# UNRAVELING FIRST-LINE PROTECTION: THE VITAL ROLE OF PRIMARY HEALTH CARE IN ADDRESSING THE COVID-19 PANDEMIC IN BRAZIL

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#### ABSTRACT

The aim of this study is to unravel the vital role of Primary Health Care (PHC) in addressing the Covid-19 pandemic. This is an Integrative Literature Review that selected 13 scientific articles published from January 2020 to June 2023, in the Virtual Health Library (VHL) and Scientific Electronic Library Online (SciELO) databases, through the descriptors "Covid-19", "Primary Health Care" and "Brazil". From the analysis of the articles, the following categorization was carried out: Primary Health Care and Covid-19 in Brazil; Restructuring of Popular Health Education in Health and its focus on PHC; Reorganization of service flows in the health care network; Successful strategies for coping with Covid-19 in PHC at municipal, state and national level; Mental health and the Covid-19 pandemic – Coping in PHC; Integrated health surveillance and APS actions in the Covid-19 pandemic. It is concluded that there is a need for greater investments and public policies that strengthen PHC, enabling it to play a central role in responding to future health crises, as well as strengthening health systems as a whole, aiming at a more resilient approach and effective way to face present and future challenges.

KEYWORDS: Covid-19; Pandemic; Primary Health Care; Brazil

## I. Introduction

The Covid-19 pandemic, caused by the novel coronavirus SARS-CoV-2, has been one of the biggest global health crises in recent history. Since its emergence in 2020, the disease has spread rapidly across the world, affecting millions of people and resulting in an alarming number of deaths and Brazil is one of the most affected countries. Faced with this challenging scenario, a comprehensive and effective approach is needed to contain the spread of the virus and mitigate the impact of the pandemic on the health of populations [1].

In Brazil, measures were implemented even before the confirmation of the first case of COVID-19. On January 22, actions were initiated by the Emergency Operations Center of the Ministry of Health, coordinated by the Health Surveillance Secretariat (SVS/MS). In this initial stage, the actions aimed to promote information and communication for the population, as well as to train health professionals and expand the coverage of the Unified Health System (UHS), with a special focus on tertiary care. This included increasing the number of beds in intensive care units (ICUs), purchasing respirators, personal protective equipment (PPE) and other measures to strengthen the response to face the pandemic [2].

In this context, Primary Health Care (PHC) emerges as an essential component in the response to the pandemic, as it is the first level of contact individuals have with the health system and constitutes a fundamental component of health systems around the world. Its main mission is to provide accessible,

continuous, coordinated and comprehensive health care that is tailored to individual and collective needs [3].

PHC is characterized by the continuity of care over time, by the comprehensive approach that considers the physical, psychological and social aspects of health, within the limits of the health team's performance, and by the coordination of the various actions and services necessary to address less frequent and more complex demands. During outbreaks and epidemics, it offers resolute care, acts in the early identification of serious cases that require specialized care, covers health promotion and protection, disease prevention, diagnosis, treatment, rehabilitation, harm reduction and maintenance quality of life, providing an integral approach [4].

The Ministry of Health of Brazil released the latest version of the "Protocol for Clinical Management of Covid-19 in Primary Care", which highlights the importance of PHC as the first line of patient care in the SUS. By adopting PHC as responsible for organizing care, the other levels of care will not be overloaded and will be able to deal with the most serious cases [5].

For triage and organization of care, the protocol suggests the use of the "fast-track" methodology, based on the Manchester protocol. This approach allows for a quick, objective and spatially differentiated flow of patients within the Basic Health Unit (BHU), from the entrance to medical care, avoiding unnecessary patient movement in other areas of the service. Although the implementation of this methodology is desirable, its use may face challenges due to the scarcity of human resources and the lack of physical space for the segregation of respiratory symptomatic patients. From a theoretical point of view, this methodology presents itself as an interesting solution, but the need for each BHU to adapt to the method is evident, taking into account its limitations [5].

This study will explore how the structure of PHC, with its patient-centered approach, can contribute to first-line protection against the spread of the virus and to the appropriate management of cases of the disease. In addition, the main strategies and interventions that can be adopted by PHC to strengthen the response to the pandemic will be discussed, including screening and early diagnosis, monitoring the health of the population, promoting preventive measures and coordinating care.

