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Skateholders, spaces and policy network in health governance in two health regions of Legal Amazon

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Abstract *Governance is a concept with different hues in public policies. In this study, it is conceived as a policy network, with stakeholders who manage interests depending on available resources, mediated by rules and by their degree of influence. This paper analyzes the stakeholders, spaces of articulation, norms, and processes in health governance in two regions of the Legal Amazon and how managers shape their social network. This is a qualitative study with regional analysis plan, using as sources documents and interviews. An analysis matrix was formulated with adapted realms of conceptual models of governance and policy networks. Results point to differentiated policy networks. In the metropolitan region, stakeholders' diversity was more associated with state management and capital, given the articulation capacity and available resources. In the international border region, the policy network of municipal managers integrates stakeholders from diverse sectors in the face of regional specificity and articulation capacity. Regions, living territories, single out technical processes, leading stakeholders to seek partners and spaces beyond those established, to weave strategies closer to reality*.

Key words *Governance, Regionalization, Social network, Health sytems, Public health policy*

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Introduction

In Brazil, regionalization has had diverse results since its inclusion in the public health agenda. When progress is achieved, its sustainability is compromised by the low institutionality of the political processes undertaken[1]. In this context, the concept of governance has become relevant in discussions on the Brazilian health policy[2], articulated with the implementation of care networks[3].

Implications on the use of governance concept have been analyzed in recent critical reviews in the literature[2]. In this study, governance is conceived as a policy network, characterized by rule-mediated relationships of interdependence between diverse stakeholders in a situation of relative autonomy, without formal subordination or absolute control, depending on the degree of influence and available resources[4]. Cooperation between stakeholders would be the ideal medium through which these policy networks could address external pressures regarding the efficiency and effectiveness of the actions and services provided, reducing uncertainties[5]. This concept brings us closer to the processes of health governance since, under the federative agreement, the SUS implementation at the local level is reliant on the establishment of such relationships.

Hufty et al.[6] and Hufty[7] propose the use of the concept of governance as a method of analysis (MAG) through four realms: stakeholders, nodal points (spaces), norms and rules and processes, that is, the dynamics of stakeholders over time. Under this conception, we intend to show part of the results of empirical research on regional governance conducted in two health regions of the Legal Amazon between 2016 and 2017.

This paper aims to characterize who and how the primary stakeholders are involved with regional governance in these two health regions, highlighting the problems faced, the strategies adopted and the process of interaction in the articulation and negotiation spaces identified by the respondents. We also sought to map the social network of the respondents to identify the main partners and the elements or people that hinder the management process.

Methodological procedures

Study design

We performed a multi-case study covering two health regions of the Legal Amazon. This region is characterized by differentiated territorialization processes, selected given the complexity of existing socio-spatial situations and their inheritance, regarding the direction of state action and use and appropriation of the territory[8]. Since the "Legal Amazon" contour reveals a tremendous internal variation, we decided to carry out the study in two health regions: one of international border in inland state of Amazonas (Alto Solimões), and another, in the state of Pará, given its historical importance in the configuration of the Amazon region and characteristics of metropolization, namely, Belém's metropolitan region.

We performed qualitative research based on several sources, namely, semi-structured interviews with key informants, documentary analysis, direct observation and social network mapping from a specific instrument. Twenty-seven interviews were conducted from October 2016 to February 2017 with political stakeholders from both regions, at which time the documents used for analysis were also collected at the local level (Chart 1).

The interviews were recorded, transcribed and then submitted to thematic analysis, codifying their contents according to the primary categories of the theoretical framework adopted[4-6] and those that emerged from the data-driven empirical material. Another step was mapping the social network of state and municipal managers and technicians, thirteen of the total respondents.

The minutes of the boards of directors were also analyzed and categorized, especially considering the content of the meeting's guidelines, elements discussed, conflicts and consensus among the stakeholders, types of negotiation, planning, prioritized agendas, recommendations, and strategies. Data were analyzed using NVIVO Pro software, which allows the qualitative analysis of sources with different formats.

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Chart 1. Sources of information.

Interviews		
Working area/position	**Metropolitan Region**	**Border Region**
State Manager	2*	1
Municipal Manager	1**	5***
Technical Area–SES	6	2****
CIR	4	1
DSEI	NA	1
COSEMS	-	1
Other	2 (University)	-
Public Health Consortium	nsa	1
TOTAL	15	12
Documentary sources		
Minutes of CIR	2015 – 2016 (13 minutes)	2015-2016 (05 minues)
Minutes of CIB	2015-2017 (15 minutes)	2015-2017 (21 minutes)
Minutes/resolutions of the Consortium	NA	2012-2014 (09 minutes) 2016-2017 (02 minutes)
State Health Plan	2016-2019	2016-2019
Care Networks Plan	Cancer, Urgent and Emergency Care Network (RUE)and Rede "Cegonha" ("Stork Network", Mother and Child Care) – State plans with a regional component	Cegonha ("Stork Network", Mother and Child Care) andUrgent and Emergency Care Network (RUE) – Regional
CIES Implantation Project	2015	NA
Technical Reports	IPEA - Governance Metropolitan Regions – Belém's Case. 2016	PRODERAM Final Report - 2015

Source: Own elaboration.

* Interview with current and former state health secretary. ** Collective interview with undersecretary and six technical area coordinators. *** Current and former manager were interviewed at the municipality headquarters. **** One of the respondents is regional manager of Alto Solimões.

The Research Ethics Committee of the National School of Public Health approved this project, following the human research-related norms.

