TESOURONACIONAL
Public Finance Notebooks, Brasília, v. 21, n. 2, p. 1-45, sep. 2021

GOVERNANCE OF PUBLIC HEALTH RESOURCES IN BRAZIL

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ABSTRACT

When dealing with public resources, budgetary coordination difficulties are observed, as well as the fragile structure of the system that operates actions in Primary Care in Brazil. This article describes the context of the allocation of public financial resources in health in Primary Care. Here consider the principles of budgetary governance, complemented with the analysis of variables related to infrastructure and the allocation of health expenditures. It's a qualitative descriptive study that describes the context of allocation of financial resources related to health financing, verifying the incidence of budgetary governance principles. Subsequently, the behavior of variables related to infrastructure and health spending is verified. There is evidence of the need to improve the governance of health resources, and it was found that the results show difficulties that are reflected in the allocation of financial resources in Brazilian municipalities.

Keywords: Budget governance; Primary health care; Basic care; Health expenditures in the municipalities; Primary health care infrastructure.
JEL: G3; I18; H51; H75.

TESOURONACIONAL
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1 INTRODUCTION

In Brazil, the health system, being universal, assist a population of almost 200 million people. It is a challenge for the federal government, both in terms of the number of resources invested and in terms of the need to provide a service that seeks to meet the unequal needs of the assisted population, or even because of the challenges presented in the urgency of coordinating a system that involves all public entities of the Federation.

The performance of health policies depends on budgetary and financial resources, resulting from negotiations in decision arenas in which interests are sometimes divergent and opposed, in which users have different levels of understanding and access to information. Such characteristics give occasion to the need for predictable, transparent and enlightened institutions, which compose the sector's governance. And this may be one of the difficulties, such as the need for budgetary coordination, which put in risk confrontation measures adopted by federal entities.

According to the World Bank (World Bank, 2003), the deficiency in budget management has been continuously pointed out as one of the main reasons why governments in developing countries have difficulties in transforming public spending into effective services.

It is in this context that this work, part of a broader research, analyzes decision mechanisms within a federative context of distributed competences, which provide coordination and integration between the entities and actors involved.

Thus, the objective is to describe the context of allocation of public financial resources in Primary Health Care (PHC), considering the principles of budgetary governance, complemented with the analysis of variables related to infrastructure and to the allocation of health expenditures and analyzing the typology and allocation of financial resources in health in the municipalities.

This study is structured in five sections, starting from this introduction. Section 2 presents the theoretical context, related to budgetary governance. Section 3 follows the methodological path. Section 4 presents the results and discussions regarding governance in the allocation of budgetary resources in health and the analysis of variables related to health spending and infrastructure in PHC. Finally, final considerations are presented.

2. THEORETICAL FRAMEWORK

When studying governance in financing PHC, it is essential to address the aspects that influence, both positively and negatively, the allocation of financial and budgetary resources. In this regard, the understanding of governance, as the set of rules or institutional arrangements that govern the process of allocating budgetary or financial resources, is essential to the understanding of the development of this process.

In this topic, the theoretical frameworks on the legal principles of the health system and budgetary governance are presented, as well as on the transfer of health care resources.

2.1 Public governance

Studies show that governance is closely linked to benefits obtained from public policies, which, in addition to cost reduction, provide better use of resources and satisfaction of the population served by the services.

The role of good governance as a key to development effectiveness has been emphasized in recent years. According to the World Bank (2003), the allocation of public resources for adequate assets and services may not lead to desirable results if budgetary institutions, which involve the formulation, execution and monitoring of budgetary resources, present disabilities. According to this body, deficiency in budget management has been continuously pointed out as one of the main reasons why governments in developing countries have difficulties in transforming public spending into effective services.

Also, according to the World Bank (2007), good governance is summed up by the formulation of predictable, open and enlightened policies (with transparent processes). A bureaucracy imbued with a professional ethos and of a strong civil society participating in public affairs, in which all actors behave in accordance to the law.

2.1.1 Aspects of public governance in health

Rajkumar and Swaroop (2008), when analyzing the results on public spending and governance, concluded that the impact of public spending on results is greater when there is good governance; however, this impact could be well below its true full potential. These authors concluded that public spending has virtually no impact on health and education outcomes in poorly governed countries. They claim that the results presented in their study have important implications for improving effectiveness in public spending. According to the authors, the lessons are particularly relevant for developing countries (such as Brazil), where public spending on education and health is relatively low and the state of governance is often poor.

In developing countries, the relationship between spending and results is not always completely clear. According to Filmer et al. (1997), systematic international data that support a strong correlation between increased PHC expenditure and access and better health outcomes are not strong in countries that have not yet reached maturity in terms of governance. Although there is evidence of a positive relationship between public spending on health and selected health care indicators. The quality of the country's institutions also plays a fundamental role in determining the effectiveness in health spending (RAJKUMAR and SWAROOP, 2002; SCHIEBER et al., 2006).

According to the World Bank (2004), for services to succeed, it is necessary to change institutional relations between key actors, given that adjusting inputs without reforming institutions that produce inefficiencies will not lead to sustainable improvements. This is a clear indication of the role of institutions in providing services to the poor; that is, success in providing these services depends on accountability and good governance by the institutions. The World Bank (2004) states that successful services for poor people emerge from institutional relationships in which actors, including individuals, organizations, government and companies, are accountable to each other. In addition to the aspects mentioned, Ibrahim (2017) states that policies and political arrangements are important to determine the successful provision of social services in any country, particularly in the least developed countries.

2.1.2 Federative governance

An important aspect, absent in most countries considered models for analysis in a study on theories of public policy performance, is the aspect of federalism, given that most of these countries have small territorial dimensions - an aspect that makes models that are successful in other countries not always fully adequate here.

Considering aspects related to federalism and decentralization, the governance of SUS (Unified Health System) thus has an institutional configuration composed of instances and mechanisms of power sharing with a view to ensuring the participation of states and municipalities in the preparation policies and programs, national planning, allocation of financial resources and decision-making of the health policy in the country (BRASIL, 2016).

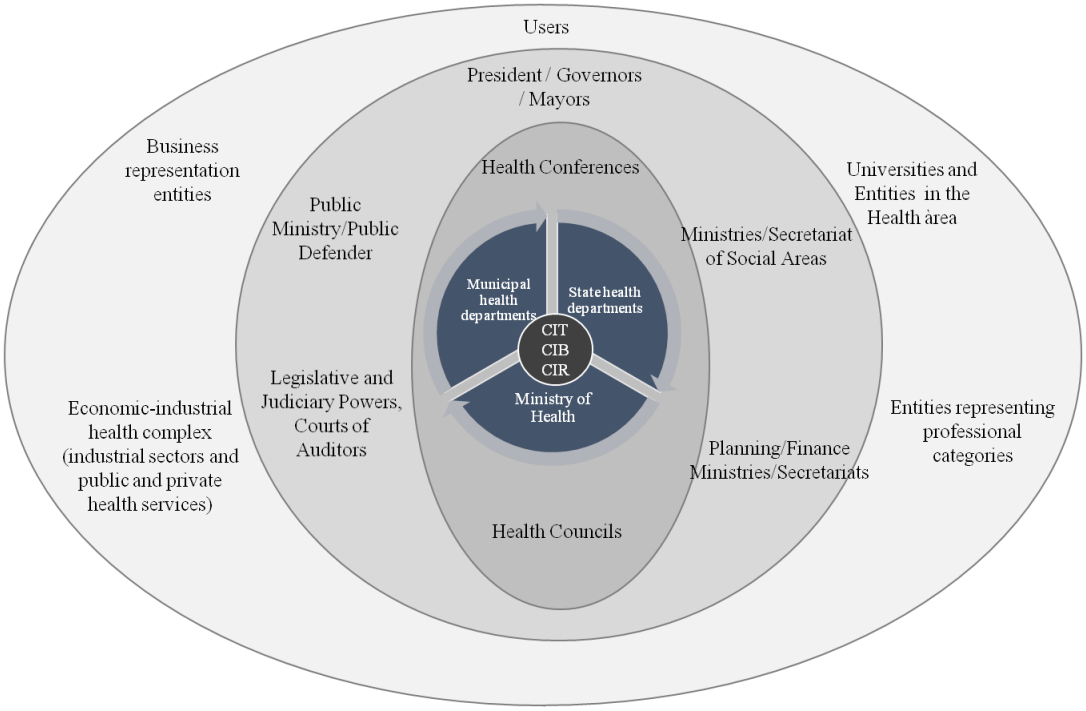
Thus, the dynamics of federative governance influences and is influenced by different social or political actors, such as civil society (which generates demand), the private sector, teaching and research institutions, the Legislative and Judiciary powers, control organizations, inspection and defense of rights and other organs of the Executive that work in the social or planning and budgeting areas. Under this logic, the private sector is in the outermost circle (Figure 1), emphasizing its complementary or supplementary character of supply and demand, which presents itself as a provider of assets and services to be incorporated into the system when there is insufficient supply by the State (BRASIL, 2016).

As decision-making bodies, interagency commissions play an important role in acting as a forum for negotiation and agreement between the entities of the three spheres of government. At the national level, the Tripartite Interagency Commission (CIT) is a forum for negotiation and agreement between representatives of the three spheres of government. Thus, representatives of the directive body of the Ministry of Health (MH), the National Council of State Health Secretariats (CONASS) and the National Council of Municipal Health Secretariats (CONASEMS) are part of the CIT (BRASIL, 2012; 2016).

In this sense, social actors influence the federal governance of SUS, contributing to produce debates, to the implementation of sectorial forums, to elaborate and disseminate of reference documents, and to undertake studies and research.

The diagram in Figure 1, below, shows where and how government and society choices, regarding public health, are established.

Figure 1 - The role of federative relations in the governance of SUS



Source: Brasil (2016).

2.1.3 Distribution of competences

Within federative governance, the configuration of SUS intergovernmental relations is defined in the Federal Constitution (1988) and in the Law 8.080/1990, which addresses the topic in more details (BRASIL, 2016). In order to define health care access as universal, integral and equal, there is a federal architecture that combines a set of common and competing competences from each sphere.

Thus, it is up to these three spheres, together, to define mechanisms for the control and the evaluation of health services, monitoring the population health care level, the development of rules for the regulation of private service contracts, the management of budgetary and financial resources, the definition of human resources policies, the implementation of short- and medium-term planning and the articulation of health policies and plans (BRASIL, 2016).

2.2 Budgetary governance

Budgetary governance is understood by Barcelos (2012) as the set of rules (formal and informal institutions) that guide the underlying political, economic and social relations in the process of resource allocation in the public sector. In this governance concept, the way of

interpreting and applying such rules is included, since budgetary institutions are designed and executed by human actors.

