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The Perception of Health
Care Professionals and
Managers about
Resource Allocation in
Primary Health Care in
Minas Gerais State
Municipalities

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#### **Abstract**

This study aimed to examine and describe the perceptions of health professionals and managers about the main phenomena that influence resource allocation in primary health care. Adopting a qualitative approach, the field research was carried out in ten municipalities in Minas Gerais and involved eleven focus groups, six interviews and two semi-structured questionnaires in 2014 and 2015, and nine focus groups and five interviews in 2018, in which participated a total of 133 health professionals and managers. Other sources of evidence were also included, such as non-participating observations, photographs and documents from the Minas Gerais State Health Secretariat and the Ministry of Health. Based on the content analysis, eight categories of phenomena that influence resource allocation in PHC were obtained, derived from daily interactions between the population and health professionals and managers. Our findings show that primary health care is in a process of institutional change, dependent on the validity of actors and

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institutions, at different institutional levels. Among the determining factors affecting resource allocation in PHC, the main ones are the agency of the actors involved, the health service flow, the private sector, the medical corporatism, the influence of politicians, the municipal management capability, the infrastructure and groups of specific individuals.

**Keywords**: primary health care; public finances; public policy; institutional levels.

### Introduction

Health care is a fundamental human right and a duty of the Brazilian State. The set of health actions and services provided at federal, state and municipal levels constitute the Unified Health System (SUS), which has the constitutional mandate to provide assistance to people through actions aimed at health promotion, protection and recovery. SUS' health actions and services are organized in a regionalized, hierarchical manner and at increasing levels of complexity. Primary Health Care (PHC) is the first level of this regionalized hierarchical system and the gateway to the SUS, financed through a tripartite arrangement (Brasil, 1990, 2017).

PHC, also known in Brazil as basic health care, is currently the focus of debates on the SUS' economic viability, especially after the 2000s. PHC can be described as a form of health care system organization that has among its purposes: resolution to health problems, integrality of care provision by the Health Care Network (RAS), equity, individual empowerment, social engagement, prevention of complications and health promotion (Brasil, 2017; Cardoso et al., 2013; Carvalho, Rossato, Fuchs, Harheim, & Fuchs, 2013; Mendes, 2015).

The 2017 National Primary Health Care Policy defines primary care as the set of individual, family and collective health actions that involve promotion, prevention, protection, diagnosis, treatment, rehabilitation, harm reduction, palliative care and health surveillance, carried out by a multidisciplinary team and aimed at the population of a specific territory (Brasil, 2017).

Considering the changes in the organization of the SUS resulting from the priority given to PHC in the 2000s, which was reinforced by the 2017 National Primary Health Care Policy, this study focuses on four topics to address our research problems. First, the Brazilian health care system's model has historically focused on spontaneous demand, service provision and outpatient and hospital care (Mendes, Leite, & Marques, 2011; Menicucci, 2003). This model coexists and conflicts with recent public PHC policies, which concentrate resources on prevention and promotion, seeking to ensure equity and integrality in the network at the expense of focusing on spontaneous demand (Brasil, 2017; Mendes, 2012, 2015; Segall, 1983; Zielinski, Kronogard, Lenhoff, & Halling, 2009).

Second, the implementation of PHC by the Ministry of Health and State and Municipal Health Secretariats was also linked to the regulation of financial transfers to municipalities related to service provision, which offered few incentives to services focused on strengthening promotion and prevention actions, as recommended by the most recent Public Primary Health Care Policies (Brasil, 2017; Castro & Machado, 2010, 2012; Mendes, 2015; Mendes et al., 2011; Santos & Rodrigues, 2014).

Third, decentralization has given municipalities the primary responsibility for the management and execution of a significant part of the human and financial resources for public health actions and services (ASPS), leading them to assume a leading role in Health Care Networks (HCN) (Campos, Hadad, Abreu, Cherchiglia, & França, 2013; Medeiros, 2013; Mendes, 2015; Ohira,

Cordoni Junior, & Nunes, 2014). However, most of these municipalities are small-sized, have historically limited access to health services, and lack the structure and qualified personnel for an adequate planning and management of these resources (Brazilian Institute of Geography and Statistics, 2011; Medeiros, 2013; Ohira et al., 2014; Pinto & Gerhardt, 2013; Santos & Rodrigues, 2014; Uchoa et al., 2011).

Finally, the fourth and last point concerns the prevalence in the academic literature on health of economic analyzes (Castro & Machado, 2010; Edwards et al., 2013) focused on macro-level governance in terms of system outcomes (Caraiola et al., 2015; Carvalho et al., 2013; Glaser, Fast, Harmon, & Green Jr., 2016; Harmon, Haack, & Roulet, 2019) and on linear determinism in resource allocation (Castro & Machado, 2010; Glaser et al., al., 2016; Harmon et al., 2019; Mendes et al., 2011). There are yet few studies examining the allocation of PHC resources from a microinstitutional perspective, with a focus on everyday interactions between people and groups of people, taking into account their meaning and agency systems (Glaser et al., 2016; Harmon et al., 2019; Jepperson & Meyer, 2011; Van Wijk, Zietsma, Dorado, Bakker, & Martí, 2019).

It is important not only to be concerned with economic viability or the increase of financial resources allocated to PHC, but also with the factors affecting the equity in local-level resource allocation, as disregarding them would just mean maintaining inequities with more resources available (Hartz, 2002; Mendes, 2015). In addressing our research topics, the New Institutional Theory (Dimaggio & Powell, 1983; Jepperson & Meyers, 2011; Powell & Dimaggio, 1991; Scott & Christensen, 1995) provides a theoretical framework in which organizations are understood as institutions affected by a variety of factors originating in different spheres of society, such as political, social, psychological, cultural, symbolic and economic factors (Alburquerque, 2002; Pereira, 2012; Senge, 2013; Scott & Christensen, 1995).

An organization's economic, political or social performance is considered to be determined by multiple institutional levels (Caraiola et al., 2015; Dimaggio & Powell, 1983; Harmon et al., 2019; Jepperson & Meyer, 2011; Saravanan, 2015; Van Wijk et al., 2019). However, most studies focus on evaluating PHC performance from a macro-level perspective, privileging the structure over the agency, especially by analyzing economic, financial data and health indicators (Carvalho et al., 2013; Edwards et al., 2013). There are still few studies that investigate, from a micro-level perspective (Harmon et al., 2019), the interaction of subjects and institutions, within PHC, which can influence public health outcomes expected by society.

Therefore, the aim of this study is to examine and describe the perceptions of health professionals and managers about the main phenomena that influence the resource allocation in PHC, in small- and medium-sized municipalities in Minas Gerais. More specifically, this study aims to investigate the phenomena of resource allocation in PHC from a micro-level perspective, pointing out the main agents, institutions and sources of institutional change that have shaped the allocation of resources in the municipalities studied, and which impact PHC outcomes. This study mainly differs from the few others that address resource allocation in PHC from a micro-level perspective by focusing at the same time on the perspective of professionals and managers who execute – put into practice – the Ministry of Health and State and Municipal Health Secretariats guidelines. There are other studies, for example, which focus on users and/or secondary data (Mendes, 2012; Pinto & Gerhardt, 2013; Uchoa et al., 2011). In addition, this study's sample is composed of professionals and managers that work in small municipalities, which are the majority in the country.

Based on our four research topics, this study addresses the hypothesis that the reorganization of the HCN after the recent introduction of public PHC policies has caused institutional changes affecting resource allocation to municipalities and municipal actors (Jepperson & Meyer, 2011; Harmon et al., 2019; Van Wijk et al., 2019). There is still a lack of studies and empirical evidence on these changes, especially from the perspective of professionals and managers involved in the daily functioning of PHC, in particular in small municipalities, predominant in the country, whose characteristics differ from those of larger municipalities, due to their historical context in terms of health care. These municipalities, which historically were the executors of policies established by states and the Ministry of Health, have been, in the last fifteen years, the main planners and managers of a complex regional network, infiltrated by institutions and actors little-known in the area of public administration (Campos et al., 2013; Carvalho, Peduzzi, Nunes, Leite, & Silva, 2014; Medeiros, 2013; Menicucci, 2003; Ohira et al., 2014; Pinto & Gerhardt, 2013; Santos & Rodrigues, 2014).

This article consists of five sections, including this Introduction. The second section presents a brief literature review on resource allocation in PHC and the context of institutional change, from a micro-level perspective. The third section explains the methods and procedures used in this study. The fourth section presents the study results. The fifth section discusses the results. In the last chapter, the final considerations for closing this phase of the study are presented.

