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MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION

GESTÃO MUNICIPAL E DESENVOLVIMENTO DA SAÚDE NA MICRORREGIÃO TEÓFILO OTONI – MG BRASIL

GESTIÓN MUNICIPAL Y DESARROLLO SANITARIO EN LA MICRORREGIÓN DE TEÓFILO OTONI – MG BRASIL

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ABSTRACT
From the context of decentralization, hierarchization, and regionalization of health in Brazil, this study aims to verify the impact of municipal management on sector development in municipalities of the Teófilo Otoni microregion. Using the Municipal Health Development Index and the components of the Fiscal Management Index as indicators, an analysis was carried out based on panel data from 2008-2018. The analysis demonstrated the distances in health advances within the microregion, where Teófilo Otoni (Minas Gerais) showed better results than other municipalities. Results suggest that investments made in the microregion have not reversed into greater health developments and that, due to credit restrictions, municipalities increasingly postpone expenses through remnants to be paid as a source financing.

KEYWORDS: Public health. Municipal public management. Administrative innovation.

RESUMO
A partir do contexto da descentralização, hierarquização e regionalização da saúde no Brasil, o presente trabalho tem por objetivo verificar os impactos da gestão municipal sobre o desenvolvimento do setor nos municípios da microrregião de Teófilo Otoni (Minas Gerais). Utilizando como indicadores o Índice de Desenvolvimento Municipal da Saúde e os componentes do Índice de Gestão Fiscal, foi realizada uma análise a partir de dados de painel para o período 2008-2018. A análise permitiu demonstrar os distanciamentos em termos dos avanços da saúde dentro da própria microrregião, com o município de Teófilo Otoni apresentando melhores resultados em relação aos demais municípios componentes. Os resultados sugerem que o nível de investimentos realizados na microrregião não tem sido revertido em maior desenvolvimento na área de saúde e que, devido às restrições de acesso a crédito, as prefeituras usam cada vez mais a postergação de despesas via restos a pagar como fonte de financiamento de suas despesas.

PALAVRAS-CHAVE: Saúde pública. Gestão pública municipal. Inovação administrativa.

RESUMEN
Desde el contexto de la descentralización, jerarquización y regionalización de la salud en Brasil, el presente trabajo tiene como objetivo verificar los impactos de la gestión municipal en el desarrollo del sector en los municipios de la microrregión de Teófilo Otoni (Minas Gerais). Utilizando como indicadores el Índice de Desarrollo Sanitario Municipal y los componentes del Índice de Gestión Fiscal, se realizó un análisis a partir de datos de panel para el periodo 2008-2018. El análisis permitió demostrar las distancias en términos de avances sanitarios dentro de la propia microrregión, con el municipio de Teófilo Otoni presentando mejores resultados en relación a los demás municipios componentes. Los resultados sugieren que el nivel de inversiones realizado en la microrregión no se

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MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION
Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

ha revertido en un mayor desarrollo en el área de la salud y que, debido a las restricciones en el acceso al crédito, los municipios utilizan cada vez más el aplazamiento de los gastos mediante restos a pagar como fuente de financiación de sus gastos.

PALABRAS CLAVE: Salud pública. Gestión pública municipal. Innovación administrativa.

INTRODUCTION

The health of the population is one of the leading indicators that determine the quality of life in a country or region. In Brazil, access to health services has always been emblematic given the physical, social, political and financial factors that hinder its access for the population. From the normative and institutional apparatuses stemming from the debates and constituent of 1988, the Brazilian public health policy becomes a duty of the Union, the States, the Federal District, and the Municipalities, and constitutes a social right of citizens whose health needs must be met.

The implementation of Brazilian public health policy is inherent to all levels of the federation. Also, the relationship between healthcare networks, health regions and municipalities must be integrated, based on the current institutional framework, with actions and services with a continuous, high-quality and responsible provision. Both health regions and municipalities begin to manage and monitor compliance with the process in order to achieve the planned objectives.

The decentralization, hierarchization and regionalization of health become pillars of the structuring and management of the Brazilian Unified Health System, with normative bases defined but still characterized by limitations concerning the heterogeneity of the Brazilian federative structure, the predominance of political and party interests and conveniences, responsibilities attributed to the municipal executive and the cooperation between the entities within their region.