Analysis references

For the policy network analysis in regional governance, the realms of MAG by Hufty et al.[6] and Hufty[7] were combined with components of the degree of interdependence of networks developed by Fleury and Ouverney[4]. In both references, stakeholders and spaces (nodes) are central to the coordination process. Stakeholders are those participating in the governance space, individuals, groups or networks with interest in a particular problem that interact by establishing networks with differentiated resources and using them in power relationships to influence the governance process[4,7]. Stakeholders were identified through crucial informants operating in the regions, followed by the "snowball" technique.

Nodal points are internal negotiation spaces and external channels of articulation, which can be physical or virtual, where stakeholders, problems, and processes converge, where decisions are made, agreements are reached, and social norms are (re) elaborated[4,7]. Initially, they were considered management collegiates, and public health consortium (the border region). Other articulation areas concerning the regions were raised through interviews, documentary analysis, and observation. The analysis of the social networks of stakeholders considered as categories the nature and types of linkages, the role of the stakeholder/organization in the region, the frequency and types of contact as well as the resources mobilized, taking into account some reference points of social network analysis[5,9,10]. The frameworks used were systematized in a regional governance analysis matrix that guided the study (Chart 2).

Chart 2. Health Governance Analysis Plan.

<table>
<tr><th colspan="3">Health Region</th></tr>
<tr><th colspan="3">Governance Policies Networks</th></tr>
<tr><th colspan="3">Stakeholders (4,6):
Diversity;
Objectives and interests;
Performance capacity</th></tr>
<tr><th colspan="2">Interactive Methods</th><th>Network Structure(10)</th></tr>
<tr><th>Nature of linkages(5)</th><th>Types of linkages (9)</th><td rowspan="2">Resources: power, status, legitimacy, knowledge, information, and money;
Perceptions that orient stakeholders in the interpretation and evaluation of their course of action and also that of other stakeholders
- Prevailing and changeable, fruit of the interactions and that regulate the behavior of the stakeholders.</td></tr>
<tr><td>Recognition (acceptance of the other as a potential partner or interlocutor)
Knowledge (knowing what the other is generates interest and opens possibilities that others complement this perspective)
Collaboration (requires and generates reciprocity, imposing concrete actions and opening opportunities for new networks)
Cooperation (sharing activities and resources requires and generates solidarity, even if the stakeholders have specific interests)
Association (common projects that require and generate trust, level of deepening of bonds in which trust favors new projects, which is a prerequisite and product of action)</td><td>Personal (personal relationships);
Familiar (family ties, including those acquired);
Institutional (strictly working relationships)
Political (political-partisan relationships and ideological alignment)
Business(relationships involving money)</td></tr>
<tr><td colspan="3">Nodal Points(4,6):
Internal agreement spaces;
External coordination channels</td></tr>
</table>

Source: Own elaboration. Adapted from authors (4-6,9,10).

Results and discussion

Stakeholders' diversity and the dynamics of relationships in health governance

The identification of health managers, municipalities, and states, together with the Council of Municipal Health Secretaries (COSEMS) and the Ministry of Health as the primary stakeholders of regional governance was unanimous since they are the health authorities with the highest responsibility for the Unified Health System.

The regional differentiation aspects entail the inclusion of other stakeholders, such as public, private or contracted providers, significantly in the metropolitan region, and the armed forces and the indigenous health subsystem (Indigenous Health Districts-DSEI), NGOs and international bodies in the border region.

Legislative stakeholders and bodies (councilors, members of Congress, senators) of the external control bodies (Court of Accounts and Public Prosecutor's Office) have a direct relationship with managers, although they do not participate in the formal spaces of co-management. Drug trafficking was mentioned as an essential network in the border region, concerning the consequences of its action in the health sector. The health councils are deliberation spaces identified in the intermediation of interests with the management, although with caveats as to their performance.

In Figure 1, we attempted to synthesize the main stakeholders identified in the relationship with the managers, involved to a greater or lesser degree with the regional governance process, adopting "Stakeholders – Diversity" as the primary category broken down by health region, highlighting specific social networks of some stakeholders.

In the next block, we will show how the principal stakeholders interact at different levels of organization of the SUS, in collegiate spaces, and which other stakeholders and spaces are part of its social network in the management process.

- *Ministry of Health: inducer or constraint of local management?*

The Ministry of Health plays a leading role in the induction of health policy agendas with other levels of government, from formulation to