### Resource allocation in PHC and institutional change

Resource allocation in health is a contemporary concept, due to the endless discussion about the financing and efficiency of health systems. The improvement of health systems is directly related to an adequate allocation of resources. This article addresses resource allocation as the distribution of resources in health, including financial, material, human, organizational and symbolic resources. The 2000s saw the production of a large number of studies on equitable models of financial allocation in health (Carnasciali & Bulgacov, 2014; Medeiros, 2013; Mendes et al., 2011; Zielinski et al., 2009).

Resource allocation can also be understood as the distribution of skilled professionals, medicines and equipment with a focus on the population in need of health services. It is a complex task, considering that the SUS is a hierarchically integrated system, designed to be decentralized in its provision of public health actions and services, and which coexists with the private sector and with different forms of financing (Carnasciali & Bulgacov, 2014).

In Brazil, the allocation of financial resources in public health is regulated by the 1998 Constitution; the Organic Health Law No. 8080, of 1990; the Law No. 8142, of 1990; and the Law No. 141, of 2012, focusing on resource allocation and the production and provision of health services. Among other regulations, these laws introduced the principles of fundraising for social security and of the distribution of financial resources among the entities of the Federation.

The Brazilian health system can still be considered a hybrid system, due to the coexistence of private and public provision of health care, calling into question the principles established in PHC guidelines. Meniccucci (2003) examines the coexistence of these two systems using the approach of the new institutionalism, applied to the study of public policies and the understanding of reforms, through the investigation of institutional factors. It can be said that this approach seeks to answer

the question of how social choices are shaped, mediated and driven by institutional arrangements (Jepperson & Meyer, 2011; Powell & Dimaggio, 1991). Recent studies argue that these institutional arrangements can be modeled at different levels of analysis, not restricted to structure and agency, but involving micro, meso and macro institutions (Caraiola et al., 2015; Glaser et al., 2016; Harmon et al., 2019; Jepperson & Meyer, 2011; Van Wijk et al., 2019).

Resource allocation in PHC has been going through a period of institutional change, as public policies (Brasil, 2017) have been changing how human, financial and organizational resources are allocated. The PHC model as a gateway to the health system, with multidisciplinary teams focused on prevention and health promotion, is still recent in a health system traditionally known for its focus on spontaneous demand, on outpatient and hospital care and on the provision of medical services (Cardoso et al., 2013; Carnasciali, 2014; Mendes, 2015).

To examine the context of institutional changes in PHC from the perspectives of PHC professionals and managers means to choose one institutional level over another. Just as professionals in Basic Health Units (UBS - *Unidades Básicas de Saúde*) are influenced by laws, public policies and other institutional arrangements, they also influence, shape and maintain other institutional levels (Glaser et al., 2016; Harmon et al., 2019). This approach sheds light on the substantial interdependence between multiple systems and their actors, identifying innovative solutions originated in individuals and which may produce changes in institutions (Van Wijk et al., 2019).

The analysis of institutional change from the perspective of levels of analysis has been used in studies adopting the new institutional theory. The role of individuals in the institutional process and in the social structure can be defined as positions or habitus. Every institutional macrophenomenon, in some way, is an aggregation of individual behavior (Glaser et al., 2016; Harmon et al., 2019; Jepperson & Meyers, 2011; Van Wijk et al., 2019).

Some authors have argued that there are more micro-level instantiations of social structure (e.g. social positions, habitus, routines, etc.) that are infiltrated in social structures at a higher level of analysis. There are also macro-level instantiations of agency (e.g. collective actions, social movements etc.) that are not simply the aggregation of individual behavior. As a result, actors can modify structural elements with their actions and local practices (Glaser et al., 2016; Harmon et al., 2019).

Macro- and micro-level analyzes are simultaneously present in contemporary institutional analyses. Prioritizing one over the other can lead to different assumptions, but which are valid in social construction. Institutional scholars already give priority to levels of analysis over approaches based on the structure-agency dichotomy. For example, some have focused on how macro-level meanings, such as institutional structures and logics, shape micro-level thinking and decision-making by individuals. Other scholars have addressed the issue of how the micro-level behavior of subjects can build up to change meso- and macro-level phenomena. An analysis focused on multiple institutional levels can provide a more direct explanation to how institutions change or persist over time (Glaser et al., 2016; Harmon et al., 2019).

In this study, it should be noted that the micro-level of analysis does not simply refer to the individual. When considering the nature of institutions, we can say that everything is micro in relation to something and macro to something else. Individual values are micro to routines, and to

logic, but macro to the neuroscience of decision-making, for example (Glaser et al., 2016; Harmon et al., 2019).

Levels of analysis refer to a set of causal processes, each representing different degrees of organizational complexity, also known as levels of organization and levels of complexity. Herbert Simon refers to these levels as the architecture of complexity of the social world, a hierarchy of organizational levels ranging from social-psychological processes and elementary social behaviors to various complex social-organizational and cultural processes (Jepperson & Meyers, 2011).

Institutions are understood in this article as mechanisms of articulation, which connect social interaction systems at the micro-, meso- and macro-levels of organizations with the symbolic and material reality, and the level of action with the structural level. These approaches expand the debate and show that there are other ways to explain how institutions are created, maintained and even changed. Institutional change reinforces the notion that the role of the agents of change and their behavior are combined with certain aspects of the political and institutional context to trigger institutional changes. This approach to institutional change is associated with the new institutionalism perspective, and indicates that to understand the possibilities of action of actors is necessary to address the characteristics of the institutions and the political context in which they are embedded. The perspective of gradual institutional change sees issues of power, interests and resource distribution as central analytical issues (Alburquerque, 2002; Caraiola et al., 2015; Jepperson & Meyes, 2011).

In this article, it is also understood that institutions are distributional instruments laden with power implications that, when understood in relation to the characteristics of a given political context, determine categories of actors and possibilities of institutional change. According to this approach, therefore, the structural elements of the political context and of a focal institution contain within themselves the opportunities for change (Alburquerque, 2002; Bitektine & Haack, 2015; Caraiola et al., 2015).

# Methods and procedures

This article presents the results of an exploratory and descriptive research with a qualitative approach. The research included literature review, documentary research and field research (Bauer & Gaskell, 2015; Berg & Lune, 2014; Creswell, 2014).

The documentary research was carried out by examining official state and federal government documents, shown in Table 1. The field research involved the collection of primary data through focus groups, interviews, semi-structured questionnaires with PHC professionals and managers, in addition to photographs and non-participant observation. The research subjects were invited to voluntarily participate in the study by completing the Informed Consent Form.

Table 1

Ordinances and resolutions used in content analysis

Resolution SES/MG 4,337, of May 21, 2014	Establishes the general rules for adherence, monitoring, control and evaluation of the financial incentive for the purchase of furniture and equipment for Basic Health Units (UBS)
Resolution SES/MG 4,584, of December 9, 2014	Establishes the general rules for adherence, execution, monitoring, control and evaluation of the monthly financial incentive granting process for the Family Health Strategy's Oral Health Teams.
Resolution SES/MG 4,215, of February 18, 2014	Establishes the general rules for adhesion, execution, monitoring, control and evaluation of the monthly financial incentive granting process for the Health in the Home Structuring Program.
Resolution SES/MG 4.244 of March 19, 2014	Establishes the general rules for amending the selected proposals for the construction of Basic Health Units (UBS) through Resolutions SES/MG No. 3,561, of December 7, 2012, and 3,771, of June 12, 2013.
National Primary Health Care Policy (Ordinance 2,488, of October 21, 2011)	HCN priority, guided by the principles of universality, accessibility, building of bonds, continuity of care, comprehensive care, accountability, humanization and social participation.
National Program for the Improvement of Primary Health Care Access and Quality (PMAQ) (Ordinance 2,666, of December 4, 2014)	Program aimed at promoting the expansion of access to and the improvement of the quality of PHC.
Municipal indicators from the list of Guidelines, Objectives, Goals and Indicators 2013 – 2015	Indicators from the list of Guidelines, Objectives, Goals and Indicators 2014-2015, established by Resolution 5 of the Tripartite Inter-Management Commission, of June 19, 2013.

Source: The authors.

Table 1 presents some of the ordinances and resolutions selected as complementary data for documentary analysis, considering that the health sector has numerous regulations, issued by both the federal and the state governments. These resolutions and ordinances were selected because they are a sample of the most recent regulations found as of the date when the data analysis began, in January 2015, and were incorporated into the content analysis along with other empirical data.

The primary data collection with PHC professionals and managers took place in two distinct research periods. The first stage was carried out in nine municipalities of a health micro-region in the *Zona da Mata* region of the state of Minas Gerais, in 2014 and 2015. The second stage of data collection was carried out in a medium-sized municipality in the Metropolitan Region of Belo Horizonte (MG), in the year 2018. The municipalities and PHC professionals participating in this research were selected because they were of easy access to the researchers, producing a convenience not a probabilistic sample (Berg & Lune, 2014). Table 2 presents some characteristics of the municipalities that participated in the research.

