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National Program for the Evaluation of Health Services (PNASS) 2015-2016: an analysis on Brazil's hospitals

Programa Nacional de Avaliação dos Serviços de Saúde (PNASS) 2015-2016: uma análise sobre os hospitais no Brasil

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ABSTRACT: *Aim:* The present work aims to evaluate the performance of hospitals participating on the National Program for the Evaluation of Health Services (*Programa Nacional de Avaliação de Serviços de Saúde – PNASS, 2015–2016*). *Methods:* This is a descriptive cross-sectional quantitative study, which measured the performance of hospitals participating in the program, using data from the first PNASS 2015–2016 evaluation instrument. The processes evaluation questionnaire used in hospitals had 102 items, 17 criteria, grouped into four blocks or dimensions. *Results:* A total of 1,681 hospitals was evaluated. The average score for each block was: Organizational management (64); technical and logistical support for care provision (73); health care and care management (64); specific services/units (72). Regarding the administrative sphere, the best average performance was of the federal sphere, followed by the state and municipal ones. The hospitals located in the Southern and Southeastern regions presented the best performance (73), followed by the Midwestern (62.7), Northeastern (61.2), and Northern (58.5) regions. *Conclusion:* The hospitals that perform highly complex procedures, just like those large and special ones, obtained a better performance. Public federal hospitals, with municipal management, also had the best results, as well as hospitals from the Southern and Southwestern regions of the country.

Keywords: Health evaluation. Quality of health care. Health services administration. Hospital planning.

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RESUMO: *Objetivo:* O estudo tem como objetivo avaliar o desempenho dos hospitais que participaram do Programa Nacional de Avaliação de Serviços de Saúde (PNASS 2015–2016). *Métodos:* Estudo descritivo transversal quantitativo, que buscou mensurar o desempenho dos hospitais que participaram do programa com base nos dados do primeiro instrumento avaliativo do PNASS 2015–2016. O questionário de avaliação de processos aplicado aos hospitais contou com 102 itens, 17 critérios, agrupados em quatro blocos ou dimensões. *Resultados:* Participaram 1.681 hospitais. O escore médio por bloco foi: gestão organizacional (64), apoio técnico e logístico para produção de cuidado (73), gestão da atenção à saúde e do cuidado (64) e serviços/unidades específicas (72). Com relação à esfera administrativa, o melhor desempenho médio foi obtido pela esfera federal, seguido da estadual e da municipal. Os hospitais localizados no Sul e Sudeste obtiveram o melhor desempenho (73,0), seguido do Centro-Oeste (62,7), Nordeste (61,2) e Norte (58,5). *Conclusão:* Os hospitais que realizam procedimentos de alta complexidade, assim como os de grande porte e especiais, obtiveram melhor desempenho. Hospitais públicos federais, de gestão municipal, também alcançaram os melhores resultados, bem como os hospitais do Sul e Sudeste do país.

Palavras-chave: Avaliação em saúde. Qualidade da assistência à saúde. Administração de serviços de saúde. Planejamento hospitalar.

INTRODUCTION

The evaluation of health services, increasingly used as an instrument to support management[1,2] in the Brazilian Unified Health System (SUS), aims to contribute to identify problems, redirect planning, and measure the impact of the implementation of policies, programs, services, and actions on the population's health status.[3]

On the other hand, demographic challenges and changes in the epidemiological and social profiles require more managerial skills, articulations and production of health management information, be it the work process, the quality of care, financing, clinical safety, or teamwork.[3-5]

In this context, the debate regarding management, quality and the role of hospitals in the system is gaining prominence today.[5] Hospital care, considered a strategic space for the reorganization of the health system,[6] plays a central role, because, even with strong primary care and good specialized outpatient care, conditions that require care at the hospital level will always exist.[7]

In 1998, the Ministry of Health (MS) developed the National Program for the Evaluation of Hospital Services (*Programa Nacional de Avaliação de Serviços Hospitalares* – PNASH). Reformulated in 2004 by the Department of Regulation, Evaluation, and Control of Systems (*Departamento de Regulação, Avaliação e Controle de Sistemas* – DRAC), it incorporated new complexities of health services and originated the National Program for the Evaluation of Health Services (*Programa Nacional de Avaliação de Serviços de Saúde* – PNASS), which, on January 8, 2015, was republished by Ordinance No. 28 of the MS.[8] PNASS, made up of three distinct evaluation instruments — checklist script; questionnaire addressed to users;

set of indicators — is an important instrument to assess health services and aims to evaluate specialized, outpatient, and hospital establishments as to their structure, processes, results, care provision, risk management, and user satisfaction regarding the care received.[9]

