



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 11, Issue, 04, pp. 46323-46325, April, 2021

<https://doi.org/10.37118/ijdr.21480.04.2021>



RESEARCH ARTICLE

OPEN ACCESS

THE IMPACT CAUSED ON THE POPULATION OF A CITY IN THE STATE OF PERNAMBUCO WITH THE EARLY CLOSING OF CAMPAIGN HOSPITALS – 2021

Simone Souza de Freitas¹, Danilo Lopes Oliveira da Silva², Roberto José da Silva Nóbrega³, Amanda Dacal Neves⁴, Kaio Felipe Araújo Carvalho⁵, Karla Cordeiro Gonçalves⁶, Shelma Feitosa dos Santos⁷, Cristiano Berardo Carneiro da Cunha⁸, Inalda Juliani Ferreira dos Santos⁹, Robson Gomes dos Santos¹⁰, Pollyanna Agostinho de Lima¹¹, Lindenberg Nicodemos de Oliveira¹², Luis Felipe da Silva Medeiros¹³, Julliane viviane gomes da silva¹⁴, Sonia Maria da Silva¹⁵, Ana Beatriz Sousa Nunes¹⁶, Erika Aparecida da silva Alves¹⁷, Ligiane Josefa da Silva¹⁸, Maria Luzineide Bizarria Pinto¹⁹, Tayanne Kettyne Silva Santos²⁰ and Wellington Manoel da Silva²¹

¹Specialist Nurse in Public Health (FUTURA), ²Specialist Nurse in Health Management by Fiocruz, ³Graduated in Nursing (UNINASSAU), ⁴Graduated in Nursing (FPS), ⁵Nursing Residency in ICU (IMIP), ⁶Specialist in Cardiology by the Instituto do Coração -InCor / HCFMUSP, ⁷Surveillance specialist in health - Syrian Hospital Lebanese, ⁸Cardiovascular Surgeon (Heart Institute of Pernambuco), ⁹Graduate in nursing (FACHO), ¹⁰Specialist nurse in Mental Health (UFPB), ¹¹Specialist nurse in nephrology (FENSG), ¹²Graduate in nursing (UNINASSAU), ¹³Graduate in Nursing (UNIBRA), ¹⁴Graduated in nursing (FAREC), ¹⁵Specialist nurse in Public Health with Emphasis on Family Health (INESP), ¹⁶Management of Clinics in the Health regions (SÍRIO LIBANÊS), ¹⁷Specialist Nurse in Public Health (IBPEX), ¹⁸Nursing Student (UNIBRA), ¹⁹Graduated in Nursing (CUMPJ), ²⁰Graduate in Nursing (FACHO), ²¹Resident Nurse in Family Health (IMIP).

ARTICLE INFO

Article History:

Received 17th January, 2021

Received in revised form

22nd February, 2021

Accepted 06th March, 2021

Published online 28th April, 2021

Key Words:

COVID-19, Coronavirus disease, Health Surveys, Epidemiological Monitoring.

*Corresponding author:

Simone Souza de Freitas

ABSTRACT

The Recife confirmed the first imported cases of COVID-19 on March 12, the first of local transmission on March 14 and community transmission on March 17, 2020. Until the local transmission phase, all suspected cases, according to the case definitions of the Ministry of Health, they were notified through the Platform of the Center for Strategic Information in Health Surveillance of Pernambuco (CIEVS PE) and monitored by the municipality. Documentary research was carried out for the constitution of the article. Consultations were held with key informants and the collections - printed and digital - of the Ministry of Health, State Health Secretariat of Pernambuco and the Health Secretariat of Recife. Brazil has 34,464 adult ICU beds, 66% and 48% of which are available for SUS, respectively. Where 10% of hospital establishments are large, while 66% are from small hospitals. The occupancy rate of general beds in the SUS is relatively low for small hospitals, 24%, compared to 75% in large hospitals. For ICU beds, there is a greater exhaustion of the health system, mainly in large hospitals, with an average occupancy rate of 60% (medium size) and 77% (large size). In view of the pandemic scenario, states and municipalities in Brazil, as well as other countries in the world, identified the need to increase the number of hospital beds for coping with COVID-19. The field hospital is a great example of quick solutions in times of emergency of public health as measures to contain the deficit of hospital beds.

