

Care continuity and actions in the territory during COVID-19 in São Paulo municipalities, Brazil: barriers and facilitators

Maria Izabel Sanches Costa (<https://orcid.org/0000-0002-9117-5089>)¹
Tereza Etsuko da Costa Rosa (<http://orcid.org/0000-0001-9285-0472>)¹
Fabiana Santos Lucena (<https://orcid.org/0000-0002-3928-1300>)¹
Michelle Fernandez (<https://orcid.org/0000-0003-0224-0991>)²
Ligia Schiavon Duarte (<https://orcid.org/0000-0001-5822-9033>)¹
Cláudia Malinverni (<https://orcid.org/0000-0003-2218-283X>)¹
Luzia Aparecida de Albuquerque Dantas (<https://orcid.org/0009-0008-9148-9177>)³

Abstract *The discontinuity of care and actions in the territory in primary health care during pandemic periods can escalate acute and chronic complications and mortality. In this sense, this article aims to present the barriers and facilitators for care continuity and actions in the territory during the COVID-19 pandemic in São Paulo municipalities. This qualitative analysis was conducted through 37 interviews with health managers and professionals from six municipalities. Two facilitators were identified: the availability of a specific service for attending COVID-19-related respiratory demands and the integration of the health team professionals before the pandemic. Two barriers were identified: a fragile primary healthcare structure before the pandemic and the lack of alignment of health professionals' actions with the community and territorial care model. We concluded that municipalities with a structured PHC system before the pandemic faced fewer hardships in preserving care continuity and actions in the territory.*

Key words *Primary Health Care, Care continuity, Actions in the territory, COVID-19, State capacity*

¹ Programa de Pós-Graduação em Saúde Coletiva, Instituto de Saúde, Secretaria de Estado da Saúde de São Paulo. R. Santo Antônio 590, Bela Vista. 01314-000 São Paulo SP Brasil. belcost@gmail.com

² Programa de Pós-Graduação em Ciência Política, Instituto de Ciência Política, Universidade de Brasília. Brasília DF Brasil.

³ Pesquisadora independente. São Paulo SP Brasil.

Introduction

In well-structured and organized systems, Primary Health Care (PHC) is preferably the first point of access for patients to health services, which is expected to also occur during a pandemic^{1,2}. In this sense, PHC historically plays a vital role in health crises. In different epidemics, such as Dengue, Zika, and Ebola, this care level successfully prevented, diagnosed, treated, and rehabilitated patients^{3,4}.

PHC refers to comprehensive individual and community healthcare practices through health promotion, disease prevention, diagnosis, treatment, and rehabilitation actions⁵. This care level has seven principal attributes: entry point (first contact service), longitudinality, comprehensiveness, care coordination, community orientation, family centrality, and cultural competence⁶.

Longitudinality (care continuity) has been considered a central and exclusive PHC characteristic^{6,7} among these attributes. Although these terms are often used with similar meanings, some authors understand them with some specificities. This article works with the care continuity concept related to a given health problem and a set of care sessions, which may or may not be performed by the same professional, mediated by the transfer of information potentially provided by records that will support the user's treatment. In this case, there is no concern about establishing a therapeutic relationship over time, as proposed by the concept of longitudinality⁷.

While PHC is crucial in effectively managing a response to health emergencies, it also plays a central role in care continuity during a health crisis⁸. The population that needs to access a health service for other reasons unrelated to the pandemic should have a receptive place in PHC^{2,9} since some continued care demands cannot be postponed during these events, such as care for chronic patients, prenatal care, and childcare. Discontinuing this care can exacerbate acute and chronic complications and lead to higher mortality and health system overload due to the accumulation of postponed care because of the health crisis¹⁰.

A complementary process to care continuity in PHC is the actions in the territory related to the community guidance attribute⁵. Territorialization is conducted to identify the clients who will be under the care of a specific health

team¹¹ to formulate a plan that aims at continuously monitoring the population. However, understanding the territory exceeds the idea of physical space defined only by administrative agreement and allocation of the population. It also encompasses the economic, political, cultural, and epidemiological aspects that traverse the health-disease process¹². The territorial space and its social and health characteristics are relevant instruments to be considered in the work process of health professionals. As a result, the territory should be taken both as a map for the service's health planning and as a space for developing extramural actions, such as home visits, search for partners, intersectoral articulation, implementing the School Health Program and promoting community mobilization and participation¹³.

Thus, actions in the territory recognize the health needs of a given population through epidemiological analysis combined with territorialization¹⁴. This factor gives PHC the potential to address public health emergencies¹⁵. Due to the bond established with the local community, PHC teams hold a strategic position that allows performing an early diagnosis of those infected, treating mild cases, collaborating with epidemiological surveillance actions, and implementing prevention and health education measures during a health crisis^{16,17}. Also, implementing actions in the territory during the health crisis enhances care continuity in PHC and identifies vulnerabilities through community guidance¹⁸.

