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ORIGINAL ARTICLE

Accessibility to Primary Health Care services in rural municipalities of Brazil

Acessibilidade aos serviços de Atenção Primária à Saúde em municípios rurais do Brasil

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ABSTRACT This study aimed to analyze aspects of the structure of primary healthcare units and the organization of work processes within health teams, focusing on socio-organizational accessibility to Primary Health Care (PHC) services in rural municipalities in Brazil. This descriptive, cross-sectional study used data from the external evaluation instrument of the 3rd cycle of the National Program for Access and Quality Improving Access in Primary Care (PMAQ-AB), conducted in 2017. This instrument was, applied to 8,711 Family Health teams from 2,940 rural municipalities. The modules comprising this instrument were used as the basis for constructing the Logical Model and defining variables validated through consensus by researchers in the field. The data is presented in absolute frequencies and percentages. The results disclose aspects that interfere with the accessibility of individuals to the services, such as deficiencies in the physical structure of healthcare units; limited access to information technologies by professionals; scarce availability of immunobiologicals and diagnostic tests; and indications of issues in the teams' work processes. Most small-sized Brazilian municipalities suffer a shortage of other levels of healthcare, including those located in remote and hard-to-reach areas find it difficult to retain professionals and suffer from other infrastructure deficiencies.

KEYWORDS Primary Health Care. Health services accessibility. Rural population. Health care quality, access, and evaluation.

RESUMO *Objetivou-se analisar aspectos da estrutura das unidades básicas e da organização do processo de trabalho das equipes de saúde relacionados com acessibilidade sócio-organizacional aos serviços de Atenção Primária à Saúde em municípios rurais do Brasil. Os dados deste estudo descritivo, de corte transversal, provêm do instrumento de avaliação externa do 3º ciclo do Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica, realizado em 2017, aplicado em 8.711 equipes de Saúde da Família de 2.940 municípios rurais. Os módulos que constituíram tal instrumento serviram de base para a construção de Modelo Lógico e definição de variáveis validadas por consenso de pesquisadores da área. Os dados estão apresentados em frequências absolutas e percentuais. Os resultados revelam aspectos que interferem na acessibilidade das pessoas aos serviços: deficiências na estrutura das unidades de saúde; no acesso a tecnologias de informação pelos profissionais; pouca disponibilidade de imunobiológicos e testes diagnósticos; e indicativos de problemas no processo de trabalho das equipes. A maioria dos municípios brasileiros de pequeno porte não dispõe de serviços dos outros níveis de atenção em seu território, inclusive aqueles localizados em áreas remotas e de difícil acesso encontram dificuldade para fixação de profissionais e outras carências de infraestrutura.*

PALAVRAS-CHAVE *Atenção Primária à Saúde. Acessibilidade aos serviços de saúde. População rural. Qualidade, acesso e avaliação da assistência à saúde.*

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Introduction

Primary healthcare represents the first level of contact for individuals, families, and communities with the healthcare system and should be available as close as possible to where people live and work, being the first component of continuous healthcare[1]. Studies indicate that living in a country with strong Primary Health Care (PHC) has various benefits for people's health. A robust and well-coordinated PHC is important for people's self-assessment of their health, and proper access to PHC helps them receive care for their health conditions, reducing the risk of having an untreated condition[2].

In Brazil, the creation of the Unified Health System (SUS) enabled the decentralization of primary care actions and services to nearly all Brazilian municipalities, with a significant expansion in population coverage through the implementation of Family Health teams across the country, especially in smaller municipalities[3]. The expansion of coverage has increased the population's access to PHC services which has improved health indicators related to conditions that are sensitive to this level of care in the health system[4].

The guidelines for operationalizing primary care in the SUS (Brazil's Unified Health System), as outlined in the editions of the National Primary Care Policy from 2006, 2011, and 2017[5-7], assign to municipalities the responsibilities of organizing, implementing, and managing primary care (PC) services and activities within their territories.

Brazil's municipalities are notably diverse, ranging from urban to remote rural areas. According to data from the Brazilian Institute of Geography and Statistics (IBGE), in 2010, there were 5,565 municipalities in Brazil, of which 3,921 had populations of fewer than 20,000 inhabitants[8]. In a second classification by the IBGE, municipalities are grouped as remote rural, adjacent rural, remote intermediate, adjacent intermediate, and urban. This classification shows that the majority of Brazilian municipalities are predominantly rural (60.4%), with 54.6% classified as adjacent rural and 5.8% as remote rural[9].

Brundisini et al.[10] highlight that rurality is associated with an increased health risk due to isolation and lack of access to healthcare services. These areas face greater challenges in allocating professional labor, particularly within the medical field.

In this context, studies measuring accessibility to healthcare services become increasingly important in rural areas. Starfield[11] identifies accessibility as one of the key structural elements of primary care The author considers the location of the healthcare service, the days and hours it operates, and its flexibility in accommodating both scheduled and unscheduled appointments. According to her, access and accessibility can be measured from the population's and the healthcare unit's perspectives. Starfield also emphasizes that, although accessibility is not limited to primary care, it is at this level that the specific requirements for accessibility differ, as primary care serves as the preferred entry point into the healthcare system[11].

