


## ACCESS TO AND LEVEL OF TRUST IN HEALTH SERVICES DURING THE COVID-19 PANDEMIC OF THE POPULATION OF SETTLERS IN TWO MUNICIPALITIES OF MATO GROSSO, BRAZIL

 <https://doi.org/10.56238/arev6n4-222>

Submitted on: 13/11/2024

Publication date: 13/12/2024

**Karolyne Vieira Bassetto<sup>1</sup>, Sara Caroline Amaro Luiz<sup>2</sup>, Thaís Zamboni Berra<sup>3</sup>, Ricardo Alexandre Arcêncio<sup>4</sup>, Heriederson Sávio Dias Moura<sup>5</sup>, Letícia Perticarrara Ferezin<sup>6</sup>, Bruno Gomes de Castro<sup>7</sup> and Ludmila Barbosa Bandeira Rodrigues Emerick<sup>8</sup>**

### ABSTRACT

The global crisis caused by the COVID-19 pandemic has affected the world in several ways, especially health systems, especially in less developed countries. In Brazil, in addition to the insecurity caused by the disease, the news about corruption and misconduct involving the health system reinforced the feeling of insecurity and distrust in health services in the population. In this sense, studies have shown differences in the perception of health services and in the way the pandemic affected populations based on the sociodemographic profile and the environment in which individuals are inserted. The objective of this study was to evaluate the access and level of trust in health services of the population of settlers in the municipalities of Juara and Sinop in Mato Grosso, Brazil. A total of 101 residents of settlements were interviewed applying the COVID-19 Social Thermometer questionnaire. The data were tabulated in Microsoft Office Excel 2010 spreadsheets and imported for analysis using SPSS version 22 software, descriptive and chi-square analyses were performed to compare confidence in health services between municipalities. It was possible to observe that the majority of the population of settlers in these cities uses the Unified Health System, does not have a health center in their neighborhoods or communities and does not have a health plan or agreement. In addition, most of them showed more trust in Primary Health Care services to the detriment of other services. Also, when comparing the level of trust in the health system between the

<sup>1</sup> Master in Health Sciences Federal University of Mato Grosso E-mail: karolynebassetto96@gmail.com  
ORCID: <https://orcid.org/0000-0003-2786-125X>  
LATTES: <http://lattes.cnpq.br/2068753951865287>

<sup>2</sup> Graduation in Veterinary Medicine  
Federal University of Mato Grosso

<sup>3</sup> Dr. in Public Health Nursing,  
University of São Paulo

<sup>4</sup> Dr. in Public Health Nursing,  
University of São Paulo

<sup>5</sup> Dr. in Public Health Nursing,  
University of São Paulo

<sup>6</sup> Dr. in Genetics  
University of São Paulo

<sup>7</sup> Dr. in Veterinary Sciences  
Federal University of Mato Grosso

<sup>8</sup> Dr. in Public Health Nursing,  
Federal University of Mato Grosso

municipalities of Sinop and Juara, the residents of the settlement in Juara trust the health services, while those of Sinop distrust.

**Keywords:** Primary Health Care. COVID-19. Confidence.

## INTRODUCTION

The COVID-19 pandemic has had repercussions around the world in all sectors, especially health systems, especially in less developed countries (ARAÚJO *et al.*, 2022). In Brazil, in addition to the problems resulting from the disease, controversies related to acts of corruption, ethical deviations in hospital institutions and some health professionals, intensified the population's insecurity about the integrity of health systems.

In addition, social inequality is a Brazilian reality that has been intensified by the COVID-19 pandemic, especially in populations in situations of social vulnerability, among which urban and rural settlements stand out for their geographic isolation, difficulty in accessing basic sanitation, health services and the media, which increases the chances of being affected by infectious diseases (FLOSS *et al.*, 2020; MOURA *et al.*, 2022).

In the context of social disparity, the lack of equity in access to health services in Brazil has been the subject of recurrent discussion. Studies indicate that the prevalence of precarious access to health services in the country is around 18%, being associated with factors such as: i) having black/brown skin color; ii) live in the rural area; iii) not having private health insurance, among other factors such as having a self-assessment of poor/very poor health (DANTAS *et al.*, 2020). It should be noted that throughout the pandemic this discrepancy has become even greater.