The consolidation of the care continuity process supported by a territorialized process and action planning based on an epidemiological and social diagnosis that constitutes a particular space has been a challenge since the establishment of the Unified Health System (SUS). This issue could be compounded in a pandemic context.

This article aims to analyze the barriers and facilitators of care continuity and actions in the territory during the COVID-19 pandemic in São Paulo state municipalities. We start from two initial assumptions: the first, municipalities that already had an adequate PHC structure before the COVID-19 pandemic – sufficient human resources, infrastructure, and management capacity – could preserve this continuity; the second, only municipalities that had already adhered to the Family Health Strategy (ESF) care model before the pandemic managed to perform territorial and community-based actions.

Methods

Research design and data collection

This qualitative study was based on semi-structured interviews held in six case-municipalities^{18,19}. The strategy of multiple cases with a single level of analysis was adopted due to its applicability for performing in-depth analysis and investigating events characterized by their inseparability from the context¹⁹.

We employed data from the first stage of a quantitative survey to choose the case municipalities based on the selection of sensitive questions from the questionnaire applied to managers of 253 municipalities. These sensitive questions aimed to qualify the characteristics favorable or unfavorable to PHC performance during the pandemic.

The strategic dimensions for good PHC performance in actions related to COVID-19 surveillance and containment were considered in the analysis, preserving the bond and comprehensive care to the population^{20,21}, favoring the following features:

I) *Care model* (existing predictors prior to the pandemic): (1) available PHC services and (2) availability/non-availability of ESF teams;

II) *Actions in the territory to face the pandemic* (tracer events of the intentionality of promoting territorialization during the health crisis): (1) availability of territory-oriented COVID centers, (2) active search for community actions for partnerships with the Municipal Health Secretariat, (3) continuity of the work of Community Health Workers (ACS) during the pandemic, (4) continuity of home visits, (5) educational actions in the territory, (6) identification of groups in greater social vulnerability, (7) articulation with epidemiological surveillance, (8) strategies for monitoring confirmed cases, (9) social support actions, (10) psychological support actions, (11) adaptations for keeping group activities and health education and (12) monitoring contacts of positive cases;

III) *Care continuity in PHC during the pandemic* (tracer events of the intentionality of promoting comprehensiveness during the crisis): (1) investments and technological acquisitions, (2) active search for discharged patients, (3) continuity of priority PHC activities – team meetings, reception, activities of professionals from the Family Health Support Center (NASF), dentistry appointments, Papanicolaou and breast cancer screening, insertion of IUDs and other family

planning actions, care for clients with chronic diseases –, (4) care for cases of mild/moderate post-COVID sequelae, (5) care continuity for priority groups and (6) construction/innovations/creative adaptations to keep care for the population regarding prevention and promotion.

Regarding the care model dimension, a group of municipalities with “structured ESF” (33 municipalities) and another without “ESF structure” (21 municipalities) were considered for selection. Considering that the population size influences the ESF coverage, more expressive in small municipalities, the groups were divided into “50 thousand and over” and “below 50 thousand” inhabitants. The objective questions that represented and considered the dimensions “actions in the territory to face the pandemic” and “care continuity during the pandemic” were considered scoring answers that indicated good performance in the selected actions. The four groups of municipalities were classified by the respective population sizes and the care model with PHC structure, from highest to lowest emphasis on valuing actions in the territory and care continuity at this care level, selecting municipalities ranked at the top and bottom of each group. The top-ranking municipalities were selected in the model without an ESF structure. Thus, the characteristics of the six case-municipalities of interest were as follows:

I) Municipalities with less than 50,000 inhabitants, well-structured ESF with an emphasis on valuing actions in the territory and care continuity in PHC; II) Municipalities with more than 50,000 inhabitants, well-structured ESF, and emphasis on valuing actions in the territory and care continuity in PHC; III) Municipalities with under 50 thousand inhabitants, well-structured ESF, and without emphasis on valuing actions in the territory and care continuity in PHC; IV) Municipalities with more than 50,000 inhabitants, well-structured ESF, and without emphasis on valuing actions in the territory and care continuity in PHC; V) Municipalities with under 50 thousand inhabitants, without ESF structure, and with emphasis on valuing actions in the territory and care continuity in PHC; VI) Municipalities with more than 50,000 inhabitants, without an ESF structure, and with an emphasis on valuing actions in the territory and care continuity in PHC.

Figure 1 shows the selection process of municipalities and their respective characteristics.

One PHC unit was selected in each type of municipality, based on the following criterion: service with senior professionals in the municipi-

pality and, thus, who were already working before the COVID-19 pandemic. The municipal manager provided this information.

Managers (secretary, primary care coordinators, and service manager) and health professionals (doctors, nurses, ACS, and NASF professionals) were interviewed in each municipality. Thus, the *corpus* to which the qualitative analysis presented here refers consisted of 37 interviews conducted from a semi-structured questionnaire.

