Geography and covid-19: reflections from the evolution of the pandemic in Uberlândia, Brazil

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SUMMARY

From the complex sanitary moment faced by Brazil, related to COVID-19, in particular due to the collapse of the health system that has occurred in medium-sized cities, this article aimed to analyze the evolution of the COVID-19 pandemic in Uberlândia, according to reflections from geographic science, in order to help to understand the facts that led to the current scenario of the disease in the city. To achieve the objective, we carried out a theoretical discussion about how Geography faces recent events, especially in relation to the role of the Globalization process, both in the dissemination of information about the emergence of COVID-19 and other events, as well as in the rapid spread of the virus around the world. Based on these reflections, we analyzed the evolution of the pandemic, using data provided by the Municipality of Uberlândia and the Ministry of Health, with a cut-off date of March 18, 2021, in order to understand the chronological path of the facts. The choice for this cut-off date for data clipping is justified by our intention to analyze the first year of virus identification in the municipality. The results showed the negative evolution of the pandemic in the city, mainly over the months of February and March 2021, with 100% of the ICU beds occupied, which demonstrates the complexity and the long way to go to overcome this health crisis.

KEYWORDS: COVID-19. Pandemic. Uberlândia.

1 INTRODUCTION

The last month of 2019 was a milestone due to the discovery, in China, of a new virus with high pandemic potential - COVID-19. Three months later, on February 26th, 2020, this type of coronavirus was identified in Brazil. On March 11th of the same year, the World Health Organization (WHO) declared the evolution of the transmission and spread of this virus across the globe as a Pandemic, which means that the acceleration of transmission and number of cases indicated the worldwide spread of this new disease (WHO, 2020). After a year, considering the data from March 2021, made available by Johns Hopkins University (2021), we have the information that the world registered more than 120 million cases and 2.6 million deaths from complications of SARS-CoV-2, the name given to this variant of coronavirus. Despite these frightening data, at the end of 2020, different vaccines were announced, as a hope for the control of the Pandemic, and, in the following months, vaccination campaigns were started in different countries around the world, led by the United States of America, which in the present date is the one that managed to surpass the mark of 100 million vaccinated. Data from Johns Hopkins University (2021), from March 2021, show that in the world 590 million people have already received the first dose of vaccine and more than 130 million are already immunized (due to the fact that most vaccines require more than one dose). However, despite the rapid advances in the vaccination process, only 1.7% of the world population is fully immunized, which demonstrates the long path that still needs to be traveled to overcome this unfortunate phase in world history.

If the global scenario is still alarming, in Brazil the situation is even worse. With more than 11 million confirmed cases and more than 320,000 deaths, the country concentrates more than 10% of deaths by COVID-19 in the world (MINISTRY OF HEALTH, 2021). It so happens that, among the many errors in the conduct of the Pandemic, the Brazilian federal government sought to prioritize the economy in favor of health and the policies of distancing widely indicated by the WHO and by specialists around the world. Throughout this first year of the Pandemic, what we consider management stumbling blocks, there were some iconic moments that will surely figure in Brazilian history. Among them, we highlight: the rotation of Ministers of Health; the defense of early treatment, widely opposed by specialists for not having proven efficacy; crowds caused during official government trips and events; disincentive to the use of masks and social distancing; the delay in purchasing vaccines, in promoting and implementing contingency plans

and measures; delay in setting up a crisis committee, among others. Thus, part of the state and municipal governments were also co-responsible for part of these problems, by implementing their own measures that barely helped to fight the Pandemic. On the other hand, some of these governments, through tougher measures, related, for example, to the closing of non-essential activities and the implementation of lockdown, managed to control, in part, the transmission, hospitalization and death rates. The result of all this, led the country to be, currently, the epicenter of the Pandemic in the world (WHO, 2020).

The history tackled by the world and by Brazil in this last year has shown that the consequences of not fighting COVID-19 are severe. We face a situation of public calamity, with the collapse of the health system in most states of the federation, the lack of hospital supplies, oxygen, ICU and infirmary beds, health professionals, among others. Such examples are recurrently presented in the news, and make Brazil the main point of attention in the world, both for the WHO, as well as for countries, which incisively have closed and/or hindered the entry of Brazilians, in order to avoid the spread of the Brazilian variant.

In the first months of 2021, some cities in the country have been featured in newspapers, newscasts, etc., for presenting rates of transmission, infection, hospitalizations and deaths, which we highlight in this work as a spatial cutout for analysis, Uberlândia, medium-sized Brazilian city located in the Triângulo Mineiro region, Minas Gerais, Brazil. This city, with about 700 thousand inhabitants (IBGE, 2020), has faced, from January of this year, an outbreak in the number of cases and deaths, which ranked it, in the first half of March, among the 30 cities in the country, with the highest number of deaths, reaching the 27th position; in addition to having presented more deaths than nine states of the federation (Acre, Alagoas, Amapá, Espírito Santo, Mato Grosso do Sul, Piauí, Rio Grande do Norte, Sergipe, Tocantins and Distrito Federal), in the first ten days of that month (G1 , 2021). Up to this date, the city has registered more than 75 thousand cases and 1,500 deaths, which represents one of the highest rates of infection per 100 thousand inhabitants in the country – equal to 9.33 infected people per thousand inhabitants (MUNICIPAL GOVERNMENT OF UBERLÂNDIA, 2021). Furthermore, the public and private hospital network has registered 100% occupation on a recurring basis, which points to the collapse faced by the municipal health management.

