

# COVID-19 PANDEMIC IN THE CONTEXT OF PRIMARY HEALTH CARE IN BRAZIL: A NARRATIVE REVIEW

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**Abstract:** COVID-19 established a pandemic framework and imposed the biggest health challenge of this generation<sup>1</sup>. Community coping is one of the strongest strategies to fight the disease. In Brazil, Primary Health Care (PHC) remained the user's gateway to the Unified Health System, being the first, closest and most accessible place for patient care<sup>2</sup>. For this, PHC dealt with existing demands and the new circulating disease, continuing its role of coordinating care and solving mild and moderate cases.<sup>1,2</sup> **OBJECTIVE:** To analyze the new coronavirus pandemic in the context of primary health care. **METHODS:** This is a narrative literature review with research in the SciELO and PubMed databases using the descriptors "COVID-19", "Primary Health Care" and "Coping Strategies". Articles published from 2020 to 2022 were searched. **RESULTS:** The COVID-19 pandemic required adjustments in PHC. Therefore, telemedicine began to be implemented and became a strong ally<sup>2,3</sup>. Through the integrality attribute, primary and secondary prevention were carried out, essential to avoid overloading the system<sup>4</sup>. Finally, it is up to the PHC to assume a decisive role in light cases, in addition to the early identification and fast and correct referral of severe cases, maintaining the coordination of care. <sup>4</sup> **CONCLUSION:** PHC ensured the resolution of the vast majority of mild to moderate cases of COVID-19 and promoted population awareness and vaccination and disseminated prevention strategies <sup>4,5</sup>.

**Keywords:** COVID-19, Primary Health Care and Coping Strate.

## INTRODUCTION

The pandemic caused by COVID-19 has spread continuously throughout Brazil since the beginning of 2020, creating a humanitarian crisis and imposing the greatest health challenge of this generation.

<sup>1,2,3,4</sup>. Government actions at the state and municipal levels have become inefficient due to the absence of a qualified health authority, the almost inexistence of coordination between governments and the budgetary insufficiency to mitigate the pandemic. The focus of initiatives based on individual care in serious and very serious cases through the generation of beds in Intensive Care Units (ICU), temporary hospitals and actions without continuity, in addition to a denialism driven by authorities and abandonment by the federal government led to a total of more than 650,000 deaths from the disease by May 2022, according to the organization Our World In Data <sup>1,5</sup>.

Health systems based on Primary Health Care (PHC) have the ability to offer care in an articulated and comprehensive manner. Focusing on the community approach, health surveillance and care coordination. The Family Health Strategy (ESF), through its focus on the community and territory, on multiprofessional teams and on population knowledge, has had demonstrably positive results in the health of the population and has played an essential role in combating the COVID-19 pandemic.<sup>1,2,3</sup>

However, it is important to admit the weaknesses of the SUS PHC. PHC has gone through a process of de-characterization, mainly after the National Primary Care Policy (PNAB) of 2017. Old problems were added to new challenges and the assistance model in the country, through the community approach and territorial knowledge, became in a model in which assistance is individual and responds to acute issues. This way, the flow of longitudinality and the coordination of care is interrupted.<sup>1,3,5</sup>. The process of withdrawing funding from the SUS started in 2016 and intensified by the current government was already manifested before the beginning of the COVID-19 pandemic through the lack

of basic supplies and medicines and the precariousness of human resources within Primary Care (AB). Therefore, it is possible to say that within its capacity and despite bureaucratic and political mishaps, PHC remained the user's gateway to the SUS, being the first closest and most accessible place for patient care.<sup>1,2,3</sup>.

## OBJETCTIVES

### GENERAL OBJECTIVES

This work aims to analyze the new coronavirus pandemic in the context of primary health care in Brazil.

### SPECIFIC OBJECTIVES

1. To analyze the use of telemedicine by primary health care;
2. Identify the management of the flow of assistance to users;
3. Understand the vaccination process in primary health care;
4. Analyze strategies to prevent the new coronavirus.

### METHODOLOGY

It is a narrative review that includes steps of identification, tracking, selection and

analysis of publications, avoiding directing the results. The databases used were Scielo and PubMed. The search for articles was carried out in March/April 2022, without restriction regarding the type of document, carried out in English and Portuguese, published between 2020 and 2022. The descriptors "Covid-19" were used in PubMed and Scielo; "Primary Health Care" and "Coping Strategies". Table 1 contains the keywords used and their results.