Data analysis

This work adopted thematic analysis¹⁸ to investigate reality from the perspective of PHC social agents who worked during the pandemic²²⁻²⁴. In this sense, we aimed to describe, interpret, and identify patterns^{23,25} from the data collected during the interviews, which were recorded and transcribed.

Data were analyzed in two steps. Care continuity activities and actions in the territory before the health crisis were mapped in the first step. This stage aimed to identify the changes produced as a result of the pandemic. In the second stage, the following categories were reached with the Maxqda software for stratification and grouping: 1) facilitators of care continuity and actions in the territory during the COVID-19 pandemic; 2) barriers to care continuity and actions in the territory during the COVID-19 pandemic.

The interview roadmap could have given an immediate direction to exploring the barriers and facilitators of care continuity and actions in the territory. Thus, our reflections based on empirical data, fine-tuning, and resignified with and by the theoretical framework on PHC triggered the constructs we call care continuity and actions in the territory facilitators and barriers. Constructs are analytical resources that assist in understanding the dynamics of the functioning of a health device and its relationship or adherence with and to the framework of rules for implementing public policies.

Both steps were completed following the ethical recommendations for human research (Resolutions No. 466/2012, No. 510/2016, and No. 580/2018). The Research Ethics Committee of the Health Institute approved the research.

Results

The data show that all municipalities, to a greater or lesser extent and regardless of the care model and size, provided care for walk-in demand and referrals to specialties, which can be classified as care continuity before the COVID-19 pandemic. Only one small municipality with the ESF model mentioned matrix support.

Concerning actions in the territory, regardless of size and care model, all stated that they

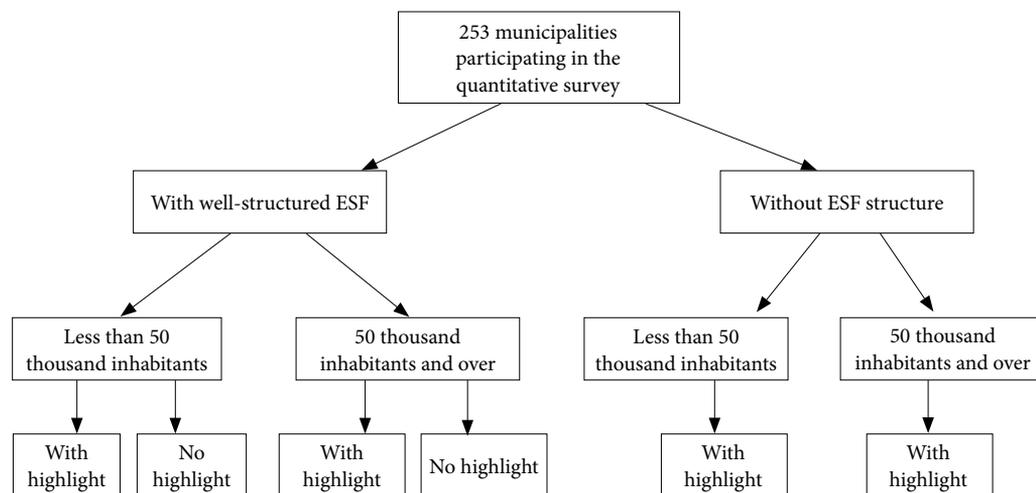


Figure 1. Flowchart of the groups according to the characteristics of the municipalities for the selection of cases for the qualitative study.

performed home visits (HV) before the pandemic. Those without an ESF performed HVs only for sporadic and severe cases, meaning it is not a routine practice at the unit. Only three municipalities with ESF performed activities such as active search and articulations with other sectors of the territory, one of which had under 50 thousand inhabitants and two with more.

Care continuity actions shown by the analyzed municipalities were related to the care of people living with chronic diseases, pregnant women, and renewal of medical prescriptions, which is a restricted service due to the context. Except for pregnant women, in which prenatal care continued to be held in person, care for people living with chronic diseases, in almost all municipalities, regardless of size and care model, mainly occurred via telecare.

Only three municipalities – two using the ESF model and one not, and one small and two large – reported meeting walk-in demand in person when we can detect health conditions that may need monitoring. The same previous municipalities managed to adapt part of the service to all demands in the face-to-face format. In Municipality 5, which adopted the model without ESF and is large, a doctor was assigned to make telephone contacts, mainly for cardiovascular risk patients, selecting those with complaints for face-to-face appointments, which was called by the team an essential routine.

Only four of the six municipalities interviewed had some action in the territory, two with the model with ESF and two without ESF. The municipalities that managed to conduct territorial actions reported that the main activity was home visits for patients with severe needs, bedridden, limited mobility, and other exceptional cases. Municipality 6, small and without an ESF model, identified critically ill patients through QR Code tracking. Municipality 5, which is large and in the model without ESF, through phone calls by a doctor who screened patients with complaints, indicated whether the appointment would be face-to-face at the unit or a home visit, depending on the case. In Municipality 1, which is large and with the ESF model, the NASF team performed group appointments via telecare and home visits to elderly clients.

