

# Fortaleza

## *Keeping an Electoral Promise*

### *Epilogue*

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In March 2017, second-term Fortaleza Mayor Roberto Cláudio Rodrigues Bezerra (Cláudio) decided to move ahead with a bold, untested plan to eliminate the city’s persistent, essential-medicine shortages by building a back-up distribution channel in bus terminals. This action was one, among others, deployed as part of a mission to overcome an old problem. At this juncture, explained Cláudio’s Public Works Secretary João de Aguiar Pupo, the mayor wanted a Plan B, C, and D: the goal was to have “zero risk/zero failure”<sup>1</sup> in providing essential medicines.

### *Having a Plan B, C, and D*

Despite financial constraints, the mayor’s decision was implemented, and the city invested in the construction of medication distribution centers in seven major local bus terminals and another social organization (OS) was tasked with management and stocking. The Bus Terminal Distribution Centers (CDMTs, their Portuguese acronym) would be a new distribution- *and* acquisition-channel. One-third of Fortaleza residents visited these terminals daily, a population that overlapped significantly with those using the public health clinics. Placing CDMTs in bus terminals would also serve as a visible sign of the administration’s commitment to solving this problem.

Running the CDMTs would be cheaper than motorcycle-deliveries to patients’ homes, a suggestion that was ruled out. Motorcycle couriers would, however, deliver medications from the central warehouse to health clinics when there was a stock-out before the next scheduled delivery.

In addition to the CDMTs, the city adopted some improvements suggested by Cláudio’s working group, including splitting the OS’s payment account that managed Fortaleza’s health clinics. This decision created one account dedicated exclusively to funding medicine acquisition. The group who had been working on the vending machine idea shifted their focus to creating a system to combat the diversion of medicine to the black market, developing an electronic token to couple with the prescribing doctor’s official stamp.

## Refining the Bus Terminal Proposal

Because the CDMT project would require coordination with other departments, Cláudio asked his Secretary of Government Samuel Dias to oversee a working group comprising representatives from the mayor's cabinet and the departments of mobility, public works, and health. (See Appendix 1 for its main milestones.) In April of 2017, the working group presented their CDMT proposal to Fortaleza's health council. Some medical professionals criticized the initial proposal for not mandating that a pharmacist be present at the bus terminals and suggested locating the distribution centers at the periphery of the terminals so that they could be accessible from the outside. Others countered that security guards and cameras made the interior of bus terminals especially secure, and pharmacies could already be found in airports and malls—why should bus terminals be any different?

The CDMTs were located beyond the ticket turnstiles so in order to provide access to non-bus riders, the team eventually settled on allowing third parties (i.e., proxies who might be using the terminals for their own travel) to pick up medications. The proxies needed a referral from a city health clinic, a "reservation" form directing them to a particular terminal, the written prescription, and they had to pick up the medications within forty-eight hours.

In late March 2017, the health council unanimously approved the CDMT proposal on the condition that the project used resources efficiently to avoid flooding the market with medications. Overuse was a concern, and the council wanted to increase focus on preventive and alternative medicines. The CDMT proposal proceeded without difficulty, thanks to the mayor's support and the skilled communications of his deputy secretary of health, who served as vice president of the health council. The working group presented to the council again during implementation and once after completion. As an added bonus, the bus terminal concession holder was pleased with the possibility of increased traffic.

## Rolling Out the Program

The decision to have two organizations separately manage the bus terminal project and the city's public health clinics was an intentional one to create what many in City Hall called "redundancy." Health Secretary Joana Maciel noted, "No one had done something like this before. This was totally new."<sup>2</sup>

Because there was only one other OS in Fortaleza with the capacity to manage the operation, the city awarded a no-bid contract to Fundação Leandro Bezerra de Menezes (FLBM) to run the CDMTs. Since 2013, ISGH had been the OS in charge of buying medications for Fortaleza's 109 health clinics. The city would be responsible for acquiring medicines for the CDMTs; if the city could not supply a needed medication in time, the FLBM would be authorized to purchase directly from private pharmacies. Dias elaborated: "We decided that having two acquisition systems—from ISGH and City Hall—still left room for failure, so we created a third option, more costly, that would guarantee that the user would have medicine, if not at the clinic, then within forty-eight hours, at most. If the first channel for acquisition fails, if the second fails, or if neither fails but the logistics of having the medicine at the health clinic fail, we will have another acquisition channel and dispensary system in key places in the city. This new acquisition channel is more expensive. But it is a form of backup."<sup>3</sup>