This paper aims to analyze the impacts of fiscal performance indicators on the municipal socioeconomic development of health in the Teófilo Otoni microregion from 2008 to 2018 based on panel data analysis.

1 THEORETICAL FRAMEWORK

The Unified Health System and its regionalized management

Health is regulated in art. 196 *et seq.* of the 1988 Constitution. Particularly, the guidelines for the activities of entities are provided for in art. 198, and can be synthesized in decentralization, necessary care, and community participation (BRASIL, 2018).

For the implementation of the constitutional provisions related to health, the legislator had to edit Law No. 8,080/90, which establishes the *Sistema Único de Saúde* (SUS) - *Unified Health System* -, which allocates competencies and reaffirms the duty of the municipal entity to act locally and implement the actions mentioned above affecting the public health area.

The SUS is made up of all actions and health services under public management. Its doctrinal principles are universality, completeness, and equity, while its organizational principles are decentralization, hierarchization, and regionalization. With regard to its decentralization is a process of

MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION
Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

service modification, decision-making, power, and resources, previously concentrated at the federal level for states and, especially, for municipalities. The hierarchy of health implies the existence of a network of coordinated health care at different levels of complexity: primary care, secondary care, and tertiary health care, in order to guarantee access to services that are part of the complexity required by the case, within the limits of available resources in a given region.

Regionalization, as defined by the Ministry of Health, follows the 1988 Constitution and Law 8080/90, a SUS guideline, and should be understood as a political process involving intergovernmental relations aimed at reducing historic and, in some cases, persistent, social inequalities through actions and health services in a defined geographic space. Thus, regionalization should guide the decentralization of health actions and services as well as planning and settlement processes among federated entities, aiming at access and integrality of health care. The *Norma Operacional da Assistência à Saúde* (NOAS – SUS 01/2001) - *Operational Standard for Health Care* -, as well as its second edition, established the systematization and general guidelines for the regionalized organization of health care in Brazil.

In this process, there is a discussion about management and how it has been influencing and acting in the health system, especially regarding responsibilities transferred to the municipalities. According to Viana and Lima (2011), Fleury, Ouverney, Kronemberger and Zani (2010), Lima et al., (2012), Santos and Giovanela (2014), Moreira, Ribeiro and Ouverney (2017), among others, SUS regionalization process has been built in a techno-political way, from a dense normative framework and amid complex and often competing processes of institutionality and governance.

Vargas et al., (2015) establish some challenges of health regionalization: implementation based on negotiation rather than planning, great responsibility of municipalities with low technical capacity, lack of planning and coordination of competencies involved, lack of clarity on the implementation policy rules. Low technical and managerial qualification, high professional turnover and planning bias culminate in the primacy of political negotiation over planning, which results in an unfavorable framework for the development of useful and innovative tools for regional planning and, therefore, for overcoming the limits of innovation in the new regional bodies.

Thus, while on the one hand municipalization has brought a more democratic pattern of local governance, on the other hand, decentralization coexists with regional iniquity, bureaucratization and politicization of local levels, at the same time as it is difficult to regulate the central level (VIANA D'ÁVILA; MACHADO, 2009; FLEURY et al., 2010). There is a need for support, reinforcement, and investment in municipal management as an inherent part of the regionalization policies themselves.

Generally, managerial competencies were transferred from the federal to the state sphere, and from these to municipal managers, but unaccompanied by financial autonomy, improvements in the management capacity and integration of the different dimensions of health care.

Many studies have sought to evaluate the effects of fiscal decentralization on access to services and social inclusion. The results vary depending on locality, type of service and population

MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION
Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

served, but, in general, there is a positive relationship between fiscal balance and access to public services.

Some studies in the area have used indicators based on panel data to verify the association between municipal public financial management and local development (LEITE FILHO; FIALHO, 2015; MANICA, 2017; CARNEIRO; PEIXE, 2017). These studies have generally shown a positive relationship between indicators over time, so that the higher the quality of fiscal management, the better the performance in meeting social demands. This study, referenced in this literature, aims to analyze specifically the development of health in the Teófilo Otoni microregion from municipal management indicators, based on the following methodology.