We work with Donabedian's model, which says that the existence of an adequate structure and processes will guarantee the desired results.[10]

According to the MS,[11] hospital care within SUS is organized according to the needs of the population to guarantee care with the support of a multidisciplinary team that works in the care and regulation of access, in the quality of care, and patient safety. Thus, the National Hospital Care Policy (*Política Nacional de Atenção Hospitalar* – PNHOSP), implemented on December 30, 2013 by Ordinance No. 3.390,[12] seeks to reorganize and qualify hospital care, establishes guidelines for the organization of the hospital component in the Health Care Network (HCN) and applies to all hospitals, public or private, that provide health actions and services within SUS.

In addition to a hospital-centered model of SUS,[7] evaluating aspects of care, quality and management of hospitals is needed, in order to ensure resolvability and continuity of care, equity and transparency.[11] Given the above, the present study aims to assess the performance of hospitals that participated in PNASS 2015–2016, by applying a questionnaire on the existence of a structure and process considered important to ensure better results.

METHODS

This is a descriptive, cross-sectional, and quantitative study that used the database of the first evaluative instrument of PNASS 2015–2016 — checklist script. This instrument was developed with criteria applicable in different combinations and according to the different realities of services, thus giving PNASS the possibility to comprehensively assess facilities of varying complexities, with no need for a specific instrument.[9]

The instrument was organized in five blocks — block I: organizational management; block II: technical and logistical support for care provision; block III: health care and care management; block IV: specific services/units; block V: cancer care — subdivided into 30 criteria with 180 checklist items that are intended to signal the risk or quality of health services for the set of criteria.

In the instrument, each criterion corresponds to a set of qualitative variables, mutually exclusive or independent from each other. Each criterion consists of six items with binary responses (YES or NO) and classified as follows: two imperative (I), two necessary (N), and two recommended (R), except for criterion 16, in which each item has equal weight.[9]

The checklist script, which assesses the various elements of hospital management, was addressed to the manager of health facilities. For defining facilities, the convenience sampling modality was used, with facilities in which the Ministry of Health made a financial investment due to priority policies was the basic criterion. In this way, the facilities

included were those that received financial resources from the Incentive of Adhesion to Contractualization (*Incentivo de Adesão à Contratualização* – IAC) and that were qualified in the Birth Network (*Rede Cegonha*); Urgency and Emergency Networks; renal replacement therapy; specialized rehabilitation centers; oncology centers, and public hospital facilities (federal, state, and municipal). Small hospitals (SHs), with 49 beds or less (specialty beds plus complementary beds), were excluded, because they were evaluated by the Department of Hospital Care and Urgencies of the MS (*Departamento de Atenção Hospitalar e Urgências do MS* – DAHU/SAS/MS) with another evaluative instrument. However, SHs that had some type of qualification according to the criteria mentioned above were included.[9]

The variables (type of management, administrative level, hierarchical level, and hospital size) were considered to characterize the performance of the hospital network, with the following definitions:

- type of management (municipal, state, or dual): identifies with which manager the facility has a contract/agreement and is responsible for the registration, programming, authorization, and payment of services provided to SUS, being municipal (managed by municipal health secretariats), state (managed by state health secretariats), and dual management (whose provider, as registered in the National Registry of Health Establishments [*Cadastro Nacional de Estabelecimentos de Saúde* – CNES], is under municipal and state regulations);[13]
- administrative sphere: corresponds to the sphere to which the health facility is directly subordinated. This can be public (federal, state, and municipal) or private (private facilities or non-governmental organizations and related establishments);[13]
- hierarchy level (HL): a form of framing that defines the complexity of the procedures that can be performed by a health facility serving the SUS;[13]
- hospital size: small (up to 49 beds), medium (50 to 150 beds), large (151 to 500 beds), and special (over 500 beds).

In the analysis, the quality of database and the verification of missing or unfilled items were evaluated. In some criteria, there was a high proportion of non-fulfillment, because facilities only responded to the criteria applicable to their service provision characteristics.[9] Thus, items with a "YES" or "NO" answer and other items that are not applicable to the facility or were not answered ("Did not answer") were identified. In the study, items not applicable to the facility and not answered (NA) were classified as "Not applicable" (NA).