Table 2

Area, estimated population and number of health professionals in the micro-region under study

Municipality	Area (km²)	Estimated population	Number of Family Health Teams	Number of professionals
1	303.4	8,454	4	32
2	83.4	4,135	3	22
3	175.1	4,729	3	37
4	268.7	9,605	6	48
5	163.8	3,414	3	32
6	285	10,955	5	36
7	152.3	6,991	4	37
8	166.5	11,745	5	66
9	299.4	76,147	17	918
10	303.6	135,196	25	523

Source: Brazilian Institute of Geography and Statistics (2016); Brasil (2015).

Our interest in the social meanings attributed by individuals to their experiences, circumstances and situations and the focus on a micro-level analysis of PHC led us to adopt a qualitative approach (Bauer & Gaskell, 2015; Creswell, 2014; Denzin & Lincoln, 2000). The combination of focus group and individual interviews enabled an interactive process to be developed, which deepened the individual and contextual circumstances surrounding the studied phenomenon (Lambert & Loiselle, 2008).

Table 3 presents information on focus groups, interviews and semi-structured questionnaires. In 2014 and 2015, 11 focus groups and 6 interviews were conducted and 2 semistructured questionnaires were applied. The process involved 94 participants, including professionals working in PHC and in municipal health management, generating a total audio recording time of 11 hours and 20 minutes. In 2018, nine focus groups and five interviews were conducted, which included 39 participants with the same profile as the participants in the first data collection stage, with a total audio recording time of 4 hours and 40 minutes. The researchers sent a formal invitation by letter and email to all PHC professionals and managers in the municipalities where the research was carried out. The final sample of participants was classified as a nonprobabilistic, convenience sample, as not all the invited individuals accepted or were available to participate in the research. To minimize sampling biases, the researchers sought to merge different data collection formats, including focus groups and individual and semi-structured interviews, in order to enable the participation of a greater number of subjects and PHC professional profiles. At first, the idea was conducting focus groups with a multidisciplinary PHC team and health managers. In the cases where this was not possible, we sought to collect data on the perception of managers and professionals through individual interviews. If the two previous alternatives were not feasible, the subject was invited to participate in the study by completing a semi-structured questionnaire, based on the same scripts for the focus groups and individual interviews. The researchers carried out field research in cities of similar size and organizational structure, and all participating subjects worked in basic health units and all managers were in charge of the respective Municipal Health Departments.

The focus groups, interviews and the semi-structured questionnaire application were conducted using the following script: (a) importance of primary health care in the municipality; (b) weaknesses of primary health care in the municipality; (c) strengths of primary health care in the municipality; (d) situation of health promotion and prevention in the municipality; (e) additional information about the municipality's primary health care.

The recordings were analyzed together with the photographs, reports of non-participant observations and the ordinances and resolutions, using a conventional content analysis technique, as defined by Hsieh and Shannon (2005) and Berg and Lune (2014). Each recording was transcribed verbatim, including notes on important interactions observed during the focus group and the interview. The next step involved a concomitant analysis of the content of the discussions, photographs, non-participating observations, resolutions and ordinances. NVivo software was used to group in a single file the analyses of the various sources of evidence used in this study. In this technique, the coded categories were derived directly from the data, by identifying similarities in words, images and meanings.

In the content analysis process, there was no quantification of keywords or codes (Hsieh & Shannon, 2005). No individual analysis of responses was conducted, the analysis focused instead on the social construction of meanings by bringing together different sources of evidence (photographs, audio recording, non-participant observation) originating in the same observation, such as the same basic health unit or the same health team. All meanings that emerged from the analysis of the sources of evidence were taken into account and presented in the results. The criterion for highlighting a keyword in the sources of evidence was the relevance of meaning in the general context of all evidence. For this, the researchers made efforts to listen, read and observe all the collected sources of evidence more than once, before starting the search for keywords in each source of evidence, separately.

Table 3 Information on primary data collection: focus groups, interviews and semi-structured questionnaires

N	Municipality	Туре	Quantity	Participants	Duration (min)	Date
1	Municipality 2	Focal Group	4	1 physician, 2 nurses, 1 physical therapist	33 min	08/26/2015
2	Municipality 2	Interview	1	1 municipal health secretary	1 h 53 min	08/06/2015
3	Municipality 3	Focal Group	16	10 Community health agents (ACS), 1 nutritionist, 2 dentists, 2 nurses, 1 oral health technician	32 min	11/07/2014
4	Municipality 3	Semi-structured questionnaire	1	1 physician	-	08/20/2015
5	Municipality 4	Focal Group	7	1 social worker, 1 physical therapist, 1 nutritionist, 1 Primary Health Care coordinator (nurse), 3 ACS.	1 h 13 min	11/03/2014
6	Municipality 4	Focal Group	14	10 ACS, 2 nurses, 2 nursing technicians.	1 h 07 min	11/20/2014
7	Municipality 4	Focal Group	9	5 ACS, 1 dentist, 1 oral health assistant, 1 nurse, 1 municipal health secretary	46 min	11/20/2014
8	Municipality 5	Interview	1	1 physician	24 min	07/06/2015
9	Municipality 5	Focal Group	11	5 ACS, 1 nutritionist, 2 dentists, 2 nurses, 1 oral health technician.	45 min	02/25/2015
10	Municipality 5	Interview	1	Municipal health secretary	39 min	08/21/2015
11	Municipality 6	Focal Group	4	1 Family Health Strategy coordinator (FHS) (physical therapist), 2 ACS, 1 nurse	28 min	04/27/2015
12	Municipality 6	Interview	1	1 municipal health secretary	21 min	04/27/2015
13	Municipality 7	Interview	1	1 physician	21 min	08/04/2015
14	Municipality 7	Focal Group	5	1 FHS coordinator (nurse), 3 nursing technicians, 1 ACS	41 min	08/04/2015
15	Municipality 7	Focal Group	2	1 municipal epidemiology coordinator, 1 health surveillance coordinator	30 min	08/06/2015
16	Municipality 8	Focal Group	4	1 Family Health Strategy coordinator (nurse), 2 nurses, 1 municipal health secretary	21 min	08/06/2015
17	Municipality 9	Questionários semiestruturada	1	1 physician	-	04/30/2015
18	Municipality 9	Focal Group	10	1 physician, 1 nurse, 1 nursing technician, 7 ACS	19 min	08/21/2015
19	Municipality 9	Interview	1	1 municipal health secretary	27 min	08/21/2015
20	Municipality 10	Focal Group	3	Primary Health Care coordinator; 1 Family Health physician; 1 Municipal health promotion coordinator.	51 min	05/22/2018

21	Municipality 10	Focal Group	9	5 ACS; 1 nurse; 1 nursing technician; 1 general services assistant; 1 administrative assistant	22 min	05/23/2018
22	Municipality 10	Focal Group	8	1 nursing technician; 1 nurse; 2 administrative assistants; 4 ACS	15 min	05/25/2018
23	Municipality 10	Focal Group	2	2 nurses	20 min	05/28/2018
24	Municipality 10	Interview	1	BHU manager	28 min	06/19/2018
25	Municipality 10	Focal Group	2	1 nurse; 1 nursing intern	13 min	06/20/2018
26	Municipality 10	Focal Group	2	1 nurse; 1 manager	20 min	06/21/2018
27	Municipality 10	Focal Group	3	1 nurse; 2 managers	34 min	06/22/2018
28	Municipality 10	Focal Group	3	1 nurse; 2 managers; 1 ACS	13 min	06/25/2018
29	Municipality 10	Interview	1	1 BHU manager	12 min	06/28/2018
30	Municipality 10	Focal Group	2	1 nurse; 1 manager	14 min	06/29/2018
31	Municipality 10	Interview	1	1 nurse	8 min	06/29/2018
32	Municipality 10	Interview	1	1 BHU manager	7 min	09/11/2018
33	Municipality 10	Interview	1	1 BHU manager	8 min	09/12/2018
Tota	al		133		16 hours	

Source: The authors.

# Analysis of results

After conducting an analysis of all sources of evidence, the keywords were grouped into codes, which in turn were grouped into categories, according to the meanings produced. Eight categories were thus obtained for the perceptions of managers and professionals about the phenomena that influence resource allocation in primary health care, which are presented below. Although all sources of evidence were used to build the categories, due to clarity considerations we opted for presenting only excerpts from the transcripts to illustrate the meanings found. As the audio recordings were transcribed verbatim, we also opted to not correct the grammatical errors in the transcript excerpts from the PHC professionals' and managers' accounts.

