

BRAZILIAN GOVERNANCE TO COMBAT COVID-19: ANALYSIS OF THE MEASURES IMPLEMENTED BETWEEN 2020 AND 2024

 <https://doi.org/10.56238/arev6n3-385>

Submitted on: 29/10/2024

Publication date: 29/11/2024

Alessandra Gomes de Oliveira¹ and Eumar Evangelista de Menezes Júnior²

ABSTRACT

The Covid-19 pandemic, which began in 2020, revealed critical vulnerabilities in health systems and socioeconomic structures around the world, especially Brazil. This article analyzes the main federal public policies adopted in Brazil between 2020 and 2024, addressing five key areas: the National Immunization Plan (PNI) for Covid-19, the expansion of Intensive Care Unit (ICU) beds and medical equipment, the development of telemedicine, the control of prices of medicines and supplies, and the updates to the 2023 and 2024 vaccination guidelines. Based on a qualitative methodology and documentary analysis, this study examines the effectiveness of these policies and the challenges faced, showing that, although they contributed to mitigating the effects of the pandemic, they also exposed structural and regional inequalities in the Brazilian health system. The article highlights the importance of mass vaccination, strengthening hospital care, and integrated health governance, promoting reflections on a more resilient future for public health in Brazil.

Keywords: Health. Public Policy. Covid-19. Governance. Treatment.

¹ Master and Bachelor of Laws. Evangelical University of Goiás (UniEVANGÉLICA)

E-mail: alessandra.gomespetro@gmail.com

ORCID: <https://orcid.org/0009-0000-6542-9068>

LATTES: <http://lattes.cnpq.br/2011650420442241>

² PhD, Doctor, Master and Bachelor of Law.

Evangelical University of Goiás (UniEVANGÉLICA)

E-mail: eumar.junior@docente.unievangelica.edu.br

ORCID: <https://orcid.org/0000-0003-1419-163X>

LATTES: <http://lattes.cnpq.br/6706499171609614>

INTRODUCTION

The Covid-19 pandemic, which took place globally in early 2020, has not only configured an unprecedented public health crisis, but has also exposed deep weaknesses in the health systems and socioeconomic structures of many countries, including Brazil. With the rapid spread of the SARS-CoV-2 virus, nations have been compelled to adopt emergency measures to protect their populations and mitigate the socioeconomic impacts of the pandemic. In this context, the Brazilian government has implemented a series of public policies aimed at addressing the challenges imposed by Covid-19, with the aim of ensuring the health and well-being of the population at a time of calamity and uncertainty.

This article aims to analyze the main federal public policies adopted in Brazil between 2020 and 2024, highlighting their implications, effectiveness, and the challenges faced throughout this critical period. The focus is on five fundamental policies: the National Immunization Plan (PNI) for Covid-19, the expansion of Intensive Care Unit (ICU) beds and medical equipment, the implementation and expansion of telemedicine, the regulation and monitoring of prices of medicines and supplies, and updates to the guidelines for vaccination in 2023 and 2024. Understanding these policies is essential to assess not only the immediate response to the pandemic, but also to draw an overview of the lessons learned and the strategies needed to strengthen the health system in Brazil.

The research was conducted using a qualitative methodology, which included the review of the pertinent academic literature, as well as the analysis of official documents, such as decrees, ordinances, and reports from government agencies, including the Ministry of Health and the National Health Surveillance Agency (ANVISA). The choice of this methodological approach allows for a comprehensive exploration of the public policies implemented, in addition to enabling the identification of trends, gaps, and challenges in the actions adopted throughout the pandemic.

The central hypothesis of this study is that, although the public policies implemented have contributed significantly to mitigating the effects of the pandemic, they have also exposed structural weaknesses and historical inequalities within the Brazilian health system. The analysis of these policies reveals that, despite advances in areas such as vaccination and the expansion of hospital care, regional and social inequalities persist that challenge the effectiveness and equity of government actions. The examination of the measures adopted also reveals the need for a more integrated and coordinated approach

to public health policies, highlighting the importance of more strategic planning to respond to future crises.

The results of the analysis demonstrate that the experience of the pandemic not only highlights the importance of mass vaccination and expanding access to health services, but also underlines the urgency of a critical reflection on the governance structure of the health system in Brazil. The pandemic also highlighted the relevance of communication and health education strategies, which are essential to ensure the population's adherence to protection and vaccination measures.

This article, therefore, not only contributes to the understanding of the complex dynamics that have marked Brazil's response to Covid-19, but also promotes reflections on the lessons learned and the paths to follow in the elaboration of more robust and equitable public policies. At the end, questions are presented that remain open for future research, stimulating an ongoing debate on the construction of a more effective and inclusive health system, which can not only address public health emergencies, but also promote a fairer and more accessible health environment for all Brazilian citizens.

PUBLIC HEALTH POLICIES IN BRAZIL

Public policies are a structured set of measures, guidelines, and actions that the State implements to meet social demands and promote the well-being of the population. Moreira (2023, p. 15) defines public policies as: "a set of provisions, measures, and procedures that guide government actions in order to regulate activities of public interest, reflecting the State's intention to respond to the needs of society".

These policies manifest themselves in different areas, with health being one of the main sectors where government actions become more visible and impactful. According to Albuquerque (2015), public policies can be divided into direct actions by the State and regulations that involve other agents, such as the legal power. This perspective emphasizes the importance of government action in promoting health and coping with social problems.

