RDBCI | Revista Digital de Biblioteconomia e Ciência da Informação
Digital Journal of Library and Information Science

ISSN 1678-765X doi 10.20396/rdbci.v19i00.8664607/26762

ARTICLE

Limitations on public health procurement information access in Brazil under the Information Access Law
a literature integrative review

Virgínia de Albuquerque Mota [1] https://orcid.org/0000-0003-2331-3926
Rogério Henrique de Araújo Júnior [2] https://orcid.org/ 0000-0002-6125-822X

[1] Federal University of Mato Grosso, Cuiabá, MT, Brazil / e-mail: virginia.a.mota@gmail.com
[2] University of Brasília, Brasília, DF, Brazil / e-mail: rogerio.araujo.jr@gmail.com

ABSTRACT
Introduction: Investigate the limitations of public procurement information health access in Brazil, from 1990 to 2018, according to Access to Information Law criteria. Method: Integrative review was carried out on published scientific production in indexed journals, with analysis of the limitations reported in the search for public procurement information health access, considering the criteria provided for in that Law to guarantee access: primacy, integrity, updating, availability and authenticity. Results: 35 articles were included in the review, with a predominance of studies on the external phase of the public health procurement process, complexity of the object of contracting goods and having the federal and municipal spheres as contractor. 64 information sources were identified, the majority being secondary sources, in the format of banks and databases, and 43.75% of these sources reported limitations regarding access to the information obtained. Conclusion: Public procurement information health access has important limitations in relation to the criterias of Access to Information Law, and has repercussions on the production of scientific knowledge. Information Science can contribute to future studies to qualify the search and retrieval processes for that information.

KEYWORDS
Information access. Public information. Information sources. Health expenditure. Literature reviews.

Limitações do acesso à informação sobre contratação pública em saúde no Brasil à luz da Lei de Acesso à Informação
uma revisão integrativa da literatura

RESUMO
Introdução: Investigar as limitações do acesso às informações sobre contratação pública em saúde no Brasil, no período de 1990 a 2018, de acordo com critérios definidos na Lei de Acesso à Informação. Método: Revisão integrativa da produção científica publicada em periódicos indexados no período supramencionado, com análise dos registros de limitações relatados na busca do acesso às informações sobre contratação pública em saúde, considerando os critérios previstos na referida Lei para garantir o acesso de: primariedade, integridade, atualização, disponibilização e autenticidade. Resultados: Foram incluídos 35 artigos na revisão, com predomínio de estudos sobre a fase externa do processo de contratação pública em saúde, complexidade do objeto de contratação de bens e tendo como contratante as esferas federal e municipal. Identificou-se 64 fontes de informação, sendo a maioria fontes secundárias, no formato de bancos e bases de dados, e 43,75% destas fontes apresentaram relato de limitações em relação ao acesso às informações obtidas. Conclusão: O acesso às informações sobre contratação

pública em saúde apresenta limitações importantes em relação à Lei de Acesso à Informação, e tem repercussões sobre a produção do conhecimento científico. A Ciência da Informação pode contribuir com estudos futuros para qualificar os processos de busca e recuperação da referida informação.

PALAVRAS-CHAVE
Acesso à informação. Informação governamental. Fonte de informação. Saúde coletiva. Revisões de literatura.

JITA: BA. Use and impact of information.

1 INTRODUCTION

Public procurement is a complex process, involving state and society, and object of study of numerous investigations and recommendation of international organizations, concerned with the rationality of public spending and financial sustainability around the world.

This attention is justified by the estimate that for every three dollars of public spending in the world, one dollar is employed in public procurement (OPEN CONTRACTING PARTNERSHIP, 2018), and that in a macroeconomic context of financial crisis and fiscal adjustment policies, access to information regarding these expenditures is fundamental for the improvement of public management.

According to Attard et al. (2015), the access of open government data in European Union member countries has limitations in access in relation to differences in content, semantic barriers, accessibility and data format. In Brazil, the same study found that the centralization of information systems administration by the federal government contributes to the standardization of this information, but the incorporation of new technologies to ensure access does not occur timely.

Basu et al. (2012) conducted a systematic review of the literature to compare performance criteria between public and private health systems in low and middle income countries, one of these criteria being transparency and access to information, and found that public-private partnership data is scarce, especially for private providers, and as a consequence does not allow the evaluation of services provided to the official health system in the contexts studied.

In Brazil, historically, there has been a negligence in the investment of the consolidation of a proper network of the "Unified Health System" (Sistema Único de Saúde [SUS]), at the same time as there has been public funding of the private network, which has culminated in the current picture of dependence of the public administration on private services in several locations and subsectors of health (VIACAVA *et al*., 2018). In these cases, the lack of information about public procurement reflects the ignorance about the reality of the health system itself.

The lack of access to information regarding public procurement in health brings repercussions to the entire system, in that it directly affects the quality of care provided, the logic of health care, the investment capacity of the SUS, among others.

We can consider that the genesis of these difficulties is related to access to information, being configured as a relevant problem for the field of Information Science (IS), related from the macro level, of the absence of a policy for information on public contracting in health and of normative and theoretical delimitation on what information is needed on public procurement, to the micro level, of the absence of information professionals and of a culture of not using this information strategically for decision making.

An international strategy for the promotion of government transparency in public procurement would be to improve the quality of access to data, even for knowledge of the totality of possible bottlenecks of financial waste, in spaces in which these data would be analyzed, such as public hearings or local evaluation assemblies, from contracting needs to accountability of the fulfillment or not of contracts, among others (MACKEY et al., 2016).

In this scenario, IS can contribute to the discussion about access to information, since this field of knowledge arose precisely from the need to handle a large volume of information and scientific knowledge in the post-war period. Bush (1945) understood that all the arsenal of information produced until then were strategic elements to support decision-making processes,

however, if the relevant information for those who needed it were not accessible, this would represent a delay in the development of science itself.

In this way, organizations can use more efficiently the information produced and received by them, but that, due to the lack of vision about the strategic nature of this information for decision making, end up becoming accumulated documentary masses, without practical application, neither as a subsidy for decision making, nor as organizational memory.

Given the complexity of the public procurement process and the fundamental role of government transparency for improving the management of health resources, studies point out the need for research on information related to contracts (MATOS; POMPEU, 2003) and administrative activities involved in the contracting process (COTTA *et al*., 2009).

Despite this relevance, there are few studies that evaluate the quality of access to information on public contracting in health in the SUS, even though there are records about the existence of these limitations and that they substantially impact both the results of scientific research and the development of health planning by the public administration.

In this context, this study aims to investigate the limitations regarding access to information on public procurement in health in Brazil, in an integrative literature review, in the period from the beginning of the implementation of the SUS with its regulation through the organic health laws (1990) until the year 2018, in which the 30 years of the "constitutional SUS" are completed, and that analyses of this historical period are necessary to advance in the consolidation of the health system, and in particular of public procurement that represents one of the sensitive points that hindered this consolidation (PAIM, 2018).

The integrative review is considered the "research of researches" and is configured as a method of literature review widely used in the health area, which can include studies with different methodologies to meet different purposes, such as reviewing evidence on variables still little explored as central objects of research, being important that these are well defined by the purpose of the review and from a parameter that allows comparison of these variables in different publications (WHITTEMORE; KNAFF, 2005).

2 INFORMATION SCIENCE AND ACCESS TO INFORMATION

Information is taken as the object of a great diversity of fields of knowledge throughout the history of mankind, however, it is only as of the mid-twentieth century that a discipline that intends to deal with information as its central object of study is formally structured, called Information Science.

Bush (1945) states that, in the context of the cold war in which there was a large volume of information produced during the two world wars, the strategic management of this information was necessary, to guarantee access to and retrieval of information that could subsidize decision making and scientific development, and give meaning to all the scientific and technical effort undertaken in return for society.

The first formal concept of IS is coined by Borko (1968, p.3), in a document that marks the change in nomenclature from "American Documentation Institute" to "American Society for Information Science", in which he defines IS as "[...] a discipline that investigates the properties and behavior of information, the forces governing the flow of information, and the significance of processing information for optimal accessibility [...]".

Configuring itself as an applied social science, IS is faced with problems related to the access to large volumes of data and information, which does not occur only through the availability of information stocks, but also through the treatment and organization of information that facilitates its retrieval according to the users' information needs.

The access to government information goes back to the very systematization of this field, firstly aimed at facilitating the retrieval process of accumulated scientific information, and also in the organization and treatment of the information produced and guarded by the State, in the perspective of government transparency.

In recent years, public authorities have adopted measures to increase access to government information. In 2011, Brazil and seven other countries founded an international steering committee named Open Government Partnership (OGP), when an open data plan was presented with the commitment to expand government transparency (FREITAS; DACORSO, 2014).

As the main outcome of this plan, we had the approval of Law No. 12,527, of November 18, 2011 (BRASIL, 2011), known as the Access to Information Law (LAI), which regulated access to information whose right was already contained in the text of the 1988 Federal Constitution, making publicity the rule and secrecy the exception in the federal, state and municipal spheres (FERREIRA *et al*., 2012). This legislation has as a consequence important advances in convergence with some points of the aforementioned international consensus.