The categories found, also considered here as PHC professionals' and managers' perceptions about the phenomena that influence resource allocation in municipal PHC, are the following: (a) Primary Health Care Principles and Guidelines; (b) Resource Management and Planning; (c) Social Participation, Informality and Communication; (d) Health Care Network; (e) Professional Profile and Training; (f) Public Policies and Health Financing; (g) Professionalism; (h) Bossism and Municipal Political Patronage. Keywords for the main meanings related to the analyzed category will be pointed out together with the analysis of results.

#### Primary Health Care Principles and Guidelines

The first category shows that PHC principles are perceived as important for PHC professionals and managers, especially the principles of access, equity, integrality, social participation, promotion and prevention.

[Primary Health Care] is essential; it is the gateway for all users, where we [have access to patients], where we obtain [patients], right? It is direct contact with the patient... The entire municipality is [the area of] Primary Health Care... Especially because it is a small town (Transcript 15, municipality 2, 2015).

The expansion of access and coverage, enabled by the expansion of PHC, stands out. The inclusion of new health professionals in these municipalities' health services is still recent, including non-medical professionals who have been working in the city for less than five years, especially at the Family Health Support Center (*Núcleo de Apoio à Saúde da Família* - NASF) and at the Social Assistance Reference Center (*Centro de Referência de Assistência Social* - CRAS). This is also the case in municipality 10, even after four years after the 2015 data collection period. It was possible to infer that PHC is still in the consolidation phase in this municipality, as some BHUs are still waiting for the arrival of teams or professionals.

In addition to access and coverage, integrality was pointed out as one of the important goals that still need to evolve. The patient referral and counter-referral system has not been functioning properly, causing health care problems. In the case of municipality 10, which has an Emergency Care Unit (*Unidade de Pronto Atendimento* - UPA), this lack of integrality is even more evident, as professionals report that many users seek the UPA as a gateway or complain that the UBS should work like the UPA in meeting spontaneous demands.

...when their throats are sore, they [just demand] an antibiotic. You advise and say they don't need it. [They say:] "I'm going to the UPA" (Transcript 22, municipality 10, 2015).

Prevention practices are yet not fully implemented, limited to the indicators established by state and federal resolutions to condition the transfer of financial resources and to the sporadic holding of lectures. Participants reported that the spontaneous demand in municipalities have been exceeding the capacity of emergency services, compromising promotion and prevention activities.

Prevention includes all the testing, blood tests, mammography, preventive... Within these activities, too, right?, of prevention and promotion, there is the issue of the PSE (School Health Program) which is also carried out... And those schedules that are already predetermined, right?; Pink October, Blue November... And the main thing is also the home visits made by the health agents, right?, which I think is the main channel (Transcript 5, municipality 4, 2014).

... what I perceive is a failure precisely in the city's prevention and promotion, because they are people who really, for example, the number of high blood pressure [patients], the number of compensated diabetes is very large. All this must be addressed through prevention and promotion, right? There's an alarming number of patients with these chronic diseases and without any control, right? What I realize is that our action here is more curative, unfortunately (Transcript 32, municipality 10, 2018).

On the other hand, although public policies encourage promotion and prevention actions, they are clearly dependent on financing instruments, which are based on the amount of services provided.

We have a Health Surveillance department, which deals very well with the issue of indicators and goals. So, the interaction of Primary Health Care with this Health Surveillance Department in the monitoring of these indicators and these goals has been very important and brings results for us both with regard to care outcomes, as with regard to care indicators, too. And they're important because by reaching certain goals, certain care indicators... This results in more resources, incentives and such (Transcript 19, municipality 9, 2015).

### Resource management and planning

The second category that emerged from the evidence concerns resource management and planning. Among these factors, those that stood out were public procurement, transport logistics, lack of planning in municipal management and health teams.

Public procurement by municipalities was perceived as fundamental to the process of resource allocation in municipal health care services. Participants claimed that there is a disconnect between the planning and purchasing sectors. In small municipalities, they pointed out that there is a shortage of suppliers due to their economic characteristics and a dependence on suppliers from larger cities, which hinders communication, product exchanges and budget requests.

So, regarding dental services, some products end up losing a little quality, something like that, because the people who are responsible for the purchase are people who don't understand dentistry. So they buy materials just looking at the price. So, it ends up harming the [quality of the] materials a little (Transcript 5, Municipality 4, 2014).

... lack of human resources and sometimes of some materials... We have to improvise to go out, because we lack [some] medicines. The pharmacy has been out of medicines, right?! (Transcript 25, municipality 10, 2018).

Some participants reported that, in some cases, the purchase of materials and inputs considers resource availability more than the actual needs and the maintenance of adequate stocks. Even after the purchase was made, the resources to pay for it would often not arrive on time, hindering the provision of health services.

And the problem we are facing is this: getting medication from January to May. Why? April and May is the time to reprice medications. So, if you try to get the prices from the laboratories, you couldn't do it, because you know that there will be an adjustment at any time, and that's something that was very disrupting. Then, we've now changed to price registration minutes, because instead of us doing it from January to December, we [now] do it from May to May (Transcript 2, Municipality 2, 2015).

Another point highlighted in this category was the issue of stock planning and management. A participant reported a case involving the Ministry of Health that illustrates how this is important for the HCN and for the efficiency of public health expenditures.

It was at the time of that flu, the H1N1 flu. And then the Ministry of Health bought a lot of Oseltamivir, which is the medicine for treating it. [It bought] a lot. Then at some point there was a lot of medication. What did they do? Let's narrow these criteria down. Now, [you can prescribe it to] the person who isn't that seriously ill, too. It doesn't just happen [in this case]. You see several [such situations] (Transcript 1, municipality 2, 2015).

With regard to human resources, another point raised is the lack of relevant professionals in some teams and problems in the distribution of these resources within the municipality. Some participants also pointed out the management of material and information logistics as relevant, especially transport issues. In small municipalities, PHC has generated a demand for referrals to medium and high complexity services in other municipalities, increasing the need for transport. In municipality 10, despite its larger size compared with other municipalities in the sample, this need for transport is also observed in the city's dependence on Belo Horizonte, the state capital.

Home visits by health professionals within the municipality itself also increase the need for transport. In the case of municipalities in the health microregion (1 to 9), although the Regionalization Master Plan refers small municipalities to municipality 9, several factors end up directing the flow of patients to other cities, mainly for access to lower-cost tests and specialties. Some municipalities, however, have been implementing integration initiatives to solve transport problems, such as partnerships established by some municipalities in which a bus for transporting patients is shared by more than one municipality on the same route, as in the case of the Intermunicipal Health Consortium. But the logistics is usually carried out in a fragmented way, with little planning and a high level of uncertainty.

Regarding the system workflow, evidence showed that distinct health care models still coexist. It was common to observe within the same UBS a mix of Primary Health Care programs with spontaneous demand care. The same doctors alternate their work between Family Health Strategy (FHS) activities and emergency care. This means that just as public and private systems coexist (Menicucci, 2003), so do health care models focused on the FHS and on meeting spontaneous demand. The transcript excerpt ". . . what I realize is that our action here is more curative, unfortunately" (Transcript 13, municipality 10, 2018) illustrates the perception of a UBS manager about the existence of a health care model in which spontaneous demand care predominates.

#### Social Participation, Informality and Communication

The third category that emerged in the study refers to social participation and informality in communication. It calls attention to the importance of social participation and the influence of informality in communication on resource allocation in PHC. The characteristics of the municipalities, especially the small ones, facilitate communication between professionals, users and managers. Professionals pointed out that it is not difficult to get to know the situation of all the

families in their area of coverage, including personal problems. Informality is an essential attribute of the relationships between these subjects.

I think that... I like working here in the countryside; what is nice, like, it's the proximity to the management, the health secretary, the mayor. Why? Every time we need anything, like oxygen for a terminally ill patient at home, whether it's a bed, a wheelchair, everything we need, like that, it may even [not work out], but in everything an effort is made to achieve (Transcript 2, municipality 2, 2015).

Social interaction and informality also help to humanize care and motivate the teams. On the other hand, closer contacts between these different actors also lead to issues involving power asymmetry in some health decisions in the municipalities. For example, a situation was reported in which the health professional did not think a certain procedure was necessary. Not satisfied with the professional's decision, the user asked the municipal government to intervene in the decision. The user's request was then granted and the professional had to accept the management's interference and prescribe the requested procedure.

