completed by late July 2019 included new, colorful sidewalks with hopscotch courts, curving and diagonal patterns for children to use in unstructured play, and other interactive features at frequent intervals. Along some portions of the walkways were walls painted with scenes where children could pose. Social management secretary Queiroz said one of the goals was “creating a safe and familiar environment for children” when it came to routes to schools and other amenities. There also would be benches for resting and improved bus stops that included messages for parents (figures 7, 8, and 9).

The new sidewalks linked the neighborhood’s public facilities and where necessary included raised crosswalks to ease passage and slow traffic. The plan had called for the work to be complete by October 2019—the conclusion of the initial Bernard van Leer Foundation grant period. But the neighborhood’s flat terrain required the unplanned-for construction of a storm drain to control seasonal flooding in the new square, and the schedule was extended to the end of 2019.

Machado said the next challenge in the neighborhood was to persuade residents to take responsibility for extending the improvements beyond the project area to the sidewalks outside their homes. He said he was seeking to encourage do-it-yourself solutions, such as plank surfaces that would be less expensive to install than pouring concrete or laying brick.

The 2019–21 phase of the project, as well as another to be conducted from 2021 to 2023, called for carrying out similar projects in 11 other Boa Vista neighborhoods and extending general improvements to sidewalks,





**Figures 7, 8, and 9.** Designs for child-friendly sidewalks in Nova Cidade. *Credit: City of Boa Vista*

alterations to street crossings, and the construction of 575 bus shelters citywide. The Territorial Technological Center and its students were to conduct the required surveys and prepare maps. In addition, the city planned to draw up new regulations institutionalizing Urban95-based standards for city public works projects.

*Getting the word out*

Surita said communication with Boa Vista’s citizens about early childhood development and Urban95 was essential. In addition to the Braços Abertos meetings with residents of the pilot neighborhoods, she held

frequent press conferences about plans and initiatives. She said she also discussed the project in weekly public dialogue sessions around the city. Any Boa Vista resident could attend the sessions, which Surita had held throughout her terms in office.

In August 2018, when the Urban95 work was well under way, the mayor and her team held a gathering to introduce the city’s builders, architects, engineers, entrepreneurs, college students in associated fields, and representatives of the state and federal governments—a total of more than 400 people—to the Urban95 principles and urged them to incorporate the ideas into their work. City officials also used the occasion to introduce the plans to the general public.<sup>10</sup>

The city staged a much larger, two-day gathering in June 2019. At what it dubbed the National Forum of Early Childhood, federal citizenship minister Terra and other national figures in the early childhood field spoke to city residents and early childhood professionals from throughout Brazil in Boa Vista’s new, 1,100-seat municipal auditorium. The city also offered tours of the Urban95 pilot project, schools, and social service facilities so that



**Figure 10.** Boa Vista mayor Teresa Surita and Brazil’s minister of citizenship Osmar Terra at a national gathering of early childhood development experts in Boa Vista in June 2019. *Credit: City of Boa Vista*

residents could take a look at what was being done<sup>11</sup> (figure 10). Preparing for the two-day gathering required the city’s secretaries and staff to collaborate on the messages they would present, and the sessions received wide coverage in local media as well as some national attention.

Communicating with city staff was another part of the mission. Machado said the first to receive training about Urban95 were workers who directly encountered the public. He added that Cardoso, the special projects secretary, and her deputy, Ferreira, would continue to provide smaller-scale classes for city staff through 2020.

Queiroz, secretary of social management, said the effort to make sure all city employees why early childhood development was important, in her mind, what made Boa Vista so distinctive. “Everyone from the doorman to the people working on the project has training” in the importance of early childhood development and understood the concepts, she said.

Surita—who before her public service career had worked in advertising—kept up a steady stream of events, news releases, and postings on the city website about Urban95, continually communicating to the public the importance of early childhood development and why residents should

support the initiative. Colorful logos bearing the slogan “Boa Vista: Capital da Primeira Infância” (“Boa Vista: Capital of Early Childhood”) appeared on documents, signs, walls, and city buildings—even spaces like marketplaces, which had no obvious attachment to *Família que Acolhe* (figure 11). In addition, Surita launched a project in June 2019 to install large statues of Amazon creatures in parks around the city. She drew a connection between the creatures and Urban95, saying parents could bring their children to play on the six-meter-tall creations—which included an iguana and a jaguar with cubs—and could talk to their children about nature and the local environment (figure 12).