For Vieira-da-Silva[12], quoting Donabedian (1980), access is related to an individual's ability to obtain the care they need, overlapping with the concept of service utilization and actual coverage. However, according to the same author, certain factors influence the ease or difficulty of using these services, such as barriers related to the organizational characteristics of healthcare services and the resources available to users to overcome these obstacles.

Furthermore, according to Donabedian, accessibility is structured based on the characteristics of services that can either facilitate or hinder their use by patients. To analyze the organization of services, the author proposes dividing accessibility into the geographical and socio-organizational dimensions[13].

Despite the wide availability of publications on PHC in Brazil, few studies consider the size and rural/urban classification of Brazilian municipalities concerning the provision of

their health services, and their organization, with the consequent possibility of use by the population.

This study aimed to examine aspects of the structure of primary healthcare units and the organization of work processes within health teams, focusing on socio-organizational accessibility to PHC services in rural municipalities in Brazil.

Material e methods

This is a descriptive cross-sectional study that utilized secondary data from Brazil's Family Health Teams participating in the 3rd cycle of the National Program for Access and Quality Improvement in Primary Care (PMAQ-AB), available on the Ministry of Health's website in 2019[14]. The sample consisted of professional teams located in 2,940 rural municipalities (remote and adjacent rural), as classified by IBGE, with an estimated population of 20,000 or fewer inhabitants.

To select the municipalities for the sample, two IBGE classifications were considered: the first takes only the population size into account, grouping municipalities according to the number of inhabitants[8]; the second considers the rural versus urban classification: remote rural, adjacent rural, remote intermediate, adjacent intermediate and urban[9]. *Table 1* contains information on the profile of the municipalities involved in the study, highlighting the percentage of data taken from the external evaluation tool: module I, 'Observation in the Primary Health Care Unit'; module II, 'Interview with Primary Health Care Team Professionals, and Document Verification in the Health Care Unit'[15], and the electronic module, which provided data on the composition of the teams per municipality analyzed.

Table 1. Number and proportion of participation per external evaluation instrument applied according to type of rural municipality, 3rd PMAQ cycle, 2017-2019

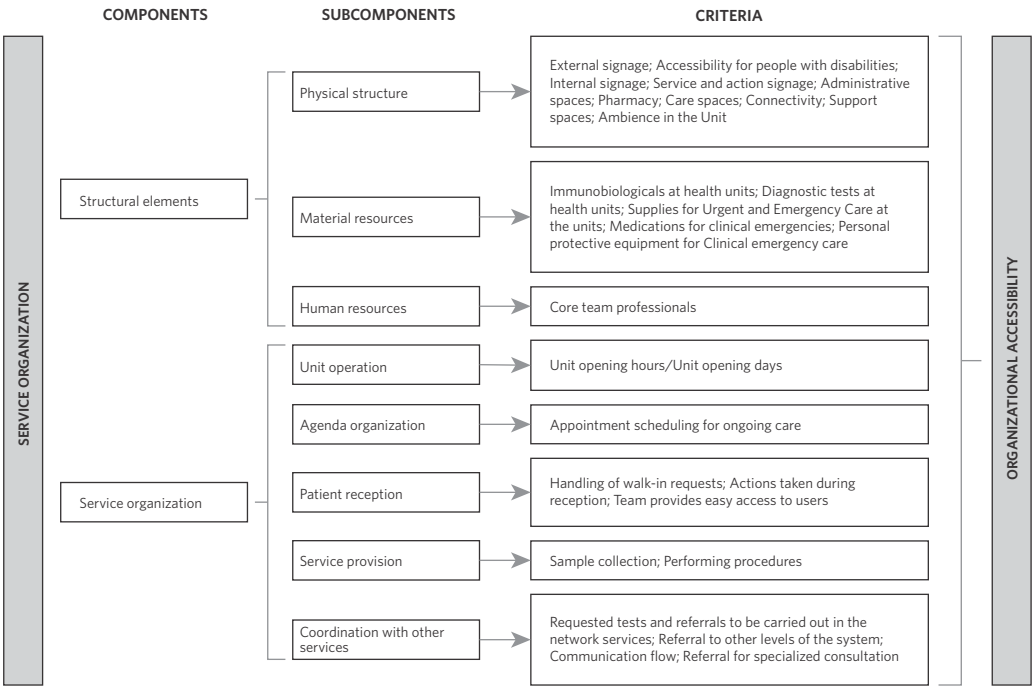
Municipalities / Modules	Adjacent Rural Areas	Remote Rural Areas
Module I	7,200 (97.27%)	709 (96.46%)
Module II	7,892 (99.16%)	819 (98.08%)
Electronic Module	2,532 (95.5%)	262 (94.6%)

Source: Own elaboration based on information obtained from modules I, II, and electronic, PMAQ 3rd cycle[14].

Based on the external evaluation modules of the PMAQ-AB, a Logical Model (LM) was developed and validated (*figure 1*) to integrate components, subcomponents, and criteria capable of providing information related to socio-organizational accessibility to health units. The LM was developed based on national literature[13,16–21] and consulted on the elements necessary to analyze socio-organizational accessibility to PHC units in Brazil.