... we had the case of a patient who did not come here and went to the mayor: "Ah! I have a problem with my leg here." Indeed, they said that her leg was very bad, that she needed to have varicose vein surgery... This patient, we got her a surgery two months ago and then the health agent went there, informed her and such. But her surgery [was scheduled] so fast, but so fast that she couldn't assimilate that she was going to have surgery. She just didn't go. She didn't want to go. She was afraid of anesthesia, of those stories (Transcript 2, municipality 2, 2015).

In this context, the low level of social participation stands out. Even if the population has close contact with professionals and managers, it is nevertheless passive in the health production process, in terms of the most recent public policies, in a relationship of *assistantialism* (as passive receivers of assistance). This is a challenge observed in all ten cities studied. The population still identifies health care with hospital medical health care and has little knowledge of the meaning of primary health care. The population, therefore, also influences how resources are allocated in PHC.

I think it can be [understood as] assistentialism... People simply miss the appointment, the exam, because they lost track of time, [they] didn't want to go... We did a survey in 2014, because there is always that complaint, right? There is no [medical] consultation for this, there is no consultation for that... In 2014, 23% of the population [missed their appointments]. It seems that we only lost to [quoted the name of another municipality], [in] which [the number] was 31%. And the average for the other municipalities [was] 10% (Transcript 2, municipality 2, 2015).

... sometimes they go straight to the UPA, and the UPA sends them to [look for care] here at the unit. So [they] come here when [they have suffered a] cut. [They want] to get stitches

here or to suture [the wound]. [We say] no, we don't suture here. You have to send [them] to the UPA (Transcript 11, municipality 10, 2015).

Social participation seems to be a crucial point in municipal health. Even in Health Councils, the level of social participation is considered low. On the other hand, the population is able to mobilize in cases of illness of a member of the community, as in the case of a woman who managed to raise around R\$ 22,000 with her church's members to pay for a private surgery that was offered by the SUS for R\$ 1,800. The population thus still lacks knowledge about primary care and how the health system works.

#### Health Care Network

The fourth category shows that study participants see problems in the RAS of the microregion. It was pointed out the limited number of appointments for certain medical specialties and exams offered by the RAS. At the same time that primary health care in these small municipalities expanded its coverage to practically 100% of the population, the process of regionalization forced the reference municipalities to share their medium and high complexity network with smaller ones. The increase in demand and the sharing of the health care network caused a shortage of procedures such as consultations and exams. This has been pressuring primary health care to increase its efficacy in the patients' city of origin. Under current conditions, public health guidelines recommend making primary health care as efficacious as possible in the municipalities. On the other hand, there are reports that primary health care has been focusing on organizing the referral of patients, even in situations that could be resolved within the municipality itself. The system still shows a coexistence of different models of care, with a poorly integrated network. In short, the system of referrals is working, but there are problems in the counter-referral system.

... when we need more complex exams – ultrasound, endoscopy, tomography, resonance – don't even mention it! It takes too long. So, sometimes we can't [have them made]. Sometimes, a patient is in need of an exam and is unable to [make it] (Transcript 8, municipality 5, 2015).

Another factor is the influence of the private sector, which leads municipalities to procure services outside the micro- and macro-regional boundaries established by the Regionalization Master Plan, in search of lower priced exams and consultations. Nevertheless, there were reports that corporatism prevents some exams and consultations from being accepted when not indicated by the medical professional or not performed in a clinic within the boundaries of the microregion as provided for in the Master Plan.

As for integrality, I think more [of it] is needed, especially [...] all professionals [need] to see more the individual as a whole, because sometimes they focus only on the disease. [They] need to focus more, and the social worker can speak better than me [about] other social and psychological aspects (Transcript 5, municipality 4, 2015).

The bond between professionals and the population was identified as an important factor for the success of the HCN. Only one of the municipalities had a health care staff with job stability, hired through public entrance examination. The bond and the continuity of care depend on the stability of the HCN professional, but temporary employment is still predominant, permeated by personal relationships and political patronage.

### Professional Profile and Training

The fifth category that emerged refers to problems related to the professional profile and the training of municipal health system workers. It was pointed out that it is necessary to reduce the influence of nepotism, relations of friendship and political patronage in the hiring process. The limited availability of jobs in these municipalities increases the importance of work opportunities in the health sector, leading professionals without the desired profile and qualification to seek political patronage to be hired.

With regard to physicians, it was highlighted that there is a difference between the profile of professionals hired through the *Mais Médicos* (More Doctors) and PROVAB programs and the profile of professionals hired because of political patronage. The latter tend to have a profile less suited to the activities of a family health doctor and more suited to the job of an "emergency doctor," that is, they do not take into account the full scope of the services provided to the user.

Training of Community Health Agents (*Agentes Comunitários de Saúde* - ACS) was also highlighted by participants, due to the importance of these professionals to the first contact with the user, to the access to communities and families and to the link with other professionals and teams.

[The user] wants to get to the appointment and wants his elbow pain to be resolved. It doesn't matter, [he] doesn't want to know if he has high blood pressure... [For] the older professional is difficult to change [his ways], but the new generation that's graduating already comes with this mentality, right? of Primary Health Care... I believe it will take from 15 to 20 years for this concept to be fully realized (Transcript 13, municipality 7, 2015).

Participants pointed out the problems arising from hiring recent graduates, with no experience, or from hiring a health agent but not training him/her. The training equips the professional with better skills to work in primary care, especially the ACS, who generally have a lower education level compared with other professions. The following transcript excerpts illustrate the perception of PHC professionals about the lack of training:

[There's a] lack of training, too. e-SUS has arrived. They gave it to us. We'll [use] it without knowing how we're going to [use] it, and that's it (Transcript 19, municipality 9, 2015).

... it has the essential and key professionals, but without many qualifications, right?! (Transcript 20, municipality 10, 2018).

In addition to training in health, participants also highlighted the importance of training in management. There were some complaints about the filling of forms and sending information to the Ministry of Health, and there is no evidence of this information being used for management purposes. There were also accounts of incorrect and incomplete filling of forms. There is a need for training in order to show the importance of the information collected for the health system management, the formulation of public policies and the decision-making by the municipal government.

### Public policies and financing

The sixth category concerns the impact of public policies and financing on how health activities and actions are carried out in municipalities. Public policy guidelines, such as those of the National Primary Health Care Policy, gave municipalities several responsibilities, including for health financing. Participants' accounts showed that municipal governments have taken notice of this assumption of responsibilities.

So, we work based on government policies, adapting [them] to the municipality, to our reality. Both the policies of the State Health Department and the Ministry of Health... Pregnant women, for example, [have the] Mothers of Minas, from the State Government, and the Rede Cegonha [Stork Network], from the Federal Government (Transcript 3, municipality 3, 2015).

The evidence suggests that public policies are focusing on achieving service production goals, hindering the development of a more comprehensive public health project. The performance of municipalities is now measured by dozens of indicators, and to achieve them they work with disconnected teams and projects, hindering the integrality of primary health care and limiting the scope of the care provided.

Another point reported is that resources are transferred without due consideration of the heterogeneity of the communities within the municipality. Despite the regionalized approach at the state level, when the resource arrives at the municipality, it is allocated as if all family health teams had similar characteristics. Thus, even if an incentive exists, the peculiarities of the different communities are not properly taken into account.

... you have to meet goals, but then it can even be fictitious. The person doesn't meet the goal and even invents. In this case, I meet the goals, everything. I do even more [things]. Prenatal care, for example, it comes from another area, I do it... I've [heard] many complaints about the issue of goals from the management. Some municipalities have difficulties... But these goals are very fictitious. They have to do [a certain number] of sputum test, let's suppose. Sometimes, a city that has a very low incidence of tuberculosis, or sometimes it doesn't [have any case] and the other city has a lot. So, the one that has a higher incidence will ask for more tests, will achieve the goal more [times] (Transcript 13, municipality 7, 2015).

Since the municipality is the main provider of health services and several programs are financed by different levels of government, it has often been forced to cover delays in financial transfers from other levels of government, or compensate for the underfunding of activities, in order not to hinder the progress of health actions. Some health activities and programs have been hampered by underfunding, targeted allocation of resources and lack of synchrony between the three levels of government in the financing of programs. The clearest example of this situation has happened with the state government's transfer of resources for medicines.

Another relevant point is the coexistence of public and private health systems. There are some specialty consultations that are not offered by the SUS, and the complementation provided by intermunicipal health consortiums has also not been enough to meet all the demand. Municipal governments in the municipalities studied include in their health actions negotiations with the private sector, with the purpose of lowering the cost of certain procedures for the population. The universality and integrality of the SUS in these small municipalities is thus called into question, and again the influence of medical corporatism is highlighted.