Copyright © 2021, Simone Souza de Freitas et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Simone Souza de Freitas, Danilo Lopes Oliveira da Silva, Roberto José da Silva Nóbrega, Amanda Dacal Neves et al. 2021. "The impact caused on the population of a city in the state of pernambuco with the early closing of campaign hospitals – 2021", *International Journal of Development Research*, 11, (04), 46323-46325.

INTRODUÇÃO

In December 2019, in the city of Wuhan, China, a new disease emerged. In the following January, China's first case occurred, prompting WHO to declare a pandemic¹. The disease has SARS-CoV-2 as its etiologic agent².

The transmission medium is provided by aerosol droplets from symptomatic patients, during the incubation period, and in specific asymptomatic patients³. On February 3, 2020, the first suspected case of the disease was notified in Brazil, in February 2020, the first suspected case in the city of Recife was notified⁴. Since then, the municipality has confirmed the first imported cases of COVID-19 on

March 12, the first of local transmission on March 14 and community transmission on March 17, 2020. Until the local transmission phase, all suspected cases, according to the case definitions of the Ministry of Health, were notified through the Platform of the Center for Strategic Information on Health Surveillance in Pernambuco (CIEVS PE) and monitored by the municipality⁵. With an increase in new cases, the Ministry of Health determined that all mild cases of COVID-19 should be registered in a new information system, developed by DATASUS, called e-SUS/VE⁶. Thus facilitating the identification of hospitalized and / or serious cases, as well as deaths, whose data source comes from the CIEVS-PE platform and the second part referring to mild cases of the disease, whose data source comes from e-SUS/VE⁷. However, in the most critical phase of the pandemic, between April and May, the health network in the capital of Pernambuco did not collapse due to social isolation and the opening of beds through the opening of field hospitals⁸. According to a survey carried out by the Federal Council of Medicine (CFM), Recife was the Brazilian capital that proportionally opened more beds for patients with suspected or confirmed covid-19, second only to the city of São Paulo, which opened 1,791 beds⁹. Currently, with the return of the increase in the number of new cases of covid-19 it has reached the level of the peak of the pandemic in the country^{1,3}. However, in the health system in the city of Recife, there are few vacancies for patients with the new coronavirus, due to the early closure of campaign hospitals in the city and the lack of necessary planning for the closure of emergency beds that supported existing hospitals in capital¹⁰. The Provisório Recife 2 Hospital (HPR2), where it maintained an occupancy rate of 90% during the three months of operation, considered the largest in number of beds among field hospitals in the state. With the relaxation of isolation measures, records increased again, totaling 54,667 in the municipality of Recife¹¹. The number of cases corresponding to the month of the deactivation of the largest field hospital erected by the municipality during the pandemic was 9,070, which represents a variation of 45,597 in relation to the cases recorded in the subsequent 5 months, indicating an upward trend in diagnoses¹². The number of people hospitalized is still greater than at the beginning of the pandemic. The current scenario of available beds in the municipality corresponds to 464 active beds, being 242 ICUs and 222 wards^{3,5}. According to the Secretariat of Health (SESAU) of Recife, with the increase in the case there will be a need to reopen the beds that were deactivated and activate new beds to meet the existing demand caused by the new coronavirus^{4,8}. The objective is to assess the current stage of propagation and the availability of beds in the city of Recife with the deactivation of field hospitals.

METHODS

Documentary research was carried out for the constitution of the article. Consultations were held with key informants and the collections - printed and digital - of the Ministry of Health, State Health Secretariat of Pernambuco and the Health Secretariat of Recife. Recife, capital of Pernambuco, is located in the Northeast region of Brazil. According to the 2010 Demographic Census, it was the city in the country with the fourth largest urban population: 1,537,704 inhabitants. The following documents were revised: epidemiological bulletin, protocols against the coronavirus, decree No. 49. 959, technical note- SES - SEVS - Health Surveillance Secretariat - No. 21/2020, contingency plans for Coronavirus infection and joint technical note No.001 SES / PE - Council of Municipal Health Secretariats PE (COSEMS-PE), on Health Care in Situation of Pandemic COVID-19. The consultation and analysis of these documents had as axis the identification and understanding of the central elements of the implantation process of the field hospitals. Documents dated from 2020 (year of the proposal for the implantation of campaign hospitals) until 2021 were selected. Then, consultations were held with key informants on the implantation and consolidation of campaign hospitals. The implementation process, components, operationalization and recommendations were described according to the need to install hospitals. To measure the coverage of the strategy, the Center for Strategic Information on Health