Throughout this article, a review of the updated scientific literature on the subject will be presented, as well as analyzes and case examples that illustrate the contributions and impacts of PHC in addressing the Covid-19 pandemic. Through this investigation, it is expected to provide important and grounded insights for health professionals, policy makers and researchers, thus contributing to improving strategies for coping with the pandemic and promoting a more resilient and equitable global health.

This study was designed based on the authors' experiences with Covid-19 in primary health care, where the importance of this level of care in the organization of the Health System was realized, as well as the numerous challenges that the country has been facing for the disease control. Thus, this article aims to unravel the vital role of PHC in addressing the Covid-19 pandemic in Brazil.

## II. MATERIAL & METHODS

The present study consists of an Integrative Literature Review, which performs a variety of important functions such as summarizing current knowledge in an area to identify future research priorities, answering questions that could not be addressed by individual studies, detecting problems in research primary issues that need to be resolved in further studies and formulate or evaluate theories about the phenomena and their causes [6].

The following criteria were adopted for inclusion of articles: all article categories (original, literature review, reflection, update, experience report, etc.); articles with abstracts and texts available in full, published in Portuguese and English, available free of charge, in electronic format in the database of the Virtual Health Library (VHL) and Scientific Electronic Library Online (SciELO), published in the period of January 2020 to June 2023 and which answer the central question of this study: What is the role of Primary Health Care in addressing the Covid-19 pandemic in Brazil? The descriptors "Covid-19", "Primary Health Care" and "Brazil" were used, using the Boolean AND operator. The following exclusion criteria were adopted: articles published outside the established period, which do not

address the theme proposed in the research, other types of texts such as articles published in other languages.

In the data analysis, Laurence Bardin's Content Analysis technique was used, which takes place through the process of categorization of scientific articles, classified and grouped by themes and the elements that constitute each one. Therefore, the six steps indicated for the constitution of the review were adopted: selection of the research question; definition of inclusion criteria for studies and sample selection; representation of the selected studies in table format, considering all the characteristics in common; critical analysis of findings, identifying differences and conflicts; interpreting the results and clearly reporting the evidence found [7].

The process of organizing and selecting the texts was defined following the PRISMA Flow Diagram 2020 instrument, represented in Figure 1.

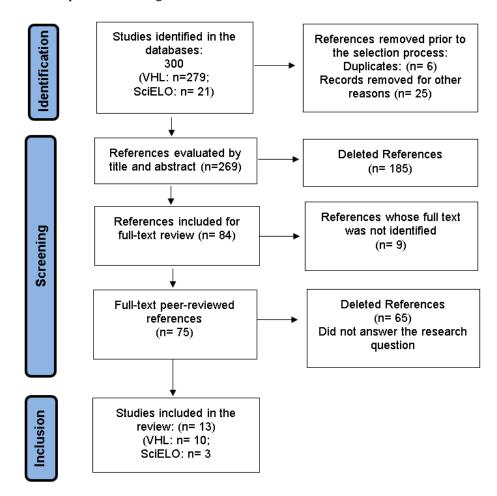


Figure 1. Study identification flowchart from data and records.

From the results found in the search, the inclusion and exclusion criteria were applied, which resulted in 13 articles capable of responding to the research objectives. The content extracted from the texts was organized into a table containing the most relevant information extracted from the studies: authorship and year of publication, research objective, methodological characteristic of the study and main research results. Finally, the identified evidence was gathered, organized and synthesized according to the categories defined in this study, as well as the researchers' conclusions and critical-reflexive analysis based on the research findings.

# III. RESULTS AND DISCUSSION

The selected and analyzed studies are presented in Table 1, which presents information about each publication.

