

In fight against Zika, Brazil battles neglect, cash crunch

March 18 2016, by Joshua Goodman And Mauricio Savarese



In this Feb. 11, 2016 photo, soldiers inspect a home built under a rock during an operation to combat *Aedes aegypti* mosquitoes that transmit the Zika virus in Monteiro, Brazil. Between August and October last year, the Health Ministry rationed larvicide shipments to all of Brazil, with states at the center of the epidemic running out altogether, according to documents obtained by The Associated Press from prosecutors investigating the shortages. The lack of larvicide is only one of a string of public health failings crippling Brazil's ability to manage the Zika outbreak and the surge in rare birth defects thought to be linked to it. (AP Photo/Felipe Dana)

In May, as the first cases of the Zika virus were being detected in Brazil, Rossandra Oliveira stopped receiving a critical tool she needed to do her job: insecticide.

Monthly shipments from the government to her office at the epicenter of the outbreak stopped. Oliveira, who manages mosquito control for this city of 400,000, was left helpless. The shortages continued even after President Dilma Rousseff's government declared the mosquito-borne virus a national [health emergency](#) Nov. 11.

It wasn't an isolated case. For several months last year cities and states on the front lines of the epidemic in Brazil's northeast ran out of larvicide, and supplies nationwide had to be rationed, according to interviews with local health officials and documents obtained by The Associated Press from prosecutors investigating the shortages.

The lack of larvicide is only one of a string of public health failings crippling Brazil's ability to manage the Zika outbreak and the surge in rare birth defects thought to be linked to it. A weeklong tour by AP of several cities and towns in the northeast found public hospitals starved for funding and local health officials scrambling to care for the stricken babies.



In this Feb. 10, 2016 photo, an *Aedes aegypti* mosquito, which spreads the Zika virus, clings to a branch outside a home during a government campaign to combat the mosquito in Monteiro, Brazil. Documents obtained by the AP and interviews with local health officials indicate that insecticide shortages lasted for several months and affected the entire country right when many women were pregnant and, unbeknownst at the time, potentially transmitting Zika to their unborn babies. (AP Photo/Felipe Dana)

"In 19 years of working in environmental control I've never seen so much disorganization as I'm seeing now," said Oliveira, whose team of 169 health inspectors in Campina Grande had to carry out door-to-door inspections without the insecticide during the shortage. "We're paying the consequences for having underestimated the enemy."

The immediate culprit is Brazil's deepest recession since the 1930s, which is forcing belt-tightening across Latin America's largest economy. But experts say the collective failure to tackle corruption, crushing

inequality and chronic underfunding of the public health system is also to blame.

If addressing such longstanding scourges weren't a steep enough challenge, Rousseff must now do so while fighting for her political survival. On Sunday, hundreds of thousands of Brazilians poured into the streets to demand she resign over a widening corruption scandal now implicating former President Luiz Inacio Lula da Silva. On Thursday, she entrenched behind her political mentor, swearing in Silva as her chief of staff.

Health Minister Marcelo Castro was at a loss to explain what happened.



In this Feb. 7, 2016 photo, patients suffering Zika, dengue or chikungunya symptoms are treated at the emergency hospital in Monteiro, Brazil. A week-long tour by AP of several cities and towns on the frontlines of the Zika epidemic in Brazil's northeast found public hospitals starved for funding and local health officials scrambling to make up for the loss. For 15 months, after the

state's governor inaugurated this clinic, he stopped sending the checks to keep the facility and a regional ambulance service running. (AP Photo/Felipe Dana)

"If there was this shortage—which I cannot attest to whether there was or not—it was for a short time, and was an isolated incident that does not affect the overall situation," he said in an interview from his office in Brasilia that looks onto the striking modernist presidential palace.

But documents obtained by the AP and interviews with local health officials indicate that the shortages lasted for several months and rationing nationwide occurred between August and October, when many women were pregnant and, unbeknownst to them at the time, potentially transmitting Zika to their unborn babies.

The problems occurred despite an alert from the World Health Organization urging nations to strengthen mosquito control in the face of a surge in dengue and chikungunya—viruses transmitted by the same *Aedes aegypti* mosquito that carries Zika.

In a technical note sent in September to the 185 municipalities in Pernambuco, the state's top disease control official even discussed substitutes, such as using household bleach to kill mosquito larvae, or small fish to eat them.