According to Hair *et al.*[14], missing data of up to 10% for a case can be ignored. Assessing facilities' extent and standard make it possible to identify when their level is high, and tabulation of the number of columns, with missing data for each case, and the number of cases, with missing data for each column, is a way of evaluating this extension.

The study used data from 1,761 hospitals that participated in PNASS, which represent 68% of the total of evaluated establishments or 28.66% of the total of specialized and general hospitals registered at CNES in 2015.

The first step was to check the number of missing data (NA) for all columns (item) and all rows (hospitals), with a maximum of up to 10% (NA) defined. As to the NA of the column, the item that was not answered by more than 176 hospitals was excluded. NA was also identified for the row, and hospitals that did not respond to more than 10% of the total items (NA > 11) were excluded. The χ^2 test was applied to compare the distribution of hospitals included and excluded from the study.

The questionnaire answered by hospitals was used, composed of 180 items, which, according to the Donabedian triad, focus on the evaluation of structure and processes.[10] A score was calculated to assess the performance of hospitals, and another score was generated for each of the criteria, calculated by the weighted average of the items that comprise it: for the items classified as "imperative", the score assigned was 3; for the "necessary" items, it was 2; and for the "recommended", 1. Finally, the score for each hospital was calculated based on the average of the criteria that compose it and the final score based on the average of each block. The other criteria were excluded, due to the number of NA (Table 1).

Depending on the performance scores, facilities were divided into three groups by the 50th and 69th percentiles:

- group 1: low performance (score up to 72.01);
- group 2: average performance (score from 72.02 to 82.87);
- group 3: high performance (score above 82.88).

The general scores for hospitals were summarized for Brazil by federated unit, geographic region, type of management, administrative level, hospital size, and hierarchical level.

All statistical analyzes were performed with the R software (R Core Team, 2018).

RESULTS

PNASS evaluated 2,584 facilities: 1,761 hospitals, 295 emergency care units (*unidades de pronto atendimento* – UPA), 89 specialized rehabilitation centers, and 439 renal replacement therapy. The Southeastern region concentrates 43.0% of facilities (of these, 66.0% are hospitals), the Northeastern, 25.0% (71.0% hospitals), the Southern, 17.0% (70.0% hospitals), the Center-Western, 7.7% (56.5% hospitals), and the Northern, 6.9% (76.4% hospitals).

The classification of hospital size was conducted according to the number of beds, which, in the selected base of PNASS, totaled 26 small hospitals (up to 49 beds), 1,112 medium (50 to 150 beds), 488 large (151 to 500 beds), and 44 of special size (over 500 beds). SHs that had some type of qualification according to the program criteria were included.[8]

As to the type of management, 60% of hospitals were municipal, 24% state, and 16% state/municipal. Regarding administrative level, 52% are private, and 48% public (50% municipal, 43% state, and 7% federal).

Table 1. Comparison of applicability for the criteria included* and excluded** in the study with presentation of the percentage of NO, YES, and not applicable (NA) for the 1,761 hospitals evaluated in the program.

Blocks	Criteria	No %	Yes %	NA %
Block I Organizational management	1. Contract management*	42.6	55.5	1.9
	2. Planning and organization*	46.7	51.3	1.9
	3. Information management*	23.1	75.0	1.9
	4. People management*	45.0	42.5	1.9
	5. Organizational model*	38.2	59.9	1.9
Block II Technical and logistical support for care provision	6. Risk management and patient safety*	24.6	73.1	2.1
	7. Infrastructure and ambience management*	35.0	62.9	1.9
	8. Equipment and materials management*	25.4	72.7	1.9
	9. Food and nutrition - service/unit*	25.7	70.2	4.0
	10. Pharmaceutical assistance*	12.3	85.5	2.2
	11. Processing clothes and materials*	35.9	60.9	3.2
	12. Technical and administrative support services for the facility's final activity*	35.0	62.8	2.0
Block III Health care and care management	13. Integration of Health Care Networks*	35.3	62.2	2.3
	14. Administrative and clinical protocols *	36.8	61.0	2.0
	15. Care management*	39.0	58.9	2.1
	16. Access to the care structure**	19.5	54.4	26.0
Block IV Specific services/units	17. Immediate care - urgency and emergency**	28.4	55.0	16.4
	18. Specialized outpatient care**	22.3	56.0	21.6
	19. Inpatient care*	22.6	73.0	4.2
	20. Intensive care**	16.6	45.5	37.7
	21. Surgical and anesthetic care*	35.3	54.7	9.9
	22. Maternal and child care**	26.0	43.7	30.0
	23. Renal replacement therapy care**	1.9	12.0	86.0
	24. Hemotherapy care**	19.5	48.3	32.0
	25. Rehabilitation services care**	0.26	0.41	99.3
Block V Oncological care	26. Facility's obligations and responsibilities**	3.0	12.3	84.7
	27. Radiotherapy care**	0.73	6.5	92.7
	28. Clinical oncology care**	1.7	13.3	84.9
	29. Hematological care**	3.2	9.1	87.5
	30. Pediatric cancer care**	1.7	5.2	93