### *“Pilot?”*

A CDMT was a thirty-square-meter steel container with a barred window in front of a pharmacist’s seat. It had daytime air conditioning and a list of the eighty-four essential drugs and available services displayed on the exterior walls. (See Appendix 2 for photos.) In August 2017, the first CDMT opened in the Antônio Bezerra Bus Terminal near a set of recently renovated clinics. However, it saw only one user in its first month of operation. A second opened within six weeks. (See Appendix 3 for the schedule of CDMT openings.)

Health clinic staff and CDMT pharmacists reported that at first, patients did not understand how to access the CDMTs or the rules for using a proxy. Despite press coverage, advertisements, and social media outreach, people still seemed confused about whether they could get medicine at the CDMTs directly, bypassing the health clinic pharmacies. Many of those who did visit CDMTs were turned away because they had not previously tried to get their prescriptions filled at a health clinic—a prerequisite for using the CDMTs. One CDMT pharmacist reported being happy to be able to serve the low-income community but regretted having to deal with more challenging patients who misunderstood how the CDMTs worked. By the time the third or fourth CDMT was opened, the city had begun stationing several agents in the terminals for the first few weeks of new CDMT operations to answer questions. Six CDMTs opened in 2017; the seventh and final one opened in January 2018 after renovation delays.

Italo Kauê da Costa Vieira, an employee of the OS that managed all of the CDMTs, explained: “Some people are so happy and relieved to be able to get the medicine they need to continue their treatment. For some, having to buy the medication from a private pharmacy would have meant not being able to feed their kids lunch that day.”<sup>4</sup> Others were upset when they were unable to get their medication because they had not followed protocols, with one threatening to return to the CDMT the next day to try to get his medication if the clinic did not have it.

### *Educating Constituents*

Several sets of stakeholders had to be educated for the program to succeed:

#### **Health clinic staff**

When the CDMT idea was launched, working group members were concerned that health clinic pharmacists would fear displacement. Most of the communication efforts with the staff revolved around allaying these fears and ensuring that everyone had a common understanding of the CDMT model. After all, clinic staff members also needed to understand the new channel to help patients use it. As a result, over six weeks, the health department team organized training and information sessions for clinic staff, doctors, and security guards. Some of these efforts were creative: fake medicine boxes containing chewing gum were distributed to educate the public health clinic staff. The “patient insert” described the CDMTs and listed the medicines they carried. (See Appendix 6.)

#### **The public**

When the first CDMT opened, the mayor woke up at 5 am to host its inauguration live on the city’s early morning TV news program. This was important for a couple of reasons, explained Communications Secretary Moacir Maia: “This was the face of the administration, and people will

believe more in the program when they see his personal investment.”<sup>5</sup> In addition to TV and radio stations, the communications team used alternative channels to reach potential CDMT users, going so far as to carve out time on a popular police TV show (which normally featured live reporting of arrests and associated police work) for Health Secretary Maciel to discuss the CDMTs. Lastly, the team printed 100,000 inserts in October 2017 for the official municipal news publication and got coverage on the web radio available in bus terminals.

### **Users**

In addition to the signage at the CDMTs describing their available services, health clinics and terminals also started using plastic bags printed with a list of essential medicines. The front of each bag read, “Know the medicines that you can get in your health clinic.” Maia said, “The first terminal that opened gave the impression that people should just walk up and get medicine there instead of going to the health clinic first and using the terminal as backup, or that people can just come up to the containers to buy medicine. It is hard in general to communicate new projects to the public, but we worked hard to overcome the challenges.”