By comparing the before and during the pandemic, the municipalities of the ESF model that already performed actions in the territory beyond home visits, active search, and articulations with other sectors tended to maintain such activities during the pandemic. Regarding munic-

ipalities without ESF, both were already visiting and aimed to increase such activities during the pandemic.

Barriers and Facilitators

Chart 1 briefly presents the main findings of this study.

The analysis of the interviews identified two barriers to care continuity and care in the territory: 1) weak PHC structure according to the general principles of the National Primary Care Policy (sufficient human resources, adequate physical structure, municipal managers' management capacity); and 2) lack alignment of health professionals' actions with the community and territorial care model.

The first factor can be evidenced by identifying that the municipalities that struggled the most to preserve care continuity and failed to perform actions in the territory had a weak PHC structure and no professionals' actions aligned with the community and territorial service model before the COVID-19 pandemic. Regarding the structure, the most evident fragility was that of human resources. The lack of doctors and nurses was the most mentioned:

Two of our teams were registered with PHC, and no doctor was interested in coming here. We registered, and they were qualified, but the vacancies still needed to be filled. So, it is not easy (Municipality 3 - Respondent 1).

When I arrived in 2018, we spent a year at the unit without a doctor in the family health strategy. They sent a doctor to provide specific care, which does not represent the Family Health Strategy. Hence, a doctor from Mais Médicos was contracted for two years, and the contract has expired. We have returned to the same situation (Municipality 3 - Respondent 2).

The lack of doctors overloads nurses, who often accumulate the management and care function:

Some units have a manager, and some do not. [...] So the nurse has to see the matter of a lamp that burned, attend to the patient, perform prevention, and check on the availability of a driver [...] (Municipality 5 - Respondent 1).

Dependence on federal programs for hiring and retaining professionals is evident. Although less mentioned, the lack of physical infrastructure was also evidenced in these municipalities:

So today, as much as we know that we need to increase the number of teams, I still can't because the municipality does not have an adequate unit infrastructure (Municipality 3 - Respondent 1).

Chart 1. Barriers and facilitators of continuity of care and actions in the territory.

Size	Municipality	Care Model	Facilitators	Barriers
50 thousand and over	Municipality 1	ESF	1. Availability of a specific service to meet COVID-19-related respiratory demands 2. Integration of health team professionals before the pandemic	
	Municipality 2	ESF		1. Weak primary healthcare structure before the pandemic 2. Health professionals' actions lack alignment with the community and territorial care model
Below 50 thousand	Municipality 3	ESF		1. Weak primary healthcare structure before the pandemic 2. Health professionals' actions lack alignment with the community and territorial care model
	Municipality 4	ESF	2. Integration of health team professionals before the pandemic	1. Weak primary healthcare structure before the pandemic
50 thousand and over	Municipality 5	No ESF	1. Availability of a specific service to meet COVID-19-related respiratory demands 2. Integration of health team professionals before the pandemic	
Below 50 thousand	Municipality 6	No ESF	1. Availability of a specific service to meet COVID-19-related respiratory demands 2. Integration of health team professionals before the pandemic	

Source: Authors.

The municipality's management capacity is another item analyzed in the PHC structure category. In this regard, it was evident that the understanding and role of PHC in the health services system varies, and the presence and support of other professionals are decisive for operating primary care according to its foundations. In contrast, the municipalities with the slightest difficulty preserving care continuity and performing actions in the territory had no physical and human resources structure weaknesses.

Again, regarding the management capacity of the municipality with less difficulty, the secretaries with fewer public health experience were backed by other professionals with PHC experience and appreciation, whether in the role of primary care coordinators, PHC unit managers,

or advice from mental health coordinators at the state level.

Regarding the lack of alignment of the actions of managers and frontline professionals with the community and territorial service model, the teams needed to be aligned. They showed that they worked with processes aimed at "treat and street", using the territory only for administrative purposes focused on the management aspect of health services. This data was identified in two municipalities that adopted the ESF care model:

We have a problem with planning the family health program because we do not have a PHC protocol here [...] (Municipality 2 - Respondent 1).

The ACS no longer lives in the neighborhood. He can live in one neighborhood and work in an-

other unit. So, he no longer has the bond he had before. I noticed it had significantly changed (Municipality 2 - Respondent 3).

On the other hand, this alignment was evident in teams sensitive to health determinants and offered actions linked to health promotion. Thus, the respondents showed that they understand the importance of valuing the knowledge of the territory, the bond with families, health promotion and prevention activities, such as school health programs and thematic groups, and the matrix support with NASF and CAPS:

We have many schools in our area. So, we define strategies and goals for the year together with the PSE [...] We also have a shelter, "Nosso Lar", for children, which is also in our coverage area (Municipality 1 - Respondent 4).