Table 1. Characteristics of selected studies and main results found

AUTHOR	OBJECTIVE	METHODOLOGY	RESULTS
/ YEAR Amora Ferreira Menezes Rios, et al., [8] 2020	To report the COVID-19 coping strategies of a Primary Health Care Health Center in a municipality in the south of Bahia.	Experience report	The restructuring of Health Education and the focus on Continuing Education were fundamental to promote community adherence to social distancing, in addition to training the team to deal with the current situation. In addition, the pandemic triggered the redefinition of self-care processes and the search for new ways of acting. In this context, the incorporation of Integrative and Complementary Practices and the use of creativity in personal and community care were essential to foster the development of empathy, strengthening interpersonal ties, harmony and emotional control, even in the face of the panic generated by the pandemic.
Francisco Rosemiro Guimarães Ximenes Neto et al. [9] 2020.	To describe the strategic actions for coordinating care, monitoring and surveillance of COVID-19 cases in Primary Health Care.	Experience report	The PHC contributed to reducing community spread, by responding to demands and monitoring cases, as well as in surveillance at all stages of the pandemic.
Marcos Aguiar Ribeiro, et al., [10] 2020	Systematize the actions of (re)organization of Primary Health Care launched by the Municipality of Sobral in the face of COVID-19.	Experience report	In Sobral, the (re)organization of PHC services was focused on the development of territorial actions and health surveillance, aimed at blocking and reducing the risk of epidemic expansion. In addition, the essential actions of health promotion, disease prevention and provision of care to the population were maintained, and the sharing of care was promoted in a network of services. Sobral's experience underscores the importance of strengthening PHC, especially through a care model based on a family and community approach.
Michelle Vieira Fernandez et al., [11] 2020	Describe the municipal experience of Nova Lima in actions based on guaranteeing the right to health for users.	Experience report	Among the actions, management, surveillance and prevention, health education, the need to maintain the continued care of patients assigned to the BHU, support for the most vulnerable groups, monitoring of chronic conditions, appreciation of PHC professionals and participation of Social Control stand out.
Ferla Maria Simas Bastos Cirino, et al., [12] 2021	describe the challenges faced for the reorganization of PHC in the context of Covid-19, in the municipality of Diadema, São Paulo.	Experience report	Routines and priority care lines, home visits and actions in the territory, meeting spontaneous demand, the flow of care for users with flu syndrome, immunization and the flu vaccination campaign, case surveillance, Oral Health, the actions of the Expanded Center for Family Health and Primary Care, and nursing procedures are essential elements of the operational axis of actions to face COVID-19. The PHC was most responsible for registering suspected or confirmed cases of COVID-19, accounting for 58% of municipal notifications, highlighting its importance in combating the pandemic.
Guilherme Nabuco, Maria	To present a proposal for the role of Primary Health Care teams in	Scientific essay, contextualized in the current Brazilian	Main risk factors for mental illness: social vulnerability, contracting the disease or living with someone infected, history of previous

Helena Pereira Pires de Oliveira, Marcelo Pellizzaro Dias Afonso, [13] 2020	identifying, approaching, preventing and caring for mental illness in their populations, amid the current Brazilian context of political crisis and pandemic by COVID-19.	scenario, for the construction of a guideline regarding the role of PHC teams in the mental health care of their populations.	mental disorder, advanced age and profession in the health area. Physical isolation and exposure to unreliable information also add up to stressors during a crisis. The specifics of grief during the pandemic increase the risk of complicated grief. In the Brazilian context, the political-institutional crisis also contributes to the anxiety and insecurity of the population. It is proposed that the PHC perform: identify families at greater risk of mental illness, articulate intersectoral actions to meet the demands of the most vulnerable groups, provide guidance to the population on how to minimize the factors that generate anxiety and offer support to families in the process of grief.
Trisha Greenhalg h, Gerald Choon Huat Koh, Josip Car, [14] 2020	Provide guidelines on the appropriate choice between telephone consultations and video consultations, in addition to providing guidance on conducting remote consultations taking into account the COVID-19 situation and the organization of follow-up and the next stages of care.	Literature review	The article guides professionals regarding teleconsultation and addresses the necessary technologies, how to proceed with anamnesis and physical examination in suspected cases of covid-19 and what actions should be taken in view of the findings.
Fabiano Gonçalves Guimarães et al., [15] 2020	Present the actions developed by the Municipal Health Department of Belo Horizonte/MG (SMSA-BH), to face the COVID-19 pandemic, highlighting the role of Primary Health Care and its systemic and articulated performance with the Unified System of Health and social representations.	Experience report	Of particular note are i) Integration between Assistance and Surveillance; ii) Professional training and hiring; iii) Organization of the care flow for assistance in the PHC; iv) Opening of the Specialized Center for Coronavirus; v) Teleservice; vi) Inputs for control and prevention; vii) Testing of health professionals; viii) Infrastructure; ix. Communication actions; x) Care actions for homeless populations; xi) Care actions for the elderly population in Long Stay Institutions for the Elderly (ILPI); xii) PHC care for users with chronic risk conditions.
Nilia Maria de Brito Lima Prado et al., [16] 2021	Reflect on the challenges related to health surveillance actions in the face of COVID-19, within the scope of PHC, in health systems of selected countries.	Literature review	Integrated health surveillance actions have demonstrated a more targeted action in relation to risks, enabling innovative and more effective responses to face COVID-19. These approaches take into account emerging needs within the scope of Primary Health Care, resulting in a better response capacity in the face of the pandemic.
Regina Paiva Daumas et al., [17] 2020.	Discuss the role of primary care in the health care network in Brazil during the COVID-19 pandemic	Literature review	Reorganize flows in the care network, redefine the roles of different units and levels of care, and establish new access points to the health system, especially through remote care. Teleservice modalities, such as teleguidance, teleconsultation, telemonitoring and teleregulation, began to play a central role at this time. It is essential to have a

