Large-scale implementation of the Family Health Strategy in the city of Rio de Janeiro, Brazil: evidence and challenges

Abstract The city of Rio de Janeiro has implemented, on a large scale, the model of Social Organizations (OSS) for the management of Primary Health Care (PHC). This option makes the understanding of the city’s experience very relevant, especially since, until then, the OSS organizational model had been adopted predominantly in the SUS hospital management. Thus, the experience of PHC development at two conflicting moments of municipal management in relation to the OSS model is analyzed: the implementation and development of the PPPs (2009-2016); and their dismantling (2017-2020). Case Studies, Literature Review and analysis of public data from DATASUS/Ministry of Health were used. It was verified that: the adoption of outsourcing based on OSS can be directly associated with the rapid expansion of PHC in the city and PHC coverage improvement indicators; the diffusion of the OSS model is associated with the high priority given to health expenditures in the municipal budget; the sustainability of the adoption of the OSS model did not depend on the municipality’s economic status, but on the government’s political choice in the period of 2009 to 2016. The PPP arrangement resulted in important organizational advances, although it did not prevent the veto of the OSS model carried out during the 2017-2020 term.

Key words Family Health Strategy, Primary Care, Financing, Budgetary Binding, Large Cities
Introduction

This article aims to analyze the large-scale implementation of the Family Health Strategy (FHS) within the scope of the Brazilian Unified Health System (SUS) in the city of Rio de Janeiro in the last two decades. The utilization of health care services in Brazil by the poor population remains directly associated with the health care provided by SUS, as stated by Faveret Filho and Oliveira. The relevance of the case study of the city of Rio de Janeiro is due to the significant expansion of the provision of public and free services during the two terms of Mayor Eduardo Paes (2009-2016), which contradicted the literature expectations about the impossibility of an expansionist policy for primary health care (PHC) in large Brazilian cities.

In 2010, the city of Rio de Janeiro had 6,320,446 inhabitants, being the second most populous municipality in the country. The extreme deficit in the provision of health care services characterized the territories where the city’s poor or low-income population lives. The expansion of the provision of public primary health care services in the SUS has a positive impact on the collective well-being, as recognized by the Brazilian literature that understood the redistributive nature of the primary health care policy.

It is noteworthy the fact that the city of Rio de Janeiro stood out in the 1990s/2000s due to the low capacity to expand primary health care services, with the stagnation in public supply and funding. It was expected that the expansion of PHC in the 1990s could mitigate the situation of inequity. However, it was verified that the goal of expanding the provision of PHC services and actions was achieved in small and medium-sized towns, with an emphasis on municipalities with a low Human Development Index. However, large Brazilian cities have adhered to the Family Health Strategy (FHS) model. The minor implantation in the big cities was considered as a limitation of the strategy to increase SUS effectiveness. The city of Rio de Janeiro was a significant example, because only 3.5% of the population was covered by the FHS in 2008. This coverage status in large cities was critical, because the FHS is considered the best gateway for gaining access to free SUS services.

Large cities have become, at that time, the target of a specific incentive policy: the Family Health Expansion and Consolidation Project (PROESF, Projeto de Expansão e Consolidação da Saúde da Família), implemented in 2003. The PROESF, therefore, clarified the discomfort associated with the fact that important large cities showed a negligible Family Health coverage in the late 2000s. The low FHS coverage raised many questions about the inhibitory conditions for large cities to adhere to the model proposed by the FHS.

Part of the literature concluded that the federal incentives prior to Constitutional Amendment n. 29 (EC-29) of 2000, which linked public spending with public health actions and services (ASPS, Ações e Serviços Públicos de Saúde), were insufficient and that the need for municipal financial compensation for the funding inhibited the expansion of the FHS in large municipalities. Thus, the scale of the FHS coverage depended exclusively on the municipality’s economic capacity. In the Brazilian federation, it was considered that the FHS would generate equal incentives for all municipalities to adhere to the central government’s preferences. The induction of the federal government and the states to implement a large number of teams transferred the main financial burden to the municipality. Therefore, the transfers would not be sufficient to pay for the total costs of the teams. The linear incentives used by the Ministry of Health would not be adequate for the municipalities, which are financially differentiated.