Two components with their respective subcomponents were organized from these modules, namely: component: structural elements, with the sub-components: physical structure, material resources, human resources; and the component: services organization, with the sub-components: operation of the unit, organization of the agenda, reception in PHC, the offer of services in the unit, the relationship between PHC and other points in the healthcare network.

Figure 1. Logical model for analyzing accessibility to Primary Health Care services in rural municipalities in Brazil



Source: Own elaboration adapted from the model by Cunha and Vieira-da-Silva[13] and based on literature studies: Albuquerque et al.[16]; Cunha; Vieira da Silva[13]; Garnelo et al.[17]; Gomes; Esperidião[18]; Ribeiro et al.[19]; Oliveira et al.[20]; Melo et al.[21].

The LM initially underwent evaluation by the master's project qualification panel, composed of two reviewing professors who provided initial suggestions for improvement. After this version was approved by the Research Ethics Committee of the Institute of Collective Health of the Federal University of Bahia, it was submitted to a consensus technique.

For the consensus process, participants were selected based on convenience, focusing on health experts with relevant expertise on the subject matter. Four specialists were invited, and the invitation was sent via e-mail, along with a link to access the virtual questionnaire through Google Forms. The purpose of the LM validation questionnaire was to assess the relevance of the proposed criteria for the 'structural elements' and 'service organization' components. To do this, each criterion was evaluated on its relevance to the respective subcomponent. At the end of the evaluation of each subcomponent, participants were asked if any additional criteria should be included and if they could suggest them. Based on the feedback, the LM was refined and subsequently used in this study.

According to the criteria matrices and the standards derived from LM, the variables were classified as 'adequate', 'inadequate', and, in some cases, 'intermediate', to express the result obtained according to the standard established based on the literature used on the subject, as well as the guidelines of the Ministry of Health through its manuals[6,13,22–24]

Microsoft® Excel 365 software was used to process and analyze the data. The variables were presented in absolute numbers and percentages, with the total used to express the final quantities. This approach allowed us to identify the absolute and percentage frequencies of the variables outlined in the Logical Model.

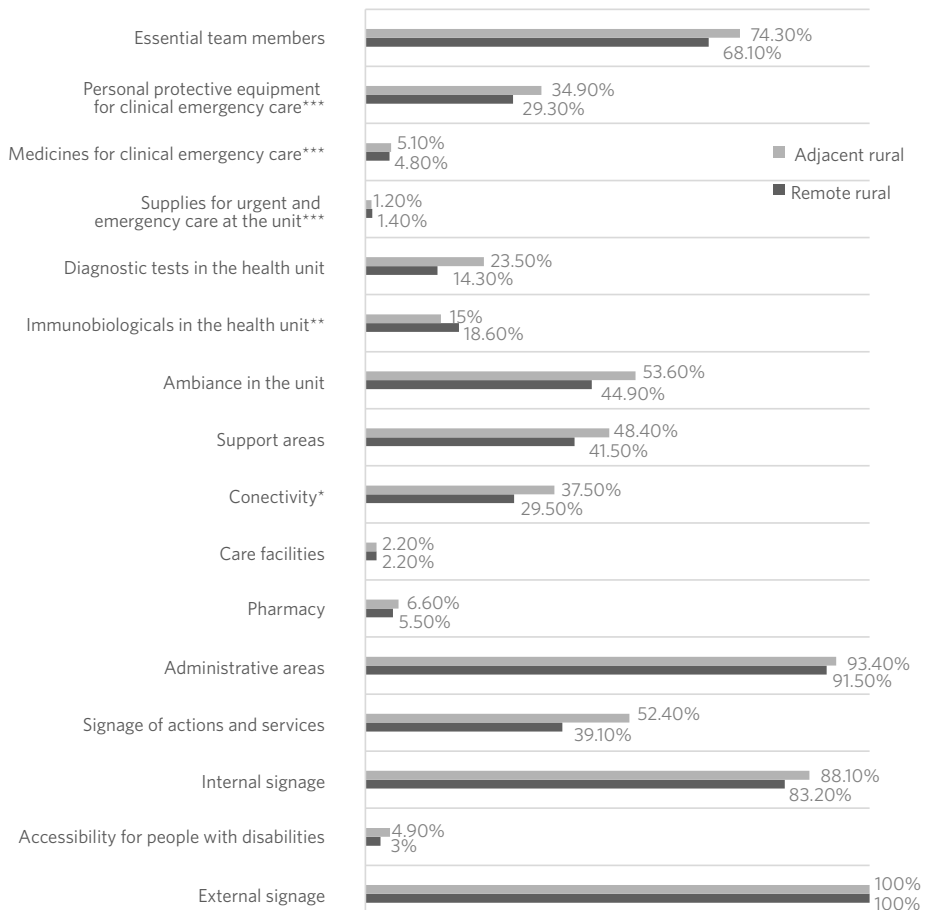
The project complies with the ethical principles regarding research with human beings, under resolutions No. 466 of 201225 and No. 510 of 201626. The

study was submitted to and approved by the Research Ethics Committee of the Institute of Collective Health at the Federal University of Bahia, under Certificate of Submission for Ethical Appraisal (CAAE) No. 43329421.7.0000.5030 and Opinion No. 4.562.681, on February 26, 2021, for the execution of the consensus technique to validate the LM.