In addition, a study carried out in the state of Rio de Janeiro evaluated the perspective of COVID-19 positive patients on health care. The results showed a discrepancy in patient care, with reports of patients who had to resort to private clinics to be tested for COVID-19. On the other hand, part of the interviewees claimed to be satisfied with the treatment received in health units (ROGRIGUES, 2022), evidencing the discrepancy faced in access to health care in Brazil.

In the meantime, referring to the population's trust in Brazilian health services during the COVID-19 pandemic, a study pointed out that 41.4% of respondents did not trust primary health care services. However, 50.6% of the participants reported trusting hospitals (ARAÚJO *et al.*, 2022). In addition, a study carried out at a global level showed that financially comfortable people were more likely to trust the national government and that this same group of people was 26% more likely to trust doctors and nurses (MOUCHERAUD; GUO; MACINKO, 2021), which highlights the difference in the perception of health services based on the individual's sociodemographic profile.

According to the World Health Organization (WHO) report *COVID-19 and the Need for Action on Mental Health*, vulnerable populations, including those living in poverty, in overcrowded urban areas, in temporary shelters, or in refugee camps, face additional challenges in protecting themselves from COVID-19 and its effects. The WHO also highlights that these populations are at higher risk of infection, have less access to adequate health services, and may suffer more from the social and economic consequences of the pandemic (WHO, 2020).

In this context, one of the main points to be addressed is the absence of basic sanitation. Studies have shown that a minority of settlement residents consume water with some type of treatment, and there is no proper disposal of sewage and garbage in these places (SANTOS *et al.*, 2022). In addition, endemic diseases caused by poor hygiene are the ones that most affect the vulnerable population and contribute to the spread of other diseases (LOPES *et al.*, 2014; DUTRA *et al.*, 2016).

The diseases that stand out the most in these territories are those transmitted by contaminated water, such as diarrheal diseases, hepatitis A, malaria, typhoid fever and leptospirosis. However, other infectious diseases have high infection rates, such as: tuberculosis, leprosy, tegumentary leishmaniasis, and sexually transmitted infections (STIs) (LOPES *et al.*, 2014; DUTRA *et al.*, 2016, ANDRADE, 2018).

Regarding the COVID-19 pandemic, a study carried out by researchers from Fiocruz, the University of Ouro Preto, and the Federal University of Minas Gerais, observed a higher lethality rate in the population considered non-white and in households with more than two people per room. In addition, it was possible to verify that living in subnormal agglomerations is a risk factor for getting sick from COVID-19. Thus, the study came to the conclusion that socioeconomic conditions are aggravating factors for illness and deaths from COVID-19 in Brazil (SILVA *et al.*, 2023).

It is known that the means of access to land and housing, both by the market and by public policies, have always been insufficient in Brazil, favoring the processes of occupation of idle land and the informal construction of housing, giving rise to unhealthy settlements, often located in risk areas (CARDOSO, 2016). This scenario makes clear inequalities and the precarious living conditions of the low-income Brazilian population, which were intensified during the COVID-19 pandemic, making the population living in settlements an important niche for study.

The IBGE, in its report *Subnormal Agglomerations 2019: Preliminary Classification and health information for the fight against COVID-19*, pointed out that, until December 2019, there were 13,151 subnormal agglomerations in Brazil, with a total of 5,127,747 households, 22,429 of which were located in the state of Mato Grosso (IBGE, 2020). With regard to agrarian reform settlements and rural settlements, data from INTERMAT (Land Institute of Mato Grosso) showed that, in 2018, there were 125 rural settlements in the state, in which about 10 thousand families were approved.

Mato Grosso has a significant number of rural and urban settlements, however, there is a lack of studies that evaluate the consequences of the pandemic period in this population, making the state an important niche for studies. Therefore, the relevance of this study lies in the acquisition of new knowledge about the outcomes of the pandemic, seeking information that helps in the elaboration and implementation of more effective measures to control COVID-19 among this population. The objective of this study was to evaluate the access and level of trust in health services of the population of settlers in the municipalities of Juara and Sinop in Mato Grosso, Brazil.