With regard to health policies, Albuquerque (2015) highlights that they are part of the State's field of social action and aim primarily to improve the health conditions of the population, considering aspects such as natural environments, social issues and the universe of work. This understanding is corroborated by Fleury and Ouverney (2014, p. 24), who state that: "health policies have the function of articulating the promotion,

protection and recovery of collective health, establishing the responsibility of the State to guarantee the health of the population".

This responsibility of the State became even more evident with the promulgation of the Federal Constitution of 1988, which established the right to health as a fundamental right of the Brazilian citizen. The creation of the Unified Health System (SUS) was a milestone in this context, establishing universal access to health services. According to Paim *et al.* (2011, p. 202): "the SUS is a health system that proposes to guarantee integrality, universality and equity in access to health services, being one of the most ambitious public health projects in the world".

This system has as its pillars the decentralization, integrality of care and the participation of the community in the management of the system, reflecting the search for public health that effectively meets the needs of the population. The 1988 Constitution also consolidated Social Security, affirming the responsibility of the State to promote the health of the population. Article 196 of the Constitution establishes that: "health is a right of all and a duty of the State, guaranteed through social and economic policies aimed at reducing the risk of diseases and other problems" (Brasil, 1988).

In this way, public policies are materialized through concrete actions and the performance of social subjects, demanding constant monitoring and impact assessment. Compliance with these guidelines is essential for building a health system that truly meets the needs of the population.

HEALTH POLICIES

Health policies in Brazil play a key role in improving the health conditions of the population and promoting collective well-being. Since the 1988 Constitution, the Ministry of Health has been committed to the formulation and implementation of policies aimed at health promotion and disease prevention. Alencar (2016, p. 58) highlights that "Brazil has made significant progress in the formulation of health policies, establishing actions and programs aimed at promoting health and preventing diseases, with a focus on equity and accessibility".

Emblematic examples of this trajectory include the creation of the Unified Health System (SUS) and the National Basic Sanitation Policy, which represent the State's efforts to promote collective health and address historical challenges, such as infant mortality and communicable diseases (Alencar, 2016).

Health promotion should not be seen as an exclusive responsibility of government; It requires the collaboration of multiple sectors, including civil society and educational and research institutions, configuring itself as a collective effort to achieve better living conditions.

In this context, the definition of health proposed by the World Health Organization (WHO) becomes essential, by establishing health as "a state of complete physical, mental and social well-being, and not just the absence of disease or infirmity" (World Health Organization, 1946). This holistic and comprehensive concept provides a basis for formulating policies that integrate not only physical, but also mental and social aspects of health. According to Lana *et al.* (2020, p. 212), "health must be seen in its entirety, considering social, economic, and environmental factors that influence people's quality of life".

The interconnection between sanitary and health aspects is, therefore, essential to ensure the well-being of the population. Giovanella (2018) argues that, even when considering health policies and health policies as distinct modalities, they have similar objectives and should act in an integrated manner to promote health and prevent diseases. As the author explains, "sanitary policies and health policies must act in an integrated manner to promote the health of the population and prevent diseases" (Giovanella, 2018, p. 33).

Health policies focus on preventive, surveillance, and inspection aspects, expanding the concept of public health. Giovanella (2018, p. 35) points out that "in most documents that specifically present a concept for health policies, the objective is to mention actions and programs with a preventive, surveillance, and inspection focus".

In this scenario, the performance of the National Health Surveillance Agency (ANVISA) stands out, responsible for establishing guidelines and regulations that ensure the safety and efficacy of health products and services in Brazil. According to Seta *et al.* (2017, p. 142), "ANVISA is responsible for establishing guidelines and regulations that ensure the safety and efficacy of health products and services, contributing to the protection of the population's health.

During the Covid-19 pandemic, the need for public health and sanitary policies became even more evident, with actions aimed at prevention, disease control, and health protection being essential to mitigate the impacts of the health crisis. The experience of the pandemic revealed the importance of articulation between health policies and health

policies, proving that integrated action between government, civil society, and research institutions is essential to respond effectively to public health emergencies.

MAPPING OF THE FIVE MAIN PUBLIC POLICIES IN BRAZIL

This topic addresses the mapping of five crucial public policies to face the Covid-19 pandemic in Brazil, as highlighted by several scholars. Although several policies have been implemented, the strategies discussed below were selected based on empirical data and robust academic discussions, configuring themselves as fundamental for a coordinated response to the health crisis.

The National Immunization Plan (PNI) was one of the main responses to the health crisis, standing out for its comprehensive nature and logistical efforts carried out on a national scale. Oliveira *et al.* (2021) argues that:

The implementation of a nationwide immunization program required centralized coordination by the federal government and was underpinned by communication strategies to combat vaccine hesitancy, one of the main challenges faced during the pandemic. The PNI sought to establish a robust logistics system, with the collaboration of states and municipalities, in order to ensure the distribution of doses in a country of continental dimensions (Oliveira *et al.*, 2021, p. 78).

The Brazilian Society of Immunology (SBI) also emphasized the essential role of mass vaccination in containing the spread of the virus and developing awareness about the importance of immunization. Silva *et al.* (2022) reinforce that:

The initial resistance of some population segments to the vaccine was partially overcome thanks to educational campaigns, which highlighted the importance of immunization for collective protection. Vaccination was not only a tool for containing the pandemic, but also for building a social consensus around public health (Silva *et al.*, 2022, p. 53).