Line	To analyze the	D	plan with protocols to be followed at all levels of care, including standards for protecting health professionals and measures to prevent the spread of SARS-CoV-2 in health facilities.
Jésus Enrique Patiño- Escarcina, Maria Guadalupe Medina, [18] 2022	To analyze the normative documents produced by the federal government to combat the Covid-19 pandemic on Health Surveillance in the context of primary care.	Document review	A greater support for the implementation of actions aimed at the detection and notification of cases and intramural contacts stands out, in comparison with the active search in the community, educational actions in the territory, engagement with the community, strengthening of adherence to preventive measures, improvement of flow of information or support for community social facilities. So far, there is little production on the articulation between PHC and the city's surveillance teams. These findings reinforce the warning made by other authors about the insufficient importance attributed to PHC in the country, especially in relation to Health Surveillance. Brazil faces one of the worst managements of the health crisis, and it is urgent to strengthen surveillance actions.
Rebecka Souza Fernandes et al. [19] 2022	Understand the specificities and potential of Popular Education in Health (PEH) as a guide for actions within the scope of Primary Health Care in the face of the Covid-19 pandemic in Brazil.	Research is exploratory in nature, with a qualitative approach	The results show that there has been a strengthening of teamwork and the establishment of new partnerships, in addition, the Family Health Strategy (FHS) stands out as a powerful practice in building bonds with the community and in the territory. In addition, information and communication technologies have been recognized as important allies in this context. It is concluded that the FHS continues to be effective in the context of PHC, with horizontal dialogue and critical analysis of reality as fundamental bases of its action.
Ítalo Ricardo Santos Aleluia et al., [20] 2023	Analysis of state management of primary health care in response to the pandemic of COVID-19 in Bahia.	Case study	Institutional support from the state government to municipalities played a crucial role in defining municipal contingency plans, training teams, and preparing and disseminating technical standards. The state government's ability to act was influenced by the level of autonomy of municipalities and the availability of regional technical references. The state established institutional partnerships to interact with municipal managers, but coordination mechanisms with the federal level and with social control were not identified. This study contributes to the analysis of the role of states in the formulation and implementation of PHC actions mediated by relationships between different federative levels in public health emergency situations.

Source: authorship.

After reading and analyzing the sample content, the following categories were investigated and defined to facilitate the understanding of the subject and the synthesis of evidence found in the articles: 1) Primary Health Care and Covid-19 in Brazil; 2) Restructuring of Popular Education in Health and its focus on PHC; 3) Reorganization of service flows in the health care network; 4) Successful strategies for coping with Covid-19 in PHC at municipal, state and national levels; 5) Mental health and the Covid-19 pandemic – Coping in PHC; 6) Integrated health surveillance and APS actions in the Covid-19 pandemic.

#### 3.1 Primary Health Care and Covid-19 in Brazil

In Brazil, Primary Health Care (PHC) is the main gateway to the health system and plays a fundamental role in organizing and providing health care to the population. This care model is characterized by the continuity of care over time, by the comprehensive approach that considers the physical, psychological and social aspects of health, within the limits of the health team's activities, and by the coordination of the various actions and services necessary to deal with less frequent and more complex demands [17].