### *Monitoring Progress*

In late 2017, stock-outs at some health clinics due to delayed payments to ISGH and vendors that were also out of supply, caused CDMT visits to spike into early 2018. CDMT visits topped 10,000 in February 2018. (See Appendix 5 for footfalls.) “The CDMTs were thought of before the delays were solved. Maybe if payments had been normalized before, we might not have the CDMTs,” noted Magno de Sousa Sampaio, who managed pharmaceutical services at the health department.<sup>6</sup> ISGH Director Flavio Clemente Deulefeu added, “There is a saying, ‘Money only speaks to money.’ And there is a moment when a vendor will stop supplying medications until they get paid. But if delivery gets delayed by a day, I will have a shortage.”<sup>7</sup> Despite the success, some in City Hall wondered if the CDMTs were worth it, as stock-outs continued to ebb at health clinic pharmacies. Dias said, “Some people called the CDMTs an insurance. When you buy insurance, you prefer not to use it. But in case you need it, you better have it.”

For many constituents the CDMTs solved some key problems. Joana Rafaela Albuquerque Silva, a primary care physician working in the Public Health System Network before Cláudio was first elected, described her daily life and those of her patients as transformed for the better under the health reforms: “Before, I knew that the hub pharmacies might have had medicine but I did not know which had what, so I was working in the dark.”<sup>8</sup> For example, when she prescribed a medication in pill form, but the pharmacy only had the liquid form, the patient would have to be seen again to get a new prescription. She continued, “Now when I prescribe, I can see what is available in my clinic’s pharmacy and whether the next pharmacy has it, and if not, I know that the bus terminal will. We can see who picked up the medicine and when, which increases safety. We can also identify when a patient might be in trouble—for example, if they are coming to refill medicine twice in a row. People hoard less when they have no chance of running out. Now, everyone is much happier—not just patients, but also doctors!”

Vinícius Campos, the head of the city’s health council added, “What was promised and approved was delivered, which is rare. Because the health council included 50 percent patient-representation, and

they all use the public transportation system, having no complaints is a good barometer of whether this is working or not.”<sup>9</sup> Infrastructure Secretary Manuela Nogueira reported hearing very few complaints in general or on social media. (See Appendix 5 for evolution of the press coverage.)

After CDMT visits and health clinic visits, clients could respond to basic questions such as “How was the staff?” and “How was the drug delivery?” via a digital screen. Options included a range of faces reflecting different levels of satisfaction: bad, average, good, great. (See Appendix 4 for photos.)

The administration also conducted formal polls on a regular basis, and results seemed encouraging. To test the accuracy of poll results, Cláudio liked to walk around the city or drive with his window down to hear from his citizens, whether in a time of crisis or not. “For me,” Cláudio explained, “it is the duty of someone who is in administration, not a PR strategy. I go around to listen to how people are thinking and feeling. I have a personal Facebook account that I read every day. All this gives me good insight on whether or not a problem deserves more attention. I learned that the information I get here at my office is usually very filtered. People don’t mean to ensure that I don’t know something or to actively keep something hidden from me, but information about what is happening in some of the more removed neighborhoods rarely lands on a cabinet member’s desk with a good level of precision, let alone on my desk. And the tendency is to be told that things are improving. So, I try to go into the street every day.”<sup>10</sup>

## Impact

In 2018, Fortaleza’s 113 public health clinics filled 210 million prescriptions. Stock-outs were reported less frequently, and users seemed pleased. “When we wondered if the CDMTs were really needed, we said yes, not as much as a public health issue but as a user satisfaction issue, as well,” Nogueira noted.<sup>11</sup> Ticiania Mota Sales, technical advisor at Fortaleza’s health department, reflected: “Some now ask whether this was worth it. If this system can make it possible for a person to be cured, then it is worth it. Each unit costs R\$ 28.753 per month but to many of us there is an immaterial value here because now we are seeing how to add value to this.”<sup>12</sup> About 84 percent of the units (i.e., pills, tube, etc.) dispensed were for six drugs, mostly related to heart disease and diabetes.

