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Healthcare financing, decentralization and regional health planning: federal transfers and the healthcare networks in Minas Gerais, Brazil

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Abstract *The Decrees 4279/10 and 7508/11 established norms to guide health politics, with impacts on funding of the Middle and High Complexity Hospital and Outpatient. To verify the effects on the consolidation of care networks in Minas Gerais, we performed an analytical-descriptive study of the National Health Fund from 2006 to 2014. We observed decentralization of responsibilities, accompanied of resources and innovative financing mechanisms, resulting expansion of the network care model. The federal government definitions suggest reduction of the autonomy and limitation of regional solutions.*
Key Words *Healthcare financing, Regional health planning, Decentralization*

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Introduction

A framework of a new social order in Brazil, the Unified Health System (SUS) represents the overcoming of a contributory and centralized healthcare model with another of a redistributive, universalist and egalitarian character. The full realization of these constitutional social rights requires the configuration of a complex institutional structure capable of concretizing citizenship. Thus, one of the major challenges is the building of a national health system capable of simultaneously addressing the heterogeneity of regional needs and reducing existing inequalities[1].

Financing, decentralization and regionalization strategies form a triad of analysis that lead to reflections on the advances in the consolidation of the SUS. Decentralization, because, in a federalist context, repercussions on the definitions of responsibilities and tools of articulation between entities are crucial for the operationalization of policies. Financing, since there is no guarantee that decentralization of responsibilities, by itself, will promote, in an efficient and responsible manner, universal access to equitable levels of health care, requiring a consolidated institutional arrangement that, while respecting the different collection capacities of entities, can facilitate the triple(federal, state and municipality) commitment of financing the system. Regionalization, because financing, albeit at satisfactory levels and in fair proportions between entities, is not guided by redistributive allocation criteria and regional-based spatial planning and is unable to overcome the barriers inherent to the deep-seated inequalities that mark the Brazilian case.

There is a synergistic relationship between this triad and the normative and institutional configurations of the SUS. The Federal Constitution establishes that public health actions and services must integrate a regionalized and hierarchical network, constituting a unified and decentralized system financed by the three federated spheres. Those precepts are established in Law Nº 8.080/90 and, later, in the Basic Operational Standards and Health Care Operational Standards, demonstrating the normative effort of elaborating a national proposal of healthcare regionalization, with definition of decentralized responsibilities and shared planning, management and financing tools.

However, given its political-institutional, structural and conjuctural distance from subnational realities and its inability to reallocate resources and to induce increase public health expenditure, this proposal limited the regional project to the logic of services supply, definitions of healthcare and financial flows, which has reinforced health inequalities and competitiveness among federated entities[2].

In 2006, the Pact for Health was established to strengthen decentralized management of the SUS and cooperative intergovernmental relations. The Pact innovated by recognizing the political conception of regionalization and decentralization and proposing the agreement and coordination among managers toward greater coherence in the organization, funding and management of the system. However, because it did not significantly modify planning tools, with the exception of the creation of funding blocks and the monitoring and evaluation indicators, the Pact did not achieve the expected improvements in the shared management of SUS[2].

Among the most recent attempts to overcome the intense fragmentation and improve the political-institutional functioning of the SUS are the publication of Ministerial Ordinance Nº 4.279/10 and Decree Nº 7.508/11. The first one defines the guidelines for the structuring of the Health Care Network (RAS), which aims to promote the systemic integration of health actions and services, ensuring the provision of continuous, comprehensive, responsible, humanized and quality care[3]. The Decree deals with the organization of the system, health planning, health care and interfederative articulation[4]. Both highlight the need to consolidate the health region as a privileged section for the induction and integration of policies, the expansion of cooperative intergovernmental financing and the structuring of thematic networks aiming at ensuring comprehensive access to the system.

This paper discusses the triad financing, decentralization and regionalization, based on the guidelines for the RAS implementation process, with reference to the case study of Minas Gerais. We intend to verify whether the criterias used by the federal government to transfer resources to subnational entities focused on the funding of hospital and outpatient care have advanced in relation to the guidelines proposed by Ministerial Ordinance Nº 4.279/10 and Decree Nº 7.508/11.

Methodology

This is an analytical-descriptive study based on data from federal transfers for the funding of me-

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dium and high complexity hospital and outpatient care of the SUS of Minas Gerais (SUS/MG) from 2006 to 2014, considering Ordinance Nº 4.279/10 as a starting point for the elaboration of new financing criterias for the operationalization of the RAS.

