

Public expenditures allocated to fight COVID-19 in Alagoas, Brazil

Gastos públicos direcionados ao combate da covid-19 em Alagoas

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Abstract

Introduction: The COVID-19 pandemic has had epidemiologic relevance to the public health system in the state of Alagoas, Brazil. However, few scientific publications approach the economic impact of this pathology. **Objective:** To describe the allocation of public resources to fight COVID-19 in Alagoas. **Methods:** This is descriptive research with a quantitative data approach. The expenditures included were related to the provision of food staples, communication, COVID-19 test kits, hospital equipment, ambulances, personal protective equipment, hospital medical supplies, construction, and engineering services. The data was collected from the Transparency Portal of the State of Alagoas in September 2020, based on allocated values. The period analyzed encompassed up to September 5, 2020. **Results:** It was verified that Alagoas allocated R\$ 39,304,771.41 to buy personal protective equipment, hospital medical supplies, COVID-19 test kits, and hospital equipment. Also, the State allocated the greatest resources to hospital and outpatient assistance, summing R\$ 137,706,530.81, and the lowest ones to training human resources, with R\$ 11,610.90. Also, R\$ 1,008,047.93 were noticeably allocated to epidemiologic surveillance. **Conclusions:** The State provided resources mainly to elements directly related to health assistance addressing this problem.

Keywords: Public Health; Health Expenditures; Coronavirus Infections.

Resumo

Introdução: A pandemia da COVID-19 tem apresentado relevância epidemiológica no sistema público de saúde do estado de Alagoas, Brasil. Entretanto, existem poucas publicações científicas sobre o impacto econômico da patologia. **Objetivo:** Descrever o direcionamento de recursos públicos empenhados no combate à COVID-19 no estado de Alagoas. **Métodos:** Trata-se de uma pesquisa descritiva com abordagem quantitativa dos dados. Foram incluídas

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despesas relacionadas a cestas básicas, comunicação, testes para a COVID-19, equipamentos hospitalares, ambulâncias, equipamentos de proteção individual, material médico hospitalar, contratação de obras e serviços de engenharia. A exploração ocorreu no portal da transparência do estado de Alagoas durante o mês de setembro de 2020, a partir dos valores empenhados. O período investigado se deu até o dia 05 de setembro de 2020. **Resultados:** Constatou-se que Alagoas empenhou o total de R\$ 39.304.771,41 na compra de Equipamentos de Proteção Individual (EPI), material médico-hospitalar, testes para COVID-19 e equipamentos Hospitalares. Além disso, o estado empenhou maiores recursos em assistência hospitalar e ambulatorial com R\$ 137.706.530,81 e os menores na formação de recurso humanos com R\$ 11.610,90. Destacando-se, o empenho de R\$ 1.008.047, 93 para a vigilância epidemiológica. **Conclusões:** O estado viabilizou recursos principalmente para elementos que estavam diretamente relacionados à assistência à saúde no enfrentamento da problemática.

Palavras-chave: saúde pública; gastos em saúde; infecções por coronavírus

Introduction

Over the years, the public health scenario is outlined by countless economic, social, and political interventions to develop public strategies and ensure universal access to health provided by the State. After the Brazilian health reform, health became a right reflected in the working conditions and the quality of life.¹ Hence, this initial health movement listed essential requirements to ensure the democratization of health.

Tensions arising from social movements led to the establishment of the Unified Health System (Brazil's public health care system – SUS), whose purpose is to provide comprehensive health care. This program was regulated by Law no. 8.080/1990, which defined Municipal, State, and Federal resources (besides complementary financial sources) to enable health assistance to be offered in its different levels.² The health services were decentralized, making it possible to provide greater quality assistance while ensuring its control and inspection on the part of the citizens.

Thus, the services made available by the State need to be structured in increasing levels of complexity, enclosed in a given territory, organized according to epidemiologic variables, and defined and known by the population for whom it is meant.³ However, such an investment in public health depends on resources, which in turn come from taxes that need to be well

administered and reported with transparency to the population.