The exclusion criteria adopted for the selection of articles for analysis were: articles that did not correspond to the theme or responded to the objectives of this review. To analyze the publications found, some steps were followed: initial reading of the selected material; comprehensive reading looking for similarities and particularities of the set; grouping into themes; interpretive synthesis of the grouped publications, giving rise to categories.

### RESULTS

The search in the PubMed and Scielo databases found a total of 625 publications. When filtering by title or by reading the abstract, 608 publications were removed, which were not related to the study topic,

Search Descriptor	Basis	No. found
Covid-19; Primary Health Care	PubMed	494
Covid-19; Primary Health Care	Scielo	114
Covid-19; Primary Health Care; Coping Strategies	Pubmed	11
Covid-19; Primary Health Care; Coping Strategies	Scielo	6

Table 1 - Search keys and publication number found, according to the Science and Health Descriptors (DECs).

Source: The authors.

were not available, were written in a language other than Portuguese or English. After this selection based on the exclusion criteria, 17 articles were read in full, 5 of which were removed for not meeting the inclusion criteria. Figure 1 presents a flowchart of the literature review. The review results are described in Table 2.

## DISCUSSION

As seen in the articles, APS has taken on a crucial role in the fight against COVID-19. Comparing the texts, it can be seen that it is essential that PHC is reorganized in the context of the pandemic so that its basic attributes - first contact/access, care coordination, integrality and longitudinality - as well as the derived attributes - family, community orientation and cultural competence - are not lost <sup>1,4</sup>. In addition, its operating model needs adaptation according to the context in which it is inserted, modifying the organization according to each local context. <sup>1,2,3,4</sup>.

Despite all the setbacks and adversities, SUS has resisted and AB has been strengthened by municipal actions in order to hold the contagion curve in the assigned territories, provide care at the individual level of confirmed and suspected cases of coronavirus and concomitantly provide a segment the care routine. In addition, multidisciplinary teams have the necessary skills to help the care system and run the community sector indispensable in the fight against COVID-19. <sup>1,2,3,4,5</sup>.

## THE FLOW OF CARE DURING THE PANDEMIC AND TELEMEDICINE

When the pandemic arrived in Brazil, there were reports of Basic Health Units (UBS) that suspended their activities, thus resulting in a significant drop in care in PHC that, if perpetuated, would lead to several complications caused by the lack of follow-up, such as worsening of chronic diseases <sup>1,4</sup>.

Pregnant women, children under five years of age, diabetics and hypertensive patients

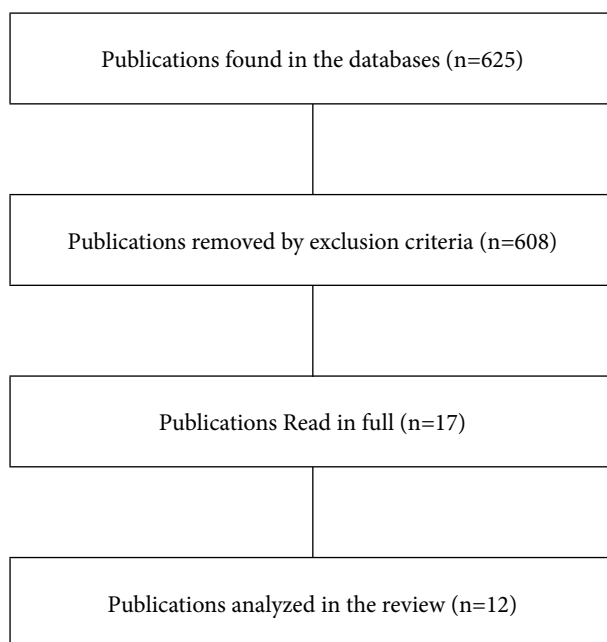


Figure 1 - Literature Review Flowchart.

Source: The authors.