We collected SUS/MG data on federal transfers from the National Health Fund (FNS) website. We made thorough consultations by action/service/strategy of the MAC Block of funding for the 853 municipalities of the State, for the nine years under analysis, as per the cash method. We consolidated files in a single database, and the annual values, after being checked with data provided by the Ministry of Health on the website of the Strategic Management Support Room, were organized according to the Expanded Health Regions of Minas Gerais, established by the most recent version of the PDR-SUS/MG[5]. This planning tool organizes Minas Gerais territory in three levels: municipal, micro-regional and macro-regional. The latter level, concentrate in a hub the services that offer high-complexity and special medium-complexity care for the group of municipalities, therefore this is the setting in which comprehensive care is achieved and, thus, the focus of this work. When adjusting the PDR-SUS/MG to the terms of Decree Nº 7.508/11, macro-regional territories became known as the Expanded Health Region.

The first step of the analysis comprised the characterization of the Expanded Regions. We collected the following information: territorial extension and the number of municipalities data of each Expanded Health Region, available by the PDR-SUS/MG[5]; population data, as per estimates provided by the Brazilian Institute of Geography and Statistics (IBGE); number of health establishments by type of provider, according to the National Registry of Health Establishments (CNES); data from the Resolubility in the High complexity hospital care, an indicator calculated by the Minas Gerais State Health Secretariat (SES-MG), which measures the proportion of outpatient and/or hospital care capacity of the population in the expanded region of residence relative to the list of expected services for this level of care; and data from the national typology of health regions, available on the website of the Policy, Planning and Management of Health Care Regions and Networks[6].

Then, we analyzed the behavior of federal transfers carried out under the MAC Block of funding. In this stage, we adjusted values collected to December 2015 by the Broad National Consumer Price Index (IPCA/IBGE), based on the accumulated index number of the month of funds transfers. The analyzes considered both resource management – state and municipal, as well as the transfer component, Strategic Actions and Compensation Fund (FAEC) and the Medium and High Outpatient and Hospital Complexity Financial Limit (MAC), which was organized into two categories, by action / service / strategy, in view of the work focus:

- MAC Limit, which includes resources that remunerate production, according to the logic of the Table of Procedures, Medicines and OPM of the SUS; various hospital incentives, such as 100% SUS, Incentive for the Qualification of Hospital Management, IntegraSUS, among others, as well as several programs and payments, such as legal actions for medicines, contingency actions to fight against dengue epidemic, etc.
- Care Network Resources, consisting of incentives specifically targeted at priority networks such as Emergency Care, Mental Health, Mother and Child Health's, among others.

Finally, to understand the behavior of federal transfers in relation to the guidelines established by Ordinance Nº 4.279/10 and Decree Nº 7.508/11, we developed a detailed analysis of the care network resources in the Expanded Health Regions. In this stage, the first step was to understand the financing policy of each priority network, identifying types of incentives, the number of ministerial ordinances that incorporate resources for each state network and the amount transferred. Then, from the example of the Emergency Care Network, we studied the effective allocation of the transferred funds in the territory. In Minas Gerais, most municipalities lack management of their providers, consequently, a significant portion of federal funds is transferred to the State Health Fund (FES/MG), without objective discrimination of the beneficiary. Thus, we consulted all ordinances that incorporate resources to this network in the Medium and High Complexity Financial Limits Control System – SISMAC and verified their actual allocation in the Integrated Agreed Program of Minas Gerais (PPI-MG) to identify creditors of state-managed amounts.

Results and discussion

The PDR-SUS/MG[5] organizes the 853 municipalities of the state in 77 Health Regions, which in turn make up 13 Expanded Health Regions. Ta-

ble 1 addresses some key aspects to understand the reality of these regions.

While corresponding to less than 10% of the territory of Minas Gerais, the Central Expanded Region comprises the second largest number of municipalities (103), concentrating 31.3% of the population of the state and has the highest population density (111.5 inhabitants/Km^2). Although it covers the smallest number of municipalities (23) and has the smallest resident population, only 1.4%, the Jequitinhonha Region is behind the Northwest Region in terms of population density (8.7 inhabitants/km^2). These data highlight an interesting aspect of the state regionalization process. PDR/SUS-MG pillars are based in four fundamental principles: comprehensiveness, economy of scale and scope, accessibility and geographic contiguity. Given the recognized regional inequalities, this instrument defines that, in case of conflict between access and scale, this last principle must prevail. By cross-referencing indicators that make up the socioeconomic situation and health services supply, the national typology classifies Health Regions into five categories. Group 1 features low socioeconomic development and low supply of services, and Group 5, high socioeconomic development and high service supply[6]. It should be noted that, in Minas Gerais, Expanded Regions are marked by diverse settings and the predominance of medium socioeconomic development and average service supply (Group 3). While nine of the 13 Expanded Regions cover at least one region in Group 1, only five comprise regions classified in the best performing category.