More specifically, *budgetary governance* concerns the set of institutions that define the way in which budgetary transactions are discussed, agreed, implemented, monitored and enforced. *Budgetary institutions*, in turn, correspond to the collection of rules that govern the budgetary process throughout its most varied instances (VON HAGEN, 2007). Thus, budgetary governance establishes the restrictions and incentives necessary for the adequate use of public resources (BARCELOS, 2012).

Also, according to this author, the capacity of the State (or the success of its public policies) depends, substantially, on an *adequate governance* of its *budgetary resources*. If the budgetary resources are not made available in sufficient quantities or if they do not reach the organizations involved in their realization in a timely manner, the objectives intended by the State can hardly be achieved.

In fact, in cases of absence or excessive deficiency in governance regimes, the use of resources tends to generate socially undesirable results, such as overexploitation, congestion or interdiction[1], which may result in the complete degradation of the budgetary system and in the failure of the State's capacity to manage its public policies. Therefore, if the consumption of resources leads to exhaustion or if they are used in an unproductive, illegal or unfair manner, and cannot be allocated in favor of budgetary programs to solve social problems, the State itself and its public policies will achieve tragic results.

In this sense, Ostrom (1990), in his research, revealed that the presence of certain governance principles can promote a successful management[2] of common resources, thus avoiding their predatory use. In this way, the sustainability of the most varied social systems depends on how the principles of governance act in regulating the use of resources (BARCELOS, 2012).

2.2.1 Budgetary governance in health: principles

[1] In the sense that, even if they are available in some quantity and are necessary to solve problems common to society, there would be a prohibition on the application of resources, which would remain enclosed in a kind of collective property safe (BARCELOS, 2012).

[2] Governance principles capable of promoting successful management include those capable of preventing users from overusing resources and those who can distribute results and benefits in a fair manner and lasting over time (AGRAWAL, 2002; BARCELOS , 2012).

When studying governance in financing primary care, it is essential to address the aspects that influence, both positively and negatively, the allocation of financial and budgetary resources. Understanding governance is essential to understand the development of this process.

Based mainly on the works of Ostrom, Barcelos (2012) lists 12 governance principles, whose presence is usually related to the success of common resource systems (whether natural or not) and whose absence seems to be associated with collectively undesired results.

2.2.2 Governance principles defined by Ostrom

Ostrom (1990), based on his research with effective and self-governing institutions, developed principles that would take common resource systems to higher levels of sustainability and governance over institutional changes (PINTO, 2014).

On the other hand, in an attempt to synthesize variables used by theories of common resources, Agrawal (2003) grouped the findings of several authors in critical conditions of viability for the commons' sustainability, according to the following four groupings:

1. features of the resource system;
2. features of groups that depend on the resource system (appropriators);
3. institutional arrangements; and
4. external environment.

However, it is important to report that Agrawal (2007) studied variables aimed at the analysis of self-governed common resource systems. In the case of budgetary resources, there is a complex list of actors, at various levels, who are responsible for capturing, distributing and executing resources. The resources are “produced” by actors who do not directly participate in their use; that is, there is the role of the taxpayers and the users of public services (PINTO, 2014). Between these two actors, there are still others, such as those who manage resources (guardians or savers) and those who perform public policies (spenders), as well as those responsible for controlling and monitoring resources and services.

Barcelos (2012), when studying and identifying governance principles that could be understood as relevant for the coordination of government budgetary transactions, states that, naturally, there is no single and definitive answer. According to him, an influential part of budgeting literature recognizes that public resources are subject to what Garrett Hardin (1968) called “the tragedy of common resources”, since budgetary resources are marked by both high

subtractability and substantial difficulty in access control (OSTROM, 1990; BARCELOS, 2012).

The sustainability of finite resources under complex access control conditions requires management rules that are capable of solving a series of collective action problems. The survival of a system of common resources (as is the case with the budgetary system) demands a governance structure based on principles that overcome incentives for individual opportunistic behavior and foster rational conduct, from a collective and intertemporal point of view (BARCELOS, 2012).

2.2.3 Applicable principles to the governance of budgetary resources

Most natural resource systems can be classified as a common pool resource (or CPR) system. However, the concept of CPR does not apply exclusively to the case of natural resources. On the contrary, examples of CPR also include numerous man-made systems, such as government treasury, internet-based computer network, shared generation of knowledge and funds for investment projects (OSTROM, 2002; BARCELOS, 2012).

Based mainly on Ostrom's works, Barcelos (2012) lists twelve governance principles, whose presence is usually related to the success of common resource systems (whether natural or not) and whose absence seems to be associated with collectively undesired results.

In **Tables 1 and 2**, information on each of the twelve principles is presented.

Table 1 - Budgetary governance blocks and principles

IA - Delimitation and specification of resources	
	Principle
1A	Delimitation of resource boundaries.
IB - Delimitation and specification of users	
	Principle
1B	Delimitation of user boundaries.
II - Rules for allocation and use of resources	
	Principles
2A	Congruence of budgetary rules with local/ sectorial conditions.
2B	Congruence between users and resources (fiscal, organizational, political and social sustainability).
III - Decision-making process	
	Principles
3A	Collective decision arrangements (mobilization and allocation decisions).
3B	Collective decision arrangements (rule change).
IV - Control process	
	Principles

3C	Information for collective decision making (observability of decisions and their impacts).
4	Monitoring users and resources.
5	Gradual sanctions.
V - System coordination	
	Principles
6	Conflict resolution tools.
7	Legitimacy to decide on inherent issues.
8	Governance based on coupled institutions.

Source: Made by the author, based on Barcelos (2012), Pinto (2014), Bijos (2014), Ostrom (1990, 2008), Ostrom (1990, 2007), OCDE (2014).

Table 2 - List of twelve principles of budgetary governance

Principles and rationalities	
P1(A)	**Delimitation of resource boundaries**. In a budgetary governance system, it is essential to define such resources and their main attributes, and to define the limits and rights of their use.
P1(B)	**Delimitation of user boundaries**. It relates to the effort to define jurisdictions, rights and duties observed by individuals and organizations that participate in the budgetary process.
P2(A)	**Congruence of budgetary rules with local/ sectorial conditions**. Broad budgetary systems, especially in federal regimes. It is desirable that the relevant rules to the provision and appropriation of resources show some congruence with the diversity and dynamics of conditions, granting spaces for adaptation.
P2(B)	**Congruence between users and resources (fiscal, organizational, political and social sustainability)**. There will be congruence between users and resources, if the budgetary governance rules are able to avoid, simultaneously, both the shortage of users and the overutilization of the resources that constitute the system. In such systems, some congruence between political sustainability (user needs) and fiscal sustainability (resource conservation) is desirable.
P3(A)	**Collective decision arrangements (mobilization and allocation).** In a system of budgetary resources, it is desirable to have decision arrangements that promote the shared exercise of decision-making power, so that some users can participate in the decisions that affect them.
P3(B)	**Collective decision arrangements (rule change)**. Individuals and organizations should be able to participate in the design and propose changes to the rules that govern them. It is desirable to have decision arrangements that promote the shared exercise of the power to conceive and change rules, so that a portion of users can participate in the elaboration and alteration of the rules.
P3(C)	**Information for collective decision (observability of decisions and their impacts).** In a system of budgetary resources, it is desirable to have some degree of observability of decisions, through the disclosure and reporting of current and future conditions of the budgetary system (both in relation to users and resources).
P4	**Monitoring users and resources**. In a system of budgetary resources, it is necessary to have some degree of monitoring of users and resources, in order to recognize possible deviations in behavior and expected conditions, respectively.
P5	**Gradual sanctions** Budgetary actors who commit infractions against the system must suffer sanctions proportionally to the gravity of their acts, in order to discourage systematic deviations in behavior, promoting the collective notion of justice.
P6	**Instruments for conflict resolution**. It is linked to the notion that budgetary conflicts need to be resolved quickly and at a reduced cost, in order to avoid difficulties in building fundamental consensus to the allocative process.
P7	**Legitimacy to decide on inherent issues.** In a system of large-scale budgetary resources, it is important that actors operating in related subsystems have their own decision-making prerogatives and that their deliberations are not challenged or disregarded by higher or subsequent jurisdictions.
P8	**Governance based on coupled institutions**. It is related to the idea that, in broad budgetary systems, in which it is desirable that the numerous and distinct actors operate in multiple layers of nested organizations (polycentric and multilevel architecture).

Source: Adapted from Barcelos (2012).

Next, considering Table 2, those twelve principles of budgetary governance are scrutinized.

Regarding to principles **1A and 1B: clearly defined resource and user boundaries**, the delimitation of resource boundaries in a Budgetary Resources System (BRS) implies clearly defining the constitution of the budgetary system, including the quality and quantity of the resources inherent to it. In addition to the impossibility of budgetary resources being used outside the budget, extra-budgetary resources must not "contaminate" the system (BARCELOS, 2012).

In relation to appropriation, there are countless individuals and sectorial organizations that aim to transform consigned resources into public policies and, thus, to solve collective problems. Throughout the operationalization of the budgetary system, there are organized actors involved in the execution of allocative decisions, which influence the behavior of the actors, the balance of the system and the use of resources. At the end of the BRS production chain, there are ultimate users, with expectations in relation to the possibility of enjoying such benefits (BARCELOS, 2012).

In relation to **principles 2A and 2B: budgetary rules are congruent with local/ sectorial conditions and congruence between the multiple dimensions of sustainability**, it should be noted that the congruence of budgetary rules to local/ sectoral conditions is related to the capacity of budgetary institutions to assimilate the diversity of public policy contexts (from their ways of operating in each sector/ location) and adapting to unforeseen abrupt changes. Overly uniform and rigid rules, centrally established, according to Barcelos (2012), do not always allow adaptation to the relevant particular needs arising from the diversity of political, social and economic spaces covered by budgetary activity (with multiple programs and actions).

Regarding **principles 3A, 3B and 3C: collective decision arrangements in the mobilization and allocation of resources, in rule change and information for collective decision**, it should be considered that, for Barcelos (2012), a budgetary governance regime contemplates the Principle 3A when collective decision arrangement provides broad participation to actors affected by the decisions. In a system of budgetary resources, it is desirable to have a shared exercise of decision-making power; so that a portion of users can participate in decisions. This principle suggests the institutionalization of instances and access channels for discussion, defense and contestation of mobilization and application of resources, by those who are affected by the decisions being made.

Likewise, broad participation increases the regime's sensitivity to changes in the context, reducing time and cost for adaptation. In a budgetary system, it is presumed that a portion of users will participate in the drawing design and in the alteration of the rules that

affect them. Principle 3B is evidenced by the right that affected actors have to propose revision or change of rules of the governance regime, through accessible, fast and reasonable cost channels (BARCELOS, 2012).

Principle 3C, on the other hand, is connected to the assumption that budgetary decisions and their impacts are observable and measurable by the actors of the system (or their representatives), allowing the identification of conformities and deviations, in the course of action of related authorities. The integrity of this principle implies that the actors can easily and systematically recognize the general panorama of the system and associate the conditions of the system with the corresponding causes (BARCELOS, 2012).