Results

In the 'structural elements' component (*graph 1*), the criteria with the lowest scores were: accessibility for people with disabilities; pharmacy services; care facilities; connectivity; immunobiologicals in the health unit; diagnostic tests; supplies for urgent and emergency healthcare in the unit and medicines for clinical emergency care. Additionally, the 'essential team professionals' criterion was added due to its relevance.

Graph 1. Adequacy of the structural elements' component, according to rural municipality typology. Brazil, 2017-2019



Source: Own elaboration based on information from modules I, II, and the electronic module, external evaluation of the 3rd cycle, PMAQ-AB. Ministry of Health[14].

The criterion 'accessibility for individuals with disabilities' had an adequacy percentage of 4.9% for units in adjacent rural municipalities and 3% for remote rural ones. The regions with the lowest adequacy were the North (1.7%) and Southeast (4.4%) for adjacent rural municipalities, and the North (1.6%) and Northeast (2.9%) for remote rural municipalities.

The 'pharmacy' criterion achieved 6.6% adequacy for units in adjacent rural municipalities, with the Northeast (6.9%) and Southeast (3.4%) regions standing out. For remote rural municipalities, adequacy was 5.5%, with the South (0%), Southeast (2.6%), and Northeast (3.2%) showing the lowest percentages. In the 'care environment' criterion, adequacy was 2.22% for units in adjacent and remote rural municipalities, with the Southeast being the only region with a percentage above 5%.

The 'connectivity' criterion showed poor national performance for both adjacent and remote rural municipalities (62.5% and 70.5%, respectively). In both categories, the Northeast region had the worst performance. Most of the evaluated units lacked basic necessary items (internet and phone access) to carry out their activities effectively.

In 'material resources', the criteria 'supplies and medications for urgent and emergency care' showed the worst performance in both typologies. The percentage of inadequacy for medication reached 95%, and for supplies exceeded 98%.

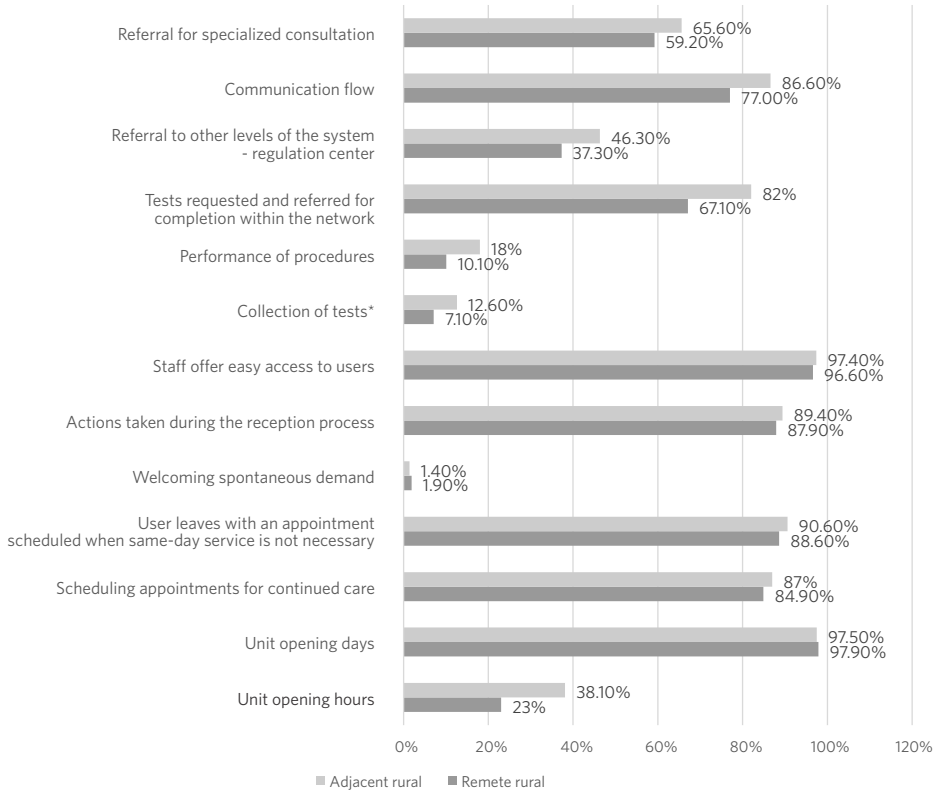
Regarding the availability of all 'diagnostic tests' at the unit, only 14.3% of remote rural municipalities met the criteria, and 23.5% of adjacent rural municipalities were adequate. The South region performed best in adjacent and remote rural municipalities, with 38.2% and 66.7% adequacy, respectively.

Regarding the availability of 'immunobiologicals at the health unit', most units in adjacent rural municipalities (85%) were inadequate, lacking all required immunobiologicals. The Southeast region showed 89.1% inadequacy, while the South had the best performance, with 79.6% inadequacy, though still very unsatisfactory. In remote rural municipalities, 81.4% of the units were inadequate. The Southeast also had the highest percentage of inadequacy (87.2%).