Such facts which have been presented, both at the global and national level, as in the city of Uberlândia, justify the need to dwell on the chronological analysis of the Pandemic, in order to build reflections that help in understanding this historical-present moment. Thus, from the observation of the complex sanitary moment faced by the country, especially due to the collapse of the health system that has occurred in medium-sized cities, this article aimed to analyze the chronological evolution of the COVID-19 pandemic in Uberlândia, according to reflections from geographic science, in order to understand the facts that led to the current scenario of the disease in the city.

To achieve the proposed objective, we went through the following methodological paths: we initially carried out a theoretical discussion about how Geography faces recent events, especially in relation to the role of the Globalization process, both in the dissemination of information regarding the emergence of COVID-19 and other events, as well as the rapid spread

of the virus around the world. A posteriori, we analyzed the evolution of the pandemic, using data provided by the Municipality of Uberlândia and the Ministry of Health, with a cut-off date of March 18th, 2021, in order to understand the chronological path of the facts. The choice for this cut-off date for data is justified by our intention to analyze the first year of virus identification in the municipality (virus identified on 03/17/2020).

2 GEOGRAPHY AND COVID-19: BUILDING REFLECTIONS

COVID-19, caused by the SARS-CoV-2 virus, is a severe acute respiratory syndrome. It is the disease responsible for the biggest pandemic experienced in the world since the Spanish Flu (1918-1920). Its most common symptoms are: fever, dry cough, tiredness and loss of smell/taste. Most of those infected develop mild or medium symptoms of the disease and recover within a few days, without the need for hospitalization. In cases where the disease progresses to a more severe stage, there may be breathing difficulties, shortness of breath, pain or pressure in the chest, and even loss of speech or movement. Despite being considered a disease with a low lethality rate - a small percentage of deaths in relation to the amount of contaminated ones - the probability of the disease's evolution to its most severe form is greater in individuals who are in the risk group: people with diabetes, hypertension, obesity or the elderly, for example (MINISTRY OF HEALTH, 2021).

If it was the period before the great navigations, the virus would take months to reach other continents. But in the context of Globalization, where there is the presence of the Technical-Scientific-Informational environment (SANTOS, 2000) and the consolidation of a network society (CASTELLS, 1996), in a short period of time the disease was transported, reaching practically everywhere. Therefore, we know that the virus has spread rapidly due to the intense movement of people across the globe. The technical-scientific-informational environment allowed the development of more efficient transport and enabled the rapid movement among people, along with this, we have the instantaneity of information. With access to the internet, it is possible to know the COVID-19 numbers and data released by any nation in the world. If it wasn't so clear before, we now realize that integration among globalized nations also takes place in a biological condition and is not restricted to geopolitical events.

At first, the virus was described by many scholars as "democratic", as it would affect the entire population in the same way, regardless of living conditions and income. However, over the months of the Pandemic, and the need to close activities considered non-essential - mainly related to commerce and services, we found, in Brazil, the existence of the most vulnerable strata of the population. Haesbaert (2020), regarding this issue, points out that, at the beginning of the Pandemic, the economic elites were responsible for the spread of the virus, since it is this portion of the population that has greater access to international movement. Over time, these individuals infected their peers, such as relatives and neighbors, but mainly their employees. These, in turn, who are at the base of the socioeconomic pyramid, are contaminated by the need to work, which significantly reduces the capacity for social isolation of this layer of the population.

Dallari (2020), in a publication entitled "The coronavirus crisis is not democratic",

corroborates this finding, stating that, in the Brazilian case,

> […] this Brazilian social inequality, which is a hallmark of Latin America, made the WHO rightly declare that Latin America is the new epicenter of the pandemic, with regrettable emphasis on Brazil [...]. But there is another impact that affects this most vulnerable layer of society, which is the reduction in economic activity, which affects in a much more effective way the portion of the population that lives in a situation of subsistence. [...] The World Bank, conservatively, believes that 60 million people will go into extreme poverty around the world (DALLARI, 2020, s.n.).

Thus, we realize that, in the course of contamination and tragedy, Brazil and other peripheral countries have been affected harder, especially among the poorest population. Among the factors intertwined with this situation, which increase the condition of vulnerability, we can highlight: the need to work, which significantly reduces rates of social isolation; housing conditions, in which large areas in Brazilian cities are formed by peripheries, part of those without minimal sanitary conditions, with an emphasis on slums; the lack of access to equitable health care, in which, while the wealthier strata of the population have access to private care, the poor population finds itself at the mercy of public service, which is often collapsed; among many other examples that explain and lead to the intensification of social inequalities.