Source: Public database of the National Program for the Evaluation of Health Services (Programa Nacional de Avaliação de Serviços de Saúde – PNASS), 2015–2016.

Of the 1,761 hospitals, 1,681 (95.5%) had up to 10 unanswered items (NA ≤ 10), and 80 (4.54%) had more than 11 unanswered items (NA > 11). The analysis of 1,681 hospitals with NA ≤ 10, our choice, was the following: 1,558 answered all items, and 123 did not answer up to 10 items. Data were imputed for the 123 hospitals with up to 10 unanswered items, applying the column mode to replace the NA. The χ^2 test demonstrated that there is no significant difference (p = 0.5714), at 5% level, in the geographical distribution of the hospitals included in and excluded from the study.

Of the 180 items in the questionnaire, 102 (56.7%) were included, and 78 (43.3%) were excluded, according to the exclusion criteria for missing items (NA). Consequently, of the 30 initial criteria, 17 (56.6%) were included, and 13 (43.3%), excluded (Table 1).

State management achieved the best result in the average overall score (73) and when assessed by block, the scores were as follows: organizational management (69); technical and logistical support for care provision (79); health care and care management (69); specific services/units (75). The municipal and dual managements do not indicate a difference in the result, with average general scores of 67 and 66, respectively.

As to the administrative sphere, the federal public sphere reached an average score of 76, the state and municipal spheres had an average score of 71 and 57, respectively, and the private sphere reached an average score of 72. By block, hospitals in the federal public sphere achieved the best results, and the municipal sphere had the worst performance. In the classification according to type of management and administrative sphere (Table 2), the average score of federal public hospitals, with municipal management, was 78.37.

In the performance by block according to state, block II — technical and logistical support for care provision — and block IV — specific services/units — showed better results. On the other hand, block I — organizational management — and block III — healthcare and care management — achieved the worst results (Table 3).

When analyzing the performance according to the federative unit, Paraná State achieved the best result (80.21), followed by São Paulo State (79.64). The lowest score was Amapá's (34.21). By geographic region, hospitals located in the Southern and Southeastern regions had the best performances (73.00) in relation to the Central-Western (62.67), the Northeastern (61.18), and the Northern (58.47) regions.

Table 2. Final performance score of hospitals evaluated in the National Program for the Evaluation of Health Services (*Programa Nacional de Avaliação de Serviços de Saúde* – PNASS), 2015–2016, by type of management according to the administrative level.

Administrative sphere	Type of management		
	State	Dual	Municipal
Federal	66.46	69.00	78.37
State	73.00	58.15	70.54
Municipal	70.31	53.70	58.00
Private	74.42	69.60	72.19

Source: Public database of the National Program for the Evaluation of Health Services (*Programa Nacional de Avaliação de Serviços de Saúde* – PNASS), 2015–2016.

Table 3. Final performance score of the hospitals that make up the analysis by block (checklist script) according to state*.