2 METHODOLOGY

In order to observe municipality behavior concerning expenditure control, investments, and compliance with social rights established in the Constitution, indicators were used to measure municipality performance about municipal public management.

In order to carry out the research, annual secondary data on municipal fiscal and socioeconomic development indicators were collected for Teófilo Otoni's microregion from 2008 to 2018 (Table 1). In order to do so, databases provided by the FIRJAN System regarding the Firjan Municipal Development Index (IFDM) related to health, and Firjan Index of Fiscal Management (IFGF) were used. The aim was to verify how financial performance indicators of the microregion's municipalities have affected health development in the area.

RECIMA21 - REVISTA CIENTÍFICA MULTIDISCIPLINAR
ISSN 2675-6218

Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

Table 1 - Variables used in the estimated linear panel models

Dependent	IFDM health	The indicator that annually accompanies the socioeconomic development of all Brazilian municipalities, in the health area. It is calculated based on official public statistics provided by the Ministry of Health Estimated based on: • Amount of prenatal consultations • Deaths due to ill-defined causes • Infant deaths due to preventable causes • Basic care-sensitive hospitalization
Explanatory	IFGF Revenue ($IFGF_{RP}$)	The indicator that evaluates the collection capacity of the municipality. It is calculated by dividing own revenue by current net revenue. This indicator represents 22.5% of the overall IFGF.
Explanatory	IFGF Personnel expenses ($IFGF_{GP}$)	The indicator of budget rigidity degree. It is calculated by dividing personnel expenses by current net revenue. This indicator represents 22.5% of the overall IFGF.
Explanatory	IFGF Investments ($IFGF_{INV}$)	The indicator was assessing cash sufficiency. It is calculated by dividing cash and remaining assets payable by net current revenue. This indicator represents 22.5% of the overall IFGF.
Explanatory	IFGF Liquidity ($IFGF_{LIQ}$)	The indicator that evaluates investment capacity. It is calculated by dividing investment expense by current net revenue. This indicator represents 22.5% of the overall IFGF.
Explanatory	IFGF Cost of Debt ($IFGF_{CUSTODIV}$)	The indicator that exposes the cost of long-term debt. It is calculated by dividing interest and amortizations by the actual net revenue. This indicator represents 10% of the overall IFGF.

Source: Own elaboration based on information from the Firjan System (2018).

Thus, in order to ascertain the relationship between the IFGF indicators and the MFI-health indicator, the panel data model was used. Repeated measures characterize these models at different times for the same individual analysis unit. Regressions capture variations between units and variation over time (BALTAGI, 1996; HSIAO, 2003).

Among the main advantages of this methodology are the development of individual heterogeneity, a more significant amount of information available (increasing efficiency of estimation), greater data variability, lower collinearity between variables, higher degrees of freedom, and higher efficiency in the estimation (HSIAO, 2003). Moreover, as cited by the author, it assists in identifying and discriminating between competing hypotheses, studying before-and-aftereffects, and better understanding particular behavior by observing other individuals.

The panel data model can generally be described by:

$$Y_{it} = \alpha_i + x'_{it}\beta + \varepsilon_{it} \qquad (1)$$

Where i=1, 2, ..., N; t=1, 2, ..., T; β corresponds to the unknown parameters related to i individual at t time. x_{it} is the matrix of explanatory variables, α_i are random effects specific to the individual, and ε_{it} are idiosyncratic errors.

RECIMA21 - Ciências Exatas e da Terra, Sociais, da Saúde, Humanas e Engenharia/Tecnologia

There are several linear models for panel data. In the fixed effects model, the purpose of estimation is to eliminate the unobservable effect α_i, that is, eliminate the effects that are constant in time. The estimator referring to this regression is called the fixed-effect estimator or the within-estimator. Since all means of invariant variable differences over time are zero, it is not possible to estimate the variable coefficient.

The fixed effects α_i in (1) can thus be eliminated by subtracting the individual means: $\overline{\overline{Y_i}} = \overline{\overline{x'\beta}} + \overline{\overline{\varepsilon_{it}}}$. In these models, estimation is made assuming that the heterogeneity of individuals is captured in the constant part, which is different in each individual.