In this legislation and in the normative framework that derived from it, such as Decree 7,724 of May 16, 2012 (BRASIL, 2012), we have the concept of active and passive transparency, being that in active transparency the public administration must make government information accessible to society as a whole and in passive transparency the public administration must provide all information that is requested (FERREIRA *et al*., 2012).

According to this legal instrument, the criteria for access to information were defined according to Article 4:

> VI - availability: quality of information that can be known and used by authorized individuals, equipment or systems; VII - authenticity: quality of information that has been produced, sent, received or modified by a particular individual, equipment or system; VIII - integrity: quality of unmodified information, including as to origin, transit and destination; IX - primacy: quality of information collected at source, with as much detail as possible, without modification. (BRASIL, 2011).

The establishment of criteria and a normative set subsequent to this legislation, contributed to Brazil occupying the eighth position among countries with open data in the world in a survey by the Open Data Global Index (OKI, 2018). According to this same survey, public-private partnership data is not in open format (not machine-processed, not one-time-download, not updated, and not available for public access).

The limitations of access to information on public-private partnerships, which are a form of public procurement, have to do with the organization of said information in sources that allow access, considering the criteria defined in the legislation.

3 PUBLIC PROCUREMENT IN HEALTH AND INFORMATION SOURCES

In addition to the lack of availability of relevant information, it is observed that convergent understandings of what is public procurement, what are its stages and what is the role of professionals who work directly in this process, also contributes to the organization, management and retrieval of information on such contracting (PRIER; MCCUE, 2009).

International organizations define public procurement as a complex process, composed of the stages of: i) survey of demand; ii) choice of the best response to this demand, iii) establishment of contracting signed by the States Parties with government objectives; iv) monitoring; v) evaluation; and vi) accountability; and these stages are supported by the precepts

of competition, economy, efficiency, justice and transparency of information (MERCOSUR, 2017; OECD, 2015; WTO, 2014).

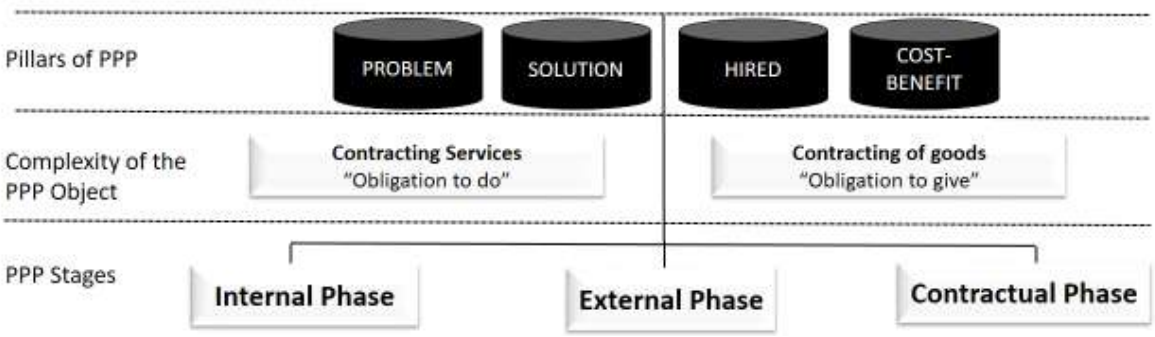
For Mendes (2012), in Brazil, both in legal and normative texts and in practice, the public procurement process, which is structured from the planning of the sector to the supervision of the contract execution, has been mistakenly treated in a partial way, with great emphasis on bidding (external phase) and less emphasis on the other phases of the referred process. To demarcate this structuring, the author proposes the definition of public procurement as:

> Set of phases, stages and acts structured in a logical way to allow the Administration, from the precise identification of its need and demand, to define precisely the desired charge, minimize its risks and select, isonomically if possible, the person able to satisfy its need by the best cost-benefit ratio. (MENDES, 2012, p. 25).

During the period defined as the time frame of this research (1990 to 2018), the public procurement process in Brazil was governed by Law No. 8,666/1993, which considers a contract "[...] any and all adjustments between agencies or entities of the public administration and individuals, in which there is an agreement of will for the formation of a bond and the stipulation of reciprocal obligations, whatever the denomination used [...]", and may be consummated through different types of acquisition, defined by Article 22 of the same legislation, such as competition, price taking, invitation, contest or auction (BRASIL, 1993).

In Figure 1, it is represented the 3 aspects of the public procurement process (PPP) considered by Mendes (2012) for the understanding of its concept, namely the pillars that support the process, the complexity of the contracted object and the internal, external and contractual phases, which encompass the actions to be developed during this process.

Figure 1 - Pillars, complexity of the object, and phases of the public procurement process.



Source: elaborated by the author based on Mendes (2012).

The internal phase of the PPP is related to the planning, which includes from the identification of the need to the preparation of the public notice; the external phase includes the stages of selection of the winning proposal to meet the public need; and the contractual phase includes the execution of the charge and its respective remuneration, as well as monitoring and control (MENDES, 2012).

Government information, specifically information related to public contracting in health, is strategic for the decision-making process, which involves everything from assessing the real need for contracting to evaluating the cost-benefit of the contracting method for the public administration's demand.

In the Brazilian health context, the treatment of contractual data began in the 1970s, with the institution by the federal government of a mechanism to control the provision of private

services for the public administration, called the "Authorization for Hospital Admission". This mechanism had the purpose of fighting frauds and later, already in the scope of SUS, it was integrated to the Hospital Information System (Sistema de Informações Hospitalares [SIH]), which is still in place today.

The implementation of the first health information systems, including the HIS, maintained the purpose of health information management for management administration by the federal entity of the procedures produced and/or contracted by state and municipal entities. The main challenges of these first systems were their fragmentation, with rework and conflicting information on the same object, and the lack of rigor and standardization in their feeding (MORAES, 1994).

Part of these challenges verified at the beginning of the implementation of the SUS are related to the organization of the SUS itself and the shared management among the three entities of the federation (municipalities, states, and federal), which contribute to feeding the sources of information on public procurement available in a non-standardized way.

As pointed out above, the SIH/SUS was not initially conceived as a Decision Support System (DSS), but as a transaction processing system, responsible for consolidating the care production of hospital units, for subsequent contractual reimbursement by the public administration.

However, the lack of accessible information to support decision-making processes, and especially health planning, has led both technicians and researchers to use the data made available in SIH/SUS (and other systems designed for similar purposes) as sources of information to understand public procurement in health.

These systems, among other repositories, databases, reports and other technical and research documents, are configured as sources of information on public contracting in health, and IS has contributed to the classification of these sources of information, strategies to promote transparency and access to timely and opportune information, the organization of information and knowledge aimed at meeting the needs of users, among others, an understanding that converges with the National Policy on Health Information and Informatics (BRASIL, 2016).

Information sources can be classified as: (i) primary sources, considered those that contain novel information or new interpretations of notorious data; (ii) secondary sources, considered those that present primary information reorganized for the receiver; and (iii) tertiary sources, which contribute to the retrieval of primary and secondary information. According to Frame 1, these types of sources have specific formats, depending on the use of the information contained (CUNHA, 2001).

Frame 1. Types and formats of information sources

TYPE	FORMAT
Primary	Congresses and conferences, legislation, trade names and trademarks, technical standards, patents, journals, ongoing projects and research, technical reports, theses and dissertations, and translations
Secondary	Databases and databases, bibliographies and indexes, biographies, library catalogs, research centers and laboratories, dictionaries and encyclopedias, bilingual and multilingual dictionaries, fairs and exhibitions, films and videos, historical sources, books, manuals, internet, museums, herbaria, archives and scientific collections, awards and honors, technical writing and

	scientific methodology, acronyms and abbreviations, tables, units, measurements and statistics, review articles
Tertiary	Bibliographies of bibliographies, libraries and information centers

Source: elaborated by the author based on Cunha (2001)

Knowing the sources of information and their purposes is important to investigate the potential limitations on access to information, however, due to the scarcity of scientific production specifically with the theme of access to information on public procurement in health, the search for limitations on such access in the records of scientific communications that investigated the same object of research was defined.

The integrative review proved to be the most appropriate research technique, because this type of review is characterized as a strategy to recover information that is not central or related to the initial research object of the reviewed articles. In this study, the articles included in the review have different objectives, but in all of them there is a discussion about the collection and analysis of information on public contracting in health, and in part of them there are reports of limitations in the access to information, which is the object of research of this work.

The advantages of working with the review of articles indexed in databases is the assurance of peer review and that there is a Qualis evaluation of scientific journals promoted by the Coordination for the Improvement of Higher Level Personnel (Capes), according to the areas of knowledge. This Qualis evaluation system, which impacts the scoring of graduate programs and research funding, was the way found to not reduce the evaluation of academic production to quantitative aspects (BARATA, 2016).

However, Pires et al. (2020) observed that the Qualis Capes evaluation has also been shaping the Brazilian scientific production, since researchers, mainly linked to the post-graduation, direct their efforts to publish in journals with better scores, following the scopes defined by the themes of interest and editorial lines.

Still, despite the possible biases of using a literature review as a methodological strategy, this article seeks to understand the limitations that researchers have encountered in accessing information on public procurement in the context of SUS through records in scientific publications.