As for **principle 4: monitoring users and resources**, its full presence requires that the monitoring of the behavior of actors and of the real conditions of a BRS are carried out by individuals and/ or organizations that are effectively responsive to the interests of the legitimate actors. Thus, the behavior of budgetary actors is subject to deviations, and the resources under their responsibility are subject to inappropriate use, requiring monitoring actions (BARCELOS, 2012)

Regarding to **principle 5: gradual sanctions**, the budgetary system must provide sanctions and be authorized to apply them against those who deviate from the rules. These sanctions must be realistic and proportionate to the degree of severity of the violations committed. Punishments must have a preventive effect, in order to discourage systematic deviations in behavior.

Concerning **principle 6: conflict resolution instruments**, in the case of an BRS, it is assumed that there will be specialized arenas or other accessible, fast and reasonable cost instruments, aimed at addressing disagreements about obtaining and allocating resources. This becomes essential, since the intensification of conflicts can lead to a block in the execution of public policies and the maintenance/transformations that is operated through budgetary programs (BARCELOS, 2012).

With reference to **principle 7: legitimacy to decide and to organize**, it is understood that this principle is strongly present within governance structure when higher authorities respect the jurisdiction's right to organize themselves and to decide on the issues inherent to them. In that case, there will be incentives for lower-level jurisdictions to develop their own solutions for managing their resources, which will tend to be more functional. Principle 7 also proposes that external actors do not impose their rules or undermine basic rights from users related to the development and the organization of their own institutions (BARCELOS, 2012).

Finally, about **principle 8: coupled governance**, its presence occurs when a system of common resources, closely connected to a broader social, political or economic system, is organized from relatively interdependent levels, and its governance activities are structured through multiple institutional layers (BARCELOS, 2012).

In large CPRs, large-scale cooperation can be achieved by decomposing common resource management activities into multiple, coupled and relatively autonomous jurisdictional layers. Activities such as ownership, provision, monitoring, enforcement (enforcing rules), conflict resolution and other governance functions can be arranged at multiple organizational levels (OSTROM, 1990; BARCELOS, 2012).

Barcelos (2012) states that, in the case of a BRS, recognition and facilitation of the network organization, social construction of public problems and collective debate of alternative solutions in budgetary governance can be seen as signs of the presence of the principle 8, together with the existence of *a polycentric and multilevel architecture in the dynamics of the budgetary process (multiple layers of actors and organizations)*.

Thus, it is observed that, in the case of public health policies, there is coupled governance, with a wide distribution of competences, inserted in a federal governance, which, due to the diversity and the multiplicity of actors and agents involved, causes this whole institutional arrangement to resemble a network governance.

2.3 Process of transferring health resources to municipalities

Health expenditure planning must be carried out according to established legal criteria, which is an even more important governance requirement when it comes to budgetary resources. The largest proportion of health actions and expenses are accomplished in the municipalities, as they are responsible for the actions and public health services in PHC, which means that a large part of the federal and state budgets is destined to these subnational entities.

Note that, while municipal governments, especially small ones, spend most of their health budgets on PHC, state governments, because this type of service is performed in municipalities, spend a low and decreasing proportion. The proportion of the federal budget is associated to transfers to the municipalities, since the MH has practically no responsibility in the provision of PHC services (GRAGNOLATI et al., 2013).

This scenario has shown a tendency to expand the responsibility of the municipality in executing and financing of health policy (MENDES and SANTOS, 2000), in which resources

transferred by the Union represent significant amounts for smaller municipalities, especially for those with low tax collection. These municipalities practically spend resources from federal transfers destined to PHC. Thus, most of the resources applied by the Union finance the provision of services by the municipalities in the health area, which represents an expressive source of resources for them, since the distribution of resources depends on the condition of the municipality's management (VARELA and FARINA, 2007).

According to Mendes and Marques (2003), the decentralization of health policy to the municipalities must be understood in a relative way, since federal resources make up most of the system's financing, approximately 54.6% in 2001, having decreased to 44.7% in 2011 (PIOLA et al., 2013), and, even more so in 2017, to 40.21% (research data).

The criteria for transferring a significant part of such resources is related to actions preconceived by the MH, restricting the autonomy of municipal management about the application of resources according to the health care needs of the population for which it is responsible. However, according to Barros (2003), the decentralization process in the health sector has the clear characteristic of strengthening the presence of municipalities in PHC and of restricting the process of assuming full responsibility for health management (VARELA and FARINA, 2007).

The results presented by previous research have shown that the impact of public spending on results is greater when there is good governance. This role of good governance as a key to development effectiveness has been emphasized in recent years, and it should be noted that the allocation of public resources for adequate goods and services may not lead to desirable results if budgetary institutions (which involve formulation, execution and monitoring) do not work according to the recommended governance principles (WORLD BANK, 2003). That is why poor budget management has been pointed out, repeatedly, as one of the main reasons why governments in developing countries have difficulties in translating public spending into effective services (*op. cit.*).

As already exposed in this theoretical framework, researches also point out that the relationship between expenses and results is not always fully evident in developing countries. Filmer et al. (1997) reiterate that the strong correlation between the increase in PHC expenditure and the best health outcomes, indicated in systematic international data, does not occur in countries that have not yet reached maturity in the context of governance, due to the difficulty inherent in the breakdown socioeconomic interventions and the health system.

It is important to highlight that, contrary to what common sense shows, the main issue does not seem to be the lack of resources. According to the World Bank (2003), only increasing public spending is not enough to improve the results presented in health services, since it is difficult to find consistent relationships between increased spending and results that demonstrate the importance to allocate more resources to low-income individuals. In general, countries that spend more resources on health have lower infant mortality, but this association is driven, in large part, by the fact that public spending increases with income. However, the relationship becomes insignificant when GDP per capita is controlled.

Thus, even if it was known exactly which policies are effective in guaranteeing the best level of health for the population, it would not be possible to implement all of them, given that health needs are not finite, and the resources to meet them are limited. It is necessary to note that the health needs of the population are always greater than the availability of resources, forcing policy makers and managers to make choices about how and where to apply the available resources (NEWDICK, 2005; FERRAZ and VIEIRA, 2009).

In this sense, Ferraz and Vieira (2009), when analyzing health expenditures from 2001 to 2006, in relation to the percentage of GDP, in *per capita* expenditures, observed that Brazil spends more on health than other neighboring countries with higher income levels, as shown in Table 3.

Table 3 - Comparison, between countries, in GDP *per capita*, of health expenditures and performance, from 2001 to 2006

Countries	GDP per capita in dollars in PPP (2004)	Total spending on health, public and private, per capita in PPP (2004)	Total health expenditures, public and private, as % of GDP (2004)	Probability of child dying <5 years old/ 1,000 live births (2005)
Argentina	12.530	1.274	9,6	16
Brazil	7.940	1.520	8,8	33
Chile	10.610	720	6,1	10
Costa Rica	9.220	592	6,6	12
Uruguay	9.030	784	8,2	15
Canada	30.760	3.173	9,8	6
UK	31.430	2.560	8,1	6

Source: Obtained from Ferraz and Vieira (2009), based on the *World Bank* Atlas (2004) and the *World Health Organization* (WHO). Available in: <http://www.who.int/countries/en/>. Accessed in: December 22nd. 2017.

The data presented in Table 3, according to the authors, generated the false impression that Brazil was investing sufficiently in health for its own economic possibilities. However, the analysis of health indicators of the Brazilian population in relation to the same countries shows that Brazil, despite apparently spending more in terms of per capita and percentage of GDP, has worse indicators. Table 3 also compared health expenditures and mortality of children under

5 years old in Brazil with some of the countries in the Americas and, also, with the United Kingdom, in Europe (FERRAZ and VIEIRA, 2009).

According to these aspects, the authors argue that, no matter how much resources are allocated to health, it will never be possible to meet all the needs of the population in this area, whether in an economically developed country or in a developing country, such as Brazil. There will always be a need to make choices, often difficult, in the area of health (MAYNARD and BLOOR, 1998; FERRAZ and VIEIRA, 2009).

Through Table 4, it is observed that the situation evidenced between 2001 and 2006 did not change, substantially, from 2014 to 2017. Using another indicator of health outcome (death between 15 and 60 years), it appears that Brazil does not differ much from other countries in terms of total spending per capita and percentage of GDP. Even though some countries have improved in terms of resource allocation, Brazil spends more, proportionally to GDP, than Uruguay, Chile and Colombia, for example. However, the mortality rate in Brazil remains much worse than in other countries.

Table 4 - Comparison, between countries, in GDP per capita, of expenditure and performance in health, from 2014 to 2017

Countries	Population in thousands (2016)	GDP per capita, in dollars, in PPP (2017)	Total spending on health, public and private, per capita in PPP (2014)	Total health expenditure, public and private, as % of GDP (2014)	Probability of a man/ woman dying between 15 and 60 years old/ 1,000 (2016)
Argentina	43.000	20.270	1.137	9,6	143/80
Brazil	207.000	15,160	1.318	8,3	194/91
Chile	17.000	23.670	1.749	7,8	114/60
Colombia	48.000	14.170	962	7,2	182/92
Costa Rica	4.857	16.100	1.389	9,3	126/66
Uruguay	3.444	21,870	1.792	8,26	149/79
Canada	36.000	46.070	4.641	10,4	76/49
UK	65.000	42.560	3.377	9,1	81/52
USA	322.000	60.200	9.403	17,1	142/86

Source: Made by the author, based on the *World Bank* Atlas (2017) and the *World Health Organization* (WHO). Available in: <http://www.who.int/countries/en/>. Accessed in: December 22nd. 2017.

A World Bank study (WORLD BANK, 2003) had pointed in the same direction: when comparing spending and health indicators, such as life expectancy, infant mortality and maternal mortality, Brazil reveals an average level of performance among middle-income countries and in Latin America. Other countries, such as Argentina, Chile and Colombia (Table 4), spend less resources per capita or as in percentage of GDP, but achieve higher or equal results in terms of health indicators for their populations, which shows, in general, that spending alone does not help much in predicting health status outcomes in different countries.

However, even controlling these factors, some countries perform better than others with similar levels of spending and economic development. According to the World Bank (2007), this suggests that additional factors may influence the effectiveness of public health expenditures ─ such as policies that guide spending according to the needs of the poorest population ─, and a better quality of spending can generate improvements in health outcomes in the health area. One aspect pointed out is that higher values of health expenditures at highly complex levels may have little impact on general health indicators.

3 METHODOLOGICAL PATH AND RESEARCH CHARACTERIZATION

At first, a qualitative approach is used, with the objective of describing the current context of allocation of public financial resources in PHC. Subsequently, the behavior of variables related to infrastructure and health expenditures is verified.

3.1 The used route

The principles formulated by Ostrom (1990, 1998) are used for the preservation of common resources, which were most recently worked on by Barcelos (2012), in order to apply them to the analysis of budgetary institutions in Brazil.