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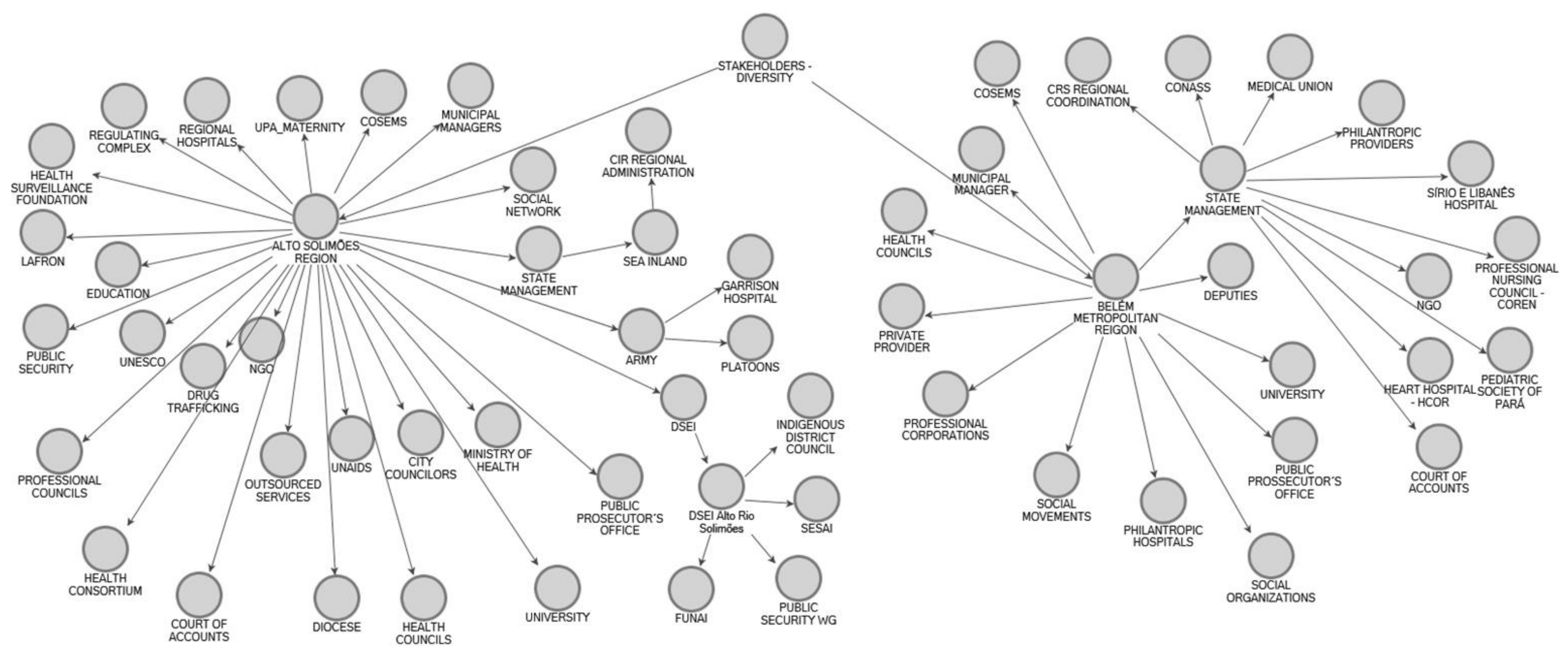

Figure 1. Stakeholders diversity in health governance - Alto Solimões and Belém Metropolitan Regions.

Source: Own elaboration.

setting parameters and rules for the implementation and definition of sources of resources.

While respondents recognized that the Ministry of Health must advocate for the implementation of the SUS principles nationwide and curbunequalaccess to health, some limitations have been highlighted as to their way of operating.

It was mentioned that the technical areas of the Ministry of Health are not internally integrated and there is little flexibility in the territorial specificities of states and municipalities. Analyzing the Ministry of Health's intervention model (1990-2000), Machado[11] pointed out that one of the main characteristics found is the fragmented process of conducting health policy and the low level of integration among the areas, preventing the identification of a national project for the health system. Despite the changes of managers and teams over the years[12], this was one of the characteristics reiterated among the respondents in the two regions studied.

The investment axes defined at the central level are not articulated with the needs of the regions. It was quoted in the interviews that the Ministry of Health attempts to induce proposals in regions at more advanced stages of organization on a specific theme, based on the existing supply capacity and structure, to the detriment of those that would require more investment to achieve the established standards and to qualify for adherence.

One aspect that constrains management in the various health system organization levels is that the Ministry of Health was modifying over time and new priorities instruments and guidelines of the projects whose other entities of the federation were induced to join. The changes in the "rules of the game" implied "back-and-forth" flows, generating wear and rework for managers and technical teams, in addition to raising uncertainties.

The regional differentiation versus general rules defined by the Ministry of Health to ensure some "uniformity" in the objectives and the implementation of the policy end up clashing. Financing priorities are defined according to its technical analysis, so situations where the rules established constrain local management are real. The reasons why they do not fit the regional specificities are notorious: demand x supply capacity; existing infrastructure; available human resources (medical); dispersed population; logistical aspects, etc., restricting the possibilities of adherence. The cost of implementation in the region also affects coordination and planning and has not been considered by the Ministry of Health, as in the argument below:

Moreover, the colossal node, which is not just of the networks, is always the same one: the national mismatch in the organization of the system! There is no regional look at the country; we do not look at the country as it is, where each region has specificities that the Ministry of Health does not respect, either in co-financing, the care structures or investment costs where the work's square meter is national. They don't want to know if bricks and cement arrive only by raft in the area. Besides being unaware...rather, not willing to consider, because they know this fact, but they do not consider it. Then you have the regional specificities that networks should have a look at, and also do not look at. (CG-Met-5).

As for the system management's role[11]*, some functions, such as planning, have lost momentum during the study period, which may be related to the contingencies of the federal government's political crisis and its implications for the management and direction of priorities in this area*[12]*. The analysis also signaled a weakening of the regionalization induction agenda, with priority being given to the organization of the system by thematic networks*[13]*, in the 2015-2016 period.*

- *The State Manager: mediator of regionalization?*

Considering that state management plays a decisive role in strengthening regional coordination capacity[14] and that the Bipartite Interagency Commission (CIB) has been designated as a privileged forum for decision and negotiation, we submit the results combining the role of the state manager for the regions and the dynamics of interactions between him and the other stakeholders, identifying other interlocutors and forums.

State management and the border region

The coordination of inland regions by the state management is performed by a structure that includes a specific care office (SEA Interior) and regional management offices that provide essential technical and political support for the regions, municipal managers, but also other players such as mayors and councilors, who rely on this structure to seek information on transfer of funds, formulation of parliamentary amendments in the area, among others. The fiscal and political-institutional crisis experienced by the state government strongly affected the performance of state management and its regionaliza-

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tion coordination role. In the border region, it was agreed that this performance was stronger in the 2011-2015 period.