4 METHODOLOGICAL PROCEDURES

The research uses integrative review with the purpose of investigating a problem still little explored in the scientific literature, as is the case of the limitations of access to information on public procurement in health, in a set of scientific publications that collected the referred information (SOUZA *et al*., 2010), detailed in Frame 2.

The data collected from the scientific articles included in this review refer to the records of the limitations faced in gaining access to information on public procurement in health, according to criteria pointed out by the Access to Information Law (BRASIL, 2011), namely: availability, authenticity, integrity, primariness and updating.

Frame 2. Roadmap for integrative review

PHASES OF INTEGRATIVE REVIEW	INTEGRATIVE REVIEW ON LIMITATIONS TO ACCESSING INFORMATION ON PUBLIC CONTRACTING IN HEALTH IN BRAZIL
Guiding Question	What are the limitations of access to information on public procurement in health in Brazil used in scientific publications?
Literature search or sampling	Full articles available in digital format on public procurement in health in Brazil, published from 1990 to 2018, in the databases Periodic Capes, PubMed, Web of Science, BVS/BIREME, Scopus, DOAJ, ISTA and LISTA, with the occurrence of the terms in English or Portuguese: ("public procurement" OR contract OR "public-private partnerships" OR public-private relationship") AND ("health system" OR "public health") AND Brazil, which meet the inclusion criteria.
Data Collection	1st stage: selection of articles by reading the abstracts; collection period: April to June 2019; and 2nd stage: selection of articles by reading the full text, with completion of the data collection instrument.
Analysis of the included studies	Analysis categories: I - Article characteristics (database, journal's area of knowledge, year, institutional affiliation of the authors, and research method); II - Characteristics of the Public Procurement Process (phases, complexity of the object, and management sphere); III - Characteristics of the information sources (type of sources and data collected); and IV - Characteristics of information access (availability, authenticity, integrity, primarity, and update).
Discussion of results	We intend to discuss the categories analyzed based on the authors' record of the themes addressed, to analyze them in light of authors who have discussed the quality of health information sources (not specifically about public contracting in health), to glimpse possible gaps in knowledge and indicate research possibilities in this area.

Source: research data (2020).

Data collection was carried out in two stages, in the months of April to June 2019, being in the first stage the selection of articles to be included in the review, and in the second stage the application of a research instrument for data collection in the selected articles.

In the first stage, articles on public procurement within the "Unified Health System" (Sistema Único de Saúde [SUS]), published from 1990 to 2018, peer-reviewed and indexed in the databases: Bireme/BVS (Virtual Health Library), MEDLINE (Medical Literature Analysis and Retrieval System Online), Web of Science, Scopus, LILACS (Latin American and Caribbean Literature on Health Sciences), ISTA (Information Science & Technology Abstracts) and LISTA (Library, Information Science & Technology Abstracts) were selected.

Bireme/BVS, MEDLINE and LILACS were chosen because they are databases specialized in Health Sciences, ISTA and LISTA because they are databases specialized in Information Science and Web of Science and Scopus because they are interdisciplinary

databases of great relevance to the Health Sciences and Applied Social Sciences. These databases also have in their repositories articles from journals and authors of different nationalities.

The criteria for selection of articles in the first stage are those that presented in the fields: title, keywords or abstract, the terms in Portuguese and English: (("public procurement" OR contract OR "public-private partnerships" OR "public-private relationship") AND ("health system" OR "public health") AND Brazil). The Boolean operator OR was used to contemplate the different terms representing the topic of interest of this review, since there is still no consensus in the academic literature unifying this representation, and the Boolean operator AND was used to delimit the scope of public procurement processes.

For inclusion in this first step, abstracts were analyzed and original articles were identified that met the objectives of the study, namely research that collected information from different sources on at least one of the phases (internal, external or contractual) of the public procurement process in the health sector, with the State as a contractor and at least one private entity (legal entity) as a hired.

Documents that did not present data on public contracting in health in Brazil, whose data collection was exclusively interview and/or review, did not describe the respective sources of information and/or data and information collected, and did not have the full text available for public access were excluded.

Thirty-five articles were selected in the first stage, and after reading the full text of these, in the second stage the information defined in the data collection instrument (Frame 3) was collected, with the purpose of knowing the articles, characterizing the public procurement processes analyzed, determining the sources of information used and the limitations of access to information on public contracting in health in Brazil.

Frame 3. Data collection instrument

BLOCK I	BLOCK II	BLOCK III	BLOCK IV
Características dos artigos	Características do Processo de Contratação Pública	Características das fontes de informação	Characteristics of access to information
Database; CAPES Knowledge area; Year of publication; Institutional affiliation of the authors; Research method.	Phases; Complexity of the object; "Unified Health System" (Sistema Único de Saúde [SUS]) management sphere: federal, state, district or municipal	Types: primary, secondary or tertiary; Format; Collected data	Availability; Authenticity; Integrity; Firstness; Update

Source: research data (2020).

The characterization of the articles followed the following script: analysis according to database, area of knowledge of the journal (according to CAPES classification), year of publication, methodological strategy employed (quantitative, qualitative or quanti-qualitative) and bond of the authors. When authors indicated more than one institutional bond, we considered the institution listed in the article in which the author was employed.

Regarding the characterization of the public contracting in health process present in the selected articles, the phases of the public procurement process (internal, external and/or contractual), complexity of the object (contracting goods, contracting services or contracting goods and/or services) and SUS management sphere (federal, state, district or municipal) were verified.

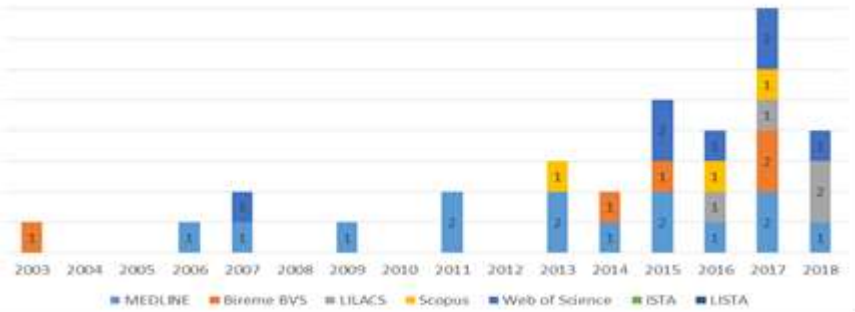
Next, the sources of information on public contracting in health used in the articles, the frequency of the types of sources (primary, secondary or tertiary) and the characteristics of access to information recorded in the articles were related, based on the categories defined in Law No. 12,257 (BRASIL, 2011), which are: availability (accessible to individuals and machines); authenticity (identification of the individual, system or equipment responsible for production, dispatch, receipt or modification); integrity (no changes regarding the origin, processing and destination); and primariness (maximum possible detailing, without treatment).

5 RESULTS AND ANALYSIS

5.1 Characterization of the articles

In the seven databases searched, 35 articles were located that met the inclusion and exclusion criteria in 5 databases, from 2003 to 2018. The databases were consulted in the sequence shown in Chart 1, and the occurrences of repeated articles were eliminated.

Chart 1. Absolute frequency of articles by database and year of publication.

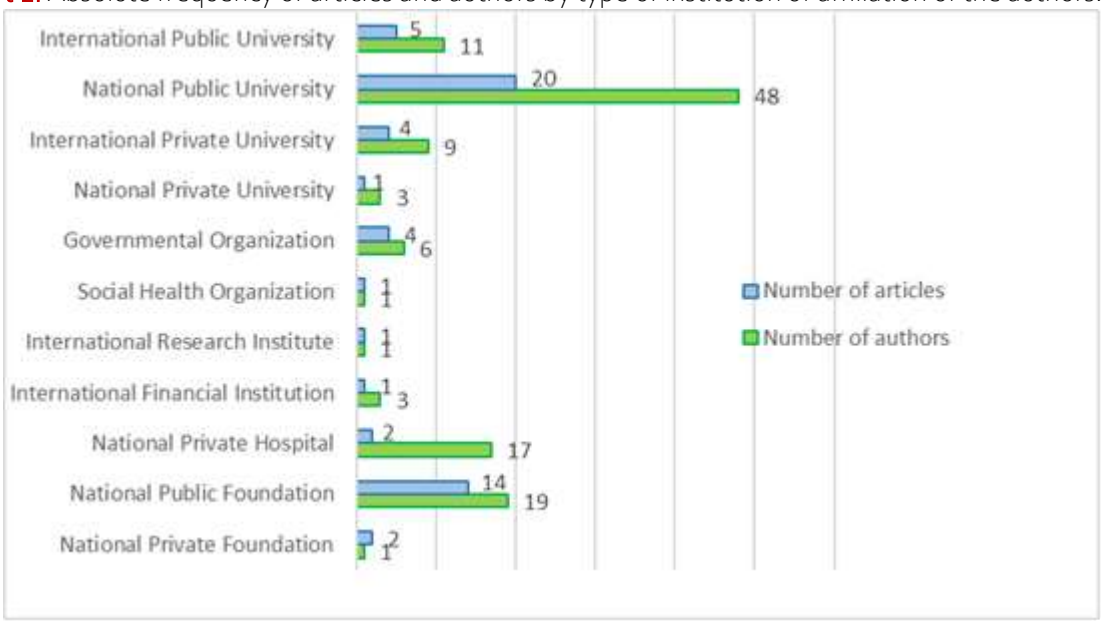


Source: research data (2020).