## **METHODOLOGY**

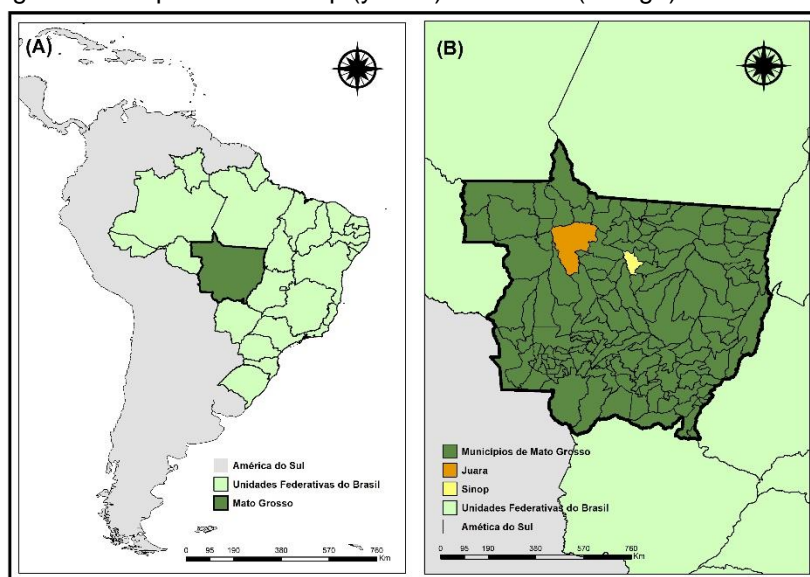
### **TYPE OF STUDY**

This is a cross-sectional study, of a quantitative nature (FRONTEIRA, 2013).

### **PLACE OF STUDY**

The research was developed in two municipalities located in the north and northwest of the State of Mato Grosso; Sinop and Juara in Brazil. The municipality of Sinop is located in the north of the state, its territorial extension is 3,990.870 km<sup>2</sup> and its population is 196,067 inhabitants, with a demographic density of 49.13 inhabitants/km<sup>2</sup>, with a Municipal Human Development Index (MHDI) of 0.754 (IBGE, 2022). The city's economy is based on agriculture, livestock, logging, and human services such as health care and education. It is located in a geographical transition zone between the Amazon rainforest and the Cerrado. The municipality of Juara is located in the northwest of the state, its territorial extension is 22,632.713 km<sup>2</sup>, with a population of 34,906 inhabitants and a demographic density of 1.54 inhabitants/km<sup>2</sup> and its MHDI is 0.682 (IBGE, 2022). Located in the Amazon biome, the city's economy is based on timber extraction, livestock and agriculture. Figure 1 shows the map of the location of the municipalities.

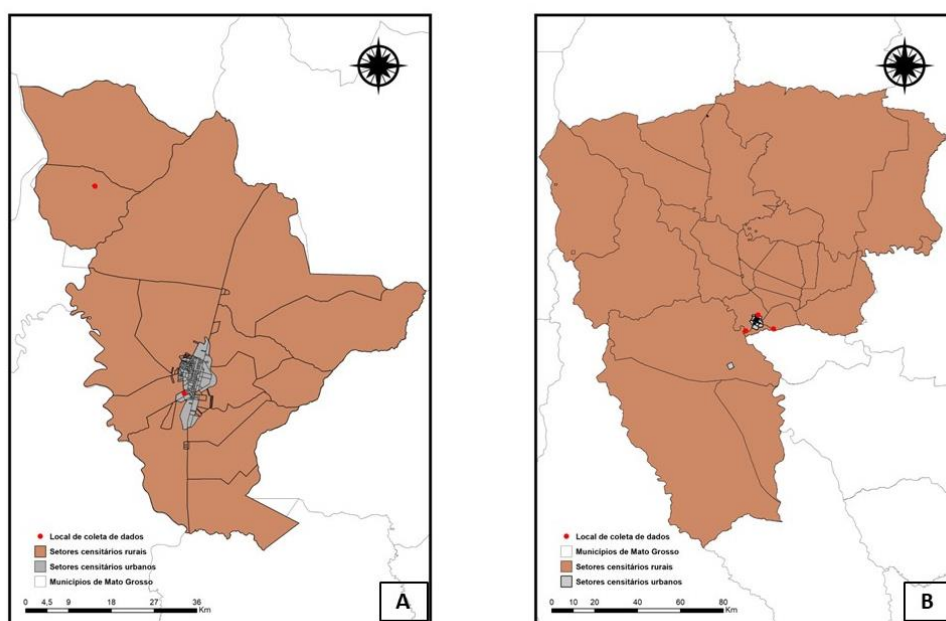
Figure 1: A) Map of South America, showing Brazil and the State of Mato Grosso. B) Map of the State of Mato Grosso showing the municipalities of Sinop (yellow) and Juara (orange).