The influence of the private health system on public health results in adjustments to the Regionalization Master Plan, with municipal managers being forced to conduct a market analysis to find lower-priced procedures, even in more distant municipalities. Prices and availability of procedures vary by region and city. In the microregion studied, there is a lack of orthopedics and neurology services.

When it stops, it has now stopped, doing surgery. SUS has stopped [doing it]. But private [services] and health insurance [still] do [it]. But what structure is used to perform this surgery? Is it private? That's an interesting point, right? You seldom find a doctor who operates in a private clinic. So, this is another point that we question a lot. You cannot do it through the SUS, but you do it there and use the SUS structure (Transcript 2, municipality 2, 2015).

Another point related to this category is the targeting of funding. Participants reported that it would be necessary to target the investment more efficiently than at present. There are packages requested by the state and federal governments that are not always suitable for the municipalities, while these would have other priorities which are not funded, because most of the time, resources are allocated to a specific program. According to some participants, "there is a lot of money invested in the wrong place."

I have unused resources, state [resources], since 2012: Healthy Eating. [The state] gave 28,000 [reais] for Healthy Eating. Then, what can I buy? Flyer, campaign, business. How many campaigns will I do? Millions? So, I'm not involved in stealing... So, the issue of money from the state, from the Federal Government, it's stalled... We [recently] went to a congress in Brasília. Then, the Minister [was] there saying: "It's the municipalities that are not able to spend 30% of the resources that we send." Targeted resources. No, you really can't. How do you do it? Will I only use cotton? Will I only buy flyers? (Transcript 10, municipality 5, 2015).

The health sector's performance is often associated with the number of consultations carried out. The transfer of resources is associated with this number. In this regard, it would be interesting to question whether there are no alternatives to this targeted funding model and to the disconnect between actions and goals. If health care performance is evaluated by the number of procedures carried out, it creates an incentive to offer more consultations, more services, which sometimes are not needed.

#### Professionalism

The seventh category addressed the influence of professionalism on resource allocation, especially the influence of the medical professional in the HCN and the lack of integration between health teams. The health model focused on PHC led several professionals to play a leading role in the health sector. This also has led to conflicts because of power disputes between professionals and teams. While new professionals and new teams seek to play an important role in the HCN, more traditional professionals also make an effort to maintain the power they already held.

The symbolism around the medical professional carries with it a historical context and situates doctors at the top of the HCN professional hierarchy. Symbolically, observations show that spontaneous care is more important than health promotion, which has a greater participation of other non-medical professionals. There were accounts that the population participates in activities with other professionals, but only in the presence of the medical professional. A challenge faced by new professionals is gaining legitimacy, which is also challenge for the actions that aim to change the paradigm of the model focused on spontaneous demand and disease.

The ACS was mentioned as an important professional in the link between the community and other professionals, as he has information about the patient's family and health situation and walks through the city's neighborhoods to observe the physical and social space. Despite its importance, there are municipalities that have not formalized this profession or where this formalization is still being discussed in the local legislature. In the cities studied, the ACS enters the family environment, have access and legitimacy to be part of the family group, to sit on the family sofa and have a coffee.

... the local units don't have health agents [ACS], there is no extension of the strategy's FHP [Family Health Program], they don't have this program here yet, in some units the ACS stay at the reception, [which] leaves a lot to be desired, right?! The work of the ACS is directly on the street, right?, bringing to us that bottleneck in the community, right?, even [bringing] his team to try to solve it here, something that doesn't happen here (Transcript 26, municipality 10, 2018).

At the same time that, strategically, there is an effort to change the focus of the health model, the indicators are linked to production goals for consultations and exams. Even though public policies seek to change the professional context, established phenomena already legitimized still coexist with the legitimization of new professionals, teams and their agency.

One thing that [happens] a lot is doctors who direct the consortium patient to his private practice because the queue is shorter, "I'll charge you less, "I'll charge you [this sum]." "I demand that you make this exam there at the [clinic] because the quality of [municipality in another micro-region] is not good" (Transcript 2, municipality 2, 2015).

Another point related to this category is the medical professional's influence on the path taken by the user in the HCN, such as on the choice between public or private services and of the type of procedure and the place where it is performed. Even if municipal health managers seek cheaper alternatives outside the micro-region, the doctor can interfere in whether or not to accept the test results from a particular laboratory or a particular city.

[The users] themselves don't understand [this place] here as [providing] a preventive and promotion activity. The people, they don't understand. They still want a very doctor-focused system, you know? (Transcript 29, municipality 10, 2018).

### Bossism and Municipal Political Patronage

The last category found in this study refers to terms already covered by other studies on public administration: bossism and patronage. The health sector in these small municipalities gives a lot of political visibility to its participants, due to its social importance and the interaction with the population. Probably for this reason, the issue of bossiness and patronage arises (Santos & Rodrigues, 2014). Santos and Rodrigues showed that, in small municipalities, the political institutions of patronage and bossism interfere in the referral of users to municipalities that provide medium and high complexity health services.

... I think that [the] health [care system] in general is still a little deficient, for political reasons... Due to political issues that involve such basic things, we're not able to carry out very often what is recommended. I think a lot of times [because of] self-indulgence, so I can speak for myself, too. Not us judging the whole of politics, but we fall into the system ourselves, you know? (Transcript 33, municipality 10, 2018).

For the population of small municipalities, underserved in terms of economic opportunities and access to qualified professionals, situations like this, which have an impact on resource allocation in PHC, represents a further difficulty for the continuity of health care provision. Health care ends up being provided in distant locations, requiring logistical support, such as transport, meals and accommodation for users and companions, who are also subject to political exploitation. The predominance of patronage in Brazilian small cities, therefore, favors the private control of public goods and the appointment of friends and relatives to municipal entities. Political opportunities are often offered to voters or political donors (Santos & Rodrigues, 2014).

Most small municipalities face operational difficulties in urban planning and management, due to institutional and administrative deficiencies, such as the lack of qualified professionals, equipment and appropriate operational conditions. In Minas Gerais, almost 80% of the municipalities have less than 20,000 inhabitants and suffer from a lack of qualified technical staff

for the management and development of projects. Small municipalities have difficulties in defining guidelines and instruments to support their growth. Municipal governments' actions generally are motivated by a need to satisfy specific demands or to minimize a certain problem. In other words, municipalities do not invest in medium- and long-term planning (Campos et al., 2013; Medeiros, 2013; Ohira et al., 2014; Uchoa et al., 2011). Pinto and Gerhardt (2013) report that health care in small municipalities are often sporadic in rural areas, influenced by a bucolic environment and patronage.

Bossism became evident because of the high number of political appointments and the impact of municipal government decisions on health actions. In many municipalities, the health secretary was not a health care professional and had already worked in other municipal secretariats. Associated with these appointments of heads in the health sector, we observe a high turnover of health secretaries or coordinators.

[The] main point in a small town: politics. Sometimes a patient who doesn't need as much as another gets ahead in the line because of politics. Sometimes priority in an exam is given to a person who is political supporter or is a family member. We have people who work at the hospital [UBS] who are city councilors. This is a negative point. People get ahead [in the line]. Appointments are scheduled with more priority, exam, surgery and everything. I think [it happens] in every countryside city. The main problem would be this issue of priority, because SUS can't [give such] priorities. The priority should be [given] according to the patient's need, the patient's illness, not according to status or some influence (Transcript 8, Municipality 5, 2015).

As discussed above, participants reported that, in addition to bossism, patronage is a strong practice in the health sector, and that managers interfere in the priority of care according to their own interests. The closer the user's contact with a municipal manager, the greater the chance of accessing health services. Bossism and patronage are reinforced in these small municipalities because of the scarcity of work opportunities, the large percentage of professionals with temporary work contracts and the health sector's political visibility.

Nowadays, the Family Health Strategy, especially, ends up being a political position, too. The person ends up staying for a while... I think the population loses that reference you know? This [causes] harm... And the same happens with the health secretary, who is always changing (Transcript 2, municipality 2, 2015).

Bossism and patronage were also observed in partisan interference and in social relations between the population and health professionals and managers, as evidenced in all municipalities in the study.

#### **Discussion**

The eight categories constructed allowed us to shed light on the phenomena that influence resource allocation in PHC, according to the perceptions of the study participants. They also enabled

us to find and describe important social interactions, which point to the occurrence of an institutional change, in which PHC is still distant from public policy principles as evidenced by this study's findings. Such evidence is important at a micro-level perspective, resulting from daily processes of interaction between the population, professionals and health managers (Alburquerque, 2002; Bitektine & Haack, 2015; Caraiola et al., 2005; Glaser et al., 2016; Hall & Taylor, 2003; Harmon et al., 2019; Pereira, 2012).

