

Financial analysis of small hospitals in the state of Pernambuco from 2009 to 2015



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Daize Kelly da Silva Feitosa

Education: Master's student in Public Health
Institution: Aggeu Magalhães Institute-Fiocruz, Recife-PE- BRAZIL
E-mail: kellydaize@hotmail.com
ORCID: <https://orcid.org/0000-0001-9308-0430>

Isadora Sabrina Ferreira dos Santos

Education: Master's student in Public Health
Institution: Aggeu Magalhães Institute-Fiocruz, Recife-PE- BRAZIL
E-mail: IsadoraSabrina18@gmail.com
ORCID: <https://orcid.org/0000-0002-8853-2073>

Kaio Flávio Freitas de Souza

Education: Master's student in Public Health
Institution: Aggeu Magalhães Institute-Fiocruz, Recife-PE- BRAZIL
E-mail: kaio.souza.res@ufpe.br
ORCID: <https://orcid.org/0000-0001-9964-0064>

Bárbara Letícia Silvestre Rodrigues

Education: Resident in Public Health
Institution: University of Pernambuco
E-mail: barbaralsrodrigues07@gmail.com
ORCID: <https://orcid.org/0000-0001-7754-4282?lang=pt>

Isabel de Jesus Brandão Barreto

Training: Resident in Interiorization of Health Care – PRMIAS
Institution: Federal University of Pernambuco
E-mail: isabelbrandao@outlook.com.br
ORCID: <https://orcid.org/0000-0002-7965-0860>

Erlene Roberta Ribeiro

Education: PhD in Neuropsychiatry and Behavioral Science
Institution: Federal University of Pernambuco (UFPE)
E-mail: erlene.santos@ufpe.br
ORCID: <https://orcid.org/0000-0003-3334-3408>

ABSTRACT

This article presents the results of a research that aimed to evaluate the economic and financial performance of the Hospital Units qualified in the National Policy of Small Portiers Hospitals (HPP) in the state of Pernambuco, from 2009 to 2015. In order to discuss the implications of the results for the financial sustainability of the units, indicating possible alternatives. The survey data were obtained from a sample of 59 small hospitals registered in the National Health Establishments Registration System (CNES), through the System Financial Limits of Control Medium and High Complexity (SISMAC) and Information Systems Hospital and ambulatory (SIA and SIH). These secondary data were analyzed by the Consumer Price Index (IPCA). Data analysis showed a significant loss of financial capacity of the studied hospitals and significant differences between the reported amounts of revenues and performance over the years. Showing the need to point out possible strategies redirection of resources or change the service profile of these units and analyze the feasibility of HPP policy.

Keywords: Hospital, Performance, Financial Management, Inflation.

1 INTRODUCTION

The amounts spent on hospital care activities in Brazil are significantly significant. In this sense, there is a need to reflect on the results and their beneficial cost to the health of the population. The evaluation of economic and financial performance plays an important role, in view of the scenario of working better on the management of resources related to the increase in costs in the health area, its operational activities, with regard to productivity, efficiency and quality of service, in addition to



monitoring decision-making processes (RIBEIRO, FOCHEZATTO, 2005; VEILLARD. J et al, 2005).

Small Hospitals (HPP) are strategic elements in the process of remodeling the Unified Health System (SUS). Due to their great expression in the Brazilian territory, they play an important role, especially after the consolidation of primary care as a health care strategy, they represent 62% of the hospital establishments in the Brazilian health system (UGÁ, 2007).

The HPP were the object of a specific policy, called the National Policy of Small Hospitals, instituted by Ordinance GM/MS No. 1,044 of 06/01/2004. According to this document, this type of hospital is encouraged to have a contracting process through qualitative and quantitative goals corresponding to a global budget, differing from the traditional payment for production through the Hospital Information System - SIH/SUS (BRASIL, 2005; UGÁ, 2007).

With regard to the process of adhesion of hospital units to this HPP policy, basic requirements were defined for this, namely: belonging to the public or private non-profit administrative sphere; be in municipalities or micro-regions with up to 30 thousand inhabitants, in which the same hospital institutions have between 05 and 30 beds registered in the National Registry of Health Establishments (CNES); and being located in municipalities that have Family Health Strategy coverage equal to or greater than 70% (BRASIL, 2005).