Regarding health establishments, we observed that the Central region concentrates almost a third of the total state establishments (35,670), which reflects its reference role for the whole state. Analysis by type of provider indicates that Jequitinhonha, along with the West and North regions, show the highest percentage of public providers, 53%, 59% and 48%, respectively. These regions have historically been subject to greater state interventions due to their lower capacity to provide services, difficult retention

Table 1. Characterization of the Expanded Health Regions, by population, territorial extension, socioeconomic and health conditions, type of healthcare providers and resolubility – Minas Gerais.

Expanded Health Region	Resident Population*	Total Area (Km2)**	Covered municipalities**		Health Regions covered by socioeconomic and health conditions category – 2016***					Nº of establishments by type of provider – 2014****			Resolubility (%) *****
	2014		N	%	1	2	3	4	5	Public	Private	Philant.	2014
Central	6.480.169	58.120	103	12	1	1	5	2	1	1.897	8.215	75	99,53
South Central	780.011	15.811	51	6	-	-	3	-	-	479	1.371	35	59,90
Jequitinhonha	296.870	20.567	23	3	2	-	-	-	-	212	176	9	48,93
East	1.523.095	32.447	86	10	4	-	3	-	-	699	1.458	22	85,07
East of South	694.964	15.169	53	6	2	-	1	-	-	426	866	20	57,50
Northeast	931.946	56.641	63	7	6	1	1	-	-	627	639	29	61,86
Northwest	691.080	79.594	33	4	-	2	1	-	-	388	759	21	63,85
North	1.661.130	122.880	86	10	7	1	1	-	-	1.090	739	21	95,97
West	1.254.944	28.552	54	6	1	1	4	-	-	646	1.730	38	50,66
Southeast	1.651.433	24.665	94	11	1	-	6	-	1	956	1.998	62	97,04
South	2.755.109	53.766	153	18	1	-	8	1	2	1.624	4.789	161	96,45
Northern Triangle	1.260.398	42.784	27	3	-	1	1	-	1	408	1.786	17	96,02
Southern Triangle	752.948	35.535	27	3	-	-	1	1	1	391	769	22	97,62
Total	20.734.097	586.529	853	100	25	7	35	4	6	9.843	25.295	532	89,80

Sources: Own elaboration based on data available at: *IBGE – Population Estimates; **PDR-SUS/MG ; ***Indicators Base; **** CNES / Datasus ; *****SES/SMACSS/DEAA.

of professionals, lower socioeconomic development and/or hardships in managing the service network. The Central and Northern Triangle regions are at the other end, with more than 80% of private providers. In relation to philanthropic hospitals, we observed that, in all cases, the proportion of establishments registered with this type of provider was practically the same, varying between 1% and 2%.

With regard to public-private relationship, findings by Viana et al[7] reinforce the importance of analysis based on the proposed triad, considering that decentralization promoted by the Brazilian health policy, without regional integration and weak public supply of services of higher complexity, with the presence of large healthcare gaps enabled a growing private supply, financed both by the State in the form of a tax waiver, and by all through payments of plans and insurance.

On the other hand, the Resolubility confirms the regional discrepancy also in terms of health outcomes. Again, Jequitinhonha stands out with the worst performance. Less than half of the high complexity hospital care demand of residents was met in the Expanded Region itself in 2014. This result is not surprising given the poor supply structure already observed. Similar performance occurred in the West, which evidences issues in the supply and management of the network. The setting suggests that only funds transfers' criteria based on pay-per-service logic, having as financial limits population parameters built from historical series, a model adopted since the 1980s and coexisting to this day, will not be enough to reverse the situation in these regions.

Understanding regionalization as a technical-political process, conditioned by the supply capacity, healthcare financing, power distribution and relations established among the various stakeholders throughout the territories[8], we observed that Ordinance Nº 4.279/10 and Decree Nº 7.508/11, in Minas face great challenges due to the various regional realities.

Studying federal transfers' behavior, considering the Federal Government's fiscal hegemony and its important redistributive role in the system, is fundamental for signaling alternatives that promote a more balanced SUS organization, reducing regional inequalities.