In this sense, documentary research was carried out through the analysis of the rules and laws dealing with health financing (Table 5), from 1988 to 2017, relating them to the budgetary governance dimensions. Those rules and laws were collected from electronic sites, official sources (virtual libraries) of the Presidency (Planalto), the National Congress and the Ministry of Health.

Table 5 - Norms analyzed by this research, between 1988 to 2017

Norms	Year	Content
Federal Constitution (FC) of 1988 and Constitutional Amendments (CA)	1988	Creates SUS and defines principles, sources of funds, competences, etc.
CA 29	2000	Ensures the minimal resources for financing public health actions and services.
Supplementary Law (SL) 141	2012	Provides the minimum values to be applied annually in public health actions and services in the three spheres, establishes the criteria for apportioning the transferring resources to health in the three spheres of government.
Decree 7.827	2012	Regulates procedures for conditioning and restoring the transfer of resources referred to in SL No. 141/2012.
Law 8.080	1990	Provides the conditions for the promotion, protection and recovery of health and organization and operationalization of services.
Law 8.142	1990	Provides community participation in the management of SUS and intergovernmental transfers of financial resources in health.

Decree 7.508	2011	Regulates Law No. 8.080 / 1990 disposing about the organization of SUS, health planning, health care and inter-federative articulation.
SL 101 (Fiscal Responsibility Law)	2000	Establishes public financing rules for accountability in tax management.
CA 86	2015	Amends CF/88, to make mandatory the execution of budget programming.
CA 95	2016	Institutes new tax regime.
Basic Operational Norm (NOB) 01/1991 - Resolution 258	1991	Regulates the payment system for producing services.
NOB 01/1992 - Ordinance 234	1992	Redefines resource allocation criteria, linking its release to the development of five-year plans.
NOB 01/1993 - Ordinance 545. Revoked by Ordinance 1580/2012 and by Ordinance 1/2017	1993	Establishes participatory decision-making and decentralization mechanisms, making a mark in the implementation of SUS.
NOB 01/1996 - Ordinance 2023. Revoked by Ordinance 1580/2012 and by Ordinance 1/2017	1996	Amends NOB 01/93, regarding the ways of incorporating states and municipalities into the decentralization process, establishing Primary Care full management.
NOAS-SUS 01/2001 - Ordinance 95	2001	Adds new procedures to PHC financing, enabling the creation of health regions by the state manager, and adopts a new system of financing health actions.
NOAS-SUS 01/2002 - Ordinance 373. Revoked by Ordinance 1580/2012 and by Ordinance 1/2017	2002	Defines, for registered municipalities, a fixed amount per capita that is passed on to meet expenses with PHC for the population and other values that are passed on according to adherence to specific government programs, like family health.
Consolidation Ordinance 1	2017	Consolidates norms on rights and duties of health users, organization and operationalization of SUS.
Consolidation Ordinance 6	2017	Consolidates norms on financing and transferring of federal resources to SUS actions and services (152 Ordinances from the Ministry of Health).

Source: Made by the author. Note: In addition to the CAs mentioned in this table, the following were also analyzed: CA1/1994, CA 10/1996, CA 12/1996, CA 17/1997, CA 20/1998, CA 21/1999, CA 27/2000, CA37/2002, CA 42/2003, CA 56/2007, CA 68/2011 e CA 93/2016.

The dimensions and categories of analysis used are described and characterized in Tables 1 and 6. As shown, the principles of budgetary governance were identified in the following dimensions or blocks of principles: IA - Delimitation and specification of resources, IB - Delimitation and specification of users, II - Rules for allocation and use of resources, III - Decision-making process, IV - Control process and V - System coordination.

The categories of analysis were formulated based on the principles of budgetary governance defined by Barcelos (2012), based on Ostrom (1990, 1998) and on the analysis of common resource systems (PINTO, 2014; AGRAWAL, 2003).

These theoretical categories provide the foundation to the documentary analysis of rules and laws on health financing, according to **Tables 1 and 2**, presented in the theoretical framework, and in **Table 6**.

Table 6 - Principles of budgetary governance and conditions for success

IA - Delimitation and specification of resources		
	Principle	**Critical conditions for success**
1A	Delimitation of resource boundaries.	Clear definition of sources of funds. Classification and objective specification of resources.

IB - Delimitation and specification of users		
	Principle	**Critical conditions for success**
1B	Delimitation of user boundaries.	Clear definition of users, with well-defined rights and duties.
II - Rules for allocation and use of resources		
	Principle	**Critical conditions for success**
2A	Congruence of budget rules with local/ sector conditions.	Simple and easy to understand rules (Pinto, 2014). Ease of application (enforcement) of the rules (Pinto, 2014). Fair allocation of the benefits of common resources (Pinto, 2014).
2B	Congruence between users and resources (fiscal, organizational, political and social sustainability).	
III - Decision-making process		
	Principle	**Critical conditions for success**
3A	Collective decision arrangements (mobilization and allocation).	Central governments should not weaken local authorities (Pinto, 2014). Debate on inclusive, participatory and realistic budgeting choices (Bijos, 2014). Creation and modification of rules through the participation of individuals affected by them, to better adjust them to the specific characteristics of each situation (Pinto, 2014).
3B	Collective decision arrangements (rule change).	
IV - Control process		
	Principle	**Critical conditions for success**
3C	Information for collective decision making (observability of decisions and their impacts).	Budget execution actively planned, managed and monitored (BIJOS, 2014). Performance assessments are part of the budgetary process (BIJOS, 2014). Accountability to users by monitors and others in this role (Pinto, 2014). Monitoring through agents accountable to the appropriators or the appropriators themselves, who audit the conditions of common resources and the behavior of the appropriators (Pinto, 2014). Proportional sanctions, depending on the severity and context of the offense, applied to the offenders by the appropriators, by agents accountable to them or by both (Pinto, 2014).
4	Monitoring of users and resources.	
5	Gradual sanctions.	
V - System coordination		
	Principle	**Critical conditions for success**
6	Conflict resolution tools.	Central governments should not weaken local authorities (Pinto, 2014). Integrated levels of ownership, provision, inspection and governance (Pinto, 2014). Minimum recognition, by government authorities (external public agents), of the appropriators' rights to organize and of the legitimacy of the institutions created by them (set of rules elaborated), by means of which they, themselves, can inspect (Pinto, 2014). If common resource systems are part of larger systems, ownership, provision, monitoring, enforcement, conflict resolution and governance activities are organized into multiple layers of integrated ventures (Pinto, 2014).
7	Legitimacy to decide on inherent issues.	
8	Governance based on coupled institutions.	

Source: Made by the author, based on Barcelos (2012), Pinto (2014), Bijos (2014), Ostrom (1990, 2008), Ostrom (1990, 2007), OCDE (2014).

About infrastructure, it is composed of data obtained on Primary Health Care Units (UBS), referring to the 2nd evaluation cycle (2014), made available by PMAQ-AB[3]. For the analysis of the infrastructure, the final score for each UBS and its typology were calculated, adopting the parameters of Giovanella *et al*. (2015).

[3] PMAQ-AB (National Program for the Improvement in the Access and Quality of Primary Care) was established by the Ordinance GM/MS n.º 1654, from July 19th, 2011, from the Ministry of Health (REGIÃO e REDES, 2016; BRASIL, 2013; GIOVANELLA *et al*., 2015).

Based on the value of the final score (FS), the UBSs were grouped into five types: - type 1- failed, with FS <0.250; - type 2 - rudimentary, with FS from 0.250 to 0.499; - type 3- restricted, with FS from 0.500 to 0.749; - type 4 - regular, with FS from 0.750 to 0.999; e- type 5, reference standard, with a final score of 1, according to the work cited.

The sample of budgetary and financial data, which deal with expenses of public health actions and services, corresponded to 5,570 municipalities, covering 26 states, excluding the Federal District due to the absence of consolidated data. Data was obtained through SIOPS (Ministry of Health), detailed by economic category, sub function and block of expenditures. Annual expenditures by municipality were divided by the population of the municipality (per capita) and updated by the IPCA, based on December, 2017.

4 RESULTS AND DISCUSSION

The Brazilian health system is decentralized and based on shared responsibilities between levels of government. In relation to the financing aspect, SUS involves a complex normative system, which requires integration and coordination between the spheres of government, with negotiation spaces where decisions must be taken in a coordinated and collective way, aspects that make the discussion and negotiating arena of health policies one of the most complex.

4.1 Context of the rules on allocation of public financial resources in health

This section seeks to describe the current context of allocation of public financial resources in health, through documentary analysis of the incidence of budgetary governance principles in the rules and laws that deal with the allocation of financial resources in health policies.

If the budgetary resources are not made available in sufficient quantities or if they do not reach the organizations involved in a timely manner, the objectives intended by the State can hardly be achieved. In this sense, studies reveal that the presence of certain governance principles can promote a successful management of common resources, considering that the sustainability of social systems depends on the way in which governance principles act in regulating the allocation and the use of resources (OSTROM, 1990; AGRAWAL, 2003; BARCELOS, 2012).

Based on the formulated categories of budgetary governance principles, as described in Table 2, the documentary analysis is accomplished, using documents related to the regulation

of health financing, comprehending aspects such as definition of sources of resources, planning, formulation, allocation, transfer, execution and control, in addition to the inspection of resources, previously defined in Table 5.

Thus, the rules were analyzed, between 1988 and 2017, through the reading of each document, as a way to identify the incidence of budgetary governance principles in the normative framework. To this end, categories were identified (principles of budgetary governance) using keywords found in each rule and law (exemplified in Table 7).

Table 7 - Examples of keywords used to identify budgetary governance principles

Principle	Keywords
P1A - Delimitation of resource boundaries.	Resources; Financed; Distribution; Destined; Revenue; Integrate; Applied; Defrayal; Funding; Relocate; Established; Transfer; Calculation basis; Budget; Aliquot; Budgetary Law.
P1B - Delimitation of user boundaries.	Organize; Organization; Consideration; Definition; User population; Specificities; User Referencing; Needs; Identification; Distribution; Universality.
P2A - Congruence of budget rules with local/ sector conditions.	Distribution; Reducing Inequalities; Local Reality; Specificities; Demographic Profile; Criteria; Features; Regionalized; User Referencing; Specialized Character; Humanization of Care; Social Determinants; Specific Situations; Dimensions.

Source: Made by the author.

Subsequently, the principles were organized to obtaining an overview of how the normative framework is structured, according to Table 8, in which the occurrence of the principles is observed within each analyzed rule and law, up to the Decree level, without including internal rules and Consolidation Ordinances No. 1 and No. 6, both from 2017.