Several stakeholders were mentioned concerning their importance in the articulation of resources and services in the region. An essential stakeholder with whom the state management must interact in support of the border region is the Army, given the existence of a hospital structure – the Garrison Hospital that is a reference for the entire region. The State is without governance in the management of this service and faces some problems in this relationship with the need for renegotiation at each change of direction. Navy and Air Force are essential partners for conducting campaigns, servicing the riverine population, among others. The Civil Defense appears as strong support for managers, especially in situations of ebb (dry) rivers.

Some SEA Interior stakeholders have a strong influence in and for the border region, either by their history of performance, recognition of their role by the managers and even by bonds of friendship and family origin. The CIB minutes revealed that even in the context of containment, the border region remained a priority concerning the apportionment of resources and strategies for policy implementation.

In the mapping of the social network, the then Secretary of the SEA Interior mentioned regular and frequent interaction with the managers of the municipalities of the border region, with the directors of the primary services (UPA, Maternity, and Regional Regulatory Complex), in cooperative or association relationships. Rovere[5] argues that relationships of this nature presuppose the understanding and questioning around a collective problem, with shared activities, with solidarity as a symbolic circulating value. The association, in turn, is based on trust values, which favor the establishment of contracts and shared resources. According to the respondent, the primary resources exchanged in these relationships are information, service provision and influence (power). This stakeholder mentioned the existence of a virtual social network, through which he and several municipal or service managers of the region with which he has relationships of friendship interact and articulate, also discussing management aspects.

SEA Interior regional management, which supports state management actions in the region, mentioned in its own social network intense interaction with managers, but also with mayors, councilors, and COSEMS, recognizing that these stakeholders have resources and legitimacy in the region and provide services among the municipalities. It also mentioned, within this network, cooperative relationships with the Army, in general, to offer services, with sporadic contacts and in specific situations. In the same circumstances, but in cooperative relationships, the state secretariat of education and universities were mentioned in its network to obtain the resource information related to training and telemedicine projects. The foundation of health surveillance and indigenous health make up with the public ministry partnerships to exchange information, with more regular contacts in the first two cases and specific situations, in the third. Despite the mapping of networks with other stakeholders of state management, we show the two most representative for the region.

State management and Belém's metropolitan region

The state management of the health secretariat of Pará (SESPA) consists of a collegiate manager, with representatives with seats in councils and various interagency committees. The state coordinates regions through regional health centers (CRS), an area of administrative supervision, to support municipal management and regional interagency collegiates (CIR), equipped with the following technical areas: surveillance, regulation, education and primary health care. Within the SESPA governing body, a member was appointed for joint coordination of the CIR with the presidency of each CRS.

The state manager was able to form coalitions that favored its performance and induction of priorities through agreements and synergies. The strong performance in the bipartite interagency committee (CIB) favored decisions, processing of agendas and articulation with municipalities in demands for the Ministry of Health. This was a big space for discussion and management negotiations and its qualification, through discussions conducted by SESPA's technical areas. The CIB technical chambers are called in to solve technical aspects, issues or lack of consensus. Pre-CIB meetings between COSEMS and technical teams take place to pre-process topics.

Concentrating referral services to the entire state, the metropolitan region harbors interests of other regions and several internal agreements suffer the effects of veto players in other spaces. The design of the service network extrapolates the contour of the health region.

State management seeks to articulate with civil society stakeholders such as non-governmental organizations, associations of people with health problems/diseases, scalpel female victims' associations, nonprofit hospitals for the development of training or planning projects, among others. It also highlights its relationship with councilors and members of Congress through which it seeks to influence, providing guidelines on aspects of the health policy to avoid parliamentary amendments (EP) detached from the needs of the local SUS.

The social network of a member of the state management collegiate was mainly articulated with stakeholders related to the provision of services, such as hospital management, under the management of social organizations, private or nonprofit providers, to enable the provision of services and information, and mainly power or legitimacy with the professional entities. Also, this stakeholder interacts with other spaces of articulation, such as technical forums, related to thematic areas of the health sector, which integrate sectoral and extra-sectoral stakeholders. However, there was little mention of their interaction with municipal managers, except concerning the collegial spaces established. Other respondents of state management interact and compose their social network according to the thematic areas in which they operate (teaching, permanent education, thematic network) and the representativeness of other segments in these areas.

COSEMS stood out as an essential partner for state and municipal management, albeit with differentiated support methods by state. Corporations and professional entities also stood out, sometimes as partners, in committees and technical forums, sometimes acting corporately in an apparent conflict of interest with SUS management. Another prominent stakeholder was the Public Prosecutor's Office, not only for its role in the judicialization but also for having a closer relationship with the managers, with support for resolving issues. Chart 3 summarizes the main negotiation spaces and other channels/stakeholders of articulation and ways of interacting of the state managers of the two regions studied.

- *Municipal manager: fire extinguisher or regional planner?*

The health officials responsible for the municipal health system face a series of setbacks in their daily lives, often lacking the resources and means necessary for management. As might be expected, some difficulties are common to managers of the two regions, considering the political, institutional, financing aspects and the design of universal policies for the organization of integrated care networks.

In the following topics, we attempted to show some general characteristics of the regions that significantly influence the functioning of the SUS, as well as the performance of these managers and their interaction, especially in the regional intergovernmental meetings.

Municipal management in the border region

The health region of Alto Solimões consists of nine municipalities, a territory with vast territorial extension, significant population dispersion, in which rivers are the principal means of connection and accessibility. The primary economic activity is concentrated in the primary sector, and the low-income and low-education population has limited education and professional integration possibilities.