In this Feb. 12, 2016 photo, Lara, who is just under 3- months-old and was born with microcephaly, is examined by a neurologist at the Pedro I hospital in Campina Grande in Paraiba state, Brazil. Paraiba and Pernambuco in Brazil's impoverished northeast are ground zero for the Zika epidemic. Since Zika was first detected in Brazil, the two states have accounted for almost half of the 6,158 reported cases of babies born with shrunken heads, a rare condition known as microcephaly. (AP Photo/Felipe Dana)

Castro said the reported problems coincided with a cooler period of reduced breeding and larvicide shipments have been normalized since he took office in October. He said the most effective way to fight mosquitoes isn't with chemicals but by eliminating the breeding sites lurking inside people's homes—an effort reinforced by Rousseff's decision to deploy the military to carry out house-to-house inspections.

While the effectiveness of almost any strategy to eradicate pesky mosquitoes is debated by some experts, Brazilian authorities consider

larvicide an important part of their toolkit, especially when eliminating breeding in makeshift cisterns that proliferate in the northeast due to a lack of reliable running water.

The pesticide's disappearance, however temporary, is a sign of deep-seated government neglect in a battle that, in the tropics, has to be waged every day, said Dr. Artur Timerman, a virologist and president of Brazil's Society of Dengue and Arbovirus.

"In a war like the one Brazil is facing, any gap has serious, direct consequences," said Timerman.



In this Feb. 7, 2016 photo, six-months pregnant Ana Paula Barbosa Oliveira, standing right, poses for a photo with patients suffering Zika, dengue and chikungunya symptoms at the emergency hospital she manages in Monteiro, Brazil. "It was a very sad New Year's. There were no parties, no fireworks. Every family had at least one person sick," recalls Oliveira, who worked non-stop throughout the panic until falling ill herself with what she feared was Zika. "I

was working so much that I thought the mosquito wouldn't catch up with me," she said, half-joking to lighten the burden of having to wait months to find out if her blood test was positive for Zika. (AP Photo/Felipe Dana)

While Brazilian scientists have won international praise for quickly identifying a possible link between Zika and microcephaly, authorities so far have been unable to leverage those discoveries into public health victories.

Instead of focusing on decades of government failures, Rousseff has been appealing to national pride. The T-shirt she wore recently to kick off a nationwide clean-up campaign bore the slogan "A mosquito is not stronger than an entire country." It's a strategy that for weeks seemed to have succeeded in diverting the nation's attention from the debilitating economic and political crisis.

"My entire government is engaged in dealing with this emergency," she told lawmakers last month in her annual state of the union address. "There will be no shortage of resources so we can reverse this Zika epidemic in the quickest and most adequate way possible."

But resources are tight.



In this Feb. 4, 2016 photo, Luana Vitoria, who was born with microcephaly, cries during a physical therapy session at the Altino Ventura Foundation, a treatment center that provides free health care in Recife, Brazil. The non-profit, which for 30 years has been geared to treating the poor, says the Pernambuco state government began falling behind on payments last May, and as recently as February owed more than \$3 million. Some of the money from federal projects was transferred to the state's coffers but never passed along as required, according to public expense tracking records provided by the foundation. After the AP asked Pernambuco's health secretary about the debt, authorities began to settle outstanding payments. (AP Photo/Felipe Dana)

Ground zero for the epidemic is Pernambuco and Paraiba, in Brazil's impoverished northeast. Since Zika was first detected in Brazil, the two states have accounted for over 40 percent of the 6,480 reported cases of babies born with shrunken heads, a rare condition known as microcephaly. While only 863 of those suspected cases have been confirmed, and 1,349 discarded as wrongly diagnosed, the number

dwarfs the 200 reported previously by Brazil, leading researchers to investigate possible links between the virus' spread and the birth defects.

In Monteiro, a dusty town in the parched northeast, the mayor declared a health emergency just before Christmas as the number of walk-ins to the sole emergency care hospital more than tripled to 5,178 patients—equal to almost a fifth of the town's population. In one particularly frenzied 24-hour period, the hospital burned through a month's supply of pain killers, with many patients suffering from Zika and other mosquito-borne illnesses receiving treatment in overcrowded hallways.

"It was a very sad New Year's. There were no parties, no fireworks. Every family had at least one person sick," recalls Ana Paula Barbosa Oliveira, the hospital's pregnant director, who worked non-stop throughout the panic until falling ill herself with what she feared was Zika.