Table 8 - Incidence of budgetary governance principles on health financing legislation, chronologically

Principles	P1A	P1B	P2A	P2B	P3A	P3B	P3C	P4	P5	P6	P7	P8	Total
Blocks	I-A	I-B	II		III		IV			V			
FC/ 88	18	1	5	11	1	1	0	1	1	0	1	3	43
Law 8080/1990	9	7	3	1	10	10		7	1		8	10	66
Law 8142/1990	3		1		1	2	1	1			1	2	12
CA 1/1994	3												3
Decree 1232/1994	1		1	3			2	3			2	4	16
CA 10/1996	3												3
CA 12/1996	1												1
CA 17/1997	2												2
CA 20/1998	3				1	1							5
CA 21/1999	1												1
CA 27/2000	2												2
CA 29/2000	10		3	0	0			6	3				22

SL 101/2000 (Fiscal Responsibility Law)	16	1		17	2	1	11	25	3		1		77
CA 37/2002	2												2
CA 42/2003	2												2
CA 56/2007	1												1
CA 68/2011	2												2
Decree 7508/2011	4	8	5		21	20	7	10	1		17	14	107
SL 141/2012	19		9	7	6	1	9	30	7			2	90
Decree 7827/2012	2						2	19	13				36
CA 86/2015	7												7
CA 93/2016	6												6
CA 95/2016	3						1	1					5
Total	120	17	27	39	42	36	33	103	29	0	30	35	**511**
Consolidated CF/88	66	1	8	11	2	2	1	8	4	0	1	3	107

Source: Made by the author.

Table 8 shows the identification of the most relevant features based on budgetary governance, which were also analyzed to verify whether they act as advantages or disadvantages (facilitating or hindering aspects) in health financing.

In the results, Constitutional Amendments (CA) deal with principles related to the delimitation of sources of resources (P1A - **Delimitation of resource boundaries**), while Decree 7508/2011 emphasizes collective decision-making bodies (P3A and P3B - **Collective decision arrangements**). Supplementary Law (SL) 141/2012 and Decree 7827/2012 prioritize mechanisms for monitoring and inspection of allocation resources (P4 - **Monitoring and inspection**).

Through Table 8, already presented, and Table 9, below, 511 occurrences of principles were identified in rules and laws on health financing, from 1988 to 2016, considering, here, that Ordinances 1 and 6, 2017, from the Ministry of Health, as well as internal rules, were not analyzed in relation to the frequency of budgetary principles.

It is observed that there is great incidence of principle P1A (Delimitation of resource boundaries), which deals with defining origin, delimitation and specification of resources sources (120/511), and of principle P4 (Monitoring of users and resources), that deals with monitoring, accompanying and inspecting agents and users that handle or use resources of common use (103/511).

Principle P1A is strongly present in CF/88 (18/43). An important aspect is the demonstration of constant changes in the sources of financing. When verifying the incidence of principle 1A, out of 120 occurrences of this principle, 66 appeared in constitutional norms.

In relation to P4, it is observed that SL 101/2000 (Fiscal Responsibility Law) and SL 141/2012 prioritize the application of this principle, which demonstrates the emphasis on control activities, such as monitoring and inspecting budgetary resources. Decree 7827/2012,

which regulated the transfer of resources established in SL 141/2012, also emphasizes P4 principle and, likewise, P5 principle, thus prioritizing the establishment of monitoring, control mechanisms and sanctions.

In order to facilitate the visualization of the principles over time, Table 9, hereinafter, summarizes the incidence of each principle within the analyzed norms, broken down by periods: until 1999 (before the approval of CA 29), from 2000 to 2011 (from the approval of CA 29/2000 until the approval of SL 141/2012) and after 2012 (after the approval of SL 141/2012)

Table 9 - Incidence of budgetary governance principles and instruments on health financing

Principles	**Instruments and resources**	**Evolution with CA 29/1999 and SL 141/2012**			
		Until 1999	From 2000 to 2011	After 2012	Total
IA - Delimitation and specification of resources					
1A- Delimitation of resource boundaries.	Ordinary sources of taxes; sources of contributions.	46	37	37	120
IB - Delimitation and specification of users					
1B- Delimitation of user boundaries.	SUS users: universal, full and equal access.	8	9	0	17
II - Rules for allocation and use of resources					
2A- Congruence of budget rules with local / sector conditions.	Decentralization criteria and distribution of resources to states and municipalities.	10	8	9	27
2B- Congruence between users and resources (fiscal, organizational, political and social sustainability).	Decentralization criteria and distribution of resources to states and municipalities.	15	17	7	39
III - Decision making process					
3A- Collective decision arrangements (mobilization and allocation).	Health National Council; Tripartite Interagency Commission	13	23	6	42
3B- Collective decision arrangements (rule change).	Health National Council; Tripartite Interagency Commission	14	21	1	36
IV - Control process					
3C- Information for collective decision (observability of decisions and their impacts).	Demonstrations and estimates of impact.	3	18	12	33
4- Monitoring of users and resources.	Demonstrations and estimates of impact.	12	41	50	103
5- Gradual sanctions.	Sanctions and penalties.	2	7	20	29
V - System coordination					
6- Conflict resolution tools.	Health National Council; Tripartite Interagency Commission				0
7- Legitimacy to decide on inherent issues.	Decision chain.	12	18		30
8- Governance based on coupled institutions.	System and network organization.	19	14	2	35
Total		**154**	**213**	**144**	**511**

Source: Made by the author.

It is observed that, from 2000 to 2012, there was an emphasis on collective decision-making mechanisms and on monitoring and inspection of resources (P3A, P3B, P3C and P4);

while, after 2012, there was a prioritization of the principles related to monitoring of resources and application of penalties (P4 and P5). However, when combining the results of Tables 8 and 9, it appears that a large part of the incidence occurred as of 2011, with Decree 7508/2011, which regulated Law 8080/1990 (Organic Law of Health - LOS).

P3A, P3B, P3C principles, on the other hand, are about collective decision mechanisms, those that make the actors and users involved in decisions feel legitimate and comply with the rules more easily (OSTROM, 1990; AGRAWAL, 2003). It should be noted that the greater prioritization of principles P4 and P5, after 2012, shows that, more recently, there is a greater tendency to strengthen monitoring and sanction mechanisms, which was done by SL 141/2012 (Fiscal Responsibility Law) and by Decree 7827/2012.

After surveying the occurrence of the principles, the most relevant aspects were identified. Those that would act as advantages or disadvantages (facilitating or hindering aspects) in health financing were analyzed in each block of principles.

In this analysis, it is observed that block I (IA - delimitation and specification of resources and IB - delimitation and specification of users), which comprises P1A (Delimitation of resource boundaries) and P1B (Delimitation of user boundaries), is very important to understand the BRS. Since these are related to defining resources and users of the system, those principles are mainly established in CF/ 88. In the case of P1A, this is an essential principle for BRS, related to the establishment of rules for resources delimitation.

Table 10 shows the occurrence of principle 1A (Delimitation of resource boundaries), by showing the incidence of rules and laws referring to health financing sources (creation, alteration, maintenance and extinction of tax sources and funds) that depend on constitutional norms. In this principle, there are constant changes in the sources of funds destined to health, such as the creation of funds and taxes, extension and extinction of funds and taxes.

Table 10 - Incidence of principle 1A (Delimitation of resource boundaries).

Order	Rule or Law	Content
1	FC/88- 195, I, II, III, IV, § 1.º	Defines sources of social security financing
2	FC /88 (ADCT) - 55	30% of the social security budget for health (excluding unemployment insurance)
3	FC /88 (ADCT) - 56	Aliquot of 0.5% of social contribution as a source of social security
4	CA 1/1994 - 71	Creates the Emergency Social Fund for 1994 and 1995
5	CA 1/1994 - 72, I, VI, § 1º	Emergency Social Fund; Funding sources that integrate the Fund
6	CA 10/1996- 71	Extends the Emergency Social Fund to 1996 and 1997
7	CA 10/1996 - 72, II, III, IV, § 2.°, § 3.º, § 4.º, § 5.º	Funding sources that integrate the Fund

8	CA 17/1997- 71	Extends the Emergency Social Fund for 1997 to 1999
9	CA 17/1997- 72, I	Funding sources that integrate the Fund
10	CA 20/1998 - 195, I, II	Changes funding sources; Social contribution on employer and worker
11	CA 20/1998 - 195, § 8.º	Changes funding sources; Social contribution on producer (exemption for rural producer, sharecropper and rural tenant and artisanal fisherman)
12	CA 21/1999 - 75	Provisional Contribution on Financial Transactions (CPMF) (Extension from 1999 to 2001), Aliquot of 0.30% in the first 12 months and 0.38% in the following months. Result of the change in the aliquot for Social Security
13	CA 27/2000 - 76	(Decoupling from Federal Tax Revenue) - Social Contributions of the Union) 2000 to 2003
14	CA 27/2000 - 76, § 1.º	(Decoupling from Federal Tax Revenue) Municipalities Participation Fund (FPM) and States Participation Fund (FPE) excepted
15	CA n.º 29/2000 - 77, I	Union - GDP-adjusted base) (For 2000, it is the 1999 base; *1.05, adjusted for the GDP from 2001 to 2004)
16	CA n.º 29/2000 - 77, II	Minimum resources in Public Health Actions and Services for the states and DF: 12% of the collection of taxes and transfers
17	CA n.º 29/2000 - 77, III	Minimum resources in Public Health Actions and Services for municipalities: 15% of the collection of taxes and transfers
18	CA 37/2002 - 84	CPMF - Extension until 2004 of 0.38% aliquot, being 0.20% for Public Health Actions and Services
19	CA 42/2003 - 76	(Decoupling from Federal Tax Revenue) Extension from 2003 to 2007
20	CA 42/2003 - 76, § 1.º	(Decoupling from Federal Tax Revenue) FPE and FPM excepted
21	CA 56/2007 - 76	(Decoupling from Federal Tax Revenue) Extension until 2011
22	CA 68/2011 - 76	(Decoupling from Federal Tax Revenue) Extension until 2015
23	CA 68/2011 - 76, § 1.º	(Decoupling from Federal Tax Revenue) FPE and FPM excepted
24	CA 86/2015 - 166, § 9.º	0.6% limit for individual parliamentary amendments to Public Health Actions and Services
25	CA 86/2015 - 166, § 10	Exclusion of the estimation to calculate the minimum limit for Public Health Actions and Services of 15% of net current revenue
26	CA 93/2016 - 76	(Decoupling from Federal Tax Revenue) Extension until 2023
27	CA 93/2016 - 76, § 1.º	(Decoupling from Federal Tax Revenue) FPE and FPM are now included
28	CA 93/2016 - 76-A	(Decoupling from Federal Tax Revenue) revenue from state taxes, fees and fines
29	CA 93/2016 - 76-A, § one of one, inc. I, II e IV	(Decoupling from Federal Tax Revenue) Extension until 2023; Excludes Public Health Actions and Services and mandatory and voluntary transfers
30	CA 93/2016 - 76-B	(Decoupling from Federal Tax Revenue) revenue from taxes, fees and fines of municipalities
31	CA 93/2016 - 76-A, § one of one, inc. I e IV	(Decoupling from Federal Tax Revenue) Extension until 2023; Excludes Public Health Actions and Services and mandatory and voluntary transfers

Source: Made by the author. Note: The creation, extinction or alteration of aliquots or composition of sources (taxes, funds) is considered as alteration. From 1988 to 2000 (exclusive):1-5, 8 to 12; from 2000 (inclusive) to 2011 (inclusive): 13, 15- 18; after 2012 (inclusive): 24- 25, 27- 28. Except for extensions without changes in composition, expect for the last (extension), which will cause changes upon expiration.