During outbreaks and epidemics, PHC offers resolute care, acts in the early identification of serious cases that require specialized attention, covers health promotion and protection, disease prevention, diagnosis, treatment, rehabilitation, harm reduction and maintenance of quality of life, providing a comprehensive approach [4]. This means that PHC is not limited to providing medical care, but also engages in health promotion, disease prevention and health education actions, aiming at the physical, mental and social well-being of the individuals and communities served [11].

Furthermore, PHC plays an important role in the early identification of suspected cases of communicable diseases, such as COVID-19, and in implementing control and prevention measures, including screening, testing, contact tracing, counseling and referral, appropriate for patients. APS also plays a key role in educating the community about preventative measures, such as social distancing, wearing masks, washing hands and seeking medical assistance in case of symptoms suggestive of COVID-19 [15].

In short, PHC in Brazil operates as a comprehensive and integrated healthcare system, which aims not only to treat illnesses, but also to promote health and well-being at all stages of life. During outbreaks and epidemics, it plays a crucial role in responding quickly and effectively to public health emergencies, ensuring equitable access to healthcare and contributing to protecting the health of the population [9].

# 3.2 Restructuring of Popular Education in Health and its focus on PHC

According to Rios et al. [8]. among the initial PHC strategies during the beginning of the pandemic, Health Education emerged as the main and most effective one to strengthen the defense against virus transmission, which can be recognized as a strategic approach with potential to prevent diseases and promote health in the population. However, this activity faces a series of challenges in PHC. especially due to professional practices traditionally focused on the technical and biological dimension, which restricts the implementation of Health Education strategies in the routine of this level of care.

In the face of the pandemic, Health Education was revitalized and established as a priority among the tasks of health promotion and prevention of COVID-19 in Health Centers. In the study by Rios et al., [8] among the various educational actions, those carried out in the waiting rooms were planned in team meetings and implemented by the nurses of the Family Health Strategy (FHS) teams together with the multidisciplinary team. A total of eight rooms were held, addressing topics such as respiratory hygiene, social distancing and mental health.

In this context, Permanent Health Education (PEH) aims to transform practices, based on critical reflection by professionals about the population's health demands, in order to seek joint solutions to the difficulties encountered. However, many professionals have the perception that it is up to educational institutions and the Unified Health System to problematize work and health organizations. with the need to recognize the implementation of PEH in the FHS, due to its numerous benefits [8].

The Ministry of Health, along with other governmental entities, initially focused on establishing a hospital frontline to manage severe Covid-19 cases, while simultaneously expanding (PHC) to address mild and moderate cases through community and territorial approaches. Within this framework, integrating various Popular Education in Health (PEH) practices and movements is crucial to strengthen collective efforts and establish new networks and partnerships within PHC. During the pandemic, PEH served as an educational tool, fostering the reconnection of individuals, groups, and

social movements to create new networks and alliances within communities. This approach emphasizes the active participation of individuals and groups in supporting PHC practices [19].

Closer interaction between health services and users leads to increased community mobilization, ultimately enhancing service quality. Recognizing the potential of PEH is vital for promoting the effectiveness of PHC teams, as it values individuals' prior knowledge and experiences, including those of users, social movements, and healthcare professionals. Additionally, the role of community health agents (CHA) and community agents for endemic diseases (CAED) in Brazilian PHC is essential for rebuilding and strengthening community relations amid the pandemic's challenges to the UHS [19].

#### 3.3 Reorganization of service flows in the health care network

In this category, the studies highlight the fundamental importance of Primary Health Care (PHC) in the current context, where its primary function is to identify cases early, offer effective solutions for mild situations and quickly and appropriately refer serious cases. In the face of a pandemic, the measures adopted do not involve the closure of units and the removal of the population, but the coordination of care and the understanding of care flows in the health network [15].