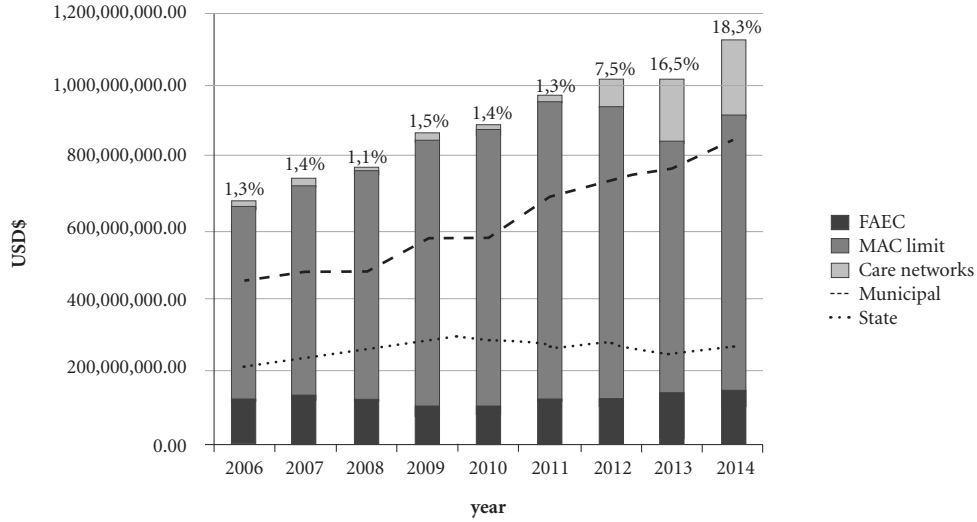
The analysis of the federal financing of the MAC Block of funding reveals that, in the period 2006-2014, 75,803 bank transfers were made from the National Health Fund to State and Municipal Funds, of which 372 (0.5%) were canceled due to non-existent bank address (96%), incompatible beneficiary (2.2%), unrealized cash withdrawal within 7 days due to lack of list (1.6%) and by the manager after transfer to the bank (0.2%). In gross amounts updated at December 2015, transfers effected in the period totaled USD$ 9,456,912,095.50. Of this amount, USD$1,274,498,952.82 (13.5%) were deducted at source by the FNS as a result of payroll loans, Credit Assignment Term, University Hospitals/Ebserh, PROSUS, CONASS, CONASEMS, among others. Thus, the net amount transferred for medium and high complexity costs in the state was USD$8,182,413,142.52 (86.5%).

Graphic 1 shows the behavior of the federal transfers to the MAC Bloc under SUS/MG over the nine-year period, by resource management and component category.

There is a tendency to increase resources for medium and high complexity hospital and outpatient funding, except for the year 2013, down from the previous year, although nominal values indicate an increase of USD$ 47,657,837.90 compared to 2012. As stated by Ugá et al.[9], while constant values, that is, deflated values, indicates increased federal health expenditure, the GDP-related fraction shows a trend towards stabilization or reduction of the Federal Government's contribution. This decreased federal participation in health financing is significant throughout the SUS consolidation process, from 72% of public health spending in the 1980s to just over 45% in 2010, which is worrying given the strong dependence of subnational spheres in the context of decentralization.

From the viewpoint of funds decentralization, the institutional framework of the SUS defines two management modalities for municipalities: full management of basic care, in which it is incumbent upon the state to assume the management of medium and high complexity outpatient and hospital providers; and full system management, which gives the municipal manager autonomy to manage the actions related to the promotion, protection and recovery of health in own territory, and funds are transferred directly from the National Health Fund to the Municipal Health Fund[9].

Regarding this aspect, we can observe that 71.8% of the amount transferred in the period were decentralized directly to municipalities, with a consequent increase in municipal autonomy, from 70% in 2006 to 75.1% in 2014. It is noteworthy that, in 2006, only 59 municipalities managed the service providers, reaching 84 in December 2014. Currently, 122 municipalities



Graphic 1. Behavior of federal funding of the MAC Bloc under SUS / MG by resource management and component category - Minas Gerais - 2006 – 2014.

Source: Own elaboration from FNS data, IPCA-adjusted values converted from Reais (R$) to US Dolar (USD$) considering the value on 31/12/2015 (R$1,00 = USD$3,9042).

have full system management, which means that the state is still responsible for the management of providers of 86% of the municipalities of Minas Gerais, accumulating responsibilities of coordinator of the system in its territory, leader of the regionalization process, financing co-partner and executor of funds transferred by the Federal Government.

Regarding the analysis by component, we observed that the MAC Limit concentrated the largest volume of resources in all years, comprising 78.97% of the total transferred in the period. The level of funds allocated to the FAEC remained stable, varying from 13% to 19% of the annual total. Funds allocated for the financing of care networks suggest the implementation of measures by the federal government in order to adapt the financing of the medium and high complexity ambulatory and hospital services to the precepts of Ordinance Nº 4.279/10 and Decree Nº 7.508/11. In 2010, year of publication of the Ordinance, resources identified by the FNS as specific to thematic care networks were approximately 1.4% of the yearly total, level very similar to the four years prior to the norm. In 2011, this percentage has remained stable (1.3%), which may indicate a period of preparation of new allocation criteria aligned with RAS guidelines, and in 2012, this proportion went to 7.5%, more than doubling in 2013 (16.5%) and almost 20% of the total resources of the block in 2014, indicating that these tools developed during the maturation process of the model in the national health policy.