As for the 'human resources' subcomponent, related to the composition of the minimum team (doctor, nurse, nursing technician or assistant and community health worker), there was a higher percentage of adequacy in adjacent rural municipalities (74.3%), compared to remote rural municipalities (68.1%).

In the service organization component, shown in *graph 2*, the criteria with the lowest performance were: opening hours; patient reception; test collection; procedures; and referrals to other levels of care.

Graph 2. Adequacy of the services organization component, according to rural municipality typology. Brazil, 2017-2019



Source: Own elaboration based on information from modules I and II, external evaluation of the 3rd cycle, PMAQ-AB. Ministry of Health[14].

When assessing whether the unit operated five days a week, in two shifts (with two shifts defined as units operating for at least six hours per day) and during lunchtime, the adequacy rate was 38.1% in units of adjacent rural municipalities and 23% in those of remote rural municipalities. In this category, the Southeast region had the highest adequacy rates, with 64.5% in adjacent rural municipalities and 43.6% in remote rural municipalities.

The percentage of teams reporting 'welcoming spontaneous demand' on all five days of the week and in both shifts was less than 2%, in both typologies. On the other hand, the vast majority of teams reported providing care on only one shift during the five days of the week, both for teams in adjacent rural municipalities (97.6%) and remote rural municipalities (96%). The Northern region had a lower percentage compared to the other regions, even though the percentage of adequacy was over 90%.

For 'sample collection' (blood, stool, urine, and electrocardiograms), the adequacy rate was higher in adjacent rural municipalities (12.6%), decreasing in remote rural municipalities (7.1%). The Southeast region had the highest percentage in this category, with 13.4% in remote rural areas and 21.4% in adjacent rural areas.

For the 'performance of procedures' criterion, the proportion of adequate teams was higher in adjacent rural municipalities (18%) and lower in remote rural areas (10.1%). This criterion is classified as intermediate (essential procedures performed) with more than 80% adequacy in remote rural municipalities. The regions with the lowest adequacy rates were the North, with 9.4% in adjacent rural areas, and the South (0%) and Northeast (8.4%) in remote rural areas.

The 'referral to other levels of the system' criterion achieved 46.3% adequacy in adjacent rural municipalities and 37.3% in remote rural areas, with the lowest rates observed in the Northern region (31.2% and 18.6%, respectively).

Discussion

The results indicated criteria with very low adequacy percentages. It is noticeable that the criteria under the service organization component showed a higher number of adequate items, while the structural elements had more inadequate criteria.

The number of rooms in a health unit, as defined by the Ministry of Health[22], aims to meet the care demand of the assigned population. In this study, few units met the evaluated criteria. The lack of an adequate physical structure can lead to the use of inappropriate spaces to care patient care compromising the teams' work. As highlighted by Ribeiro et al.[19], the spaces that provide information, privacy, humanization, problem-solving, offer, and availability of services are part of the physical structure of the health units that can improve accessibility and foster closer connections between users and the services offered.

A review study pointed out that international realities also expose the need to invest in information and communication technologies in rural areas, such as telehealth and electronic medical records to increase access, coordination, continuity, and care practices[27].

In Brazil, several studies align with the findings of this research. Fausto et al.[28] highlighted the limited use of information and communication technologies in remote rural municipalities in the Amazon region, which face challenges such as connectivity issues, power shortages, and restricted radio transmission capabilities.

In an international context, a study conducted in Canada found that rural residents spend more time searching for healthcare information than urban residents. Rural users primarily rely on the telephone as a means to obtain information, usually from a local care provider to access healthcare services and determine the urgency of their health concerns. The study also noted that those who actively seek information tend to experience greater ease in accessing healthcare services[29].

A significant percentage of healthcare units did not have all the immunobiologicals available, and a substantial portion of these units did not even offer vaccinations. It is important to highlight that the provision of immunobiologicals in healthcare units is part of the National Immunization Program (PNI), established in 1973 by the Ministry of Health. In this context, Primary Healthcare (PHC) plays a central role in immunizing the population, acting as a strategic and effective initiative at this level of care[30].

The results indicated high percentages of healthcare units lacking all rapid tests in both rural typologies. Offering rapid tests at the healthcare unit can enable early diagnosis and immediate initiation of treatment, thereby increasing the chances of cure[16]. The percentage of teams reporting the collection of tests at the health unit was also unsatisfactory in both rural typologies, being even lower in teams from remote rural municipalities. A study by Rodrigues et al.[31] which evaluated a remote rural municipality in the state of Acre, found that most tests conducted at the unit or in neighboring municipalities had to be sent to the state capital, causing delays in results for patients. These situations hinder timely diagnosis and proper follow-up within the care network, leading to adverse effects on individuals' health.

Low percentages of teams were found to perform all the investigated procedures at the healthcare unit. Most teams carried out essential procedures (such as suture removal, nebulization/inhalation, wound care, and injectable/intramuscular medications), while more complex procedures (such as abscess drainage, wound suturing, ear irrigation, nail

extraction, intravenous injectable medication, and IUD insertion) were less frequently carried out).