Article Title, Year of Publication and Authors	Use of telemedicine	service flow	Vaccinate	Service Strategies
The contribution of primary health care in the SUS network to face Covid-19.2021. Giovanella L, Martufi V, Ruiz DC, Mendonça MHM, Bousquat A, Aquino R, et al.	Teleservice providing a contact phone number for users and for effective action, to make available internet for (professionals of health and population).	Organize care flows, care for patients with mild conditions, ensure timely referral of those who need care from other levels of care.	There was no discussion of the role of APS on vaccination during the pandemic	Actions of primary and secondary prevention, information and health education in the community and in essential services and testing of cases, contacts and health professionals.
Health Surveillance within the scope of primary care to face the Covid-19 pandemic: document review. 2022. Patino-Escarcianna JE, Medicine MG	Predominance of intramural action, by specifying only the procedures for detection among people who seek the Family Health Units (USF) in person or by telephone, as well as the remote monitoring of patients treated for Influenza Syndrome (SG).	During the care of all suspected patients, it is important to test the patient, notify the case and trigger surveillance to investigate contacts.	financial incentives, reorganization of activities carried out within the scope of PHC, such as vaccination.	Articulation with the health surveillance of the municipalities, establishment of information flows, notification and detection of cases, monitoring of contacts, encouraging social isolation and dissemination of information on concrete measures, population awareness, dissemination of correct information on the prevention and fight against fake News, educational activities in the territory and hygiene and protection of workers and users in the various social facilities.
Longitudinal Link of the Family Health Strategy on the front line of the Covid-19 pandemic. 2022 AC Fleet, Barreto ICHC, Carvalho ALB, Ouverney ALM, Andrade LOM, Machado NMS.	It was identified that communication via telephone and internet was essential for access to information, monitoring of people sick with Covid-19 and continuity of care. care of people linked to other FHS services.	Adaptation of flows and routines of institutional competence services in the Unified Health System (SUS) for comprehensive care.	The high infectivity of Sars-CoV-2, in the absence of previous immunity in the human population, as well as a vaccine against this virus, caused the growth in the number of cases to be exponential.	The history of population coverage, capillarity and longitudinal link of the FHS, strengthens the thesis that it is the priority device of people in the search for care when symptomatic and/or affected by the disease, being, therefore, located in the Brazilian front line of confrontation. of the disease.
COVID-19 vaccination campaign: dialogues with nurses working in Primary Health Care. 2021. Souza JB, Potrich T, Bitencourt JVOV, Madureira VSF, Heidemann ITSB, Menegolia GCS.	Not cited.	Not cited	The contribution of the nursing team to vaccination is highlighted through the following factors: teamwork, union of professionals from various institutions, motivate and bring hope to the population and show joy when working.	Increase the number of professionals trained to meet the demands, given that health professionals were also exposed to contamination and, consequently, isolation, and provide psychological/emotional support for nurses, in order to help them in the long and intense hours of work. job.

<p>Reorganization of primary health care for Universal surveillance and containment of COVID-19. 2020. Teixeira MG, Medicina MG, Costa M da CN, Barral-Netto M, Carreiro R, Aquino R.</p>	<p>Use of digital online call tools to approach staff of professionals and service users who need care and follow-up.</p>	<p>Investigation of suspicious cases, tracking of contacts, control actions, monitoring of mild cases, if necessary, referral to high complexity services and separation of suspected individuals of COVID-19 from other users.</p>	<p>In 2020, when the article was published, there were no vaccines that prevented the natural course and dispersion of SARS-Cov-2.</p>	<p>Guidance on hygiene care, case reporting, quarantine of contacts and social distancing.</p>
<p>The role of primary care in the Brazilian health system: limits and possibilities for coping with COVID-19. 2020. Daumas RP, Silva GA e, Tasca R, Leite I da C, Brasil P, Greco DB, Grabois V, Campos W de S Ç.</p>	<p>Telehealth resources need to be linked to pre-hospital care (SAMU-COVID) and SUS bed management. Protocols for screening and classifying mild, moderate and severe cases, with and without risk of complications, need to be implemented to support decision-making in emergency telemedicine and APS</p>	<p>In this article, it is discussed that the scarcity of beds designated for COVID-19, together with the flow of access to these beds via PHC and emergency units, tends to seriously compromise the ability of health services to provide care with others, in addition to increase the risks of transmission of COVID-19.</p>	<p>In 2020, when the article was published, there were still no vaccines that would prevent the course and natural spread of SARS-COV-2.</p>	<p>This study states that coping with COVID-19 did not depend only on the number of ICU beds and ventilators, but also on the organization of the care network to ensure timely access to these beds, maintenance of care pathways for other diseases and treatment of various types of urgent and emergency conditions. In addition, it reaffirmed the importance of thinking about Brazil as a heterogeneous country with different demands in each city.</p>
<p>The COVID-19 pandemic in rural and remote territories: perspectives of doctors and family and community doctors on primary health care. 2020. Floss M, Franco CM, Mavezzi C, Silva VX de L e, et al.</p>	<p>Rural health teams using remote communication for long-term care. Because they are remote areas, phone and internet instability is common. However, radio contact and the participation of community leaders make it possible to monitor individuals.</p>	<p>Enhanced surveillance and reporting to prevent invisibility of remote areas. Responses, through state and federal support in health care networks, to obstacles to access, sanitary/epidemiological profile and assistance.</p>	<p>In 2020, when the article was published, there were still no vaccines that would prevent the course and natural spread of SARS-CoV-2.</p>	<p>Monitoring of risk groups, testing of suspects, stabilization and transfers of the falls of the territory for social distancing, provision of food, water and hygiene products.</p>
<p>COVID-19 in Brazilian cities: impacts of social determinants, coverage and quality of primary health care. 2021 Guedes MBOG, de Assis SJC, Sanchis GJB, Araujo DN, Oliveira AGRDR, Lopes JM.</p>	<p>The article does not mention the word telemedicine, but states that health units that offer quality and innovation in their management and provision of their services with resources (that is, resources such as telehealth) had a PMAQ score (National Program _</p>	<p>The service flow is not covered in this article</p>	<p>The article cites the Ministry of Health's lack of interest in proposing evidence-based guidelines and the delay in obtaining effective vaccines.</p>	<p>This study found that places with better ESF coverage and PMAQ (National Program for Improving Access and Quality of Primary Care) scores were correlated with slower progression and lower COVID-19 burden. That is, the quality of PHC can make a difference in coping with the pandemic, Knowledge of the territory, access, bond between user and health team, comprehensive care,</p>