Source: prepared by the author, 2023.

In the municipality of Sinop, the Gleba Mercedes V Rural Settlement and the São Cristóvão Leisure Farms Urban Settlement were visited. In the municipality of Juara, three rural settlements were visited: Água Boa Community, Casulo Project and Barbosa Community. Figure 2 shows the map of each municipality and the points where data were collected.

Figure 2: A) Map of the municipality of Sinop with marking of the data collection points. B) Map of the municipality of Juara with marking of the data collection points.



Source: prepared by the author, 2023.



## POPULATION AND DATA COLLECTION

Data collection took place from September 2022 to April 2023. A total of 101 interviews were conducted with residents of rural and urban settlements in the municipalities of Sinop and Juara – MT. The calculation of the sample size (n) was based on the formula proposed by Medronho *et al.*, 2007:

$$n = Z^2 \frac{\alpha P(1 - P)}{2 \varepsilon^2}$$

The number of 10 thousand settled families (considering one member per family) counted by INTERMAT in 2018, and considering an error of 10%, was used as the expected population. Thus, the sample size was 96 participants. Only people over 18 years of age who had been in settlements for at least six months were included. Data collection was carried out through interviews conducted by a previously trained team, approaching people in their homes, without prior scheduling.

For data collection, the questionnaire "COVID-19 Social Thermometer – Social Opinion" was used. This questionnaire was developed and validated by researchers from the National School of Public Health - Portugal (ENSPUNL) in Portugal and published in studies that evaluated risk perception (LAIRES *et al.*, 2021), behavior patterns (PEDRO *et al.*, 2020) and adherence to sanitary measures to protect the Portuguese population (SOARES *et al.*, 2021); and at the national level, a study was published to assess the level of trust in health services.

## STATISTICAL ANALYSIS

After analyzing the consistency and standardization of the database, descriptive analyses were performed to characterize the study participants. Measures of absolute frequency (n) and relative frequency (%) were calculated for sociodemographic, clinical, and COVID-19 pandemic-related variables. In addition, the chi-square test was performed to assess the correlation between the city where the interviewee lived and trust in health services. The data were tabulated in Microsoft *Office Excel 2010 spreadsheets and imported for analysis using SPSS version 22 software* (descriptive analysis and Chi-square analysis).

For the Chi-square test, living in the city of Sinop or Juara was used as an independent variable and the following were used as dependent: the level of confidence in the services provided by the SUS during the COVID-19 pandemic, for the services of Hospital, Field Hospital, Emergency Care Unit and Basic Health Unit. The answer alternatives (not at all confident; not at all confident; confident; very confident) recoded into dichotomous answers (0 = not at all confident/not at all confident and 1 = confident/very confident).

## ETHICAL ASPECTS

The research was approved by the Research Ethics Committee (REC) of the University of São Paulo at Ribeirão Preto College of Nursing (EERP), CAAE: 57933622.4.1001.5393. The entire conduct of the investigation is in line with Resolution No. 466, of December 12, 2012 of the National Health Council, taking into account the pertinent ethical and scientific foundations.

All participants signed the Informed Consent Form (ICF), available on the first page of the electronic questionnaire. The confidentiality of the information and the data of the participants are ensured and will be used only for academic and research purposes.

## RESULTS

A total of 101 residents of urban and rural settlements in the municipalities of Sinop and Juara in the state of Mato Grosso, Brazil, were interviewed. Most of the participants interviewed lived in settlements in the municipality of Sinop (53.5%), lived in rural areas (74.3%); lived in their own home (75.2%); were women (53.5%), self-declared black/brown (49.5%), married or in a stable union (86.1%) and were 60 years of age or older (30.7%). Regarding education, most answered that they had only attended elementary school (57.4%).

Regarding the current occupation, 35.6% of the participants were in formal employment, 49.5% of the families had a monthly income of 1 to 2 minimum wages, most of the interviewees claimed not to receive government aid (76.2%) and not to have lost their income during the pandemic (73.3%).

