

Primary healthcare in rural areas: access, organization, and health workforce in an integrative literature review

Atenção primária à saúde em áreas rurais: acesso, organização e força de trabalho em saúde em revisão integrativa de literatura

Atención primaria en salud en áreas rurales: acceso, organización y fuerza de trabajo en salud en una revisión integral de la literatura

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Abstract

Primary healthcare is essential for dealing with the iniquities marking rural and remote territories. The concept of rurality is somewhat imprecise, and rural health policies in Brazil are insufficient. A review of the international literature can foster better understanding of the strategies developed in central rural health issues. The article's objective was to identify and analyze the challenges in access, organization of healthcare, and health workforce in primary care in rural areas. An integrative literature review was performed to search for scientific articles published from 2000 to 2019 in the Cochrane and MEDLINE databases and specific rural health journals. The search yielded 69 articles, categorized as addressing access, organization of healthcare, or health workforce. The findings' main themes were analyzed. Articles classified as access presented the following central themes: geographic aspects, patients' needs to travel for care, and access to hospital and specialized services. Articles on organization of healthcare dealt with structure and inputs, functioning of health services, and community-based management. Health workforce featured healthcare workers' profiles and roles and factors for their attraction/retention. Crosscutting issues in strengthening access, organization of healthcare, and health workforce in rural areas were community action, outreach/visiting models, communication/information technologies, access to care, and professional training/development. The review provides a comprehensive understanding of primary care in rural health to promote equity for rural populations.

Primary Health Care; Rural Health Services; Health Services Accessibility; Organization and Administration; Health Workforce

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Introduction

Residents of rural areas comprise approximately half of the world population, have less access to care, and present worse health conditions when compared to urban populations ¹. In most countries, rural areas face difficulties with transportation and communication, funding inequalities in health, and shortage and unequal distribution of healthcare personnel, with worse work conditions ^{2,3}.

For Strasser ², the failure to achieve universal healthcare as proposed in the *Declaration of Alma-Ata* ⁴ is particularly severe in rural and remote areas. The premises of Alma-Ata in “*health for all by 2000*” declared health as a right and the central role of primary healthcare (PHC). In rural and remote areas, PHC is often the only recourse to health ^{1,2}. Due to its attributes as coordinator of the network of care, access to the necessary services, quality care, early and timely prevention, and follow-up of health problems, resulting in an approach to health problems at the family and community levels and cultural competence of care ⁵, PHC is the key to confronting inequities in rural areas ^{3,6}.

Developing countries display situations of greater inequities in rural health ³. Despite the expansion of PHC across Brazil’s territory, the country still suffers from sharp social and spatial inequality in the supply of services, equipment, and healthcare staff ^{7,8}. The imprecision in the definition of “rural” contributes to the fact that the deficit in universal health in rural areas remains ignored. The lack of clearer approaches to rural contexts results in the lack of definition of perspectives for action in these areas, limited to the agrarian side, without expressing Brazil’s contemporary rural reality ⁹. A recent revision of the urban/rural classification by the Brazilian Institute of Geography and Statistics (IBGE), considering population density and access to urban hubs, found that 45% of Brazil’s municipalities (counties) had a low degree of urbanization, underlining the importance of rural spaces in the national territory ¹⁰.

Even in the international debate, there is still little clarity in the definition of criteria on rurality that can distinguish different realities, especially in the case of remote territories ^{3,6,11}. Continental-sized and wealthy countries such as the United States, Canada, and Australia have led the research and debates on rural health ^{3,6}. Australia, particularly, has gained a prominent role in government initiatives for rural health ¹². Knowing the strategies set out in the international debate on rural health can help understand this theme, which has still received little attention in the Brazilian reality and has been insufficiently incorporated by the Brazilian Unified National Health System (SUS) ^{7,8}.

This article aims to provide elements for a comprehensive understanding of the theme, considering central issues for PHC in rural areas. The article summarizes a review of the international literature that aimed to identify and analyze the challenges for access, organization of healthcare, and health workforce in PHC in rural areas.

Methodology

An integrative review was performed of the literature on PHC in rural areas. Integrative reviews allow a synthesis of diverse studies (quantitative and qualitative, experimental and nonexperimental), aimed at a broad understanding of the state of knowledge on a complex subject. The method is useful for systematically condensing research on a comprehensive theme ^{13,14}. Unlike systematic reviews – generally more valued in publications – integrative reviews, although not intended for statistical inference and without the capacity (like the former) to generate more objective and uniform products as to the strength of evidences, nevertheless go farther than experimental studies and are powerful for in-depth analyses of the results and the processes demonstrated in the studies ^{13,14}.

The review followed the stages recommended by Mendes et al. ¹³ and Souza et al. ¹⁴. The underlying question and inclusion/exclusion criteria for the studies were determined, proceeding then to the literature search and data collection. The information to be extracted from the selected articles was defined, followed by categorization of the studies, critical analysis of the selected studies, and synthesis of the results ^{13,14}.

The underlying question in the review of the international literature on PHC and rural health was: what are the effective strategies for guaranteeing comprehensive/integral PHC for rural populations?

Considering the underlying question, we aimed to map the production and origin of the literature and identify and analyze three dimensions: access, organization of healthcare, and health workforce for comprehensive/integral PHC for rural populations.

The review defined Brazilian and non-Brazilian publications as international literature, based on the studies' location, both according to their scope and the origin of the publications and the choice of literature databases that cover studies from various countries. The sample included original scientific articles, empirical or literature reviews, available online, full texts, in English, and published from January 2000 to December 2019, aimed at covering current studies from the 21st century, the period in which classifications of rurality have gained force in international discussions^{1,2,3,6,8} – limited to 2019 since the search was completed in early 2020. Exclusion criteria were: duplicates and unavailability; publications that were not original scientific research articles (editorials, opinion, debates, communications); articles on procedures, substances, tests, medicines, or specific diseases; and articles that did not refer specifically to rural areas, health services provision, and PHC.

The literature bases were the Cochrane Library (<https://www.cochranelibrary.com/>), MEDLINE (<https://www.ncbi.nlm.nih.gov/pubmed/>), *Rural and Remote Health* (<https://www.rrh.org.au/>), and *Australian Journal of Rural Health* (<https://onlinelibrary.wiley.com/journal/14401584>). The latter two are specific journals on rural health in Australia, identified in an initial search, with extensive citations and specificity in articles on rural health.

We chose the descriptors from the *Medical Subject Headings* (MeSH): “rural health”, “primary health care”, and “access”. The option to include the term “access” was to improve the study's refinement, according to the centrality of the problem of access in rural areas. In the Australian journals, whose content is specific to rural health, besides the previous descriptors, we also included the term “human resources” to refine the search according to the review's objectives.