	Improved Access and Quality of Primary Care) greater and thus faced COVID-19 more effectively			Monitoring vulnerable families and monitoring suspected and mild cases are key strategies for containing the pandemic.
Health surveillance actions in primary care in response to the COVID-19 pandemic: contributions to the debate.2021. Prado NMBL,Biscarde DGDS, Pinto Junior EP, Santos HLPD, Mota SEC, Menezes ELC, Oliveira JS, Santos AMD.	It was verified, in some countries included in the study, the use of telescreening in the tracking of new cases of covid-19, ensuring virtual epidemiological surveillance.	Through active surveillance, standardized protocols were established in which PHC teams performed continuous community health assessments to detect respiratory symptoms, including daily screening of suspected and confirmed cases, in addition to conducting home visits in specific cases to expand monitoring.		Coping with the covid-19 pandemic took place through a robust health surveillance system, including community-based testing, contact tracing and social isolation, in addition to expanding responses and monitoring at the regional level using data aggregation systems. data, data dashboards and digital epidemiological surveillance
The role of Social Determinants of Health and Primary Health Care in the control of COVID-19 in Belém, Pará.2020. Affonso, Márcio Vinicius de Gouveia et al.	Telemedicine is a mechanism inaccessible to the most vulnerable populations located in small cities.	The service flow, which unavoidably places PHC as the gateway to the system, did not guarantee equal access to all users, specifically in small cities and in less favored regions of the country.	The role of APS in vaccination during the pandemic was not addressed.	In more vulnerable populations, it is understood that broader and strategic planning was necessary with training of health professionals, ensuring social isolation measures, since there was a context of health inequalities prior to the pandemic. Referrals to emergency rooms and hospitals were also reduced.
Coping strategy for covid-19 in primary health care: experience report in Salvador-BA. 2021. Oliveira, LMS de., Oliveira, ES., Santos, A.de A.,& Quarry,LC		All users who sought the UBS with respiratory symptoms were referred to home isolation or to the health unit of greater complexity, according to the severity. There were also reports of suspected cases.	There was an anticipation of the national immunization campaign against Influenza, mainly in an attempt to avoid overloading the hospital network with other flu situations. A vaccine against SARS-CoV-2 infection did not yet exist.	Expansion of the technical support of the Strategic Information Center for Health Surveillance in the city, associated with periodic meetings between health professionals for the integration of actions. Specific training and establishment of protocols and flows, in order to enable quick and effective access to early diagnosis and spread of the disease, in addition to home visits carried out by ACS.
What is the role of Primary Health Care in the face of the pandemic caused by COVID-19? 2020. Sarti TOD, Lazarini WS, Fontenelle LF, Almeida APSC	Online tools are highlighted as important ways to help people with high levels of anxiety and/or symptoms of COVID-19. The use of telemedicine in the context discussed was regulated by the Ministry of Health.	Monitoring of vulnerable families and suspected or mild cases. Existence of an adequate place for the reception of suspected cases.	In 2020, when the article was published, there were still no vaccines that would prevent the course and natural spread of the disease. SARS-CoV-2	Training of health professionals, acquisition of diagnostic tests and mass testing, adequate structure for requesting necessary complementary exams, personal protective equipment (EPI) for health professionals.