This region is characterized by being a triple border with two other Amazonian countries: Peru and Colombia. According to Viana et al.[8], the international border areas are characterized as geographical situation by the use of territorial, military and geopolitical control strategies; access difficulties; diverse and overlapping norms (distinct government areas and spheres); international flows and networks (people, materials, symbolic – legal and illegal); instabilities and conflicts; different stakeholders and networks with a diversity of interests (*challenging the sovereignty of the State*); cross-border interactions (page 234). The empirical research carried out in the Alto Solimões region revealed the presence of all these variables. The region is also characterized by the specificities of the forest peoples (riverine, indigenous, rubber workers and gold miners).

The armed forces, especially the Army, have a strong presence in the region throughout the international border, establishing a range of stakeholders with which health managers interact. The central articulation occurs with the already mentioned Garrison Hospital, whose relationship fluctuates between cooperation and conflict, depending on the understanding of the unit's director on the role in the regional care network, reflecting the problems of a segmented health system. The nature of a less proximal and more conflicting link with the management of this service in the social network mapping of several

Chart 3. Negotiation spaces and Channels of coordination of the State Manager in the Alto Solimões and Belém Metropolitan Regions.

Amazonas State Management	Pará State Manager
Internal Spaces of Agreement	
CIB - Onset of the performance of Technical Chambers. Frequent and high-quality interaction (involvement of all in all matters related to sector policy)	**CIB -** Prior meetings expedite the processing of topics and approval of resolutions. It has technical chambers and is strongly supported by technical areas of SESPA. Frequent interaction and involvement of all in matters related to sector policy. Addressing regional and municipal issues.
COSEMS - Strong support to municipalities. An organization with regional supporters. Seminar to guide new managers.	**COSEMS -** Strong performance in the CIB and CIR of the metropolitan region. Support to municipalities. Participation in technical chambers. Regulates the performance of state management. Prioritization of municipal management issues.
CES - Explicit conflict with CIB – Problems in understanding competencies and scope of action. Seminar with SUSAM's resources, but without conditions to provide in loco support to the municipalities for lack of financial resources.	**CES -** Cited as an arena of internal conflict of interests of the different stakeholders (including private providers). Good relationship with the State Management, but with the possibility of co-optation.
CIES - In the initial stage of discussion in the CIB. No mention to CIR or by managers.	**CIES -** State management agenda. Comprised of municipal health and education managers, technical and higher education institutions (public and private), educational hospitals, professional unions, social movements, associations of patients with chronic diseases and transplanted, AIDS NGO, municipal health councils (segment users of 4 municipalities in the metropolitan region). Strongly regionalization-oriented.
External articulation channels and other extra-sectoral stakeholders	
CONASS, CONASEMS, Civil House Office Articulation to obtain/regularize resources; Articulation to compose the PNAB review team.	**CONASS, CONASEMS, Civil House Office** Articulation to obtain/regularize resources. Proposed flexibilization of municipal funds (financing blocks) submitted for analysis of MS and control bodies.
Oswaldo Cruz German Hospital, HCOR Regionalization projects (not covered in the regions), hospital management and professional training	**Oswaldo Cruz German Hospital, HCOR** Regionalization projects (not covered in the regions), hospital management and professional training.
Legislative Articulation for investments in the sector through Parliamentary Amendments.	**Legislative** Articulation for Parliamentary Amendments.
External control bodies Public Prosecutor's Office, Court of Accounts – external control of the management with modification in the conduction of contracting Health Social Organizations.	**External control bodies** Interinstitutional Committee for administrative resolution of health demands (CIRADS) (State Management and Institutions for external and judicial control).
Armed Forces / Civil Defense Partnerships to ensure the implementation of policies, especially considering specifics (logistics, river flow, riverine and dispersed populations, environmental and military protection areas)	**Nagan, mortality committees, technical forums.** Inter-sectoral articulation with a diversity of stakeholders:
Universities Telemedicine, Telehealth.	**Civil society** Association of carriers of diseases – Chronic Renal patients, Scalped Women's Association.
	Private providers (OSS managers of state hospitals: IDESMA, PRÓ SAÚDE, INDSH). Pressure to increase SUS table; renegotiations in the face of delayed payment.
	Professional bodies (Union of physicians, COREN, cooperative of specialists. Corporate perspective. Pressure for readjustment of SUS Table; organization in blocks; migration to cities that pay more.

Source: Own elaboration.

respondents was mentioned as one of the main elements that made management difficult.

This relationship is less tense and more collaborative with the commanders of the battalions, especially in medical surveillance and rearguard actions in areas of difficult access, subject to the municipal manager's capacity of articulation.

Drug trafficking is an essential network throughout the border region. The easy access between countries and the weak oversight of the flow of goods and people contribute to the maintenance and expansion of their activities. Although there is no direct relationship with this network, the nature of its activities implies a myriad of problems that local managers must face (violence, drug dependence, high incidence of STI/AIDS and other communicable diseases), with an impact on the organization of health care.

The design of health systems in border countries, with insufficient access and coverage results in the search for care in the SUS, burdening the physical/financial programming of Brazilian municipalities. Several Peruvian and Colombian strategies have been reported in the search for care in the Brazilian public health care network, from marriage (including the indigenous population) to obtaining a Brazilian national identity card in the electoral period.

Respondents mentioned actions of the federal government for bilateral cooperation agreements between countries, but no objective measure for joint border action in the health sector materialized. Several managers perceive that this articulation would be strategic for the region to coordinate efforts through spontaneous demand, prevention and surveillance actions and, perhaps, in the construction of some agreement that facilitated the payment or contracting of medical specialties of the frontier countries, whose access is undeniably easier and faster when compared to the route to capital Manaus. Nonetheless, informal partnerships of border countries with the health sector were mentioned by two municipal managers, mainly for surveillance and vector control actions.