These findings confirm efforts to overcome the pay-for-performance model established in the 1980s and in force to this day, knowingly inducing a fragmented and inefficient production of care. The options found point to the adoption of two major types of allocation criteria: financial incentives, which feature the search for improving the quality of care provided to the user, with funds transfers linked to goals and with preset payments; and general services budgeting, characterized by periodic transfers of an annual amount set programmatically, which, although formally calculated based on expected production for the specific period, giving, therefore, greater predictability of expenditure to the manager and revenue to the service provider, is not earmarked to the effective production of expected services[10].

These results reinforce the vision of Santos and Luiz[11], who argue that to induce policies, among them structuring care networks, the Ministry of Health has used federal transfers criteria. They also clarify that the amount transferred has proved to be insufficient for the implementation

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of the RAS in all the States, which, in addition to compromising the national policy, has overwhelmed states and municipalities, mainly from 2014, with the backdrop of budget constraints, whether by lack of adjustment of costing amounts or lack of transfers to services already provided for in action plans.

To make interface of the Brazilian reality with the international findings, Cashin et al.[12] highlight that the allocation tools and transfer methods to providers, especially those of medium and high complexity hospital and outpatient services, has a major impact on the volume and quality of the services offered. Hence, increased transfers criteria and tools that seek to align pay incentives with goals of healthcare systems have been observed. Authors highlight that these initiatives, dating back to experiments adopted in private enterprise in the United States at the beginning of the 1990s, are being developed in a wide variety of countries, mentioning not just Brazil, but also the United Kingdom, Germany, China, India and even low-income countries like Rwanda.

Table 2 categorizes the resources by component and the Expanded Health Region, by decentralized amounts for the municipalities covered, by years 2006, 2010 and 2014. Funds transferred to the FES/MG appear in specific lines.

The Central Expanded Region concentrates most features, regardless of component. In the SUS/MG, it was decided that the Psychosocial Care Centers (CAPS), the Dental Specialties Centers (CEO), the Emergency Care Units (UPA) and the Regional Dental Prosthesis Laboratories (LRPD), financed by general budgeting, have their management decentralized to the municipality, even if the latter does not have full management of the municipal system. Thus, in the state, the care networks' component by itself already shows a more decentralized character, which explains the fact that Jequitinhonha evidences the greatest variation of decentralized funds in the period subsequent to Ordinance Nº 4.279/10 (1017%), although it did not have any full municipality at the time. In order to better understand the specific allocation tools and criteria of the MAC component, we analyzed ministerial ordinances that allocate funds to priority care networks in the SUS/MG. Table 3 shows the characteristics of these networks, such as the number of ordinances that incorporate resources, types of incentives established for each network, total amounts transferred and the number of beneficiary Expanded Health Regions in the years of 2006, 2010 and 2014. Funds allocated to the Cancer Control Network were not included in the detailing, since the three ordinances that incorporate funds do so in the payment-per-procedure logic and are programmed in the PPI/MG not as an incentive, but as increased values in hospital and outpatient production ceilings.

Two aspects draw our attention from the management viewpoint. First, the large number of funds incorporation ordinances (262), which indicates that financing networks and their expansion in the territory has gradually taken place. This is confirmed in the analysis of the number of Extended Regions covered per year.

The second aspect relates to the multiplicity of incentives established in the different networks. Since they have different financing logic and their transfer is often linked to performance based on a specific list of indicators for each network, these incentives demand the formalization of several contractual tools, making the relationship between managers and providers more complex.The variety of incentives also points to another important issue. Federal government transfers of funds with preset allocation tend to compromise the autonomy of subnational entities, since they do not allow implementation according to locoregional needs. Thus, although financing tools established since the advent of Ordinance Nº 4.279/2010 have moved to overcome the population criteria for transfers, the way the process has been conducted may reduce the principle of decentralization to mere deconcentration of resources.

Again on this aspect, we have to consider that, since federal funds are crucial sources of funding for the SUS, its volume should be high and their allocation balanced, which could encompass a general redistribution proposal guided by priority-setting general criteria consistent with the intended model of care, implemented through automatic transfers not earmarked to established programs[13], which could reduce clash between collection, autonomy and cooperation.

Regarding the volume of funds, 61.5% was allocated to the Emergency Care Network (RUE), much higher than the Mental Health Network, which was the second most benefitting from decentralized funds (12.2%). The Care Network for People with Disabilities was the one that received the least, with only 2% of the total decentralized funds in the nine years under analysis.

In order to verify whether the criteria adopted by the national network deployment policy have contributed to reduced regional inequali-

Table 2. Amounts transferred by Expanded Health Region by component per year, in millions of US$- Minas Gerais - 2006, 2010, 2014.

