

## Reform movements in the Federal District Health Care System: conversion of the Primary Health Care assistance model

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**Abstract** *The Unified Health System has undergone constant evolution and expansion since the publication of Brazil's 1988 Federal Constitution. The Federal District has provided contributions to the field of Primary Health Care Policy, especially between 2016 and 2018, by defining the Family Health Strategy as the definitive way of organizing Primary Health Care (PHC) services and by establishing a set of actions aimed at conversion of existing PHC services to this model. This article describes and analyzes the key processes of this change. The method used was analysis of ordinances, resolutions, reports and other documents, as well as assessment of data from official databases. We emphasize the development of a normative structure that includes the teams' implementation, the professionals' work processes, changes in medical specialties and reorganization of the health professionals who already worked in PHC. Conclusion: with an effect of increasing the population's Family Health Strategy coverage (in a population of approximately 3 million inhabitants) from 28% to 69% during a two-year period, the experience demonstrates the feasibility of incremental changes in health policies such as defining priorities, better management of the workforce, training and decentralized planning to increase access to health services.*

**Key words** *Primary health care, Health care policy, Unified health system, Family health strategy*

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## Introduction

Since 1988, after health care was included by the Federal Constitution as a right to be guaranteed by the government, Brazil has been making efforts to increase and develop the Unified Health System – SUS<sup>1-3</sup>. The SUS aims to provide comprehensive and universal health care, both preventive and curative, through decentralized management, with the participation of federal, state and municipal governments<sup>2,4</sup>. An important focus has been given to Primary Health Care (PHC), with the establishment in 1994 of the Family Health Program (FHP), initially as a program directed to at-risk populations and, from 2006 onward, becoming the Family Health Strategy – FHS<sup>1,2,5-8</sup>. PHC is defined as the first level of professional care sought by people and is where most of their curative and preventive needs are met<sup>9</sup>.

The PHC model adopted in Brazil consists of Family Health Teams – FHTs, consisting of a family doctor, a nurse, a nurse technician and community health agents – CHAs, with each professional having a weekly workload of at least 40 hours. These teams work together with the Expanded Nucleus of Family Health and Basic Care – Nasf-AB, consisting of health specialists from other areas. Each FHS is responsible for the primary health care of up to 3,500 individuals, according to the National Primary Care Policy – PNAB 2017<sup>10</sup>, and each Nasf-AB team must work in partnership with 5 to 9 FHTs. This model brings improved access and first contact, provided by the proximity of the teams to the communities, as well as users' enrollment, allowing the longitudinality of care and adding mechanisms to identify families with a higher level of social vulnerability<sup>11</sup>.

There is abundant evidence on the association of PHC-organized systems with a more equitable distribution in access to health care, lower costs, better control of chronic and infectious diseases, and lower infant mortality when compared to the care provided by specialists<sup>7,9,12-16</sup>. The FHS brought a new organization to PHC, adding several improvements to the previously predominant model<sup>4,11,17</sup>, in which primary care was centered on the physician and fragmented among the Internal Medicine, Pediatrics and Gynecology and Obstetrics specialties. There was a reorientation of the health care system, from the process of treating patients' illnesses to a more comprehensive and preventive care, including proactivity as a vital component in health care<sup>8</sup>.

The increase in FHS coverage was accompanied by important gains in health for the Brazilian population. Studies have shown large and sustainable decreases in infant mortality<sup>2,7,8,11,18-20</sup>, with an average reduction of 4.5% in the infant mortality rate for every 10% increase in FHT coverage<sup>15</sup>, with higher rates in less developed municipalities<sup>2</sup>. There was a significant increase in the diagnosis of hypertension and diabetes, suggesting improved access to health care<sup>2,11</sup>, leading to reductions in morbidity and mortality associated with cardiovascular<sup>2,8,11,18,21</sup> and cerebrovascular diseases<sup>11</sup>. It has been shown that the risk of death from secondary stroke and myocardial infarction are lower in patients followed at the FHS compared to those followed in units without a FHT<sup>22</sup>.

Evidence suggests that the FHS promotes better quality access and increases users' satisfaction when compared to the traditional healthcare units and even compared to the private health sector<sup>4,11,17</sup>.