Concerning the service network, 100% of the population are SUS users due to the unavailability of private sector services. The structure of health services in the municipalities consists of basic care units, small hospitals, as well as an emergency care unit and reference maternity unit for childbirths. A regional regulation center, diagnostic support by telemedicine and SAMU 192 are available and are being implemented in municipalities despite costing difficulties.

The region of Alto Solimões is characterized by the concentration of indigenous people, which corresponds to 30% of the regional population. Three indigenous special health districts (DSEIs) cover the entire indigenous population of the municipalities in the region. DSEIs have traditionally functioned independently of local municipal management, with their own financing, organization, and coordination. The relationship between managers of both "systems" has been facilitated by including DSEI coordinators in the CIR, but they are still often marked by tensions and conflicts, with different understandings about responsibilities, roles, and flows. As DSEIs face their problems in managing indigenous health care, it is not surprising that coordination has its social network. The mapping of the network with one of the coordinators revealed links with government bodies designated to manage indigenous interests, including the specific sphere of the Ministry of Health, but also with other stakeholders such as the Public Prosecutor's Office, which is vital for the exchange of information and knowledge in judicialization situations; municipalities and members of Congress, taking into account the possibility of obtaining financial resources and political support to facilitate specific demands; and a strong articulation with the Navy for guidance and exchange of information, fundamental in establishing technical parameters for the purchase and habilitation of the indigenous urgency network's boats.

The relationship between mayors and health secretaries can be conflicting with local party politics and the relative lack of autonomy of managers in the use of resources for the SUS. One respondent reported that it was easier to manage with the resources earmarked and subjected by the Ministry of Health, despite the setbacks of its rigidity. However, all said that party politics does not interfere in the relationship between the secretaries, even when the mayor's party is divergent. This would be due to the history of the stakeholders who occupy this position and who, even when leaving their mandate, continue to hold other positions within the region, keeping ties of friendship and the accumulation of the path of regional health policy discussions. Some respondents say that maintaining this legacy in the region would be one of their greatest strengths and contributed to reinforcing the social network among them, now also mediated by an instant messaging application.

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Municipal management and the metropolitan region

The metropolitan region consists of five municipalities, among them the state capital (PA), the municipality of Belém, with 25% of the population of the entire state, mostly dwelling in urban areas. The region concentrates the state's most extensive network of medium and high complexity services, and all municipalities are enabled in fullsystem management.

The state capital has the largest gathering of services, hospitals, and health education institutions. Despite party alignment between municipality and state government, relationships between municipal and state management are not always consensual, and there are different understandings regarding the responsibility for the management of specific services.

Some respondents of the regional center and state management have stated that,in general, the municipalities of the metropolitan region are forthcoming and available. It was considered that the metropolitan CIR was advancing, with discussions pertinent to the municipalities of the region and even under the logic of regionalization (which was not observed in the minutes). However, it was highlighted that one of its weaknesses was the discontinuous processes defined in this space, resulting from delay or non-resolution within the CIB space. Another aspect referred to the independent position of the capital, conducting its actions following its interests, more "unwelcoming" to the performance of external stakeholders. Differentials in service provision show that although it consists of a small number of municipalities, the region has an internal diversity that distances them regarding resources and installed capacity.

The municipal secretariat team in Belém was seeking to discuss the issue of regulation regionally but acknowledged that it was necessary for municipalities to have their internal systems articulated and with organized flows. The team claimed that the capital needed to function as an "open door" to demand from other municipalities including other health regions. Attempts to negotiate had been made with other mayors and secretaries to organize this flow, but still unsuccessfully. The interview with the coordination team of the capital revealed the interaction of the health secretariat with universities, groups conducting thematic networks, an inter-organizational network related to the municipal intersectoral project and collegiate spaces and sector forums in which the members of the secretariat have seats. Worth highlighting was the articulation with the Interagency Committee for the Administrative Resolution of Health Claims (CIRADS), a forum created to avoid the judicialization of cases, resulting from the partnership between several institutions, such as the Court of Justice, the Attorney-General, the Public Prosecutor's Office and managers.

Unlike the border region, the metropolitan region has a critical public-private mix underpinning its service network, characterized by intense and tense relationships with providers, partnerships with nonprofit entities and social organizations. Reflecting this situation is that the priorities in the CIR meetings revolved around the qualification or contracting of hospital services, medium complexity and diagnostic support within the thematic networks. These moments did not promote further discussions about planning or the organization of the health system at the regional level.

Like the border region, it was pointed out that party political interests affect neither CIR's performance nor the interaction between managers. Chart 4 summarizes the main negotiation spaces and other channels/stakeholders of articulation and interacting ways of the municipal managers of the two regions studied.

Final Considerations

Different regional governance policy networks were observed. In the metropolitan region, stakeholders' diversity is rather related to the capacity of articulation of the state and capital in the implementation of policies. As they both exert power, they influence and decide the referral of health issues in the region, which ends up being expressed regionally, even if such diversity is not seen in the regional shared management space (CIR). The predominant interaction with the private, covenanted, professional corporations and unions segments points out the relationships in a situation where the service network is heavily reliant on the private sector.

One limitation of this study was the impossibility of interviewing the other health secretaries of the metropolitan region and mapping with them their social network. Thus, we are restricted to the discourse of the capital's municipal management. In any case, it can be assumed that due to the privileged position of the municipality of Belém concerning financial and political resourc-

Chart 4. Negotiation spaces and Channels of articulation of the Municipal Manager in the Alto Solimões and Belém's Metropolitan Regions.