This reality was already experienced by the teams in the 2nd cycle of the PMAQ-AB in the state of Pernambuco, which showed unsatisfactory results regarding both the collection of tests at the unit and the performance of procedures[16].

Another crucial aspect of providing adequate care in PHC is having the right professionals to form the minimum required teams (doctors, nurses, community health agents, and nursing auxiliaries/technicians). Some municipalities had incomplete teams, but these professionals are essential for the effective functioning of the unit, especially in rural and small municipalities where PHC is often the only existing level of service.

In Australia, isolated or remote communities faced a lower availability of doctors, which made it more difficult for them to attract primary healthcare[32] services. In Brazil, the More Doctors Program (PMM – Programa Mais Médicos), created in 2013, was identified as a key provider of consistent medical professionals in a remote rural municipality in Acre. However, when these professionals left, there were no replacements assigned to the municipality, leading to extended periods without a medical professional. As a result, high turnover impacted the quality of service, disrupted the continuity of care between users and healthcare providers, and caused the service to be sought less frequently[31].

Regarding the operation of the health units, it was observed that nearly all of them were open five days a week. However, this changed when evaluating whether they operated more than one shift and during lunchtime. This situation may contribute to reduced accessibility for users, as this might be the only available health service. In this context, users in a health district of a Brazilian capital identified extended operating hours as a facilitator for accessing primary care services[20]. Conversely, in rural settings, users often face access and resolution issues related to factors such as the operating hours of the unit[17]. The operating hours of the service impact all actions, including access to the activities performed by the teams and the utilization of services by users.

In this study, during the hours when reception services were available, users encountered a well-organized workflow that facilitated their access to care by offering various services. Reception is recognized as a mechanism to expand and facilitate access, aiming to include users in health care, where not only scheduled or planned demands are met[33]. To achieve this, the team must organize and assess the best ways to structure and implement spontaneous demand reception in their unit, including necessary workflows, responsible professionals, and referral processes.

However, a study by Garnelo et al.[17] highlights the difficulty teams face in reducing the rigidity of their schedules to address spontaneous demand and to provide same-day care or appointments for those who come from afar.

Another challenge is the absence or low number of specialized health services in small and rural municipalities, particularly for referrals made by PHC services[34]. A study on specialized care modalities in remote rural municipalities in the semi-arid region highlighted the lack of both private and public specialized services, which results in frequent inter-municipal trips made by users to the capital and major health region centers in search of specialized care[35]. In this study, there was a low number of teams with access to exam scheduling centers and hospital beds, demonstrating poor coordination between teams and other healthcare services.

When analyzing the waiting time for specialized consultations in a small municipality, the authors identified long waiting times, which in some cases exceeded 12 months and the connection was made with the state capital, located 700 km away from the studied municipality[34]. The decentralization process has given municipalities responsibility for health organization and management, thus

increasing their costs compared to larger municipalities[36].

Municipalities with fewer than 20,000 inhabitants face greater challenges in ensuring their residents access to medium and high-complexity services, as these services are often not available within the municipalities themselves. Purchasing such services can be particularly challenging. As a response to this demand, small municipalities often take on the development of medium and high-complexity actions that exceed their formal agreements[37].

Supporting the findings of this study, Nunes et al.[38] highlighted the challenges faced by remote rural municipalities in providing specialized services. In various scenarios, the availability of services through the SUS was disorganized and insufficient, leading managers and patients to often resort to private services at their own expense due to geographical barriers. This reality places municipalities in an even more disadvantaged position regarding the availability of healthcare services. Coordination with other levels of the health system becomes even more critical for smaller and remote municipalities since most of them only have PHC services for their residents.

Conclusions

The results show the importance of studying rural and remote municipalities, most of which are small and isolated in terms of the structuring and organization of PHC in Brazil.

A strong and effective PHC will help improve the health of this population. For this to happen, aspects related to the structure of the units (materials, equipment, physical structure, and trained professionals) need to be available under the recommendations of the Primary Care Policy. In addition, the work process needs to be articulated with the real needs of the population and with the challenges inherent to the practice of PHC in rural, remote, and small territories.

Given the advances in research focusing on rural and remote municipalities, this study could help managers and professionals understand the nuances surrounding structuring and delivering healthcare. It also provides an opportunity to reconsider practices and strategies for coordination with the other levels of the health system. It is crucial to develop further studies to deepen the understanding of the socio-organizational accessibility of PHC services in rural municipalities, to address the issue that hinders the provision of comprehensive care to the population.

A limitation of this study is the reliance solely on quantitative data from a closed database. This approach restricts the ability to delve into some aspects that are not captured by numbers alone but could be uncovered through other research methodologies. Additionally, the quality of the data provided by the utilized database could impact the findings.