Another widely studied impact is the decrease in Hospitalizations due to Primary Care-Sensitive Conditions – ICSAP, which comprises a group of pathologies whose care in PHC could prevent hospitalizations. Studies have shown a decrease in ICSAP in Brazil since 1999, mainly in cases of asthma, cardiovascular disease and cerebrovascular accidents<sup>2,4,8,11,18,21,23</sup>, with reductions of up to 25% in hospitalizations for diabetes<sup>8</sup>. However, a study focused on the analysis of ICSAP in situations of rapid increase of FHS coverage, found that the initial impact may be a slight increase in avoidable hospitalizations, probably due to easier access and an increase in case detection, but the study admits it as plausible that over time the ICSAP will begin to decrease in this same scenario<sup>24</sup>.

Considering these facts, a political decision was made to reorganize the health system of the Federal District based on PHC, and in March 2016 a management team of the State Health Secretariat of the Federal District (SHS-DF) was established, consisting of specialists in the area. The aim of this article is to describe the modifications carried out from 2016 to 2018 in the DF PHC network and to analyze the observed effects as well as challenges to its sustainability.

## Methods

The description of the PHC alterations in the Federal District was carried out through documentary analysis and non-exhaustive literature

review. The documentary analysis consists of examining original documents, which have not yet undergone analytical treatment by any author<sup>25</sup>. The analyzed documents were those produced by the SHS-DF, the Federal District Health Council (CSDF) and other sectors of the Federal District Government, published in the years 2016 to 2018, as well as data and information generated during the same period. The study included: ordinances, management reports, regional action plans, meeting minutes, internal resolutions and regulations that standardized programs, actions and services available in the SHS-DF digital database.

The literature review was carried out through review of scientific articles published in journals and available in virtual libraries, using the key words 'primary health care' (*atenção primária à saúde*), 'health policy' (*política de saúde*) and 'Federal District' (*Distrito Federal*).

#### **The DF Primary Health Care reform process**

Chart 1 shows the main phases and actions that took place during the reorganization process of the Federal District PHC network, organized to allow a more objective visualization of the process, described as follows.

Due to its political and administrative structure, the Federal District is the only unit of the federation where PHC is the responsibility of the State Health Secretariat, which in this case is responsible for all levels of health care. Up to 2015, the SHS-DF had a centralized administrative organization, divided into 34 regional health services. Inside this configuration, there were 16 hospitals, 172 Basic Health Units (BHUs), one polyclinic, 6 24-hour Emergency Units (UPAs), which were responsible for the care of approximately 3 million residents in the DF and 1.5 million people living in the municipalities that comprised its metropolitan region. In November 2015, the territory was divided into 7 major Health Regions, with diverse conditions of population distribution, public facilities and human resources, as well as differentiated levels of socio-economic vulnerability, one of the main reasons why this reorganization was undertaken.

Differently from what happened in relation to the increase of FHS coverage in the Brazilian scenario as a whole, in the DF, in February 2016, slightly more than two decades after the FHP program was launched, coverage was only 28.17%, according to data from the National Registry of Health Establishments (SCNES)<sup>27</sup>. Of a total of

172 units, 63 had their work process organized according to the traditional model, consisting of professionals who, although formally belonging to the PHC, were not organized into FHS or may have provided services not considered to be primary care. These BHUs showed a great variety of organizational and functional arrangements, influenced by the professionals' profile, without programs or planning aimed at the specific needs of each community, with a low level of inclusion of clinical practices of nursing and other professions in the health area, resulting in a fragmented care, far from the real needs of the population and distant from the characteristics established for the FHS<sup>12</sup>.

Evidence indicates that use of emergency services for health problems that could be resolved by PHC may be related to the lack of coverage, poor quality of coverage, difficulty in having access to services and cultural issues<sup>12</sup> as well as, in the case of the DF, the lack of uniformity in the service supply model in PHC, with a predominance of the traditional model.

According to a survey carried out by the Personnel Management Sub-secretariat of the SHS-DF at the end of 2016, the monthly costs related to the payment of salaries to FHS teams was R\$ 21 million *reais*, whereas the cost of the traditional teams was R\$39 million, demonstrating that most of the investments in PHC in the DF were not focused on the model recommended by the literature and the PNAB. Investments in the traditional model, in addition to not finding support in the literature, could still represent a significant lack of efficiency regarding the use of public resources, since the PNAB provides financial incentives to the states for each implemented FHT.