Municipal Management Alto Solimões Region	Municipal Management Belém'sMetropolitanRegion
Internal Spaces of Agreement	
CIR - Supported by the Inland Executive Secretariat and regional management. Attempt to prepare regional projects and Consortium support. Without technical chambers. Dynamics of relationships: 2015 - HIGH QUALITY, FREQUENT INTERACTION (interaction of all in all matters related to the sectoral policy) / 2016-2017 - INFREQUENT (contacts with varying frequency and intensity). Change in coordination and contingencies of state management weakened space as a forum for negotiation. Possible replacement of discussions for group formation in a social network (faster and without the difficulties of travel among managers). Guidance for regional issues, although agendas guidelines for the qualification of services or approving projects are found. It ranges from orientation to regional issues and municipal management.	**CIR -** PPriority for municipal management issues. Supported by state regional structure and technical chambers. Weaknesses in resolutions due to the discontinuity. High dependence on CIB for processing topics with scope for other regions. Technical chambers with low-resolution potential. Dynamics of relationships: contacts vary in frequency and intensity with alternation of managers in meetings and some situations, cancellation due to lack of quorum.
CIB - Participation of former CIR coordinator in this space ensured that the interests of the region remained represented in this space. Delays in the decision-making process regarding issues deliberated in the CIR.	**CIB** - Five components of the Metropolitan CIR with seats. Limited autonomy of the capital in the relationship with providers that include service to other municipalities, especially outside the metropolitan region. Dependence of consensus in the CIB to facilitate proposals/arrangements/reformulations because the care network coverage exceeds the limits of the region.
COSEMS - Strong support to municipalities established by direct relationships between COSEMS and municipal managers. Recognition of the critical role of the presidency (reelected) and the sponsor in guiding managers and conducting processes.	**COSEMS** - Strong relationship of managers with COSEMS. Facilitated by the access and representation of COSEMS in the CIR. Negotiations between secretaries and COSEMS without going through the intermediary of CIR. Objectives of articulation also with border municipalities that are not part of the region.
Municipal Health Councils – Long stay in the cadre leading to the advocacy of corporate or clientelist interests. Difficulties in the managing performance.	**Municipal Health Councils –** Little information in this respect, but strong performance of two councils of the municipalities of the region with involvement in regional issues/agreements coordinated by the State identified.
Public Consortium – ASAVIDA Little priority of mayors. Lack of guarantee in the transfer of municipal resources to ensure infrastructure has created difficulties for its full operation and discredit vis-à-vis the strategy of joint procurement of medicines with managers. New management: attempt to revive its operation to recruit human resources – medical specialties.	**Teaching-Service Integration Commission (CIES)** Regional Commission for the Metropolitan region, linked to CIR for the implementation of the regional continuing education policy. Representation established in CIR resolution to ensure participation and to avoid modifications of the group's components. Throughout 2016, beginning of the process to elaborate the regional continuing education plan. Strong leadership of the CRS team and state management.
Indigenous Health Subsystem (DSEI) – Relationship of strong interdependence, with varying degree of conflict.	**Regional Health Center (Metropolitan CRS 1) –** Requests not answered by regional technical support made to CIR. Performance of technical areas strongly oriented to the municipalities although some are oriented to the region. Ability to understand regional issues relative to the boards.

it continues

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Chart 4. Negotiation spaces and Channels of articulation of the Municipal Manager in the Alto Solimões and Belém's Metropolitan Regions.

External articulation channels and other extra-sectoral stakeholders	
Interfederative Coordination of HIV / AIDS Mentioned by some managers of the region. No reference in the CIR. This is interdepartmental cooperation established by the Ministry of Health to build an agenda among the three governmental spheres to respond to the epidemiological situation of STIs, HIV/AIDS, and viral hepatitis. Focus on prevention actions for vulnerable populations, increased capacity and efficiency of health services expanded access to rapid diagnosis and improved management.	**Inter-institutional Committee for Administrative Resolution of Health Claims (CIRADS)** State Management, municipality of the capital and institutions of external and judicial control. Articulation of municipal management, with the State, to address with issues brought to justice, with the renewal and reorientation of processes with municipalities, supported by external control agencies.
Ministry of Defense Army Battalions: Articulation with battalions of the Armed Forces for disease prevention and control actions. Garrison Hospital: Difficulties to ensure reference to hospital linked to the Ministry of Defense	**Universities** Education; internship; residencies.
Municipal health secretariats of border countries Personal articulation of some municipal managers especially for communicable disease surveillance, prevention, and control activities.	**Social organization -** private providers Lack of transparency regarding the set of actions provided, professionals and other providers recruited, regional references and contracting process.
Professional bodies – especially medical and nursing councils: Difficulties with corporate requirements regarding education, qualification, and performance - doctors and nurses. Supervision of recruitment processes and scope of action of doctors and nurses.	**Professional bodies:** Divergences between corporate interests X SUS interests.
	Belém Pact for Life Project (Belém municipality) Councils of diverse sectors, federation of therapeutic communities, UNICEF, SENAD, religious entities, NGOs, Court of Justice, Public Defender's Office, Public Prosecutor's Office, social welfare, sports, culture and leisure secretariats, etc.

Source: Own elaboration.

es, the coordination team would be much more articulated with other segments, which was not observed at the press conference. The other secretariats of the region were also not mentioned in the network of this coordination team, which seems to have a more internal performance, probably absorbed by the set of daily tackled problems. The articulation of the capital with other sectors and managers was more evident in the documental analysis and Internet sites, and social networks consulted in the impossibility of interviewing the secretary, and we can suppose that he may have a more comprehensive social network in the management process that we were unable to retrieve.

