

## Evaluation of micro-level management of older person care in primary health centers in a health region in the Federal District of Brazil

Ruth da Conceição Costa e Silva Sacco (<https://orcid.org/0000-0001-6131-0852>)<sup>1</sup>

Paulo Ricardo dos Ramos Cardoso (<https://orcid.org/0000-0001-7967-0995>)<sup>2</sup>

Patrícia Maria Fonseca Escalda (<https://orcid.org/0000-0003-0021-1193>)<sup>1</sup>

Marcella Guimarães Assis (<https://orcid.org/0000-0003-1636-555X>)<sup>3</sup>

Sílvia Maria Ferreira Guimarães (<https://orcid.org/0000-0002-2097-2355>)<sup>4</sup>

**Abstract** Primary health centers (PHCs) should consider the demographic and epidemiological profile of the health region to respond to population aging and structure service delivery around networks based on macro and micro-level management to ensure the provision of comprehensive services. A normative evaluation of micro-level management in four PHCs in a health region in the Federal District of Brazil was conducted to inform the development of recommendations for enhancing the delivery of comprehensive and integrated long-term care for older persons. A management evaluation matrix was used where management stages were classified as advanced, intermediate and incipient. The findings show that none of the PHCs were at the advanced stage, three were at the intermediate stage, and one at the incipient stage. The lowest scores were obtained for the subdimensions care model (which was shown to be predominantly traditional) and humanization (fragmentation of care). Lack of infrastructure and staff absenteeism were shown to be constraining factors, while effective communication with local administrators was a facilitating factor. Improvements need to be made in micro-level management to enhance the delivery of comprehensive and timely care to older persons in this health region.

**Key words** Elderly Health, Health Services, Health Care Delivery, Health Management, Health Evaluation

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<sup>1</sup> Faculdade de Ceilândia, Universidade de Brasília (UnB), Campus Universitário, Centro Metropolitano, 72220-275 Ceilândia DF Brasil. [ruth.sacco1@gmail.com](mailto:ruth.sacco1@gmail.com)

<sup>2</sup> Secretaria de Estado de Saúde do Distrito Federal, Brasília DF Brasil.

<sup>3</sup> Departamento de Terapia Ocupacional, Escola de Educação Física, Universidade Federal de Minas Gerais, Belo Horizonte MG Brasil.

<sup>4</sup> Departamento de Antropologia, Instituto de Ciências Sociais, UnB, Brasília DF Brasil.

## Introduction

Rising life expectancy and health improvements are worldwide phenomena. However, these improvements are marred by gross health inequalities<sup>1</sup>. In Brazil, unlike in most developed countries, the speed of population ageing has been particularly fast<sup>2</sup>. Over a period of five years the elderly population grew by 18%<sup>3</sup> and in 2017 there were 30.2 million older persons in Brazil, corresponding to 15.6% of the overall population<sup>3</sup>. As people age, they become more susceptible to complex and costly diseases and functional limitations, creating an economic and social burden associated with the treatment<sup>2,4</sup>.

The specific health needs of older persons should therefore be taken into account when organizing service delivery and determining a care model that ensures coordinated and integrated care that is appropriate to older people<sup>5</sup>. Health-care networks (*Redes de Atenção à Saúde* - RAS) are defined as “organizational arrangements of actions and health services with different technological densities integrated via technical, logistical, and administrative support systems to ensure the provision of a comprehensive service”<sup>6</sup>. To provide a comprehensive service, understood here as the “government’s response to the health needs of a specific group, which should incorporate the possibility of prevention and care”<sup>7</sup>, networks should be organized across macro and micro levels<sup>8</sup>. Micro-level management involves the elaboration of individualized care plans, while macro-level management concentrates on the pathways that are necessary to implement these plans, falling on the administrator to coordinate the components of the network to ensure the provision of a comprehensive service<sup>8</sup>.

There are various initiatives in Brazil aimed at prioritizing and ensuring the provision of comprehensive care for older persons, such as the National Health Policy for Older Persons (PNSI, acronym in Portuguese), designed to promote quality aging<sup>9</sup>. These initiatives are in line with the World Health Organization’s World Report on Aging and Health, which suggests that functional ability is shaped by the choices and interventions made throughout the life course<sup>10</sup>.

In addition to the PNSI, the National Policy for Primary Care (PNAB, acronym in Portuguese) enshrines the Family Health Strategy (FHS) as the key strategy for expanding and consolidating primary care, increasing resolvability, and improving health outcomes, which requires health services to reshape work processes in or-

der to ensure the provision of comprehensive care<sup>11</sup>. Primary care (PC) includes individual and collective health actions at all levels of disease prevention “developed around administrative and health practices carried out through team working and geared towards populations of clearly delimited territories, for which the teams assume responsibility”<sup>12</sup>. In view of the above, in 2017, the Federal District of Brazil established its own PC policy and developed regulations for the conversion of services to the FHS model, considering the district’s demographic and morbidity and mortality profiles and the need to improve the quality of care<sup>12,13</sup>.

The effective functioning of PC is crucial for the effective functioning of elderly care given the central role it plays in the coordination of RAS, where primary health centers (PHCs), the mainstay of PC, are the point of entry to the health system. The management of care for older persons should be guided by individualized care plans, which should include guidance on self-care, support for family members and carers, health education actions, and activities to promote socialization and interaction with other resources<sup>14-16</sup>. In this context, the effective use of micro-level clinical management technologies is vital to enhance the quality of care and ensure positive health outcomes for older people<sup>17</sup>.