Another difficulty observed was the lack of parameterization of the traditional model regarding the covered population and the configuration of the teams, which showed a great variety of arrangements, with quite diverse numbers of professionals from different health specialties between the units. The PHC incentive policy in the DF granted financial bonuses, not associated with performance, of up to 35% increase in the salaries of professionals working in BHUs, regardless of whether they worked with FHS or not. This incentive, divided into two bonuses, one established by District Law 318 of 1992<sup>28</sup> and the other by District Law 2,339 of 1999<sup>29</sup>, was not sufficient to equate DF coverage with the national coverage over the years, and may also have attracted professionals out of the desirable profile or technical knowledge to work at this level of care.

**Chart 1.** Phases and actions of the process of conversion of the PHC model of the DF into FHS.

Stage	Actions
Preparatory	Analysis of service distribution and the population's demands for treatment are the PHC responsibility.
	Assessments of the organization models of PHC services and allocation of personnel in each of them.
	Analysis of salary incentives for the strengthening of PHC in the Federal District.
Development and Presentation	Discussion in the Health Council of DF – CSDF about the situation in the DF PHC network, with consequent proposal and publication of Resolution CSDF n. 465 of October 4th, 2016, which provided directions for the PHC in the DF regarding the FHS.
	Development and presentation of the proposal to convert PHC into FHS with strategic political actors and high management of the SHS-DF.
Normatização e Divulgação	Development and publication of SHS-DF Ordinance N. 77 of February 14, 2017, which established the Primary Health Care Policy in the DF.
	Development and publication of the SHS-DF Ordinance N. 78 of February 14, 2017, which established the rule for the conversion of the traditional model into FHS.
	Holding of meetings in the 7 Health Regions to present the change, discussion with professionals and local managers.
Territorialized Planning	Approval of the conversion plans in the health regions from the adherence of the professionals and composition of the transition teams to the Family Health Strategy (TTFHS).
Implementation	Theoretical and practical training of professionals who comprised the TTFHS.
	Professional specialty change in the SHS-DF of the medical professionals approved at the end of the training process who requested it.
	Designation of approved FCM professionals to complete the teams.
	Implementation of the FCM specialty as a prerequisite for new employments.
	Creation of the Family and Community Nurse (FCN) career
	Civil service openings for MFC specialist and FCN
	Reorganization of Oral Health teams in PHC.
	Regulation of the structuring and operationalization of Nasf-AB's actions in the Federal District.

The analysis of health care service organization in the Federal District, of reorganization movements occurring in other cities and states, of documents from the Ministry of Health (MoH) and the vast scientific evidence on the best practices of health service organization, indicated the need for a reformulation of the care model in the DF. Such a reformulation should consider the importance of PHC as the guiding principle of care and its association with other levels of care, based on the principles of regionalization, community participation and strategic decision-making.

Studies of the PHC workforce in the DF showed that there were 328 doctors – amongst them, clinicians, gynecologists and pediatricians, plus 408 nurses and 1046 nursing technicians, assigned to PHC, most of whom receiving incentive bonuses from the FHS, although working outside of this model. Based on the PNAB 2011<sup>30</sup> parameters, which were in effect at that

time, it was estimated that the weekly workload of these professionals would be sufficient to implement 328 FHS units, to be later supplemented by community health agents (CHAs), resulting in a surplus of 80 nurses and 718 nursing technicians, who could be reallocated to other network services that were lacking professionals in their respective professions and specialties. If each FHT were responsible for a population of up to 4,000 individuals, according to the PNAB guidelines, there was the possibility of expanding FHS coverage to more than 1,312,000 people, or 75% of the population.

The analysis of these data indicated that the SHS-DF already had enough health professionals in PHC to significantly increase the number of people with available teams to longitudinally follow their primary care needs, simply by hiring CHAs to meet these needs, in addition to allowing an increase in the transfer of resources from the Federal Government to the Federal District.