State	Organizational management	Logistical technical support for care provision	Health care and care management	Specific services/ units	Overall performance
North					
Acre	63.13	77.08	58.33	73.96	68.12
Amapá	35.28	44.84	21.30	35.42	34.21
Amazonas	47.87	62.15	54.88	68.82	58.43
Pará	53.54	58.72	56.85	63.32	58.11
Rondônia	63.57	73.30	63.69	79.76	70.08
Roraima	66.11	78.97	62.04	54.17	65.32
Tocantins	48.33	66.37	34.49	53.82	50.75
Northeast					
Alagoas	64.75	70.60	60.97	72.92	67.31
Bahia	56.91	66.29	56.96	69.97	62.53
Ceará	63.49	70.66	62.70	75.00	67.96
Pernambuco	57.64	66.89	60.63	69.23	63.60
Maranhão	39.79	55.31	37.78	55.39	47.07
Paraíba	52.30	60.84	54.88	68.36	59.09
Piauí	64.01	63.96	61.36	60.99	62.58
Rio Grande Norte	55.18	60.71	51.13	58.18	56.30
Sergipe	69.39	77.92	68.18	77.66	73.29
Center-west					
Goiás	53.57	69.86	57.28	64.25	61.24
Mato Grosso	49.32	56.66	47.10	60.80	53.47
Mato Grosso do Sul	76.42	78.69	75.14	81.04	77.82
Distrito Federal	57.19	68.3	63.19	54.95	60.91
Southeast					
Espírito Santo	54.36	63.28	42.87	62.69	55.8
Minas Gerais	65.03	77.04	66.86	76.04	71.24
São Paulo	76.31	83.16	77.68	81.42	79.64
Rio de Janeiro	60.09	71.87	64.06	73.46	67.37
South					
Paraná	76.13	84.67	76.33	83.72	80.21
Rio Grande Sul	66.55	74.17	65.75	68.80	68.82
Santa Catarina	71.45	83.35	71.16	73.35	74.83
Geral Brasil	64.00	73.00	64.00	72.00	68.32*

*Standard deviation of the general performance of the hospitals included in the study: 21.85.
Source: Public database of the National Program for the Evaluation of Health Services (*Programa Nacional de Avaliação de Serviços de Saúde* — PNASS), 2015–2016.

For each hospital's performance, three groups were considered:
- group 1: low performance (score up to 72.01) — 840 hospitals (49.97%);
- group 2: average performance (score from 72.02 to 82.87) — 319 hospitals (18.98%);
- group 3: high performance (score above 82.88) — 522 hospitals (31.05%).

In the classification, the states of Paraná, Rondônia and São Paulo presented the highest percentage of hospitals with high performance, 58.0, 57.0, and 54.0%, respectively. In the Southeastern and Southern region, 38.0% of hospitals achieved high performance, in the Northern and Northeastern, 21.0% achieved high performance.

Finally, the evaluation of hospitals in relation to hospital size pointed out that the larger the size, the better the performance. Average scores according to size: small (55.00), medium (63.00), large (79.00), and special (87.66).

DISCUSSION

The study, one of the first to analyze data from PNASS 2015–2016, innovates by presenting performance evaluation of Brazilian hospitals. Proper assessment has the potential to make service delivery processes more efficient.[15] A total of 1,681 hospitals participated, of which 42% are concentrated in the Southeastern region; 60% of them were managed by the city, a quarter by the state, and less than a fifth by the state/municipal governments; about half were public hospitals, and the rest were private/insured. The questionnaire had 102 items, 17 criteria, and the average performance score for each block was: organizational management (64); technical and logistical support for care provision (73); health care and care management (64); specific services/units (72).

The study advances by using a methodology for excluding missing data above 10% and, thus, defining which items and facilities should be considered for the evaluation of hospital performance.[14]

Donabedian's model was used to assess structure, processes, and results. Structure means the material and organizational attributes under which care is offered (human, material, and financial resources, increase and expansion of the physical network, professional training and organization of services). Process means the analysis of the means and resources used in the production of results (indicators of internal relations to projects, analysis of processes, and improvements and access indicators). And, as a result, the changes (knowledge and behavior) in the patient's health status, the consequences and effects obtained in the care and satisfaction of the user and professionals. Associates, structure, processes, and adequate results would guarantee, *a priori*, the achievement of better results or the proposed objectives.[10] Therefore, the study does not evaluate the results, but the ability of hospitals to achieve the best results, which, in a way, has been demonstrated, since, approximately, one third of hospitals maintain processes that can help them achieve their goals.