A literature review evaluating the effectiveness of older person care networks concluded that little research has been conducted on public health programs for older persons and that the methodological quality of studies is generally poor. The study concluded that, when effectively integrated within and among the different levels and sites of care within the care network, such as hospitals, home care, and social support services, to ensure long-term care based on care plans, primary healthcare is effective in reducing hospitalizations, saves resources, and is more advantageous for patients and their families<sup>5</sup>.

An evaluation conducted in a health region in the State of São Paulo revealed that the incorporation of actions geared towards the management of the health of older persons in PC services is embryonic and that. It also highlighted that few studies have assessed the organization of work processes focused on this group and that evaluation instruments tend to be general, encompassing the full scope of primary care services rather than those directed specifically at older persons. The author suggests that further evaluations should be conducted in different regions across the country to improve the manage-

ment of care and promote the adoption of appropriate care technologies, thus strengthening PC for older persons<sup>18</sup>.

In view of the above, it is important to evaluate micro-level management in PHCs to provide an insight into care provision in these facilities and whether they promote the delivery of comprehensive services and timely access to quality primary care for older populations<sup>5</sup>.

A normative evaluation was therefore conducted of micro-level management of care for older people in PHCs in the federal district's west health region (*Região de Saúde Oeste do Distrito Federal*- RSO) in order to gain a broader understanding of how older person care works in practice in PC settings and inform the development of recommendations for enhancing the delivery of comprehensive and integrated long-term care for older persons.

## Methodology

A cross-sectional normative evaluation was conducted. A cross-sectional research design was chosen because it is particularly useful for gaining insight into the particularities of a situation to inform future interventions<sup>19</sup>. By “making a judgment on an intervention and comparing resources used and its organization (structure), services, or goods produced (process) and results obtained, based on norms and criteria”<sup>20</sup>, normative evaluation is useful for producing information, informing decision-making, and empowering the actors involved, in this case administrators<sup>20</sup>. Emphasis was given to the “process” because by making timely improvements to the process, without the need to wait for “results”, it is possible to harness the potential of PC as the point of entry to the health system and therefore ensure accessibility of health services<sup>21</sup>.

The RSO includes two administrative regions (*Regiões Administrativas* - RA): Ceilândia (RA IX) and Brazlândia (RA IV), with a population of around 489,351 and 52,287, respectively. Older persons account for 17% and 14% of the population, respectively<sup>22</sup>. The RSO was chosen because Ceilândia has a considerable proportion of vulnerable older people with an elevated risk of functional decline and death and a higher rate of poor or fair self-perceived health, and therefore a significant demand for older person care services<sup>23</sup>.

The study was conducted between March and September 2018 in four of the 22 PHCs in

the RSO, all of which located in Ceilândia. The PHCs were selected using convenience sampling based on the following inclusion criteria: population covered by the PHC has a high proportion of older persons and PHCs whose FHS have been operating for the longest period of time<sup>12</sup>.

A management evaluation framework<sup>24</sup> subdivided into dimensions, sub-dimensions, and criteria was used to evaluate the use of micro-level management tools by PHC administrators (Chart 1).

The maximum total score for the items in the framework was 100. The subdimensions related to the attributes of the FHS were given the greatest weight, considering that this care model emphasizes the use of micro-level management tools and the legislation provides for the homogenization of the organization and functioning of the federal district's PC system based around the FHS<sup>12</sup>. Micro-level management was classified based on the overall score as a proportion of the maximum obtainable score as follows: a) Advanced (> 66.6%), Intermediate (> 33.3% and ≤ 66.6%), and Incipient (≥ 0 and ≤ 33.3%)<sup>24</sup>. The dimensions that make up the framework were taken from Ministerial Order 4.279/2010, which establishes guidelines for the organization of the RAS within the SUS<sup>6</sup>. This classification is summarized in Chart 2.

Each PHC received the name of different colored species of *ipê* (trumpet tree), each of which blossom at different times after the dry season. They were named according to the sequence in which each species blossoms as an analogy for the management stage at which each center finds itself: *Ipê-Roxo*, *Ipê-Amarelo*, *Ipê-Rosa*, and *Ipê-Branco*<sup>26</sup>.

The study was approved by the human research ethics committees of the Foundation for Health Sciences Teaching and Research of the Department of Health of the Federal District and of the Ceilândia Faculty of the University of Brasília (applications 2.269.757 and 2.202.975, respectively). The data was consolidated and tabulated in a spreadsheet (Excel 2014, Microsoft®) and descriptive analysis was performed.

## Study Location

The population of older people in Brazil is 20,590,599, which corresponds to 10.8% of the country's total population. In the Center-West Region, 8.8% of the population are elderly, while in the Federal District this proportion is 7.7%<sup>27</sup>. The Federal District follows the national trend,

**Chart 1.** Dimensions, subdimensions, and criteria and operational concept used in the management evaluation framework.