This proposal met the demand of resolution 465 of the Health Council of the Federal District – CSDF, dated of October 4, 2016, previously developed and discussed with the active participation of managers, users and workers, which stated that the PHC in the DF should be provided according to the FHS<sup>31</sup> model. These data were then submitted to the Council plenary and, from then on, the planning process was started in order to convert the traditional PHC of the DF into the FHS model.

Two ordinances were then drawn up, which contained the new rules of operation and implementation of PHC, both dated of February 14, 2017. Ordinance n. 77/2017<sup>32</sup> included the regulations of the Primary Health Care Policy of the Federal District, which, in addition to principles and guidelines, formulated a new administrative organization that no longer included basic units functioning in the traditional model, but now based on FHT as the organizational element of the PHC, as well as Oral Health teams– OHT and Nasf-AB, in addition of other compositions directed at specific populations. Ordinance n. 78/2017<sup>33</sup> established the rule that professionals already working in PHC, but not in FHT, could choose to constitute teams if they so desired and if they met the requirements for model conversion. Chart 2 shows the highlights of ordinances 77 and 78/ 2017<sup>32,33</sup>.

Increased access was the main focus during the development of norms of Ordinance n. 77/2017. Studies have shown that the poorest population suffers the greatest difficulties regarding access to health services<sup>14</sup>, and that there is significant demand for longer PHC working hours, including weekend availability<sup>6,34</sup>. Therefore, It was decided to expand the hours of the larger units to operate from 7 am to 7 pm, without interruption, and also on Saturdays from 7 am to 12 noon, with the possibility of operating until 10 pm. The increase in operating hours was only possible in units with 4 or more FHTs due to the possibility of establishing work schedules, so that the units would never be left without a doctor or nurse from the same team, who would be available to care for their patients, seeking to ensure the access and longitudinality. Another important change occurred in the organization of agendas, which started scheduling appointments and reserving 50% of the consultations for the spontaneous demand, aiming to facilitate the population's access to BHUs near their homes or workplaces. The regulation established that, regardless of living in the area covered by the teams, any patient seeking any of the BHUs should be seen and, in an emergency case, the patient should be treated at the unit itself, being referred to the BHU to which he/she was assigned in cases of need for longitudinal follow-up. All

**Chart 2.** Highlights of Ordinances 77 and 78 / 2017<sup>32,33</sup>.

<b>Ordinance N. 77/2017</b>
- Definition of the professional categories and respective work load hours for the composition of teams in the PHC.
- Embracement, in all BHUs, of all users with a referral for immediate care, regardless of whether they belong to the BHU territory.
- Responsible referral to the reference BHU for patients from other territories, under condition of possible scheduled care.
- Organized agenda with scheduled appointments for treatment and reservation of 50% of scheduled appointments to spontaneous demand.
- Expanded hours of work for the larger BHUs with working hours also on Saturday mornings.
- Vaccination and laboratory test collection in all BHUs.
<b>Ordinance N. 78/2017</b>
- Adherence of qualified professionals and creation of Transition teams for the FHS - TTFHS, with the indication of conversion to FHT at the end of the process.
- Transfer of professionals who did not join in or did not meet the requirements to integrate TTFHS to units from other levels of attention.
- Theoretical and practical training in FHS of graduated professionals of the TTFHS with matrix support by the professionals from the own teams and BHUs.
- Assessment of performance with a minimum score required for physicians who wish to change their specialty.
- Allocation impediment of new professionals in PHC of the DF while there is no compliance with Ordinance N. 77/2017.

units should have immunization services available during all hours of operation. These and the other points addressed in ordinance n. 77/2017 had the objective of guiding not only the new FHTs, but also those that were already working in FHS, adding guidelines to increase the attributes of the PHC<sup>32</sup>.

Each of the 7 Health Regions created its conversion plan based on the resolution and respecting its structural specificities, population characteristics, availability and professionals' profile. The plans were analyzed and approved by the teams of Primary Health Care Coordination (COAPS), the Comprehensive Health Care Sub-secretariat and the SHS-DF Office.