The initial option was for a combined search among the descriptors, but it was necessary to differentiate the search format in each base, considering its search tools and the scope of the target literature. In each base, we prioritized the search format that generated the most articles for the review's objectives. The search key in each base was:

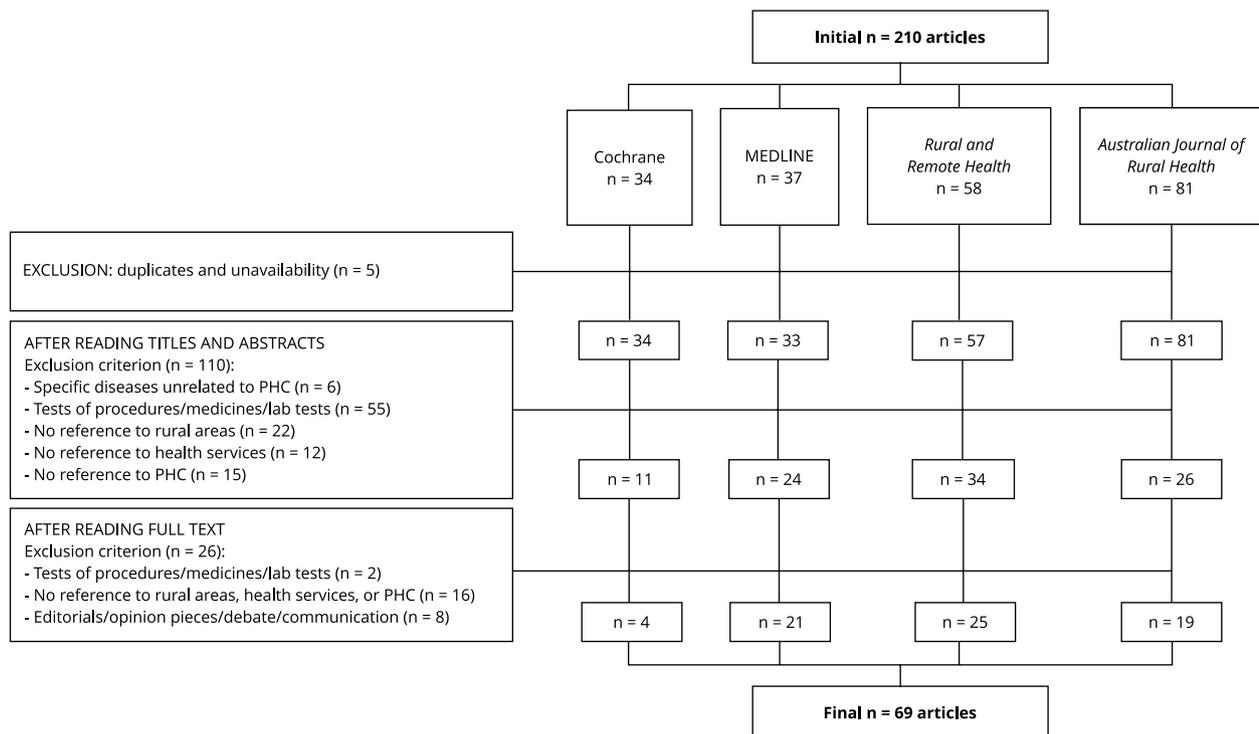
- MEDLINE (37 articles) – Descriptors: rural health AND primary health care AND access; Field: title/abstract.
- Cochrane (34 articles) – Descriptors: rural health; Field: title/abstract/keyword.
- *Rural and Remote Health* (58 articles) – Descriptors: primary health care, access, human resources; Field: article type: original research.
- *Australian Journal of Rural Health* (81 articles) – Descriptors: primary health care AND access, human resources; Field: this journal/abstract.

Initially, 210 articles were selected. After excluding duplicates and unavailable articles, the sample was left with 205, with independent reading of titles and abstracts by two researchers. In this stage, adopting the inclusion and exclusion criteria, 95 articles were selected. The process was repeated with complete reading, producing a final selection of 69 articles (Figure 1).

The articles were organized in Excel (<https://products.office.com/>). Two researchers proceeded to repeated readings of the material. Each article was assigned to a principal category: access, organization of healthcare, and health workforce. After categorization, in an exhaustive vertical reading, the researchers searched for core meanings based on similarities and particularities between the findings to identify each category's themes. We calculated frequencies both for categories and themes and for the publication period and the articles' location. Box 1 describes the references of the selected articles according to the study method, location, and classification of the categories: access, organization of healthcare, and health workforce.

Figure 1

Flowchart of article selection.



PHC: primary healthcare.

Results

Table 1 provides an overview of the selected articles. The number of publications increased over the 2000s, with the first reference in 2003, but with reduced amount and pace of production in the searched international literature.

The origin of the publications included 23 countries since the spatial cross-section of the studies covered 20 countries. In both forms of location, Australia had the largest share (36.4% and 38%), followed by the United States (17% and 12.7%) and Canada (9.1% and 8.4%) (Table 1). If one does not count 44 articles from the Australian journals, the United States boasts the largest share with 18.4% (n = 7) of the publications, followed by Australia with 15.8% (n = 6).

Table 2 shows the articles' themes, classified in the categories access (23), organization of health-care (25), and health workforce (21). Each article was classified in only one category. The themes emerged from the analysis, assigning one or more themes to the same publication. The sum of the themes' frequencies thus differs from the number of studies in the respective category.

The results' analytical synthesis is presented next, by category and theme, identifying challenges and the most effective strategies to guarantee comprehensive PHC for rural populations, according to the integrative review's objectives and underlying question.

Box 1

Description of articles included in the integrative literature review according to author/year, periodical, methods, location of the first three authors, and study scope and category.

STUDY (YEAR)	JOURNAL	METHODS	LOCATION OF FIRST THREE AUTHORS	LOCATION BY STUDY SCOPE
Category: Access				
Alston et al. ²⁵ (2006)	<i>Rural and Remote Health</i>	Quantitative study (descriptive analysis of patient survey)	Australia	Australia
Burton & Walters ²⁹ (2013)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with patients, caregivers, and healthcare workers)	Australia	Australia
Butler et al. ⁷⁷ (2010)	<i>Australian Journal of Rural Health</i>	Quantitative study (spatial analysis of secondary data)	Australia; United States	Australia
Carlton & Simmons ²⁷ (2011)	<i>Rural and Remote Health</i>	Quantitative study (multivariate logistic regression with data from national surveys)	United States	United States
Choo et al. ³² (2014)	<i>Rural and Remote Health</i>	Quantitative study (linear regression with variables from administrative data)	United Kingdom	United Kingdom
Dassah et al. ²³ (2019)	<i>Global Health Research and Policy</i>	Literature review	Canada	International
Doran & Hornibrook ²⁴ (2014)	<i>Australian Journal of Rural Health</i>	Qualitative study (thematic analysis of interviews with patients and healthcare workers)	Australia	Australia
Gruen et al. ³⁰ (2003)	<i>Cochrane Database of Systematic Reviews</i>	Literature review	Australia; South Africa	International
Haggerty et al. ¹⁷ (2014)	<i>Health & Place</i>	Qualitative study (thematic analysis of focus groups with patients)	Canada	Canada
Halder et al. ⁷⁸ (2013)	<i>Rural and Remote Health</i>	Quantitative study (descriptive analysis of questionnaire for patients)	United States	Honduras
Ilyyasu et al. ³¹ (2015)	<i>Rural and Remote Health</i>	Quantitative study (statistical analysis of administrative data)	Nigeria	Nigeria
Kulig et al. ¹¹ (2008)	<i>Australian Journal of Rural Health</i>	Qualitative study (thematic analysis of interviews with nurses)	Canada	Canada
McGrail & Humphreys ¹⁸ (2015)	<i>Geospatial Health</i>	Quantitative study (descriptive and comparative spatial analysis of variables from national secondary data)	Australia	Australia
Neville et al. ²¹ (2019)	<i>Australian Journal on Ageing</i>	Qualitative study (thematic analysis of interviews with patients)	New Zealand	New Zealand
Quine et al. ²⁸ (2003)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of focus groups with patients)	Australia	Australia
Rosenwasser et al. ²⁶ (2013)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with physicians)	United States	United States
Russel et al. ⁷⁹ (2013)	<i>Australian Journal of Rural Health</i>	Literature review	Australia	Australia
Sanders et al. ¹⁹ (2015)	<i>Journal of Rural Health</i>	Quantitative study (logistic regression and spatial analysis of patient survey and secondary data)	United States	United States
Scott et al. ⁸⁰ (2006)	<i>Australian Journal of Rural Health</i>	Quantitative study (descriptive and cross-sectional spatial analysis of secondary data, administrative data, and physician survey)	Australia	Australia