Dimensions	Subdimensions	Observed criteria	Operational concept
Management of health condition	Care model	<ul style="list-style-type: none"> <li>. Stratification of population risk.</li> <li>. Use of clinical guidelines.</li> <li>. Analysis of situation and risk surveillance.</li> <li>. Healing and rehabilitation actions.</li> </ul>	Implies a shift from a healthcare model focused on the individual, cure, and rehabilitation towards a territorial-based approach with the identification of at risk individuals, focus on health promotion and protection, and early intervention to achieve better outcomes and lower costs.
	Comprehensiveness of care	<ul style="list-style-type: none"> <li>. Existence of intersectoral actions.</li> <li>. Existence various points of healthcare.</li> </ul>	
Case management	Humanization	<ul style="list-style-type: none"> <li>. Elaboration and use of individualized treatment plans.</li> <li>. Fragmentation of care.</li> </ul>	Dynamic and personalized relationship established between the professional responsible for the case and patient for the planning, monitoring, and evaluation of actions and services according to patient needs in order to promote quality humanized care.
	Coordination of care	<ul style="list-style-type: none"> <li>. Existence of referral and back referral flows.</li> <li>. Adequate routine use of referral and back referral flows.</li> <li>. Return and continuity of care of patients discharged from other levels of care.</li> </ul>	
	Planning, monitoring, and evaluation of actions and services	<ul style="list-style-type: none"> <li>. Situational health planning practices.</li> <li>. Regular planning used as a management instrument.</li> <li>. Timely provision of services to patients.</li> <li>. Response to patients' needs and expectations.</li> </ul>	
Clinical audit	Implicit auditing	<ul style="list-style-type: none"> <li>. Expert opinion to evaluate healthcare practices.</li> </ul>	Critical and systematic appraisal of quality of healthcare, including aspects related to diagnosis and treatment, use of resources, and outcomes at all points of care, observing the use of established clinical protocols.
	Explicit auditing	<ul style="list-style-type: none"> <li>. Clinical guideline-based evaluation.</li> <li>. Sentinel event-based evaluation.</li> </ul>	
Waiting lists	Rationalization of access	<ul style="list-style-type: none"> <li>. Organization of patients into waiting lists based on needs and risks.</li> <li>. Transparency in the use of waiting lists.</li> </ul>	Involves the establishment of rules and regulations for the use of services in some points of care, with needs and risk-based organization criteria. Aims to promote a balance between supply and demand.

Source: Adapted from Cabral-Bejarano *et al.*<sup>27</sup>.

witnessing an increase in the elderly population and elevated rates of morbidity and mortality due to chronic degenerative diseases<sup>28,29</sup>. The ratio of older persons ( $\geq 60$  years) and young people aged under 15 in the Federal District is expected to be the second highest in Brazil by 2060, reach-

ing 207.1% (around two to one), compared to the current rate of 33.6% and projected national rate of 173.4%. Furthermore, life expectancy at birth of men and women is projected to rise from 74.9 and 81.9 years, respectively, to 79.5 and 85.6 years, respectively<sup>30</sup>.

**Chart 2.** Dimensions, subdimensions, and criteria and operational concept used in the management evaluation framework.

Dimensions	Subdimensions	Maximum Score	Classification
Health Condition Management	Care model	25	Advanced: > 66.6%
	Comprehensiveness of care	10	
Case Management	Humanization	10	
	Coordination of care	15	
	Planning, monitoring, and evaluation of actions and services	15	
Clinical Audit	Implicit auditing	5	Intermediate: > 33.3% and ≤ 66.6%
	Explicit auditing	10	
Waiting Lists	Rationalization of access	10	Incipient: ≤ 33.3%
Total		100	

Source: authors' elaboration, 2018.

The Federal District is made up of 31 RAs. Currently, 46.1% of the population of Ceilândia are aged between 25 and 59 years, 20.8% are aged between zero and 14 years, and 17% are over the age of 60. The literacy rate is 3.6% among the overall population (17,510 illiterate people) and 22.5% in older persons. The majority of older persons are originally from the Northeast Region (66.2%) and 50.7% (4<sup>th</sup> place in the Federal District) of households are headed by older women. The average monthly household income in the region is R\$3,076, while per capita income is R\$915.81<sup>22</sup>. The proportion of retired older adults is 20.8%<sup>31</sup>.

These sociodemographic characteristics, coupled with the consequences of the demographic and epidemiological transitions, demand timely responses, including the reshaping of the organization of the federal district's health system, incorporation of appropriate technologies, effective allocation and training of human resources, and organization of work processes to ensure that services deliver comprehensive older person-centred care<sup>28,29</sup>. In this respect, it is essential that PC administrators have a clear understanding of the specific health needs and priorities of older persons and use strategies that help to bring them closer to their territory and meet the older population's demands<sup>32</sup>.