In order to remain allocated in PHC as part of the teams and being entitled to benefits corresponding to this level of care, the professionals – physicians, nurses and nursing technicians – who worked in the traditional model, should express their interest within the period determined by ordinance 78/2017, followed by a simplified training process and, in the case of physicians, a written evaluation of the knowledge acquired. Unlike nurses and nursing technicians, who join the SHS-DF staff as general practitioners and can work in any of the areas predicted in their careers, doctors enter the service with specific assignments, according to their specialties. Thus, at the end of the qualification process and evaluation approval, the doctors should request a change of specialty to Family and Community Medicine (FCM) for the purpose of providing services to the SHS-DF, with no implications regarding their specialization register at the class entity. This change was only possible due to the fact that, until that moment, the specialty in FCM was not required as a prerequisite for approval to work at civil service in the DF public network, allowing medical professionals of any specialty, or even without specialty, to work in FCM.

Ordinance n. 78/2017 established a transition period between the traditional model and the FHS, in which the Transition Teams into FHS – TTFHS (Transition Team to Family Health Strategy) would be formed and of which composition should allow, after the end of the training and final conversion of the model, the creation of 3 FHTs. These teams could be complete, with the inclusion of CHAs, or incomplete, until it was possible to adapt them. Given the availability of human resources, it was decided to allow the formation of teams with up to 80 hours of nursing technicians, which could contribute to the expansion of the teams' capacity regarding the

embracement and work actions of these professionals.

Each TTFHS, therefore, should consist of 3 nurses working 40 hours; at least 3, and at most 6 nursing technicians working 40 hours and 3 physicians working 40 hours, preferably including a clinician, a gynecologist and a pediatrician. This medical specialty configuration had the objective of facilitating the exchange of knowledge and experience during the training period and, later, during their performance as family physicians.

The training process, which totaled 220 compulsory hours for doctors and nurses, was equally distributed between theoretical and practical activities, and addressed basic concepts of FHS, child's health, woman's health with special attention to the prevention of breast and cervical cancers, care for chronic conditions focusing on Systemic Arterial Hypertension and Diabetes, in addition to the main spontaneous demands on PHC.

Each Health Region continued its training process, respecting the particularities of each scenario, in which the doctors and nurses who joined in the reform process participated. The training of the nursing technicians was the responsibility of the nurses of each team, to be carried out in the service. After the training, the doctors were able to choose to perform the final evaluation and only those who achieved satisfactory performance could request a transfer to the field of work to be part of the FHT as FCM. This initial training should be improved from the perspective of Continuing Education and Permanent Learning, with support from the SUS School of Improvement-EAPSUS, linked to the Foundation for Teaching and Research in Health Sciences of SHS-DF.

Among the professionals working in the traditional model, 51.2% (168) of the doctors, 83% (339) of the nurses and 92.3% (966) of the nursing technicians adhered to the process established in ordinance n. 78/2017. Considering the existence of FCM reserve professionals among those approved for civil service, valid until December 2018, it was allowed the formation of teams consisting initially only by nursing professionals, who initiated the actions to reorganize the work process of the BHUs, while waiting for the arrival of the subsequently hired FCM professionals.

In total, 135 TTFHS were created, with two distinct configurations: those that included physicians from the traditional model and others consisting initially only by nursing teams and that were gradually recreated with those FCM

professionals hired later. As the nurses completed the training process and the teams received the FCM, these TTFHS were divided into FHTs, while those encompassing physicians from the traditional model depended on their specialty change after the training and evaluation process, in order to be sorted into FHS teams.

At the end of the training process, 110 doctors changed their specialty to FCM and all FCM approved to work in 2014 were called until the end of 2017, of which 164 were hired. A significant number of teams remained without CHAs, since there was some legal uncertainty regarding the hiring of these professionals. A District Law of 2013, then being legally questioned, transformed the CHAs, hired in the past by private institutions, into civil servants, without submitting them to testing. To deal with this situation, a bill was presented to the Legislative Chamber of the Federal District, with a proposal to hire the CHAs through the Brazilian Consolidation of Labor Laws (CLT). The approval of this law would make it possible to hire CHAs to complete the FHTs.

As a result of these changes, the Family and Community Medicine specialty became from then on, a prerequisite to work as a civil servant in the FCM career in the SHS-DF<sup>35</sup>. This measure was possible due to the increase in the number of professionals specialized in FCM, not only in the DF, but throughout Brazil. Therefore, there was the recognition by SHS-DF that FCM specialists add quality to health care and the system organization. The position of Family and Community Nurse (FCN) was also created, aiming to attract professionals with a profile for PHC and to add them to the FHTs, in addition to stimulating specialization in the field of work. The first calls for FCN and for FCM specialists of the DF were carried out through an Official Notice published in March 2018.