In describing the categories, analyzes and examples of how micro-level agency can influence existing structures were presented, or to use a classic institutional theory term, "the iron cage" (Dimaggio & Powell, 1983). On the other hand, the importance and influence of state directions in the effort to reorganize the health system was not disregarded. While the state directs and regulates municipalities and actors in the health care sector (isomorphism), our results showed that at the micro-level there are forms of agency, institutions and other institutional levels that compete with the structure and generate an environment of uncertainty and changes in the municipalities' PHC. As an example of these forms of agency, this study presented the deficiencies in health prevention and promotion actions, the underfunding of PHC, the strength of medical corporatism, the lack of professional qualification of health workers, the lack of recognition of the importance of other professionals in health teams, especially the ACS, etc. Empirical evidence of a diversity of micro-level forms of agency show that the implementation of public primary health care policies is still an ongoing social process, and that it needs more attention from the State for PHC to become the level of care that will coordinate the HCN.

Symbolic aspects within the municipal context, as well as the participants' actions, show that primary health care, as defined by public policies, still has a long path ahead to establish itself as a HCN gateway and coordinator. The study found evidence that PHC has been inefficient and show little resolution in health outcomes. Moreover, it is clear that PHC legitimization still depends on other actors and institutions, at various institutional levels.

The low planning and management capability of municipalities, combined with political interferences, hinders the implementation of public policies in the state and, as a result, also have a negative impact on PHC and the HCN. In this regard, there is a conflict between different isomorphic forms, originating in different institutions and levels (Alburquerque, 2002; Hall & Taylor, 2003; Pereira, 2012; Scott & Christensen, 1995; Sitek, 2010).

The phenomena discussed in the "Professionalism" category also pointed to the issue of institutional change, involving a conflict of interests of different professional groups, the rise of some of them and the struggle of others to maintain their power, such as in the case of the medical professional and the symbolism around the medical profession. In this context, private sector influence and medical corporatism also stand out. Both influence the referral and counter-referral of users, the availability and price of procedures in the microregion, and the coexistence of public and private health systems. These two factors are capable of disrupting the microregional network as the main coordinator of the referral and counter-referral of users, while increase the complexity of transport logistics, thus overloading the management, operations and finances of small municipalities. The municipalities studied often need to leave the Regionalization Plan due to the price and availability of procedures.

The low planning and management capability and the lack of training and popular participation were factors also highlighted by participants. Health care is still viewed as one of the

public administration's organizational functions, and has been poorly integrated with other social agencies. The lack of integration between health care sectors observed in these municipalities starts with the actors and goes on to the lack of integration with social policies, such as those for education, transport, economy and culture.

The changes in the institutional health care environment become evident in the daily experiences reported by PHC professionals and managers, and the legitimization of PHC public policies still have a long way to go, with the challenge of including social participation in this process, which was so important in the constitution of the SUS in the 1980s.

The Ministry of Health and the State Health Secretariat are transferring the control and management of health care to municipalities, but more through financial instruments and less through efforts to ensure that professionals and the population assimilate the new functions of PHC in the HCN. As a result, there are municipalities focused on the production of disconnected procedures. There is evidence that PHC expansion has provided more access to other levels of care, mainly due to the manifest demand, without any effort being made to make it strategic and efficacious.

PHC has focused on the lower-income population, which is symbolically expressed in the characteristics of the infrastructure that is being built. This population lacks much information about the PHC structure, and still expects to use the health system through spontaneous demand, neglecting health prevention and promotion.

The photos collected in this study showed that PHC has differentiated itself from the traditional health model, at least in terms of infrastructure, as UBS facilities do not resemble the infrastructure of hospitals or private clinics, often functioning in rented houses in residential neighborhoods.

The legitimacy of some PHC actions is not yet validated by all micro-level actors, especially the users themselves, which tends to leave the health system unstable and confrontational, in a full process of institutional change. The current trend suggests that, over time, and in a non-linear way, several forms of agency will become validated, and that institutions infiltrated in PHC will become isomorphic due to the continuity of the state policies' influence on individual agency. What will become of PHC cannot be defined yet by what is written in the most recent public policy documents. Over this period of time, there will be efforts by different actors at the micro-level to ensure that state guidelines are implemented in accordance with already legitimated actions. Individual motivations can drive behaviors, which are mechanisms of transformation with the potential to affect social facts. The legitimacy created by agents becomes consequential to organizations when they are expressed in discourse and actions. The actions of evaluators can have direct consequences for organizations, such as changes in the availability of resources. Resources that are important and used by one group may not be for another (Bitektine & Haack, 2015; Jepperson & Meyer, 2011).

The factors presented in the results and discussions have an impact, for example, on the guidelines and principles of the 2017 PNAB and of the Complementary Law No. 141 of 2012, and it is important to consider such factors when reading and interpreting such documents, as they are not completely apprehended by a macro-level analysis. Finally, this section intends to present a dialectic process permeated by the factors discussed along the categories: public policies that propose the empowerment of the individual and society as agents of their own health also feed a system of service production that weakens their own purposes.

### Final considerations

This article presented, examined and discussed the perception of health professionals and managers about the phenomena that influence resource allocation in PHC. The study collected empirical evidence that micro-level factors are influencing resource allocation in PHC, in disagreement with the guidelines of public PHC policies. As a result, they hinder the development of the entire HCN and the implementation of public health policies in the state of Minas Gerais. For example, there are some divergences between the PNAB guidelines and the results presented here. This study contributes to deepen the knowledge in the area of public management, mainly by showing how micro-level agency can influence public policies at the macro-level.

The inclusion of empirical evidence from a municipality outside the microregion studied in 2014 and 2015 contributed to the validation of the results obtained. Municipality 10, despite being larger and closer to the Metropolitan region of the state, showed keywords similar to those of other municipalities studied, leading to the inference that the categories found are not exclusive to the microregion studied in 2014 and 2015.

In addition to the above analysis, this study also made it possible to suggest some questions for further research: (a) given the way in which PHC has been built by its actors, will PHC establish itself as a health care provider for the low-income population, while more affluent individuals and families will be served by the private sector?; (b) will PHC be able to become a outcome-oriented model or will it remain focused on the coordination of referrals?; (c) will other PHC professionals and health teams be able to level the asymmetry of power in relation to more traditional professionals, such as doctors and nurses, in order to obtain legitimacy with the population?; (d) will the strengthening of PHC be able to reduce the inequities caused by medical corporatism and the private sector?; (e) will PHC be able to effectively establish itself as the HCN coordinator?

The authors believe that this study will contribute to the area of management, at least, in two aspects: first, by generating for the area of public management and health knowledge about intervening factors in resource allocation in municipal health, in addition to economic factors; and second, by presenting concrete evidence that PHC is not yet organized according to the public policies for the sector nor established as a leading player in the HCN, at least from the perspective of PHC professionals and managers.

#### References

- Alburquerque, A. R. (2002). Teoría de la organización y nuevo institucionalismo en el análisis organizacional. *Administracion y organizaciones, 4*(8), 13-44. Recuperado de https://bit.ly/3h2KYc5
- Bauer, M. W., & Gaskell, G. (2015). *Pesquisa Qualitativa com Texto, Imagem e Som*. Petrópolis, RJ: Vozes.
- Berg, B. L., & Lune, H. (2014). *Qualitative Research Methods for the Social Sciences* (8a ed.). Boston: Person Education.
- Bitektine, A., & Haack, P. (2015). The macro and the micro of legitimacy: toward a multilevel theory of the legitimacy process. *Academy of Management Review, 40*(1), 49-75. doi:10.5465/amr.2013.0318