#### Use of Micro-level Management Tools

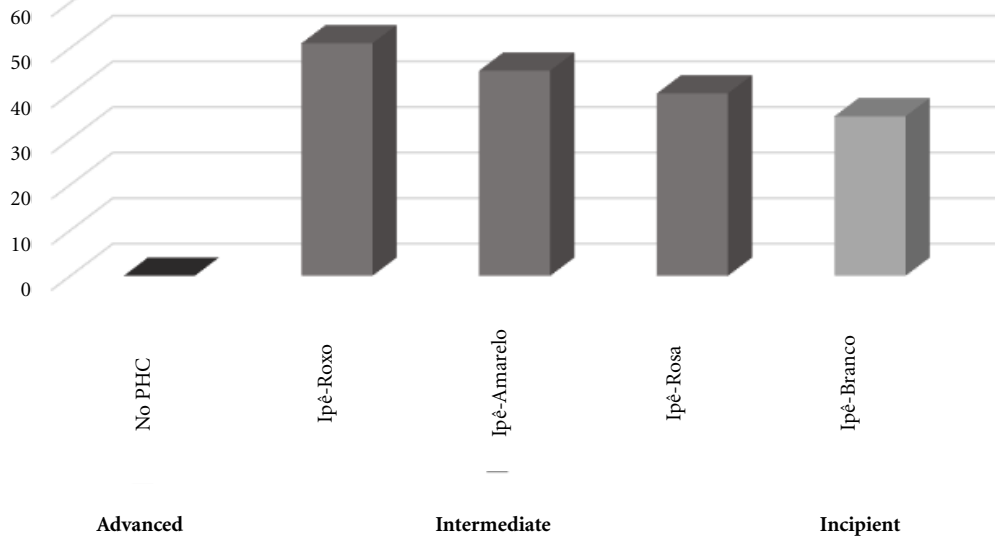
Management practices provide a unique opportunity to introduce change in services, re-

model work processes, and expand the provision of quality care<sup>33</sup>. However, health services are complex organizations that, for the most part, are structured according to a pyramidal logic and characterized by hierarchical actions where different types of technology coexist<sup>34</sup>.

Micro-level management tools, such as health condition management, case management, clinical audits, and waiting lists, are part of clinical management and are a prerequisite for the effective functioning of healthcare networks. As a soft technology and strategy for the management of health organizations, clinical management can therefore serve as the basis for reshaping health services<sup>35</sup> and dispenses with dialogic relationship in older person care by understanding the cultural, social, economic, historical, and environmental dimensions of care<sup>36</sup>.

The conversion from the traditional care model to the FHS model in the federal district's PC system began in 2017, reaching its climax in the RSO at the beginning of 2018, by which time all the PHCs' health teams had been incorporated into the FHS<sup>12</sup>. However, the framework analysis shows that one year after the introduction of the legislation regulating the organization of PC in the Federal District, the management tools were either not being used or administrators were unaware of them, as shown in Graph 1.

The results show that none of the PHCs are at the advanced stage in the use of micro-level management tools, one is at the intermediate stage, and two are at the incipient stage. Given the general lack of effective communication be-



**Graph 1.** Classification of Primary Health Centers Based on Overall Management Evaluation Framework Scores. West Health Region, Ceilândia, Federal District, 2018.

Source: authors' elaboration, 2018.

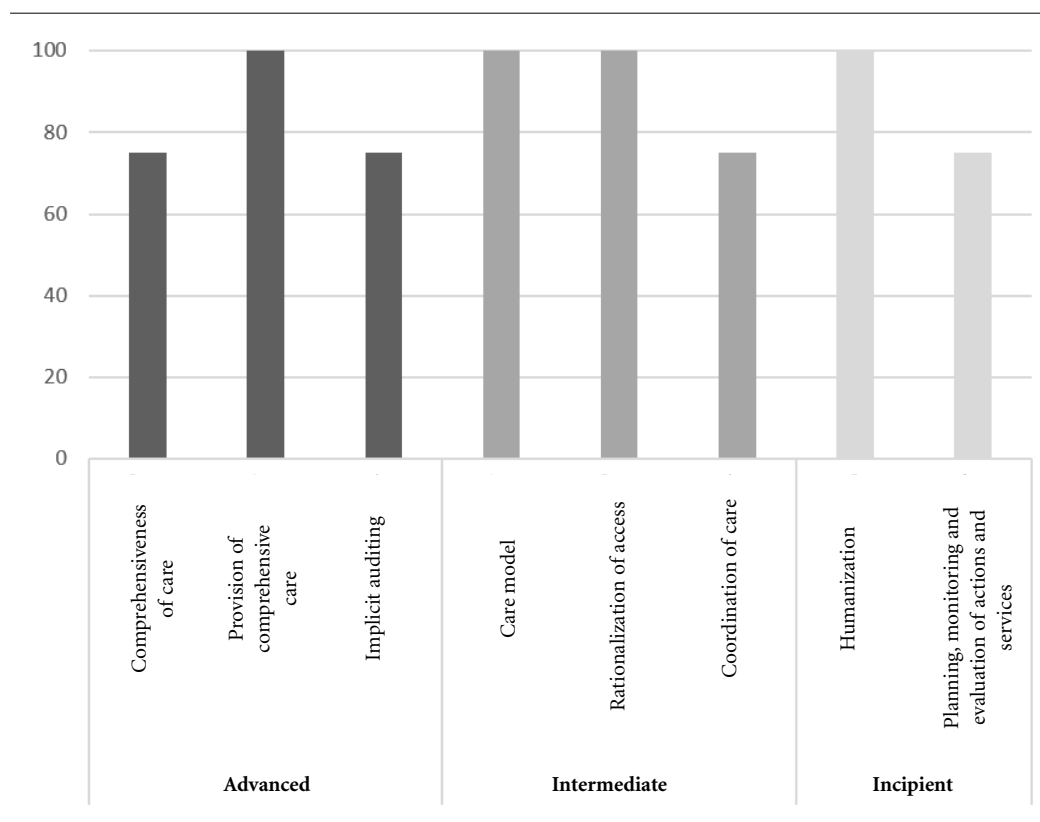
tween patients, health staff, and administrators, health service provision in Brazil in the past has tended to be fragmented and mechanical, with disjointed coordination of care and insufficient professional accountability<sup>37</sup>. In addition to lack of accountability, scarce specialized human resources and insufficient training also hinders the establishment of bonds between patients and health professionals and treatment adherence<sup>38</sup>.