Regarding the knowledge areas of the journals of the selected articles, 18 were from the exclusive Health Sciences area, and the journal with the most articles included was "Ciência & Saúde Coletiva" (7), and these articles were written by 119 authors from 35 different institutions, which were grouped into 11 types of institutions (Chart 2).

In some cases, authors from more than one institution wrote the same article (which was considered once per institution, even if there was more than one author from the same institution), which is why the total number of articles in Chart 2 exceeds the total of 35 articles.

Chart 2. Absolute frequency of articles and authors by type of institution of affiliation of the authors.



Source: research data (2020).

Most authors are linked to universities or foundations, also standing out in the production of most articles. This quantity can be explained both by the scientific publication being a criterion for measuring teaching performance, and by the linking of other actors to these professors in graduate courses, as already pointed out in the Introduction of this article.

The participation of authors linked to government agencies, social health organizations and private hospitals is also observed, although with different approaches. While authors linked to government agencies addressed topics related to the need to increase the efficiency of the public procurement process, authors linked to social health organizations emphasized the advantages of public procurement of these entities and authors linked to private hospitals addressed the difference between the expenses of the hospital in providing the contracted service in relation to the reimbursement of the contracting party (SUS manager).

Among the international publications, nine had authors linked to international institutions, most with the theme of drug procurement in developing countries.

From the total of 35 studies, four used qualitative research, four quanti-qualitative research, and 27 quantitative research. The quantitative studies predominated the use of secondary data available for public access (expenses, maximum prices, quantities purchased, budget forecasts, rendering of accounts, personnel expenses, number of contracted establishments, hospital costs, material costs, consumption forecast, number of people served, financial transfers, among others), supported by documentary research and bibliographic research.

5.2 Characterization of the public procurement in health

Of the 35 articles included in this review, only two contemplated information that could subsidize the identification of public need (first stage of the internal phase), with a survey of information contained in minutes of SUS management collegiate and mass media (FONSECA; COSTA, 2015), and with budget impact analysis of different possibilities of solution to meet a specific demand (ELIAS *et al*., 2015).

This fact may be related to both the absence of scientific and/or academic interest on the internal phase of the PPP, and the absence of data and information available on this phase, or even the absence of systematization of actions by the public administration regarding the identification of public needs, analysis of technical and economic feasibility on the possible solutions to meet these needs and preparation of a call for tender for the selection of third parties with the best cost-benefit for SUS users, among other steps of this first phase.

Eight articles analyzed the external phase, aiming to verify factors related to possible waste of resources or financial advantage for the public administration during the implementation of bidding procedures or public tenders (DIAS *et al*., 2013; FREITAS; MALDONADO, 2013), with comparison between prices charged per period, per location (among states of the federation or national and international) and maximum price tables, available in the Health Price Bank (Ministry of Health) or the Drug Market Regulation Chamber (ANVISA).

Regarding the external phase of the contracting of goods, such as the acquisition of medicines for example, studies have pointed out that, although the decentralization process of the SUS has brought the manager closer to the public needs in the territory where they conform, the bargaining capacity of the public administration was limited with the loss of scale, and it may be more advantageous for the administration to centralize the acquisition of medicines at the federal level (FONSECA; COSTA, 2015; ARAÚJO *et al*., 2017).

Associated with the external phase of public procurement, the Productive Development Partnerships (PDP) aimed at technology transfer and growth of autonomy in the public production of strategic goods for the country (MORAES et al., 2016), and also had consequences in price reduction and possibility of meeting other demands in the contractual phase (CHAVES *et al*., 2018), demonstrating the State's ability to face the pharmaceutical industry lobby.

Table 1. Complexity of the object and management sphere, according to the phase of the public procurement process investigated in the articles

PHASE OF THE PUBLIC PROCUREMENT PROCESS	INTERNAL PHASE		EXTERNAL PHASE		CONTRACTUAL PHASE		TOTAL	
	N	%	N	%	N	%	N	%
OBJECT COMPLEXITY								
Contracting of goods	2	12,50	4	25,00	0	62,50	16	100,00
Contracting services	0	0,00	2	11,11	6	88,89	18	100,00
Contracting of goods and services	0	0,00	2	40,00	3	60,00	5	100,00
TOTAL	**2**	**5,13**	**8**	**20,51**	**29**	**74,36**	**39**	**100,00**
CONTRACTING SUS MANAGEMENT SPHERE								
Federal, municipal and State	0	0	0	0	1	100,00	1	100,00
Federal	2	12,50	3	18,75	11	68,75	16	100,00
State	0	0,00	1	14,29	6	85,71	7	100,00
Municipal	0	0,00	4	26,67	11	73,33	15	100,00
TOTAL	**2**	**5,13**	**8**	**20,51**	**29**	**74,36**	**39**	**100,00**

Note: the total exceeds 35 articles, because in 3 articles the external and contractual phases were analyzed and in 1 article the internal and contractual phase was analyzed, accounting for 2 times each article.

Source: research data (2020).

Regarding the items of the contractual phase, historically there was difficulty in contractual formalization (MATOS; POMPEU, 2003), which stems from the political power of the private sector, including the philanthropic sector, in the pattern of defining the objects of the contracts, aligned with a State policy of strengthening the contracting model, to the detriment of the direct offer of health actions and services (SILVA; CAETANO, 2018; ROMANO; SCATENA, 2014; CONTREIRAS; MATTA, 2015; NUNES; PAIVA, 2016). Still, Sugulem and Zucchi (2009) noted that the use of information technology tools for joint purchasing system represented advances in the efficiency of public contracting in health management.

The political power of the private sector referred to cannot be confused by party-political power, since McGregor *et al*. (2017) verified the stability of contracting independent of electoral outcomes and the flags espoused by different national political parties, indicating that a possible unequal power relationship between the private sector and the public administration consolidates public contracting in health practices independent of external factors.

The difficulty of access to data and information and of adequate regulation and control in the contractual phase of the formal instrument that governs the State's relationship with Social Health Organizations has been reported by several authors (SILVA *et al*., 2016; IRELAND *et al*., 2016; CONTREIRAS; MATTA, 2015), and has repercussions on participation and social control and on the evaluation of the cost-benefit of this management modality in relation to direct administration.

Specifically, on spending, Morais et al. (2018) analyzed the increase in the global values of contracts with Social Health Organizations between 18.2 and 87.9%, from the conclusion of additive terms, in the period from 2009 to 2014, and that due to these increases, the values of the additive terms are also relevant to be added in cost-benefit evaluations, since they may represent different amounts from those initially contracted.

On the contracting of professional services, Barbosa (2017) highlighted the discrepancy between organizational dynamics and the database available for access, concluding that this database did not reflect all the aspects to be considered for a possible evaluation of the contracted services.

Kaliks *et al*. (2013) reinforced the differences in private sector spending for the provision of the contracted service in relation to public sector remuneration, due to the outdated "SUS Table" or the Management System of the Table of Procedures, Medications and OPM (DESGUALDO *et al*., 2011), and differences of these sectors also in relation to the agility and quality of the attendance of demands (LANSKY *et al*., 2007; MENDES *et al*., 2014), among others.

Public-private partnerships, articulated by the Ministry of Health, both in pharmaceutical assistance (Farmácia Popular do Brasil Program) and in the provision of medical services (Mais Médicos Program), demonstrate increased access (EMMERICK et al., 2015; SILVA *et al*., 2018), but with difficulties in estimating the cost-benefit due to the absence of data and/or.

In the contractual phase, the charge delivery and remuneration of medicines also have higher frequency among the PPP objects investigated in the selected articles, since Brazil is the seventh pharmaceutical market in the world (HOMMA *et al*., 2013). These articles presented as objective the evaluation of strategies to reduce expenses (MEINERS *et al*., 2011; CAMPOS; FRANCO, 2017) and greater bargaining in monopoly situations (CHAVES *et al*., 2017)44, increase transparency in PPP, alignment of different pharmaceutical assistance policies (BEVILACQUA *et al*., 2011), among others.

The policy of supplying vaccine doses and antiretroviral drugs are success cases in public contracting in health, related both to the pressure exerted by social movements in confronting the AIDS epidemic in Brazil, and to centralized procurement strategies and policy of self-sufficiency in vaccine production, which allowed the use of contracting as complementary (HOMMA *et al*., 2013), and by the preventive nature of vaccination, it allowed the exact quantification of demand, even though the absence of effective control of vaccination coverage and use of doses is observed.

Success in preventive actions is crucial, especially from the perspective of the Brazilian health system, which has not yet managed to implement intersectoral policies of intervention on the social determinants of the health-disease process and whose population suffers from direct private spending on health, mostly spent on medicines.

In addition to direct private spending on medicines by the population, we also highlight the impact of fraud and corruption in public procurement, resulting in more expensive medicines in high-income countries and in shortages of medicines in middle- and low-income countries (MACKEY, 2016).