Regarding access to health services, most of the interviewees claimed to use the SUS (94.1%) and receive visits from the community health agent (57.4%), however, most do not have a health center in their neighborhoods/community (50.5%) and 69.3% did not



have a health plan or insurance at the time of the interview.

Regarding access to health services, it was possible to observe that the residents of the settlement have more confidence in the Basic Health Unit (62%) than in the other services (Table 1).

Table 1. Level of trust in the health services of the population of settlers of Sinop and Juara in Mato Grosso, Brazil, 2023.

Trust in health services	% (n = 101)	
	Yes	No
Hospital	58,6	41,4
Field Hospital	55,6	44,4
Emergency Care Unit	60,2	39,8
Basic Health Unit	62	38

Source: prepared by the author, 2023.

The difference in the trust of the population of each city in the health services was evaluated using the chi-square test (Table 2). The results showed that residents of the settlements of Juara-MT have more confidence in health services compared to residents of Sinop-MT. Also in table 2, it was possible to observe that in Sinop, the values of the Odds Ratio (OR) were below one. For example, for the independent variable "Hospital", the OR value was 0.155, indicating that residents of settlements in Sinop are less likely to trust this health service compared to residents of Juara. In contrast, in the municipality of Juara, the OR value for the same variable was 6.434, greater than one, which represents a protective factor. This means that residents of settlements in Juara are more likely to trust the health service in question, compared to residents of Sinop. Table 2 presents the results of the Chi-square test.

Table 2: Results of the Chi-square test comparing trust in health services between the municipalities of Sinop and Juara-MT.

	Chi-square	Oddis Ratio	Confidence Interval
Sinop			
Hospital	17,504a	0,155	0,062-0,387
Field Hospital	20,641a	0,132	0,053-0,331
Emergency Care Unit	18,759a	0,139	0,054-0,356
Basic Health Unit	15,899a	0,164	0,065-0,416
Champion			
Hospital	17,504a	6,434	2,568-16,00
Field Hospital	20,641a	7,573	3,024-18,946
Emergency Care Unit	18,759a	7,196	2,808-18,442
Basic Health Unit	15,899a	6,094	2,402-15,460

Source: prepared by the author, 2023.

## DISCUSSION

In this study, it was observed that most participants were women, had a married marital status/stable union and self-declared themselves to be black/brown. These data corroborate the work carried out by Santos (2022) in the Mário Lago Settlement located at Fazenda da Barra in Ribeirão Preto-SP, through the Sustainable Development Project (PDS), where a majority of female respondents (53.8%) and a significant proportion of people in a married marital situation/stable union (65.8%) were also observed.

Regarding monthly wage income per family, most participants answered that they earned between 1 and 2 minimum wages, similar to what was described by Santos (2022), in a settlement in São Paulo, in which families also had family income in this salary range. In addition, most participants were working in formal employment, not receiving government aid, and had no loss of income during the pandemic. In the context of income loss during the pandemic, the population evaluated differs from the results found by Santos (2022) in São Paulo, in which 42.4% of respondents reported that their financial income decreased during the pandemic.

In the same study carried out in São Paulo, a similar profile was also found, in which 81.6% of respondents did not receive Bolsa Família (SANTOS, 2022). These data are similar to those found by Araújo *et al.* (2022), in which the majority of its survey participants did not receive government aid during the COVID-19 pandemic (87.6%).

Still in relation to sociodemographic variables, in the present study most of the settlers attended only elementary school, corroborating the work carried out by Santos (2022) in which most participants had incomplete elementary school. The study conducted by Cestari *et al.* (2021), showed an inversely proportional relationship between the level of education and illness from COVID-19, that is, the higher the level of education, the lower the involvement of the disease. This is because a higher level of education is associated with a better understanding of protective measures, the risks of the disease, and the information conveyed.

Regarding access to health services, most participants claimed to use the SUS and half of the interviewees stated that they did not have a health center in their neighborhoods, a fact that validates what was observed by Dias *et al.* (2021) in a study with rural settlements in Uberlândia-MG, where 58.4% of respondents claimed to have to travel more than 30 kilometers to access health services. When compared to those found in the Brazilian population in general, it shows a discrepancy in access to health services in

Brazil, since 84.9% of the Brazilian population in general claimed to have a health center in their neighborhoods (ARAÚJO *et al.*, 2022).