The second explanatory current considered that cities that already had high levels of stress related to spending on health actions and services in financial execution would tend to limit spending on the expansion of the FHS due to legal restrictions, which would prevent the increase in the expenses of the municipal government, such as personnel. The expansion of the FSH would expose the public manager to the risk of noncompliance with the Fiscal Responsibility Law (Complementary Law n. 101/2000) for expenses with personnel due to the requirement at the time that FHS teams should be constituted of statutory public workers with a 40 hour-week work contract.

In this context, this article demonstrates and reflects on the choices made by the city of Rio de Janeiro to circumvent the restrictions and dilemmas identified in the literature for the large-scale expansion of the FHS, which requires the health function at the center of the city’s public agenda.

It is important to emphasize that the large-scale implementation of a public policy within SUS can show enormous instability due to the possibility of vetoing of coalitions occupying a position of political competition with the implementers. As Tsebelis points out, the instability of
a policy is directly proportional to the discrepancy in ideological values between competitors. There is no doubt that the programmatic dispute makes a difference in electoral competition in Brazil.

Policies within the SUS environment may, therefore, show a high degree of institutional volatility due to the innovation content proposed by the government. An important characteristic of Mr. Paes' management in health was the adoption of the outsourcing model based on Social Organizations (OSS) for the expansion of the FHS, which was an object of veto by political competitors, the epistemic community of sanitarians and statutory workers. After two terms (2009-2016), Mr. Paes was unsuccessful in electing his successor for the city mayorship. The political coalition backing up Mayor Crivella (2017-2020) ascended to power, who implemented the veto on outsourcing through the OSS, although his government program never made this intention clear. The vetoing action is defined by the introduction of new legislation or administrative arrangement that destabilizes the course of current public policies.

As an example of veto to the model, in 2018 Crivella's management published the document “Reorganization of the PHC Services - A Study for Resource Optimization”. Among the proposed measures was the extinction of 184 FHS units and 55 Oral Health teams, with the adherence of a new type of teams for PHC. The document was based on the justification of deficit in the municipal budget, which culminated in the reduction of around 1,400 PHC job offers in the municipality and initiated the change of the management model by OSS, transferring part of the services and employment bonds to the Public Company - Rio Saúde in 2020.

The same document mentioned the production of the family health teams, which on average would cover a territory of fewer than 3,000 people and, therefore, there were idle professionals. The evaluation disregarded the city's diversity of territorial conformations, such as, for instance, the areas under the domain of drug trafficking, which prevents people's mobility. It is worth considering that, at this time, there was a change in the information systems that contained the users' registration data.

It is also noteworthy the criteria for the reduction of teams in areas considered privileged (middle class), disregarding the presence of poor communities and slums in such neighborhoods and the loss of health insurance.

Materials and Methods

The case study focuses on two important dimensions of the city’s experience: 1) the use of outsourcing mechanisms for the accelerated development of primary care, and 2) the city budgetary binding to ensure the sustainability of ASPS funding. The case study emphasizes three moments of municipal public administration: the first and second terms of Mayor Eduardo Paes, respectively from 2009 to 2012 and from 2013 to 2016, and the single term of Mayor Marcelo Crivella (2017 to 2020).

The use of the case study methodology allowed an in-depth investigation of the empirically unique situation in the city of Rio de Janeiro through multiple variables of interest. The study methodology offers the possibility of using various information sources, such as public documents, open access data from Datasus and the review of scientific publications (books, dissertations, theses and scientific articles). The bibliographic review allowed establishing the context of the outsourcing implementation through the OSS model in the municipality.

