

South America is still relatively unaffected by Covid-19. This is due to several factors such as early action taken by governments before the first cases occur and less international travel compared to other hot spots around the world. But for how much longer?

We interviewed Mirdad Kazanji from his outpost at the Institut Pasteur in French Guyana for an update on the situation. In particular, he shared with us his fears about that moment where everything could change, considering the health challenges the continent has to face and the explosive situation in Brazil.



Dr. Mirdad Kazanji – photo credit IPG/Ronan Lietar

Despite signals of a slow decline in some countries heavily affected by Covid-19 (Italy, Spain, France), there is currently no respite at global level.

As figures¹ from the European Centre for Disease Prevention and Control (ECDC) show, **at April 26, Covid-19 killed 200,000 people, a number of deaths that has doubled in just two weeks.**

Unfortunately, the trend does not seem to diminish, and new outbreaks are developing.

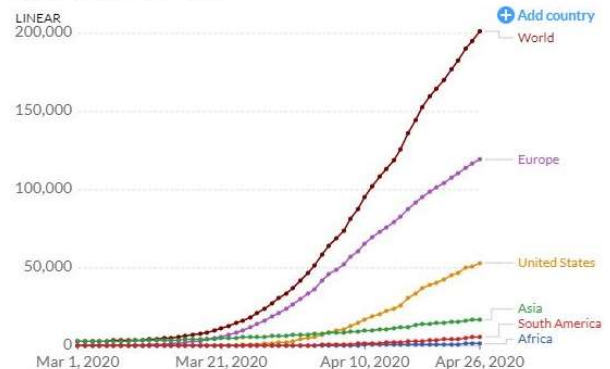
What is the current situation in French Guyana?

In French Guyana, early measures have so far brought the epidemic impact under control and the territory has only about 100 cases, including 3 people hospitalized and 1 fatality as of April 26th.

"We are following with interest the new clusters that have occurred, particularly those along each of the two border rivers: the Maroni in the west and the Oyapock in the east" says Mirdad.

Total confirmed COVID-19 deaths

Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.



Source: European CDC – Situation Update Worldwide – Last updated 26th April, 10:45 (London time)

Total cumulated deaths – European CDC – April 26th

On the Maroni River, three hamlets of Grand Santi, a municipality accessible only by pirogue and populated mainly by djukas, have reported about ten new cases. The infected individuals have been placed under quarantine. The origin is currently unknown but strong suspicions are based on a case imported from Saint-Laurent du Maroni.

On the Oyapock in the east, a new outbreak has just occurred in Saint-Georges. This town is home

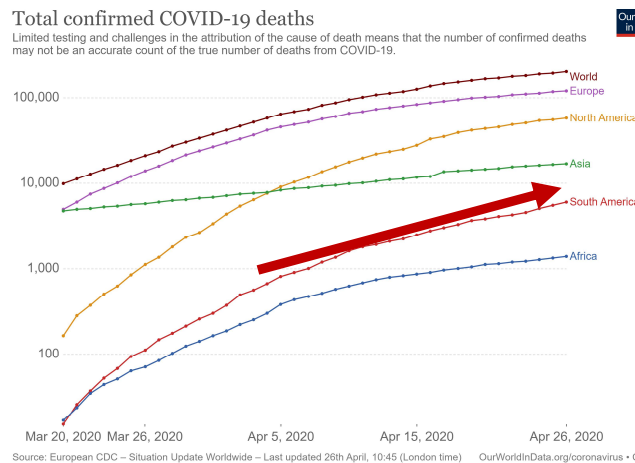
¹ Updated thanks to "Our world is data"

to the only bridge that crosses the river to go to Oiapoque in the Brazilian state of Amapa.

The French authorities have strengthened controls in Saint-Georges. "There is only a small clinic in the town, no hospital and no intensive care beds," says Mirdad.

Brazil, epicenter of uncontrolled transmission?

In order to better perceive the different regional dynamics, we have plotted the official regional death data on a logarithmic scale, with a focus on the last month. What do we observe?



Total cumulated deaths -logarithmic scale, April 26

The epidemic is indeed continuing to worsen in South America. The official figures so far speak of only 6,200 deaths, with Brazil alone accounting for more than half of all deaths.

"South America is currently the region with the highest growth in the number of deaths in the world."

