Members of the Waiapi Indigenous reserve in Brazil's Amapá state seek medical care at a small clinic.

PHOTO: GERD LUDWIG/NATGEO CREATIVE

COVID-19

Indigenous communities in Brazil fear pandemic's impact

Other infections and scant medical care may worsen toll

By **Ignacio Amigo**

To the older generation of the Paiter Surui, the COVID-19 pandemic looks disturbingly familiar. The Indigenous people, who inhabit the border of the Brazilian states of Rondônia and Mato Grosso, suffered hundreds of deaths from measles and other infectious diseases in the decades after they first made contact with non-Indigenous people in 1969. The survivors "already experienced what is happening in the world today with the coronavirus," says Rubens Naraikoe Surui, a young Indigenous leader.

Now, as the number of coronavirus cases soars in Brazil, the Pater Surui and other Indigenous people worry they could be hard hit. So far, 27 members of such groups are known to have had COVID-19 infections, and three have died: a 15-year-old Yanomami boy, a 78-year-old Tikuna man, and a 44-year-old Kokama woman.

The region seems ripe for further spread. The state of Amazonas, where most Indigenous groups live, now has the most cases per capita in Brazil. As *Science* went to press, the state capital Manaus had 1772 confirmed cases and 156 deaths, and local authorities said its health care system was on the brink of collapse. The city opened two emergency hospitals in the past week.

Although Indigenous populations were devastated by infectious diseases in the past, the idea that they are somehow biologically more vulnerable to new diseases is a myth, says Carlos Coimbra, an epidemiologist at the Oswaldo Cruz Foundation who specializes in Indigenous health. "There's no scientific basis to support that," Coimbra says. Anytime a new virus enters a population that is "immunologically naïve," as happened with measles and the Paiter Surui, it will spread rapidly. Today, vaccines and regular contact with non-Indigenous people have boosted Indigenous groups' immunity to measles, influenza, and other diseases, Coimbra says. COVID-19, on the other hand, is new to the entire world.

What could make these populations unusually vulnerable to the disease are other medical, social, and environmental factors, such as a high prevalence of tuberculosis and malaria, a lack of safe drinking water, and malnutrition, Coimbra says. And the Amazon region, where most Indigenous communities live, has few hospitals with intensive care units and a limited number of ventilators, required for the most severe COVID-19 cases.

Isolation may help protect communities. São Gabriel da Cachoeira, a municipality in northwest Amazonas that has the highest numbers of Indigenous people in the country, is under a self-imposed shutdown. Local authorities have suspended passenger transport into the city of just over 40,000 people, which can only be reached by plane or boat, and so far, no COVID-19 cases have been reported. "We are focusing specifically on prevention. Our goal is to buy time," says Marivelton Barroso, president of the Federation of Indigenous Organizations of Rio Negro. Along with other organizations and government bodies, the federation is distributing food and other basic items to rural communities.

Other Indigenous territories across Brazil are also isolating themselves. In the Uru-Eu-Wau-Wau Indigenous land in Rondônia, only a limited number of representatives of the Indigenous health services can enter, and residents are urged to stay in their villages. History may encourage them to take the advice seriously: In the 1980s, the Uru-Eu-Wau-Wau population was reduced to less than half by respiratory diseases. COVID-19 "could be fatal for us," says Bitate Uru Eu Wau Wau, coordinator of the Jupaú association of the Uru Eu Wau Wau people.

Brazil's wider response to the coronavirus outbreak has been confusing at best. Most state governors and mayors have decided to enforce social distancing, but President Jair Bolsonaro has repeatedly downplayed the risks of the pandemic and argued in favor of ending the lockdowns. On 16 April, he fired his health minister, Luiz Henrique Mandetta, who supported distancing measures similar to those implemented in most countries. (His replacement, oncologist and entrepreneur Nelson Teich, said in his first speech that there would be no abrupt changes in Brazil's COVID-19 policy.)

The Brazilian Congress recently approved an emergency aid package of 600 reais ($115) per month per person for the most vulnerable populations. The money should help cut-off communities, but it can only be collected in cities, forcing Indigenous people to leave their villages and risk becoming infected. To prevent this, the National Indian Foundation will recommend that people stay in their communities for as long as they can, because the money will be available for 90 days.

Despite the worries, Elisângela da Silva, an Indigenous leader from the Baré ethnicity, sees a silver lining: As more people worry about staying safe, some traditional plants and remedies are becoming popular again. Whether they work remains to be seen, of course, but at least "the pandemic is helping us rescue our traditions," da Silva says. ■

Ignacio Amigo is a science journalist in Manaus, Brazil.

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