Therefore, in the context of perverse globalization (SANTOS, 2000), which creates socioeconomic inequalities in society, the coronavirus pandemic has further exposed existing differences. It should be mentioned that some groups were even more oppressed by the system in this situation. Buses are still full; women who could be at home were even more burdened, because in addition to the usual work, the tasks of taking care of the house and children were added to them; children and adolescents were left without classes, experiencing the challenge of remote activities that place both students and education professionals in limbo of not knowing whether knowledge is being learned, added to the precariousness of teaching work; health professionals started to work in a regime of physical and mental exhaustion, besides being forced to distance themselves from their families. The examples mentioned, and so many others related to them, that the reader of this article can certainly be listing at this moment, demonstrate the vulnerabilities and inequalities imposed and exposed by the health crisis.

We know that Brazil is not alone, as the same problems faced by the country are also difficulties faced by governments and the population in different areas of the globe. In socially peripheral regions and inland areas of the Global South - a term widely used in postcolonial studies, to refer to undeveloped or developing countries (VISENTINI, 2015) - the virus has spread more rapidly, contaminated millions of people and caused the death of thousands of them. It is emblematic that, in Brazil, the first death from the virus was of a maid (G1, 2020). Without government economic support, the poorest population cannot find shelter in their homes. To get to work, they need to face crowded buses and other types of direct exposure to contamination. Much is said about risk groups due to comorbidities, which in fact is true. But what about geographic location in relation to the world? And the location of part of the population regarding the city? In which socioeconomic context is a certain portion of the population inserted? And how are the issues listed be risky for the citizens? These are questions that need to be answered, in which we believe, the human sciences have the role of answering them.

We understand that social vulnerabilities result from the relationship between place and population vulnerabilities. Thus, countries that are on the periphery of capitalism have more difficulties in coping with the disease, as their population is in conditions that make it impossible to stop circulating, since this circulation is linked to work, that is, the need to travel daily to work. Most of the time, these are jobs where home office is not possible. How will the rural worker, the maid, the supermarket attendant or the bus driver work from their homes? We believe the answer is itself contained in this question.

The concentration in Brazil is not limited to economic income, it also appears in access to health services and human development. Thus, we understand that the Pandemic needs to be analyzed not only from an epidemiological point of view - which seeks to overcome the health crisis based on the vaccine and prevention policies. Nor should it be thought of, only under an economic bias, which is concerned about the consequences and probable financial imbalances arising from the crisis. In addition to these assessment criteria, it is important to understand how the territory and place are affected by the pandemic and, consequently, how the population behaves in the face of this health adversity. It is in this sense that Geography, through the integrated analysis of society and nature, may contribute, by means of reflections that lead to an understanding of the current national scenario, directly linking the global dynamics. Furthermore, geographic science can contribute to the spatial analysis of the disease, through mapping and data analysis, which together might become important allies of public management, by identifying the parts of the territory with the highest incidence of diseases and relating them to geographic factors, such as population dynamics and existing economic inequalities. Hence, this chapter is an exercise in the attempt to relate the Pandemic with other economic and social issues existing within the urban area of Uberlândia.