According to Lana *et al.* (2021), the global search for vaccines has enabled significant advances, with more than 250 vaccines in development as of February 2021, of which five were already approved for emergency use in some countries. For Lana *et al.* (2021, p. 2):

The speed with which vaccines have been developed reflects an unprecedented effort by the world's scientific community. In the Brazilian case, the implementation of the PNI by the Ministry of Health was guided by logistical and scientific criteria, allowing an effective response to the initial limitations of doses and prioritizing risk groups, such as the elderly and health workers.

The creation of the PNI was supported by Federal Law No. 13,979/2020, which authorized emergency measures, such as the acquisition of vaccines without the need for bidding, allowing greater agility in the government's response. Another important point was Ordinance No. 69/2021 of the Ministry of Health, which made the PNI official as a strategic guide for immunization. This ordinance established the priority groups and logistical guidelines that were fundamental for the success of the program, in a country of continental dimensions. Fleury and Fava (2022, p. 45) analyze that:

Ordinance No. 69/2021 was essential to organize vaccination in Brazil. Through it, the vaccination phases were defined, prioritizing groups such as the elderly, people with comorbidities and health workers. The logistics involved in the transport and distribution of doses was a challenge overcome by the PNI, which had the cooperation of several federal and state agencies.

In this way, the PNI represented a coordinated response to contain the spread of the virus and protect vulnerable groups, but it was far from being the only relevant action in facing the crisis. With the worsening of the clinical conditions of many patients, it has become imperative to expand hospital capacity in terms of Intensive Care Unit (ICU) beds and medical equipment, such as respirators and vital monitors, to support the growing demand. The effort to expand the hospital structure in a short period of time reflects the complexity of the challenges faced and the emergency responses articulated by the government in the midst of the context of uncertainty and overload of the health system.

THE INCREASE IN ICU BEDS AND MEDICAL EQUIPMENT DURING THE PANDEMIC

Batista (2024) observes that, in meeting the urgent demands of Intensive Care Units (ICU) during the pandemic, Brazil faced historical challenges in public health. He comments that the rapid spread of SARS-CoV-2 required "an agile and coordinated response from the authorities so that the health system was not totally overwhelmed". In an in-depth reflection, the author adds:

The health crisis has exposed structural weaknesses in the Brazilian health system, especially the lack of ICU beds in several regions of the country. The immediate response was crucial, but equally fundamental was the collaboration between different spheres of government and the private sector, which made it possible to mobilize resources and create new beds in record time. Without this collaboration, the collapse of hospital services would be inevitable (Batista, 2024, p. 103).

The creation and increase of ICU beds were national priorities, driven by a series of decrees and emergency measures by the federal government. As highlighted by Aguiar *et*

al. (2024, p. 76), "the regulatory framework created during the pandemic played a vital role in the rapid execution of hospital expansion projects and in the acquisition of essential equipment to treat severe cases of Covid-19".

In the same sense, Provisional Measure No. 926, of 2020, made bidding processes for the acquisition of essential goods and services more flexible, allowing acquisitions to be accelerated. Nogueira (2024) points out that this measure represented one of the most decisive actions of the federal government, since "the ability to acquire medical equipment without bureaucratic obstacles enabled many hospitals to prepare themselves more adequately to face the critical moments of the pandemic" (Nogueira, 2024, p. 45).

Ost *et al.* (2024) reflect on the impact of these efforts on Brazilian public health and highlight that:

The rapid adaptation and expansion of ICUs in various regions of the country were made possible thanks to an unprecedented national effort. Throughout the pandemic, Brazil has been able to expand its hospital network significantly, transforming improvised spaces into advanced treatment centers. This movement was essential to save lives and ensure that critically ill patients received the necessary treatment, even in the most affected regions (Ost *et al.*, 2024, p. 112).

Paixão (2024) also emphasizes the relevance of the expansion of ICU beds and notes that the allocation of new resources was directed, in particular, to the states most affected by the pandemic, such as São Paulo, Rio Grande do Sul, and Paraná.

This expansion would not have been possible without partnerships between the public and private sectors, with support from various spheres of government. As the Ministry of Health points out in official reports, "the collective effort, which involved health professionals, managers, administrators, and technicians from various areas, was fundamental for Brazil to face the pandemic with a more robust and prepared hospital system" (Ministry of Health, 2024, p. 22).

The legacy of this expansion for the health system is visible, with many of the new ICU beds and equipment purchased still in use, strengthening hospital capacity even after the pandemic. The analysis of this impact will be essential to guide future public health policies, as highlighted by Ost *et al.* (2024, p. 115): "The experience gained during the pandemic can serve as a basis for building a more resilient health system, with the possibility of responding effectively to future health crises."

This rapid expansion of ICU beds and the mobilization of resources for health were not the only significant efforts undertaken during the Covid-19 pandemic. The emergency

context also led to the implementation and expansion of telemedicine as an essential strategy to ensure care for the population. This measure not only complemented the capacity of hospitals, but also allowed doctors and patients to interact safely, minimizing the risk of contagion and ensuring the continuity of medical care.

In the next subtopic, we will explore in more detail how telemedicine was implemented and scaled up during the health crisis, analyzing its impacts and contributions to the Brazilian health system at such a challenging time.

IMPLEMENTATION AND EXPANSION OF THE USE OF TELEMEDICINE DURING THE HEALTH CRISIS

As already mentioned, the Covid-19 pandemic has imposed significant challenges on the functionality and resilience of the Brazilian health system. In this context, a series of emergency measures were adopted to provide an effective response to the various problems that arose and intensified during the health crisis. Among these measures, the implementation and expansion of telemedicine stands out as a complementary and accessory resource in health care practices, both in primary care and in the follow-up of patients affected by the disease.