In Brazil, access to medicines should be guaranteed mainly by an efficient resource management policy coordinated by the federal level, due to the context of socioeconomic inequalities among SUS management levels (PONTES et al., 2017; KOHLER *et al*., 2015).

Regarding the oversight of contracts, Dias *et al*. (2013) contribute with the need for the implementation of mechanisms to combat passive waste, related to mismanagement, among them transparency in the public procurement process, which can be qualified with access to information on public procurement in health available and that can bring (or distance) citizens, researchers, users, workers, managers, service providers, among others, closer to the reality of private participation in the SUS.

5. 3 Characterization of the information sources

In this review, 64 different sources of information used in the analyzed articles were identified for data and/or information collection on public contracting in health, with data collected referring to the period from 1981 to 2018.

Table 2. Frequency of the types and formats of information sources

FONT TYPE	FONT FORMATS	FREQUENCY	
		N	%
Primary	Legislation	3	4,69
Primary	Technical Standards	2	3,13
Primary	Periodicals	2	3,13
Primary	Ongoing research and projects	2	3,13
Primary	Technical Reports	6	9,38
Secondary	Databases	28	43,75
Secondary	Internet	17	26,56
Secondary	Books	2	3,13
Tertiary	Literature Reviews	2	3,13
TOTAL		64	100,00

Source: research data (2020).

Secondary sources are the most used, representing more than 70% of the sources (Table 2), being only in databases 43.75%, with the highest frequency of information systems under the management of the Ministry of Health, followed by the internet (26.56%). Many of

these health information systems were designed prior to the Access to Information Law (BRASIL, 2011), as an auxiliary tool for managing public expenditures in health.

In addition to not having been designed to support the decision-making process of health management, Moraes (1994) states that in the implementation of these systems, they were underutilized or reported as of inadequate quality by the very people responsible for feeding and maintaining them.

When the articles included in this integrative review are analyzed, it can be seen that, for the most part, they also reproduce information from government health information systems, and that there also coexist, although to a lesser extent, studies in which the information on public procurement originates from private databases of the contracted entities.

The use of private databases is verified when the researchers have employment ties with the institutions whose information is analyzed in the articles (GONZÁLEZ; CALIMAN, 2018; MENDES *et al*., 2014; KALIKS *et al*., 2013), and these articles highlight as relevant points the advantages of public procurement and/or the lag in the values reimbursed by the public administration for contracted services and/or goods in relation to the values practiced in the private market.

For this approach to be even more reliable, the quality of the source of information from which these authors sought subsidies to defend or refute their theses is even more important. However, while some journals have an exclusive section for reporting the limitations of the study, where the authors usually point out the characteristics in relation to the sources of information, other journals publish articles without mentioning these limitations.

5. 4 Characterization of access to information

Of the 64 sources identified, 28 (43.75%) had limitations related to the quality of transparency (primarity, integrity, updating, availability and authenticity) of the information collected recorded by the authors in the articles included in this review.

Regarding the technical reports, projects and ongoing research, despite being primary sources, there were several notes on limitations regarding the primariness, such as information based on the absence of documents (DIAS *et al*., 2013), lack of standardization of the information recorded in the technical reports of the information sources from which the data were taken (CONTREIRAS; MATTA, 2015; NUNN *et al*., 2007) and difficulty in breaking down the information presented (NUNN *et al*., 2007).

Secondary sources, such as databases and databases (mainly health information systems) and websites of public and private institutions, also presented limitations regarding the fragmentation of the aggregated information, such as differentiation between generic and similar drugs or types of drug suppliers in the Health Price Bank (KOHLER et al., 2015).

Regarding the Drug Market Regulation Chamber's ceiling price list, there were records regarding the determination of ceiling prices of different drugs for the same medicine, depending on the supplier (CAMPOS; FRANCO, 2017).

Still referring to medicines, in the records of the *Aqui Tem Farmácia Popular Program* (ATFP) and of access to the Specialized Component of Pharmaceutical Assistance, the notes are related to the absence of record per establishment, regardless of whether it is parent or subsidiary, and absence of detailing the values, type of medicine, and quantity marketed or dispensed individually (SILVA; CAETANO, 2018; FONSECA; COSTA, 2015).

Manufacturer and trade name data of the drugs are not available in price registration minutes and stock management systems (secondary source available on the internet) (BEVILACQUA *et al*., 2011).

Although the SIH has in its database the discrimination between public establishments and private establishments associated with the SUS, Matos and Pompeu (2003) pointed out that this differentiation is not possible in relation to university hospitals.

The Information System on Public Health Budgets (Sistema de Informações sobre Orçamento Público em Saúde [SIOPS]) did not allow Araújo *et al*. (2017) to estimate the real own expenses for the year 2010, because the information recorded in this system were the committed expenses and not the paid ones, in the same way that official websites (CONTREIRAS; MATTA, 2015) also did not allow identifying payments to entities, when these come broken down by the nature of the expense only.

Regarding the integrity of the information, the primary sources in the format of projects and research in progress presented weaknesses because they did not report all items of the cost composition for formulating expenditure estimates, when compared to official banks (KALIKS *et al*., 2013).

The secondary sources, in the format of base and databases, have fragility in relation to the absence of available methodology to feed the banks such as the Health Price Bank, which are carried out by the SUS managers who made the acquisition (SIGULEM; ZUCCHI, 2009), since that bank is formatted in free-fill fields (CAMPOS; FRANCO, 2017).

The difference in the breakdown of information of the ATFP Program and the Basic Component of Basic Care, which are competing programs, does not allow the comparison between the costs of the two strategies to expand access to basic medicines for the population (SILVA; CAETANO, 2018).

The information system most used in the studies of this review, the National Health Establishments Registry System (Sistema Cadastro Nacional de Estabelecimentos de Saúde [SCNES]) should provide data on health establishments, professional bonds, qualifications, and service contracts in these establishments, and also has interoperability with other databases that are used to collect information on own and contracted care production, such as the Outpatient Information System (Sistema de Informações Amublatoriais [SIA]) and the SIH.

Despite being a fundamental system for collecting information on public procurement, in the articles of this review, the absence of registries was reported as limitations for using the SCNES, which frustrated access to the care production of private service providers contracted to act in establishments of the SUS's own network (MATOS; POMPEU, 2003; GONZÁLEZ; CALIMAN, 2018; GREVE; COELHO, 2017).

The lack of filling of fields in the health information systems is related to the diversity of actors at the local level that perform the feeding of data into these systems, which has direct repercussions on the completeness and quality of the information, and since the management of these systems is centralized at the federal level, the results presented cannot identify the information on public contracting in health at all levels of management (MORAES et al., 2016; PONTES et al., 2017).

Regarding the updating of information, specifically about the public procurement of the goods "medicines", it is observed that secondary sources of price records practiced by the public administration, which could serve as a parameter for the values practiced in the market, suffer influences that are not considered by the respective banks, such as the market time of the medicine and the quantity acquired by each purchase (ELIAS *et al*., 2015).

Outdated webpages on official websites of SUS managers created specifically to promote transparency of public procurement processes in health have also been reported, implying the search for information in other sources that contain documents that partially meet the specific information needs of health sector researchers (SILVA et al., 2016; GREVE *et al*., 2017).

At the same time that recent information was lacking in information sources used in the articles in this review, there was information from contracts in the SCNES whose effective date exceeded the legal deadline of up to 5 years for contract renewal (MATOS; POMPEU, 2003).

Due to the outdated values indicated in the databases used as a parameter for the reimbursement of services provided to the SUS, these values become fictitious, making it impossible to have a real approximation of the costs with public procurement for the health sector, with the use of financial complementation of the federative entities (ROMANO; SCATENA, 2014), practice of values far above the table (MENDES *et al*., 2014) and lack of registration of the real values practiced by the public administration.

Still on practiced values, technical reports that have the purpose of estimating costs for planning public procurement in health, suffer from updates necessary for these estimates, such as exchange rate variations and other impacts on prices at the time of effective spending (MORAES *et al*., 2016; CHAVES *et al*., 2017).

Another issue that impacts the updating of information on public procurement in health is the non-mandatory feeding of some databases or the absence of information on the time lapse between acquisition and consumption (PONTES *et al*., 2017; NUNN *et al*., 2017).

Regarding the **availability** of information on public procurement in health referred to in the studies that make up this review, it is verified that primary sources such as technical reports, which propose to conduct surveys in the national territory, are unable to provide data from all Brazilian municipalities (SILVA et al., 2018).

Even secondary sources, such as banks and databases, do not make available the totality of the data or in the totality of the period of operation of the SUS in which there was public procurement (SILVA *et al*., 2018; CAMPOS; FRANCO, 2017; ARAÚJO *et al.*, 2017; MORAES *et al*., 2016; SILVA et al., 2016; NUNN et al., 2007; MATOS; POMPEU, 2003), or even data are made available in places where there are better SUS quality indicators, to the detriment of places with worse indicators.

The absence of data in places where there are worse SUS quality indicators should be corrected, because it is the data that subsidize decisions that can qualify the said indicators (LANSKY *et al*., 2007) and information about goods and/or services that are lacking, as well as the time of this lack or absence of health care coverage, are also fundamental for a more efficient, effective and effective planning (MEINERS *et al*., 2011).

