“Return of in-person classes will be catastrophic,” warns Brazilian scientist Lucas Ferrante

Part One

Our reporters
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This is the first of a two-part article. Read part two here.

Driven by the Brazilian ruling elite’s complete abandonment of social isolation measures, the more contagious Omicron variant has produced an explosion of the COVID-19 pandemic in Brazil. On Tuesday, Brazil recorded an average of 160,000 cases and 322 deaths, an increase of 203 percent and 170 percent respectively from two weeks ago. This is leading to an exponential increase in the occupation of ICU beds throughout the country, including by children, threatening a new health care collapse.

This already dramatic scenario may turn “catastrophic” with the reopening of schools throughout Brazil scheduled for next week, warned scientist Lucas Ferrante in an interview with the World Socialist Web Site. A researcher at the renowned National Institute of Amazonian Research (INPA) in Manaus, Amazonas, Ferrante’s studies on the pandemic have been published in the world’s most prestigious scientific journals, such as Science and Nature, and have effectively exposed the “herd immunity” policies of Brazil’s fascist President Jair Bolsonaro and his local ally, Amazonas Governor Wilson Lima.

A target of frequent attacks for these works, Ferrante said he even received an “internal e-mail from INPA ... saying that I should shut up since I was warning about the second wave [that erupted in January 2021]. An INPA employee came to me and said, ‘the ABIN (Brazilian Intelligence Agency) came here to take your personal data.’”

Last Friday, when we spoke with Ferrante, he was recovering from a thyroidectomy. He was diagnosed with a thyroid cancer shortly after finding battery material in his house’s water pipes, in what was a suspected attempt on his life. “We know that the lithium present in a battery is something that primarily attacks the thyroid,” Ferrante explained, “which supports the hypothesis” that the poisoning caused cancer.

Manaus is showing that Omicron is the worst of all variants

Contrary to the claims in the Brazilian and global media that Omicron is “mild,” Ferrante explained, “We have no way to assess its potential without the vaccine. Omicron is not being devastating [for deaths] because we have the vaccine ... What we are seeing is that the vaccine is being effective, not that Omicron is not devastating, quite the opposite.

“We have evidence of this. Yesterday and the day before (January 20 and 21), Manaus registered record numbers of infections by the Omicron variant, which is predominant in 93 percent of the cases. For Manaus to break infection records, and we know Manaus’ record [from the two previous waves], it shows that Omicron is the worst, most terrible, most virulent of all the variants that have ever emerged.”

This situation, according to Ferrante, points to an imminent collapse in the health care system of Manaus and Amazonas, where hospitalizations increased 856 percent in the first three weeks of this month. Yesterday, the two main hospitals that receive COVID cases had a 100 percent occupation of ICU beds.

This, in turn, will drive the death toll: “In our studies, through epidemiological models, we have seen that the death rate can double or triple with the collapse of the health system.”

Ferrante also warned that the situation in Manaus can extend throughout the country: “If today we are seeing a low lethality level for COVID in Brazil, this is going to change because we are starting to enter a collapse scenario in which lethality changes. Then the vaccine is not enough, and we need to curb community transmission [with social isolation measures] to prevent new cases and actually relieve the health system.”

The resumption of in-person classes will be catastrophic
With the resumption of in-person classes, Ferrante warns of a worsening pandemic with increased community transmission. “We are already foreseeing a catastrophic signal for at least three states that we have evaluated, Paraná, Minas Gerais and Amazonas, but this will be replicated for other states.”

Ferrante’s assessments use a standard model in epidemiology, SEIRS (Susceptible - Exposed - Infected - Removed - Susceptible). In a letter published in *Nature Medicine* in August 2020, this model was able to predict the second wave in Manaus four months in advance. Also using this model, another study led by Ferrante, published in the *Journal of Racial and Ethnic Health Disparities* last September, showed “that the return of in-person classes in Manaus not only created the second wave, that has already been demonstrated, but it generated the Gamma variant,” he said. By early 2021, this variant would come to be responsible for the second deadly wave not only in the city, but throughout Brazil and elsewhere in Latin America.

Once again, Ferrante warned: “We already understand that we need triggers for these case increases, and the triggers for the current wave were the New Year holidays. Now, are we going to repeat the main trigger, the worst one, which is the return of in-person classes? The New Year holidays don’t increase community and urban mobility by more than 40 percent, 50 percent, the return of in-person classes does. So that’s going to be catastrophic.”

This reopening of schools will coincide with the worst time of the Omicron outbreak, with Brazil potentially exceeding 1 million reported cases by early February, according to a Washington University projection.

Ferrante also pointed to the increase in intra-familial cases with Omicron and the role of children in the dynamics of the pandemic: “When we talk about children in social isolation, we’re not just talking about protecting children, we’re talking about decreasing the degree of infection in society. Even asymptomatic, they are transmitting it to everyone. They will start to interact inside a bus with health professionals that are going to a crowded hospital. They will catch it inside the bus and transmit it to their family. The protocols in schools really don’t work.”

“I don’t think it will end up endemic,” Ferrante stated. “Because we are exporting variants, and all the variants that have emerged have not stayed in the same place. Also, the transmissibility [of Omicron] is very high. The transmission goes through an airport, through a boat, we are not isolating any place properly from the rest of the world. I see it as very impossible for it to become endemic.”

He further explained: “We are giving rise to more and more virulent variants. And why is that? It is a matter of evolution, natural selection. If I have something extremely lethal, I kill those susceptible, and I keep those more resistant individuals in my population.” With the abandonment of all social isolation measures, “we are increasing the range of susceptible individuals,” he continued. “So I can’t select individuals, I’m going to have a much larger pool of individuals than I had in the previous wave because the population, instead of going into social isolation to have a low level of infections, I’m increasing my exposed population. There is not a selection of new individuals ... As I’m putting more individuals in contact than I’m selecting resistant individuals, because of less and less social isolation.” This, he adds, is reinforced by the waning of immunity from vaccines and especially by contact with the virus.

Ferrante sees two possible scenarios in the coming year: “Either we will generate now, with the increase of community transmission, throwing all children out in society with the reopening of schools, a vaccine-resistant variant, and we will once again be in one of the worst points of the pandemic; or, we will take the right measures now [social isolation and 95 percent of the population vaccinated] and next year we won’t be talking about COVID.”

To be continued

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