(continues)

Box 1 (continued)

STUDY (YEAR)	JOURNAL	METHODS	LOCATION OF FIRST THREE AUTHORS	LOCATION BY STUDY SCOPE
Category: Access				
Smith & Carragher ²² (2019)	<i>Rural and Remote Health</i>	Quantitative-qualitative study (thematic and statistical analysis of questionnaires and focus groups with patients)	Ireland	Ireland
Whitehead et al. ²⁰ (2019)	<i>Rural and Remote Health</i>	Quantitative study (bivariate logistic regression and spatial analysis of administrative data)	New Zealand; United States	New Zealand
Wong & Regan ¹⁵ (2009)	<i>Rural and Remote Health</i>	Quantitative-qualitative study (thematic and statistical analysis of questionnaire and focus groups with patients)	Canada	Canada
Zubieta & Bequet ¹⁶ (2010)	<i>Rural and Remote Health</i>	Quantitative study (algorithmic analysis of administrative and secondary data)	Canada	Canada
Category: Organization of healthcare				
Allenby et al. ⁸¹ (2016)	<i>Australian Journal of Rural Health</i>	Quantitative study (logistic regression of variables from patient files)	Australia	Australia
Ambruoso et al. ³⁶ (2019)	<i>Health Policy and Planning</i>	Quantitative-qualitative study (cross-sectional study of secondary data, verbal autopsy, and participatory action-based research with patients, healthcare workers, and administrators)	South Africa; United Kingdom; Sweden	South Africa
Brieger et al. ³³ (2015)	<i>International Quarterly of Community Health Education</i>	Qualitative study (thematic and situational analysis using interviews with healthcare workers, patients, and caregivers and focus groups and workshops with patients)	United States; Switzerland; Burkina Faso	Africa
Carey et al. ⁴⁰ (2018)	<i>Australian Journal of Rural Health</i>	Literature review	Australia	International
Carroll et al. ⁴⁴ (2015)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with patients)	Australia	Australia
Eckhardt et al. ⁴⁶ (2019)	<i>Inquiry</i>	Qualitative study (thematic analysis of focus groups with healthcare workers and patients)	Sweden; Ecuador	Ecuador
Holdsworth et al. ⁸² (2019)	<i>Australian Journal of Rural Health</i>	Quantitative study (logistic regression of nationwide patient survey)	Australia	Australia
Labhardt et al. ³⁴ (2010)	<i>BMC Health Services Research</i>	Quantitative study (descriptive analysis in an intervention cohort with patients and healthcare workers)	Switzerland; Cameroon	Cameroon
Morley et al. ⁸³ (2007)	<i>Australian Journal of Rural Health</i>	Quantitative-qualitative study (descriptive and thematic statistical analysis of surveys and interviews with administrators and data from case study)	Australia	Australia
Naeem & Bhatti ³⁷ (2015)	<i>Health Information and Libraries Journal</i>	Quantitative study (descriptive analysis of physician survey)	Pakistan	Pakistan
Ndayisaba et al. ⁸⁴ (2017)	<i>Journal of Diabetes Research</i>	Quantitative study (longitudinal study with descriptive analysis of administrative data)	Rwanda; Sierra Leone; United States	Rwanda
Okwundu et al. ⁴⁵ (2003)	<i>Cochrane Database of Systematic Reviews</i>	Literature review	South Africa; United Kingdom	Africa

(continues)

Box 1 (continued)

STUDY (YEAR)	JOURNAL	METHODS	LOCATION OF FIRST THREE AUTHORS	LOCATION BY STUDY SCOPE
Category: Organization of healthcare				
Pancer et al. ⁴³ (2018)	<i>Australian Journal of Rural Health</i>	Quantitative study (retrospective statistical analysis of administrative data)	Canada; Australia	Australia
Probst et al. ⁷⁰ (2009)	<i>BMC Health Services Research</i>	Quantitative study (cross-sectional ecological study with secondary data)	United States	United States
Rahmawati & Bajorek ⁸⁵ (2018)	<i>Rural and Remote Health</i>	Quantitative study (descriptive analysis of patient survey)	Indonesia; Australia	Indonesia
Rashidian et al. ⁶⁹ (2013)	<i>Bulletin of the World Health Organization</i>	Quantitative study (interrupted time series with administrative data)	Iran	Iran
Reddy et al. ⁸⁶ (2011)	<i>Australian Journal of Rural Health</i>	Qualitative study (thematic analysis of focus groups with healthcare workers)	Australia; United States	Australia; United States
Russel & Humphreys ⁴² (2016)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with healthcare workers and administrators)	Australia	Australia
Sbarouni et al. ³⁸ (2012)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with physicians and administrators)	Greece	Greece
Strasser et al. ³⁵ (2016)	<i>Annual Review of Public Health</i>	Literature review	Canada	Africa
Street et al. ⁸⁷ (2019)	<i>Australian Journal of Rural Health</i>	Literature review	Australia; United Kingdom	Australia
Thomas et al. ⁶⁷ (2017)	<i>Rural and Remote Health</i>	Quantitative study (descriptive analysis of administrative and secondary data)	Australia	Australia
Jacobson Vann et al. ⁸⁸ (2018)	<i>Cochrane Database of Systematic Reviews</i>	Literature review	United States	International
Wakerman et al. ³⁹ (2008)	<i>BMC Health Services Research</i>	Literature review	Australia	Australia
Wakerman & Humphreys ⁴¹ (2011)	<i>Australian Journal of Rural Health</i>	Literature review	Australia	Australia
Category: Health workforce				
Allan et al. ⁵⁴ (2008)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with healthcare workers)	Australia	Australia
Bowman ⁶⁶ (2008)	<i>Rural and Remote Health</i>	Quantitative study (statistical analysis of secondary data)	United States	United States
Chen et al. ⁵³ (2015)	<i>Australian Journal of Rural Health</i>	Quantitative-qualitative study (statistical and thematic analysis of questionnaire and interviews with healthcare workers and administrators)	China	China
De Kock & Pillay ⁵⁰ (2016)	<i>Rural and Remote Health</i>	Quantitative-qualitative study (thematic, document, and statistical analysis of interviews with administrators and administrative data)	South Africa	South Africa
Gorsche & Woloschuck ⁵⁶ (2012)	<i>Australian Journal of Rural Health</i>	Quantitative study (descriptive analysis of cohort with physician surveys)	Canada	Canada
Grobler et al. ⁶⁰ (2015)	<i>Cochrane Database of Systematic Reviews</i>	Literature review	Australia; South Africa	International