Surita said the barrage of child-related projects would help residents see they had a stake in the outcome—and, she hoped, would ensure continuation of the emphasis on early childhood development beyond her term in office. “For people to understand an action, you have to speak, speak, speak all day, every day,” she said.

### *Teaching the concepts*

Revamping the school system’s Digital Pathfinders program was another city goal. The federal government had introduced a controversial common core curriculum in 2015, leaving it to the cities and states to implement their own principles and standards. Boa Vista in 2016 originated the program as a way to combine common core goals for civics education and digital learning that would help students acquire skills and ways of thinking they would need in the future. The mayor’s team decided to use Urban95 to inject dynamism into the project, thereby engaging students in thinking about social and urban policies in their own town.



**Figure 11.** One of numerous logos and signs around Boa Vista declaring it to be the “Capital of Early Childhood.” *Credit: Bill Steiden*



**Figure 12.** Large statue of an iguana—one of several depicting Amazon creatures installed in Boa Vista parks as adjuncts to the Urban95 initiative. *Credit: Bill Steiden*

With the guidance of their teachers, the 1,800 students, aged 9 and 10 years, who were enrolled in the Digital Pathfinders program learned about the Urban95 principles and how they related to the needs and rights of parents and young children, as detailed in documents such as the Brazilian constitution and the United Nations Millennium Development Goals. Choosing a particular area of focus, such as the challenges caregivers faced when pushing strollers with young children in them, the students made observations of the local situation and then used online search engines to find possible remedies for the problems they found. They drew up a plan of action—for example, installing level sidewalks—and used a word processing program to prepare a proposal for presentation at an annual gathering of schools in December 2018, with Machado presiding. The program continued in the 2019 school year.

Rocha said the curriculum’s goal, compiled with assistance from smart-government consulting firm ModoUP, was that the students formulate and defend a public policy proposal, using digital tools. He said those enrolled in the course in 2018 had collectively achieved a 20% increase in their geography, history, and science grades and that some of the ideas the students put forward had contributed to decisions about city improvements. One school, in reaction to a student proposal, created a quiet space where parents and children with crowded homes could come to read together. Machado said the project had helped him recognize how all parts of the city could be learning environments for the city’s children and thereby enable them to apply their lessons to real-world issues.

### *Other steps*

In addition to the agreed-upon work with the Bernard van Leer Foundation, the city worked to improve bus stops across the city, making them more accommodating for children and their families. The main improvement involved the installation of roofs to provide shade and shelter from rain. Some of the busier, enclosed stops also received air conditioning. Murals aimed at offering learning opportunities were parts of the work as well, although, Machado said, some of the murals had to be repainted with Bernard van Leer Foundation guidance when the concepts involved proved too complicated for the intended five-years-and-under audience (figure 13).

In other work, city nonprofit Empresa de Desenvolvimento Urbano e Habitacional carried out a change in its program of land regularization. The program worked to arrange



**Figure 13.** Boa Vista bus shelter with murals intended to promote conversation between young children and their caregivers. *Credit: City of Boa Vista*



deeds in so-called invasion neighborhoods where residents had built houses on government land without obtaining formal title to the property. In a shift of focus under the Urban95 initiative, the program gave priority for deeds to the houses of families with children, with the aim of providing them stability.

Leite, executive director of the program, said making the change was not a simple matter. The agents who charted eligible homes and arranged for the deeds were disgruntled because it meant hopscotching through neighborhoods instead of following an orderly plan in what was already a complex process. “They had a resistance to changing this mind-set,” Leite said. In addition, residents did not always welcome regularization because it meant they would have to pay taxes on the property, she said, adding that Surita used *Braços Abertos* sessions to persuade them of the value of ownership.

## OVERCOMING OBSTACLES

From September to November 2018, the steady stream of Venezuelans migrating to neighboring countries to escape their nation’s economic troubles swelled into a full-blown refugee crisis. The influx landed heavily on Boa Vista, the closest sizable city in Brazil to the border; it temporarily derailed the city’s Urban95 initiative; and it forced postponement of a planned second neighborhood pilot project.