When there is substitution in some practice related to the public procurement process, studies of analysis of the possible positive impact of these proposed changes are not available, as for example in the inclusion of electronic trading in the external phase of that process (FREITAS; MALDONADO, 2013), or even when a new program is instituted due to gaps in assistance, the absence of prior information weakens the comparison of situations before and after the implementation of these programs (SILVA *et al*., 2018), and the evaluation of their cost-benefit.

The documents related to accountability, which could subsidize information on public procurement in health, in some cases are not available in the banks and databases of either the public administration or the internal and external control bodies, and this also weakens the exercise of social control (MORAIS *et al*., 2018; SILVA *et al*., 2016; NUNES; PAIVA, 2016; CONTREIRAS; MATTA, 2015).

Due to this lack of information availability, several researchers have resorted to Citizen Information Services (SILVA; CAETANO, 2018; CHAVES *et al.*, 2018; CONTREIRAS; MATTA, 2015; FONSECA; COSTA, 2015), even though the verification of the information obtained was difficult to check (SILVA; CAETANO, 2018), which implies the questioning of the authenticity of this information due to the absence of data on possible changes in the

material of these services in the flow of information, and that, even if backed by the legislation, there was difficulty in obtaining satisfactory answers, due to the incompleteness or unavailability of the data (NUNES; PAIVA, 2016).

Still referring to the lack of availability, researchers went to the field to collect the information they needed and could not find in the information systems (BARBOSA, 2017), or even made cost estimates based on legal and normative instruments (SILVA *et al*., 2018), which represents what should happen, and not what was actually spent in the public procurement process studied.

It is observed thanks to people and/or institutions that provided the data (MORAES *et al*., 2016) and people from the public sector who had professional ties and obtained ease of access (EMMERICK *et al*., 2015; FREITAS; MALDONADO, 2013), establishing requirements for said access when it should be public.

In some cases, the absence of available information can be justified by the application of legal and normative instruments in public contracting in health designed to regulate other sectors of public administration, such as the Bidding Law No. 8,666/1993 (BRASIL, 1993), which was initially designed for services in the area of civil construction, and despite these instruments, the adaptation of the contracting process to a hegemonic organizational culture that influenced its rules (MATOS; POMPEU, 2003).

In addition to the instruments and organizational culture, it is observed that different understandings of what is public procurement, what are its stages and what is the role of professionals who work directly in this process, also contributes negatively to the retrieval of information about such hiring (PRIER; MCCUE, 2009).

Other difficulties in accessing information were also reported by the authors of the articles that make up this review, such as the possibility that the existing data offer an overview or the construction of an estimate, but make it impossible to produce statements about public contracting in health in Brazil (NUNN *et al.*, 2007; MATOS; POMPEU, 2003), lack of computerization in the recording of data and information (FONSECA; COSTA, 2015), centralization of the management and organization of data by the Ministry of Health because it is the main source of public funding (SILVA; CAETANO, 2018), non-standardization of the data made available in relation to the international market, which makes it impossible to compare the Brazilian public procurement model to other models (MEINERS et al., 2011), among others.

In addition to the contributions to thinking about the quality of transparency of information on public procurement within the SUS, the reviewed articles also point out gaps regarding the assessment of the quality of contracted services and possible methodologies to be employed for the evaluation of such quality, associated with the comparison of mortality rates for example (LANSKY et al, 2007; GREVE *et al*., 2017), the regular compliance with the signed contract (FREITAS; MALDONADO, 2013), precariousness of the work bonds (BARBOSA, 2017) and waste of resources, when there is no control over the public-private relationship (DIAS *et al*., 2013).

6 FINAL CONSIDERATIONS

Due to the absence of scientific articles whose objective was to investigate the limitations of access to information on public contracting in health in Brazil, we chose the strategy of reviewing articles that collected information on public contracting in health for different purposes, and extracted from these articles the authors' records on the limitations faced for such access.

We verified in the analyzed studies that the researchers report that these limitations interfere with the approximation of the reality concerning the central objects of their studies, and may imply greater expenditure of financial resources and time to conduct the research.

Due to the review strategy, it was not possible to account for the studies that could not be carried out due to the lack of access to information, which was a limitation of this review design. The choice of search descriptors in the databases for the selection of articles in the first stage of data collection may also represent a limitation of this study and its results, since we do not have a standardization in scientific communication of terms related to the field of public contracting in health.

Despite the limitations of this review, it was possible to conduct a survey of the main difficulties in accessing information on public procurement in health in light of criteria defined in the Access to Information Law (BRASIL, 2011), mainly in primary sources in the format of technical reports and ongoing projects and research, and in secondary sources in the format of databases and databases such as the health information systems under the management of the Ministry of Health.

The researchers registered difficulties in the quality of the information that was available and its capacity to allow knowledge about the public procurement investigated, information that represented estimates from normative instruments or public information systems, and outdated information that became "fictitious" such was the discrepancy in relation to the information practiced.

There were also outdated internet pages whose purpose was to promote PPP informational transparency, absence of records about the informational flow and possible replacements and/or changes made, information without standardization about contracting processes with the same purpose and absence of related information that interfered in the contracting information.

These difficulties point to possible weaknesses in the monitoring of compliance with the Access to Information Law, as well as the need for information professionals in the public health sector, including in the reconfiguration of public health information systems for evaluation of public procurement, and can serve as a subsidy so that, with the support of the theoretical and methodological tools of IC, strategies can be developed to minimize and/or resolve these difficulties.

Offering an overview of these difficulties can also be configured as a starting point for future research that deepens the criteria of informational transparency, and that contributes to the improvement of access to sources of information with more limitation records by researchers, directed to different target audiences of this information, such as researchers, managers, workers, providers, controllers (internal, external and social) and users of the SUS, for example.

Based on the above, it is recommended that new studies present proposals for information management on public procurement in health and that the informational stock produced by the health system itself and contracted institutions can be organized in order to contribute to the recovery of relevant information for the production of scientific knowledge and decision-making by SUS management.

CRediT

RECOGNITIONS: Not applicable.
FINANCING: Not applicable.
INTEREST CONFLICTS: The authors certify that they have no commercial or associative interest that represents a conflict of interest in relation to the manuscript.
ETHICAL APPROVAL: Not applicable.
AVAILABILITY OF DATA AND MATERIAL: Not applicable.
AUTHORS 'CONTRIBUTIONS: Conceptualization, Data Curation, Formal Analysis, Research, Methodology, Supervision, Validation, Visualization, Writing - original draft, revision & editing: Mota, V.A.; Araújo Júnior, R.H.

REFERENCES

ARAÚJO, Carmem Emmanuely Leitão; GONÇALVES, Guilherme Quaresma; MACHADO, José Angelo. Os municípios brasileiros e os gastos próprios com saúde: algumas associações. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 22, p. 953-963, 2017. Available on: https://doi.org/10.1590/1413-81232017223.15542016. Access at: 14 nov. 2020.

ATTARD, Judie; ORLANDI, Fabrizio; SCERRI, Simon; AUER, Sören. A systematic review of open government data initiatives**. Gov Inf Q**, Greenwich, v. 32, n. 4, p. 399-418, 2015. Available on: https://doi.org/10.1016/j.giq.2015.07.006. Access at: 27 jan. 2021.

BARATA, Rita de Cássia Barradas. Dez coisas que você deveria saber sobre o Qualis. **RBPG**, Brasília, v. 13, n. 30, p. 13-40, dez. 2016. Available on: https://doi.org/10.21713/2358-2332.2016.v13.947. Access at: 2 fev. 2021.

BARBOSA Allan Claudius Queiroz. Vínculos profissionais em hospitais de pequeno porte brasileiros. **Rev. adm. empres.**, São Paulo, v. 57, n. 2, p. 178-195, mar./abr. 2017. Available on: https://doi.org/10.1590/s0034-759020170207. Access at: 14 nov. 2020.

BASU, Sanjay *et al.* Comparative performance of private and public healthcare systems in low-and middle-income countries: a systematic review. **PLoS med**, San Francisco, v. 9, n. 6, p. e1001244, June 2012. Available on: https://doi.org/10.1371/journal.pmed.1001244. Access at: 14 nov. 2020.

BEVILACQUA, Gabriela; FARIAS, Mareni Rocha; BLATT, Carine Raquel. Procurement of generic medicines in a medium size municipality. **Rev. saúde pública**, São Paulo, v. 45, n. 3, p. 583-589, 2011. Available on: https://doi.org/10.1590/S0034-89102011005000020. Access at: 14 nov. 2020.

BORKO, Harold. Information science: what is it? **American documentation**, v. 19, n. 1, p. 3-5, 1968. Available on: https://doi.org/10.1002/asi.5090190103. Access at: 27 jan. 2021.

BRASIL. Decreto n.º 7.724, de 16 de maio de 2012. Regulamenta a Lei nº 12.527, de 18 de novembro de 2011, que dispõe sobre o acesso a informações previsto no inciso XXXIII do caput do art. 5º, no inciso II do § 3º do art. 37 e no § 2º do art. 216 da Constituição. Available on: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/decreto/d7724.htm. Access at: 25 abr. 2021.