(continues)

Box 1 (continued)

STUDY (YEAR)	JOURNAL	METHODS	LOCATION OF FIRST THREE AUTHORS	LOCATION BY STUDY SCOPE
Category: Health workforce				
Hegney et al. ⁸⁹ (2004)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with physicians)	Australia	Australia
Lindeke et al. ⁴⁷ (2005)	<i>Journal of Rural Health</i>	Quantitative study (descriptive analysis of survey with nurses)	United States	United States
Martin et al. ⁵² (2016)	<i>Australian Journal of Rural Health</i>	Qualitative study (ethnographic study of interviews with patients and direct observation)	Australia	Canada
McFarlane et al. ⁵⁵ (2017)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews and focus groups with healthcare workers and administrators)	Australia	Australia
McGrail et al. ⁶⁴ (2017)	<i>Rural and Remote Health</i>	Quantitative study (multivariate linear regression and spatial analysis of georeferenced and secondary data)	Australia; United States	Australia; United States
Menegat & Witt ⁴⁹ (2018)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with nurses)	Brazil	Brazil
Oliveira et al. ⁴⁸ (2019)	<i>Rural and Remote Health</i>	Qualitative study (thematic analysis of interviews with nurses)	Brazil	Brazil
Pei et al. ⁵⁹ (2018)	<i>Rural and Remote Health</i>	Quantitative study (descriptive analysis of survey and questionnaires with physicians)	China	China
Russel et al. ⁶² (2017)	<i>Australian Journal of Rural Health</i>	Literature review	Australia	Australia
Sommanustweechai et al. ⁵¹ (2016)	<i>Human Resources for Health</i>	Quantitative study (multivariate logistic regression of data from survey with community health workers)	Thailand; Myanmar	Myanmar
Theodorakis & Mantzavinis ⁶³ (2005)	<i>Rural and Remote Health</i>	Quantitative study (case study with statistical analysis of administrative and secondary data)	Greece	Greece; Albania
Wakerman et al. ⁶¹ (2019)	<i>Human Resources for Health</i>	Literature review	Australia	Australia
Wanchek & Rephann ⁶⁵ (2013)	<i>Rural and Remote Health</i>	Quantitative study (statistical simulation with secondary data)	United States	United States
Wardle et al. ⁵⁷ (2011)	<i>Australian Journal of Rural Health</i>	Quantitative study (cross-sectional descriptive analysis of administrative data)	Australia	Australia
Williams et al. ⁵⁸ (2007)	<i>Australian Journal of Rural Health</i>	Quantitative-qualitative study (thematic and statistical analysis of survey with physical therapists)	Australia	Australia

Table 1

Characterization of selected articles by period and countries (according to authors' institutions and study scope).

Period of publications	n	%
2000-2005	5	7.2
2006-2010	13	18.8
2011-2015	24	34.8
2016-2019	27	39.2
Total	69	100.0

Location	By institutions of first three authors		By study scope	
	n	%	n	%
Australia	32	36.4	27	38.0
United States	15	17.0	9	12.7
Canada	8	9.1	6	8.4
Oceania (Australia, New Zealand)	34	38.6	29	40.3
North America (United States, Canada)	23	26.1	15	20.8
Europe (United Kingdom, Ireland, Sweden, Switzerland, Greece, Albania)	11	12.5	5	6.9
Africa (South Africa, Rwanda, Cameroon, Nigeria, Burkina Faso, Sierra Leone)	10	11.4	8	11.1
Asia (China, Taiwan, Thailand, Indonesia, Myanmar, Pakistan, Iran)	7	7.9	7	9.7
South/Central America (Brazil, Ecuador, Honduras)	3	3.4	4	5.6
International (review studies)	NA	NA	4	5.6
Total	88 *	100.0	72 **	100.0

NA: not applicable.

* The total expresses the frequency with which we counted the 23 countries where the authors' institutions are located;

** Since three studies involved comparisons of two countries (one of Greece and Albania and two of the United States and Australia), the scenarios of the 69 selected articles were counted 72 times.

Table 2

Categories and themes of selected articles, 2000 to 2019.

Categories	n	Themes	n
Access	23	Geographic aspects of rural communities	9
		Need for patients to travel for care	11
		Access to specialized and hospital services	5
Organization of healthcare	25	Rural health services' structure and inputs	7
		Functioning of health services	14
		Community-based management	7
Health workforce	21	Healthcare workers' profile and role	12
		Factors for health workforce attraction and retention	15

Access

- **Geographic aspects of rural communities**

The rural communities' geographic location affected the rural populations' timely access to healthcare ^{11,15,16,17}. Distant location means greater evaluation of the option to seek healthcare, weighing costs and risks with transportation ¹⁵.

The rural population seeks health services in the community, independently of type ¹⁶. In general, patients in rural areas exhaust the local options before seeking care outside their community. Still, patients did not always report geographic barriers to accessing health services, since the difficulty in reaching them at long distances is common ¹⁷.

For Kulig et al. ¹¹, access and rurality indices based solely on distance are insufficient. Rather, it is necessary to associate geographic location with the community's characteristics, availability of human resources, and attributes of professional practice, such as advanced nursing practices. Although populations in more remote areas have worse access, it is possible to find remote areas with good access and metropolitan areas with precarious access, circumstances that involve values, beliefs, and the population's interaction with services ¹⁸.

- **Patients' travel needs**

Interestingly, in some cases the rural population simply ignored the local health service and travelled farther than necessary in search of care. Sometimes, even when closer services were available, patients failed to use the local services and preferred to travel to larger cities, a situation the author referred to as "bypassing" local services ^{19,20,21,22,23,24}.

This phenomenon may involve the practice of so-called "outshopping": users join together in the same trip to a city for services and shopping for purposes of convenience, satisfaction, or the search for better quality ^{19,20}. The reliance on services outside the local communities was associated with more distant cities, more intense transportation flows, and individuals with higher income but with worse health status, in addition to elderly persons and women ^{19,20}.

However, heavier barriers were observed for specific rural populations with greater vulnerability. Studies involving the elderly ^{21,22}, poor people, and people with disabilities ²³ identified additional challenges for access to health services, transportation, and costs to patients and accompanying persons. Studies also cited inequities in access related to female gender and risk behaviors in adolescents ^{24,25,26,27,28}.