From 2013, when the emigration began, Brazil received 100,000 Venezuelans.<sup>12</sup> By late 2018, about 700 a day were arriving in Pacaraima, a town that provided the sole developed road crossing on Roraima state’s 964-kilometer border with Venezuela.<sup>13</sup>

The Brazilian army maintained two short-term shelters for refugees in Pacaraima, but many of them either continued on their own to Boa Vista, a distance of 213 kilometers, or were transported there by the army, which had 11 more shelters dotted across the city.<sup>14</sup> Space in the shelters was limited to 6,000 people, and a growing number of refugees in Boa Vista were either living on the street or squatting in abandoned buildings.<sup>15</sup>

The refugees totaled roughly 40,000, adding more than 10% to Boa Vista’s population. Their children accounted for 13% of enrollment in the city’s schools, straining capacity and inflating class sizes as the city scrambled to install portable classrooms to accommodate them. Many of the Venezuelans from indigenous areas close to the Brazilian border, who had been heavily dependent on aid from the Venezuelan government, arrived penniless and ill. A measles outbreak quickly developed because some had not received basic vaccinations. The Venezuelans put pressure on the city’s social and health systems, increasing demand for services by about one-fifth, according to the city.

Surita at first protested to the federal government that Boa Vista could not accommodate all of the newcomers. The federal government had launched a national resettlement program to distribute the refugees



throughout Brazil, but it could not keep pace with the number of new arrivals. Also, there were incidents of violence against the refugees by townspeople in Pacaraima, and some of the advocates for the migrants expressed concern that if leaders did not discourage such friction, a dangerous backlash could develop.<sup>16</sup> As those events unfolded, Surita sent a welcoming message, noting that with Brazil's guarantee of birthright citizenship, a growing number of the refugees' children were in fact Brazilians.

Still, Machado said, the influx required the city to change its focus on seeking to achieve Urban95-related goals. "We were talking about how to get parents to spend more time playing with their kids," he said. "Now we had much bigger problems—like providing food and water." Surita said the city briefly "lost focus" during the period, then began work on an emergency plan.

One casualty of the crisis was the pilot neighborhood project in Pintelândia. The Bernard van Leer Foundation grant agreement called for the project to run simultaneously with the one in Nova Cidade. But, Machado said, the unexpected drain on resources required its suspension. A revised schedule called for carrying out the work during the second grant period, running from late 2019 to 2021.

Attention then turned to the services the increasing numbers of new residents would need, over and above those the city had already made available. Cardoso, secretary of special projects, said that the city, despite the strain on resources, made a special effort to ensure that Venezuelans had access to early childhood services, including employing Spanish interpreters to help Venezuelan expectant mothers register for *Família que Acolhe*. In addition, she said, one *Família que Acolhe* worker's assignment was to track—by means of the new Cidade Social dashboard—Venezuelans' attendance at programs and health appointments. The city also approached families to check vaccination status and provide necessary immunizations. Because some Venezuelans arrived without identity documents, and many were unable to provide a home address in Boa Vista, data on them was limited. Dr. Francisca Silva Dionisio at the public health clinic in Nova Cidade said about one-third of the total number of mothers and children she was treating were Venezuelans and that their lack of permanent addresses complicated the provision of services. "If we had better information, we could make a strategy and follow up with them," Dionisio said.

At the shelters, overseen by the UN high commissioner for refugees with Brazilian and international partners, officials encouraged participation in *Família que Acolhe* and even provided taxis to take pregnant women and mothers to parenting sessions. Cássia Sodr , protection case manager at the

Associazione Volontari per il Servizio Internazionale (Voluntary Association for International Service), who coordinated services at the Rondon 1 shelter in Boa Vista, said “having [Família que Acolhe] aid has been incredible.” She particularly cited the baby care equipment and milk provided for mothers enrolled in the program. She added that the camp,



**Figure 14.** Children at a makeshift school tent in the Rondon 1 refugee shelter in Boa Vista. *Credit: Bill Steiden*

which had 804 residents at the beginning of August 2019, typically had 20 to 26 expectant mothers among its residents at any time. More than a third of the 572 residents of the adjacent Rondon 2 shelter were under age six years (figure 14).

The second Bernard van Leer Foundation grant, covering 2019 to 2021, envisioned addressing refugees’ needs more directly by funding the construction of playgrounds and safe walkways for young children and their parents and offering decentralized Família que Acolhe parenting sessions at the shelters.