Actions and workshops emerged. We had a workshop, which, at the time, the psychologist did together with the speech therapist for his mental health group. He started making video calls and developed informative videos to send via WhatsApp (Municipality 1 - Respondent 5).

The pandemic came and closed "Centro Dia". So, what did "Centro Dia" start to do? Visiting these older adults once a week, with some actions. Then, the NASF team tagged along, monitoring these seniors not to lose that contact so much (Municipality 1 - Respondent 3).

The municipality has a shelter [...] So, we go there, perform surveillance, and provide health guidance. We went there three times to collect PCR from all those sheltered during the pandemic and to vaccinate them against COVID-19 (Municipality 5 - Respondent 5).

Two facilitators were identified: 1) Availability of a specific service to meet severe COVID-19-related respiratory demands; 2) Integration of health team professionals before the pandemic. While not a determining variable, the availability of a specific service to meet respiratory demands related to the severe form of the disease avoided PHC overloading, which occurred in only one municipality that needed a specific service's support but preserved part of care continuity and actions in the territory. However, it struggled with the physical space and the team, as both were divided.

The facilitator categorized as "integration of health team professionals" was irrelevant to continuity since all municipalities, regardless of the care model adopted, managed to keep the actions slightly, with varying degrees. However, integration between professionals overly influences the team's ability to effect territorial actions. Thus,

the disintegration of the teams can be attributed to PHC's structural deficiencies, and the work processes not aligned with the actions in the territory:

Of health workers, these people distanced themselves a little. I am still determining exactly what they were doing. I believe - I'm not sure - they had the contacts via telephone (Municipality 3 - Respondent 4).

We make weekly meetings every Friday [...] where we set goals [...], see what was not achieved, and rework the strategies, always team-thinking because the team has been the same for six years. So, it gets easier [...] (Municipality 1 - Respondent 1).

We have a NASF team that will evaluate what may be happening and social workers. We always work on this multidisciplinary team: ACS, nurse, counter staff, and doctor. Our team only works together. We sit and see the best opportunity for our coverage area in all meetings (Municipality 1 - Respondent 5).

The team meets to see more priority cases. The ACS give me something they see differently: a family that needs priority and is vulnerable or a visit. We have several cases here and get it right (Municipality 4 - Respondent 3).

Discussion

This article starts from the understanding that the care model promotes the logic or rationality of health practices, articulating technical and scientific knowledge for a given organization of activities developed for the care of individuals and groups^{26,27}. The municipality with an ESF would indicate that political-institutional and administrative changes have occurred in municipal health management for implementing such a care model. However, based on the present study, we could perceive that the health actions in the PHC are adjusted to the local reality even with an ESF in the municipality. This would explain the great diversity of conduction and implementation of actions in the municipalities, even in a PHC model defined and guaranteed by specific guidelines and legislation²⁸.

Such evidence shows the heterogeneous weaknesses of the municipal state capacity²⁴, understood as the State's ability to implant public policies and their objectives²⁹⁻³¹ for implementing health policies. In fact, with the managers' great enthusiasm vis-à-vis the program, studies have shown substantial advances in consolidating the

implementation of the ESF in the municipalities. However, there are still significant challenges to be overcome. The main reasons for the lack of compliance and inefficiency of the strategy are associated with inadequate and limited financial investment and unsatisfactory technical qualification of managers and teams¹⁰.

The data reveal that Municipalities 2 and 3 of the ESF model already struggled to preserve the minimum structure before the COVID-19 pandemic, both physical and human resources. Both managed to secure care continuity only for people living with chronic diseases. Care was even more restricted in Municipality 3 and was continued only for uncontrolled chronic conditions. It is a small municipality, a feature commonly associated with inefficiency or low PHC performance, justified, above all, by the economy of scale and complications for retaining health professionals and the consequent turnover in health teams²⁸.

If structural weakness was already a variable found in these municipal health systems, the arrival of the pandemic brought it to the fore and exacerbated it. This finding corroborates the discussion about the effects of implementing decentralization in the context of municipal heterogeneity^{29,30,32}. Economic and administrative inequality between municipalities generated difficulties in implementing decentralized public policies, including health policy. This difference reveals varying organizational conditions and capacities, generally scarcer in locations with up to 50 thousand inhabitants³³. These municipalities comprise the segment most dependent on inter-governmental transfers and with the least state capacity, as with Municipality 3.

On the other hand, Municipality 4, which is small, needed to improve in preserving care continuity during the pandemic. With structural weaknesses before the pandemic, it received support from the state sphere in organizing PHC and received doctors through a federal program. Thus, comparing two small municipalities (Municipalities 3 and 4) highlights the relevance of supporting municipalities in developing state capacities in a crisis. However, transfers of resources from other government spheres depend on the municipality's ability to seek programs, which can increase the number of health procedures and actions offered, affecting PHC performance.