Despite the fact that other evaluations using the same dimensions, subdimensions, scoring, and criteria used by the present study were not identified and that a cross-sectional design was adopted limited to four PHCs in a single health region, thus hampering generalizations, the findings of the present study are in line with the conclusions of other authors<sup>39,40</sup>. An evaluation of primary care services in the Municipality of São Paulo reported that older person care was ineffective. The findings also showed that the domains that obtained the best scores were those in which recommendations from internal evaluations were implemented, reinforcing the need to develop an evaluation culture that extends beyond the realm of disease<sup>18</sup>.

With regard to the subdimensions, three were at the advanced stage, three at the intermediate

stage, and two at the incipient stage. The subdimension "comprehensiveness of care" was classified as advanced in 100% of the PHCs, while "coordination of care" and "implicit auditing" were classified as advanced in 75% of the PHCs, as can be seen in Graph 2.

Although comprehensiveness of care and coordination of care were present in all PHCs, the findings show that the PHCs do not always know when patients referred to higher levels of care have been referred back, thus compromising patient follow-up. A study that analyzed the implementation of integrated health service networks and PC coordination strategies in Chile suggested that noncomputerized referral and back referral forms are weak instruments, showing that in the majority of cases PHCs are informed of back referral by the patients themselves or family members<sup>41</sup>. These subdimensions are particularly important in situations of family violence, when coordination with social services is vital, demonstrating the need for improvements in this sense. Intersectorality creates opportunities to embrace the broader concept of health and supports health promotion, a key component of the FHS<sup>42</sup>. Given the wide variety of care needs of older populations, PC needs to extend beyond



**Graph 2.** Classification of the Dimensions and the Proportion of Primary Health Centers Based that obtained each classification. West Health Region, Ceilândia, Federal District, 2018.

Source: authors' elaboration, 2018.

health and social assistance to yield gains in resolvability and effectively address problems. This requires a new management logic that uses an interdisciplinary approach and shares roles and responsibilities across different areas<sup>43</sup>.

A study that examined the quality of care from the perspective of older persons in the State of Rio Grande do Norte using the primary care assessment tool (PCATool-Brasil) showed barriers to accessibility, the need to extend PHC opening hours, and the importance of stepping up actions to promote more comprehensive of care, such as better self-care guidance, social support for older persons and carers, and practices related to nutrition and physical activity<sup>40</sup>.

Implicit auditing, which includes the opinion of specialists on work processes, was also evident in all PHCs, which confirmed that they are monitored by the Primary Care Directorate (DIRPC/RSO, acronym in Portuguese) and have free spaces for communicating, proposing, and assisting

in the necessary adjustments to ensure adequate service provision. The clearest evidence of implicit auditing was the use of the PC service portfolio checklist, which includes certain actions and services defined with the PHC administrator and set out in the management agreement and forms the basis of the audit carried out by the DIRPC/RSO. The latter not only monitors metrics, but also plays a “supporting role” by adopting active listening to identify the specific needs and weaknesses of PHCs, mediating conflicts, and facilitating reflection on work processes to identify obstacles and solutions and promote the active engagement of those involved in the process<sup>44</sup>.

The subdimensions classified as “intermediate” were the care model (which was shown to be predominantly traditional), rationalization of access (lack of transparency in the use of waiting lists), and explicit auditing (incipient nature of clinical guideline-based evaluation). The findings show that although clinical guidelines are

used, the majority of procedures are still one-off, curative, and/or rehabilitation-based. Stratification of risk was observed in only one PHC, which hampers understanding of the risk profile of the population, team action planning, and adequate coordination of care. Clinical management should involve the management of collective and environmental risks through the identification of health problems and the determinants of health in a specific population in order to develop effective measures to improve the quality of healthcare<sup>6</sup>.

The scores for these subdimensions were influenced by the following factors: lack of infrastructure (including vehicles, insufficient consulting rooms, and lack of medical supplies, medications, and equipment); FHS staff absenteeism (regardless of occupation); lack of community health agents and family health support center staff; and staff resistance to the proposed care model. Similar results were found by a normative evaluation of the implementation of the FHS in Brazil conducted by the Primary Care Department between 2001 and 2002. The study found shortfalls in nursing consulting rooms and amounts of medical supplies and equipment and medicines below the required levels, thus hampering primary care provision. The findings also showed that health professionals, particularly doctors and dentists, did not fulfill the total number of contracted hours, showing lack of adherence to the proposed care model<sup>45</sup>.

An evaluation conducted in the states of Minas Gerais and Espírito Santo showed that the care model proposed by the FHS is still far from becoming a reality and that the hospital-centric approach based on curative care predominates<sup>46</sup>. Similarly, an evaluation of PC services by care model conducted in a health region in São Paulo also showed shortfalls in the quality of care provided, even in those organized around the FHS<sup>47</sup>.