The focus became to use the CDMTs in different ways, and perhaps to engage pharmacists in more patient consultations or public health outreach. In April 2019, the CDMTs started dispensing thirty-four mental health medications. The strategy remained the same: the patient would only pick up the medication at the CDMTs if they were unavailable from her mental health clinic. Another project was underway to reduce fraud and make it more difficult for people from outside of Fortaleza to use its health infrastructure. Finally, Fortaleza’s public pharmacies stopped accepting prescriptions from private doctors to avoid stock-outs at public health clinics.

In early 2019, Cláudio reflected on the progress to date: “We have 100 percent of the eighty-four essential medications being dispensed, without any failure, and we have a system that monitors the availability of medication in the health clinics, which is close to 85 percent. If you ask me if the overall problem of medicine delivery persists, the answer is yes, for highly complex medicine, because those are dependent on funds from the state or federal government. Of course, it is risky to say that we solved things 100 percent, but I have polls and surveys that tell us that users are happy. This was the

scope of our promise. It is important to clearly define what you will solve for, what are you promising, and go for that.”

## Appendices

### Appendix 1 Key Milestones of Working Group, 2017

Action	Individuals Involved (Those cited in the case appear in bold.)	Date
Compose working group and initiate kickoff to diagnose problems and propose improvements on the pharmaceutical services delivery.	Ana Estela and Gabriela	JAN
Start working group.		FEB
Perform analysis of the contract with the OS to improve resource allocation and prioritize the acquisition of medications.	Itamárcia, Gabriela, <b>Ticiana</b> , Cristina e Assunção	FEB-MAY
Meet with the health department and ISGH to determine funding transfer schedule agreement.	<b>Joana Maciel</b>	MAR
Review medications that should be classified as “essential.”	Itamárcia, Ana Estela, <b>Magno</b> , Rui, GerlyAnne	MAR
Modify FASTMEDIC system to comply with medication standardization.	Leonardo, ISGH	MAR
Report on best options for medication acquisition.	<b>Ticiana</b> , Angélica, Carol	MAR
Present proposal for CDMTs.		MAR
Start system improvement to allow the pharmacies at health clinics to schedule medication pick up at the CDMTs.	Leonardo, ISGH	APR
Estimate the demand for medication.	<b>Magno</b>	APR
Create a separate bank account for ISGH to receive funds exclusively dedicated to medication acquisition.	Angélica, Gabriela, Flávio	MAY
Start institutional campaign to inform users about which medicines were the health clinics’ responsibility to provide.	Rui, <b>Magno</b> , Karla	JUN
Print poster and display materials listing essential medicines for health clinics and public pharmacies.	Karla	JUN
Send Request for Proposals to select vendors to manage and operate the CDMTs.	<b>Magno, Ticiana</b> , Leonardo	JUN-JUL
Balance supply of medications across health clinics.	ISGH	JUL
Start implementing the CDMTs.		AUG
Print bags with medication list that patients will use to pick up medicines.	SEGOV, João Uchoa	AUG
Implement clinic protocols for efficient use of medication.	Rui, Magno	Ongoing
Visit homes to educate patients on storing meds, effective use, and avoiding waste.	Rui, Magno	Ongoing
Report on better monitoring of medicine, addressing problems such as: fake prescriptions, wrong inputs into the monitoring system, filling prescriptions from other cities, etc.	Magno	Ongoing

Source: City of Fortaleza

**Appendix 2** Bus Terminal Distribution Center

CDMT with the eighty-four essential medications available displayed on external walls and the client/pharmacist interface



The storage space at a bus terminal distribution center

Source: Case writers

**Appendix 3** Dates of CDMT Openings, August 2011–January 2018

OPENING DATE	BUS STATION
08/16/2017	Antonio Bezerra
09/27/2017	Conjunto Ceara
10/31/2017	Siqueira
11/14/2017	Lagoa
11/21/2017	Papicu
12/13/2017	Parangaba
01/27/2018	Messejana