"I was working so much that I thought the mosquito wouldn't catch up with me," she said, half-joking to lighten the burden of having to wait months to find out if her blood test was positive for Zika.



In this Feb. 11, 2016 photo, a boy rides his bike alongside an open sewage canal in Monteiro, Paraiba state, Brazil. In Paraiba, prosecutors have 96 ongoing investigations into local officials embezzling federal funds meant to build clinics, buy medications and maintain health facilities in the state. (AP Photo/Felipe Dana)

The clinic was forced to handle the stampede of patients amid a collapse in funding. For 15 months, after the state's governor inaugurated the clinic, he stopped sending the checks to keep the facility and a regional ambulance service running.

The town sued last year and the state government was ordered by a judge to resume payments, which account for about a third of the hospital's funding. But over \$1 million in back payments remains uncollected.

Paraiba's health secretary said it assisted local authorities during the health emergency with two visits to the town. But when pressed

repeatedly by email and phone the secretariat didn't provide further details.

Corruption may also be playing a role. In Paraiba, prosecutors have 96 ongoing investigations into local officials embezzling federal funds meant to build clinics, buy medications and maintain health facilities in the state. Castro said he was unaware of any investigations. But the region's long history of backward politics and awe-striking poverty make it fertile ground for abuse.



In this Feb. 4, 2016 photo, Daniele Ferreira dos Santos holds her son Juan Pedro, who was born with microcephaly, during visual stimulation exercises at the Altino Ventura Foundation in Recife, Brazil. In Recife, more than 300 babies have been reported born with microcephaly, the largest number in the nation. There too, a number of health providers told the AP they're financially strapped. The Altino Ventura Foundation, for example, runs a state-of-the-art rehab clinic built with a donation from the German government that treats 135 microcephaly babies. (AP Photo/Felipe Dana)

"Paraiba is national champion in infant mortality," said Jose Godoy, the federal prosecutor leading the investigations into the alleged abuses. "If basic maternal care is difficult, just imagine how we're going to be able to work with babies born with microcephaly."

The city-run Pedro I hospital in Campina Grande is another case in point of government neglect. There, 29 babies with microcephaly are receiving early intellectual and physical stimulation that can make a significant contribution to their long-term development. The mayor's request for \$1.5 million to the Health Ministry to buy an MRI scanner has so far gone unmet.

Well before the Zika outbreak, Brazil's [public health](#) care system was on life support, the result of years of mismanagement, underfunding, and more recently, the economic crisis after a decade-long spending spree fueled by China's thirst for South America's commodities. In Rio de Janeiro, more than 20 hospitals and clinics had to close for several days over Christmas as the government fell behind on salaries and even basic supplies like surgical gloves and cotton balls ran out.

The situation now is getting worse. As part of across-the-board budget cuts in February, the Health Ministry was down about \$650 million, or almost 3 percent of planned spending.



In this Feb. 12, 2016 photo, a municipal health worker sprays insecticide to kill *Aedes aegypti* mosquitoes, which spreads the Zika virus, in Campina Grande, Brazil. In May, as the first cases of the Zika virus were cropping up in Brazil, the monthly shipments of larvicide from the federal government to this town at the epicenter of the Zika virus outbreak stopped. The shortages continued even after President Dilma Rousseff's government declared the mosquito-borne virus a national health emergency November 11 and despite an alert from the World Health Organization urging nations to strengthen mosquito control. (AP Photo/Felipe Dana)

In Recife, a city of 1.6 million, more than 300 babies have been reported born with microcephaly—the largest number in the nation. There too, a number of health providers told the AP they're financially strapped. The Altino Ventura Foundation, for example, runs a state-of-the-art rehab clinic built with a donation from the German government that treats 135 microcephaly babies.

The nonprofit, which for 30 years has been geared to treating the poor, says the Pernambuco government began falling behind on payments last May, and as recently as February owed more than \$3 million. Some of the money from federal outlays was transferred to the state's coffers but never passed along as required, according to public expense tracking records provided by the foundation.

After the AP asked Pernambuco's health secretary about the debt, authorities began to settle outstanding payments.

In the interim, half-built concrete pillars signal an abandoned construction project, with workers parking their cars among tall weeds. The foundation has cut by half the normal number of eye surgeries it performs each month, delayed payments to its own suppliers and for the first time is seeking loans from banks to avoid more drastic cuts.