It can be seen, in Table 10, that, from 1988 to 2000, there were 10 changes in the sources of financing for social security; from 2000 to 2011, there were 5 changes and, after 2012, there were 4 changes, which shows that instability has diminished over time.

It can be verified that, in relation to resources destined to health, instability of sources is an aspect that increases the difficulty in allocating expenses, considering the need for a time horizon for planning, approval, execution and control of programs. It is observed, however, that, after CA 29/2000, there was a greater stabilization in the sources of financing (According to Table 10).

The rules referring to principle 1A (Delimitation of resource boundaries) are also related to fiscal balance, which involves a necessary planning horizon; so that there is no scarcity of resources and, also, so as not to cause misery to users.

In practice, the fact that budget estimates are subject to risk and uncertainty, given that they are based on complex and incomplete information, produces important and unexpected consequences for the process as a whole (BARCELOS, 2012). This aspect is evidenced by identifying constant changes in the sources of funds for health, especially before the approval of CA 29/2000.

On the other hand, principle 1B (Delimitation of user boundaries), defined in the CF/88, establishes who are the users of public health services, with no difficulties in delimitation, as it is a universal service. Law 8080/1990 and Decree 7528/2011 (which regulates the Law) also complement the definition and delimitation of SUS users, seeking to comply with the principle of universality. The most sensitive issue, however, is when it comes to rules for allocating resources (Principle 2A, discussed below), mainly due to local and regional diversity in a Federation composed of 5,570 municipalities, where users of primary health care services are located. This diversity of users of health resources and the number of entities can cause great difficulties in allocation.

Having made the considerations regarding block I, it is necessary to comment, in relation to the principles encompassed in block II, the aspects that facilitate or hinder health financing.

Block II, which deals with rules of allocation and use of resources, comprises principles 2A - Congruence of budget rules with local/ sectoral conditions and 2B Congruence between users and resources (fiscal, organizational, political and social sustainability).

In compliance with principle 2A - Congruence of budgetary rules with local/ sectorial conditions, public entities should consider the objectives defined in CF/88, for the establishment of public policies. Law 8080/1990, which is the Organic Law of Health (LOS), Law 8142/1990 (also a LOS), Decree 7508/2011 and SL 141/2012, which regulates CA

29/2000, also define criteria to be followed for the allocation, distribution and decentralization of resources for health policies.

When analyzing the occurrence of this principle in health regulatory norms, it is observed, first, that CF/88 (in the part updated by CA 29/2000) established that a supplementary law (SL 141/2012) would define the criteria for apportioning Union resources to other entities, and from states to their respective municipalities. What happened, however, was that this law was only approved in 2012 (SL 141/2012), twelve years after the constitutional definitions, generating negative consequences, such as those listed hereinafter. While the supplementary law was not approved, the norms contained in Law 8080/1990 (art. 35) remained without regulation. Law 8142/ 1990, on the other hand, determined that, as long as there was no regulation of art. 35 of Law 8080/1990, the populational criteria, provided in paragraph 1 of the aforementioned article, would be applied exclusively for the decentralization of health resources.

Another aspect to the observed is that CA 29/2000 established minimum values to be applied in public health actions and services, without defining which services or actions would be contemplated, a problem that was dealt with only with the approval of SL 141/2012.

A third problem related to resource allocation criteria is the correction of the values provided in CA 29/2000, which caused divergences in interpretations between the bodies involved in the planning, execution and control of resources (Attorney General of National Treasure, Legal Consultancy of the Ministry of Health and Advocate General of the Union), according to Decision 143, of March 20th, 2002, of the Federal Court of Accounts (TCU). This question lasted from the approval of CA 29/2000 until March 20th, 2002, when TCU established that the criteria for the correction of values would be carried out by the so-called mobile base, that is, every year, instead of if using the base year of 2000 (Piola et al., 2013).

The great multiplicity of norms is another aspect to be considered, which was facilitated after the approval, on October 3rd, 2017, of Consolidation Ordinance 6, of the Ministry of Health, which consolidated internal norms (152 ordinances of the MH) on financing and transferring of federal resources to public health actions and services from SUS.

Overall, the main aspects related to this principle are: a) the existence of complex and overlapping criteria for the allocation of resources, provided for in Law 8080/ 90, which has not been regulated; b) the lack of definition of the allocation of resources to public health actions and services for a period of 10 years; c) the lack of clarity in the criteria for updating the

minimum values provided for in CA 29/2000; and d) the existence of a large number of norms dealing with health financing.

For the National Council of State Health Secretaries (CONASS) (BRASIL, 2011b), the prior adoption of criteria to guide the transfers has at least two advantages: (a) in decentralized systems, as is the case with SUS, in which a good part of the resources used at the end of the system is arising from transfers from other spheres, the existence of objective criteria, previously defined, for the transfer of resources gives greater transparency to the allocation process; (b) this same fact gives greater security to the government body that receives the resources, which will be able to estimate, in advance, what will be received.

It is observed, therefore, that, after the approval of SL 141/2012, there was an improvement and clarity in the resource allocation criteria, which can be interpreted as a facilitating aspect.

In relation to principle 2B - Congruence between users and resources, regarding the provision of mechanisms that provide fiscal, organizational, political and social sustainability, this occurs in CF/ 88, SL 101/2000 (Fiscal Responsibility Law) and SL 141/2012.

A critical criterion for this principle is the need of rules that establish mechanisms that ensure the sustainability of budgetary resources, and, as critical conditions, there is the need of rules that are simple and easy to understand and that there is ease of application (PINTO, 2014). By observing the analyzed norms, an example is the greatest clarity when SL 141/2012 specifies the delimitation of expenses to be included in public health actions and services.

Regarding to block III (Decision-making process), this is composed of collective decision arrangements, sub-grouped into P3A - Collective decision arrangements (mobilization and allocation decisions) and P3B - Collective decision arrangements (change of rules), which have an impact on Law 8080/1990, Law 8142/1990, LC 101/2000 (Fiscal Responsibility Law), Decree 7508/2011 and LC 141/2012.

When analyzing the number of subnational entities involved in the allocation of health resources, we can already see the large number and diversity of actors involved, that is, at least 5,570 (which is equivalent to the number of municipalities). However, in addition to the public entities involved, there are other actors, being they representatives of users, public entities, servers, professionals, or those who participate in the production and in the provision of private services.

The performance of these actors takes place, primarily, through commissions and councils. Public bodies are represented mainly on inter-management committees, while other

actors are represented on councils. The Intergovernmental Commissions are divided into 486 Regional Intergovernmental Commissions (CIR), 26 Bipartite Interagency Commissions (CIB) and, at the national level, the Tripartite Interagency Commission (CIT). Councils are divided into: 26 Councils of Municipal Health Secretaries in the states (COSEMS), National Council of Municipal Health Secretaries (CONASEMS), the National Council of State Health Secretaries (CONASS) and National Council of Health (CNS).

It is possible to be verified, therefore, that the number of actors is considerably high, even considering the projection of collective decision arrangements, such as those mentioned above. CONASEMS, for example, has 5,570 members. On August 28th, 2018, CNS had 49 representatives, according to the list of members available on the website. It is observed that Law 8142/1990 provides that CNS, a collegiate body, is composed of government representatives, service providers, health professionals and users.

However, the large number of people involved in the health system, who use the discussion arenas to defend their interests (which can often be conflicting), is an aspect that can act as a hindrance to the governance system.

Block IV (Control process) groups principles: 3C - Information for collective decision (observability of decisions and their impacts), 4 - Monitoring users and resources and 5 - Gradual sanctions.

3C principle ─ Information for collective decision (observability of decisions and their impacts) ─ appears on LC 101/2000, Decree 7508/2011 and LC 141/2012, concerning instruments for collective decision arrangements to have sufficient and updated information, whenever necessary, which must be institutionalized to allow this constant and sufficient flow to be made available to decision makers. There are two important legal frameworks related to this principle: SL 101/2000, which, in art. 67, issues about the provision of information, on a regular basis, for the performance of the fiscal management council, and SL 141/2012, which emphasizes the provision of information to health councils and courts of auditors in operation in each entity public; for them to act more effectively (arts. 17, 19, 31, 39 and 41, for example).

Principle 4 (Monitoring users and resources) appears on CF/88, Law 8080/1990, SL 29/2000, Decree 7508/2011, SL 141/2012 and Decree 7827/2012. This principle is related to instruments and measures available for the exercise of monitoring, following-up, inspection and control activities. Decree 7827/2012 was an important milestone in this regard, defining the instruments to be made available by SIOPS (Information System on Public Budgets in Health) and providing means for automatic preparation of financial statements and for the

integration of the information module, following-up and monitoring of the limits to inspection and control bodies with a centralized electronic system for controlling transfers from the Union to the other entities of the Federation.

Principle 5 (Gradual sanctions), which also forms block IV, appears on SL 101/2000, Decree 7827/2011 and SL 141/2012. LC 101/2000 establishes sanctions for Federation entities that do not comply with established maximum spending limits. Law 8080/1990 and Decree 7827/2011 also expressed concerns about the establishment of sanctioning mechanisms for non-compliance with spending limits; however, it was SL 141/2012 that reinforced the application of sanctions to non-compliance of the minimum spending limits by Federation entities, according to arts. 25, 26, 39 and 46.

Finally, regarding the identification of relevant aspects of the occurrence of principle blocks in the budgetary system, there is block V (Coordination of the system), formed by the principles 6 - Instruments for conflict resolution, 7 - Legitimacy to decide on inherent issues and 8 - Governance based on coupled institutions.

In relation to principle 6 (Conflict Resolution Tools), its occurrence has not been explicitly identified in the analyzed rules and laws. It is interesting to note, however, that collective decision mechanisms, shown in principles 3A and 3B, could, in this case, be interpreted and used as a way of resolving conflicts between public entities and other actors in the system.

On the other hand, principle 7 (Legitimacy to decide on inherent issues), which defines that budgetary authorities are endowed with authority and autonomy to make decisions on matters that are relevant to them, appears on Law 8080/1990 and in Decree 7508/2011. However, in this principle, there was an important change in the performance of public entities, establishing that decisions should be taken after the hearing of health councils within the scope of each entity's performance, as recommended in art. 15 of the aforementioned decree.