Shelter officials said they also would welcome the establishment of city health services for expectant mothers and young children at the camps to supplement overtaxed medical facilities there. Baumgratz, the Bola de Meia official who served as general coordinator of the Urban95 plan, said she had encouraged the city to establish such health services. But Surita said that would be beyond the city’s means, as she sought to maintain a balance between the needs of newcomers and those of established residents.

By early 2019, the city had adapted to the influx, and federal aid had increased to help cover the added costs. Classrooms continued to be overcrowded; wait times for city services such as health care were often lengthy; and homelessness continued to be a problem among refugees, but Machado said the situation had reached a degree of equilibrium and that it was expected that resettlement efforts would accelerate. Meanwhile, the city was maintaining its Urban95 perspective, focusing aid on the youngest refugees, their families, and expectant mothers.

The Voluntary Association for International Service was slated to replace Baumgratz’s Bola da Meia as managing partner for the second Bernard van Leer Foundation grant because it had a local presence and capacity to manage payments to foreign contractors

Despite the improved outlook, the refugee crisis had the potential to deepen if the federal government cut aid or if the number of arrivals surged.

Fueled by the refugees, unemployment in Roraima state, already elevated by a national recession, had climbed to 16%, its highest rate on record; and the generally poor health of some of the new arrivals had caused an apparent uptick in infant mortality. Martinez said that if those problems became chronic and caused a rise in crime or swamped the city's clinics and hospitals, they could require a drastic revamping of the city's priorities and could derail initiatives like Família que Acolhe.

## ASSESSING RESULTS

Baumgratz, coordinator of Bola de Meia, the private nonprofit partner of the city that was managing the grant, said that, in August 2019, the city was on track to complete all of its major obligations despite the strains caused by the Venezuelan refugee crisis, the postponement of the Pintolândia Urban 95 pilot project, and the delay in completion of the project in the Nova Cidade neighborhood because of drainage issues. The city indicated that the metrics would begin to materialize shortly afterwards. The Bernard van Leer Foundation had been confident enough of the city's progress to approve a second, larger grant to run from 2019 to 2021.

Since the October 2017 beginning of the two-year initial grant period, the city had:

- Expanded the responsibilities of the management committee for Família que Acolhe to include supervision of the Urban95-related initiative and had added the public works secretary to its membership.
- Created a digital dashboard that enabled workers in city services to more easily access information from which they could identify and contact people in need of Família que Acolhe services.
- Carried out a decentralization of some Família que Acolhe functions.
- Established a Territorial Technological Center, where students from local universities conducted physical surveys and mapping of neighborhoods slated to receive Urban95 interventions.
- Completed about 60% of construction work on the Nova Cidade pilot project, though it had delayed the plan to carry out a similar project in Pintolândia.
- Launched Urban95-related projects in education and other areas.
- Maintained a steady stream of communications with city residents and workers about the efforts.

Baumgratz, however, said she was disappointed that one of the potential aspects of the project had failed to materialize: the creation of pocket parks for children in low-income neighborhoods. As envisioned, the parks would have occupied vacant lots that Territorial Technological Center students had identified and would have featured inexpensive playground structures made from wooden shipping pallets and other simple materials.

The idea was to create places where young children could engage in outdoor play within easy walking distance from their homes.

Youths involved in the city's Projeto Crescer program for at-risk, low-income teens had begun assembling the playground equipment, and in late July 2019, a number of structures were occupying storage space behind the program's office. But the work ceased after disagreement about the right scale for the project: some argued for large-scale installations made out of materials that would stand up to the city's equatorial climate; others were open to smaller, more easily executed initiatives that, cumulatively, could have an impact on residents' lives but that would require more-frequent replacement. The mayor worried that the equipment assembled by Projeto Crescer participants would deteriorate quickly, souring the intended beneficiaries on the Urban95 concept and endangering the program's long-term continuation. She said she would explore alternatives that would make use of higher-quality materials, though she provided no specific timetable.

## REFLECTIONS

The Urban95 approach to taking early childhood development to scale created some distinctive challenges for cities. It required municipal departments that ordinarily would have little contact with one another to work together to achieve mutual goals. The Urban95 perspective was complex and needed strong commitment to communication to win support. Also, even though interventions undertaken with an Urban95 perspective could generate immediate results, it would take an effort that would last well beyond one mayor's time in office to derive the ultimate benefit: more-successful lives for the community's children.