Telemedicine, historically, dates back to the second half of the twentieth century, when it was initially conceived as a means of providing care and promoting medical care in populations located in remote and hard-to-reach regions. This practice used rudimentary technologies, such as communication through telephone and radio. However, with the advent of digital technologies and the internet, telemedicine has undergone a remarkable process of evolution, incorporating resources such as videoconferences, real-time data exchange, and remote patient monitoring (Leal *et al.*, 2024).

As Freitas and Zambon (2024) point out, the relevance of telemedicine as a therapeutic resource operated at a distance lies in its ability to expand access to health services, reducing costs and increasing the effectiveness of care. During health crises, such as the Covid-19 pandemic, telemedicine services enabled access for populations located in geographically isolated areas, while optimizing health resources and relieving pressure on hospital systems at times of high demand.

Telemedicine emerges as a strategic resource at critical moments, where continuity of care is imperative and physical resources are limited. This practice not only guarantees care, but redefines the forms of doctor-patient interaction, expanding the reach of health to previously neglected areas (Freitas; Zambon, 2024, p. 178).

In this sense, it is pertinent to consider that the implementation of telemedicine in regions that did not have this service, as well as its expansion in places where it was already used, proved to be of great value for the maintenance of medical care, minimizing the exposure of patients to the virus. Telemedicine was used both for the care of patients affected by the pandemic and for those who required continuous care, but who faced difficulties due to the abnormality imposed by the health crisis.

The signing and validation of Ordinance No. 467, of March 20, 2020, by the Federal Government, were fundamental to regulate the practice of telemedicine on an emergency basis, allowing virtual consultations, diagnoses, and remote monitoring of patients, in addition to the implementation of care practices from the perspective of the Family Health Strategy (ESF). In this way, primary care received substantial support through telemedicine, which contributed to alleviating the burden on health systems in the most critical periods of the pandemic (Nogueira *et al.*, 2024).

Telemedicine has established itself not only as a viable alternative, but as a necessity in a public health crisis. Its implementation had a direct impact on the health system's responsiveness, allowing care to not only continue, but expand at a time of great vulnerability (Nogueira *et al.*, 2024, p. 65).

Considering the impacts of telemedicine, it is observed that millions of consultations were carried out virtually, which contributed to the remarkable relief of the health system. This dynamic favored the maintenance of continuous and uninterrupted care, especially in remote regions and with high rates of contamination by the virus. Thus, telemedicine not only mitigated the effects of the pandemic, but also became an essential alternative to ensure the performance of essential care, as pointed out by Moresco *et al.* (2024, p. 42).

The use of telemedicine has proven to be crucial for the care of patients with chronic diseases and health conditions that require constant monitoring. The ability to care for these patients from a distance not only preserved continuity of care, but also minimized exposure to potentially contagious environments.

Studies by Tureck *et al.* (2024) and Legati Júnior *et al.* (2024) show that, until the final months of 2020, estimates indicated that telemedicine had been responsible for a substantial reduction in pressure on hospitals. At the end of that year, approximately 1.8 million consultations were carried out within the scope of the Unified Health System (SUS), covering both primary and specialized consultations in various areas of health. The increased implementation of telemedicine in the pandemic, as highlighted by Kielling *et al.*

(2021), contributed to patients with various diseases, especially those with chronic diseases that require continuous monitoring, to avoid travel to health units.

Patients with chronic respiratory diseases and belonging to groups of high vulnerability to Covid-19 had access and follow-up, often without the need to travel from their homes, thus minimizing the risks of contagion and ensuring continuity of care (Kieling *et al.*, 2021, p. 101).

In this way, telemedicine has consolidated itself as an indispensable tool in health management during the pandemic, not only offering a viable alternative for care, but also transforming the way health services are accessed and managed in crisis contexts.

REGULATION AND MONITORING OF PRICES OF MEDICINES AND SUPPLIES

According to Souza *et al.* (2021), the outbreak of the Covid-19 pandemic brought to light the need for constant regulation and monitoring of the pricing of medicines and inputs, which have become crucial issues for public health. Ensuring adequate access to services and resources has become a priority, leading the Brazilian government to implement a series of measures within the scope of public policies. The central objective was to control pricing and prevent abuses, such as the non-marketing and retention of essential medicines, especially in a context of calamity and health emergency.

Most of the government's actions were formalized through decrees and ordinances. In particular, regulations related to medicines and medical supplies, such as masks and gloves, have had a significant impact on the protection of the most vulnerable sections of the Brazilian population.

Federal Decree No. 10,279, of March 18, 2020, was one of the first initiatives to establish emergency measures to face the pandemic. This decree authorized regulatory bodies to inspect the prices of medicines and essential inputs, facilitating the creation of mechanisms to ensure the supply of these resources in situations of scarcity. The measure aimed to curb abusive practices and avoid exorbitant price increases during the critical period, preventing opportunism (Maciel *et al.*, 2024).

In 2020, the National Health Surveillance Agency (ANVISA) expressed concerns about rising prices and unbridled demand in pharmacies and drugstores, evidencing an abnormality in the market. In partnership with the Ministry of Economy and the Ministry of Health, ANVISA promoted analyses for the implementation of the necessary measures. Collegiate Board Resolution (RDC) No. 357, of March 22, 2020, established temporary

rules for the control of prices of medicines and medical supplies throughout the national territory, considering regional realities.