Principle 8 (Governance based on coupled institutions) appears on CF/88, Law 8080/1990 and SL 141/2012. It is established, primarily, in the CF/88, when establishing that social security comprises an integrated set of actions of initiative of Public Authorities and of society (art. 194), that public health actions and services integrate a regionalized and hierarchical network and constitute a unique system, organized according to the decentralization guidelines, *with a single direction in each government sphere and with community participation* (art. 198).

Therefore, the coordination of the system involves integration between federative entities, inter-management commissions and councils, making the high number of actors involved increase the complexity in conducting public health policies and, consequently, hindering decisions about allocation of resources. Public entities, in conducting decisions, as it can be observed in art. 30 of Law 8080/90 and in art. 15 of Decree 7508/2011, depend on agreements between interagency commissions and council deliberations, making system coordination extremely complex.

Thus, an aspect that cannot be overlooked is the need for integration and coordination between the three spheres of government. In this sense, the Union has the role of planning, coordinating and integrating the services provided in primary care, and the municipalities have the main role of implementing health policies related to primary care; states, in turn, are responsible for regional health policy coordination activities.

Considering aspects related to federalism and decentralization, the governance of SUS has an institutional configuration composed of instances and mechanisms of power sharing, as a way to ensure the participation of states and municipalities in the elaboration of policies and programs, in national planning, in the allocation of financial resources and in decision-making of health policy in the country (BRASIL, 2016).

This configuration of the intergovernmental relations of SUS is defined in CF/88 (Chapter II, section II) and Law 8080/1990 (Chapter IV), which contain the fundamentals of the federal organization of health policy in Brazil and establish that the distribution of competences between the spheres of State must make the principles of decentralization and unity compatible, composing a health system with commands at national, state and local levels, articulated in a regionalized manner with the objective of integrating public health actions and services across the country (BRASIL, 2016).

It can be observed that there are important principles, however, to be observed in medium and long-term planning moments, such as the forms of delimitation and attainment of resources, as rules for allocation and decentralization of resources, which, if not institutionalized in a timely and convenient manner, can bring consequences that cannot be reversed or corrected in the short term, as in emergency situations. This is the case, for example, of the clear definition of the roles played in the production of equipment and supplies within the country, as can be seen when faced with difficulties in importing basic products and equipment, such as masks, respirators and medicine supplies, which are disputed by markets

with better purchasing power, such as Europe and the United States, causing markets with less potential, such as Brazil, to be neglected.

There is a need for measures that involve coordination between entities and actors and collective decisions, such as mapping equipment, facilities, private laboratories, as well as industrial parks for the production of basic items (such as masks, disinfectants, etc.) to be requested in times of emergency crisis. The spheres of competence could, by mapping and monitoring the use of health equipment and facilities, manage the use (through requisition or administrative contract), according to availability and need (collective decision arrangements and coordination with institutions linked to decision levels).

Table 11 summarizes the aspects that facilitate or hinder the budgetary management of health resources.

Table 11 - Aspects that facilitate or hinder the budgetary management of health resources.

Dimensions (Blocks of principles)	Categories of analysis (Principles of budgetary governance)	Norms and aspects	Contribution
IA - Delimitation and specification of resources	1A- Delimitation of resource boundaries.	CF/88 and Constitutional Amendments (Table 10): instability in sources of funds.	Hinder
IB - Delimitation and specification of users	1B- Delimitation of user boundaries.	CF/88, Law 8080/1990 and Decree 7528/2011: diversity of users of health resources and the number of entities that can cause problems to allocation.	Hinder
II - Rules for allocation and use of resources	2A- Congruence of budget rules with local/ sector conditions.	CF/88, Law 8080/1990, Law 8142/1990, Decree 7508/2011, SL 141/2012: diversity of allocation criteria; complexity of criteria, lack of definition of expenditure and lack of clarity due to overlapping criteria and the large number of internal rules (152)	Hinder
	2B- Congruence between users and resources (fiscal, organizational, political and social sustainability).	CF/88 (arts. 194 and 195), SL 101/2000 (arts 14, 16 and 19), SL 141/2012 (arts. 2, 3, 4 and 30)	Facilitate
III - Decision process	3A- Collective decision arrangements (mobilization and allocation).	Law 8080/1990, Law 8142/1990, SL 101/2000, Decree 7508/2011 and SL 141/2012. Presence of 5,570 municipalities. Interagency commissions: 486 regional interagency commissions (CIR), 26 bipartite interagency commissions (CIB) and, at national level, a Tripartite Interagency Commission (CIT).	Hinder
	3B- Collective decision arrangements (rule change).		
IV - Control process	3C- Information for collective decision (observability of decisions and their impacts).	SL 101/2000, Decree 7508/2011 and SL 141/2012.	Facilitate
	4- Monitoring of users and resources.	CF/88, Law 8080/1990, CA 29/2000, Dec. 7508/2011, SL 141/2012 and Dec. 7827/2012.	Facilitate
	5- Gradual sanctions.	SL 101/2000, Dec. 7827/2011 and SL 141/2012.	Facilitate
V - System coordination	6- Conflict resolution tools.		
	7- Legitimacy to decide on inherent issues.	Law 8080/1990, Decree 7508/2011.	Facilitate
	8- Governance based on coupled institutions.	CF/88, Law 8080/1990 and SL 141/2012: complex network of actors, number of public entities and number of collective decision arrangements.	Hinder

Source: Made by the author.

Regarding the content of Table 11, a dichotomous classification of *facilitating or hindering factors* was developed, which led to the discussion of aspects that demonstrate the behavior of budget management.

In the case of principle 1A (Resource boundary delimitation), it is about the instability in the sources of health resources, due to constant changes in the sources of health financing, especially in the period of two years after the approval of the CF/88. Instability in sources is an aspect that has increasingly hindered allocating expenditures, considering the need for a minimum time horizon for public policies to be negotiated, approved and executed.

Authors such as Wade (1994), Ostrom (1990) and Agrawal (2003) defend the importance of rules that establish the adjustment of collection limits with the regeneration of resources. The great instability observed from 1988 to 2000 contributed to the difficulty of allocating resources for health in this period, since there were 12 constitutional changes (through amendments), which caused instability and uncertainty in the amounts allocated to health for the three spheres of government.

As for the incidence of principle 1B (delimitation of user boundaries), the aspect analyzed concerns the diversity of users and the number of entities that may cause difficulties in allocating resources.

Regarding principle 2A (Congruence of budget rules with local/ sectoral conditions), there are the diversity of allocation criteria, the complexity of criteria, the lack of definition of expenditure and the lack of clarity due to overlapping of criteria and the large number of internal rules (Consolidation Ordinance 6, from 2017, consolidates 152 MH ordinances on decentralization and transfer of resources to entities and service providers).

It is observed that, after the approval of SL 141/2012, there was an improvement and clarity in the resource allocation criteria, which can be interpreted as a facilitating aspect. However, several aspects reported in this principle act as a hindrance to good budgetary governance, such as the existence of complex and overlapping criteria for resource allocation, provided for in Law 8080/1990, and the existence of a great multiplicity of rules that deal with health financing, which makes it even more difficult for the bodies involved to monitor and to inspect.

When dealing with inconsistencies in the criteria for transferring funds, based on the analysis of the provisions of SL 141/2012, Piola et al. (2013) argue about the possibility of

reconciling, in the same pattern of resource distribution, criteria that reward equity with those that reward efficiency. This difficulty is evidenced in the unequal allocation of resources among subnational entities, with great disparities, such as municipalities that allocate R$ 50.00 per capita annually and municipalities that allocate values above R$ 3,500.00 per capita. In terms of the average expenditure of municipalities by state in primary care, there was a variation from R$ 207.00 (PA) to R$ 752.00 (SC), in 2014 (research data, 2019).

In relation to block III (Decision-making process), which encompasses P3A ─ Collective decision arrangements (mobilization and allocation decisions) ─ and P3B ─ Collective decision arrangements (rule change), the evaluated aspect deals with the great number of actors, especially the municipalities (5,570).

In relation to health policies, it is up to the three spheres, jointly, to define mechanisms for the control and the evaluation of health services, to monitor the health level of the population, to develop norms to regulate the contracting of private services, to manage budgetary and financial resources, to define human resources policies, to carry out short and medium term planning and to promote the articulation of health policies and plans, among others (BRASIL, 2016). These attributions, in which public bodies participate, are led by Interagency Commissions, divided into 486 CIR, 26 CIB and, at the national level, the CIT.

In addition to the federative aspect, SUS budgetary governance is also composed of spaces where society operates, in health policy, in the three spheres of government, which are institutional spaces in each sphere of government, aimed at formulating strategies and controlling the execution of health policy, including issues related to economic and financial aspects (BRASIL, 2016). These performance groups are represented by the following distribution: 26 COSEMS, a CONASEMS, a CONASS and the CNS.

Regarding block V, in the analysis of the aspects that facilitate or hinder budgetary governance in health, there is an emphasis in principle 8 (Governance based on coupled institutions), which concerns the complexity of the network of actors, the number of public entities and collective decision arrangements.

This aspect is particularly important for SUS, considering the principles that guide the performance of actors in health policies, such as universalization, decentralization, autonomy, and social participation and control.

Health governance, according to Lima et al. (2016), expresses relations of *dependence*, *interaction* and *agreements* established between different actors (related to the State, the market and the society), whose interests, although often divergent, can be organized and directed

according to common (negotiated) objectives, in such a way to ensure (or not) the right to universal access to health.

It is observed that the dynamics of this federal governance influences and is influenced by different social or political actors, such as civil society, which generates demands, the private initiative, research institutions, the Legislative and Judiciary Powers are responsible for controlling, inspecting and defending rights and other executive bodies working in the social or planning and budgeting area (BRASIL, 2016).

For Lima (2016), only through planning, integration, regulation and financing in a regionalized health care network, in addition to efficient mechanisms for inter-manager pacts, users will have access to a comprehensive and decisive health system.

Brazil, with the model of federative organization, demands federative integration, coordinated by the Union. However, what is observed is that the Federal Executive defines certain policies; states, in turn, take isolated decisions. Municipalities, on the other hand, define other policies. Therefore, what is seen is that states take measures dissociated from the Union and determine certain policies for municipalities, contrary to principles 3A, 3B and 3C, which presuppose collective decision-making mechanisms. This decision-making model is not what advocates principle 8 - Governance based on coupled institutions - concerning decisions involving the participation of all entities from three spheres of government, as well as the participation of the other actors.