The Ordinance also ratifies that the quantitative supply of beds in Small Hospitals must be adjusted using as a parameter: the need for low and medium complexity hospitalizations, estimated at 5% of the population in the coverage area in the year; Occupancy rate of 80% with an average stay of 04 days. Thus, the policy proposes to guide, plan and adapt the profile of the PPHs according to the epidemiological profile and the needs of small hospital care in the municipalities, ensuring the continuity provided by primary and medium complexity care (BRASIL, 2004).

As for financing, the Ordinance also provides for the allocation of funding resources to health establishments, which must meet the criteria mentioned above and the overall budget corresponding to the cost of HPP hospitals. It refers to automatic transfers from the National Health Fund and the respective State and Municipal Funds, following the final rules of this type of transfer (BRASIL, 2004).

With regard to the financial resources applied, it designates that they must be in accordance with the Investment Master Plan of the States and be monitored through the Target Contract established by the Management Council to be established by the Health Council or by the Monitoring Committee of the Target Contract with indicators and parameters, for monitoring and evaluating the performance of health establishments, as a way to ensure the maintenance of the transfer of financial resources (BRASIL, 2004).

The incorporation of inflation rates is efficient in the analysis of costs in the health sector, emphasizing that the increases of these, in general in the sector, are higher than the indexes adopted



for inflation measures in the country. The Extended Consumer Price Index (IPCA) measures the variation in the cost of living of 90% of the families belonging to the urban areas covered by the National System of Consumer Price Indices - SNIPC and aims to measure the inflation of a set of products and services. Brazil is in the middle of the scale of growth of medical-hospital inflation, which has been higher than the variation in wholesale prices (FERREIRA E SILVEIRA, 2007; IBGE, 2015).

Considering the proposal of the National Policy for Small Hospitals, there is a need to evaluate the financial capacity of hospitals through the economic and financial performance, and the effects of inflation on the incentives established by the HPP Policy. From this perspective, the objective of this study is to evaluate the financial feasibility of the Units qualified in the National Policy of Small Hospitals in the state of Pernambuco between the years 2009 and 2015.

2 METHODOLOGY

This is a descriptive cross-sectional study of a quantitative nature. Descriptive research observes, records, analyzes, and correlates facts and phenomena without the interference of the researcher, seeking to interpret them. It was consolidated based on statistical tests and data measurement (MALHOTRA, 2001). It used secondary databases, which were collected for numerical measurement, seeking to identify patterns of behavior (SAMPIERI, COLLADO AND LUCIO, 2006; RAMPAZZO, 2005)

The universe of the study was composed of hospital establishments that are qualified in the Policy as HPP in the period from 2009 to 2015, totaling 59 municipal hospitals in Pernambuco. This universe corresponds to 876 beds, with an average of 14 beds per establishment, distributed in 12 Health Regions of the State (**Appendix A**).

Information regarding the general description of hospitals was collected through the database of the National Registry of Health Establishments (CNES) in 2016. To survey the financial transfers, data from the information systems of the Ministry of Health and the Pernambuco State Department of Health were used.

Regarding the data referring to the financial resources coming from the Federal Government, they were obtained from the Medium and High Complexity Financial Limit Control System (SISMAC-MS-DATASUS) through the annual financial ceiling established for each federated entity, and the ordinance that establishes the qualification of the HPP policy and the value of the incentive was selected. Regarding the funds transferred by the State Health Department, these were obtained by State Ordinance No. 023 of January 17, 2014, published in the Official Gazette of the State of Pernambuco.

Data on the production of outpatient and hospital care were collected from the Hospital and Outpatient Information Systems (SIH and SIA) of the Department of Information and Informatics of



SUS (DATASUS), in which the amounts in reais approved for payment of each Hospital Unit were selected.

The values of productions and revenues from the Ministry of Health and the State Department of Health were deflated, i.e., the conversion of current (nominal) values into currency of constant purchasing power (real value), by means of the Extended Consumer Price Index (IPCA – ANNEX A), obtained from the website of the Brazilian Institute of Geography and Statistics (IBGE).