In the PHCs studied, waiting lists are used mainly to regulate referrals to higher levels of care. However, the use of these lists is not transparent because patients need to go the PHC personally to find out their status on the list, leading to unnecessary trips to the health center, especially among older persons. The findings show that the waiting lists in the PHCs only cover oral health services and that patients can wait up to three years to be treated. For other types of appointments, waiting times average approximately 60 days. Similarly, a study conducted in Chile showed that, despite the use of care coordination tools such as digital patient records and protocols, care is fragmented and waiting lists are long<sup>41</sup>.

The subdimensions classified as “incipient” were humanization (fragmentation of care and lack of individualized treatment plans) and planning, monitoring, and evaluation of actions and services (lack of use of regular planning as a management instrument). The provision of long-term care, one of the principles of PC, requires continuous personalized care, including the strengthening of bonds between patients and health professionals and active surveillance, to reduce the risk of health problems<sup>14</sup>. However, studies have shown that without adequate human resources, particularly community health agents, and the elaboration of individualized treatment plans, services are unable to meet the diverse needs of older people<sup>38</sup>.

The findings show that advances have been made on the theoretical and methodological front in the Federal District, pointing to new pathways and presenting different combinations of technologies to promote healthy and active ageing. However, challenges remain, given that technologies are related to “know how” and “doing”, since strategic actions are intervention processes structured around relational technologies, encounters, and subjectivities. This requires “living labor” oriented towards the needs of individuals and built upon trusting relationships between these individuals and professionals/services, as opposed to doctor-centered and procedure producing “dead labor”<sup>49</sup>.

Despite the advances made, it is still necessary to overcome vertical management models, improve the training of health professionals to promote a humanistic approach to care and management, break down the barriers of the fragmentation and mechanicalization of care and production line delivery, and consider the subjectivities that envelop health work processes. In this respect, health management is a multi-faceted field of knowledge and action that requires managers and practitioners to continually “(de)reconstruct” the “way of doing healthcare” in a cyclical movement that involves rethinking work processes to promote continuous improvement.

## Final considerations

As in the rest of Brazil, the Federal District has witnessed significant changes in its demographic profile, resulting in the need to tailor PC to promote quality of life in old age. Despite the implementation of the FHS in the federal district’s PHCs in 2017, steps still need to be taken to improve the use of micro-level management tools



in order to enhance the quality of care delivered to older populations and effect the transition away from the traditional biomedical care model based spontaneous demand and towards the FHS, where care delivery and responsibilities are territorial-based. The findings show that, despite difficulties related to infrastructure and human resources, access to long-term healthcare among older populations has improved, which is likely to increase patient satisfaction and improve clin-

ical outcomes in the long-term. However, current FHS teams need to be better equipped and new staff need to be recruited. Furthermore, mechanisms should be put in place to provide administrators autonomy to hire replacements in cases of staff absence and/or to effectively regulate absenteeism, identified as a major constraint on care delivery and work processes, in order to meet legislative requirements and ensure the provision of comprehensive healthcare to older populations.

### **Collaborators**

RCCS Sacco participated in project conception, data collection, analysis, and interpretation, and drafted and approved the final version of the text to be published. PRR Cardoso participated in results interpretation and drafting the text. PMF Escalda, MG Assis and SMF Guimarães contributed to data interpretation and the critical revision and approval of the version of the text to be published.