Expanded Health Region	2006 (USR million)				2010 (US$ million)				
	FAEC	MAC Limit	Networks	Total	FAEC	MAC Limit	Networks	Total	Variation 2006 -2010 (%)
Central	42.22	178.25	4.63	225.09	38.33	241.11	4.22	283.66	34.56
South Central	5.08	16.19	0.34	21.61	4.13	21.47	0.30	25.90	26.02
FES/MG	36.72	188.17	0.00	224.89	24.65	274.24	3.72	302.61	19.85
Jequitinhonha	0.00	0.00	0.04	0.04	0.00	0.00	0.07	0.07	66.22
East	6.24	24.63	0.98	31.85	6.46	35.56	0.89	42.91	34.72
East of South	3.76	8.92	0.04	12.72	3.61	13.60	0.04	17.24	35.57
Northeast	2.63	6.65	0.04	9.33	2.45	9.36	0.09	11.91	27.62
Northwest	2.15	8.01	0.43	10.59	1.71	10.40	0.33	12.43	17.35
North	6.01	27.87	0.70	34.58	3.50	38.49	0.37	42.36	22.51
West	4.35	14.40	0.21	18.97	3.76	17.75	0.50	22.01	16.04
Southeast	6.87	29.58	0.75	37.21	6.40	46.05	0.71	53.16	42.87
South	6.25	17.37	0.30	23.92	6.19	29.51	0.66	36.36	51.97
Northern Triangle	6.14	11.79	0.08	18.02	6.25	25.79	0.12	32.15	78.44
Southern Triangle	2.54	10.96	0.07	13.58	1.57	17.13	0.47	19.16	41.14
Total	130.98	542.80	8.62	682.40	109.02	780.44	12.47	901.93	32.17

Expanded Health Region	2014 (US$ million)				
	FAEC	MAC Limit	Networks	Total	Variation 2010 -2014 (%)
Central	55.28	269.99	93.79	419.07	2.54
South Central	4.67	19.34	4.98	28.99	47.74
FES/MG	40.15	217.79	52.36	310.29	11.92
Jequitinhonha	0.00	0.33	0.47	0.80	1,017.37
East	8.89	40.49	11.35	60.73	41.53
East of South	4.43	16.93	2.42	23.77	37.86
Northeast	2.87	12.98	3.58	19.43	63.21
Northwest	2.14	10.34	1.87	14.35	15.44
North	8.44	41.21	9.88	59.53	40.53
West	4.54	17.40	3.60	25.54	16.03
Southeast	6.18	42.36	10.33	58.86	10.73
South	7.39	45.00	7.58	59.97	64.95
Northern Triangle	9.10	31.28	2.39	42.77	33.02
Southern Triangle	2.01	12.46	4.81	19.28	0.63
Total	156.09	777.89	209.41	1,143.39	26.77

Source: Own elaboration from data collected in the FNS.

ties, a case study of the Urgent and Emergencies Network (RUE) was developed, in which, based on the analysis of ministerial ordinances and CIB-SUS/MG deliberations, the final beneficiaries of funds transferred to FES/MG within the scope of this network for the years 2006 and 2010 were identified.

Figure 1 illustrates the development of transfers relevant to RUE by the Expanded Health Region, considering the final destination of the re-

Table 3. Federal funds transferred, ministerial ordinances and types of incentives, by network - Minas Gerais - 2006. 2010 and 2014.

Network	N. Ordinance	Types of incentives	2006	2010	2014	Total 2006 to 2014 (US$)
			Amount (US$)	Amount (US$)	Amount (US$)	
Mother and Child Care Network Rede Cegonha (RCEG)	25	House of Pregnant Woman. Baby and New Mother. Normal Delivery Centers. Enable / Qualify Beds for High Risk pregnant women. Enable / Qualify Beds of the Conventional Neonatal and Kangaroo Intermediate Care Units. Enable / Qualify Beds of Neonatal and Adult types II and III ICU	-	-	15,838,822.21	44,235,718.36
Expanded Regions Covered - RCEG			-	-	12	
Care Network for People with Disabilities (RDEF)	13	Dental Specialties Centers (CEO-RAPD). Specialized Rehabilitation Centers. Orthopedic Workshops	-	-	8,883,984.33	12,136,149.18
Expanded Regions Covered - RDEF			-	-	13	
Oral Health Care Network (RSB)	25	CEO. LRPD	2,038,849.34	2,545,807.09	8,209,372.33	33,358,943.45
Expanded Regions Covered - RSB			13	13	13	
Mental Health Network (RSME)	74	CAPS. Therapeutic Residential Services. Reception Units. Mental health bed service in General Reference Hospital	-	-	35,389,988.06	64,084,844.76
Expanded Regions Covered - RSME			-	-	13	
Emergency Network (RUE)	125	SAMU. UPA. Enable / Qualify Clinical Back-up Beds. Enable / Qualify Adult or Infant Types II and III ICU Beds. Enabling of Coronary Intensive Care – UCO beds types II and III. Emergency Entrance Doors. Prolonged Care Beds	6,582,804.51	9,654,195.79	117,714,219.59	321,943,122.18
Expanded Regions Covered - RUE			6	8	12	
Total*	262	-	8,621,653.85	12,200,002.87	209,412,899.28	523,388,681.38