The random effects estimator is the generalized least squares estimator in the specified model (1) under the assumption that αi random effect is *i.i.d.,* as well as the idiosyncratic error $\boxed{\varepsilon_{it}}$. The random effects estimator is consistent if the random effects model is appropriate, and inconsistent if the fixed effects model is appropriate. The unobserved effects are not correlated with each explanatory variable. Thus, in these models, estimation is done by introducing individuals' heterogeneity in the error term.

The random effects model is the individual effects model proposed in (1) and changed to:

$$Y_{it} = x'_{it}\beta + (\alpha_i + \varepsilon_{it}) \qquad (4)$$

With $\alpha_i \sim (\alpha, \boxed{\sigma_\alpha^2})$ e $\varepsilon_{it} \sim (0, \boxed{\sigma_u^2})$. Thus, the composite error $u_{it} = \alpha_i + \varepsilon_{it}$ is correlated over t for a given i, with:

$$Cor(u_{it}, u_{is}) = \boxed{\sigma_\alpha^2 / (\sigma_\alpha^2 + \sigma_e^2)} \text{ for all } s \neq t.$$

One advantage of the random effects model over fixed effects models is that the random effects model allows the use of explanatory variables that are constant in time (as is the case of the dummy variable for Teófilo Otoni in the estimated model).

Thus, in the fixed effects model, the individual error or individual effect is considered to be constant over time and is correlated with the regressors. Already in the random model, it is considered that the individual error is random and has no correlation with the regressors. In order to define which model fits the data better, the Hausman test (1978) is used. This test consists in verifying that the difference between the models as statistically significant; if it is significant, effective fixed ones are chosen, and if not, random effects are chosen (HAUSMAN; TAYLOR, 1981).

Not only the variables linked to fiscal management would explain municipal development. There are several variables, besides those proposed in this research, that may explain or impact municipal development, such as location, political influence, income, distance from capital altitude, rural population, among others. Therefore, IFGF indices may explain only part of the IFDM, and not its entirety.

3 RESULTS AND DISCUSSION

The research analysis unit is the Teófilo Otoni microregion, located in the Meso-region of the Mucuri Valley, in the northeast of Minas Gerais, consisting of the municipalities of Ataléia, Catuji, Franciscopolis, Frei Gaspar, Itaipé, Ladainha, Malacacheta, Novo Oriente de Minas, Ouro Verde de Minas, Peacock, Poté, Setubinha and Teófilo Otoni. Teófilo Otoni is the city-pole, which, according to the last census (IBGE, 2010), represents 50.53% of the micro-region's total population.

Of these municipalities, according to the 2010 census, the microregion has municipalities (Ataléia, Catuji, Franciscopolis, Frei Gaspar and Itaipéladainha) with a predominance of the rural population, ranging from 50.19% to 74.82%. The municipality of Teófilo Otoni concentrates 81.69% of the urban population, while Poté has 59.52% of the urban population (Table 2).

The average per capita income of the micro-region is R$7,779.79 and the Municipal Human Development Index (HDI) for the micro-region is classified as low, 0.590. Teófilo Otoni stands out not only for concentrating a large part of the population of the micro-region but also for its centrality regarding per capita income and the Human Development Index. The municipality has high human development, contrary to the reality of the vast majority of the municipalities neighboring him. It has lower infant mortality than most of the other municipalities, besides having a lower percentage of values coming from external revenues.

Table 2 - Characteristics of the municipalities of the Mucuri Valley microregion

Municipality	Population	GDP per capita	IDHM	Infant mortality (% per 1000 live births)	Revenues from external sources (%)
Ataléia	13,762	R$9,148.80	0.588	12.05	94.5
Catuji	6612	R$6,886.12	0.540	39.74	93.8
Franciscópolis	5,672	R$9,596.57	0.603	19.23	94.9
Frei Gaspar	6,024	R$7,849.34	0.590	14.71	98.0
Itaipé	12,725	R$6,166.76	0.552	39.22	95.7
Ladainha	18.152	R$5,176.22	0.541	22.83	96.3
Malacacheta	19,157	R$8,611.26	0.618	30.89	82.2
Novo Oriente de Minas	10,869	R$5,470.14	0.555	16.0	95.0
Ouro Verde de Minas	6,110	R$6,607.95	0.595	27.78	96.7
Pavão	8,709	R$7,542.89	0.627	23.81	91.4
Poté	16,641	R$7,353.49	0.624	20.62	91.9
Setubinha	12,060	R$5,348.38	0.542	18.07	94.7
Teófilo Otoni	141,934	R$15,379.33	0.701	16.96	78.4
Average	21,417.46	R$ 7,779,79	0.59	23.22	92.58

Source: Own elaboration based on IBGE information (2018).