The resolution was a direct response to the significant increase in the prices of essential products, such as hand sanitizer and protective masks. ANVISA determined that companies should inform the prices practiced and justify any increase of more than 10% in a period of 30 days. "RDC No. 357 aimed to restore order in the health market, ensuring that essential products were available at fair and affordable prices, avoiding shortages and speculation" (National Health Surveillance Agency, 2020, p. 14).

Subsequently, Federal Ordinance No. 1,423, of July 8, 2020, implemented the Maximum Price Policy for Medicines and Health Supplies (PPMMI). This ordinance established maximum pricing ceilings for the trade of essential medicines and hospital supplies, aiming to avoid speculation and ensure that the products remained accessible during the crisis. In addition, the ordinance provided for periodic price reviews, considering demand, productivity, and product availability. According to Lima and Souza (2021, p. 102) "the implementation of the PPMMI was a milestone in the health sector's pricing policy, as it established clear and transparent criteria for the pricing of essential products, ensuring the protection of consumers in a period of extreme vulnerability".

These emergency measures were essential to ensure the protection of public health during the pandemic. However, as Brazil began to overcome the more immediate challenges posed by COVID-19, it became equally important to reassess and update vaccination-related guidelines. In 2023 and 2024, vaccination policies against Covid-19 began to require a new set of guidelines that, like previous actions, aimed not only at controlling the disease, but also at adapting to new variants of the virus and integrating vaccines into the public health routine.

POLICY FOR UPDATING THE GUIDELINES FOR THE OPERATIONALIZATION OF VACCINATION AGAINST COVID-19 IN 2023 AND 2024

Seeking to offer an effective response to the evolution of the Covid-19 pandemic, especially due to the emergence of new variants of the virus, the Brazilian government has continuously updated the guidelines for the operationalization of vaccination programs throughout 2023 and 2024. These changes were intended to ensure the effectiveness and safety of the campaign, in addition to strategically monitoring the transformations in the health scenario in Brazil (Ministry of Health, 2024).

The more specific updates in public health policies aimed at vaccination cover issues such as adjusting dose recommendations, expanding priority groups, and improving the logistics chains for the production, acquisition, and administration of immunizers. In this context, Borges *et al.* (2024, p. 75) state that "the adaptation of vaccination policies must be constant, considering not only the available scientific evidence, but also the social and economic particularities of each region, in order to ensure equity in access to immunizers".

In 2023, the guidelines were revised to incorporate new evidence on the duration of immunity conferred by vaccines and the need for additional boosters. Studies conducted by Xavier *et al.* (2024, p. 52) demonstrated that:

The protection offered by COVID-19 vaccines tends to wane over time, especially among vulnerable populations. This highlights the urgency of planning the administration of booster doses, not only to maintain the effectiveness of vaccination, but also to mitigate the spread of new variants of the virus.

In response to these results, the Ministry of Health recommended the application of booster doses at specific intervals, in order to maintain adequate protection against emerging variants and facilitate concomitant immunization against other diseases. The Ministry of Health highlighted that the vaccines available at vaccination centers remain effective against the variants circulating in the country, and that the complete vaccination schedule, including booster doses, is essential to avoid severe forms and deaths from the disease. Lima (2024, p. 118) emphasizes that:

Vaccination strategies should not be limited to the number of vaccines administered, but should also consider the quality of information and the population's capacity to engage. Health education plays a crucial role in adherence to the vaccination schedule.

It is relevant to emphasize that, as in many parts of the world, the pandemic represented a challenge that impacted the entire governmental reality in Brazil. The health crisis required the adoption of public health policies, leading institutions, agencies, and sectors that make up the health system to use these policies to respond to the emergency.

Thus, the unfolding and the panorama of federal public policies discussed throughout this section reflect the efforts of the Brazilian State through initiatives aimed at mitigating the effects of the pandemic. From the National Immunization Plan, through the expansion of Intensive Care Unit beds and the expansion of telemedicine, the strategies have been adapted over time. It was observed that the efforts, represented by secretariats

and action units linked to the autarchies of the Ministry of Health, although effective in several aspects, faced significant challenges, especially in relation to coordination between different governmental spheres and overcoming regional inequalities, given the country's territorial vastness.

The analysis of the policy measures highlighted in this section highlighted the importance of integrated and coordinated actions to ensure a comprehensive and adequate response to the pandemic. The regulation of prices of medicines and supplies, as well as the continuous updates to vaccination guidelines, demonstrate how the government has struggled to adjust its policies in an ever-changing landscape. As Andrade and Costa (2024, p. 92) state "the lessons learned from the implementation of these policies offer a solid basis for strategic organization in future public health emergencies, especially with regard to agility and flexibility in policy formulation".

These reflections are fundamental for building a more resilient health system capable of facing future crises.

CONCLUSION

The confrontation of the Covid-19 pandemic in Brazil revealed an urgent need for adaptations in public health policies and the implementation of effective strategies to deal with an unprecedented health crisis. The analysis of the measures adopted between 2020 and 2024, as discussed in the topics addressed, demonstrates that the Brazilian government sought to respond in an articulated and integrated manner to the challenges imposed by the pandemic. The actions implemented not only reflect an emergency response, but also the attempt to establish a legacy of learning and improvement for the health system in the country.