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## References

1. Veras RP, Oliveira M. Envelhecer no Brasil: a construção de um modelo de cuidado. *Cien Saude Colet* 2018; 23(6):1929-1936.
2. Berlezi EM, Eickhoff HM, Oliveira KR, Dallepiane LB, Perlini NMOG, Mafalda A, Bueno C. Programa de atenção ao idoso: relato de um modelo assistencial. *Texto contexto - enferm* 2011; 20(2):368-370.
3. Instituto Brasileiro de Geografia e Estatística (IBGE). *Projeções da População - Brasil e Unidades da Federação por sexo e idade: Revisão 2018*. [acessado 2018 Jul 29]. Disponível em: <https://www.ibge.gov.br/estatisticas-novoportal/sociais/populacao/9109-projecao-da-populacao.html?=&t=sobre>
4. Veras RP. Linha de cuidado para o idoso: detalhando o modelo. *Rev. Bras. Geriatr. Gerontol* 2016; 19(6):887-905.
5. Veras RP, Caldas CP, Motta LB, Lima KC, Siqueira RC, Rodrigues RTSV, Santos LMAM, Guerra ACLC. Integração e continuidade do cuidado em modelos de rede de atenção à saúde para idosos frágeis. *Rev. Saude Publica* 2014; 48(2):357-365.
6. Brasil. Ministério da Saúde (MS). Portaria nº. 4.279, de 30 de dezembro de 2010. Estabelece diretrizes para a organização da Rede de Atenção à Saúde no Âmbito do Sistema Único de Saúde. *Diário Oficial da União* 2010; 31 dez.
7. Mattos RA. Os sentidos da integralidade: algumas reflexões acerca de valores que merecem ser defendidos. In: Pinheiro R, Mattos RA, organizadores. *Os sentidos da integralidade*. Rio de Janeiro: CEPESC, IMS/UERJ; 2009. p. 43-68.
8. Moraes EN. *Atenção à saúde do Idoso: Aspectos Conceituais*. Brasília: Organização Pan-Americana da Saúde (OPAS); 2012.
9. Brasil. Ministério da Saúde (MS). Portaria nº. 2.528, de 19 de outubro de 2006. Aprova a Política Nacional de Saúde da Pessoa Idosa. *Diário Oficial da União* 2006; 20 out.
10. Organização Mundial de Saúde (OMS). *Relatório Mundial sobre Envelhecimento e Saúde. Resumo*. Geneva: OMS; 2015.
11. Brasil. Ministério da Saúde (MS). Portaria nº. 2.436, de 21 de setembro de 2017. Estabelece a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União* 2017; 22 set.
12. Distrito Federal. Secretaria de Estado de Saúde (SES). Portaria nº. 77, de 14 de fevereiro de 2017. Estabelece a Política de Atenção Primária à Saúde do Distrito Federal. *Diário Oficial do Distrito Federal* 2017; 15 fev.
13. Distrito Federal. Secretaria de Estado de Saúde (SES). Portaria nº. 78, de 14 de fevereiro de 2017. Regulamenta o art. 51 da Portaria nº 77, de 2017, para disciplinar o processo de conversão da Atenção Primária à Saúde do Distrito Federal ao modelo da Estratégia Saúde da Família. *Diário Oficial do Distrito Federal* 2017; 15 fev.
14. Distrito Federal. Secretaria de Estado de Saúde (SES). *Protocolo de Atenção Saúde do Idoso*. [acessado 2018 Out 23]. Disponível em: [http://www.saude.df.gov.br/wp-content/uploads/2018/04/Protocolo\\_Saude\\_do\\_Idoso.pdf](http://www.saude.df.gov.br/wp-content/uploads/2018/04/Protocolo_Saude_do_Idoso.pdf)
15. Rodrigues LBB, Silva PCS, Peruhype RC, Palha PF, Popolin MP, Crispim JA, Pinto IC, Monroe AP, Arcêncio RA. Atenção primária à saúde na coordenação das redes de atenção: uma revisão integrativa. *Cien Saude Colet* 2014; 19(2):343-352.
16. Santos AS, Karsch UM, Montañés CM. A rede de serviços de atenção à saúde do idoso na cidade de Barcelona (Espanha) e na cidade de São Paulo (Brasil). *Serv Soc Soc* 2010; 102:365-386.
17. Mendes EV. *As redes de atenção à saúde*. Brasília: Organização Pan-Americana da Saúde, 2011. 549p.
18. Ramos NP. *Avaliação da atenção à saúde da pessoa idosa e ao envelhecimento em serviços de atenção primária [tese]*. São Paulo: Universidade Estadual Paulista Júlio de Mesquita Filho; 2018.
19. Bonita R, Beaglehole R, Kjellstrom T. *Epidemiologia Básica*. 2ª ed. São Paulo: Santos; 2010.
20. Contandriopoulos AP, Champagne F, Denis JI, Pineault R. A avaliação na área da saúde: conceitos e métodos. In: Hartz ZMA, organizador. *Avaliação em Saúde: dos modelos conceituais à prática na análise da implantação de programas*. Rio de Janeiro: Fiocruz; 1997. p. 29-47.
21. Tanaka OY. Avaliação da atenção básica em saúde: uma nova proposta. *Saúde Soc* 2011; 20(4):927-934.
22. Companhia de Planejamento do Distrito Federal (Codeplan). *Pesquisa Distrital por Amostra de Domicílios, Ceilândia e Brazlândia. PDAD/DF 2015*. Brasília: Secretaria de Estado de Planejamento e Orçamento do Distrito Federal (SEPLAN); 2015.
23. Oliveira MLC, Amâncio TG, organizadoras. *Situações de saúde, vida e morte da população idosa residente no Distrito Federal*. Curitiba: CRV; 2016.
24. Hartz ZMA, Vieira-da-Silva LM, organizadoras. *Avaliação em saúde: dos modelos teóricos à prática na avaliação de programas e sistemas de saúde*. Salvador, Rio de Janeiro: EDUFBA, Fiocruz; 2005.
25. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (Capes). Escola Britannica. Enciclopédia Escolar. *Ipê. Artigo*. [acessado 2018 Out 20]. Disponível em: <https://escola.britannica.com.br/levels/fundamental/article/ip%C3%AA/483303>
26. Instituto Brasileiro de Geografia e Estatística (IBGE). *Sinopse do Censo Demográfico de 2010*. [acessado 2018 Out 1]. Disponível em: [http://www.ibge.gov.br/home/estatistica/populacao/censo2010/default\\_sinopse.shtm](http://www.ibge.gov.br/home/estatistica/populacao/censo2010/default_sinopse.shtm)
27. Cabral-Bejarano MS, Nigenda G, Arredondo A, Conill E. Rectoría y gobernanza: dimensiones estructurantes para la implementación de Políticas de Atención Primaria de Salud en el Paraguay, 2008-2017. *Cien Saude Colet* 2018; 23(7):2229-2238.
28. Miranda GMD, Mendes ACG, Silva ALA. O envelhecimento populacional brasileiro: desafios e consequências sociais atuais e futuras. *Rev. bras. geriatr. Gerontol* 2016; 19(3):507-519.
29. Duarte EC, Barreto SM. Transição demográfica e epidemiológica: a Epidemiologia e Serviços de Saúde revisita e atualiza o tema. *Epidemiol. Serv. Saúde* 2012; 21(4):529-532.