Only Teófilo Otoni ambulatory care at the state level regarding health facilities. The micro-region has 178 outpatient primary care facilities at the municipal level, 39 medium-complexity facilities at the state level, and 443 at the municipal level. Medium and high complexity municipal and state units exist only in the municipality of Teófilo Otoni, there is a unit of high municipal complexity in

RECIMA21 - Ciências Exatas e da Terra, Sociais, da Saúde, Humanas e Engenharia/Tecnologia

MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION
Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

Malacacheta (Ministry of Health - National Register of Health Establishments of Brazil - CNES, 2017). Teófilo Otoni has all the hospitals of medium and high complexity in the micro-region.

Regarding fiscal management and municipal development, Table 3 shows the average of each indicator used in the survey during the analysis period (2008-2018), for each municipality and the Teófilo Otoni microregion. Teófilo Otoni has the highest average on revenues, among all municipalities; its average on personnel expenses is higher than that of the microregion, as it is with liquidity and MFI health averages. The municipality has lower averages for indicators related to investments and cost of debt.

All municipalities in the micro-region are considered critical management, following the reality of Minas Gerais (Table 3) regarding average revenue. In all the territorial instances considered, it was possible to perceive the critical framework in the fiscal management of the own revenue, which is explained to a great extent by a reality experienced by a vast majority of the municipalities of the country, which is the low collection capacity.

The microregion's municipalities have an average management reality with difficulties concerning personnel expenses and regarding investments, although in the latter average is higher than the state's. The Municipality of Teófilo Otoni, which has the lowest average level of investments from 2008 to 2018 stands out. Management is considered critical for most municipalities, in difficulties in the municipalities of Frei Gaspar, Poté, Setubinha, and Teófilo Otoni, concerning the liquidity indicator. The municipality of Malacacheta has the highest average liquidity between 2008 and 2018. The municipalities also have, in general, proper management of the cost of debt.

Teófilo Otoni has the highest average on the health indicator, and the result is considered a moderate development that is close to state reality. Municipalities with less health development: Catuji, Ladainha, and Novo Oriente de Minas. Other municipalities have a regular development regarding the indicator's average during that time.

RECIMA21 - REVISTA CIENTÍFICA MULTIDISCIPLINAR
ISSN 2675-6218

MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION
Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

Table 3 - Average of the indicators for the period 2008-2018.

	Revenue	Personnel expenses	Investments	Liquidity	Cost of debt	IFDM health
Ataléia	0.12	0.52	0.46	0.24	0.71	0.51
Catuji	0.11	0.71	0.62	0.00	0.87	0.34
Franciscópolis	0.08	0.60	0.64	0.29	0.91	0.58
Frei Gaspar	0.06	0.53	0.45	0.41	0.77	0.41
Itaipé	0.09	0.56	0.43	0.10	0.67	0.47
Ladainha	0.13	0.52	0.49	0.31	0.66	0.35
Malacacheta	0.30	0.55	0.62	0. 86	0.71	0.50
Novo Oriente de Minas	0.09	0.59	0.59	0.20	0.83	0.38
Ouro Verde de Minas	0.04	0.55	0.53	0.12	0.72	0.46
Pavão	0.18	0.61	0.63	0.00	0.81	0.48
Poté	0.15	0.43	0.59	0.44	0.76	0.43
Setubinha	0.08	0.83	0.50	0.44	0.81	0.48
Teófilo Otoni	0.39	0.65	0.36	0.41	0.46	0.62
Microregion average	0.14	0.59	0.53	0.30	0.74	0.46
Microregion average disregarding the municipality of Teófilo Otoni	0.12	0.58	0.55	0.29	0.77	0.45

Source: Research data.

Table 4 - FIRJAN index classification - Minas Gerais, microregion of Teófilo Otoni and Teófilo Otoni- average from the 2008-2018 period.