Surveillance in Pernambuco (Cievs / PE, Mortality Information System (SIM) and the spreadsheets prepared by the Health Secretariat of Recife for the monitoring the operationalization of campaign hospitals, related to the period from April 2020 to September 2020 months of operation of the HPR2. The databases are made freely available by the aforementioned secretariat, obtaining the absolute and relative frequencies of the deaths investigated. In the municipality, SIM information is considered consolidated: historically, Recife has shown advances in coverage and data quality of this system, used as a source of information on deaths for the direct calculation of mortality. The project was approved by the Research Ethics Committee (CAAE: 31682720.9.0000.5201).

RESULTS AND DISCUSSION

The results found show a critical situation in the health system to meet the potential demand generated by the COVID-19 pandemic. According to the Ministry of Health, the pandemic caused by the covid-19, it is the worst health crisis in 100 years, since the Spanish flu in 1918, which shook the world due to the great capacity for dissemination. In December 2020, the world again suffers from a new pandemic, this time caused by the SARS-CoV-2 virus. Brazil has 34,464 adult ICU beds, 66% and 48% of which are available for SUS, respectively. Where 10% of hospital establishments are large, while 66% are from small hospitals. The occupancy rate of general beds in the SUS is relatively low for small hospitals, 24%, compared to 75% in large hospitals. For ICU beds, there is a greater exhaustion of the health system, mainly in large hospitals, with an average occupancy rate of 60% (medium size) and 77% (large size). In mid-March 2020, starting from a high occupancy rate of hospital beds in the public system in the state of Pernambuco and mainly in the municipality of Recife, resulting from the number of patients with severe acute respiratory syndrome (SARS), evidencing risks for saturation and consequent collapse the municipal hospital system was real and eminent, if measures were not taken to reduce the rate of contagion by the new coronavirus and to expand the number of hospital beds, including intensive care beds for the care of the most severely ill patients. Given the context, the Secretariat of Health (SESAU) of Recife in April 2020, opened 342 ICU beds to meet the urgency caused by the covid-19.

The World Health Organization (WHO) recommends as acceptable between 3 and 5 hospital beds for each group of 1,000 inhabitants. However, in June 2020, due to the drop in admissions to municipal field hospitals, 470 ICU beds were deactivated in addition to the 90 hospital beds in HPR 2. Totaling 560 beds - 100 of them in intensive care units (ICUs). This situation is worrying because it results in an increase in mortality in places where the provision of services is not prepared. Counting the public and private offer in the municipality, which would operate beyond their capacity, compromising the service mainly to patients with more severe symptoms. The presence of care gaps caused by the deactivation of the largest field hospital in Recife can cause the system to collapse, even with lower infection rates. Our survey based on the infection rates observed until the month of HPR2 deactivation confirms the fragility of the availability of vacancies in the municipality, associated with an accelerated spread of the disease. The study presents two messages relevant to the health system in the context of the pandemic. The first refers to the need to reduce the speed of propagation of COVID-19 in the municipality. Containing the spread will be critical to relieving pressure on the health system and will allow more time for the reorganization of the supply of vacancies. Given the regional heterogeneity, both in relation to supply and in relation to infection rates, it will not be possible to adopt a single way of containing the spread of the virus in the municipality taking into account the specificities of the health system, in addition to social, economic and social aspects politicians. According to Canabarro et al., Measures already implemented in some Brazilian cities and states, such as cancellation of classes at all levels, social distance and voluntary quarantine, have contributed to reduce the number of cases of infection and postponement of the peak of contagion. However,