There was reason for optimism in Boa Vista. Having a well-placed champion was one of these. In her last term as Boa Vista mayor, Teresa Surita was beginning to position herself to run for governor of Roraima, a role in which she hoped to make the promotion of early childhood development a statewide priority. Taking the steps necessary to help Urban95 succeed was important to her agenda. She was looking for ways to address her signature *Família que Acolhe* (Welcoming Family) program's gaps when she became acquainted with the Urban95 and the potential solutions it offered through its approach to early childhood development in a city setting.

"Teresa is very focused. She knows what she wants, and she knows how to keep her team focused," said Ely Harasawa, federal secretary in charge of the national *Criança Feliz* (Happy Child) early childhood program and a former executive with the Maria Cecília Souto Vidigal Foundation who had collaborated with the mayor.

Urban95's focus on urban planning—with emphasis on the needs of young children and their families—was a logical fit for the city, too. Even before receiving a grant for its Urban95 initiative from the Bernard van Leer

Foundation, Boa Vista had laid claim to the title of “Capital of Early Childhood.” The city had laws on the books enshrining early childhood development as part of its mission, and it had prior council approval to devote resources to this activity. By the time of the first Urban95 investment, several key officials had participated in training and study tours abroad, and had substantial knowledge, as well as exposure to experiments in other cities.

A significant advantage was that the government already had an oversight structure for early childhood development initiatives in the form of the *Família que Acolhe* management committee. In place since 2013, the committee adapted to Urban95 requirements by adding the public works secretary to its membership. The pre-existing arrangement, along with prior identification of key obstacles to the programs already in progress, helped accelerate the early phases of implementation. The data-based early detection and mapping initiatives made it easier to know how to scale the program.

But as Surita worked to ensure that *Família que Acolhe* and the Urban95 approach would survive and thrive beyond her time in office, Roraima state economist Fábio Rodrigues Martinez cautioned that an upturn in the Venezuelan refugee crisis could force a shift in resources and erode support. In addition, Harasawa noted that Surita’s programs and Boa Vista in general were vulnerable because of their heavy dependence on federal aid. So far, new president Jair Bolsonaro, elected in 2018, had not followed through on campaign promises to slash social programs, but funding remained in question—especially if a new global recession worsened Brazil’s already fragile economy.

The question was whether under these pressures, and without Surita as mayor, the program would survive. In the gap between her initial terms of office and her re-election after serving in other parts of government, Surita found that some of her programs had lapsed. This time she had tried to lock them in by embedding them more firmly in the ethos of the municipality and in public awareness. Even opposition city council member Linoberg Almeida said he believed there was a “great chance” that Boa Vista’s investment in early childhood development would endure. After so much effort and expenditure, “It would not be right for the person who succeeds [Surita] to stop everything,” he said.

But Almeida said he was worried that the facilities and structures of the Urban95 initiative—including revamped bus shelters, larger-than-life depictions of Amazonian creatures in city parks, as well as the square in Nova Cidade—could quickly fall into disrepair after Surita’s departure. Almeida called those projects “Instagram moments” that would not survive without a commitment to their maintenance not only from the city but from the people who used them. “We are not a society that is educated in taking care of things,” he said.