The community's perception of healthcare staff and services' case-resolution capacity also influenced access in rural areas and the need to travel to reach health services ^{15,23,29}. Other reasons involved patients' concerns with privacy and confidentiality in the rural setting ²⁸.

- **Access to specialized and hospital services**

Gruen et al. ³⁰, in a review of several countries, showed that the disproportionate concentration of services in urban areas is an important barrier for rural populations (both underprivileged and better-off). Both needed to travel to access specialized care or hospital treatment, but better-off rural people managed to obtain minimum access in nearby cities. For the underprivileged, the barriers were so great that access was only possible when the healthcare staff, equipment, and services visited the rural communities and/or with the use of special transportation (four-wheel drive, aircraft, etc.). This difficulty was also observed in underprivileged rural communities in Nigeria ³¹.

Meanwhile, Choo et al. ³², in rural populations in Scotland, did not identify barriers to echocardiography, explained by the relative ease of access and by institutional protocols for direct echocardiograph orders by general practitioners in the United Kingdom.

Organization of healthcare

- **Structure and inputs in rural health services**

Material shortages in health services in rural areas were identified in studies in Africa ^{33,34,35,36}, but also in Pakistan ³⁷, Greece ³⁸, and Australia ³⁹. The studies reveal difficulties in providing infrastructure and human resources, especially in poor countries and in the public sector, on which rural populations largely depend.

Insufficient structures and inputs appeared in the form of undersupply, lack of maintenance, and shortages of equipment, health units, and healthcare personnel, opening the way for provision of care by nongovernmental organizations (NGOs) ^{33,34,35,36,38}. In Sub-Saharan Africa, the focus of investments by governments and international agencies in vertical PHC programs resulted in the shifting of material and human resources to the agencies' own priority strategies, targeted to specific diseases and with a short-term vision of results ^{34,35}.

Various studies highlight the need to invest in information and communication technologies in rural areas, such as electronic patient files, to expand access, continuity, coordination, and practices of care ^{36,38,39}. Rural inequalities (compared to urban areas) in access to information devices such as computers, Internet, and mobile telephony hinder rural healthcare workers' performance ³⁷.

- **Functioning of health services**

There were two main questions in the approach to functioning of services in rural territories: how to cover and reach the rural population and how to guarantee an expanded supply to meet the needs with sustainable health workforce.

Strasser et al. ³⁵ argue that it is necessary for PHC to have universal health as its premise, and that in Africa, distances, transportation, and exclusion of vulnerable groups by local power interests are barriers to the coverage of rural populations. To reach remote sites with no health services or to supplement the existing services, the approach was to adopt mobile/roving services or extension services from a central base ^{33,39,40}. Wakerman et al. ³⁹ referred to such services as "outreach models".

In Africa, however, mobile units were rarely acknowledged as a solution to the level of needs ³³. Community-based health workers aimed at reaching rural communities rarely worked beyond the immediate surroundings of the health unit, for lack of resources ³³. In Australia, services with extended office hours were another way of expanding the supply of care to the rural population ^{41,42}. Telehealth and tele-education were cited as powerful tools, highlighting the specificities of implementation, maintenance, and autonomy in relation to the technologies ^{35,39,43}.

The second question, how to guarantee the expanded and adequate supply of services, aimed to respond to the challenges of the limited network of services in rural and remote territories and their populations' specific demands. Various studies emphasized the importance of social determination of the health/disease process in populations that are vulnerable to poverty and deficient sanitation ^{33,36,39}.

One way to address such demands would be to take services to the communities, allowing visits by PHC workers and equipment and specialized care and implementation of telehealth strategies ^{33,35,39,40}. Another key point would be training of healthcare staff to improve and expand their skills and interpersonal aspects of care ^{35,36,39}, given that some studies cited discriminatory attitudes towards local customs ^{35,36}. Consistent with the weight of social determination in the context of rural health, several studies emphasized activities in health promotion and prevention, alongside the empowerment of communities and community-based health workers ^{33,35,36,39}.

Wakerman et al. ³⁹ report that smaller and remote Australian populations that were unable to sustain specialized services tended to seek "integrated service" arrangements (a variety of supply in a single point, with mutual support among healthcare workers without an exclusive focus on general practitioners) or "comprehensive/holistic services", including patient care, prevention, and community care, with an expanded scope of practices, dealing with social determinants of health and people's participation.

Wakerman et al.³⁹ also described the configurations of rural PHC in Australia that emphasized retention of general practitioners (discrete services) via attractive conditions, although with turnover of healthcare workers, with continuity of services ensured by the infrastructure of universities or local government, a flow that was generally possible in communities with higher density. The other forms of organization – outreach models, comprehensive services, and integral services – also aimed to ensure the health workforce, for example by inspiration in connections between larger and smaller airports – where healthcare staff makes connections in larger towns and rural communities or in employment formats in oil fields (“fly-in-fly-out”), with full-time stints in remote sites alternating with days off from work³⁹.

- **Community-based management**

Community-based management was a key element in the organization of rural healthcare. Thus, external organizational logics, generally conceived for urban areas, would not be imposed on the diverse realities of rural and remote territories. Community-based management includes community autonomy to generate specific actions in the territory, with backup from PHC, aimed at making such actions more adequate and with greater case-resolution capacity through the community’s own perception of the context^{33,44}.

There are several key studies on this topic in African countries^{33,35,36,45}, but also in Ecuador and Australia^{42,44,46}. Articles that examined multiple African countries tended to highlight targeted or vertical community strategies³⁵. Community-based management focused on communicable diseases and used simple procedures, with health services as support and distribution points, highlighting low cost and efficiency^{33,35,45}. However, studies with a local/regional scope reported a more complex community-based management experience. They described participation in health system’s organization from the local and regional to the national levels^{36,42,44,46}.

Advantages of community-based management ranged from greater access and use of services, reach to underserved areas or those distant from health services, professional satisfaction, cultural competence of care, response to local needs, community empowerment, better health outcomes, and differentiation of PHC with its fundamental attributes^{33,35,36,42,44,45,46}.

Health workforce

- **Profile and professional role**

Articles on health workforce highlighted the shortage of physicians, but described the inclusion of nurses^{47,48,49,50}, workers without graduate training^{51,52,53}, and other professional categories^{54,55,56,57,58} in rural health and PHC.

Nurses play a wide role in care, management, and education, but a study in the United States⁴⁷ identified limitations due to the low understanding of their role. Nurses in South Africa were responsible for prescribing psychoactive drugs in PHC due to the lack of physicians⁵⁰.

This expanded scope of nursing practice in the delegation of tasks by some healthcare professionals to others, known as “task-shifting”, was a recurrent concept in this review^{33,34,50,51}. It involves the incorporation of more specialized responsibilities, especially in diagnosis and treatment, previously exclusive to other professional categories.