BRASIL. **Lei n.º 12.527, de 18 de novembro de 2011**. Regula o acesso a informações previsto no inciso XXXIII do art. 5º , no inciso II do § 3º do art. 37 e no § 2º do art. 216 da Constituição Federal; altera a Lei nº 8.112, de 11 de dezembro de 1990; revoga a Lei nº 11.111, de 5 de maio de 2005, e dispositivos da Lei nº 8.159, de 8 de janeiro de 1991; e dá outras providências. Available on: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2011/lei/l12527.htm. Access at: 14 nov. 2020.

BRASIL. **Lei n.º 8.666, de 21 de junho de 1993**. Regulamenta o art. 37, inciso XXI, da Constituição Federal, institui normas para licitações e contratos da Administração Pública e dá outras providências. Available on: http://www.planalto.gov.br/ccivil_03/leis/l8666cons.htm. Access at: 25 abr. 2021.

BRASIL. **Política Nacional de Informação e Informática em Saúde**. Brasília: Ministério da Saúde, 2016. 56 p. Available on: http://bvsms.saude.gov.br/bvs/publicacoes/politica_nacional_infor_informatica_saude_2016.pdf. Access at: 28 abr. 2021.

BUSH, Vanevar. As we may think. **The Atlantic Monthly**, July 1945. Available on: https://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/. Access at: 26 jan. 2021.

CAMPOS, Arthur Zaian Silva; FRANCO, Marco Paulo Vianna. Os efeitos da regulação de preços da CMED sobre as compras públicas de medicamentos do estado de Minas Gerais. **Rev. Gest. Sist. Saúde**, São Paulo, v. 6, n. 3, p. 253-264, 2017. Available on: https://doi.org/10.5585/rgss.v6i3.334. Access at: 14 nov. 2020.

CHAVES, Gabriela Costa; HASENCLEVER, Lia; OLIVEIRA, Maria Auxiliadora. Redução de preço de medicamento em situação de monopólio no Sistema Único de Saúde: o caso do Tenofovir. **Physis**, Rio de Janeiro**,** v. 28, e280103, 2018. Available on: https://doi.org/10.1590/s0103-73312018280103. Access at: 14 nov. 2020.

CHAVES, Gabriela Costa; OSORIO-DE-CASTRO, Claudia Garcia Serpa; OLIVEIRA, Maria Auxiliadora. Compras públicas de medicamentos para hepatite C no Brasil no período de 2005 a 2015. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 22, n. 8, p. 2527-2538, 2017. Available on: http://dx.doi.org/10.1590/1413-81232017228.05602017. Access at: 14 nov. 2020.

CONTREIRAS, Henrique; MATTA, Gustavo Côrrea. Privatization of health care management through Social Organizations in the city of São Paulo, Brazil: description and analysis of regulation. **Cad. saúde pública**, Rio de Janeiro, v. 31, n. 2, p. 285-297, 2015. Available on: https://doi.org/10.1590/0102-311x00015914. Access at: 14 nov. 2020.

COTTA, Rosângela Minardi Mitre; CAZAL, Mariana de Melo; RODRIGUES, Jôsi Fernandes de Castro. Participação, controle social e exercício da cidadania: a (des) informação como obstáculo à atuação dos conselheiros de saúde. **Physis**, Rio de Janeiro**,** v. 19, p. 419-438, 2009. Available on: https://doi.org/10.1590/S0103-73312009000200010. Access at: 14 nov. 2020.

CUNHA, Murilo Bastos da. **Para saber mais**: fontes de informação em ciência e tecnologia. Brasília: Briquet de Lemos, 2001. 168 p.

DESGUALDO, Claudia Maria; RIERA, Rachel; ZUCCHI, Paola. Estimativa de custo de internação hospitalar de recém-nascidos prematuros em um hospital público terciário no Brasil. **Clinics**, São Paulo, v. 66, n. 10, p. 1773-1777, 2011. Available on: https://www.scielo.br/scielo.php?script=sci_arttext&pid=S1807-59322011001000016. Access at: 14 nov. 2020.

DIAS, Lidiane Nazaré da Silva *et al.* Fatores associados ao desperdício de recursos da saúde repassados pela união aos municípios auditados pela Controladoria Geral da União. **Rev. Contab. Finanç.**, São Paulo, v. 24, n. 63, p. 206-218, 2013. Available on: https://doi.org/10.1590/S1519-70772013000300004. Access at: 14 nov. 2020.

ELIAS, Flávia Tavares Silva *et al.* Treatment options for age-related macular degeneration: a budget impact analysis from the perspective of the Brazilian public health system. **PloS One**, San Francisco, v. 10, n. 10, p. e0139556, Oct. 2015. Available on: https://doi.org/10.1371/journal.pone.0139556. Access at: 14 nov. 2020.

EMMERICK, Isabel Cristina Martins *et al.* Farmácia Popular Program: changes in geographic accessibility of medicines during ten years of a medicine subsidy policy in Brazil. **J Pharm Policy Pract**, London, v. 8, n. 1, p. 10, Mar. 2015. Available on: https://doi.org/10.1186/s40545-015-0030-x. Access at: 14 nov. 2020.

FERREIRA, Emanuelle Geórgia Amaral; SANTOS, Elisete Sousa; MACHADO, Miriam Novaes. Políticas de informação no Brasil: A Lei de Acesso à Informação em foco. **MOCI**, Belo Horizonte, v. 2, n. 1, 2012. Available on: https://periodicos.ufmg.br/index.php/moci/article/view/16940. Access at: 27 jan. 2021.

FONSECA, Elize Massard da; COSTA, Nilson do Rosário. Federalismo, complexo econômico-industrial da saúde e assistência farmacêutica de alto custo no Brasil. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 20, n. 4, p. 1165-1176, 2015. Available on: https://doi.org/10.1590/1413-81232015204.00562014. Access at: 14 nov. 2020.

FREITAS, Marcelo de; MALDONADO, José Manuel Santos de Varge. O pregão eletrônico e as contratações de serviços contínuos. **Rev. Adm. Pública**, Rio de Janeiro, v. 47, n. 5, p. 1265-1282, 2013. Available on: https://doi.org/10.1590/S0034-76122013000500009. Access at: 14 nov. 2020.

FREITAS, Ron Klay Viana de; DACORSO, Antonio Luiz Rocha. Inovação aberta na gestão pública: análise do plano de ação brasileiro para a Open Government Partnership. **Rev. Adm. Pública**, Rio de Janeiro, v. 48, n. 4, p. 869-88, 2014. Available on: https://doi.org/10.1590/0034-76121545. Access at: 14 nov. 2020.

GONZÁLEZ, Sandra Castro; CALIMAN, Douglas Roriz. Transferência do Gerenciamento de Serviços Públicos de Saúde a Organizações Sociais: Estudo de Caso do Hospital Estadual Central. **Rev. Gest. Sist. Saúde**, São Paulo, v. 7, n. 2, p. 92-113, 2018. Available on: http://www.revistargss.org.br/ojs/index.php/rgss/article/view/316%20doi. Access at: 14 nov. 2020.

GREVE, Jane; COELHO, Vera Schattan Ruas Pereira. Evaluating the impact of contracting out basic health care services in the state of São Paulo, Brazil. **Health Policy Plan**, Oxford, v. 32, n. 7, p. 923-33, Nov. 2017. Available on: https://doi.org/10.1093/heapol/czw176. Access at: 14 nov. 2020.

HOMMA, Akira *et al.* Vaccine research, development, and innovation in Brazil: a translational science perspective. **Vaccine**, Guildford, v. 31, p. B54-B60, Apr. 2013. Available on: https://doi.org/10.1016/j.vaccine.2012.11.084. Access at: 14 nov. 2020.

IRELAND, Megan *et al*. Expanding the primary health care workforce through contracting with nongovernmental entities: the cases of Bahia and Rio de Janeiro. **Hum Resour Health**, London, v. 14, n. 1, p. 6, Feb. 2016. Available on: https://doi.org/10.1186/s12960-016-0101-3. Access at: 14 nov. 2020.

JARDIM, José Maria. **Transparência e opacidade do Estado no Brasil**: usos e desusos da informação governamental. Rio de Janeiro: Editora da Universidade Federal Fluminense, 1999. 240 p.

JARDIM, José Maria. A face oculta do Leviatã: gestão da informação e transparência administrativa. **Rev. Serv. Público**, Brasília, v. 46, n. 1, p. 137-152, 1995. Available on: https://doi.org/10.21874/rsp.v59i1.141. Access at: 14 nov. 2020.

KALIKS, Rafael Aliosha *et al.* Pacientes com câncer de mama oriundas do Sistema Único de Saúde tratadas no setor privado: custos de um piloto de parceria público-privada em oncologia. **Einstein**, São Paulo, v. 11, p. 216-223, 2013. Available on: https://doi.org/10.1590/S1679-45082013000200014. Access at: 14 nov. 2020.