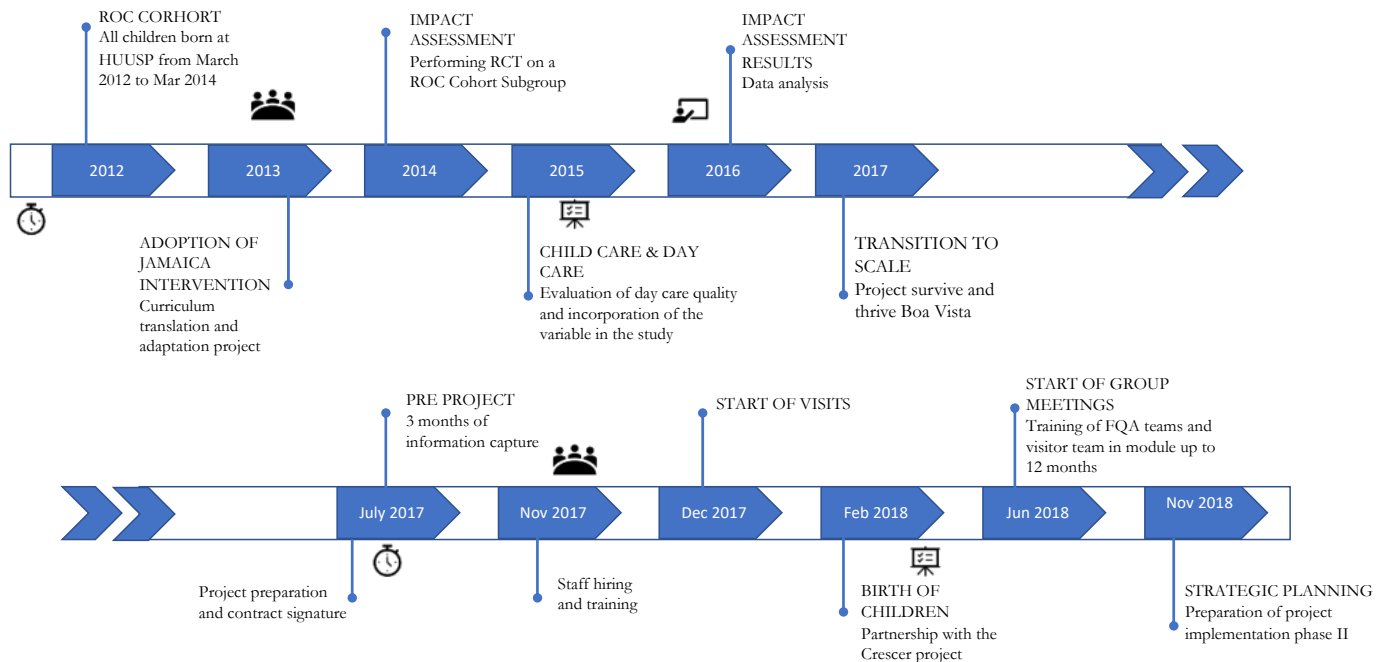
Sounding a similar note, Deputy Mayor Arthur Henrique Brandão Machado expressed what he said was his wish to cultivate among the people



of Boa Vista not just support but also a sense of ownership for the Urban95 improvements and their goals. He cited the example of a woman who adopted a refurbished bus shelter that was in front of her home, swept it daily, and planted flowers around it.

“I would like to learn how to change people’s behavior,” Machado said. “Urban95 has strategies like that in Colombia, where they hold events with street artists and where people hold open houses and paint their houses to make the neighborhood more attractive. It’s building a spirit of community and getting people to share responsibility for taking care of their environment.”

## Timeline:



**July 2017:** Mayor Teresa Surita begins discussions with the Bernard van Leer Foundation about adopting the foundation’s Urban95 perspective in the city, which aspired to be the “Capital of Early Childhood.”

**October 2017:** The Bernard van Leer Foundation awards a US\$385,000 grant so the city can carry out a program based on Urban95 principles. Managed by nonprofit partner Bola da Meia, the two-year grant will enable the city to adopt a comprehensive perspective, called Urban95, that will incorporate considerations of the needs of young children and their families into all city services. In particular, the grant will enable the city to undertake data and mobility projects intended to make it easier to link expectant mothers, young children in need, and children’s caregivers to services provided by the city’s Família que Acolhe early-childhood-development program and to launch associated educational programs. As part of the agreement, the city pledges to spend US\$5.2 million on a pilot program to build child- and family-friendly features into its low-income Nova Cidade neighborhood.

**November 2017:** Surita announces the grant and the planned projects to her cabinet. She designates an executive committee made up of city department heads that will oversee Família que Acolhe to manage the work and adds to the committee’s membership the city’s secretary of public works.

**January 2018:** Department heads involved in the work and the mayor hold a two-day strategic-planning session to set the project’s priorities.

**March 2018:** Four key city officials, with Bernard van Leer Foundation support, attend a study tour in Copenhagen, where they learn about Urban95 and see examples of projects geared to early childhood development.

**March 2018:** The city of Boa Vista and three local higher education institutions create a Territorial Technological Center. The center will employ a hundred students to survey neighborhoods in preparation for Urban95-related interventions that will include improved sidewalks connecting public services for young children and their families, traffic-calming measures, and a square with facilities for children three years and under.

**April 2018:** The initial database work is completed, producing a dashboard that makes it possible to access pertinent information about expectant mothers, young children, and their families from a single entry point. Work continues on improving the accuracy of the information and on devising an alert system that will automatically notify city officials when people need help from the social services system or are in crisis.