vaccine coverage may help to reduce the speed of spread and the economic consequences in the state capital. The second message concerns the need to expand the available beds. The private sector has been helping to cushion the demand deficit, but depending on the speed with which the infection spreads, the combined supply of the two sectors would not be enough. In this scenario, some measures contribute to expand the offer of hospital services, in addition to collaboration with the private sector. The immediate construction of field hospitals was and is necessary and must be accompanied by a policy of allocating health professionals and adequate supplies, especially where the supply is incipient. In our study, it was possible to observe the importance of field hospitals in expanding hospital capacity, minimizing mortality, in addition to health security. The brief history of field hospitals in the city of Recife, brought a safety scenario not only for the patients' relatives, but mainly for health professionals in providing care to patients with covid-19, where they were able to provide quality assistance. In August 2020, HPR2 was deactivated due to the drop in the number of patients. However, the State Department of Health (SES), published in the Official Gazette on February 14, 2021 a notice of bidding for the contracting of a company responsible for the installation of a new field hospital in the same neighborhood where the HPR2 was, due to the emergency of public health due to the increase in cases in the municipality. Despite these limitations, our results provide an important diagnosis of the supply situation in the municipality and the extent to which the spread of the virus has been affecting the health system's ability to serve with the deactivation of the Recife provisional hospital 2.

Final Considerations

In view of the pandemic scenario, states and municipalities in Brazil, as well as other countries in the world, identified the need to increase the number of hospital beds for coping with COVID-19. The field hospital is a great example of quick solutions in times of emergency of public health as measures to contain the deficit of hospital beds in the city of Recife. One of the strategies used was to put in operation, on an emergency basis, Field Hospitals with beds dedicated to the care of patients with the new coronavirus, for those with severe clinical presentation, as well as those of lesser severity, but who could not continue safely in outpatient follow-up, freeing up beds in traditional hospitals for the care of patients with pathologies that were not due to the new coronavirus. The experience of HPR2, idealized by the Municipal Health Secretariat of the municipality of Recife and with the Health Secretariat (SESAU), proved to be a viable option for increasing the number of hospital beds quickly and capable of offering quality care and with safety and comfort for patients with COVID-19.

We take more advantage of this opportunity to recognize the competence and thank the dedication of the 1,198 professionals of the Martiniano Fernando Figueira Foundation who worked at HPR2 and pay homage to the victims of COVID-19 worldwide.

REFERENCES

- Bar E, Peleg K, Kreiss Y. Field Hospitals. A comprehensive guide to preparation and Operation. Cambridge University Press; 2020.
- Brazil. Brazilian Federation of Hospitals. Scenario of hospitals in Brazil, Brasília, 2019.
- Brazil. Ministry of Health. Coronavirus panel. Updated: 17/06/2020 18:45. Available at: <https://covid.saude.gov.br/>.
- Canabarro A, Tenorio E, Martins R, Martins L, Brito S, Chaves R. Data-driven study of the COVID-19 pandemic via age-structured modelling and prediction of the health system failure in Brazil amid diverse intervention strategies. medRxiv 2020; 15 abr.
- Chen S et al. Fangcang shelter hospitals: a novel concept for responding to public health emergencies. Lancet; 2020; 395(10232):1305-14.
- Costa MF. Health belief model for risk determinants for coronavirus contamination. Rev Saude Publica. 2020; 54:47.
- Lai CC et al. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and corona virus disease-2019 (COVID-19): the epidemic and the challenges. International Journal of Antimicrobial Agents, p. 105924, Mar. 2020.
- Moghadas SM, Shoukat A, Fitzpatrick MC, Wells CR, Sah P, Pandey A, et al. Projecting hospital utilization during the COVID-19 outbreaks in the United States. Proc Natl Acad Sci U S A 2020; 117:9122-6.
- Navy Command. Manual for activation and operation of the Hospital de Campanha, of the Directorate of Health of the Navy. Rio de Janeiro: [s. n.], 2011.
- Technical Note - SES - SEVS - Health Surveillance Secretariat - No. 21 / 2020.http: //sei.pe.gov.br/sei/controlador_externo.php?Acao=doc_conferir & id_orgao_ acesso_externo=0.
- Walker PGT et al. Report 12: the global impact of covid-19 and strategies for mitigation and suppression. Imperial College COVID-19 Response Team, London, p. 1-19, 26 Mar. 2020. doi: <https://doi.org/10.25561/77735>. Disponível em: <https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-Global-Impact-26-03-2020v2.pdf>. Acesso em: 19 maio 2020.
- World Health Organization. Oxygen sources and distribution for COVID-19 treatment centres: interim guidance, 4 April 2020. Geneva: World Health Organization; 2020.