Table 01 - Formula for the calculation of deflation of values.

Formula: DEFLATED VALUE = ANO_X VALUE * (IPCA 2009/IPCA_X) Where: VALUE YEAR X = values transferred by the Ministry of Health and SES-PE (2009 to 2015) IPCA 2009 = base year index for the calculation IPCA_X = indices of the years analysed

Source: Brazilian Institute of Geography and Statistics (IBGE) – Prepared by the author, 2023.

Descriptive statistics were used to calculate measures that describe the data through the distribution of frequency and percentages. Finally, the collected data were transferred to a Microsoft Excel 2010 spreadsheet, where they were then tabulated and graphs generated.

The data came from secondary databases in the public domain, the research does not require approval by the Ethics Committee on Research Involving Human Beings, considering Resolution No. 466 of December 12, 2012 of the National Health Council.

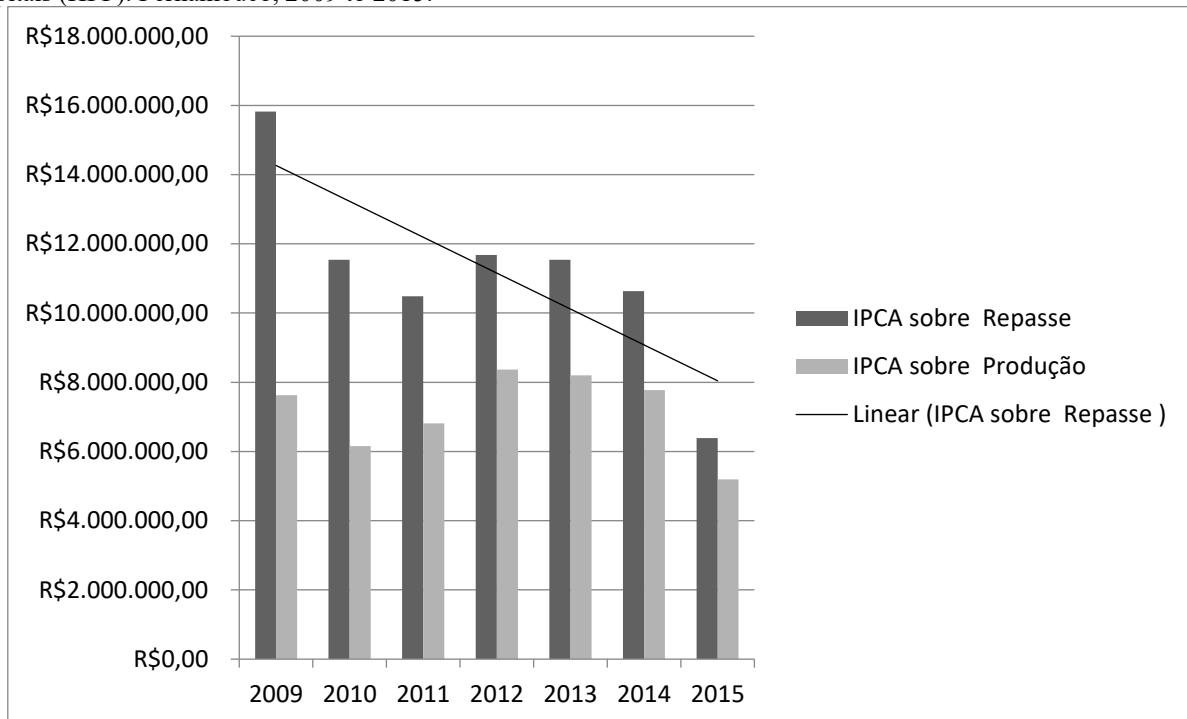
3 RESULTS AND DISCUSSION

The amount and the additional financial of the Hospital Units qualified in the National Policy of Small Hospitals (HPP) are divided equally between the Ministry of Health and the respective State Health Secretariat. In addition, unusually, it can present costing proposals providing for the participation of municipalities, agreed in the Tripartite and Bipartite Interagency Commissions.