Index	Minas Gerais	Situation	Microregion	Situation	Teófilo Otoni	Situation
IFDM-health	0.74	Regular development	0.46	Regular development	0.62	Regular development
IFGF Revenue	0.22	Critical management	0.14	Critical management	0.39	Critical management
IFGF Personnel expenses	0.51	Management in difficulties	0.59	Management in difficulties	0.65	Good management
IFGF Investment	0.40	Management in difficulties	0.53	Management in difficulties	0.36	Management in difficulties
IFEG Liquidity	0.45	Management in difficulties	0.3	Critical management	0.41	Management in difficulties
IFGF Cost of debt	0.81	Excellent management	0.74	Good management	0.46	Management in difficulties

Source: Own elaboration based on information from the Firjan System (2018)

There is a regional distancing concerning health within the territory of Minas Gerais. Data shows that the municipalities of Minas Gerais have a moderate development regarding health IFDM. However, when this analysis is restricted to Teófilo Otoni's micro-region, there is less development, considering this index, which is regular.

Table 5 shows the correlation matrix between the variables. The analysis follows the trend

pointed by Leite Filho and Fialho (2015), Carneiro and Peixe (2017), Manica (2017), Behera, Dash and Sapena (2018) in order to have an association between management and variables development in the municipalities.

Table 5 - Correlation matrix

	IFDM health	1	2	3	4	5
IFDM health	1					
1 – Cost of debt	0.1214	1				
2 – Liquidity	0.0481	-0.1085	1			
3 – Investments	-0.2783	0.1817	0.0114	1		
4 – Personnel expenses	-0.0801	0.0372	0.0080	0.1472	1	
5 – Revenue	0.1583	-0.3998	0.3369	-0.0507	0.0135	1

Source: Research data

The variables with most significant correlations with health MHDI were investments, revenue and cost of debt, indicating that the higher the own collection capacity of the municipalities, the higher the possibility of strengthening their health policies. Personnel expenses and investments correlate negatively with the dependent variable. The negative effect of the investment on development differs from that found in other studies, where this relationship is usually positive, as is the case of Leite Filho and Fialho (2015), Manica (2017).

Results suggest that the higher the personnel expenditures, the lower the development in the health area in the specified period and the greater cash sufficiency over time has not been translated into improvements in the area.

In order to identify the impact of fiscal management indicators on the municipal health development index, multiple regression of panel data was carried out between 2008 and 2018 for the Teófilo Otoni micro-region. Two models were tested: one taking as a reference that the polo municipality could be distracting from the reality of the other municipalities of the microregion and influencing the results. In this case, a dummy variable was inserted for Teófilo Otoni; and another without using the dummy variable. Table 6 shows the panel data models performed:

Table 6 - Result of econometric models - 2008 to 2018

	Model without dummy				Model with the dummy variable			
	Fixed effect		Variable effect		Fixed effect		Variable effect	
	Coefficient	P-value	Coefficient	P- value	Coefficient	P- value	Coefficient	P- value
Revenue	-0.69	0.23	0.62	0.755	-0.70	0.023*	-0.34	0.156
Personnel expenses	-0.16	0.15	-0.14	0.16	-0.16	0.145	-0.16	0.105
Investments	`-0.16	0.001*	-0.17	0.000*	`-0.16	0.001*	-0.15	0.001*
Liquidity	0.03	0.939	0.04	0.46	0.01	0.838	0.019	0.676
Cost of debt	0.29	0.000*	0.26	0.001*	0.29	0.000*	0.30	0.000*
Dummy	-	-	-	-	Omitted	Omitted	0.32	0.000*
Constant	0.52	0.000*	0.43	0.000*	0.52	0.000*	0.43	0.000*
Prob > F =	0.000		0.000		0.000		0.000	

Source: Research data

MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION
Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

Each model calculated for every region had significant results when analyzing global significance test and can therefore predict the health variable MFI, through the variables IFGF components ('Prob> F' or less than 0.05).

In the test with no dummy variable, the cost of debt and investments were significant for the explanation of MFI health: the latter correlated negatively with the municipal development in the area. From the Hausman test, it was verified that the regression model with the best results was the Fixed Effects model. Thus, the investments have a negative impact of 0.16 points on the value of the health IFDM, and the cost of the debt has the positive impact of 0.29 points on the value of the health IFDM.