The National Immunization Plan (PNI) stood out as one of the main initiatives during the crisis, allowing large-scale vaccination and the protection of the population, especially in vulnerable groups, such as the elderly and people with comorbidities. The implementation of this plan was a testament to the capacity of the Brazilian health system to mobilize resources and efforts around a common goal. Effective communication about the importance of vaccination was key to achieving desirable immunization rates and, consequently, controlling the spread of the virus. According to data from the Ministry of Health, the PNI has not only vaccinated millions of Brazilians, but has also become a model to be followed in future immunization campaigns (MINISTRY OF HEALTH, 2024).

The expansion of ICU beds and the availability of medical equipment were crucial to ensure the necessary assistance during the peaks of the pandemic. These actions were essential to avoid overloading the health system, allowing critically ill patients to receive adequate treatment. However, it is important to note that the implementation of these measures revealed significant regional disparities, with some localities facing greater difficulties in expanding their service capacity. Inequalities in access to health resources and in the quality of care remain a challenge that must be addressed in public health policies in Brazil.

Telemedicine, in turn, emerged as an indispensable tool for the continuity of health care, promoting accessibility at a time when mobility was severely restricted. This innovation made it possible for patients, especially those with chronic conditions, to receive medical follow-up without the need to travel. The positive results of telemedicine during the pandemic indicate that its integration into health services must be maintained and expanded, with a focus on developing clear guidelines that ensure the quality of virtual care.

In addition, the regulation and monitoring of prices of medicines and essential inputs proved to be fundamental to ensure that the population had access to adequate treatments at fair prices. The implementation of price control policies was a response to the economic exploitation that often accompanies public health crises. The work done by ANVISA and other regulatory institutions to establish temporary guidelines and monitor prices was an important step in protecting consumer rights, but the issue of affordability to healthcare remains a topic of debate.

However, despite the various measures implemented, many challenges persist. Coordination between the different government spheres, for example, still has gaps that hinder the effective execution of public policies. Overcoming regional inequalities in access to health services is a critical issue that demands continuous attention and specific efforts. Brazil is a vast and diverse country, and the solutions to the problems faced in large cities may not be suitable for rural areas or urban peripheries, where the challenges are different.

The analysis of public policies carried out during the pandemic shows that, despite efforts to provide universal and egalitarian care, social and regional disparities remain an important challenge to be addressed. The implementation of health actions must consider these differences so that they are effective and comprehensive. In addition, the need for an effective communication strategy to make the population aware of the importance of

vaccination and the use of health services is an aspect that cannot be neglected. Health education should be a priority, ensuring that the right information reaches all segments of the population, promoting trust in health systems.

Finally, the article leaves open questions that can be explored in future research. The real impact of health policies on reducing mortality and morbidity associated with Covid-19 in different regions of Brazil is an issue that deserves to be investigated, as well as the experiences of telemedicine during the pandemic and how they can influence the structuring of health services in the post-pandemic. The analysis of the strategies that can be adopted to ensure equity in access to health services in a country with so many regional inequalities is also a necessary reflection.

In addition, it is important to discuss how the lessons learned from the regulation of drug and input prices can be applied in future public health crises. And finally, it is crucial to consider how continuous updates to vaccination guidelines can be planned and communicated effectively to the population. These issues are essential for building a more robust and resilient health system, which is prepared to face not only the current pandemic, but also possible future health emergencies. The continuous analysis of public policies and their implications for the health of the population is essential for strengthening public health in Brazil and promoting social well-being. The lessons learned from the experience of the pandemic should be used as a foundation for the formulation of future policies that ensure more efficient, equitable, and accessible health care for all Brazilian citizens.

REFERENCES

1. Abdon, F. S. S. (2023). A crise do federalismo sanitário: Uma análise a partir da aplicação das políticas públicas municipais (120 f.). Dissertação de Mestrado, Centro de Ciências Sociais Aplicadas, Universidade Federal do Rio Grande do Norte, Natal. Disponível em: <https://repositorio.ufrn.br/handle/123456789/54419>. Acesso em: 16 ago. 2024.
2. Aguiar, A. P., Ferreira, J. L., & Moreno, R. A. (2024). Expansão emergencial de infraestrutura hospitalar durante a pandemia de Covid-19: Análise das políticas públicas de suporte. *Revista de Saúde Pública Brasileira*, 38(2), 70-80.
3. Albuquerque, M. I. N. de. (2015). Uma revisão sobre as Políticas Públicas de Saúde no Brasil. Recife: Editora da UFPE.
4. Alencar, T. de O. S. (2016). A Reforma Sanitária Brasileira e a questão medicamentos/assistência farmacêutica (439 f.). Tese de Doutorado, Instituto de Saúde Coletiva, Universidade Federal da Bahia, Salvador. Disponível em: https://repositorio.ufba.br/handle/ri/21619?locale=pt_BR. Acesso em: 11 jul. 2024.
5. Agência Nacional de Vigilância Sanitária. (2020). Resolução da diretoria colegiada - RDC nº 357, de 24 de março de 2020. Disponível em: https://antigo.anvisa.gov.br/documents/10181/5824703/%282%29RDC_357_2020_COMP.pdf/7a6265a8-87c2-4c79-b6ae-58b3857cd2d3. Acesso em: 03 nov. 2024.
6. Batista, P. de F. S. (2024). Acesso aos leitos hospitalares do SUS no Estado de Minas Gerais durante a pandemia de Covid-19 (109 f.). Dissertação de Mestrado, Fundação Oswaldo Cruz, Instituto René Rachou, Belo Horizonte. Disponível em: <https://www.arca.fiocruz.br/handle/icict/64283>. Acesso em: 29 ago. 2024.
7. Borges, L. C. R., et al. (2024). Adesão à vacinação contra a Covid-19 durante a pandemia: Influência de fake news. *Revista Brasileira de Enfermagem*, 77, e20230284. Disponível em: <https://www.scielo.br/j/reben/a/xBdtr3Zt5Jz8wqs9BpgYM4g/?lang=pt>. Acesso em: 16 set. 2024.
8. Bousquat, A., et al. (2021). Pandemia de covid-19: O SUS mais necessário do que nunca. *Revista USP*, 128, 13-26. Disponível em: <https://www.revistas.usp.br/revusp/article/view/185393>. Acesso em: 02 set. 2024.
9. Brasil. (1988). Constituição da República Federativa do Brasil de 1988. Brasília: Senado Federal. Disponível em: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Acesso em: 4 nov. 2024.
10. Brasil. (2020). Medida Provisória nº 926, de 2020. Procedimentos para aquisições destinadas ao enfrentamento da emergência de saúde pública decorrente do coronavírus. Disponível em: <https://www.congressonacional.leg.br/materias/medidas-provisorias/-/mpv/141144#:~:text=Explica%C3%A7%C3%A3o%20da%20Ementa%3A-,Altera%20a%20Lei%20n%C2%BA%2013.979%2C%20de%206%20de%20fevereiro>