The amount of the transfer of the total annual revenue was R\$ 15,819,035.88, this amount remains fixed throughout the period from 2009 to 2015, indicating that there was no adjustment. In this way, it is possible to observe some trends over the years analyzed. The influence of inflation results in a decline in revenue values over time and a significant loss in the real value of fixed financial incentives (Chart 01).



Graph 01 - Impact of the IPCA on the financial resources of the Hospital Units qualified in the National Policy of Small Hospitals (HPP). Pernambuco, 2009 to 2015.



Source: SISMAC + Ordinance n. 023, SIA and SIH/DATASUS - Prepared by the author. Period: 2009 to 2015.

The total amount of the transfer in the period observed was R\$ 110,733,251.16, however, considering inflation, it became R\$ 78,082,106.61, totaling a difference of R\$ 32,651,144.55, which represents 70.51% of the initial amount, that is, less capacity to acquire inputs and defray the expenses of the Hospital Units. The year 2015 stands out, in which there was the highest inflation in relation to the other years, with the IPCA of 10.61 showing a difference of R\$ 9,429,153.53 over the total transfer of R\$ 15,819,035.88, which corresponds to a real drop in revenue over the total value, with a drop of approximately 60% in purchasing power. showing a descending trendline.

Table 01 highlights the financial performance of the Hospital Units qualified in the HPP Policy, indicating differences between the revenue values and the performance over the years analyzed.

Table 01: Financial Performance of Hospital Units qualified in the National Policy for Small Hospitals (HPP). Pernambuco, 2009 to 2015.

Year	Total Value (Treasury + MS/SUS) *	Total Produced (SIA + SIH) *	Difference Between Total Revenue - Total Produced*	% Performance*
2009	R\$ 15,819,035.88	R\$ 7,627,026.49	R\$ 8,192,009.39	48,21
2010	R\$ 11,536,386.57	R\$ 6,160,324.36	R\$ 5,376,062.21	53,40
2011	R\$ 10,489,237.64	R\$ 6,816,023.81	R\$ 3,673,213.83	64,98
2012	R\$ 11,674,665.18	R\$ 8,362,633.68	R\$ 3,312,031.50	71,63
2013	R\$ 11,536,386.57	R\$ 8,197,836.81	R\$ 3,338,549.76	71,06
2014	R\$ 10,636,512.42	R\$ 7,773,417.68	R\$ 2,863,094.74	73,08
2015	/R\$ 6,389,882.35	R\$ 5,191,277.05	R\$ 1,198,605.30	81,24



Total	R\$ 78,082,106.61	R\$ 50,128,539.87	R\$ 27,953,566.74	64,20
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Source: SISMAC + Ordinance No. 023, SIA and SIH/DATASUS – Prepared by the author. Period: 2009 to 2015.
*Deflated Values

The total average production rate of the establishments was 64.20%, in relation to the total amount transferred according to the deflated values. The result shows that the financial performance was influenced by inflation, because as revenues fell, financial production fell proportionally to the resources contributed. Despite this, the performance was between approximately 48% and 81% when the evaluation was carried out annually. In every period, there is a drop in performance of around 30%. The participation of municipal entities in the financing reflected a lower drop in productivity.

It can be seen that small hospitals tend to have a lower level of production, because even if they had their operational capacity fully utilized, they are still not self-sustaining units due to the small number of existing beds, which does not allow them to produce sufficient economic results to cover operating expenses, such as human resources and supplies. Linked to this issue, the existing underfunding further aggravates the structural problems of these units.

Ramos (2015) found that the performance of hospitals that provide care through the public system is recognized for its small size and capillarity to the interior of the country. These hospitals, although strategic for decentralization and regionalization, are not very efficient. It is important to emphasize that the results found reflect a smaller amount of care offered, since the financial volume contributed is directly related to the lower number of procedures performed. Thus, it is evident that the readjustment of resources should be reviewed, considering that inflation consumes and limits the ability to maintain productivity conditions.

According to Ferreira (2007), the increase in health expenditures tends to be higher in relation to other sectors, suffering the influence of medical technology on costs, the aging of the population that influences the growing consumption of health services, are factors traditionally pointed out to justify the disproportionate growth in expenditures, causing a real inflationary risk in the Health Sector. the inflation rate in Brazil has been above the targets set by the Government, being one of the great challenges in recent years.