During the initial stages of the pandemic in Sobral, Ceará, Brazil, an interdisciplinary and intersectoral approach was taken to develop the "Municipal Contingency Plan for Human Infection by the New Coronavirus (COVID-19)." This plan aimed to organize the health system, including resources and professionals, to address imminent risks and public emergencies. Priorities for Primary Health Care (PHC) at Family Health Units (FHU) included virus transmission prevention, personal hygiene guidance, symptom evaluation, diagnosis, treatment initiation, and disease control support. Actions included early flu vaccination, suspected case identification, notification, household contact monitoring, and referral to specialized care [9].

For mild cases managed at FHUs, measures included symptom treatment, home isolation, and continuous monitoring (via telemedicine) until discharge, while moderate and severe cases followed a specific care pathway. Horizontal social isolation and home isolation of positive cases, along with community-focused strategies, digital technology use for information dissemination, teamwork within PHC, and strengthened intersectoral collaboration, contributed to case control, risk reduction, and improved care [9].

In a municipality in Minas Gerais, professionals' schedules were restructured to expand access to spontaneous consultations, suspending groups and blocking elective appointments. Scheduled consultations were canceled after the health team contacted the user and analyzed the demand, maintaining only routine prenatal and postpartum consultations. The teams' service flow was organized to immediately identify patients with respiratory symptoms right at the BHU reception, with a specific place to wait for the appointment and priority in care [11].

In addition, technical notes were prepared by the municipal administration to provide guidance on service flows and protocols, in addition to providing videos for training on the proper use of Personal Protective Equipment (PPE). Topics such as management, surveillance and prevention, health education, maintenance of continuous care for patients registered at the BHU, support for the most vulnerable groups, monitoring of chronic conditions, appreciation of PHC professionals and participation in Social Control were addressed [11].

In a pioneering way and anticipating most Brazilian municipalities, Diadema-SP established the New Coronavirus Contingency Committee on February 6, 2020, sixty days before the first confirmed case of Covid-19 in the city. This committee was composed of members from all services of the Health Care Network (HCN). In weekly meetings, workflows were established and agreements were reached between the different RAS bodies. Calculations were made to ensure the provision of supplies and PPE, supply contracts were reviewed and the contingency plan for hospital beds was discussed [12].

In a joint action involving the Committee, HCN equipment and private health services in the municipality, the Municipal Plan to Combat Covid-19 was launched on March 6, 2020, with guidelines aimed at the clinical management of suspected cases, surveillance and biosecurity. This

initiative demonstrated a proactive and coordinated effort to deal with the emergency situation of the pandemic [12].

The coordination of the PHC in Diadema-SP developed a technical document to guide the reorganization of the local work process, in order to meet the following attention demands: priority lines of care, such as hypertension, diabetes, overweight and obesity, maternal and child health and mental health; meeting spontaneous demands related to acute complaints or worsening of chronic diseases; suspected cases of Covid-19; and implementation of preventive mitigation actions both in health units and in the territory. This technical document provided clear guidelines to ensure an efficient and comprehensive approach to addressing the health needs of the population [12].

Updating the flows, in response to the public health emergency, was the subject of discussion among institutional supporters, taking into account the strengths and weaknesses of each BHU, in order to promote personalized deployments according to the reality of each service and territory. In addition, the reorganization of the local work process was closely monitored and followed, thus ensuring an effective implementation and adapted to the specific needs of each location [12].

The article addresses the restructuring of care flows in response to the public health emergency, discussing the customization of deployments according to the characteristics of each Basic Health Unit and territory. Measures were implemented to control patient flow, reduce crowds, and promptly identify respiratory symptomatic cases, including the suspension of elective care, immediate screening at health unit entrances, and the designation of specific rooms for isolating symptomatic patients [8].

Additionally, adjustments were made in healthcare services, such as the temporary suspension of elective consultations, maintenance of essential services like family planning and high-risk prenatal care, and adaptations in procedures, such as updating prescriptions and conducting rapid tests. These adaptations aimed to ensure care continuity, minimize contamination risks, and optimize available resources, with an emphasis on the safety of professionals and users [8].

# 3.4 Successful strategies for coping with Covid-19 in PHC at municipal, state and national levels

In the study by Rios et al. [8], Permanent Health Education, team training, the acquisition of personal protective equipment and the removal of professionals from risk groups stood out as the main guidelines. The study by Ribeiro et al. [10], reports that the Center for Strategic Operations in Public Health of Sobral (COESP-S) was created. This group includes representatives from municipal departments, both public and private, from universities, industries, third sector organizations, the health sector and public and private hospitals. This Center has played a fundamental role in facilitating the implementation of interdisciplinary actions, in addition to promoting continuous reflection on the decisions taken. It contributes to the planning of interventions and offers support to the municipality regarding scientific evidence, helping in decision-making for better management of the public health crisis.