Regarding actions in the territory, the data reveal that they occurred in municipalities that adopted the ESF model and those that did not. The identification of actions in the territory in Municipalities 5 and 6, both from the mod-

el without ESF, showed that the model adopted could be more decisive for the functioning of this attribute in a crisis. Most municipalities received additional government funds to guarantee health services for NCDs¹⁰. In this sense, we should consider whether the active search for patients with chronic diseases was motivated more by this financial incentive than by planning and organization inherent to a work process. Furthermore, we noticed that the unit manager and frontline professionals adopting work processes more aligned with the ESF fundamentals is crucial for the continuity of actions in the territory. In these cases, the most influencing variables were the alignment of professionals with the community and territorial care model and their integration into the health team. Both variables are decisive in structuring the work processes developed by teams. This finding aligns with the literature that debates the effects of autonomy and discretion of frontline professionals in implementing policies³⁴⁻³⁶.

Several elements operate in the daily implementation process and interaction between frontline professionals and clients besides the official ones, as expected by the policy's rules and management³⁴. When interacting with clients, professionals coordinate their values and perceptions of the world with other stakeholders involved. As a result, they respond as best they can to the pressures and demands from the clients³⁷. In other words, the actions of frontline professionals overly impact policy change³⁸. This mechanism was evident in non-ESF municipalities that implemented actions linked to this model.

Furthermore, from 2006 to 2017, with the first two versions of the PNAB, the government strongly encouraged the implementation of the ESF model. Besides the movement to expand this strategy, it emphasized the training of professionals to prioritize and value actions and services that transcend medical care and recognize the needs of the population and its territory. Such training and previous experiences within the ESF model³⁹ may be interfering with the current performance of health professionals and managers, even in other PHC service organization types.

The relevance of the autonomy of frontline professionals³⁴ was also evident in the study. Two municipalities mentioned the autonomy of health units and their workers to adapt the work process during the pandemic. In Municipality 1, with a strong team interaction, structured territorial processes, and a link between professionals and the community, the team decided to adapt to

preserve care continuity and actions in the territory. On the other hand, in Municipality 3, with very low population size, structural weaknesses, and the lack of structured territorial processes, the team paralyzed actions in the territory and sustained care continuity only for people with decompensated chronic diseases and pregnant women.

Municipality 5 highlighted the importance of the manager's state capacity for innovation. This municipality did not adhere to the ESF model and needed an ACS professional to help with territorial tracking. By creating a QR Code to track infected people and possible contacts, the manager implemented a low-cost territorial monitoring network with high reach among residents, which was also maintained and adapted as a public health management tool in the post-pandemic context. Such data corroborates the literature and reinforces the importance of the continuous capacity for innovation in the formulation and implementation of public policies and health practices in the SUS⁴⁰.

Finally, it is essential to highlight that the data analyzed were collected in October 2022, 31 months after the onset of the pandemic. Considering the complexity of the recent and long-lasting health crisis in its four phases, containment, mitigation, suppression, and recovery⁴¹, we can state that the study was located in its last phase.

In this sense, although the study sought to understand the pandemic as a whole, it can be stated that the respondents tended to choose one of the phases, mainly mitigation or suppression of the pandemic, about which they reported the occurrences, whether on decisions made or actions undertaken during the pandemic. This means that the reports collected about care continuity and actions in the territory by PHC services in São Paulo's municipalities would be restricted to a localized temporal space of the pandemic period. In other words, the results presented here do not concern the pandemic's extent and diversity of specific contexts and needs of each phase.

Final considerations

This article identified that both barriers and facilitators for care continuity and actions in the territory during the COVID-19 pandemic were associated with the available structure and work processes that predated the pandemic contexts. In other words, the municipalities that already

had a more structured PHC before the health crisis struggled less in keeping care continuity.

The municipalities with more significant structural weakness preserved care continuity, focusing on people with chronic diseases, pregnant women, and children, and could not offer other types of care. We noted that using the ESF or non-ESF care model did not influence care continuity since all municipalities managed to keep it regardless of the model. Observing the actions in the territory, we identified that all municipalities of the non-ESF model surveyed conducted them. However, not all municipalities of the ESF model could perform them.

This study presented the skills of managers and frontline health professionals when identifying the barriers and facilitators in this performance. These must be expressed, more or less clearly, in the different dimensions of the challenge of keeping a PHC functioning in a health crisis or not.

We can point out the municipalities with less than 10 thousand inhabitants whose most significant challenge is to depend entirely on transferring resources from other government spheres for organizing and maintaining PHC. Additionally, even federal resource access programs have benefited the municipalities with the greatest resources²⁹. This dual unfavorable condition is reflected in the high percentage of inefficiency in municipalities with very low population sizes in studies evaluating PHC performance nationwide²⁸.