In view of this, we realize that the growth and, consequently, the disorderly occupation of cities show up as serious contemporary issues. This factor implies several problems related to the basic infrastructure of cities, such as the precariousness of drinking water supply and sanitary sewage services; poor quality in transport lines and insufficient equipment/lines for communication, information and energy networks; all of this is especially aggravated by the unequal distribution of land and soil, which are largely responsible for the housing deficit and the increase in urban marginality. Regarding this issue, Lima (2016) points out that one of the current foundations of epidemiology is the notion of risk. It is necessary to recognize the condition of individuals and populations that are exposed to the most dangerous factors of contamination by identifying the causal agents and using statistical methods to calculate the probability of materialization of the threat.
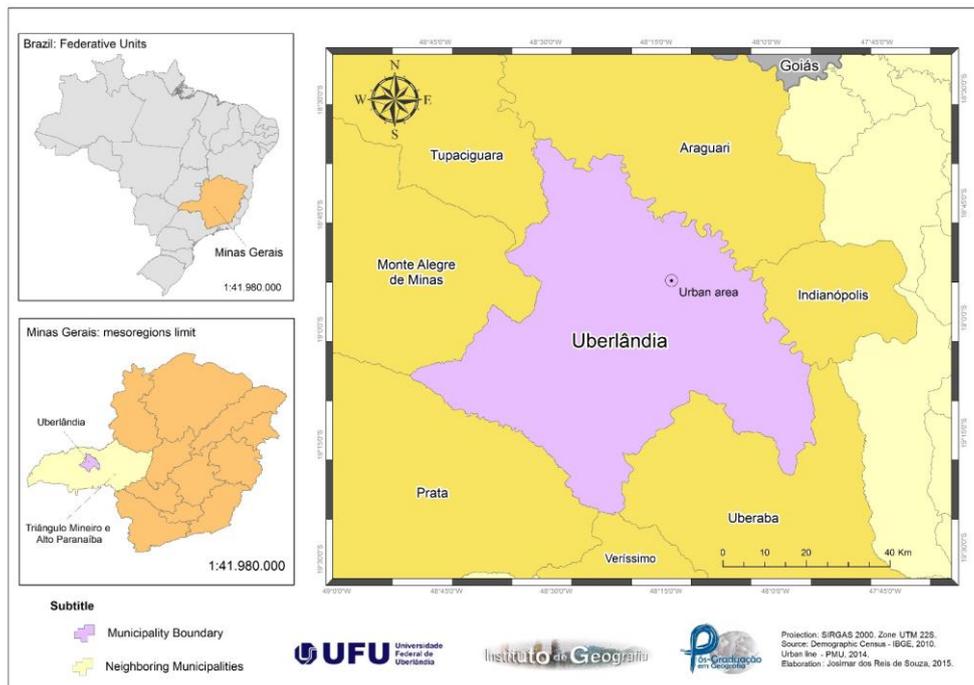
Thus, there is no doubt that populations historically most vulnerable and marginalized are those in highest risk. How to ask the individual to wash their hands, if there are often those who do not even have access to running water, the most basic of hygiene? Therefore, the place where individuals are inserted makes all the difference in preventing and fighting the virus. However, as Lima (2016) points out, even in the 21st century, marked by technological evolution, society has not been able to advance much in the treatment and control of diseases, as it still does not consider the population's life conditions, directly related to the place where you live. For the author, it is crucial to overcome diseases to consider the individual and collective aspects of human life. Thereby, the place affects people's lives and health. Yet it is

necessary to understand that this place is also inserted in a global logic, whose most evident example is the Pandemic itself, which changed the dynamics at the macro-trade level world and other flows as well as at the micro - in the local dynamics of cities, neighborhoods, companies, etc.

3 THE EVOLUTION OF THE COVID-19 PANDEMIC IN UBERLÂNDIA

Uberlândia is located in the western portion of the state of Minas Gerais, Brazil, in the region known as Triângulo Mineiro/Alto Paranaíba, as shown in figure 1.

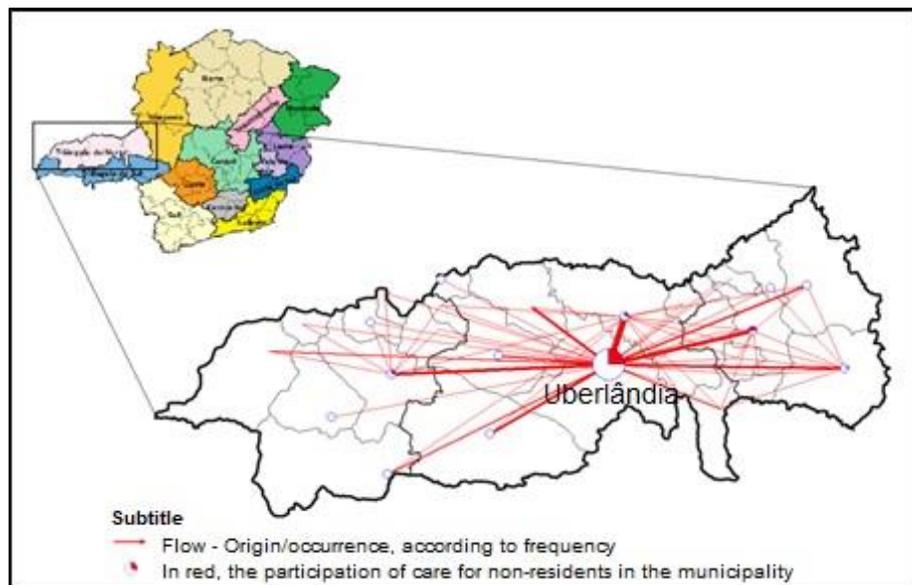Figure 1 - Uberlândia: location of the municipality and urban area

Source: SOUZA, 2016.

According to population data from IBGE (2020), the municipality had, in that year, a population of 699,097 inhabitants, which, considering the urbanization rate measured during the 2010 demographic census (IBGE, 2010), more than 96% of this population lives in the urban area. It is, therefore, the second largest city in the state of Minas Gerais, only behind the capital Belo Horizonte, and the 30th largest city in the country, even ahead of the capitals of the federations, such as Aracaju, Cuiabá, Porto Velho, Macapá, Florianópolis, Boa Vista, Rio Branco and Vitória. Such data place this city as one of the main medium-sized cities in the interior of the country.