To demonstrate the level of the health function priority for the city administrations, the article used data from the Public Health Budget Information System (SIOPS, Sistema de Informações sobre Orçamento Público em Saúde). Taking as reference the methodological indications by Pereira et al., the level of financial binding with ASPS is described based on two equations:

The first equation allows calculating the city's potential annual health expenditure per capita (DPSPC, Despesa anual Potencial em Saúde per capita) based on the parameters defined by Constitutional Amendment n. 29 of 2000, that is, it was expected that the municipality would commit at least 15% of its own revenues to health expenditures. The DPSPC indicator is thus derived from the equation: (0.15 X RPPC) + (0.15 X TCPC) + TSUSPC, where RPPC is one's own per capita revenue; TCPC comprise the constitutional transfers per capita and TSUSPC comprise the per capita SUS transfer. It is worth recalling that the Brazilian Federal Constitution of 1988 (CF/88) implemented comprehensive mechanisms for tax revenue redistribution and contributions among federal entities.

The second equation shows the level of commitment of per capita expenditures to ASPS annually (NCDS). The NCDS is derived from the DRPC/DPSPC ratio, where DPSPC is the potential per capita health expenditure and the DRPC...
is the expenditure incurred per capita. The NCDS value equal to or >1, indicates that the health function occupies the top of the government’s priority agenda.

The information on the change in the structure of the health sector due to the implementation of the OSS model were extracted from the Municipal Health Plan - 2013-2017. The description of the FHS expansion and its developments in health indicators in the three different moments of the municipal government was based on information from the Ministry of Health available on the e-SUS website. To estimate the number of people covered by the family health team, it was considered that each Family Health Team (FHT) was responsible on average for 3,450 people (reference value used at the time by DAB/SAS/Ministry of Health) for the period of 2009 to 2019 according to the Previne Brasil Program.

Results

The OSS organizational model derives from the 1995 State reform program promoted by Minister Bresser Pereira in the 1990s. The proposed reform program defined four nuclei of activity for the Brazilian government: (i) strategic nucleus, consisting of the Executive, Legislative, Judiciary Powers, the Armed Forces, to be maintained as government property and a bureaucratic and managerial mixed administration; (ii) activities that are exclusive to the government, related to control, inspection, security, with government ownership and managerial administration; (iii) activities that are non-exclusive to the government, represented by Universities, public hospitals, research centers, museums, adopting “non-governmental public ownership” and managerial administration through the conversion to the OSS model; and, finally, (iv) production-oriented activities geared to the market, such as government-owned companies, to be privatized.

In the social area, the OSS proposal aimed, among other objectives, to reduce the expansion of the workforce promoted by the implementation of the Single Legal Regime (RJU, Regime Jurídico Único) created by CF/88 and regulated by Law n. 8112/1990. The RJU created the position of the statutory public worker, differentiating it from public servants with employment bonds through the Consolidation of Labor Laws (CLT, Consolidação das Leis do Trabalho) and other openly precarious formats.

As shown by Marenco, since the implementation of CF/88, the public administration workforce in Brazil can be classified into four exclusionary categories: statutory - public workers hired under RJU rules, implying selection by means of a public tender, who attain stability at work after three years of probationary internship; the CLT workers, civil servants with an employment contract governed by the CLT, who have labor rights and a formal contract of employment, but without stability as a civil servant; workers who are commissioned to exercise functions of political trust, freely appointed by the governmental authority, and who may also be removed by decision of this same authority and civil servants “without a permanent bond” who work by providing services, without an employment bond and without a signed Employment and Social Security Record booklet.

Through the OSS, the Brazilian public administration had yet another organizational option for the workforce expansion in the social sector without the requirement to open public tenders and comply with the salary ceiling for careers subordinated to RJU.

The new OSS model was widely accepted by municipal and state governments, especially in the hospital area. It is important to note that the state and municipal levels have legislative autonomy and were able to implement their own versions of the new organizational model.

Thus, OSS were very attractive to managers because they allowed to provide services that were non-exclusive to the government to private entities through management contracts. In sectors that were non-exclusive to the government, the reform agenda expected the management contract with third parties to expand autonomy, decision-making speed and accountability, regarding the financial and organizational sense.