In turn, small and medium-sized municipalities, represented in most cases in the present study, have a higher proportion of efficient municipalities as their size increases due to characteristics specific to the organization of PHC health services. However, efficiency is generally associated with producing health actions, which are not necessarily reflected in efficient results²⁸. From this perspective, our study is consistent with the literature and witnessed the specific actions indicating care continuity and territorialization. However, other studies are necessary to show the production of efficient results, positively affecting the population through the production of such health actions.

Finally, in the face of other possible health crises, the importance of more significant investment in PHC structures became clear, mainly in qualifying management and ensuring sufficiently prepared and protected health professionals working on the frontline.

Collaborations

MIS Costa, TEC Rosa, FS Lucena, and M Fernandez contributed to the article's study design, objective, analysis, discussion, and drafting. LS Duarte and C Malinverni contributed to the design of the study and development of data collection instruments. LAA Dantas contributed to collecting and organizing data.

Funding

This article is nested in the research "Primary Health Care Policy in the Pandemic Context in the São Paulo Municipalities", conducted by the Health Institute - SES/SP, with funding from the Fundo Especial de Saúde para Imunização em Massa e Controle de Doenças (FESIMA).

References

1. Ang KT, Rohani I, Look CH. Role of primary care providers in dengue prevention and control in the community. *Med Jour of Malaysia* 2010; 65(1):58-62.
2. Wynn A, Moore KM. Integration of primary health care and public health during a public health emergency. *Am J Public Health* 2012; 102 (11):9-12.
3. Boyce MR, Katz R. Community health workers and pandemic preparedness: Current and prospective roles. *Front Public Heal* 2019; 7:62.
4. Miller NP, Milsom P, Johnson G, Bedford J, Kapeu AS, Diallo AO, Hassen K, Rafique N, Islam K, Camara R, Kandeh J. Community health workers during the Ebola outbreak in Guinea, Liberia, and Sierra Leone. *J Global Health* 2018; 8(2):020601.
5. Giovanella L, Mendonça MHM. Atenção primária à saúde. In: Giovanella L, Escorel S, Lobato LVC, Noronha JC, Carvalho AI, organizadores. *Políticas e sistema de saúde no Brasil*. Rio de Janeiro: Fiocruz, Cebes; 2012. p. 493-545.
6. Starfield B. *Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia*. Brasília: Unesco/MS; 2002.
7. Cunha E, Giovanella L. Longitudinalidade/continuidade do cuidado: identificando dimensões e variáveis para a avaliação da Atenção Primária no contexto do sistema público de saúde brasileiro. *Cien Saude Colet* 2011; 16(Supl. 1):1029-1042.
8. Fernandez M, Carvalho W, Borges V, Klitzke D, Tasca R. A Atenção Primária à Saúde e o enfrentamento à pandemia da COVID-19: um mapeamento das experiências brasileiras por meio da Iniciativa APS Forte. *APS Rev* 2021;3(3):224-234.
9. Redwood-Campbell L, Abrahams J. Primary health care and disasters - The current state of the literature: What we know, gaps and next steps. *Prehospital Disaster Med* 2011; 26 (3):184-191.
10. Duarte LS, Shirassu MM, Atobe JH, Moraes MA, Bernal RTI. Continuidade da atenção às doenças crônicas no estado de São Paulo durante a pandemia de COVID-19. *Saude Debate* 2021; 45(n. esp. 2):68-81.
11. Caires ES, Santos Júnior PJ. Territorialização em saúde: uma reflexão acerca de sua importância na atenção primária. *REAS* 2017; 9 (1):1174-1177.
12. Mendes EV. *Distrito sanitário: o processo social de mudança das práticas sanitárias do Sistema Único de Saúde*. São Paulo, Rio de Janeiro: Hucitec, Abrasco; 1995.
13. Brasil. Ministério da Saúde (MS). Portaria nº 2.436, de 21 de setembro de 2017. Aprova a política nacional de atenção básica, estabelecendo a revisão de diretrizes para a organização da atenção básica, no âmbito do sistema único de saúde (SUS). *Diário Oficial da União* 2017; 22 set.
14. Faria RM. A territorialização da atenção primária à saúde no sistema único de saúde e a construção de uma perspectiva de adequação dos serviços. *Hygeia* 2013; 9(16):131-147.
15. Shi L, Starfield B, Xu J. Validating the adult primary care assessment tool. *J Fam Pract* 2001; 50(2):161-175.
16. Hogg W, Huston P, Martin C, Soto E. Enhancing public health response to respiratory epidemics. *Canadian Family Physician* 2006; 52(10):1254-1260.
17. Fernandez M, Lotta G, Corrêa M. Desafios para a Atenção Primária à Saúde no Brasil: uma análise do trabalho das agentes comunitárias de saúde durante a pandemia de COVID-19. *Trab Educ Saude* 2021; 19:e00321153.
18. Minayo MCS. *O Desafio do conhecimento, pesquisa qualitativa em saúde*. São Paulo, Rio de Janeiro: Hucitec, ABRASCO; 1992.
19. Champagne F, Contandriopoulos A-P, Brousselle A, Hartz Z, Denis J-L. A avaliação no campo da saúde: conceitos e métodos. In: Brousselle A, Champagne F, Contandriopoulos A-P, Hartz Z, organizadores. *Avaliação: conceitos e métodos*. Rio de Janeiro: Fiocruz; 2011. p. 19-40.
20. Daumas RP, Silva GA, Tasca R, Leite IC, Brasil P, Greco DB, Graboys V, Campos GWS. O papel da atenção primária na rede de atenção à saúde no Brasil: limites e possibilidades no enfrentamento da COVID-19. *Cad Saude Publica* 2020; 36(6):e00104120.
21. Engström J, Jafarzadegan K, Moradkhani H. Correction: Engström, J., et al. Drought Vulnerability in the United States: An Integrated Assessment. *Water* 2020, 12, 2033. *Water* 2020; 12(9):2448.
22. Godoy AS, Brunstein J, Brito EPZ, Arruda Filho EJM. *Análise de dados qualitativos em pesquisa: múltiplos usos em Administração*. 1ª ed. São Paulo: Editora FGV; 2020.
23. Minayo MCS. Análise qualitativa: teoria, passos e fidedignidade. *Cien Saude Colet* 2012; 17(3):621-626.
24. Bryman A. *Social research methods*. 3ª ed. London: Oxford University Press; 2016.
25. Williams C. Research methods. *J Business Economic Res* 2011; 5(3):65.
26. Medina MG, Giovanella L, Bousquat A, Mendonça MHM, Aquino R. Atenção primária à saúde em tempos de COVID-19: o que fazer? *Cad Saude Publica* 2020; 36(8):e00149720.
27. Morosini MV, Fonseca AF. Os agentes comunitários na Atenção Primária à Saúde no Brasil: inventário de conquistas e desafios. *Saude Debate* 2018; 42(n. esp. 1):261-274.
28. Miclos PV, Calvo MCM, Colussi CF. Avaliação do desempenho das ações e resultados em saúde da atenção básica. *Rev Saude Publica* 2017; 51:86.
29. Grin EJ, Abrucio FL. O elo perdido da descentralização no Brasil: a promoção das capacidades estatais municipais pelo governo federal. *Rev Sociol Politica* 2021; 29(77):e002.
30. Skocpol T. Bringing the State Back In: Strategies for Analysis in Current Research. In Evans PB, Rueschmeyer D, Skocpol T. *Bringing the State Back In*. Cambridge: Cambridge University Press; 1985.
31. Evans PB. *Embedded autonomy: states and industrial transformation*. Princeton: Princeton University Press; 1995.
32. Cingolani L. *The state of state capacity: a review of concepts, evidence and measures*. Working Paper, n. 53. UNU-Merit: Maastricht; 2013.
33. Arretche MTS. Políticas sociais no Brasil: descentralização em um Estado federativo. *Rev Bras Ci Soc* 1999; 14(40):111-141.