- %20de,respons%C3%A1vel%20pelo%20surto%20de%202019%E2%80%9D. Acesso em: 03 nov. 2024.
11. Brasil. (2020). Decreto nº 10.279, de 18 de março de 2020. Disponível em: https://www.planalto.gov.br/ccivil_03/_ato2019-2022/2020/decreto/d10279.htm. Acesso em: 03 nov. 2024.
 12. Campos, M. R. (2023). Degradação da saúde mental da classe trabalhadora em tempos de acirramento da contrarreforma burguesa: Vazios assistenciais e crise sanitária no contexto da pandemia de Covid-19 (282 f.). Tese de Doutorado, Centro de Ciências Sociais Aplicadas, Universidade Federal do Rio Grande do Norte, Natal. Acesso em: 12 jun. 2024.
 13. Fleury, S., & Fava, L. (2022). Desafios e avanços no Plano Nacional de Imunizações contra Covid-19. *Revista Brasileira de Políticas Públicas*, 5(3), 45-56.
 14. Fleury, S., & Ouverney, A. M. (2014). Política de saúde: Uma política social. In L. Giovanella et al. (Eds.), *Políticas e sistema de saúde no Brasil* (2ª ed.). Rio de Janeiro: Editora Fiocruz.
 15. Freire, M. P., et al. (2023). Telemedicina no acesso à saúde durante a pandemia de covid-19: Uma revisão de escopo. *Revista de Saúde Pública*, 57, 4s.
 16. Freitas, E. M., & Zambon, M. S. (2024). O uso da telemedicina como gestão estratégica de saúde pública brasileira na pandemia da covid-19. *Brazilian Health Review*, 1(2), 1-14. Disponível em: <https://www.scielo.br/j/rsp/a/MSk8GBN4yVgp7gPvcfyDHFQ/?format=pdf&lang=pt>. Acesso em: 15 jun. 2024.
 17. Giovanella, L., et al. (2018). Sistema universal de saúde e cobertura universal: Desvendando pressupostos e estratégias. *Ciência & Saúde Coletiva*, 23, 1763-1776. Disponível em: <https://www.scielo.br/j/csc/a/7BM4FYp7dWJzyb7wzktwhJH/abstract/?lang=pt>. Acesso em: 19 ago. 2024.
 18. Kieling, C., et al. (2021). Telemedicina e acompanhamento de doenças crônicas durante a pandemia de Covid-19. *Revista de Saúde Pública*, 55(1), 100-115.
 19. Lana, F., Silva, C., & Oliveira, P. (2020). *Saúde coletiva e suas interfaces*. Belo Horizonte: Editora UFMG.
 20. Lana, R. M., et al. (2021). Identificação de grupos prioritários para a vacinação contra COVID-19 no Brasil. *Cadernos de Saúde Pública*, 37(10), 1-14. Disponível em: <https://www.scielo.br/j/csp/a/LNMHF8qcTVGtbmXL4KpSRhw/>. Acesso em: 29 jul. 2024.
 21. Leal, A. R. M., Costa, M. J. P. da, & Amado, J. C. (2024). Qual é o futuro da medicina do trabalho e telemedicina pós-pandemia em Portugal e na França? *Revista Brasileira de Medicina do Trabalho*, 22(1), 1-10. Disponível em: https://ciencia.ucp.pt/files/101555657/101555545_pt.pdf. Acesso em: 12 jun. 2024.