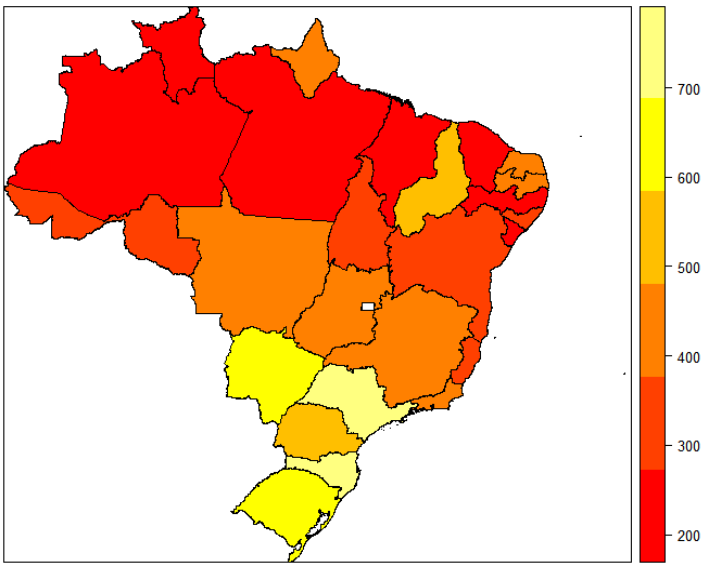
4.2 Health expenses and infrastructure

Another relevant aspect is to know how resources are applied. For this, it is presented the average allocation of resources per capita of municipalities by state in the Brazilian territory. It appears that there is great inequality in the distribution of resources between North-Northeast regions and other regions.

Figure 2 shows the average allocation of budgetary resources in primary care per state of the Federation, calculated by the average of the annual expenditure per capita of the municipalities[4]. It is observed that the north region presents the worst socioeconomic indexes, with a larger geographic area and with a spatially dispersed population, which is not clear when analyzing purely statistical data.

[4] Updated by IPCA, base dec. 2017.

Figure 2 - Resource allocation in Primary Care (cycle 2)



Source: Research Data, 2019. Note: The caption scale corresponds to the average expenditure in Primary Care in municipalities by state, in R$ (reais) *per capita* annually.

According to Figure 2, it can be seen that the Northern region is also the one that, on average, allocates the least number of resources (less than R$ 400.00 per capita per year), followed by the Northeast, Midwest, Southeast and South, which is the one with the best allocation average (above R$ 500.00 per capita per year).

This shows that the lack of stable and clear rules hinders the budgetary system governance. In the Budgetary Resources System (BRS), at least four groups of actors interact (sometimes with conflicting interests). On the provision side, there is the universe of taxpayers, contributing with necessary resources. At a level just above, is the National Treasury - a federal organizational actor that acts as "guardian of resources" provided by taxpayers. In the boundary between provision and appropriation, there is a "budgetary authority", responsible for coordinating the resource allocation process, without giving up safeguarding the overall balance of the system. The lack of stability intensifies the dispute between guardians and spenders, denominations created by Wildavsky (1964), which causes underutilization of resources, like budget constraints, artificially causing a surplus at the end of the year, when sectoral bodies, such as the Ministry Health, no longer have operational conditions to make expenses until the closing of the accounting year.

Efforts of the municipalities have reduced impact due to their own low revenue. Most of them have a high degree of dependence on federal resources, transferred through SUS, through participation fund and though state transfers. An assessment of financing conditions in Brazilian municipalities with more than 100 thousand inhabitants, with data from 2005,

revealed that 68% of the municipalities in the Northeast receive more from SUS than they collect from taxes (Brasil, 2013c).

In this context, in relation to Primary Care infrastructure typology, final scores were calculated for each Primary Care Unit, according to Giovanella et al. (2015), as shown in Table 12.

Table 12 - Features for each Primary Care Unit Typology

Typologies	Features
1 - Failed	Absence of health service structure. They are units that do not meet minimum requirements to provide any care and to be considered health units. They are units that, due to their precarious infrastructure conditions, should be closed or banned until their complete reform, and should not be registered as independent Primary Care Units.
2 - Rudimentary	Significant insufficiency of teams, list of professionals, available services and equipment and supplies. They are units that do not even aid the maternal and child group, nor could they be considered providers of selective primary care.
3 - Restricted	Insufficient equipment and health staff. These are units that mainly need investments in general infrastructure and in the provision of oral health services.
4 - Regular	They are units with family health and oral health teams that, with investment to improve the infrastructure of equipment and supplies, would reach the reference standard. They have difficulty accessing the internet, which may require investments from the telecommunications sector.
5 - Reference Standard	They have basic conditions for functioning and for providing a scope of actions in primary care. They work 5 or more days a week, in 2 or 3 shifts, and offer medical consultations, nursing and dentistry.

Source: Made by the author, based on Giovanella *et al*. (2015).

Through Table 13, it is observed that the regions with poorer municipalities; that is, with lower MHDI and GDP per capita (North and Northeast), have a higher proportion of Primary Care Units type 1 and a lower proportion of Primary Care Units type 5. Whereas, in regions with higher indexes, the proportion is reversed.

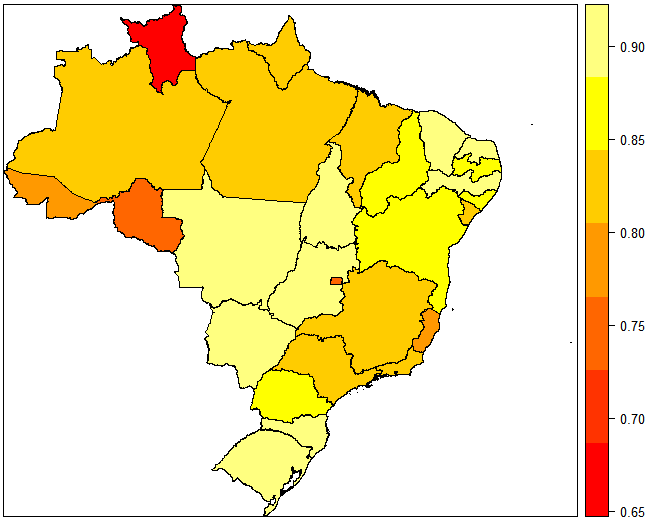
Table 13 - Typology of Primary Care Units per geographic region (cycle 2)

PHC Unit type	Large Geographic Regions											
	Total		North		Northeast		Southeast		South		Midwest	
	N	%	N	%	N	%	N	%	N	%	N	%
1	445	1.8%	54	3.1%	210	2.1%	123	1.7%	34	0.9%	24	1.3%
2	138	0.6%	22	1.3%	68	0.7%	36	0.5%	6	0.2%	6	0.3%
3	4200	17.1%	372	21.3%	1431	14.4%	1707	23.4%	435	11.9%	255	13.3%
4	18816	76.8%	1236	70.9%	7719	77.9%	5324	73.1%	3037	83.4%	1500	78.4%
5	900	3.7%	59	3.4%	486	4.9%	98	1.3%	129	3.5%	128	6.7%
Total	**24499**	**100**	**1743**	**100**	**9914**	**100**	**7288**	**100**	**3641**	**100**	**1913**	**100**

Source: Research data, 2019.

The North region, as shown in Figure 3, similarly to what occurs with budgetary resources, is the one with the worst average score by state (all below 0.85), while the Midwest and South regions have the best averages by state (all above 0.85).

Figure 3 - Distribution of Primary Care Units typology by average score per state (cycle 2)



Source: Research data, 2019. Note: The legend scale corresponds to the average of the Primary Care units scores of municipalities by state.

It should be noted that article 17 of SL 141/2012 determines that the apportionment of Union resources linked to public health services and actions passed on to states, the Federal District and municipalities, must observe the health needs of the population, the epidemiological dimensions, demographic, socioeconomic, spatial and supply capacity.

In regions with lower socioeconomic development rates, especially in municipalities in the North and Northeast regions, the importance of Primary Care is evident, as it benefits the poorest (Atun, 2004; Filmer et al., 1997).

The evidence presented above is corroborated when analyzing rules and laws related to health financing compared to governance principles. When observing public entities taking measures dissociated between them, it appears that this is not the model advocated by the principles of governance in a federative context, which provides for decisions involving the participation of entities from the three spheres of government, as well as the participation of others civil society actors.

Brazil, because of its model of federative organization, demands a special need for integration between the entities, coordinated by the Union. However, what is observed is that the Federal Executive defines policies and, the states make isolated decisions. Finally, municipalities define other policies, often overlapping or failing to meet the supply of goods

and services essential to Primary Care, such as the availability of mass testing of the local population. This is observed by Rodrigues and Azevedo (2020) as a weakness and contradiction regarding the political-institutional decentralization that has occurred in Brazil since the promulgation of the 1988 Constitution.

5. CONCLUSIONS

When analyzing the results evidenced, it was found that the health system, especially in Primary Care, presents deficiencies in governance. One of the great obstacles is the deficiency of coordination and integration of all the entities that compound the health system as a whole.

These difficulties, found when analyzing rules and laws related to health financing, as they are aspects that hinder budgetary governance, consequently are factors that hinder the allocation of resources within the scope of health policies. It is visible that the responsibilities of the municipalities have grown, but this factor is not the only one to be considered. It should be noted, for example, whether their increased responsibility has provided more favorable financial and budgetary conditions, or whether the normative instruments have also evolved to favor the entire cycle of public health policies, within an integrated and coordinated system.

It is noteworthy that more than half of Brazilian cities (52.9%) do not offer basic health infrastructure (IBGE, 2015), which makes primary care patients in these places seek basic services, hospitalization or medical examinations in hospital units in other municipalities.

Governance problems presented here corroborate with the words of Lima (2016), that only through planning, integration, regulation and financing in a regionalized health care network, in addition to efficient intergovernmental agreement mechanisms, users will have access to a comprehensive health system, which become clearer in crisis situations, such as the one we are currently experiencing.

Thus, the need to improve governance of health resources is defended, which shows that, even with collective decision mechanisms and coordination among all public entities, there are difficulties that are reflected in the allocation of financial resources in Brazilian municipalities.

Based on the findings presented, the investigation draws attention to the need to improve the decision making of public managers, and the evaluation process for planning and implementing public policies in primary care. Once a service is planned for its execution, it is

necessary to have the availability of adequate basic infrastructure, such as equipment and facilities. Under this focus, resources must be properly managed and controlled to the point of effectively verifying the resulting consequences, by verifying how the composition of basic local health equipment is structured, in view of the resources made available.

Finally, it is important to make it clear that, in the second part of the work, we did not seek to establish complex relationships between the variables of the study, but to present evidence of the situation in the country, with regard to the governance of health spending and infrastructure in Primary Care.

Thus, this study contributes, from the understanding of the context of the governance of public resources and from the relationship between infrastructure and public spending, to the improvement of decision making by public managers, to the evaluation process regarding the planning and to the execution of public policies in the country.

Through the knowledge about the allocation of financial resources in public health services, this study can assist in the allocation of public resources in a more efficient and effective way. It will also be able to indicate new actions for agents, SUS managers and society in general, as a way to collaborate for the greater effectiveness of services, based on the expansion of knowledge about health spending and its relationship with the health infrastructure of governments locations.

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