### Changes in coverage

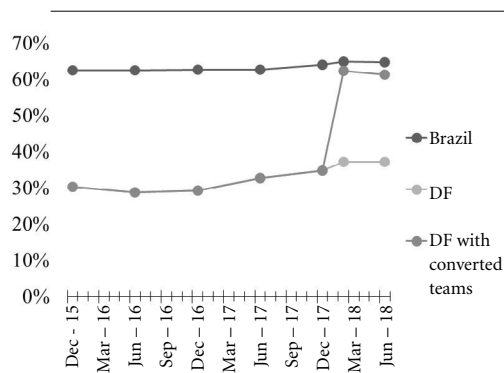
At first, the process of conversion of the care model led to an expansion of FHS coverage driven by the reorganization of professionals, mainly nursing professionals, and calling the physicians approved to work as civil servants, with a total of 441 FHTs with or without CHAs. That represented 164 more teams compared to the existing 227 before the change started. The number of 3750 people per team was taken as the average parameter, lower than that recommended by the PNAB at the time, to guarantee smaller proportions in

more vulnerable areas, reaching a population coverage of 55.5%. Later, with the end of the training process and physicians' specialty change into FCM, it was possible to create another 108 FHTs in February 2018, totaling 549 teams, considering those still without CHAs, with coverage increase to 69.1%.

Therefore, the total population covered by the FHS in the DF increased from an estimated 1,038,750 to 2,058,750 inhabitants one year after the conversion process started. Of the 549 teams, only 327 were registered in February 2018 in the SCNES of the Ministry of Health<sup>27</sup>, with the lack of CHA inclusion the main challenge to promote the registration of all teams. Another important aspect is the difficulty in promoting the adherence of professionals to these teams, mainly physicians, since layoffs and removals are frequent causes of coverage oscillation. The data of June 2018 show that the DF had at that time a total of 540 teams, 174 of them without CHAs. The evolution of the coverage over the period is depicted in Graph 1, starting from the second semester of 2015, shortly before the beginning of the SHS-DF management that promoted the conversion process, added by data from February 2018, when the model change process was completed.

Oral health was also part of the reorganization of PHC in DF, so that dental surgeons and oral health technicians were grouped into oral health teams (OHTs). Ordinance N. 77/2017 defined the OHT as responsible for a territory equivalent to a maximum of two FHTs, consisting of a dental surgeon and an oral health technician, both with a weekly workload of 40 hours, a composition compatible with modality 1 according to the MoH definition. As a consequence of the OHT reorganization movement, in July 2018 the number of these teams reached 218, distributed throughout the DF, and corresponding to 53.8% of coverage.

After the reorganization of the FHTs and the OHTs in the PHC of the DF, the process of restructuring of the Nasf-AB teams followed, in accordance with the PNAB/2017<sup>9</sup>. Regulated by ordinance N. 489, dated of May 2018<sup>36</sup>, the Nasf-AB teams had their structure and operationalization regulated, also having their transition process regulated after the adherence of professionals and their grouping into teams according to defined parameters. The objective was the gradual expansion and reorganization of the work process, so that all FHTs could be associated to Nasf-AB teams in the medium term, prioritizing their implementation in areas of greater vulnerability.



**Graph 1.** Evolution of Family Health coverage in Brazil and DF, with and without the converted teams.\*

\* To allow adequate comparability, the same DAB/MoH parameters of population and ratio between teams and users for coverage purposes were used – one team for each 3,450 individuals. (Sources: DAB / MoH and COAPS)<sup>36</sup>.

## Discussion

Scientific evidence points to difficulties in expanding FHS coverage in large urban centers in Brazil<sup>1,8,37</sup>. It is considered that, in these localities, traditional health centers were consolidated in a period prior to the Family Health strategy, resulting in a great diversity of organization and provision of PHC and greater difficulties for the territorial and family action, adherence and involvement of professionals<sup>1</sup>. The system organization, according to the lines indicated by scientific evidence and agreed upon in national policies, requires a great deal of social control, professional commitment and strong political will<sup>4,11</sup>. Rouleau et al.<sup>38</sup> found that successfully implemented programs benefited from windows of political opportunity, and pointed out the crucial role of individuals who, in a leadership position, acted to catalyze and promote the FCM.