Healthcare workers without graduate training and that worked in rural areas were cited as paramedics in Canada⁵², community health workers in Myanmar⁵¹, and “village doctors” in China, the modern term for the former “barefoot doctors”⁵³. Activities in health promotion and prevention, home access, and community linkage were emphasized as common characteristics^{51,52,53}.

Other professions discussed in the studies were physical therapists⁵⁸, integrative/complementary health providers⁵⁷, physicians⁵⁶, social workers, and pharmacists⁵⁴. A common point was the discussion of generalist practices and specific skills for the rural context. Special skills were considered essential for practice in rural services, both in patient care and in prevention, in keeping with the socio-epidemiological profile, the population’s cultural characteristics, and lack of specialized personnel^{55,56,57}.

The studies found that all the healthcare workers were supposed to conduct an expanded scope of practices, with new responsibilities (task-shifting) and the need for continuing education, a recurrent theme in the articles ^{51,53,55,56}. Integrative and complementary health practices were considered appropriate for rural areas based on greater affinity, integration with the culture, and ease of access in rural communities, based on studies in Australia ⁵⁷ and China ⁵⁹.

Another striking characteristic was community work in rural areas, using home visits, health services outreach, inter-sector or surveillance linkage, and strategic planning in the territory ^{49,51,52,53,54}.

Complex relations between healthcare workers and the rural communities where they work shape their practices due to such issues as privacy, confidentiality, perceptions of the worker's visibility and reputation, and qualities attributed to the respective territories ^{51,53,54}.

- **Factors for health workforce attraction and retention**

The studies reported intense complexity in the attraction and retention of health workforce, with multiple and intertwining factors, some specific to each context. In general, geographic issues, education, work market regulation, and personal support were reiterated for the health workforce in rural settings ^{60,61,62}.

Geographic issues were cited as the main factor, frequently associating unfavorable health workforce distribution with distance from urban areas ^{61,62,63,64}. These issues were occasionally overcome by the greater appeal of seacoast areas and other attractive characteristics in Australia and the United States ⁶⁴. The value assigned to giving to the community and the feelings and relations that healthcare workers developed with the places, influencing their wish to stay or leave – namely bonding with local communities – were emphasized by studies in Myanmar ⁵¹, China ⁵³, and Australia ⁵⁴.

Rural or indigenous origins of students or recruited workers tended towards greater health workforce retention. However, due to the greater socioeconomic vulnerability of the population in rural and remote territories, financial and pedagogical support is necessary for effective training of local health workforce ^{59,60,61,65}.

Exposure of students to rural settings, the discussion of rural issues throughout their undergraduate training, and the installation of teaching institutions in these scenarios were related to greater health workforce retention ^{60,61,66}. International reviews reported positive findings from curricula with skills applied to rural health ^{60,61}. They emphasized the importance, during training, of discussing the identity of healthcare workers in rural contexts, including their duties, limits, and needs ^{54,59}.

Another factor impacting health workforce supply was the prospect of a rural health career, that is, workers that glimpsed a sustained practice in this field. In the United States, training in pediatrics, and especially in family medicine, guaranteed longer permanence in rural PHC after training, regardless of policy and market changes ⁶⁶. In China, an appropriate understanding of the rural medical careers was considered necessary for recent graduates not to come to work only temporarily, by obligation, in rural areas ⁵⁹.

The studies showed that retention of healthcare personnel in rural areas can be affected by financial issues. According to Grobler et al. ⁶⁰, financial incentives such as scholarships, benefits, and higher salaries were featured in international studies as strategies to supply health workforce in rural areas. Attraction of healthcare professionals was associated with better salaries in urban areas of the United States ⁶⁶ and higher income expectations with advancing urbanization in China ⁵³. The possibility of the rural population paying for consultations, with reimbursement by health programs and insurance in Taiwan and the United States, led to better supply of health workforce ^{60,65}.

The international literature identified the important weight of the public sector in the healthcare work market for guaranteeing access in rural areas, since the populations in rural and remote areas, generally underprivileged for covering the market costs of healthcare, depend on the provision and regulation of services by the State. The organization of supply and provision of services in the public sector largely impacted the attraction and retention of rural health workforce ^{63,65,66}.

In the United States, healthcare professionals' choice to work in rural PHC varied according to market forces and government policies ⁶⁶. Work market regulation is a strategy for better distribution of the health workforce in rural areas. Foreign physicians limited to rural areas, stimulus for (or

compulsory) services for recent graduates, and minimum work time in rural health as a prerequisite for specializations were some of the initiatives cited in international studies ^{59,60,62}.

There is a need for personal and family support to adequately sustain rural health workforce. Living conditions in the rural setting, such as housing, schools, and academic and professional development, as well as affective relations, are conditioning factors ^{51,54,60}. The forms of support feature a time limit on activities in remote territories, personalized financial incentives, and psychological support ^{61,62}.

The undervaluation of the rural doctor's image, fed by a cultural bias that "real doctors" are those that work in big-city hospitals, was seen in China as a challenge to understanding rural practice and attraction/retention of health professionals ⁵⁹. In Australia, health workforce retention resulted from a complex combination of the local context, professional role, personal strengths, and relationships ⁵⁴.

Returning to the underlying question: what are the effective strategies to guarantee comprehensive/integral PHC for rural populations? Box 2 presents a synthesis of the principal strategies found in the selected literature to overcome obstacles to access, organization, and health workforce supply.

Discussion

The review's results provide an overview of rural health in the international literature in the last 20 years, on questions of access, organization, and health workforce in PHC. The review featured a range of rural scenarios, views, and socioeconomic and spatial realities.

The analysis of categories and themes involved in rural PHC revealed a broad view of questions and challenges, already well-known, but also strategies, models, and foundations for health policies, planning, and practices in rural areas. Although these points were extracted separately from the studies, the three categories (access, organization, and health workforce) showed many intersections. Thus, articles focused on one category also discussed questions and strategies from the other two.

The cross-cutting questions in the various themes related to space and population. Vast territories with limited resources in transportation, infrastructure, and services condition difficulties with access and the needs for economically viable solutions. Small, dispersed populations, marginalized from socioeconomic development to a greater or lesser degree, are vulnerable to unfavorable social, health, and epidemiological condition that are specific to the rural context ^{33,39,67}.

Such characteristics raised a recurrent concern on the costs of guaranteeing healthcare for the rural population. High costs were identified for the health workforce ⁶⁷, difficult to attract and retain, reiterated as a critical problem for access and organization of rural healthcare due to the insufficient amounts and skills ^{17,35,38}. Shortages of infrastructure and inputs in the services, combined with unfavorable work conditions, further aggravate the complex web of factors related to maintenance of qualified health workforce in rural communities, as well as quality of care and access to health, reflecting the "inverse care law" enunciated by Hart ⁶⁸.

So many challenges illustrate the debate on access and efficiency of investments in rural health and PHC. Rashidian et al. ⁶⁹, in Iran, show that implementation of PHC in unserved areas generates effects on access that exceed the effects of efficiency, increasing hospitalizations and health costs, contrary to the tendency in wealthy countries, as confirmed by Probst et al. ⁷⁰, who point to a drop in hospital admissions for PHC-sensitive conditions associated with presence of primary care units in the United States.