It is important to note that the fact that the organization has attained the qualification as an OSS does not necessarily mean that it has acquired the right to establish a management contract with the governments. Before that happens, the OSS must participate in a selection process. Each OSS must present a detailed work proposal, containing a budget and proof of experience in the area in which it intends to operate, among other requirements explained in the Public Notice.

What draws attention to the city’s experience is the fact that primary care expansion was promoted through adherence to the 1995 State
reform agenda, from the organizational innovation perspective, with the creation of governance conditions for the new management agenda. In fact, a new legal framework was approved by the City Council of the City of Rio de Janeiro, Municipal Law n. 5,026/2009. The adoption of OSS was, therefore, crucial for the viability of the PHC expansion agenda in the city, mainly because it allowed the hiring of professionals from the Family Health Teams (FHT) by the CLT regime, reducing the precarious labor bonds previously observed in the relationships of the city government with non-governmental organizations.

Table 1 shows that adherence to the OSS model was accompanied by a significant effort to bind the city’s own revenues with the measured ASPS as an indicator of its own revenue commitment. In 2009, the first year of government, the CDSPC was 1.30, indicating that the municipality spent 30% above its expected spending capacity with its own revenues. In the following four years (2010-2013), the CDPC remained above 1, residually declining in the last two years of the management (2015-2016). In 2017, the first year of Crivella’s management, the CPC suffered a massive reduction (it was 0.88), remaining below 1 in the following two years of management (2018-2019). Table 1 shows that despite health expenses remained above the 15% expected by the EC-29, the city’s fiscal effort with the health function was significantly reduced in the three years of Crivella’s management. Data for 2020 is not available at SIOPS at this time.

The first years of the OSS model implementation in the context of expanding primary care also had an important impact on the conditions of primary care provision in the city of Rio de Janeiro. A hybrid model was implemented at this level of care, favoring extremely poor areas with an assistance void. The primary care network was organized into three types of health units: type A, where the entire territory is covered by the Family Health Strategy teams; type B (traditional health units, incorporating one or more FHS teams, which partially cover the territory); and type C (traditional basic health units, without the presence of Family Health Teams).

The effects of this rapid reorganization on the workforce structure were exceptional, due to the significant increase in the CLT-employment contracts in the OSS, directly linked to the implementation of the FHS in the early years of Mayor Paes’s first term, as shown in Table 2. It is worth noting that the implementation of the OSS was accompanied by the extinction of the participation of cooperatives in the development of health interventions by the City Hall. At the end of the first term, the OSS concentrated 31% of the personnel that provided direct health care.

Graph 1 shows that the evolution of PHC coverage in the city was quite consistent across Mayor Paes’ two terms (2009-2016). The concept of PHC in Graph 1 includes the services of the FHS, added to the offer of traditional basic health units in the city. It is worth noting that, until 2009, the municipality of Rio de Janeiro organized PHC exclusively in traditional health units (with doctors of basic specialties attending people without the instruments of registration, bond and follow-up). In the first year of Mayor Paes’ term, which started in 2009, the rapid implementation of family clinics was observed within the parameters recommended by the FHS.

Table 3 shows the specific quantitative evolution of the coverage and supply of PHC procedures, which declines sharply in 2019. The exit of health care from the government’s agenda in Mayor Crivella’s term left 880,000 people without FHS coverage between 2016 and 2019. However, Table 3 also shows that PHC suffered an extraordinary drop in productivity as of 2017. In 2009, the production of PHC procedures was 19.0, decreasing to 2.5 per person covered by the FHS in 2019. Table 3 shows that the indicator also remained above two digits between 2009-2016.

Table 1. Level of Commitment (NCDS) and Percentage of Expenditures on Public Health Services (ASPS) in the Municipalities of Rio de Janeiro according to the parameters of Constitutional Amendment 29/2000, 2009-2019.