Regarding health, Uberlândia is the main city in the health macro-region called the "Northern Triangle", which places it as a reference in health, of medium and high complexity, for 27 municipalities, corresponding to a population in the order of 1.3 million people (SECRETARY OF THE STATE OF HEALTH FROM MINAS GERAIS, 2019). Furthermore, the city, due to its public and private health infrastructure, also serves patients from all over the Triângulo Mineiro/Alto Paranaíba region, part of Northwest Minas and South of Goiás. Figure 2 shows the

composition of the Northern Triangle macro-region, as well as the origin of patients assisted in Uberlândia throughout 2019, which demonstrates that about 25% of care provided in Uberlândia that year came from other cities. Moreover, in addition to Uberlândia, the cities of Araguari, Ituiutaba and Patrocínio are also responsible for providing care, mainly of medium complexity, to part of the macro-region's patients.

Figure 2: Northern Triangle Macro-region: participation in service in 2019
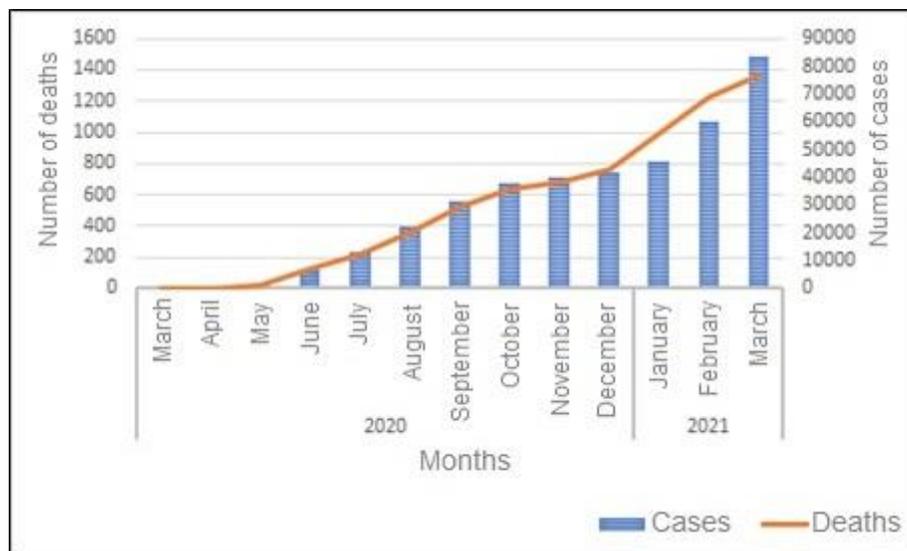

Source: MINAS GERAIS STATE HEALTH DEPARTMENT, 2019.

By the time COVID-19 pandemic reached Brazil, the Municipality of Uberlândia instituted, in February 2020, the Municipal Committee for Coping the pandemic, which prepared and presented to the population the Municipal Contingency Plan to face the disease caused by SARS-CoV-2. Since then, the disease has expanded-regressed-expanded, following the trend "in waves" faced by the country and stimulated by measures of social isolation, promoted both at the municipal level, through municipal decrees, as well as at the state level, through the Minas Conscience plan, created to guide the safe resumption of economic activities (GOVERNMENT OF THE STATE OF MINAS GERAIS, 2021). As the disease expanded, the service network also needed to be readjusted. Data from the Municipality of Uberlândia (2021) indicate that currently the city has more than 312 beds in Intensive Care Units (ICU) and about 650 infirmary beds, which has been shown to be insufficient, since the city has faced, throughout March 2020, 100% occupancy in its beds.

Since the new coronavirus reached Uberlândia, the municipal government has been working to collect data on the disease in the city. The daily report, published on social media, contains information about cases, deaths, hospitalizations and available beds. On its official website, the City Hall provides the number of people hospitalized in the ICU and infirmary, hospitalized by gender, age group and with preexisting illnesses. Figure 3 shows the evolution of coronavirus cases in the city of Uberlândia, between March 2020 and March 2021. The first case of coronavirus was registered on March 17, 2020 and the first death records were confirmed in April 4, 2020.

The scenario of the last 12 months of the pandemic showed a significant worsening of the situation in 2021 compared to the previous year. Over the nine months of the pandemic in 2020, Uberlândia had 741 deaths from COVID-19, that is, over the 289 days, between the first confirmed case and the last day of the year, the daily average of deaths corresponded to 2.5 deaths per day. In 2021, after just 76 days, the city registered a number of deaths higher than the entire first year of the pandemic: there were 742 deaths registered from January 1st to March 18th, 2021, resulting in an average of 9.7 deaths per day. Considering an even smaller time frame, only the month of March 2021, the situation becomes even more frightening: there were 409 deaths registered in the first 18 days only, with an average of 22.7 deaths per day. The current figure of this scenario is equal to 1,483 deaths, until March 18, 2021.