The discovery of the highly disseminating SARS-CoV-2, the new coronavirus responsible for developing the pathology named COVID-19, led to great worldwide concern. As of October 18, 2020, 39,596,858 cases of COVID-19 and 1,107,374 deaths had been registered in the world. By the same date, Brazil had reported 5,200,300 confirmed cases and 153,214 deaths.⁴ This scenario revealed the exponential growth of its community transmission, defining it as a relevant public health issue.⁵ Based on the evaluation of the virus' high infection potential, clinical outcomes, and lethality, this problem was given priority by the State administration. Besides preserving the health of the population, the administrators feared the health system would collapse, particularly regarding the financial resources rationally and effectively directed to the prophylaxis and treatment of people with COVID-19.

Therefore, it is necessary to analyze how the public resources directed to fight COVID-19 have been used, in order to learn what expenses were allocated to minimize the spread of the disease and what is the status of the health assistance in Alagoas. Also, this investigation may contribute to an effective perception of the values involved, considering the epidemiologic relevance of the disease.

Furthermore, the indicators related to health expenditures need to be evaluated to furnish scientific evidence for policies and debates – particularly because there is

insufficient dissemination of scientific productions analyzing the finances spent with health assistance and promotion of the quality of life. In this regard, this study aimed to investigate the use of public resources to fight COVID-19 in Alagoas, Brazil.

Materials and Methods

Sample and study design

This is a descriptive study with a quantitative approach on public expenditures to fight COVID-19 in Alagoas.

Research design

A search was made on the Transparency Portal of the State of Alagoas in September 2020 to verify the values allocated by the government to pay the services. The period investigated encompassed from March to September 5, 2020.

Inclusion and exclusion criteria

The analysis was based on the following inclusion criteria: expenses related to the provision of food staples, communication, COVID-19 tests, hospital equipment, ambulances, personal protective

equipment, hospital medical supplies, construction, and engineering services aimed at promoting and maintaining health in Alagoas. The exclusion criteria comprised any expenses unrelated to fighting COVID-19 in the state.

Procedures

The results found were registered in Microsoft Excel[®] spreadsheets for better analysis and comparison of the information collected. Based on Resolution 466/12 of the Brazilian National Health Council, this study did not require submission to the Ethics Committee because it approached public domain data.

Results

The results found up to the date comprised in this study revealed that the State of Alagoas directed R\$ 39,304,771.41 (thirty-nine million, three hundred and four thousand, seven hundred and seventy-one reais and forty-one cents) to buy personal protective equipment (PPE), hospital medical supplies, COVID-19 tests, and hospital equipment. On the other hand, the amount directed to buy ventilators was R\$ 10,513,800.00 (ten million, five hundred and thirteen thousand and eight hundred reais).⁵ The values for the other elements on the budget are detailed in Table 1.

Table 1: Values allocated to buy material to fight COVID-19 in Alagoas.

Budget item	Accounting element	Value allocated
Provision of food staples	Freely distributed supplies	R\$ 13,434,998.40
Communication + COVID-19 test kits	Other third-party/legal person services	R\$ 27,181,535.85
Hospital equipment + Ambulances	Permanent equipment and material	R\$ 11,732,664.59
Ventilators	Apportionment with participation in a public consortium	R\$ 10,513,800.00*
Personal protective equipment + Hospital medical supplies + COVID-19 test kits + Hospital equipment	Consumables	R\$ 39,304,771.41