One of the measures promoted by COESP-S was the creation of a group of health professionals designated as the Crisis Committee to Combat COVID-19. This committee is structured in the field of health and has the participation of strategic professionals within the organizational structure of the Municipal Health Department. Its primary responsibility is to manage and guide strategic measures to combat the new virus. The (re)organization of PHC services was centered on three intervention axes: the development of territorial actions and health surveillance to block and reduce the risk of epidemic expansion; the continuity of its own actions in its routine of health promotion, prevention of injuries and provision of care to the population and the sharing of care in a network [10].

In the pandemic period, telecare was one of the strategies most used by PHC health teams. For Greenhalgh, Koh and Car [14]., the smartphone is a common and reliable technology, suitable for many queries related to Covid-19. Patients who only want general information about Covid-19 should be referred to a telephone recording or online symptom checker and other virtual resources. Patients with mild symptoms and without complications, as well as those who seek the service for administrative reasons, can be consulted via telephone. In the UK, medical certificates can be downloaded from the online NHS 111 System.

However, the video call can provide additional visual information, diagnostic clues and therapeutic sensation, through the professional's visualization. Therefore, the video may be more appropriate for cases with intense symptoms, with comorbidities, social circumstances that influence the course of the disease, and people who are very anxious. Hearing impaired patients may prefer video over the telephone [14].

A strong, well-organized PHC, with qualified professionals and an adequate number, plays a crucial role in reducing the incidence of infection in the population served, which results in a direct impact on the reduction of morbidity and mortality. Through community work, PHC can act to reduce the spread of infection, monitor mild cases in home isolation, provide support to communities during social distancing, identify and address situations of individual or collective vulnerability, and, above all, ensure access to necessary health care and make appropriate referrals during the most critical phases of the epidemic [17].

By re-embracing its mission in community action, PHC has the ability to strengthen the local response, not only to reduce the spread of infection, but also to mitigate the social and economic impacts of social distancing measures. For example, through social networks and community radio stations, family health teams can provide guidance to the population on ways of contagion and inform about available telephone service channels. However, the limitations of PHC in the face of deficiencies in the COVID-19 care network include low ESF coverage, with incomplete teams, mainly doctors and CHAs, low qualification of the team, lack of coordination between the different levels of care and the lack of systemic flows in the RAS [17].

During the pandemic, the Primary Care Board (PCB) played a central role in formulating the state government project for PHC. DAB worked in collaboration with the Epidemiological Surveillance of the Bahia Health Secretariat (Sesab) and the Bahia State Council of Municipal Health Secretariats (COSEMS) to discuss and agree on state PHC proposals. Decisions were taken in spaces such as the Bipartite Interagency Commission (BIC) and the Health Emergency Operations Committee), resulting in technical documents and resolutions for the PHC [20].

However, the visibility of PHC in the discussions and resolutions of the BIC regarding the pandemic was limited, in contrast to the emphasis given to hospital care. This situation reflects the predominance of the hospital-centered model in coping with the pandemic, both in Brazil and in other international experiences. However, the proposal to make the PHC care coordinator and organizer of the HCN is a bold project that seeks a radical change in the organization of the Unified Health System (SUS) [20].

Despite the challenges faced, DAB's participation in decision-making bodies, such as the BIC, was strategic for the regulation and implementation of actions to combat the pandemic. The established work plan prioritized the regions with the highest transmission of the virus and guided the preparation of municipal contingency plans. The PHC also played a key role in monitoring and following up the cases, implementing active search strategies, using information and communication technologies and standardizing procedures [20].

Since the beginning of the pandemic, several documents have been produced to guide PHC actions. The National Contingency Plan was one of the first to be prepared, followed by specific documents on pharmaceutical assistance, recommendations for CHA, oral health strategies and individual protection measures. Ordinances related to financial incentives, reorganization of activities in PHC and assistance to vulnerable populations were also published. Guides and protocols were developed to guide prevention, control, surveillance, diagnosis and treatment of Covid-19, being updated in new versions [18].