According to La Forgia and Couttolenc (2008), the main focus of health care remains in hospitals, since the hospital sector performs practically all hospitalizations in the country. An issue that contributes to the low performance of these hospitals is the peculiarities of the health sector, which does not follow the flow of supply and demand in the market, impacting on higher inflation than that found in other sectors and, consequently, on the lag of the amounts transferred. Thus, the logic of SUS financing, which establishes physical and financial ceilings to produce hospitals according to the size and historical series of production, discourages the increase in the services provided and, consequently,



the increase in productivity.

The purpose of restructuring the care network in order to qualify and humanize care, management and strengthen decentralization, through financial incentives established in a Ministerial Ordinance, did not consider the real losses due to inflation, in which no strategy was established to replace these losses, since it froze the contribution of resources, making it impossible to improve and redefine the care role of small Hospital Units with a view to strengthening and improving the Unified Health System, Thus, further advances in the performance and maintenance of the operational capacity of the HPPS become unfeasible.

With regard to financial management, it is essential to understand the existing processes within these organizations in order to establish routines that promote the best use of existing resources and the expansion of users' access to the Unified Health System, strengthening the care network so that they can be effective (SPEDO, 2009). The results described here point to a lower than expected economic and financial performance and real inflationary effects on the financial capacity of the incentives provided for in the HPP policy, which refers to the need to point out possible strategies for redirecting resources or the change in the care profile of these Units and to analyze the feasibility of the HPP policy.

In this way, the importance of the evaluation of economic and financial performance in health services was demonstrated, in order to provide concise information regarding the financial capacity of small hospital care, The results found provoke the need for new research, with thematic and methodological approaches that make it possible to assimilate and understand the capacity of the set of measures and strategies adopted by the Ministry of Health to formulate hospital care policies, with the aim of improving and redefining the care role of hospital financing and management.

The purpose of evaluating the feasibility of the National Policy of Small Hospitals (HPP) through its economic and financial performance proved to be convenient and relevant, and becomes a tool for evaluating the proposal to strengthen the small hospital care network of the municipalities through the HPP Policy. in order to improve and redefine the care role of the financing and management process of hospitals. Thus, the study aimed to foster the debate on the organization of articulated and problem-solving networks of services, stimulating qualified access to health services and the relevance of inducing the decentralization process.

The study also encourages the importance of the debate on inflationary risk in the health sector, which is a fundamental issue in the financial management of the public sector to make possible investments and adjustments that ensure a minimum profitability, capable of overcoming the inflation of the necessary inputs and the creation and development of public policies that are compatible with the inflationary dynamics of the market for health products and services. reflected by the Extended Consumer Price Index (IPCA).



However, the use of economic and financial performance evaluation is considerable, in view of the scenario of working better on the management of resources related to the increase in costs in the health area, taking into account that hospital units are complex organizational structures that require managers to mobilize great efforts to ensure the maintenance of activities inherent to productivity, efficiency and quality of service, in addition to monitoring decision-making processes in hospital care.



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APPENDIX

Appendix A – General Description of Sample Hospitals (continued)