Information from the field in Brazil, however, raises fears that the situation is much worse than these official figures reflect. Some scientists suggest death figures up to 5 times higher than the official figures!

"My colleagues at the Institut Pasteur in Sao Paulo and the FioCruz Institute² in Rio de Janeiro also report a catastrophic situation on the ground," confirms Mirdad.

In Brazil, the critical shortage of testing associated with the statements of controversial President Jair Bolsonaro raises fears of the worst. Jair Bolsonaro is opposed to containment measures and the government unity has recently been shattered.

"In Brazil, the critical shortage of testing associated with the statements of controversial President Jair Bolsonaro raises fears of the worst."

The city of Manaus demonstrates this catastrophic situation with exceeded capacity in the hospitals and saturated cemeteries. "We can no longer speak of a state of emergency, it's a state of absolute calamity," insists the mayor of Manaus, Arthur Virgilio Neto³. The city, capital of the state of Amazonas in the northwest of the country, is located at the confluence of the Amazon River and the Rio Negro. It has only 50 intensive care units (ICU) beds for a population of nearly 2 million people.

The difficult socio-economic situation in the favelas or indigenous villages makes this situation even more explosive at Brazilian scale.

"My fear is that Brazil will become the next epicenter of the pandemic. Modelling indicates that **the peak would not be reached before the end of May**, which raises concern of a very worrying development" notes Mirdad.

Moreover, Brazil has borders, sometimes permeable, with ten South American countries, which raises fears of a strong risk of regional contagion.

Not to mention the accumulation with other diseases/epidemics, linked to the arrival of winter in the southern part of the continent, or the multiple risks. The southernmost countries of Brazil are indeed expected to enter winter soon

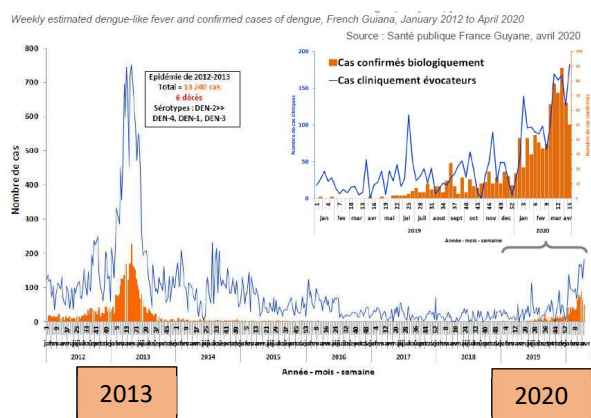
² <https://portal.fiocruz.br/>

³ AFP source

with an increase in cases of respiratory infections such as seasonal influenza. The countries closest to the tropics must face other epidemics.

A resurgence of dengue?

"The previous dengue epidemic dates back to 2013, and in recent months we have seen a resurgence of cases in South America, and French Guyana is no exception," says Mirdad.



Epidemiological update - Santé Publique France-
Apr.16th

The comparison with the previous epidemic in French Guyana in 2013 (13,000 confirmed cases, 6 deaths) raises fears of a peak epidemic in the coming weeks, between mid-May and mid-June 2020.

Dengue fever is caused by an arbovirus (insect-borne virus) which is inoculated by a mosquito of the Aedes family, as yellow fever or Zika. It is a mosquito that breeds mainly in urban and semi-urban areas, particularly in standing water in the vicinity of human dwellings. Symptoms can range from flu-like signs (dengue is referred to as a "tropical flu") to more severe symptoms in severe dengue: bleeding, organ failure, etc. The spread of the epidemic is strongly linked to the level of

rainfalls; hence its maximum manifestation is expected between May and June in F. Guyana.



Amazonian vectopole E.Abonnenc – Institut Pasteur of
French Guyana / photo credit: IPG/Ronan Liétar

Today the disease spreads and affects about 50 million people every year⁴, and has become endemic in nearly 100 countries around the world. Although Asia is the most affected, it is followed by South America. As of this date, no specific treatment exists⁵.

A dengue fever epidemic coupled with a Covid-19 epidemic could put a strain on the country's health structures.

Interviewed by Aziz Ouaabi

⁴ Information by WHO.

⁵ Sanofi-Pasteur developed a vaccine in 2015, which could contribute to increasing the risk of developing a more severe phase later in some cases.