In the test that includes the dummy variable for Teófilo Otoni, revenue, investments, and cost of debt were significant. Revenues and investments have a negative impact on health development, indicating that improvements in these indicators have not been reversed for the sector over the period. The analysis considering fixed effects is similar to the model containing all municipalities. Regarding the random effects, the indicators were the cost of debt and investments. There is a smaller influence of health investments and a greater influence of the cost of debt on the area, compared to the test that covers all the municipalities of the microregion. The dummy variable was also significant, indicating the influence of the central municipality on the overall result of the micro-region. When the Hausman test is applied, the model that best represents reality had random effects.

Thus, in terms of the average fiscal performance on the health of the microregion's municipalities from 2008 to 2018, the picture of decentralization and regionalization points to a reality in which there is a need for improvement of public management in favor of management with greater administrative responsibility regarding health. Municipalities of the microregion show managerial and financial difficulties in other studies previously mentioned and lack financial autonomy so that the component municipalities should seek more own revenues and value the essentiality and quality of the expenses, so that the impacts are more effective in the social areas, especially in the area of health.

FINAL CONSIDERATIONS

The objective of this study was to verify the degree of administrative efficiency of the municipalities that make up the Mucuri Valley (MG), based on the Firjan Index of Municipal Development (IFDM) from 2008 to 2018, considered as the health area.

The review has shown that the process of regionalization is now a vivid reality in health management in all spheres of government, but that it faces a set of challenges common to the different realities of the country. It could be observed that the Brazilian regional heterogeneity is historically defined and that there is a need to think about policies with a regional focus. In this respect, the equitable development of the SUS can only be consolidated based on regional policies that cover the historical and cultural aspects of management processes and that aim and improve the planning and practices of monitoring and management.

MUNICIPAL MANAGEMENT AND HEALTH DEVELOPMENT INTHE TEÓFILO OTONI – MG BRASIL MICROREGION
Cesar Ricardo Maia de Vasconcelos, Walid Abbas El-Aouar

The instruments and mechanisms for planning, managing and financing health actions and services, as they have been developed, aiming at the provision and organization of a regionalized system, still have enormous challenges, ranging from the diversity of the country's federative structure to local capacity management and costing of municipalities. A better definition of the role of each federative entity in the organization of the system, better coordination of health networks, identification of health demands and greater cooperation among stakeholders is needed to strengthen regional governance and a dynamic process of SUS as an expression of social inclusion.

These are also challenges for Teófilo Otoni's micro-region, where the normative apparatus developed for health has not yet been able to overcome the idiosyncrasies and historically present economic and social heterogeneities. The analysis of the microregion in question distanced from the region within the territory of Minas Gerais. Although the pole municipality, Teófilo Otoni, has a similar position to state, about health area, the other municipalities are underdeveloped. There is a need to improve public management towards management with greater administrative responsibility, with a greater focus on health and that can ensure expenditure for the essentials, guaranteeing quality, so there's a more active social impact.

The negative impact of investments on health development in the micro-region is highlighted. The (low) level of investments made was not reversed in greater health development during said period, possibly due to the dependence of transfers of resources from the state and the Union to the microregion, which, to a large extent, comes with due binding. Furthermore, the limited collection capacity makes it impossible to expand policies in a satisfactory way, as well as restrictions on access to credit, and makes municipalities increasingly postpone expenses via wastes to be paid as a source of financing.

This research was worth studying for a delicate sphere in the Brazilian federative regime, the municipality. The study developed here is not new as regards the indication that these entities of the federation need a more significant structure, also technical, to carry out and implement their public policies, especially health.

The research sought to highlight how such an important sector is experiencing greater difficulties in a region that already suffers historically in the most different indicators, except in the case of the city of Teófilo Otoni, which is a rare exception in data emergence.

This fact is widely known and experienced in the daily life; however, little is done to transform this reality, which leads to pessimism for the future, since the municipality in charge of greater assignments can set the tone for the development of future generations. Obstacles are not always the lack of resources, much goes through public management, and the vast majority of Brazilian municipalities lack efficiency as a pertinent characteristic to its action.

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