In the region of Alto Solimões, this policy network mainly consists of stakeholders from different, governmental or non-governmental sectors, given their territorial specificity, so that-NGOs (AIDS prevention, STIs, Hepatitis), the State Education Secretariat, the Armed Forces, the Public Prosecutor's Office, the Indigenous Health Subsystem and, in some cases, municipal health secretaries from neighboring countries were included in the social network of municipal managers. With the emptying of CIR, despite the situation of interdependence among municipal managers, these managers are working in isolation in the region and their social network is established according to the individual capacity of

articulation and the sectoral course in the region. The nodal points consist of technical forums, facilitated mainly by COSEMS and the state secretariat, and at the local level, by internal spaces of agreement, following the institutional design of the health sector.

The specificities of the North region are an essential differentiator regarding the overpriced cost of implementing the policies, and the parliamentary amendments have been used as a way of "circumventing" criteria established in the federal legislation, besides becoming a vital investment channel for the sector. Members of Congress of the allied bases are an essential channel in the relationship of governors, mayors, and secretaries to facilitate financial resources in both regions. This brings to the fore relationships between stakeholders of the state and the legislature that are established in spaces other than those of negotiation established for the SUS, with little control on the dynamics of mutual interests.

The bias of the hierarchical coordination remains with the Ministry of Health's work when defining priorities, deadlines and conditions disregarding the State's capacity of analysis and definition, the existing infrastructure, and availability for implementation, with little room for readjustment by the municipalities and states. These aspects are related to the discussion on intergovernmental relationships and mainly regarding the federative pact.

Stakeholder Ministry of Health, when intervening, seems to privilege regionalization as a tool, an instrument of regional organization, emptying the concept of region and depriving it of its social and political determinations[15]. The regional approach, although incorporated in the narrative of the federal government, does not seem to grasp that the health region is the place of other regionalisms, an expression of its adjustments with social and historical determinations and ways of social appropriation[16]. The approach to the social network of managers and technicians suggests that the region and the municipality single out technical processes, leading them to seek partners and spaces, besides those established, to weave strategies more closely related to reality.

Virtual social networks consisting of managers have become an essential channel of communication concurrently with the cooling of institutional spaces in the face of the low formalization of decision processes in these arenas.

Collaborations

AO Casanova, L Giovanella, and MM Cruz worked on the design, data analysis and interpretationand the paper's e drafting. MFCF Ferreira worked on the paper's critical review.

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References

1. Mello GA, Pereira APC de M, Uchimura LYT, Iozzi FL, Demarzo MMP, Viana AL d'Ávila. O processo de regionalização do SUS: revisão sistemática. *Cien Saude Colet* 2017; 22(4):1291-1310.
2. Marques E. Government, political actors and governance in urban policies in Brazil and São Paulo: concepts for a future research agenda. *Braz Polit Sci Rev* 2013; 7(3):8-35.
3. Brasil. Ministério da Saúde (MS). *Implantação das Redes de Atenção à Saúde e outras estratégias da SAS*. Brasília: MS; 2014.
4. Fleury S, Ouverney ALM. *Gestão De Redes: A Estratégia De Regionalização da Política de Saúde*. Rio de Janeiro: FGV; 2007.
5. Rovere M. *Redes en Salud. Un Nuevo Paradigma para el abordaje de las organizaciones y la comunidad*. Rosário: Secretaría de Salud Pública/AMR, Instituto Lazarte; 1999.
6. Hufty M, Báscolo E, Bazzani R. Gobernanza en salud: un aporte conceptual y analítico para la investigación. *Cad Saude Publica* 2006; 22(Supl.):S35-45.
7. Hufty M. Gobernanza en salud pública: hacia un marco analítico. *Rev Salud Pública* 2010; 12(Supl. 1):39-61.
8. Viana ALD, Ibañez N, Elias PEM, organizadores. *Saúde, desenvolvimento e território*. São Paulo: Editora Hucitec; 2009. (Saúde em debate).
9. Marques E. *Estado e redes sociais: permeabilidade e coesão nas políticas urbanas no Rio de Janeiro*. Rio de Janeiro, São Paulo: REVAN, FAPESP; 2000.
10. Klijn E-H, Koppenjan J, Termeer K. Managing Networks in the Public Sector: A Theoretical Study of Management Strategies In Policy Networks. *Public Adm* 1995; 73(3):437-454.
11. Machado CV. *Direito universal, política nacional: o papel do Ministério da Saúde na política de saúde brasileira de 1990 a 2002*. Rio de Janeiro: Editora Museu da República; 2007.
12. Machado CV, Lima LD, Baptista TWF. Políticas de saúde no Brasil em tempos contraditórios: caminhos e tropeços na construção de um sistema universal. *Cad Saude Publica* 2017; 33(Supl. 2):e00129616.
13. Carvalho ALB, Jesus WLA, Senra IMVB. Regionalização no SUS: processo de implementação, desafios e perspectivas na visão crítica de gestores do sistema. *Cien Saude Colet* 2017; 22(4):1155-1164.
14. Reis AAC, Sóter APM, Furtado LAC, Pereira SSS. Reflexões para a construção de uma regionalização viva. *Cien Saude Colet* 2017; 22(4):1045-1054.
15. Egler CAG. Questão regional e gestão do território no Brasil. In: Castro IE, Gomes PCC, Corrêa RL, organizadores. *Geografia: conceitos e temas*. Rio de Janeiro: Bertrand Brasil; 1995. p. 207-238.
16. Ribeiro ACT. A natureza do poder: técnica e ação social. *Interface (Botucatu)* 2000; 4(7):13-24.

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