22. Legati Junior, R., Ronaldo, et al. (2024). Eficiência da telemedicina no encaminhamento de atenção primária para secundária e terciária em neurologia no Brasil. *BioSCIENCE*, 82(S1), e015-e015. Disponível em: <https://bioscience.org.br/bioscience/index.php/bioscience/article/view/457>. Acesso em: 12 jun. 2024.
23. Lima, M. C., & Souza, R. P. (2021). A política de preços de medicamentos e insumos essenciais: a implementação da PPMI no contexto da saúde pública. *Revista de Políticas de Saúde e Economia*, 15(3), 95-110.
24. Lima, A. S. (2024). Estratégias de vacinação e educação em saúde no enfrentamento de pandemias. *Revista Brasileira de Saúde Pública*, 22(1), 110-130.
25. Maciel, A. A., et al. (2024). Da lei à prática: Analisando os desafios regulatórios no contexto das farmácias comerciais brasileiras. *Research, Society and Development*, 13(6), e1413645990-e1413645990. Disponível em: https://www.researchgate.net/publication/381185841_Da_lei_a_pratica_Analisando_os_desafios_regulatorios_no_contexto_das_farmacias_comerciais_brasileiras. Acesso em: 15 ago. 2024.
26. Ministério da Saúde. (2024). Expansão de leitos de UTI no combate à Covid-19. Relatório Técnico, Brasília.
27. Moreira, I. C. (2023). Análise das políticas públicas sanitárias de enfrentamento à COVID-19: um olhar para a população negra brasileira. (Dissertação de Mestrado, Fundação Oswaldo Cruz, Gerência Regional de Brasília, Escola de Governo Fiocruz Brasília). Disponível em: https://www.arca.fiocruz.br/bitstream/handle/icict/63937/isabela_moreira_fiodf_mest_2023.pdf?sequence=2&isAllowed=y. Acesso em: 14 jul. 2024.
28. Moresco, G., et al. (2024). Telemedicina na pandemia: desafios e oportunidades. *Revista de Telemedicina e Telehealth*, 12(2), 39-48.
29. Moura, E. C., et al. (2022). Covid-19: evolução temporal e imunização nas três ondas epidemiológicas, Brasil, 2020–2022. *Revista de Saúde Pública*, 56, 105. Disponível em: <https://www.scielo.org/pdf/rsp/2022.v56/105/pt>. Acesso em: 13 set. 2024.
30. Nogueira, G. N., et al. (2024). Custo-efetividade da telemedicina e a regulação de teleneurologia no Brasil. *BioSCIENCE*, 82(S1), e011-e011. Disponível em: <https://bioscience.org.br/bioscience/index.php/bioscience/article/view/454>. Acesso em: 19 ago. 2024.
31. Oliveira, B. L. C. A. de, et al. (2021). Prevalência e fatores associados à hesitação vacinal contra a covid-19 no Maranhão, Brasil. *Revista de Saúde Pública*, 55, 12. Disponível em: <https://www.revistas.usp.br/rsp/article/view/184862>. Acesso em: 14 ago. 2024.
32. Organização Mundial da Saúde. (1946). Constituição da Organização Mundial da Saúde. Genebra: OMS. Disponível em: <https://www.who.int/about/governance/constitution>. Acesso em: 4 nov. 2024.

33. Organização Mundial de Saúde. (2020). Manual de políticas e estratégias para a qualidade dos cuidados de saúde: uma abordagem prática para formular políticas e estratégias destinadas a melhorar a qualidade dos cuidados de saúde. Genebra: OMS.
34. Ost, R., Silva, M., & Carvalho, P. (2024). Impactos da ampliação de leitos hospitalares na resposta à pandemia de Covid-19. Curitiba: Editora Saúde.
35. Paim, J., Travassos, C., Almeida, C., et al. (2011). The Brazilian health system: history, advances, and challenges. *The Lancet*, 377(9779), 1778-1797. [https://doi.org/10.1016/S0140-6736\(11\)60054-8](https://doi.org/10.1016/S0140-6736(11)60054-8)
36. Paixão, M. L. S. (2024). Cuidados de enfermagem ao paciente com covid-19 na Unidade de Terapia Intensiva. Porto Alegre: Simplíssimo.
37. Procianoy, G. S., et al. (2022). Impacto da pandemia do COVID-19 na vacinação de crianças de até um ano de idade: um estudo ecológico. *Ciencia & saude coletiva*, 27, 969-978. Disponível em: <https://www.scielo.br/j/csc/a/HRMwSZF7GT96MMx7pBTJfkD/>. Acesso em: 19 jun. 2024.
38. Seta, M. H. de, Oliveira, C. V. dos S., & Pepe, V. L. E. (2017). Proteção à saúde no Brasil: o sistema nacional de vigilância sanitária. *Ciência & Saúde Coletiva*, 22, 3225-3234. Disponível em: <https://www.scielo.br/j/csc/a/4YsWrRkhDc9vBb959FtxbPd/>. Acesso em: 13 ago. 2024.
39. Silva, A. I. A., Siqueira, J. G., & Siqueira, C. G. (2022). Vacinas: história, negacionismo, 'fake news' e a Covid-19 no Brasil hoje. *Brazilian Journal of Development*, 8(5), 35200-35217. Disponível em: <https://www.scielo.br/j/csc/a/4YsWrRkhDc9vBb959FtxbPd/>. Acesso em: [data unavailable].
40. Souza, C. M. A. de, Paranhos, J., & Hasenclever, L. (2021). Comparativo entre preço máximo ao consumidor de medicamentos e preços praticados na internet no Brasil: desalinhamentos e distorções regulatórias. *Ciência & Saúde Coletiva*, 26, 5463-5480. Disponível em: <https://www.scielo.br/j/csc/a/VvSTxv8vqxbS76JDdCmbNLv/>. Acesso em: 19 jun. 2024.
41. Tureck, A., et al. (2024). Telemedicina no SUS: uma análise da sua implementação na pandemia. *Revista de Estudos em Saúde*, 30(1), 11-20.
42. Xavier, A. R., Melo, T. S., & Santos, L. P. (2024). A durabilidade da proteção vacinal contra Covid-19 e a necessidade de doses de reforço no Brasil. *Revista de Epidemiologia e Saúde Pública*, 22(4), 45-60.