<table>
<thead>
<tr>
<th>Year</th>
<th>Level of Commitment with ASPS Expenditures</th>
<th>% of Application of EC29</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>1.30</td>
<td>16.07</td>
</tr>
<tr>
<td>2010</td>
<td>1.01</td>
<td>16.91</td>
</tr>
<tr>
<td>2011</td>
<td>1.05</td>
<td>19.69</td>
</tr>
<tr>
<td>2012</td>
<td>1.01</td>
<td>23.25</td>
</tr>
<tr>
<td>2013</td>
<td>1.0</td>
<td>19.43</td>
</tr>
<tr>
<td>2014</td>
<td>0.98</td>
<td>20.81</td>
</tr>
<tr>
<td>2015</td>
<td>0.95</td>
<td>20.93</td>
</tr>
<tr>
<td>2016</td>
<td>0.93</td>
<td>25.48</td>
</tr>
<tr>
<td>2017</td>
<td>0.88</td>
<td>25.71</td>
</tr>
<tr>
<td>2018</td>
<td>0.94</td>
<td>21.1</td>
</tr>
<tr>
<td>2019</td>
<td>0.99</td>
<td>20.64</td>
</tr>
</tbody>
</table>

The expansionary period in public spending, expansion in coverage and increased productivity was mainly characterized by the incorporation of contracts with the OSS organizational model, which brought to the municipal management the incentives for the evaluation and performance-based compensation, with the objective of improving quality, efficiency and transparency. The municipality also strengthened the area of Family and Community Medicine (MFC, Medicina da Família e Comunidade), implementing the medical residency; it equated professional remuneration to the standards observed in the market for health professions, and modified the regulation related to access and use of information and communication technologies.26

It is worth noting that in the first period of Paes’ administration (2009 to 2012) the manage-

### Table 2. Workforce evolution according to the type of employment bond in the Municipal Health Secretariat of Rio de Janeiro, 2009-2012.

<table>
<thead>
<tr>
<th>Year/Type of bond</th>
<th>Municipal Statutory Worker (A)</th>
<th>Federal Statutory Worker (B)</th>
<th>Cooperatives with precarious employment bonds</th>
<th>CLT worker in OSS</th>
<th>Others (health insurance companies and FIOTEC)</th>
<th>Total</th>
<th>% linked to OSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>25,411</td>
<td>5,338</td>
<td>932</td>
<td>0</td>
<td>2,963</td>
<td>34,644</td>
<td>0%</td>
</tr>
<tr>
<td>2010</td>
<td>25,048</td>
<td>5,218</td>
<td>0</td>
<td>5,015</td>
<td>2,040</td>
<td>37,321</td>
<td>13%</td>
</tr>
<tr>
<td>2011</td>
<td>24,422</td>
<td>5,072</td>
<td>0</td>
<td>8,549</td>
<td>2,692</td>
<td>40,735</td>
<td>21%</td>
</tr>
<tr>
<td>2012</td>
<td>24,504</td>
<td>4,673</td>
<td>0</td>
<td>14,427</td>
<td>3,222</td>
<td>46,856</td>
<td>31%</td>
</tr>
</tbody>
</table>

CLT: Consolidated Labor Laws of Brazil.


### Table 3. FHS coverage, PHC procedures and Primary care (PHC) production per capita, 2009-2019.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population covered by FHS (A)</th>
<th>PHC procedures (B)</th>
<th>PHC Production per capita (B/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>595,780</td>
<td>11,297,786</td>
<td>19.0</td>
</tr>
<tr>
<td>2010</td>
<td>990,820</td>
<td>12,975,776</td>
<td>13.1</td>
</tr>
<tr>
<td>2011</td>
<td>2,023,099</td>
<td>20,670,753</td>
<td>10.2</td>
</tr>
<tr>
<td>2012</td>
<td>2,490,935</td>
<td>26,667,618</td>
<td>10.7</td>
</tr>
<tr>
<td>2013</td>
<td>2,382,286</td>
<td>28,446,965</td>
<td>11.9</td>
</tr>
<tr>
<td>2014</td>
<td>2,798,317</td>
<td>33,122,678</td>
<td>11.8</td>
</tr>
<tr>
<td>2015</td>
<td>2,853,604</td>
<td>39,175,770</td>
<td>13.7</td>
</tr>
<tr>
<td>2016</td>
<td>2,864,898</td>
<td>37,185,828</td>
<td>13.0</td>
</tr>
<tr>
<td>2017</td>
<td>4,086,903</td>
<td>36,820,395</td>
<td>9.0</td>
</tr>
<tr>
<td>2018</td>
<td>3,806,849</td>
<td>17,258,657</td>
<td>4.5</td>
</tr>
<tr>
<td>2019</td>
<td>2,974,458</td>
<td>7,555,742</td>
<td>2.5</td>
</tr>
</tbody>
</table>