Despite the wide scientific support to the FHS, certain resistances, some of them foreseen in the literature, occurred during the process of implementing the model conversion. In addition to the already studied population dissatisfaction with

models in which there is a regulation of access to more specialized levels of health<sup>14</sup>, we observed an important lack of knowledge by professionals and the population about the FHS model, which until then was the minority in the DF, demanding long and frequent debates in the Health Councils, in the Legislative Chamber, with the trade unions and several other organized civil society forums, especially in the Health Regions. The strong support of scientific evidence, the close alignment with PNAB and the great involvement of all the levels of management was fundamental to give strength and legitimacy to the process, leading it forward, despite the difficulties encountered.

The structuring of the model entirely made up of FHS in the DF also has a direct impact on the stages of health professionals training units, both public or private, that benefit from the SHS-DF network that, from then on, started to offer their students the opportunity to have a greater contact with the model. The PHC structured from FCM has become increasingly important in the health system and in undergraduate and postgraduate education in the area<sup>39</sup>. Between 1995 and 2015, the number of countries with FCM training programs rose from 56 to 132. The global development and strengthening of the specialty is in part due to evidence linking its robust practice to better results, lower costs and greater equity in health<sup>38</sup>.

Other network restructuring movements started occurring in concomitance with or caused by changes in PHC. We highlighted the organization of Secondary Outpatient Care (AASE), of the administrative management structures at the central level and the Regulatory Complex. The models of AASE organization and SHS-DF regulation are focused on PHC, allowing the organization of patients' access to the services available in the network.

Although some new BHUs have been built and others have been reformed, strong investments are still required to reverse the precarious picture prevailing in the BHU structures, determined by the marginal role given to PHC over long periods in the DF.

The guarantee of diagnostic support remains a challenge, since its current organization cannot meet to the teams' demands, resulting in a frequent displacement of the population to the hospitals in search of care that, if offered in the BHU, would prevent the unnecessary search for tertiary care.



## Conclusions

The DF experience, which verified an increase in FHS coverage from 28.17% to 69.1% over a 2-year period, brings a new perspective on ways to expand the FHS model in large urban centers. This substantial increase in coverage within such a short time, especially considering that it occurred in a territory of approximately 3 million inhabitants, was only possible due to the process of alignment of the health care model, which allowed professionals already working in the PHC traditional model, to become part of FHS teams through an established conversion process. The existence of an FCM staff, previously approved in a selective process, was also an important determinant, by being able to constitute teams with nursing professionals who adhered in almost their totality to the process.

Investments in medical residency in FCM in the DF and throughout Brazil, with a recent expansion in the number of program positions and consequent training of professionals, contributed to the decision to require the specialty as a prerequisite to enter the career in the SHS-DF, which, together with the specialization in PHC of

the other health professional fields, constitutes an important support base for the system.

In health management, especially when aimed at SUS sustainability, decisive steps must be taken towards the most efficient models, supported by scientific evidence and their economic feasibility. The involvement of the Health Council in the decision-making process, the genuine political will, and the commitment of professionals who have the technical knowledge to support carrying out of the process have shown to be extremely important to set the change into motion.

The expansion of coverage is an initial and conditioning step to increase the population's access to the health system. However, constant investments in infrastructure and training, monitoring of indicators, the regular incorporation of new technologies, diagnostic support, and consolidation of the secondary care regulated by PHC as coordinator of care and guide of the care networks are key elements to consolidate this process with quality and resolution. Its sustainability will certainly be related to the adoption of the FHS model by health professionals and especially by those who represent the reason for their existence, that is, the system users.

## Collaborations

DSRC Corrêa, AGOM Moura, MV Quito and LBD Gottems: designing, analyzing and interpreting the data, writing the article and approving the version to be published. HM Souza: design, design, analysis and interpretation of data and approval of the version to be published. LM Versiani and S Leuzzi design, analysis and interpretation of data and approval of the version to be published. J Macinko: design, analysis and interpretation of the data and approval of the version to be published.

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