In this Feb. 13, 2016 file photo, Brazil's President Dilma Rousseff, center, and

Rio de Janeiro's Mayor Eduardo Paes, right, walk through the Zepelin shanty town for the launch of the national campaign "Zero Zika" against the *Aedes aegypti* mosquito in Rio de Janeiro, Brazil. Her shirt reads in Portuguese: "A mosquito is not stronger than an entire country." (AP Photo/Leo Correa, File)

"Brazil is going through a financial and moral crisis," said Bernardo Cavalcanti, son of the foundation's founder and a member of its board. "The worst part is the light at the end of the tunnel hasn't yet appeared. Things are very bleak still and we have no idea what's going to happen."

Recife's health secretary Jailson Correia shares the same sense of frustration. A trained pediatrician with a doctorate in infectious diseases, he quickly assembled a "situation room" adjacent to his ramshackle office when the first cases of microcephaly appeared, using push-pin tacks to map the disease's spread neighborhood by neighborhood.

On Nov. 24, he requested \$7.5 million in emergency funding in a meeting with Castro to intensify mosquito-control efforts and provide better care to the sick babies. Despite a receptive ear, only \$300,000 arrived.

The insult was double, he says, when Rousseff visited the state a few weeks later to cut the ribbon on a new highway. Until additional money comes, he hopes she never returns.

"It's amazing how a 1-centimeter mosquito is unmasking so many of our problems," said Correia. "I'm not saying a crisis of this proportion is welcome, but perhaps it will finally make us reflect on what kind of society we want to live in."



In this Feb. 7, 2016 photo, a home is illuminated at dusk in a small village near the border of Pernambuco and Paraiba states, Brazil. The two states are ground zero for the Zika epidemic in Brazil's impoverished northeast. (AP Photo/Felipe Dana)



In this Feb. 6, 2016 photo, three-months pregnant Milena Kaline, 17, center, holds her friend Angelica Pereira's daughter Luiza, born with microcephaly, as they visit outside their homes in Santa Cruz do Capibaribe, Brazil. While Brazilian scientists have won international praise for quickly identifying a possible link between Zika and microcephaly, authorities so far have been unable to leverage those discoveries into public health victories. (AP Photo/Felipe Dana)



This Feb. 12, 2016 photo shows two-week-old Sophia, born with microcephaly, during a physical therapy session at the Pedro I hospital in Campina Grande, Brazil. While some Brazilian health experts believe the outbreak of the Zika virus is linked to the surge in rare birth defects like microcephaly, this city-run hospital is a case in point of government neglect. For example, the mayor's request for \$1.5 million to the Health Ministry to buy an MRI scanner has so far gone unmet. As part of across-the-board budget cuts in February, the Health Ministry was down about \$650 million of planned spending. (AP Photo/Felipe Dana)



In this Feb. 10, 2016 photo, Terezinha de Melo, 75, who said she has chikungunya and suffers joint pain and headaches, sits in her home as municipal health agents inspect it during a fumigation campaign to kill *Aedes aegypti* mosquitoes in Monteiro, Brazil. In Monteiro, the mayor declared a health emergency just before Christmas as the number of walk-ins to the sole emergency care hospital more than tripled. In one particularly frenzied 24-hour period, the hospital burned through the same amount of pain killers as it does in a typical month, with many patients suffering from Zika and other mosquito-borne illnesses receiving treatment in overcrowded hallways. (AP Photo/Felipe Dana)



In this Feb. 4, 2016 photo, a municipal health worker sprays to kill *Aedes aegypti* mosquitoes, which spreads the Zika virus, in Recife, Brazil. For several months last year, states in northeast Brazil ran out of larvicide. The immediate culprit is Brazil's deepest recession since the 1930s, which is forcing belt-tightening across Latin America's largest economy. But experts say the collective failure to address longstanding scourges like corruption, crushing inequality and chronic underfunding of the public health system is also to blame. (AP Photo/Felipe Dana)



In this Feb. 10, 2016 photo, Cristiana da Silva breastfeeds her son Davi Luiz, born with microcephaly, inside her home as she leaves the door open for airflow in Monteiro, in Paraiba state, Brazil. "Paraiba is national champion in infant mortality," said Jose Godoy, the federal prosecutor leading the investigations into local officials allegedly embezzling federal funds. "If basic maternal care is difficult, just imagine how we're going to be able to work with babies born with microcephaly." (AP Photo/Felipe Dana)

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