Source: Own elaboration based on data provided by the FNS. IPCA-adjusted amounts provided by IPEA and in the data of Ministerial Ordinances provided by SISMAC

Note: *Total amounts include Cancer Control Network amounts.

source, regardless of management, with per capita values in Brazilian Reais (R$) highlighted. Of the total funds transferred to the network, only 0.5% had no identified destination, either because they were still macroallocated in PPI/MG, or because it was not possible to identify which

ministerial ordinance the transfer referred to.

Maps show the process of expansion and consolidation of the RUE in the territory of Minas Gerais. In 2006, while the care network policy proposal had not yet been structured, only six Expanded Regions received incentives for emergency care, specifically for the costing of SAMUs. In 2010, this incentive policy for the structuring of SAMU had already covered nine regions. With the enactment of Ordinance Nº 2.395/11, which sets out RUE's guidelines, we begin to observe the diversification of types of incentives from 2012, achieving, in 2014, 100% of the Extended Regions receiving some kind of incentive.

The trend of the volume of funds transferred for the implementation of the RUE in the state is noted. While, in 2006, USD$ 6,582,804.51were transferred, of which 61.7% destined for the Central region, in 2010, the amount transferred hiked. to USD$ 9,654,195.80, now with a more deconcentrated distribution in the territory: 38% allocated in the Central region, 35% in the North, which evidenced the highest per capita amount (USD$ 2.73) and the remainder ranging from 7% to 2% in the remaining seven Expanded Regions covered, with the lowest per capita observed in the South region (USD$ 0.11). In 2014. the total amount transferred was USD$ 112,146,785.71, more than eleven times greater than in the year of the enactment of Ordinance Nº 4.279/10, with all per capita values showing an increase compared to 2010, reflecting federal government efforts to operationalize the guidelines proposed in the regulations. Also in this year, we note that, although all the Expanded Regions have received incentives from the RUE, resources were again concentrated in the Central region (64%), with north at 10% and the other 26% distributed among the other 11 Expanded Regions.

Among the final considerations of the case study of Minas Gerais, we believe that Ordinance Nº 4.279/10 and Decree Nº 7.508/11 have managed to make possible both a significant input of resources and innovative funding tools, which has contributed to increased implementation of the care network model in the various regions of the state. In light of the financing-decentralization-regionalization triad, we conclude that municipal managers are gradually assuming a set of new responsibilities, whether in the contractualization of services, in the agreement of indicators, in the execution of resources or in the mediation of conflicts of the various stakeholders involved in the RAS consolidation process. However, despite increased autonomy, the federal government's impositions regarding access to financial resources to increase the financing of medium and high hospital and outpatient com-

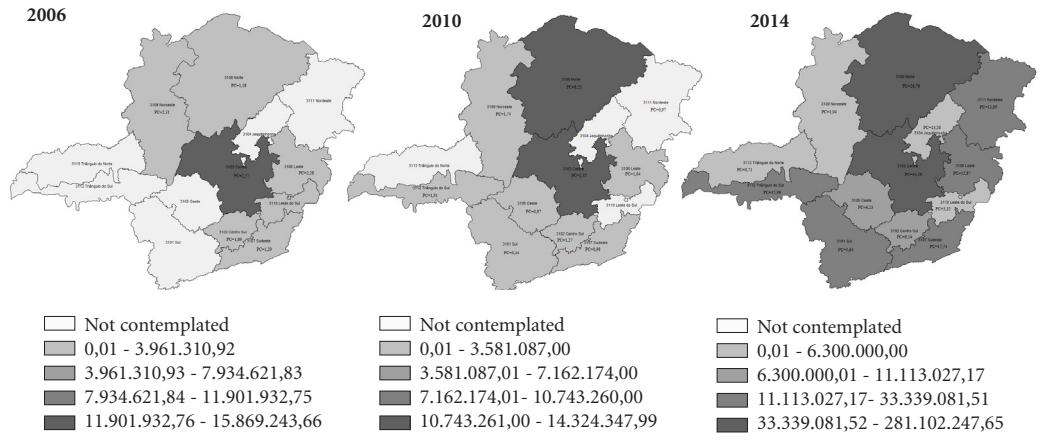

Figure 1. Development of RUE-related transfers by Expanded Health Region - Minas Gerais – 2006, 2010 and 2014.