The expansionary period in public spending, expansion in coverage and increased productivity was mainly characterized by the incorporation of contracts with the OSS organizational model, which brought to the municipal management


ment of the Primary Health Care (PHC) units started with the OSS management model. In the second period, going from 2012 to 2016, the public management made it possible to expand the PHC coverage scale, reaching 70% of the population in December 2016, according to data from the Ministry of Health.

The third analyzed period, from 2017 to 2019, under Mayor Marcelo Crivella’s government, started without defending the veto to the model of the two previous administrations but promoted workforce reduction and FHS coverage decrease, reaching 50.5% of PHC coverage in December 2019. Crivella’s management also chose the extinction of the OSS organizational model and the transfer of the outsourced workforce in the FHS to the Public Health Company - Rio Saúde (Private State Foundation). It should be noted that even with the veto of the OSS model by Crivella’s management, the option for a counter-reform was not made through public tenders for the large-scale implementation of RJU governance in the city’s FHS.

Discussion

This article demonstrated that the sustainability of adopting the OSS model in the city of Rio de Janeiro did not depend on the financial status of the city, but on the priority that the health function had in the political agenda of the municipal government. What makes the experience of the city of Rio de Janeiro unique is the remarkable expansion of PC through the OSS model. The gains in social welfare for the city’s disadvantaged population from this experience of expanding coverage were ignored by the literature, mostly centered on the veto function chosen by the municipal government.

In this sense, the case study of the city of Rio de Janeiro also demonstrates that, even the successful experiences of PHC expansion with high fiscal commitment in the city can suffer a severe setback, also due to the veto of a new political coalition at the head of the city management.

In fact, the health sector’s experience during the first two terms of Mayor Eduardo Paes can be associated with the high prioritization of the health function in the public budget, which allocated 25.5% in 2016 of the sector’s own resources. This focus on health in the government’s agenda was accompanied by the definition of PHC as the coordinator of the local health system, which made it possible for the municipal SUS to reach 3.8 million inhabitants through the FHS in 2016 and obtain high allocative efficiency gains.

Eduardo Paes’ two terms promoted the sector reform and the expansion of family health teams by formalizing management contracts with the OSS accredited for health management. However, the political veto of the outsourcing arrangement promoted by Crivella’s management as of 2017 can be associated with the reduction of FHS coverage by almost 1 million people and the decrease in sectoral productivity.

The coverage indicators show that the veto to the OSS model, replaced by outsourcing via a public municipal company, affected the population’s access to health care. The veto to the model occurred despite the finding that the OSS favored more formal employment bonds (the CLT bonds predominated) and the development of mechanisms for assessing the performance of the OSS, aiming to mitigate clientelistic exchanges and local management corruption.

It is important to note that the adoption of the OSS model was a successful choice for the rapid implementation of the government’s agenda for SUS in the city of Rio de Janeiro, even though it is not sufficient to perform all essential public health functions. Its limitations indicate the need to implement independent regulatory arrangements aiming to reduce legal uncertainty, the Executive government’s information deficit and, above all, make public sector relations with third parties transparent to civil society and the public opinion.

Collaborations

NR Costa, IM Silva, PT Lima, TS Silva, ICM Costa and IVO Figueiredo equally participated in all stages of the manuscript writing.
References