34. Lotta G, Costa MIS. Uso de categorizações políticas e sociais na implementação de políticas: contribuições teóricas e analíticas. *Rev Sociol Polit* 2020; 28(76):e004.
35. Lipsky M. *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services Expanded*. New York: Russell Sage Foundation; 2010.
36. Fernandez M, Guimarães NC. Caminhos teórico-metodológicos para a análise da burocracia de nível de rua. *Rev Bras Cien Pol* 2020; 32:283-322.
37. Zacka B. *When the State Meets the Street: Public Service and Moral Agency*. Cambridge: Harvard University Press, 2017.
38. Fernandez M, Lotta G. How community health workers are facing COVID-19 pandemic in Brazil: personal feelings, access to resources and working process. *Arch Fam Med Gen Pract* 2020; 5:115-122.
39. Brasil. Ministério da Saúde (MS). *Política Nacional de Educação Permanente em Saúde. Série B. Textos Básicos de Saúde. Série Pactos pela Saúde 2006, v 9*. Brasília: MS; 2009.
40. Ranzi DVM, Nachif MCA, Soranz DR, Marcheti PM, Santos MLMD, Carli AD. Laboratório de inovação na Atenção Primária à Saúde: implementação e desdobramentos. *Cien Saude Colet* 2021; 26(6):1999-2011.
41. Werneck GL, Carvalho MS. A pandemia de COVID-19 no Brasil: crônica de uma crise sanitária anunciada. *Cad Saude Publica* 2020; 36(5):e00068820.

Article submitted 30/04/2023

Approved 28/08/2023

Final version submitted 30/08/2023

Chief editors: Romeu Gomes, Antônio Augusto Moura da Silva