Collaborators

Soares DJ (0000-0003-0739-2812)* contributed to the theoretical-methodological conception of the study, writing, data collection, analysis and interpretation, writing, critical review, and final approval of the manuscript. Vilasbôas ALQ (0000-0002-5566-8337)* contributed to the study's theoretical-methodological conception, analysis, discussion of the results, and critical revision of the manuscript. Souza MKB (0000-0002-7895-4432)* contributed to the discussion of the results, critical review, and approval of the final version of the manuscript. Bispo Júnior JP (0000-0003-4155-9612)* contributed to the discussion of results, critical review, and approval of the final version of the manuscript. ■

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References

1. Organização Mundial da Saúde. Conferência Internacional sobre Cuidados Primários de Saúde. Declaração de Alma Ata sobre Cuidados Primários [Internet]. URSS: Alma-Ata, 1978. [acesso em 2020 jan 15]. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/declaracao_alma_ata.pdf

2. Hansen J, Groenewegen PP, Boerma WG, et al. Living in a country with a strong primary care system is beneficial to people with chronic conditions. Health Aff (Millwood) 2015;34(9):1531-1537. DOI: https://doi.org/10.1377/hlthaff.2015.0582

3. Aquino R, Medina MG, Vilasbôas ALQ, et al. Estratégia de Saúde da Família- evolução do modelo de organização da atenção primária à saúde no Brasil. In: Paim JS, Almeida-Filho N, organizadores. Saúde coletiva: teoria e prática. 2. ed. Rio de Janeiro: Medbook; 2023. p. 317-40.

4. Pinto Junior EP, Aquino R, Dourado I, et al. Internações por condições sensíveis à Atenção Primária à Saúde em crianças menores de 1 ano no Brasil. Ciênc saúde coletiva. 2020;25(7):2883-2890. DOI: https://doi.org/10.1590/1413-81232020257.25002018

5. Ministério da Saúde (BR), Gabinete do Ministro. Portaria nº 648, de 28 de março de 2006. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica para o Programa Saúde da Família (PSF) e o Programa Agentes Comunitários de Saúde (PACS). Diário Oficial da União, Brasília, DF. 2006 mar 29; Seção I:71-76.

6. Ministério da Saúde (BR). Gabinete do Ministro. Portaria nº 2.488, de 21 de outubro de 2011. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica, para a Estratégia Saúde da Família (ESF) e o Programa de Agentes Comunitários de Saúde (PACS). Diário Oficial da União, Brasília, DF. 2011 out 24; Seção I:48-55.

7. Ministério da Saúde (BR), Gabinete do Ministro. 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). 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, Brasília, DF. 2017 set 22; Seção I:68-76.

8. Instituto Brasileiro de Geografia e Estatística (BR). Sinopse do Censo Demográfico 2010. Rio de Janeiro: IBGE; 2011.

9. Instituto Brasileiro de Geografia e Estatística (BR). Classificação e caracterização dos espaços rurais e urbanos do Brasil: uma primeira aproximação. Rio de Janeiro: IBGE; 2017.

10. Brundisini F, Giacomini M, DeJean D, et al. Chronic disease patients' experiences with accessing health care in rural and remote areas: a systematic review and qualitative meta-synthesis. Ont Health Technol Assess Ser [Internet]. 2013 [acesso em 2020 maio 20];13(15):1-33. Disponível em: https://pubmed.ncbi.nlm.nih.gov/24228078/

11. Starfield B. Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia/ Barbara Starfield. Brasília, DF: Unesco, Ministério da Saúde; 2002. 726 p.

12. Vieira-da-Silva LM. Avaliação de políticas e programas de saúde. Rio de Janeiro: Editora Fiocruz; 2014. 110 p.

13. Cunha ABO, Vieira-da-Silva LM. Acessibilidade aos serviços de saúde em um município do Estado da Bahia, Brasil, em gestão plena do sistema. Cad Saúde Pública. 2010;26(4):725-37. DOI: https://doi.org/10.1590/S0102-311X2010000400015

14. Ministério da saúde (BR). Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica.

Ciclos do PMAQ AB – 3º ciclo [Internet]. Brasília, DF: Ministério da Saúde; 2017 [acesso em 2020 jan 15]. Disponível em: https://www.gov.br/saude/pt-br/composicao/saps/pmaq/ciclos-do-pmaq-ab/3o-ciclo

15. Mistério da Saúde (BR). Instrumento de avaliação externa da saúde mais perto de você – acesso e qualidade. Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica (PMAQ): Terceiro ciclo. Brasília, DF: Ministério da Saúde; 2017.

16. Albuquerque MSV, Lyra TM, Farias SF, et al. Acessibilidade aos serviços de saúde: uma análise a partir da Atenção Básica em Pernambuco. Saúde debate. 2014;38(esp):182-194. DOI: https://doi.org/10.5935/0103-1104.2014S014

17. Garnelo L, Lima JG, Rocha ESC, et al. Acesso e cobertura da Atenção Primária à Saúde para populações rurais e urbanas na região Norte do Brasil. Saúde debate. 2018;42(esp1):81-99. DOI: https://doi.org/10.1590/0103-11042018S106

18. Gomes SC, Esperidião MA. Acesso dos usuários indígenas aos serviços de saúde de Cuiabá, Mato Grosso, Brasil. Cad Saúde Pública. 2017;33(5):e00132215. DOI: https://doi.org/10.1590/0102-311X00132215

19. Ribeiro JP, Mamed SN, Souza MR, et al. Acessibilidade aos serviços de saúde na Atenção Básica do Estado de Goiás. Rev Eletr Enferm. 2015;17(3):29436. DOI: http://dx.doi.org/10.5216/ree.v17i3.29436

20. Oliveira LS, Almeida LGN, Oliveira MAS, et al. Acessibilidade a atenção básica em um distrito sanitário de Salvador. Ciênc saúde coletiva. 2012;17(11):3047-3056. DOI: https://doi.org/10.1590/S1413-81232012001100021

21. Melo ECA, Figueiredo TMRM, Cardoso MAA, et al. Acessibilidade dos usuários com hipertensão arterial sistêmica na estratégia saúde da família. Esc Anna Nery. 2015;19(1):124-131. DOI: https://doi.org/10.5935/1414-8145.20150017

22. Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Manual de estrutura física das unidades básicas de saúde: saúde da família. 2. ed. Brasília, DF: Ministério da Saúde; 2008. 52 p.

23. Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Autoavaliação para melhoria do acesso e da qualidade da atenção básica: AMAQ. Brasília, DF: Ministério da Saúde; 2017. 164 p.

24. Luz LA. Avaliação da qualidade da atenção pré-natal na Estratégia de Saúde da Família no Brasil [dissertação]. Salvador: Instituto de Saúde Coletiva, Universidade Federal da Bahia; 2016.

25. Ministério da Saúde (BR); Conselho Nacional de Saúde. Resolução nº 466, de 12 de dezembro de 2012. Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos e revoga as Resoluções CNS nºs 196/96, 303/2000 e 404/2008. Diário Oficial da União, Brasília, DF. 2013 jun 13; Seção I:549.

26. Ministério da Saúde (BR); Conselho Nacional de Saúde. Resolução nº 510, de 7 de abril de 2016. Dispõe sobre as normas aplicáveis a pesquisas em Ciências Humanas e Sociais cujos procedimentos metodológicos envolvam a utilização de dados diretamente obtidos com os participantes ou de informações identificáveis ou que possam acarretar riscos maiores do que os existentes na vida cotidiana. Diário Oficial da União, Brasília, DF. 2016 maio 24; Seção I:44.

27. Franco CM, Lima JG, Giovanella L. Primary healthcare in rural areas: access, organization, and health workforce in an integrative literature review. Cad Saúde Pública. 2021;37(7):e00310520. DOI: https://doi.org/10.1590/0102-311X00310520

28. Fausto MCR, Giovanella L, Lima JG, et al. Sustentabilidade da Atenção Primária à Saúde em territórios rurais remotos na Amazônia fluvial: organização, estratégias e desafios. Ciênc saúde coletiva. 2022;27(4):1605-1618. DOI: https://doi.org/10.1590/1413-81232022274.01112021

29. Haggerty JL, Roberge D, Lévesque JF, et al. An exploration of rural–urban diferences in healthcare-seeking trajectories: Implications for measures of accessibility. Health Place. 2014;28:92-98. DOI: https://doi.org/10.1016/j.healthplace.2014.03.005

30. Ministério da Saúde (BR), Secretaria de Vigilância em Saúde, Departamento de Vigilância Epidemiológica. Programa Nacional de Imunizações (PNI): 40 anos. Brasília, DF: Ministério da Saúde; 2013.

31. Rodrigues KV, Almeida PF, Cabral LMS, et al. Organização da Atenção Primária à Saúde em um município rural remoto do Norte do Brasil. Saúde debate. 2021;45(131):998-1016. DOI: https://doi.org/10.1590/0103-1104202113105

32. McGrail MR, Wingrove PM, Petterson SM, et al. Measuring the attractiveness of rural communities in accounting for differences of rural primary care workforce supply. Rural Remote Health. 2017;17(2):3925. DOI: https://doi.org/10.22605/RRH3925

33. Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Acolhimento à demanda espontânea. Cadernos de Atenção Básica. Brasília, DF: Ministério da Saúde; 2013.

34. Vieira EWR, Lima TMN, Gazzinelli A. The waiting time for specialized medical consultations in a small municipality of Minas Gerais, Brazil. Rev Min Enferm. 2015;19(1):72-78. DOI: http://dx.doi.org/10.5935/1415-2762.20150006

35. Almeida PF, Santos AMD, Cabral LMDS, et al. Provision of specialized care in remote rural municipalities of the Brazilian semi-arid region. Rural Remote Health. 2021;21(4):6652. DOI: https://doi.org/10.22605/rrh6652

36. Silva CR, Carvalho BG, Cordoni Júnior L, et al. Dificuldade de acesso a serviços de média complexidade em municípios de pequeno porte: um estudo de caso. Ciênc saúde coletiva. 2017;22(4):1109-1120. DOI: https://doi.org/10.1590/1413-81232017224.27002016

37. Pinafo E, Nunes EFPA, Carvalho BG, et al. Problemas e estratégias de gestão do SUS: a vulnerabilidade dos municípios de pequeno porte. Ciênc saúde coletiva. 2020;25(5):1619-1628. DOI: https://doi.org/10.1590/1413-81232020255.34332019

38. Nunes FGS, Santos AM, Carneiro ÂO, et al. Challenges to the provision of specialized care in remote rural municipalities in Brazil. BMC Health Serv Res. 2022;22(1):1386. DOI: https://doi.org/10.1186/s12913-022-08805-6

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