Figure 3: Uberlândia - evolution of the number of cases/deaths from COVID-19 between March 2020 and 2021
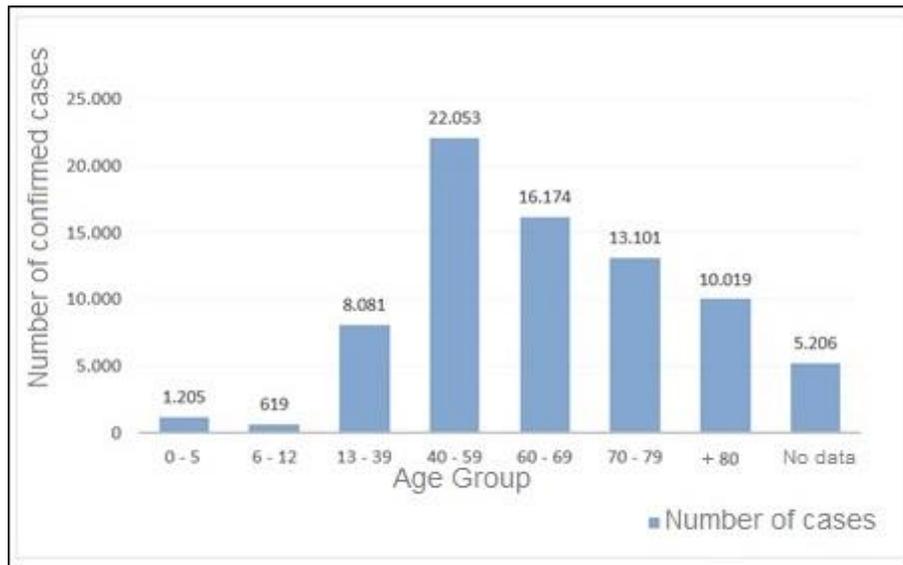

Source: UBERLÂNDIA CITY HALL, 2021.

Regarding the evolution of the number of cases, at the end of March 2020, Uberlândia registered 13 positive cases, in April 150, in May 1.247, in June 6.871, in July 12.640, in August 20.259, in September 29.020, in October 35.569, in November 38.642, in December 39.169. In 2021, the end of January presented 55.981, in February 68.678 and in March, when the cut-off date for this work was reached, the mark of 76.458 accumulated confirmed cases was registered. From these data, it is noticeable to verify the acceleration in the number of contaminated at different times, in which we highlight the months of June, July, August, September and October 2020; and from December 2020 to the present time. Regarding the age range of contamination, we present figure 4.

Through the data, we can observe that the age groups with the highest number of cases accumulated over the first year of the pandemic are: 40 to 59 years old, with 29% of the infections (22,053 cases); 60 to 69 years old with 21% of the infections (16,174 cases); 70 to 79 years old, with 17% (13,101 cases) and the age group of 80 years old or more, with 13% of the infections (10,019 cases). The lowest rates of contamination are in the ranges from 13 to 39 years, 0 to 5 years and 6 to 12 years, with 11% of the contaminations (8,081 cases), 2% of the

contaminations (1,205 cases) and 1% of the contaminations (619 cases), respectively. In Brazil, people aged between 18 and 65 years are part of the Economically Active Population (EAP) - working population and working age - it is precisely this population that is most exposed to the virus because, when they go out to work, they face agglomerations on buses, at their workstations, etc. At least 50% of those infected are part of this population (summed range 40 – 69 years).

Figure 4: Uberlândia - Accumulated contamination by age group
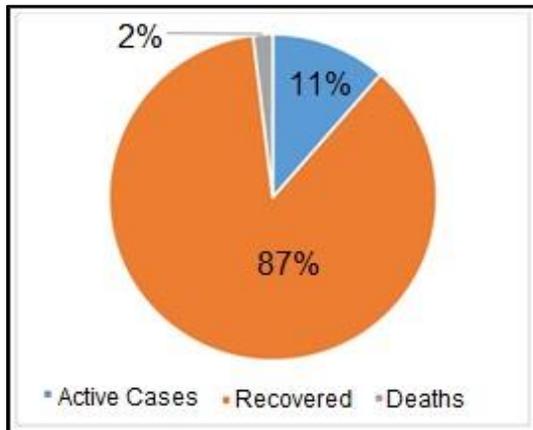

Source: UBERLÂNDIA CITY HALL, 2021.

It is interesting to note the following trend: the third smallest range of contamination has a considerable class interval (13 to 39 years), out of these, it is estimated that the age group from 18 to 39 is part of the active labor market, being more exposed to virus. But why is this contamination rate low compared to the others? We know that the complications of COVID-19 are directly related to existing comorbidities, with age being one of the most aggravating factors, since old age brings with it a decrease in the immune system. If we analyze the older population groups, in theory already retired, we have at least 30% of those infected (added age 70 years or more), that is, still a high percentage. This population, at first, would be better able to protect themselves at home, as they have the right to retirement, so there would be no exposure to the virus to perform the job function.