In addition, more than half of the people interviewed in this study answered that they receive visits from the Community Health Agent (CHA), a fact that differs from the findings of Araújo *et al.* (2022) where most of the interviewees did not receive a visit from the CHA. This fact makes clear the importance of primary health care professionals in places where there is difficulty in accessing basic health units, hospitals and other health services.

Still on health services, most respondents in the settlements of Sinop and Juara in Mato Grosso stated that they did not have a health plan or insurance, a fact that corroborates the work of Santos (2022), where 90.5% of respondents did not have health insurance or insurance. In this context, the results observed in the present study differ from those found by Araújo *et al.* (2022), where most participants had health insurance (77.3%), this study was carried out with the Brazilian population in general, with most participants from the South and Southeast regions. This difference between the Brazilian population in general and a population in social vulnerability makes clear the asymmetry in access to health services in Brazil.

Dantas *et al.* (2020) evaluated the factors associated with precarious access to health services in Brazil, the authors observed that there is a great disparity in access to health services in the country, among the findings of the study situations such as: i) having black/brown skin color; ii) live in the rural area; iii) not having private health insurance, are linked to precarious access to health services. These facts corroborate the present study, since the majority of the interviewed population declared themselves to be black/brown, live in rural areas and do not have a private health plan or insurance.

Regarding the level of confidence of the population of settlers in Mato Grosso in the health services provided. This population presented a low level of trust in the health services offered in their municipalities. This is in line with the study conducted by Araújo *et al.* (2022), which found that residents of the Midwest region were 50.02% less likely to say they trusted health services, when compared to the Southeast region. In addition, the same study identified a statistically significant spatial association predominant in the Midwest region, between high incidence and mortality rates from COVID-19 with a low level of trust in health services (ARAÚJO *et al.*, 2022). Several factors may be associated with the low level of trust in health services in the municipalities in question. It is believed that in this study, this fact may be associated with limited access to health services, since most of the

interviewees reported not having health centers in their neighborhoods, leading to distrust in the ability of the health system to meet the needs of the local population.

A significant difference was found between the municipalities on the trust of the settler population in the health services, showing that the population of Juara-MT is much more confident in the health services than in Sinop-MT. This characteristic was observed at the time of the interview as well, the population of Juara highly praised the health services of the municipality, especially the community health agents and basic health unit. In the municipality of Sinop, there were many complaints, complaints of insecurity, etc., it is worth mentioning that the municipality of Sinop faced tense situations in the health area during the COVID-19 pandemic, facing high death rates in its Intensive Care Units (ICU) (MORAES; G1 MT, 2021), such facts may have contributed to the insecurity of the population of Sinopense. It is worth noting that trust in health services is influenced by a variety of factors and that the specific situation in each region/municipality may vary. Therefore, it is essential to conduct more in-depth research to fully understand the reasons behind the lack of trust in the municipality of Sinop.

Also, in a survey conducted by the Federal Council of Medicine in partnership with the Data Folha Institute, 37% of respondents believed that health was the main problem in Brazil. In this same survey, 65% of the participants judged the health services in Brazil as bad or very bad, and when evaluated by regions, in the Midwest region 66% of the interviewees judged the health services as bad or very bad (DATA FOLHA, 2016). It is worth noting that trust in health services is influenced by a variety of factors and that the specific situation in each region/municipality may vary. Therefore, it is essential to conduct more in-depth research to fully understand the reasons behind the lack of trust in the Midwest region and the municipality of Sinop.

As a limitation of the study, there is the difficulty of the population accepting to participate in the interview, since, at the time of data collection, the country faced many political tensions, causing the population to associate the interviewers with political opinion polls. Also, in some collections, difficulty in accessing the settlements was faced, for example, roads with quagmires.

## CONCLUSION

The findings of the present study revealed low trust in health services, especially in the municipality of Sinop. In addition, it was possible to observe greater confidence in

Primary Health Care services.

### **THANKS**

Thanks to the Coordination for the Improvement of Higher Education Personnel (CAPES) for the support and funding.