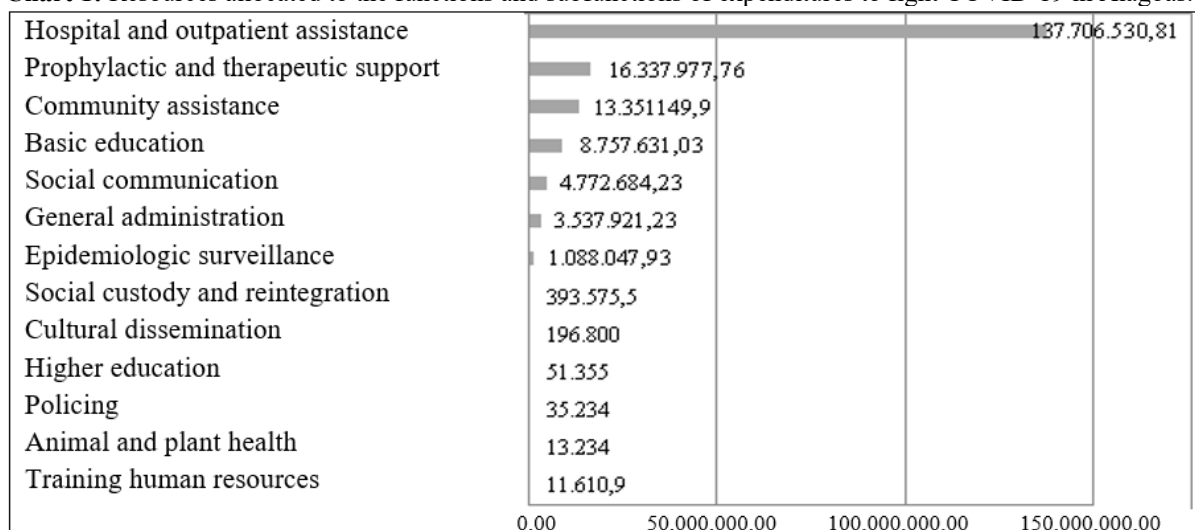
Additional on-call work	Other third-party/legal person services	R\$ 52,331,769.28
Construction and engineering services	Constructions and facilities	R\$ 14,157,227.92
Others	-	R\$ 28,109,659.86
Total	-	R\$ 186,252,627.31

Legend: (*) The initial budget of the Government of Alagoas allocated to buy ventilators was R\$ 10,513,800.00 reais. However, after canceling the acquisition, no investment was actually made regarding these machines.

It was also observed that in the functions and subfunctions on the budget, Alagoas allocated the largest resources to hospital and outpatient assistance, with R\$ 137,706,530.81 (one hundred and thirty-seven million, seven hundred and six thousand, five hundred and thirty reais and eighty-one cents), while the smallest

resources were aimed at training human resources, with R\$ 11,610.90 (eleven thousand, six hundred and ten reais and ninety cents). Another relevant item is epidemiologic surveillance, to which R\$ 1,088,047.93 (one million, eight thousand and forty-seven reais and ninety-three cents)⁵ were directed, as shown in Chart 1.

Chart 1: Resources allocated to the functions and subfunctions of expenditures to fight COVID-19 in Alagoas.



Discussion

Nationwide, according to the Federal Transparency Portal, approximately R\$ 2.01 billion had been allocated up to the last update (March 25), highlighting the R\$ 424 million transferred to the state funds with liquidated and paid resources, and R\$ 1.21 billion to the municipal health funds aimed at fighting COVID-19. Also, the federal government allocated approximately R\$ 4.84 billion to the Ministry of Health’s “Specialized Health Attention” program.⁶

When analyzing the values allocated for buying material to fight COVID-19 in Alagoas, a total expenditure of R\$ 39,304,771.41 was identified regarding four consumables.⁵ In contrast, the state of Ceará spent R\$140,374,771.35 on a single item, namely, hospital material.⁷ This can be justified by the number of people confirmedly diagnosed with the virus in these states: 80,462 by September 5, 2020, in Alagoas⁸ and 221,953 by August 5, 2020, in Ceará.⁹

The appropriations bill for the fiscal year 2020 (Law no. 8,226, of January 3,

2020) allocated approximately R\$ 12,934,862,693.00 (twelve billion, nine hundred and thirty-four million, eight hundred and sixty-two thousand, six hundred and ninety-three reais) to meet the public revenues and expenses of Alagoas. Of this amount, R\$1,490,935,424.00 (one billion, four hundred and ninety million, nine hundred and thirty-five thousand, four hundred and twenty-four reais) were allocated to the State Department of Health³, which corresponded to 11.53%. In this context, although no health authority expected the consequences of the pandemic, as a rule, the state's budget was ready for the expenditures related to fighting COVID-19. Hence, 2.64% of the budget allocated for health was spent on this pathology.