Source: Own elaboration based on data provided by FNS. Ministerial ordinances and CIB-SUS/MG deliberations.

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plexity is still evident. The increased volume of transfers made through multiple and predefined incentives by the Ministry of Health tends to concern to the extent that it makes the role of subnational spheres more complex and limits their allocation possibilities according to locoregional specificities. Debates on resource allocation tools should be expanded, bringing to the surface not only quantitative transfer criteria, but questions pertinent to SUS dynamics' dilemmas, such as autonomy versus liabilities versus collection capacity versus operational capacity.

In this context, it is clear that the expected results for each Expanded Health Region is only achieved through strengthening and maturation of these interfederative relationships, in order to have convergent efforts to reduce inequalities and effective guarantee of constitutional rights.

Collaborations

LMC Moreira worked on the conception and design of the study, data analysis and interpretation, writing of the paper and approval of the version to be published. F Ferré worked on the conception and design of the study, interpretation of data analysis, critical review and approval of the version to be published. EIG Andrade worked on the conception and design of the study, data analysis and interpretation, critical review and approval of the version to be published.

References

1. Leita VR, Lima KC, Vasconcelos CM. Financiamento, gasto público e gestão dos recursos em saúde: o cenário de um estado brasileiro. *Cien Saude Colet* 2012; 17(7):1849-1856.
2. Albuquerque MV. *O enfoque regional na política de saúde brasileira (2001-2011): diretrizes nacionais e o processo de regionalização nos estados brasileiros* [tese]. São Paulo: Universidade de São Paulo; 2014.
3. Brasil. Portaria GM/MS nº. 4.279, de 30 de dezembro de 2010. Estabelece diretrizes para a organização da Rede de Atenção à Saúde no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União* 2010; 30 dez.
4. Brasil. Decreto nº. 7.508, de 18 de junho de 2011. Regulamenta a Lei nº 8.080, de 19 de setembro de 1990, para dispor sobre a organização do Sistema Único de Saúde - SUS, o planejamento da saúde, a assistência à saúde e a articulação interfederativa, e dá outras providências. *Diário Oficial da União* 2001; 18 jun.
5. Minas Gerais. Deliberação CIB-SUS/MG nº 1.979, de 18 de novembro de 2014. Aprova o ajuste do Plano Diretor de Regionalização – PDR-SUS/MG 2014. [acessado 2016 maio 20]. Disponível em: http://www.saude.mg.gov.br/images/documentos/Del %201979%20-%20PDR%202014.pdf#page=2
6. Política, Planejamento e Gestão das Regiões e Redes de Atenção à Saúde no Brasil [homepage na internet]. Banco de indicadores regionais e tipologias [acessado 2016 mar 27]. Disponível em: http://www.resbr.net.br/indicadores/view/
7. Viana ALD, Bousquat A, Pereira APCM, Uchimura LYT, Albuquerque MV, Mota PHS, Demarzo MMP, Ferreira MP. Tipologia das regiões de saúde: condicionantes estruturais para a regionalização no Brasil. *Saude Soc*. 2015; 24(2):413-422.
8. Lima LD, Viana ALD, Machado CV, Albuquerque MV, Oliveira RG, Iozzi FL, Scatena JHG, Mello GA, Pereira AMM, Coelho APS. Regionalização e acesso à saúde nos estados brasileiros: condicionantes históricos e político-institucionais. *Cien Saude Colet* 2012; 17(11):2881-2892.
9. Ugá MAD, Porto SM, Piola SF. Financiamento e alocação de recursos em saúde no Brasil. In: Giovanella L, Escorel S, Lobato LVC, Noronha JC, Carvalho AI, organizadores. *Políticas e sistema de saúde no Brasil*. Rio de Janeiro: Fiocruz; 2012. p. 395-425.
10. Ugá MAD. Sistemas de alocação de recursos a prestadores de serviços de saúde - a experiência internacional. *Cien Saude Colet* 2012; 17(12):3437-3445.
11. Santos RJM, Luiz VR. Transferências federais no financiamento da descentralização. In: Marques RM, Piola SF, Roas AC, organizadores. *Sistema de Saúde no Brasil: organização e financiamento*. Rio de Janeiro: ABrES, Ministério da Saúde, OPAS/OMS no Brasil; 2016. p. 169-204.
12. Cashin C, Chi Y, Smith PC, Borowitz M, Thomson S. *Paying for Performance in Health Care: Implications for health system performance and accountability.* New York: Open University Press; 2014.
13. Mendes AN, Santos SBS. Financiamento descentralizado da saúde: a contribuição dos municípios paulistas. *Saúde Soc.* 2016; 9(1-2):111-125.

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