Table 2 - Title, Year and Place of Publication, use of Telemedicine, Service Flow, Vaccination and Coping Strategies for the Covid-19 Pandemic in Primary Health Care.

Source: The authors.

continue to need care and, at the same time, are part of the risk group for COVID-19. In order for attention to be continued, it is important that new formats for care are adopted through telephones, cell phones and applications for individual and group follow-up, which is why APS-AB adopted telemedicine.<sup>1</sup> Home visits by FHS teams have also been used more frequently to care for higher risk patients<sup>1,2,3</sup>

It is also the responsibility of the PHC to provide individual attention to both confirmed and suspected cases of COVID-19, establishing separate care flows for patients with respiratory and suspected symptoms, also providing care to those who have mild conditions and ensuring targeted care in a timely manner for those requiring secondary and tertiary care<sup>1,2,3,4</sup>. In the larger UBS, this was performed by separating specific corridors, teams and offices for suspected and confirmed cases. This was also accomplished through the installation of tents in the external space of the UBS<sup>1</sup>. These environments facilitate the first care with the patient and facilitate the hospitalization process when necessary, through effective communication between the basic unit and the service of another level of care, in order to carry out individual follow-up and carry out health surveillance of the territory.<sup>1,2,4</sup> For individual care to be performed with quality by the teams, it is essential that they are well adjusted to the network and that the transport of patients with COVID-19 is done effectively and in a timely manner.

The issue of teleservice was made possible through the integration of APS-AB with call centers, making internet available to everyone at the UBS and including the entire team in remote contact. Mild and moderate cases have been systematically followed up with records of the patient's condition and signs of aggravation, allowing referral to other levels if necessary and timely oxygen therapy. Critically ill patients are referred to the

secondary and tertiary levels of reference in transport specifically intended for Covid-19, and adequate conditions are necessary for PHC professionals to be able to manage the patient until the transfer takes place.<sup>1,2</sup>

## PREVENTION AND VACCINATION

Health surveillance aims to block and reduce the risk of spreading the pandemic<sup>1,2,4</sup>. This means carrying out primary and secondary prevention, such as: identifying cases; actively testing and seeking contacts; support and encourage home isolation of both cases and contacts; report cases and conduct health education. Nevertheless, the search for a vaccine against COVID-19 was a difficulty faced by the SUS due to denialism and lack of sufficient investments. Despite this, in January 2021, on the verge of the collapse of the health system and aiming to save as many lives as possible, a discreet portion of the Brazilian population began to be vaccinated through the National Plan for the Operationalization of Vaccination Against COVID-19.<sup>6,7</sup>

Vaccination in Brazil is offered by the SUS through the National Immunization Program (PNI) recognized worldwide for its excellence. However, ensuring access to immunizing agents requires extensive logistics. At APS-AB, the vaccination process cascade, from ensuring correct storage to application, is a responsibility of the nursing team. Still aiming at the least possible contagion, the vaccination flow in the UBS was also changed, so that, whenever possible, vaccination takes place in an area outside the unit, through the assembly of tents, thus avoiding agglomerations in the internal space.<sup>7</sup>

However, immunization of the population remains a challenge for several states due to a false sense of security, denialism and the logistical difficulty in reaching some populations. In March 2022, more than a year



after the opening of the National Plan for the Operationalization of Vaccination Against COVID-19, only 77.4% of the Brazilian population is vaccinated, according to the Our World in Data Organization.<sup>7</sup> AB seeks to solve this problem through the active search of Community Health Assistants (ACS) for people who have not yet completed their vaccination schedule, health education and educational flyers within the units. However, the logistics issue still needs a solution through monetary and human resources investment.<sup>5,7</sup>

## CONCLUSION

This article aimed to analyze the COVID-19 pandemic in the context of primary health care. Considering the information collected, it is concluded that

the PHC had a fundamental role in the resolution of this scenario, since it acted with changes that made the flow of care for users of the public health system more effective, implemented telemedicine, although with factors related to access complications and instability of teleservice, and great efforts were made to prevent the virus and its spread throughout the community. Still, it is possible to conclude that as much as PHC is fundamental in the process of vaccine campaign against COVID-19, more research is needed on this topic in the current literature.

## INTEREST CONFLICTS

There are no conflicts of interest in this article and there is no funding for this article.

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