30. Instituto Brasileiro de Geografia e Estatística (IBGE). *Projeções da População – Brasil e Unidades da Federação por sexo e idade: Revisão 2018*. [acessado 2018 jul 29]. Disponível em: <https://www.ibge.gov.br/estatisticas-novoportal/sociais/populacao/9109-projecao-da-populacao.html?=&t=sobre>
31. Companhia de Planejamento do Distrito Federal (Codeplan). *Perfil dos Idosos no Distrito Federal segundo Regiões Administrativas*. Brasília: Secretaria de Estado de Planejamento e Orçamento do Distrito Federal (SEPLAN); 2013.
32. Bara VMF, Paz EPA, Guimarães RM, Silva BF, Gama BBM, Moratelli L. Diagnóstico de utilização do instrumento de avaliação da atenção primária à saúde – PCA-Tool – Brasil versão adulto – para população idosa. *Cad Saude Colet* 2015; 23(3):330-335.
33. Brasil. Ministério da Saúde (MS). Coordenação Geral de Saúde Mental. *Relatório de Gestão 2003-2006: Saúde Mental no SUS: Acesso ao Tratamento e Mudança no Modelo de Atenção*. Brasília: MS; 2007.
34. Mendes EV. *Os sistemas de serviços de saúde: o que os gestores deveriam saber sobre essas organizações complexas*. Fortaleza: Escola de Saúde Pública do Ceará; 2002.
35. Oliveira FB. *Gestão da clínica e clínica ampliada: sistematizando e exemplificando princípios e proposições para a qualificação da assistência hospitalar* [dissertação]. Rio de Janeiro: Escola Nacional de Saúde Pública Sergio Arouca; 2008.
36. Araújo SNM, Santiago RF, Barbosa CNS, Figueiredo ML, Andrade EMLR, Nery IS. Tecnologias voltadas para o cuidado ao idoso em serviços de saúde: uma revisão integrativa. *Enfermería Global* 2017; 46(1):579-595.
37. Campos GWS. *Saúde Paidéia*. São Paulo: Hucitec; 2003.
38. Campos GWS, Amaral MA. A clínica ampliada e compartilhada, a gestão democrática e redes de atenção como referenciais teórico-operacionais para a reforma do hospital. *Cien Saude Colet* 2007; 12(4):849-859.
39. Oliveira EB, Hauser L, Duncan BB, Harzheim E. Avaliação da qualidade do cuidado a idosos nos serviços da rede pública de Atenção Primária à Saúde de Porto Alegre, RS, Brasil. *Rev Bras Med Fam Comunidade* 2013; 8(29):264-273.
40. Araújo LUA, Gama ZAS, Nascimento FLA, Oliveira HFV, Azevedo WM, Almeida Júnior HJB. Avaliação da qualidade da atenção primária à saúde sob a perspectiva do idoso. *Cien Saude Colet* 2014; 19(8):3521-3532.
41. Almeida PF, Oliveira SC, Giovannella L. Integração de rede e coordenação do cuidado: o caso do sistema de saúde do Chile. *Cien Saude Colet* 2018; 23(7):2213-2228.
42. Silva DAI, Tavares MFL. Ação intersetorial: potencialidades e dificuldades do trabalho em equipes da Estratégia Saúde da Família na cidade do Rio de Janeiro. *Saúde debate* 2016; 40(111):93-205.
43. Cavalcante P, Carvalho RN, Medeiros KT. Intersetorialidade, políticas sociais e velhice no Brasil: entre a falácia e a efetivação do direito social. *Polêmica* 2012; 11(4):628-634.
44. Bastos ENE, Medeiros JA, Amaral MES, Maerschner RL. O desenvolvimento do papel de apoiador institucional em Fortaleza, Ceará. In: Campos GWS, Guerrero AV, organizadores. *Manual de práticas de atenção básica*. São Paulo: Hucitec; 2010. p.388-411.
45. Brasil. Ministério da Saúde (MS). *Avaliação normativa do Programa de Saúde da Família no Brasil: monitoramento da implantação e funcionamento das equipes de saúde da família: 2001-2002*. Brasília: MS; 2004.
46. Camargo Junior KR, Campos EMS, Teixeira MTS, Mascarenhas MTM, Mauad NM, Franco TB. Avaliação da atenção básica pela ótica político-institucional e da organização da atenção com ênfase na integralidade. *Cad Saude Publica* 2008; 24(Supl. 1):S58-S68.
47. Samoto AK. *Avaliação da qualidade dos serviços de Atenção Básica, segundo modelo de atenção, na Região de Saúde do Rio Pardo-SP* [dissertação]. São Paulo: Secretaria de Estado da Saúde; 2013.
48. Silva DC, Alvin NAT, Figueiredo PA. Tecnologias leves em saúde e sua relação com o cuidado de enfermagem hospitalar. *Esc Anna Nery Rev Enferm* 2008; 12(2):291-298.
49. Merhy EE, Franco TB. Por uma composição técnica do trabalho em saúde centrada no campo relacional e nas tecnologias leves. Apontando mudanças para modelos tecno-assistenciais. *Saúde em Debate* 2003; 27(65):316-323.

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