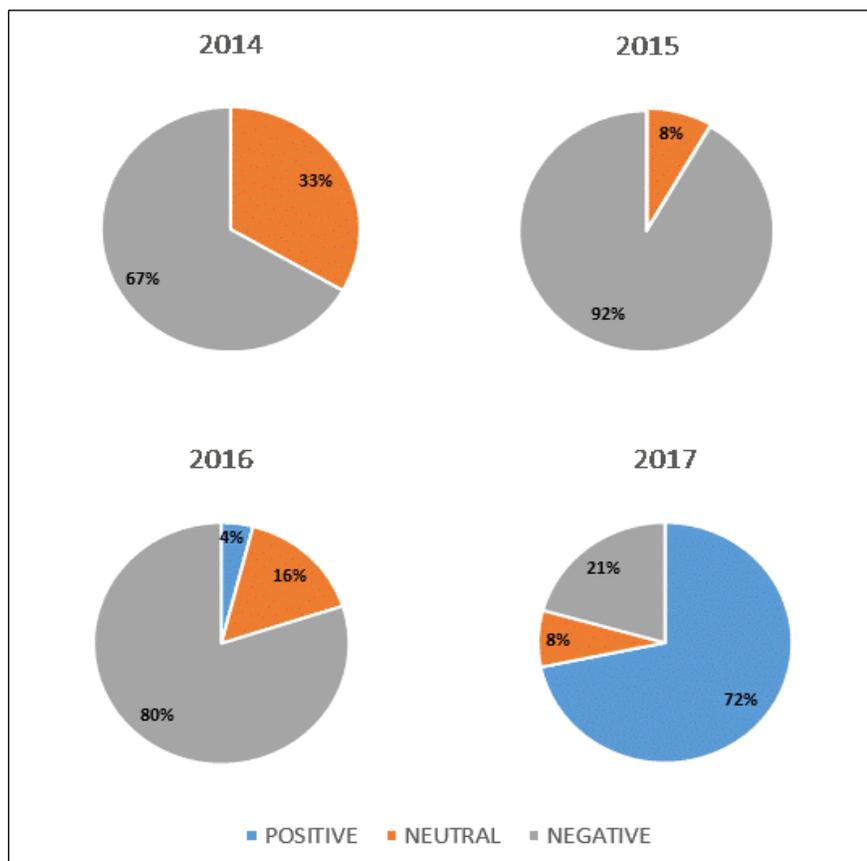
Source: Health Department, City of Fortaleza, obtained by case writers in February 2019

**Appendix 4** Evaluation Terminal at Public Health Clinic



Source: Case writers

**Appendix 5** Evolution of the Nature of Media Coverage About Health Care Access in Fortaleza, 2014-2017



Source: Communications Department, Fortaleza City Hall, received February 2019

**Appendix 5A** Users Served and Units of Medicine Dispensed Monthly by all CDMTs, August 2017-January 2019

	Users Served	Number of Drugs Dispensed (in units)
August 2017	1	1
September 2017	0	0
October 2017	36	1,472
November 2017	2,111	149,110
December 2017	8,645	759,264
January 2018	7,644	626,549
February 2018	10,182	768,779
March 2018	9,012	408,477
April 2018	4,008	171,658
May 2018	1,004	25,026
June 2018	1,396	31,841
July 2018	2,039	60,685
August 2018	614	18,345
September 2018	321	11,612
October 2018	130	5,147
November 2018	114	4,753
December 2018	66	3,531
January 2019	371	29,706
<b>Total</b>	<b>47,694</b>	<b>3,075,956</b>

Note: A “unit” in this context means one pill, tube, etc.

Source: Health Department, City of Fortaleza, obtained by case writers in February 2019

**Appendix 5B** Patient Prescriptions at CDMTs vs. Prescriptions Filled at CDMTs, August 2017-January 2019

	Total users served in all CDMTs							Total
	CDMT Bezerra	CDMT Ceara	CDMT Siqueira	CDMT Lagoa	CDMT Papicu	CDMT Parangaba	CDMT Messejana	
Prescriptions	14,030	10,504	16,848	5,475	11,165	10,327	5,808	74,157
Prescriptions Not Filled	5,118	3,213	6,072	2,011	3,881	3,957	2,211	26,463
Prescriptions Filled	8,912	7,291	10,776	3,464	7,284	6,370	3,597	47,694