Among the possible justifications for the low rate of contaminated individuals in the 13 to 39 age group, underreporting and low testing stand out. A study by Lima, Fonseca and Santos (2020) demonstrates that the cases of SARS – Severe Acute Respiratory Syndrome in the state of Minas Gerais have increased significantly. High SRAG is considered one of the main indicators of underreporting, in mid-2020, SRAG reached an increase of 513% compared to the same period in 2019. The city hall from Uberlândia reported that the municipality had an average of "2,264 tests applied for every 100 thousand inhabitants – a rate 17 times higher than that of the State of Minas, whose tests are at 136 per 100 thousand inhabitants" (MUNICIPAL GOVERNMENT OF UBERLÂNDIA, 2021). However, as mentioned, this placement can be

questioned since the state of Minas Gerais has a high rate of underreporting. Underreporting can happen either due to the non-communication/counting of infected people by the individual (personal/private) or by the State (institutional).

Furthermore, as shown in figures 5 and 6, it can be noticed that until March 18, 2021, a total of 307,921 people had been tested for COVID-19. Approximately 75% (231,463 individuals) had a negative diagnosis for the disease and 25% had a proven diagnosis, 76,458 confirmed cases, that is, one in every four tests performed was detected for the Sars-Cov-2 virus. Out of these, 1,483 died (2% lethal cases).

Figure 5: Uberlândia - Active, fatal, recovered cases

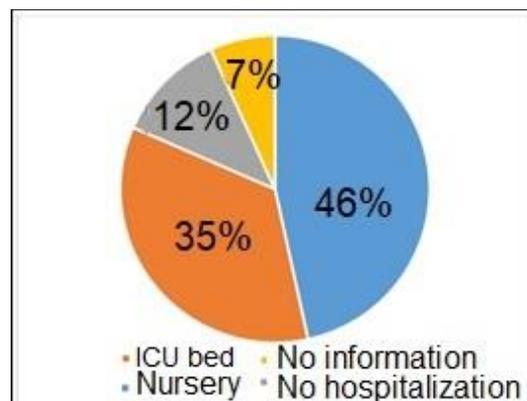Source: UBERLÂNDIA CITY HALL, 2021.

Figure 6: Uberlândia - Discarded/confirmed tests

Source: UBERLÂNDIA CITY HALL, 2021.

Regarding hospitalizations (figure 7), among those contaminated with COVID-19, about 46% (35,607 individuals) needed care in the ward and 35% (26,756 individuals) needed hospitalization in the ICU. In about 12% of cases (8,891 individuals) there was no need for hospitalization. Approximately 7% of cases (5,204 individuals) do not have data on the need for hospital stay.

Figure 7: Uberlândia - hospitalization rate per COVID-19

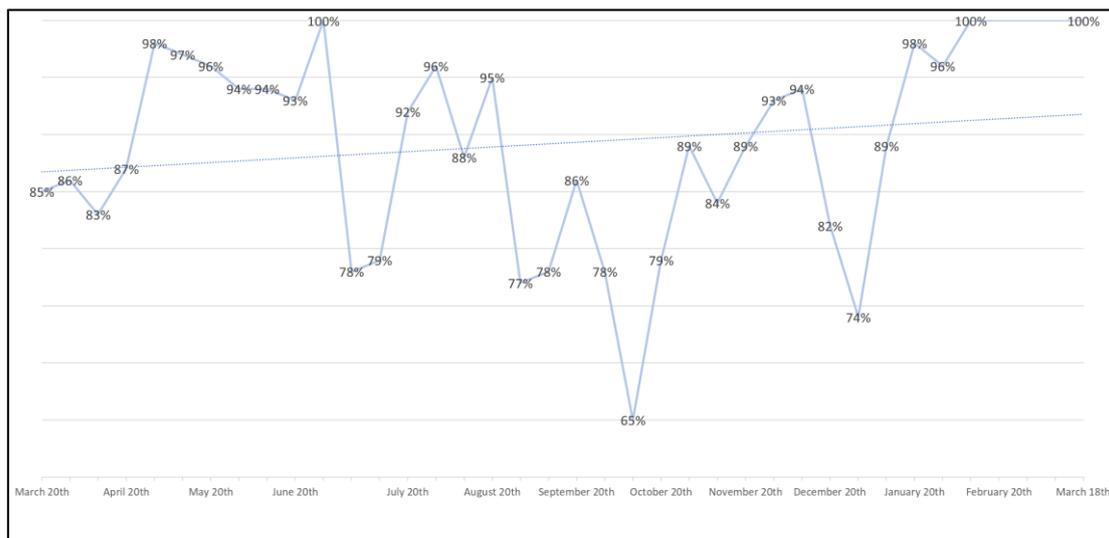Source: UBERLÂNDIA CITY HALL, 2021.

The data highlighted in relation to Uberlândia are remarkable, as COVID-19 shows a trend of need for hospitalization considered low. In Brazil, the disease evolves the need for

hospitalization in approximately 20% of cases (MINISTRY OF HEALTH, 2021). This fact is possibly justified by the low testing, which in many cases does not occur in the case of mild or asymptomatic infected individuals and thus do not enter the statistics.