Consequences of failures in access, organization, and health workforce were identified as resumption, postponement, or abandonment of the search for healthcare; patient preference for emergency services (regardless of the health problem); aggravation of health conditions; and costs and risk of traveling to services ^{17,19,22}.

The challenges identified in the international debate were like those in the Brazilian reality. Citizens from economically dynamic areas enjoy better access to health than those from less developed regions, such as rural and remote territories ⁷¹. In Brazil, as in the international scenario, rural populations' underprivilege leads to worse epidemiological and health indicators ^{7,8,72}. Investments in infrastructure and inputs, functioning of services, and health workforce, especially through synergic policies such as the More Doctors Program and the Program for Improvement of Access and Qual-

Box 2

Synthesis of principal strategies to overcome barriers to access, organization of healthcare, and health workforce in rural areas.

CATEGORIES	PRINCIPAL STRATEGIES TO OVERCOME BARRIERS
Access	Supply of local options for health services.
	Planning to distinguish communities with difficult access, considering both geographic location and criteria such as the community's cultural characteristics, health workforce availability and profile, and each mode of transportation to cities with more resources.
	Differential focus on healthcare networks for specific populations with increased vulnerability, such as elderly, women, people with disabilities, low-income people, and adolescents.
	Improve the community's perception of healthcare personnel and health and case-resolution capacity of care positively influences access and decreases the need to travel to reach health services, including efforts to guarantee patient's privacy and confidentiality in the rural context.
	Supply of specialized/hospital services with a more balanced proportion between urban and rural areas and integration with PHC services in rural areas.
	Services, equipment, and healthcare workers visit the communities using special logistics/transportation (e.g., 4-wheel drive vehicles, helicopters), allowing access to underprivileged populations in remote communities.
	Protocols for direct orders of diagnostic/therapeutic procedures by rural health services, facilitating access.
Organization of healthcare	Premise of universal health and strengthening of the public sector, which rural populations largely depend on, related to better provision of human resources and infrastructure.
	Greater focus on long-term programs/management strategies and expanded health actions, beyond the focus on specific diseases.
	Investments in communication and information technologies can increase access, continuity, coordination, and diversity of health practices in rural areas.
	Arrangements with mobile/roving/outreach services and extended office hours allow expanding care and reaching remote communities or those unserved with health resources.
	Activities in health promotion and prevention, community empowerment, and valuing community health workers consider the weight of social determination in the health/disease process in rural communities.
	Training of healthcare workers contributes to improving and expanding their skills and interpersonal aspects of care, decreasing discriminatory or inadequate attitudes towards local customs.
	Integrated service models and integral/comprehensive services maximize scale economy gains in care for remote and scattered populations.
	Continuity of health services and maintenance of health workforce via continuous rotating flow of healthcare workers, allocation of healthcare workers between larger cities and rural areas, alternating workload in loco and free workload.
	Community autonomy to manage specific activities in the territory, with backup from PHC, more adequate and with greater case-resolution due to the community's own perception of the context.
Health workforce	Generalist practices and specific skills for rural contexts address the socio-epidemiological profile, the population's cultural characteristics, and shortage of specialized healthcare workers.
	Training, continuing education, and task-shifting contribute to the incorporation of expanded scope of health workforce practices in rural areas.
	Development of integrative and complementary health practices are appropriate due to greater affinity, integration with the culture, and ease of access in rural communities.
	Community work in rural areas improves health services' capacity for access and care.
	Policies for health workforce attraction/retention and training, considering healthcare workers' complex relations with rural practices in such issues as privacy, identity, value of health professional's role in rural areas, bond between healthcare workers and the communities served.
	Local health workforce, through recruitment of students and local rural or indigenous workers, with financial and pedagogical support for effectiveness of training, tends to promote greater retention.
	Exposure of students to rural scenarios, discussion of rural issues during undergraduate training, or installation of teaching institutions in these scenarios were related to greater retention of healthcare workers.
	Professional career in rural health and financial incentives (scholarships, benefits, higher salaries).
	Provision and regulation of supply of health services and work market by the State. Personal and family support on such aspects as living conditions, housing, schools, and psychological support.

PHC: primary healthcare.

ity of Basic Care ⁷³, in recent years, have been dismantled and redirected to an economic efficiency approach, to the detriment of universal and equitable care ⁷⁴.

The focus on deficiencies in rural health appears to predominate in the international literature, as reported by Wakerman & Humphreys ⁴¹. But the current review also shows that challenges in rural areas require innovative conceptions and approaches, different from the urban rationality and that serve to reflect on PHC throughout the system. By outlining the strategies for the observed challenges, the studies shaped some organizational models in the rural territories. The review by Wakerman et al. ³⁹ on rural Australia distinguished between models for discrete services, outreach, integrated, integral, and comprehensive models, and virtual reach (telehealth), corresponding to the rural population's degree of rarefaction and distance. Thus, the more remote the location and the smaller the population, the more necessary is an integral and integrated arrangement of health services to maximize scale economy gains in rural territories ³⁹.

Crosscutting actions in access, organization, and health workforce in rural PHC include community action, outreach models, use of communication and information technologies (ICTs), access to care, and professional training and development. Community action, indissociable from the need to respond to the social determination of health/disease processes, appeared in the provision of means for presence in rural communities and recommendations on promotion/prevention activities to expand access and the more incisive view of the contexts' specificity and the more complex perspective of geographic aspects vis-à-vis access, referring to notions of critical geography and living territory ⁷⁵. Community involvement in the organization of healthcare, emphasis on horizontal strategies for comprehensive care, surveillance of care, inter-sector collaboration, integration of local and regional health networks, and valuation of healthcare workers' bonding with rural communities show the relevance of community action in the initiatives analyzed in the international literature.

Various dynamics that guarantee adequate care in outreach models must respond to the multiplicity of contexts, needs, and resources in distinct rural areas. They require complex planning of the health workforce, logistics, and use of space, with collaboration ranging from the local level of communities to the highest government echelons. ICTs can also back various strategies in access, organization, and health workforce for rural health. These feature telehealth, allowing to reach locations unserved with care and surveillance and the expansion of health practices supply. ICTs are also essential for more effective systems in diagnosis, plans, and follow-up at the individual and community levels.

Access to care obviously permeated the strategies for rural PHC. Although the concern for medical care predominated, the strategies also included nursing staff, community health workers, social workers, and integrative/complementary providers. Multidisciplinary teamwork strategies are important. Access to care is based mainly on continuing care, beyond discrete interventions. Configurations of the supply of such care vary widely according to the circumstances – specific vulnerabilities in rural populations, possibilities of local access and resources, distance to urban centers, cultural characteristics, capacity to attract and retain health workforce, and the public sector's regulatory force and mechanisms, among others. According to Wakerman et al. ³⁹, the more remote and the smaller the communities, the greater the tendency for services to seek more comprehensive healthcare models.