KOHLER, Jillian Clare *et al*. Does pharmaceutical pricing transparency matter? Examining Brazil's public procurement system. **Global Health**, London, v. 11, n. 1, p. 34, Aug. 2015. Available on: https://doi.org/10.1186/s12992-015-0118-8. Access at: 14 nov. 2020.

LANSKY, Sônia; FRANÇA, Elisabeth; KAWACHI, Ichiro. Social inequalities in perinatal mortality in Belo Horizonte, Brazil: the role of hospital care. **Am J Public Health**, New York, v. 97, n. 5, p. 867-873, May 2007. Available on: https://doi.org/10.2105/AJPH.2005.075986. Access at: 14 nov. 2020.

MACKEY, Tim K. *et al.* The disease of corruption: views on how to fight corruption to advance 21 st century global health goals. **BMC Med**, London, v. 14, n. 1, p 1-16, Sept. 2016. Available on: https://doi.org/10.1186/s12916-016-0696-1. Access at: 14 nov. 2020.

MATOS, Carlos Alberto; POMPEU, João Cláudio. Onde estão os contratos? Análise da relação entre os prestadores privados de serviços de saúde e o SUS. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 8, p. 629-643, 2003. Available on: https://doi.org/10.1590/S1413-81232003000200023. Access at: 14 nov. 2020.

MCGREGOR, Alecia J. *et al*. Do elections matter for private-sector healthcare management in Brazil? An analysis of municipal health policy. **BMC Health Serv Res**, London, v. 17, n. 1, p. 483, July 2017. Available on: https://doi.org/10.1186/s12913-017-2427-5. Access at: 14 nov. 2020.

MEINERS, Constance *et al*. Modeling HIV/AIDS drug price determinants in Brazil: is generic competition a myth? **PLoS One**, San Francisco, v. 6, n. 8, p. e23478, Aug. 2011. Available on: https://doi.org/10.1371/journal.pone.0023478. Access at: 14 nov. 2020.

MENDES, Cynthia de Almeida *et al*. Public private partnership in vascular surgery. **Einstein**, São Paulo, v. 12, n. 3, p. 342-346, 2014. Available on: https://doi.org/10.1590/s1679-45082014gs3029. Access at: 14 nov. 2020.

MENDES, Renato Geraldo. **O processo de contratação pública**: fases, etapas e atos. Curitiba: Zênite, 2012. 348 p.

MERCADO COMUM DO SUL. **Protocolo de Contratações Públicas do Mercosul**. Brasília, 2017. Available on: http://siscomex.gov.br/wp-content/uploads/2020/12/DEC-37-2017-Protocolo-de-Contratacoes-Publicas.cleaned.docx.pdf. Access at: 25 abr. 2021.

MORAES, Elaine Lazzaroni; OSORIO-DE-CASTRO, Claudia Garcia Serpa; CAETANO, Rosangela. Compras federais de antineoplásicos no Brasil: análise do mesilato de imatinibe, trastuzumabe e L-asparaginase, 2004-2013. **Physis**, Rio de Janeiro**,** v. 26, n. 4, p. 1357-1382, 2016. Available on: https://doi.org/10.1590/s0103-73312016000400015. Access at: 14 nov. 2020.

MORAES, Ilara Hämmerli Sozzi. **Informações em saúde**: da prática fragmentada ao exercício da cidadania. São Paulo: Hucitec, 1994. 172 p.

MORAIS, Heloisa Maria Mendonça *et al*. Social healthcare organizations: a phenomenological expression of healthcare privatization in Brazil. **Cad. saúde pública**, Rio de Janeiro, v. 34, n. 1, p. e00194916, 2018 Feb. 05. Available on: https://doi.org/10.1590/0102-311x00194916. Access at: 14 nov. 2020.

NUNES, Nickson Kleyton Silva; PAIVA, Simone Bastos. Gestão pactuada e dispêndios com pessoal: uma avaliação no Hospital de Traumas da Paraíba à luz da LRF. **RC&C**, Curitiba, v. 8, n. 2, p. 108-129, 2016. Available on: http://dx.doi.org/10.5380/rcc.v8i2.41401. Access at: 14 nov. 2020.

NUNN, Amy S. *et al*. Evolution of antiretroviral drug costs in Brazil in the context of free and universal access to AIDS treatment. **PLoS Med**, San Francisco, v. 4, n. 11, p. e305, Nov. 2007. Available on: https://doi.org/10.1371/journal.pmed.0040305. Access at: 14 nov. 2020.

PAIM, Jairnilson Silva. Sistema Único de Saúde (SUS) aos 30 anos. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 23, n. 6, p. 1723-1728, jun. 2018. Available on: https://doi.org/10.1590/1413-81232018236.09172018. Access at: 27 abr. 2021.

PIRES, Alause da Silva *et al*. The implications of the qualis journal classification in publication practices in brazil between 2007 and 2016. **Educ. Policy Anal. Arch.**, Arizona, v. 28, n. 25, p. 1-25, fev. 2020. Available on: https://doi.org/10.14507/epaa.28.4353. Access at: 28 abr. 2021.

PONTES, Marcela Amaral *et al*. Aplicação de recursos financeiros para aquisição de medicamentos para atenção básica em municípios brasileiros. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 22, p. 2453-2462, 2017. Available on: https://doi.org/10.1590/1413-81232017228.18282016. Access at: 14 nov. 2020.

PRIER, Eric; MCCUE, Clifford P. The implications of a muddled definition of public procurement. **J. Public Procure.**, v. 9, n. ¾, p. 326-370, Mar. 2009. Available on: https://doi.org/10.1108/JOPP-09-03-04-2009-B002. Access at: 14 nov. 2020.

OPEN CONTRACTING PARTNERSHIP. **Annual Report 2018**. Washington, 2019. Available on: https://www.open-contracting.org/resources/annual-report-2018/. Access at: 14 nov. 2020.

OPEN KNOWLEDGE INTERNATIONAL. **Global Open Data Index.** 2016. Available on: https://index.okfn.org/. Access at: 14 nov. 2020.

ORGANIZATION FOR ECONOMC CO-OPERATION AND DEVEOPMENT. **Government at a Glance 2015**. Paris: OECD Publishing, 2015. Available on: https://doi.org/10.1787/22214399. Access at: 14 nov. 2020.

ROMANO, Cátia Maria Costa; SCATENA, João Henrique Gurtler. A relação público-privada no SUS: um olhar sobre a assistência ambulatorial de média e alta complexidade na região de saúde da Baixada Cuiabana em Mato Grosso. **Rev. Adm. Pública**, Rio de Janeiro, v. 48, n. 2, p. 439-458, mar./abr. 2014. Available on: https://doi.org/10.1590/0034-76121618. Access at: 14 nov. 2020.

SIGULEM, Fernando; ZUCCHI, Paola. E-procurement in the Brazilian healthcare system: the impact of joint drug purchases by a hospital network. **Rev Panam Salud Publica**, Washington, v. 26, p. 429-434, 2009. Available on: https://doi.org/10.1590/S1020-49892009001100007. Access at: 14 nov. 2020.

SILVA, Rondineli Mendes da; CAETANO, Rosângela. Gastos com pagamentos no Programa Aqui Tem Farmácia Popular: evolução entre 2006-2014. **Physis**, Rio de Janeiro**,** v. 28, p. e280105, 2018. Available on: https://doi.org/10.1590/s0103-73312018280105. Access at: 14 nov. 2020.

SILVA, Everton Nunes *et al*. Cost of providing doctors in remote and vulnerable areas: Programa Mais Médicos in Brazil. **Rev Panam Salud Publica**, Washington, v. 42, p. e11, May 2018. Available on: https://doi.org/10.26633/RPSP.2018.11. Access at: 14 nov. 2020.

SILVA, Vanessa Costa; BARBOSA, Pedro Ribeiro; HORTALE, Virgínia Alonso. Partnerships in Health Systems: Social Organization as limits and possibilities in the Family Health Strategy Management. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 21, n. 5, p. 1365-1376, May 2016. Available on: https://doi.org/10.1590/1413-81232015215.23912015. Access at: 14 nov. 2020.

SOUZA, Marcela Tavares de; SILVA, Michelly Dias da; CARVALHO, Rachel de. Revisão integrativa: o que é e como fazer. **Einstein,** São Paulo, v. 8, n. 1, p. 102-106, 2010. Available on: https://doi.org/10.1590/s1679-45082010rw1134. Access at: 14 nov. 2020.

VIACAVA, Francisco *et al*. SUS: oferta, acesso e utilização de serviços de saúde nos últimos 30 anos. **Ciênc. Saúde Colet.**, Rio de Janeiro, v. 23, p. 1751-1762, 2018. Available on: http://dx.doi.org/10.1590/1413-81232018236.06022018. Access at: 14 nov. 2020.

WHITTEMORE, Robin; KNAFL, Kathleen. The integrative review: updated methodology. **J Adv Nurs**, Oxford, v. 52, n. 5, p. 546-553, 2005. Available on: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2648.2005.03621.x. Access at: 18 fev. 2021.

WORLD TRADE ORGANIZATION. **WTO Revised Agreement on Government Procurement 2014.** Geneva, 2014.

Article submitted in the similarity system
Submitted: 19/02/2021 – Aceptted: 09/04/2021 – Published: 21/05/2021