In general, the older the individual or the higher the degree of the patient who has some type of illness prior to the disease, the greater the chances of hospitalization and, in some cases, the need for hospitalization in an ICU bed for intubation and treat respiratory failure caused by the virus. This is because aging brings with it some weaknesses such as lesser activity of the immune system. Among the main pre-existing diseases of hospitalized patients, the following stand out: heart disease (23.06%); diabetes (11.59%); neurological (2.55%); pneumopathies (2.17%). The 61% designated as "Others" correspond to people without a history of comorbidities or with diseases that have not reached relevant levels (MUNICIPAL GOVERNMENT OF UBERLÂNDIA, 2021).

Regarding hospitalizations, the cut-off date table (18 March 2020) pointed to 785 hospitalized people, 473 in the ward and 312 in the ICU, which corresponds to an occupation of 100% of the ICU beds in both the public and private system of the municipality. A fact that has been repeating since the first days of March 2021. However, it was not the first time that the Uberlândia health system has approached a collapse. In relation to new cases, considering the same date, there was an increase of 15% (455 new infections). The first time that beds reached 100% occupancy was on June 27, 2020, but a few days later this occupancy rate dropped due to the increase in beds and the expansion of measures for social distancing. There are currently queues of patients to get a place in ICU beds, infirmary, in addition to patients being transferred to other cities and states, as pointed out by the G1 report of March 2, 2021, whose title mentions "Covid-19: Uberlândia has 18 new deaths and nearly 200 patients awaiting a vacancy in the ICU". To understand the complexity of this issue, Figure 8 shows the evolution of the ICU bed occupancy rate throughout the pandemic, between March 20, 2020 and March 18, 2021.

Figure 8: Uberlândia - ICU bed occupancy rate during the COVID-19 pandemic

Source: UBERLÂNDIA CITY HALL, 2021.

The figure brings some important findings. Because Uberlândia is a reference in medium and high complexity healthcare, since the beginning of the pandemic, it had already showed rates of hospitalization in ICU beds above 80%. By the time the virus sprung up in the city, between the months of April and August, it was found that the occupancy rate remained above 90%, a period in which the city reached for the first time the peak of 100% of occupied beds. During the second half of August to October, there was a reduction in the number of cases, which followed the national curve. During this period, most days the occupation was below 80%. At that time, the city already had 10 more ICU beds, a fact that helped in this decline in occupation. From October to December, there was a new increase in occupancy, and since November, occupancy rates, almost all the time, have been above 90%, except in mid-December, which is explained by the drop presented, due to the fact that the city hall open 26 new ICU beds, which partially relieved the system (MUNICIPAL GOVERNMENT OF UBERLÂNDIA, 2021). In the first three months of 2021, the situation of the city got worse, with an increase in cases, hospitalizations and deaths, which culminated in the 100% occupancy rate, which from March 1st to the present date, April 2nd, 2021, has remained at this level. However, concomitant with this worst phase of the sanitary crisis, Uberlândia started, on January 19, 2021, the vaccination process.

The data of Uberlândia City Hall (2021), up to now, the city has received more than 96,000 doses of vaccine, of which 75,000 have already been applied - 57,566 first dose and 17,624 second dose, which points to about 8.22% of the population partially immunized and 2.51% fully immunized. We know that, due to the national immunization schedule and the composition of priority groups initially formed by the elderly and health professionals, most of those vaccinated are in the age group above 70 years. The pace of vaccination presented by Uberlândia, follows the national trend, and has demonstrated the complex path to be followed until we overcome the current health crisis at COVID-19.

4 CONSIDERATIONS

The present work enabled us to know the panorama of the sanitary crisis, triggered by the new coronavirus pandemic, in the city of Uberlândia. We are aware that analyzing and tabulating data in the midst of a historical moment that is in full motion, happening "here" and "now", is often a tricky task. Every day there are new ones infected, recovered and dead. The numbers have never stabilized, on the contrary, unfortunately, daily records of both cases and deaths have been shown to be constant. Thus, in order to be able to carry out such an analysis, we had to establish a cut-off date, which made it possible to compare the data. However, sometimes we find ourselves reflecting on what has happened in the city since that date up to the day this article was concluded – April 2, 2021, and we see how much the situation has deteriorated since then. Therefore, we believe that such an analysis should also be carried out in the future, in order to understand how the moments of this sad history of "war" against this virus were unfolded.

We recognize that the data analyzed represent only part of the complexity of this health crisis, since other factors, such as the health measures adopted, the restrictions imposed to curb the circulation of the virus, the distribution of cases by city areas, among others, are

highly needed from the point of view of geographic analysis. However, in this work, we sought to explain the most evident results, so that this set of information could be included in other publications in the future. Thus, we believe that the reflections carried out here have academic relevance, but mainly, they can be used by public administration, both in combating and in understanding this sad historical fact, in which we are all characters today.

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