Health Region	City	Institution	CNES	Beds
I	Itapissuma	Hosp.e Mater. João Ribeiro Albuquerque	2432315	20
I	Pigeons	Virgínia C.Dias Hospital and Maternity	2432706	21
I	Glory of Goita	Maria Gaiao Guerra Mixed Unit	2499843	24
II	New Fair	Hospital Municipal Josefa E. da Rocha	2712024	17
II	João Alfredo	Joana Amelia Cavalcanti Mixed Unit	2715287	23
II	Car Pond	Simeão Ribeiro de Lemos Mixed Unit	2715392	12
II	Lagoa do itaenga	Casa de Saúde and Mat.Josefa C. de Petribu	2711389	19
II	Axes	Hospital Edson Alvares	2352575	09
II	Orobo	Hospital Severino Távora	2712067	20
II	Passira	Nossa Senhora da Conceição Mixed Unit	2715368	25
II	Tracunhaem	Maria da Gloria Nogueira Mixed Unit	2349728	11
III	Amaraji	Hospital Alice Batista Santos	2711877	19
III	Belem de maria	Our Lady of Sorrows Mixed Unit	2715376	09
III	Catende	Dr. João Mayrink Mixed Unit	2715260	27
III	Gameleira	Argemira S.R.Baros Mixed Unit	2435454	23
III	Joaquim Nabuco	Lídia Maria de França Mixed Unit	2433494	14
III	Tame	Dr. José Múcio Monteiro Mixed Unit	2715279	16
III	Xexeu	Santa Joana Mixed Unit	2429314	13
IV	Cachoeirinha	Nair Alves Raimundo Mixed Unit	2638908	16
IV	Camocim s. Felix	Mixed Unit N.S.do Good Birth	2703386	14
IV	Cupira	Hospital Municipal Jose Verísimo de Souza	2354845	20
IV	Friar Miguel	Hosp.e Mat. João Alexandre de Oliveira	2638916	11
IV	Ibirajuba	M.Prof.Jorge Oliveira Lobo Unit	2346850	07
IV	Jatauba	Ana Argemira Correia Mixed Unit	2433788	13
IV	Jurema	Santa Quitéria Mixed Unit	2346826	13
IV	Sanharo	M.Dr. Carlos Augusto S. Leão Unit	2638851	14
IV	Torhythm	Our Lady of Fatima Municipal Hospital	3631180	22
V	Angelim	Santa Terezinha Mixed Unit	2703033	08
V	Caetes	Luiza P. de Carvalho Mixed Unit	2703017	23
V	Left-hander	Antonia Alves de Melo Mixed Unit	2638924	22
V	Capoeira	Mixed Unit Quiteria Alves Vilela	2346869	17
V	Currents	Kyola Mixed Unit	2355841	16
V	Hiatis	N.Sra.da Conceição Mixed Unit	2702975	15
V	Jupi	Claudina Teixeira Municipal Unit	2638975	11
V	Gold Lagoon	Hospital and Mat.de Lagoa do Ouro	2638967	10
V	Saroh	Mixed Unity Josina Godoy	2638940	13
V	Theresa	Terezinha Mixed Unit	2715252	06
YOU	Ibimirim	Marcos Ferreira Davila Mixed Unit	2639092	19



YOU	It's coming	Santa Rita Mixed Unit	2703068	13
VII	Verdant	Adelaide Tavares de Sá Mixed Unit	2703106	08
VIII	Large Lagoon	José Henrique de Lima Municipal Hospital	2639211	19
IX	Bodoco	Eulina Silva L. de Alencar Mixed Unit	2345374	29
IX	Eshu	Hospiyal Jose Pinyo Saraiva	2431106	29
IX	Granite	M.Senhorinha de Souza Unit	2702835	06
IX	Santa cruz	Hospital Municipal João Rodrigues de Souza	2714485	10
X	Brejinho	Hospital Clotilde de Fonte Rangel	2711907	7
X	Carnaiba	Jose Dantas Filho Mixed Unit	2428881	15
X	Ingazeira	Benvinda de Brito Galvão Mixed Unit	2639327	04
X	Santa terezinha	Santa Terezinha Mixed Unit	2500000	10
X	Solidao	Maria Jesuino da Silva Mixed Unit	2639300	05
XI	Bethany	M.Prof.Alcides Ferreira Lima Unit	2703076	10
XI	Carnauba tree	Argemiro José Torres Mixed Unit	4018044	09
XI	Flowers	Genezio Francisco Xavier Mixed Unit	2432471	18
XI	Itacuruba	DR. Manoel Novaes Mixed Unit	2639114	04
XI	Triumph	Felinto Wanderley Mixed Unit	2702843	13
XII	Camutanga	Mivernia Guedes T. de Melo Mixed Unit	2715341	07
XII	County	João Pereira de Andrade Mixed Unit	2715295	20
XII	Itaquitinga	Adelina de Azevedo Mixed Unit	2499835	14



ATTACHMENT

Appendix A- Cumulative Extended Consumer Price Index: 2009 to 2015

YEAR	CUMULATIVE HICP
2009	4,31
2010	5,91
2011	6,5
2012	5,84
2013	5,91
2014	6,41
2015	10,67

Source: Brazilian Institute of Geography and Statistics – IBGE