## REFERENCES

1. Araújo, J. S. T. de, et al. (2022). Nível de confiança da população no Sistema Único de Saúde em meio à crise da COVID-19 no Brasil. *Revista Internacional de Pesquisa Ambiental e Saúde Pública*, 19(22), 14999.
2. Cardoso, A. L. (2016). Assentamentos precários no Brasil: discutindo conceitos.
3. Cestari, V. R. F., et al. (2021). Vulnerabilidade social e incidência de COVID-19 em uma metrópole brasileira. *Ciência & Saúde Coletiva*, 26, 1023-1033.
4. Dantas, M. N. P., et al. (2020). Fatores associados ao acesso precário aos serviços de saúde no Brasil. *Revista Brasileira de Epidemiologia*, 24.
5. Datafolha. (2016). Percepção dos brasileiros sobre a confiança e credibilidade em profissionais e instituições. Disponível em: <https://portal.cfm.org.br/images/PDF/apresentacaodatafolha2016.pdf>. Acesso em: 05/09/2023.
6. Dias, L. F., et al. (2021). Autoclassificação da saúde e autoavaliação da assistência para seu cuidado segundo moradores de assentamentos rurais. *O Mundo da Saúde*, 45, 452-462. <https://doi.org/10.15343/0104-7809.202145452462>
7. Loss, M., et al. (2020). A pandemia de COVID-19 em territórios rurais e remotos: Perspectiva de médicas e médicos de família e comunidade sobre a atenção primária à saúde. *Cadernos de Saúde Pública*, 36.
8. Fronteira, I. (2013). Estudos observacionais na era da medicina baseada na evidência: Breve revisão sobre a sua relevância, taxonomia e desenhos. *Acta Medica Portuguesa*, 26(2).
9. IBGE. (2020). Aglomerados Subnormais 2019: Classificação preliminar e informações de saúde para o enfrentamento à COVID-19. Instituto Brasileiro de Geografia e Estatística.
10. IBGE. (2021). Censo. Instituto Brasileiro de Geografia e Estatística. Disponível em: <https://www.ibge.gov.br/cidades-e-estados/mt/sinop.html>.
11. IBGE. (2010). Censo. Instituto Brasileiro de Geografia e Estatística. Disponível em: <https://www.ibge.gov.br/cidades-e-estados/mt/sinop.html>.
12. Intermat - Instituto de Terras de Mato Grosso. (2018). Disponível em: <http://www.intermat.mt.gov.br/assentamentos-rurais>.
13. Lares, P. A., et al. (2021). The association between chronic disease and serious COVID-19 outcomes and its influence on risk perception: Survey study and database analysis. *JMIR Public Health and Surveillance*, 7(1), e22794.
14. Medronho, R. de A., et al. (2007). *Epidemiologia* (1ª ed.). Ed. Atheneu Ltda.



15. Moucheraud, C., Guo, H., & Macinko, J. (2021). Trust in governments and health workers low globally, influencing attitudes toward health information, vaccines. *Health Affairs (Project Hope)*, 40, 1215-1224.
16. Moraes, K. (2021). Todos os pacientes com Covid internados em UTIs do Hospital Regional de Sinop (MT) nos últimos 3 meses morreram, diz estudo. G1 MT. Disponível em: <https://g1.globo.com/mt/mato-grosso/noticia/2021/01/14/todos-os-pacientes-com-covid-internados-em-utis-do-hospital-regional-de-sinop-mt-nos-ultimos-3-meses-morreram-diz-estudo.ghtml>. Acesso em: 06/09/2023.
17. Moura, H. S. D. (2022). Percepção de risco de transmissibilidade e infecção pela COVID-19, as vulnerabilidades e os fatores associados no Brasil. Tese de doutorado, Universidade de São Paulo.
18. Pedro, A. R., et al. (2021). COVID-19 Barometer: Social opinion – What do the Portuguese think in this time of COVID-19? *Portuguese Journal of Public Health*, 38(2), 1-9.
19. Rodrigues, J. L. da S. Q., et al. (2022). Perspectiva do paciente sobre a assistência à saúde no contexto da Covid-19. *Saúde em Debate*, 46, 165-180.
20. Santos, S. F. (2022). Perfis sócio-demográfico e epidemiológico e situação de saúde dos assentados de um projeto de reforma agrária. Tese de doutorado, Universidade de São Paulo.
21. Soares, P., et al. (2021). Factors associated with COVID-19 vaccine hesitancy. *Vaccines*, 9(3), 300.