- Brasil. (1990). Lei n. 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. *Diário Oficial da União*. Brasília, DF: Autor.
- Brasil. Ministério da Saúde. (2015). DataSUS. Disponível em https://bit.ly/3uCNI30
- Brasil. Ministério da Saúde. (2017). Portaria n. 2.436, de 21 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS). Brasília, DF: Autor.
- Campos, D., Hadad, C., Abreu, D. M. X., Cherchiglia, M. L., & França, E. (2013). Sistema de Informações sobre Mortalidade em municípios de pequeno porte de Minas Gerais: concepções dos profissionais de saúde. *Ciência & Saúde Coletiva, 18*(5), 1473-1482. doi:10.1590/S1413-81232013000500033
- Caraiola, D. M., Jacometti, M., Baratter, M. A., & Gonçalves, S. A. (2015). Conciliando agência e contexto na dinâmica da mudança institucional. *Cadernos EBAPE.BR*, 13(4), 1473-1482. doi:10.1590/1679-39518879
- Cardoso, C. S., Pádua, C. M., Rodrigues-Júnior, A. A., Guimarães, D. A., Carvalho, S. F., Valentin, R. F., . . . Oliveira, C. D. L. (2013). Contribuição das Internações por Condições Sensíveis à Atenção Primária no perfil das admissões pelo sistema público de saúde. *Revista Panamericana de Salud Pública, 34*(4), 227-234. Recuperado de https://bit.ly/3boRYwn
- Carnasciali, A. M. D. S., & Bulgacov, S. (2014). Recursos e competências organizacionais distribuídos na Saúde Pública. *Revista de Administração Contemporânea, 18*(6), 832-853. doi:10.1590/1982-7849rac20141664
- Carvalho, B. G., Peduzzi, M., Nunes, E. F. P. A., Leite, F. S., & Silva, J. A. M. (2014). Gerência de unidade básica de saúde em municípios de diferentes portes: perfil e instrumentos gerenciais utilizados. *Revista Escola de Enfermagem da USP, 48*(5), 903-910. doi:10.1590/S0080-6234201400005000018
- Carvalho, H. S. V. C., Rossato, S. L., Fuchs, F. D., Harheim, E., & Fuchs, S. C. (2013). Assessment of primary health care received by the elderly and health related quality of life: a cross-sectional study. *BMC Public Health*, 13(605), 1-9. doi:10.1186/1471-2458-13-605
- Castro, A. L. B. D., & Machado, C. V. (2010). A política de Atenção Primária à saúde no Brasil: notas sobre a regulação e o financiamento federal. *Cadernos de Saúde Pública, 26*(4), 693-705. doi:10.1590/S0102-311X2010000400012
- Castro, A. L. B., & Machado, C. V. M. (2012). A política federal de Atenção Básica à saúde no Brasil nos anos 2000. *Physis Revista de Saúde Coletiva*, 22(2), 447-506. doi:10.1590/S0103-73312012000200005
- Creswell, J. W. (2014). Research design: *Qualitative, quantitative, and mixed methods approaches* (4a ed.). Thousand Oaks: Sage.
- Denzin, N. K., & Lincoln, Y. S. (2000) *Handbook of qualitative research* (2a ed.). Thousand Oaks: Sage.

- Dimaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review, 48*(2), 147-160. doi:10.2307/2095101
- Edwards, R. T., Linck, P., Hounsome, N., Raisanen, L., Williams, N., Moore, L., & Murphy, S. (2013). Cost-effectiveness of a national exercise referral programme for primary care patients in Wales: results of a randomised controlled trial. *BMC Public Health*, *13*(1), 1021. doi:10.1186/1471-2458-13-1021
- Glaser, V. L., Fast, N. J., Harmon, D. J., & Green Jr., S. E. (2016). Institutional frame switching: how institutional logics shape individual action. *Research in the Sociology of Organizations, 48*(1), 35-69. doi:10.1108/S0733-558X201600048A001
- Hall, P. A., & Taylor, R. C. R. (2003). As três versões do neo-institucionalismo. *Lua Nova, 58*(1), 193-223. doi:10.1590/S0102-64452003000100010
- Harmon, D., Haack, P., & Roulet, T. (2019). Microfoundations of institutions: a matter of structure vs. agency or level of analysis? *Academy of Management Review, 44*(2), 132-155. doi:10.5465/amr.2018.0080
- Hartz, Z. M. D. A. (2002). Avaliação em saúde: dos modelos conceituais à prática na análise da implantação de programas. Rio de Janeiro, RJ: Fiocruz.
- Hsieh, H, Shannon, W. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, *15*(9), 1277-1288. doi:10.1177/1049732305276687
- Instituto Brasileiro de Geografia e Estatística. (2011). *Indicadores Sociais Municipais: uma análise dos resultados do universo do Censo Demográfico 2010*. Rio de Janeiro, RJ: Autor.
- Instituto Brasileiro de Geografia e Estatística. (2016). *Estimativas da população. O que é*. Recuperado de https://bit.ly/3yNcJM6
- Jepperson, R., & Meyer, J. W. (2011). Multiple Levels of Analysis and the Limitations of Methodological Individualisms. *Sociological Theory*, *29*(1), 54-73. doi:10.1111/j.1467-9558.2010.01387.x
- Lambert, S. D., & Loiselle, C. G. (2008). Combining individual interviews and focus groups to enhance data richness. *Journal of Advanced Nursing*, *62*(2), 228-237. doi:10.1111/j.1365-2648.2007.04559.x
- Medeiros, C. R. G. (2013). *Redes de Atenção em Saúde: o dilema de pequenos municípios*. (Tese de Doutorado). Porto Alegre, RS: Universidade Federal do Rio Grande do Sul.
- Mendes, Á., Leite, M. G., & Marques, R. M. (2011). Discutindo uma metodologia para a alocação equitativa de recursos federais para o Sistema Único de Saúde. *Saúde e Sociedade, 20*(3), 373-690. doi:10.1590/S0104-12902011000300013
- Mendes, E. V. (2012). O cuidado das condições crônicas na Atenção Primária à saúde: o imperativo da consolidação da estratégia da saúde da família. Brasília, DF: Organização Pan-Americana da Saúde.
- Mendes, E. V. (2015). A construção social da Atenção Primária à saúde. Brasília, DF: Conselho Nacional de Secretários de Saúde.

- Menicucci, T. M. G. (2003). Público e privado na política de assistência à saúde no Brasil: atores, processos e trajetória (Tese de Doutorado). Belo Horizonte, MG: Universidade Federal de Minas Gerais.
- Ohira, R. H. F., Cordoni Junior, L., & Nunes, E. F. P. A. (2014). Perfil dos gerentes de Atenção Primária à Saúde em municípios de pequeno porte do norte do Paraná, Brasil. *Ciência & Saúde Coletiva*, 19(2), 393-400. doi:10.1590/1413-81232014192.21952012
- Pereira, F. A. M. (2012). A evolução da teoria institucional nos estudos organizacionais: um campo de pesquisa a ser explorado. *Organizações em Contexto, 8*(16), 274-295. doi:10.15603/1982-8756/roc.v8n16p275-295
- Pinto, J. M., & Gerhardt, T. E. (2013). Práticas avaliativas na gestão da Atenção Básica à saúde: estudo de caso em Camaquã e Canguçu (RS). *Revista de Administração Pública, 47*(2), 305-326. doi:10.1590/S0034-76122013000200002
- Powell, W. W., & Dimaggio, P. J. (1991). *The New Institutionalism in Organizational Analysis*. Chicago: University of Chicago Press.
- Santos, D. L., & Rodrigues, P. H. A. (2014). Política, Atenção Primária e acesso a serviços de média e alta complexidade em pequenos municípios. *Saúde e Debate, 38*(103), 744-755. doi:10.5935/0103-1104.20140068
- Saravanan, V. S. (2015). Agents of institutional change: the contribution of new institutionalism in understanding water governance in India. *Environmental Science & Policy, 53* (part b), 225-235. doi:10.1016/j.envsci.2015.01.012
- Scott, W. R., & Christensen, S. (1995). *The Institutional Construction of Organizations*. Londres: Sage Publications.
- Segall, M. (1983). Planning and politics of resource allocation for primary health care: promotions of meaningful national policy. *Social Science & Medicine*, *17*(24), 1947-1960. doi:10.1016/0277-9536(83)90135-1
- Senge, K. (2013). The New Institutionalism in Organization Theory: bringing society and culture back in. *The American Sociologist*, 44(1), 76-95. doi:10.1007/s12108-012-9170-5
- Sitek, M. (2010). The new institutionalist approaches to health care reform: lessons from reform experiences in Central Europe. *Journal of Health Politics, Policy and Law, 35*(4), 569-593. doi:10.1215/03616878-2010-017
- Uchoa, A. D. C., Souza, E. L., Spinelli, A. F., Medeiros, R. G., Peixoto, D. C. S., Silva, R. A. R., & Rocha, N. S. P. (2011). Avaliação da satisfação do usuário do Programa de Saúde da Família na zona rural de dois pequenos municípios do Rio Grande do Norte. *Physis Revista de Saúde Coletiva*, 21(3), 1061-1076. doi:10.1590/S0103-73312011000300016
- Van Wijk, J., Zietsma, C., Dorado, S., Bakker, F. G. A., & Martí, I. (2019). Social Innovation: integrating micro, meso and macro level insights from institucional theory. *Business & Society*, 58(5), 887-918. doi:10.1177/0007650318789104
- Zielinski, A., Kronogard, M., Lenhoff, H., & Halling, A. (2009). Validation of ACG Case-mix for equitable resource allocation in Swedish primary health care. *BMC Public Health*, *9*(347), 1-8. doi:10.1186/1471-2458-9-347

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#### **Conflict of interest**

The authors declare no conflict of interest.

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