Health surveillance in the context of PHC was addressed in 21 documents. The National Plan is the most comprehensive, while the Epidemiological Surveillance Guide is more specific about surveillance strategies. Previous documents have emphasized case detection, reporting and reporting, with a focus on epidemiological investigation and contact tracing. The participation of CHAs in surveillance activities was suggested in the Surveillance Guide, with the possibility of joining teams responsible for home visits to monitor contacts. These documents were important in providing

guidelines and guidelines for PHC professionals to face the pandemic, addressing both clinical aspects and surveillance and prevention [18].

#### 3.5 Mental health and the Covid-19 pandemic – Coping in PHC

It's crucial to highlight the identification of factors that contribute to exacerbating mental health issues during the pandemic. These factors include contracting the virus (or living with an infected individual), having a history of prior mental disorders, being elderly, facing social vulnerability, and working as a frontline health professional. Individuals with pre-existing mental disorders may experience a worsening of their condition during this period, requiring special attention due to their increased susceptibility to infection and its consequences. This heightened vulnerability may stem from underestimating infection risks, cognitive decline, lack of robust support networks, and barriers to accessing healthcare services. Consequently, having a mental illness itself hinders accessing effective COVID-19 treatment, necessitating specific approaches to ensure adequate care and support for these individuals during the pandemic [13].

While recommending and adhering to physical isolation during the pandemic is essential, it's crucial not to compromise interaction with the community and territory in which we operate, always prioritizing equity promotion. Health teams should avoid creating access barriers to other healthcare needs, whether related to physical or mental health [13].

To ensure mental health care for the community, the following actions are recommended in PHC: identifying families with pandemic-related mental illness risk factors, establishing intersectoral partnerships to address vulnerable families' needs, providing guidance to minimize the impact of confinement on mental well-being, and offering support to help individuals cope with emotional barriers related to bereavement. This approach ensures a comprehensive and empathetic response to mental health concerns, promoting the comprehensive care and support necessary for the community during these challenging times [15].

#### 3.6 Integrated health surveillance and APS actions in the Covid-19 pandemic

In the study by Prado et al. [16]. and Patiño-Escarcina and Medina [18]. the active strategy involves regular monitoring to obtain information about population health conditions and behavioral risk factors. This approach is conducted by health professionals, with or without the participation of the community, and can rely on the support of Information and Health Care Technologies (IHCT) and/or intervention mediated by communication channels.

On the other hand, passive surveillance is a system in which a health authority receives reports sent by hospitals, clinics, public health units or other sources. These reports are analyzed, along with historical, hearsay, and other data related to health events. Such surveillance can be carried out through strategies based on sentinel health facilities, cluster methods or digital surveillance, which include contact tracing and passive monitoring of social media data, with the aim of assessing disease activity. However, accuracy and uniformity in data collection are still a concern. The lack of official guidelines and inconsistencies in government statistical reports make global comparisons difficult, including in countries with significant regional disparities, such as Brazil, France and Canada [16-18].

#### IV. FINAL CONSIDERATIONS

From the analysis of the articles, it was possible to understand the vital role of PHC in addressing the Covid-19 pandemic, in which the need for investments and public policies was identified that strengthen this sector, enabling it to play a central role in responding to future health crises. In addition, it was possible to extract valuable lessons for strengthening health systems to face present and future challenges.

It was found that the PHC acts in the control and mitigation of the damage caused by the Covid-19 pandemic, as long as it is properly equipped and integrated. Right now, the best control strategy for Covid-19 is prevention, and there's no better place to implement it than in PHC. Therefore, it is crucial to guarantee its proper functioning, especially valuing the Family Health Strategy, which involves strengthening this level of care and ensuring adequate working and assistance conditions. It

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is important to emphasize that, among these conditions, the adequate and sufficient supply of PPE is essential for professionals to be able to act safely and protect their patients.

Finally, it was observed that by integrating PHC with other levels of care in a longitudinal and networked care approach, the country and the population will be better prepared to deal with the negative impacts resulting from the ongoing epidemic. In addition, strengthening prevention practices and social isolation measures through health education is a direct responsibility of professionals working in PHC.

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