**August 2018:** The city holds a gathering to introduce Urban95 to local professionals and students in the areas of architecture, engineering, and construction.

**August 2018:** As a new school year begins, 1,800 9- and 10-year-olds in the Digital Pathfinders program begin formulating public policy proposals based on Urban95 principles.

**September to November 2018:** What had been a steady stream of migrants fleeing nearby Venezuela’s economic meltdown turns into a full-fledged refugee crisis. The influx strains Boa Vista’s resources and draws attention away from the Urban95 initiative as the city struggles to regain equilibrium.

**November 2018:** The city launches training sessions in early childhood development for city workers.

**December 2018:** Schoolchildren in the Digital Pathfinders program present their Urban95-related public policy proposals in a citywide assembly.

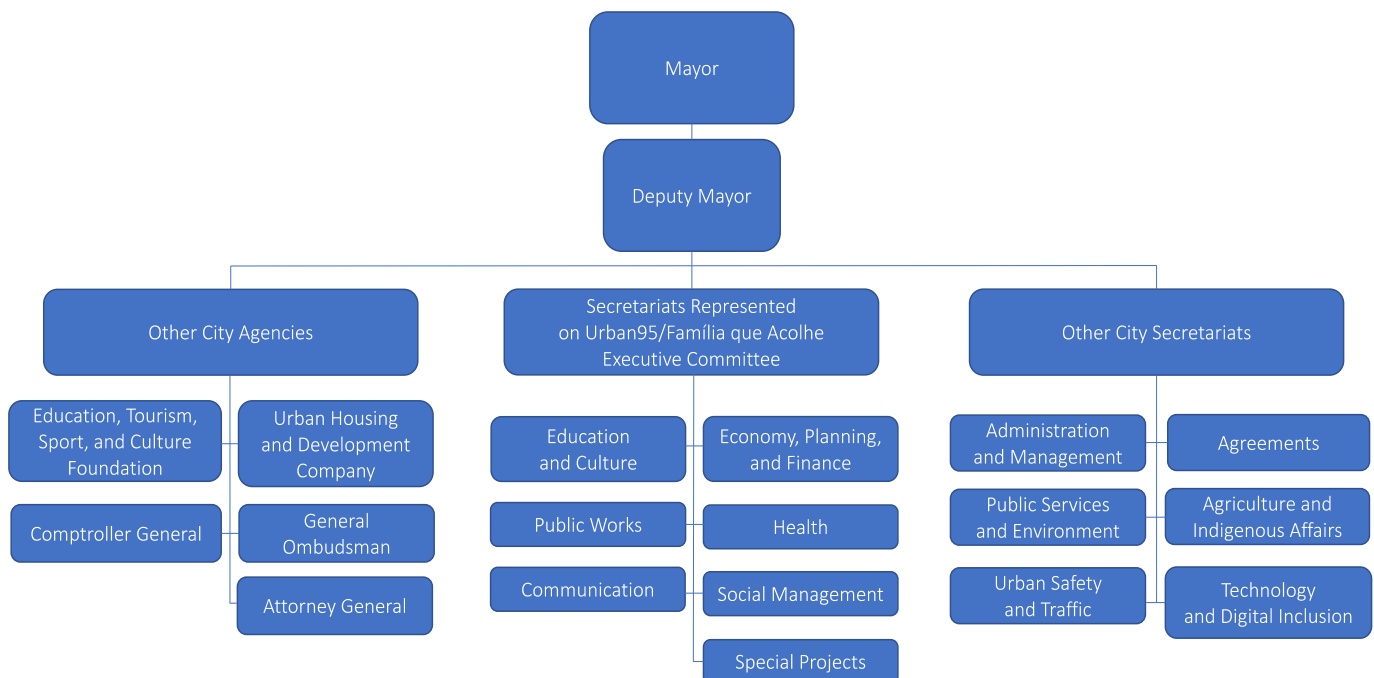
**February 2019:** Construction work gets under way on the Nova Cidade improvements.

**June 2019:** More than a thousand early childhood professionals and scholars from throughout Brazil gather in Boa Vista for the Fórum Nacional da Primeira Infância.

**July 2019:** The Bernard van Leer Foundation and the city agree on a second-phase grant to continue the database work and to scale the Nova Cidade interventions to other neighborhoods.

**October 2019:** End of the first grant phase.

**Exhibit 1.** City of Boa Vista organizational chart



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