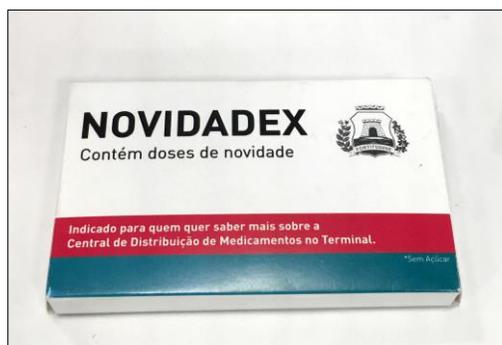
Source: Health Department, City of Fortaleza, obtained by case writers in February 2019

**Appendix 5C** Top Medications Dispensed at CDMTs, August 2017-January 2019

Most-requested medications in CDMT	Number of deliveries
(Diabetes) Metformina 500MG – Tablet	669,907
(Anti-hypertensive) Losartana Potassica 50 MG – Tablet	627,838
(Diabetes) Gliclazida 60 MG – Tablet	348,128
(Osteoporosis and Rickets) Carbonato de Calcio + Colecalciferol 600MG+40	322,199
(Diuretic, usually heart conditions and high blood pressure) Hidroclorotiazida 25MG – Tablet	245,487
(Anti-hypertensive) Anlodipino 5MG – Tablet	227,229
(Aspirin, pain & blood thinner) Acido Acetilsalicilico 100MG – Tablet	144,462
	2,585,250

Note: A “unit” in this context means a pill, a tube, etc. These accounted for about 84 percent of total units filled.

Source: Health Department, City of Fortaleza, obtained by case writers in February 2019

**Appendix 6** Chewing Gum Faux “Medication Package”

Fake medication boxes with chewing gum inside were distributed to educate the public health clinic staff.

Source: Health Department, City of Fortaleza, obtained by case writers in February 2019

## Endnotes

- <sup>1</sup> João de Aguiar Pupo, interview by Carlos Paiva and Carin-Isabel Knoop, February 13, 2019. All further quotes by this individual from this interview.
- <sup>2</sup> Joana Angelica Paiva Maciel, interview by Carlos Paiva and Carin-Isabel Knoop, February 12, 2019. All further quotes by this individual from this interview.
- <sup>3</sup> Samuel Dias, interview by Carlos Paiva and Carin-Isabel Knoop, February 11, 2019. All further quotes by this individual from this interview.
- <sup>4</sup> Italo Kauê da Costa Vieira, interview by Carlos Paiva and Carin-Isabel Knoop, February 11, 2019. All further quotes by this individual from this interview.
- <sup>5</sup> Moacir Maia, interview by Carlos Paiva and Carin-Isabel Knoop, February 11, 2019. All further quotes by this individual from this interview.
- <sup>6</sup> Magno de Sousa Sampaio, interview by Carlos Paiva and Carin-Isabel Knoop, February 12, 2019. All further quotes by this individual from this interview.
- <sup>7</sup> Flávio Clemente Deulefeu, interview by Carlos Paiva and Carin-Isabel Knoop, February 11, 2019. All further quotes by this individual from this interview.
- <sup>8</sup> Joana Rafaela Albuquerque Silva, interview by Carlos Paiva and Carin-Isabel Knoop, February 12, 2019. All further quotes by this individual from this interview.
- <sup>9</sup> Marcus Vinícius Campos, interview by Carlos Paiva and Carin-Isabel Knoop, February 12, 2019. All further quotes by this individual from this interview.
- <sup>10</sup> Cláudio Rodrigues Bezerra, interview by Carlos Paiva and Carin-Isabel Knoop, February 11, 2019. All further quotes by this individual from this interview.
- <sup>11</sup> Manuela Nogueira, interview by Carlos Paiva and Carin-Isabel Knoop, February 11, 2019. All further quotes by this individual from this interview.
- <sup>12</sup> Ticiano Mota Sales, interview by Carlos Paiva and Carin-Isabel Knoop, February 12, 2019. All further quotes by this individual from this interview.