The distribution by region shows the existing pattern in Brazil, with a higher density of hospital equipment in the Southeastern, Southern and coast regions.[7] Viacava *et al.*[16] analyze the evolution of the supply of health facilities and resources in the country, and point out marked regional inequalities. They emphasize that the best distribution of supply must be based on the conformation of regional arrangements[17] that consider the debate on the presence of the hospital in the equation of health care[5], facing issues related to the need for human resources, adequate diagnostic support, and beds, based on the regional epidemiological profile, the use of information and computerization, cost control, increased efficiency, the guarantee of access and integrality, the incorporation of primary prevention into the care process, the relation with specialized care, the integration between the public and private sectors, and the incorporation of doctors in the solution of problems.[7,16]

Of the evaluated hospitals, 31.05% have high performance, with the best result for large and special sizes. Studies[18,19] indicate the importance of the scale effect for efficiency. Ramos *et al.*[18] present the gains in scale efficiency for large hospitals, with the large scale of dis-economics predominating. Another study[20] concluded that the excess of small regional hospitals with low resolution and efficiency costs the state and does not improve the population's quality of life.

The highest percentage of hospitals with high performance is in the Southeastern and the Southern regions (38.0%). This corroborates Silva *et al.*[21], who analyzed the technical hospital efficiency of Brazilian regions in 2014 and 2015 and concluded that the most efficient regions were the Southern and Southeastern ones, when compared to the others. Other studies reaffirmed this, pointing to a great incorporation of technology and complexity of services, with a concentration of resources and personnel in hospital complexes in large and medium-sized cities, favoring the Southern and Southeastern regions.[22]

Of the total, 60% of hospitals are municipally managed, and these perform 62% of highly complex outpatient and hospital procedures, suggesting progress in the process of decentralizing health services and actions within SUS. However, state-managed hospitals also showed better results (73.00) in the scores by block. In the administrative sphere, the federal public sector stood out (76.00), and, when comparing the type of management and the administrative sphere, federal public hospitals, with municipal management, evidently achieved the best results (78.37). The analysis indicated better performance of hospitals at the federal level with municipal management. In another study, analyzes related to the administrative sphere did not show significant differences in performance between categories of public hospitals.[18] There is a clear need for further studies to better compare these results between hospitals.

The municipalization of health services covers issues that directly impact their performance (management contract, financing, absence of comprehensive care networks, low political and institutional sustainability, and problems in staffing).[23] In effect, these issues expose the need for intermunicipal articulations, with a new governance model that combines decentralization with the need for solidary integration.[24] In this context, the hospital has a capillarized role in the HCN, with matrix insertion in the different components of the system, exercising the role of inducing training mechanisms and increasing the resolution of basic and specialized outpatient care.[7,20]

The PNASS methodological base evaluated hospitals of different complexities, without the need for specific instruments. However, the percentage of missing data (Table 1) for the items access to the care structure in block III (health care and care management), with 26.0%, and care in a specialized outpatient regime in block IV (specific services/units), with 21.6%, suggests the need to revise the instrument applied to these criteria, as it is essential content for hospital evaluation.

On the other hand, the percentage of missing data in block IV (specific services/units) evidenced the specificity of the content evaluated for some criteria, such as renal replacement therapy and rehabilitation services, justifying its not inclusion in the analysis. And block V (cancer care), not included in the analysis, indicates that the evaluated criteria are characteristics of hospitals of greater complexity, as they presented a percentage of non-applicability greater than 85% for each criterion.

Among study limits, the fact that the questionnaire is answered by the hospitals themselves can lead to inaccuracy in the answers and to a better score performance. The high percentage of NA presented (Table 1) led to the exclusion of criteria, which can alter the final score.

PNASS 2015–2016 stands out as an important assessment instrument within SUS with the potential to re-guide health facility practices, subsidizing decision making to improve the management, structure, and care of hospital services.

The hospital is a fundamental point of attention in the HCN, highlighting the study relevance. Results portray the profile of hospitals in Brazil and point out that roughly one third of the evaluated hospitals maintain processes that can help hospitals achieve their goals, with an important interrelation between scale and efficiency.

Federal public hospitals, with municipal management, achieved better results. By federal unit, important regional inequalities were identified in relation to the greater number and complexity of hospitals. These results indicate the importance of shared management with efficient regulation in the agreement of management contracts, which considers inter-municipal articulation in the organization of regional arrangements with the potential to encourage the resolving capacity of local systems.

The analysis by block indicated gaps in relation to the criteria verified for organizational management, and health care and care management with the worst results, pointing out the relevance of leveraging the organizational management of hospitals and the need for investment in health care, ensuring efficient and safe care.

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