Professional training and development formed another set of strategies, not only for health workforce, but also for healthcare access and organization. Training and expansion of professional practices were highlighted, ranging from generalist to specific skills for situations in each rural context, from culturally sensitive attitudes to adequate, continuing, and coordinated care, improving access and organization of PHC in rural areas. Professional development includes continuing education, task-shifting to the available workers in rural areas, and health workforce training, based on members of the rural communities, with exposure to healthcare settings and contents on rural health.

The strategies identified by Wakerman et al. ³⁹ point beyond the scale economy perspective. The more remote and disperse the population, the sharper the magnifying glass on ways to offer access, organize health services, and ensure health workforce in the essence of the individual/family/community triad. While it is possible to find a condensation of urban models, marked by the production of care captured by the capitalist logic and thus by what Donnangelo ⁷⁶ calls “medicalization”, the articles in this review also identified critiques of a rural model of selective PHC that focuses on vertical and

fragmented programs, applying narrow cost-efficiency concepts and a framework of the natural history of diseases for rural populations' health.

Rural areas are fundamentally what Milton Santos ⁷⁵ (p. 89) defines as horizontalities: *“both the place of the finality imposed from outside, from afar, and from above, and the counter-finality, locally generated, the stage for a compatible daily reality, but not a conformist one”*. Ways to ensure comprehensive access to health, proper to rural areas, thus represent the possibility of subverting established models. Rural areas can contribute more adequate perspectives for PHC, given their diversity and the challenges they pose to common sense. In short, they can invert the logic, bringing the essence of unicity to the more general system.

Final remarks

The specificities of each country or region's historical context and health systems require considering the limits on generalization of results. New studies with systematic review designs may be more adequate to statistically extrapolate the information from a total set of studies on the most frequently addressed problems, treated here comprehensively for the purposes of an integrative review. Another limitation of this review was having included only studies in English. Articles with the greatest international reach are usually written in English, but the literature selected here was unable to capture studies published in other languages, which would better express other realities as for example in Latin America. Among the leading countries in the international debate on rural health – Australia, United States, and Canada – Australia stood out in this review, considering the inclusion of specific Australian journals on the review's theme as literature search bases, which appeared in the initial search. Even so, the review produced a broad overview of challenges and strategies for PHC in terms of access, organization, and health workforce in rural health.

This comprehensive understanding of rural health, expressed in different contexts and from different perspectives in this review, can motivate and guide the formulation of public policy strategies and health actions with a view to equity for rural populations, for the latter to attain the same health status aspired to by the rest of the population ¹. However, as this review demonstrated, effective strategies require knowledge of the resident population in different rural realities, calling for in-depth studies of the heterogeneity of these areas.

This review contributes to the understanding of additional challenges for PHC in the regionalized healthcare network, in the rural context, and contemplates the clear diversity of territories, health needs, and possible paths outlined by international experiences. Understanding the rural areas' characteristics, both in terms of PHC access, organization, and health workforce and their historical, social, and environmental process in transformation, favors the creation and strengthening of practices and public policies that are renewed according to the founding principles of the SUS, with universality, equity, and comprehensiveness, from an inclusive perspective in the rural reality.

Contributors

C. M. Franco analyzed and interpreted the data, wrote the article, and takes responsibility for all aspects of the work, guaranteeing the accuracy and integrity of all parts of the text. J. G. Lima contributed to the study's conception and design, data analysis and interpretation, and writing of the article. L. Giovanella contributed to the study's conception and design, data analysis and interpretation, relevant critical review of the intellectual content, and approval of the final version for publication.

Additional informations

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Resumo

Em áreas rurais e remotas, a atenção primária à saúde é essencial para enfrentar iniquidades que marcam estes territórios. O conceito de ruralidade é pouco preciso e políticas voltadas à saúde rural no Brasil são frágeis. A revisão da literatura internacional pode apoiar uma maior compreensão sobre estratégias desenvolvidas em questões centrais da saúde rural. O objetivo deste artigo foi identificar e analisar os desafios do acesso, organização da atenção à saúde e a força de trabalho em saúde na atenção primária em áreas rurais. Foi feita uma revisão integrativa da literatura, com busca de artigos científicos publicados entre 2000 e 2019, nas bases Cochrane e MEDLINE e revistas específicas de saúde rural. A pesquisa resultou em 69 artigos, categorizados em acesso, organização à saúde e força de trabalho. Foram analisados os temas principais de seus achados. Os artigos classificados como acesso apresentaram entre os temas centrais: aspectos geográficos, necessidades de deslocamento dos usuários e acesso aos serviços hospitalares e especializados. Artigos da organização da atenção à saúde trataram de: estrutura e insumos, funcionamento dos serviços de saúde e gestão com base na comunidade. Em força de trabalho em saúde, destacou-se: perfil e papel profissional e fatores de atração/fixação. Ações transversais ao fortalecimento do acesso, organização à saúde e força de trabalho em saúde em áreas rurais foram: atuação comunitária, modelos de extensão/visitação, tecnologias de comunicação/informação, acesso à assistência e formação/desenvolvimento profissional. A revisão fornece compreensão abrangente da atenção primária na saúde rural em prol da equidade das populações rurais.

Atenção Primária à Saúde; Serviços de Saúde Rural; Acesso aos Serviços de Saúde; Organização e Administração; Mão de Obra em Saúde

Resumen

En áreas rurales y remotas, la atención primaria en salud es esencial para combatir las inequidades que caracterizan estos territorios. El concepto de ruralidad es poco preciso y las políticas dirigidas a la salud rural en Brasil son frágiles. Una revisión de la literatura internacional puede apoyar una mayor comprensión sobre las estrategias desarrolladas en cuestiones centrales de la salud rural. El objetivo de este artículo fue identificar y analizar desafíos del acceso, organización de la atención a la salud y fuerza de trabajo en salud en la atención primaria en áreas rurales. Se realizó una revisión integral de la literatura, con una búsqueda de artículos científicos, publicados entre 2000 y 2019, en las bases Cochrane y MEDLINE, así como revistas específicas de salud rural. La investigación resultó en 69 artículos, categorizados por acceso, organización de la atención a la salud y fuerza de trabajo en salud. Se analizaron los temas principales de sus resultados. Los artículos clasificados como acceso tuvieron como temas centrales: aspectos geográficos, necesidades de desplazamiento de los usuarios y acceso a los servicios hospitalarios y especializados. Los artículos de la organización de la atención a la salud trataron sobre: estructura e insumos, funcionamiento de los servicios de salud y gestión basada en la comunidad. En fuerza de trabajo en salud, se destacó: perfil y papel profesional, así como factores de atracción/fijación. Las acciones transversales para el fortalecimiento del acceso, organización de la atención a la salud y fuerza de trabajo en salud en áreas rurales fueron: actuación comunitaria, modelos de extensión/visitas, tecnologías de comunicación/información, acceso a la asistencia y formación/desarrollo profesional. La revisión proporciona una comprensión amplia de la atención primaria en salud rural en pro de la equidad de las poblaciones rurales.

Atención Primaria de Salud; Servicios de Salud Rural; Accesibilidad a los Servicios de Salud; Organización y Administración; Fuerza Laboral en Salud

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