As for ventilators, Alagoas allocated R\$ 10,513,800.00 reais, of which 4.4 million were used to buy such machines. However, the purchase was canceled, as stated in the Transparency Portal of the State of Alagoas.⁵

Regarding this situation, the State Department of Health clarified that it had already paid for the ventilators, but the hired company breached the contract and did not deliver the goods. Thus, they have been sued in court to return the money they received.¹⁰

Alagoas had 237,015 reported cases of COVID-19 infection as of December 20, 2020, including 101,443 confirmed results. In this scenario, many clinical manifestations were reported as influenza-like illness (ILI) and severe acute respiratory syndrome (SARS). ILI predominated in females, summing 52,955 cases, while it was reported in 40,844 males. Regarding age groups, there was a peak of 23,540 infected people aged 30 to 39 years. Concerning laboratory confirmation of SARS, the males prevailed, with 4,152 individuals, corresponding to 54% of the cases. Also, 2,345 cases of the disease were reported in people 70 years or older.⁵

COVID-19 can also manifest as SARS, which is a condition with critical symptoms requiring hospitalization and/or intensive care.¹¹ This explains the greater investment in hospital and outpatient assistance resources, as there was a need to acquire assistance equipment and supplies and provide hospital beds by building and expanding hospital units to receive severe cases.¹²

The high incidence of people with SARS due to COVID-19 means a greater need for hospitalizations. Hence, although 4,659 people with SARS were healed, the 2,417 deaths are a worrying indicator. Thus, the State allocated resources to increase the number of beds in different regions within its borders. As of December 20, 2020, Alagoas had 601 beds exclusively to treat COVID-19 – 174 ICU beds, 39 beds in intermediary units, and 394 clinical beds. They are mostly in the capital, Maceió which has 274 beds.⁵

Epidemiologic surveillance is one of the items to which fewer resources were allocated. The concept of epidemiologic surveillance is a set of actions that furnish knowledge, detection, and prevention of any changes in the determining and conditioning factors of individual and public health.¹¹ Hence, the allocation of few resources may hinder guidance and decrees to prevent and monitor the dynamics of the spread of the new coronavirus. A failure in epidemiologic monitoring with insufficient testing of symptomatic people may lead to underreported cases, impairing the development of strategies to control the disease.¹² Also, the little financial investment in human resources in the context of the COVID-19 pandemic may have an impact on the field of health, as the less professional qualification impairs the progress in health assistance – especially because the emergency demands more professionals trained for health care.¹³ Although these values may be enough for the state, when analyzed in comparison with the other variables, it was one of the items with the lowest allocations.

Other resources were allocated to education, communication, animal and plant health, and so forth. This is justified, as information is an essential instrument to raise awareness in the population in the various educational settings and encompassing the political, social, and health contexts. In this regard, the appearance of SARS-COV-2, which led to a global pandemic, made communication even more essential. There has been an exponential growth in the search for information and, as not all sources are reliable, there has been also a massive increase in the dissemination of fake news. To address this problem, the government has invested in websites and portals that approach COVID-19 with reliability and scientific evidence, aiming to provide true knowledge.^{14,15}

The values allocated to agriculture were due to the mandatory social isolation, leading to a greater demand for food. As the population ate more at home, there was less impact in this sector of the economy than in the services related to eating out.¹⁶

Therefore, the evaluation of economic resources is increasingly present in the health systems and services. Knowing and analyzing where the expenditures are being made is relevant because disseminating, revealing, and systematizing this information help in decision-making and in reflecting on the ideal allocation of

the resources available. Also, knowing the budget is important not only to administrators, health professionals, and suppliers but also to the population at large, who directly benefit from the goods and services provided.¹⁷⁻¹⁹

Conclusion

The above information described the allocation of public resources to fight COVID-19 in Alagoas, Brazil. A total of R\$ 39,304,771.41 was made available to buy PPE, hospital medical supplies, COVID-19 test kits, and hospital equipment. The State provided resources mainly to elements directly related to health assistance addressing this problem. Such allocation of public resources is justified by the variables in the quality of health, as they influence the State to develop effective governmental strategies without wasting resources, time, and, above all, lives.

Thus, the goal is to work out strategies to somehow minimize the community spread of COVID-19, with transparent investments in health, especially regarding the administration of services. This way, the allocation of public resources can be inspected, at the same time allowing the population to contribute and become aware of the rational use of the investments.

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