INTRODUCTION

Technical scientific data is increasingly becoming a basic resource for all human activity, and many authors associate access and different subjects’ perceptions with respect to available information to the process of decision-making, which, in turn is understood as a set of institutional practices that tend to reproduce and legitimate power relations among those actors, in the case of both private and public institutions.2,13 The Latin American and Caribbean Center on Health Sciences Information (Bireme), created the Biblioteca Virtual em Saúde (BVS) [Virtual Health Library]. The objective of the BVS is to attend the demands of the local health administrators more effectively and overcome the difficulties that have already been pointed out in studies concerning experiences in other countries.9,14 Thus, Bireme becomes familiarized with the specificities of the decision making process at the local level and the way in which distinct sources of available information are utilized.
On the other hand, the process of decentralization of the health system, based on principles espoused by the 1988 Constitution - that, among other things, have hoisted districts into the condition of federated units - has acquired a new rhythm as it is implemented. The experiences of municipal administrations within the health sector have become more diversified. Each of these experiences presents specificities, given the different degrees of dependence on other spheres of government in terms of access to equipment and techniques, as well as in financial terms.

Although there are innumerable studies concerning local decision-making processes in the health sector, analysis that emphasizes the perspective of the incorporation and the impact of information on these processes are practically nonexistent. This indicates the need to find evidence with respect to the role played by information on the set of other factors identified and on the possibilities of enlarging its presence vis-à-vis the political actors.

The present study was undertaken with the objective of demarcating the role played by the incorporation of information on the process of decision making in health as well as its impact. This study was conducted in four districts within the State of Sao Paulo, selected according to two criteria: the degree of administrative autonomy of each of them with respect to central power, as defined by the Norma Operacional Básica (NOB/96) [Basic Operational Norm of 1996] and the complexity of their respective health systems from the perspective of their organization and the availability of care. As to the objectives of the Virtual Health Library, the focus of the study was centered on the possibilities each district had of absorbing distinct data systems available at present, and in this way contribute to improving the SUS [Brazilian Unified Health System], adapting the definition of priorities and the organization of the local health system to health needs and available human, material and financial resources. The main objective of the study was to search for evidence on how health policies are formulated in different local contexts, giving particular emphasis to the role played by data in this process, identifying the sources utilized by different actors, the obstacles they faced and the way in which available technical and scientific information was utilized, relating their use of data to political decisions with respect to programs and health policies currently being executed.

Information and models of decision making processes

Technical and scientific data is perceived in different manners; the present analysis is based on the definitions discussed below. Eduardo7 defines technical and scientific data as “the meaning attributed to specific data, by means of conventions and representations”, recognizing that the dimensions of monitoring, executing and evaluating action are always present in the process of decision making. Therefore, both data systems and the availability of correct data are required so as to guarantee that the desired outcomes will be obtained. Eduardo7 has denominated a data system that incorporates all the components of the organization and all the levels of decision making “administrative information system”. This system should be composed by data systems concerning the conditions of health and disease within the territorial sphere under consideration as well as the environmental and living conditions in the surrounding area. It should also include data concerning how health services are functioning at present and to what degree they are accomplishing their current goals.

Silva,13 on the other hand, classifies data as internal and external, associating the level of analysis of the information base on components of the data sub-system and its utility in the decision making process. Thus the decision making process would be basic or operational in nature when data is presented in a pure form, without any kind of analysis; after a process of association of external and internal data, information of an administrative or strategic nature is obtained. In the latter case, management of routine actions is made possible by means of an instrument which allows one to perpetuate these actions “by correcting deviations”, the so-called “administration by exception”. According to the Silva,13 if these administrative data are processed more appropriately, with strategic objectives in mind, they will generate information that can lend support to decision making and, consequently, facilitate political action.

However, confronting these models with the Brazilian reality is not viable, given our clientelistic and particularist political tradition and the heritage of a centralizing State that, in the recent process of decentralization, has benefited a harmonious companionship between a bureaucratic authoritarianism with a technocratic vision that lends priority to governmental projects in detriment to State rationality, being the latter a condition essential to the democratic order. Consequently, in the Brazilian case, State bureaucracy, that in the majority of cases detains decision making power, ends up representing interests that are in conflict with the real public interests. As a result, at the distinct levels of government the State bureaucracy resists to the assimilation of technological innovation in the decision making process, given its highly conservative political culture.
This is the reason why Weiss’ formulations were chosen as the basis for the present analysis. The latter builds a model denominated *illuminative* or *diffusive*, for his initial hypothesis is that concepts and ideas penetrate in a diffuse, indirect and gradual manner among those who make decisions, resulting in a cumulative weight of results which affect conventional knowledge and provoke changes. From this perspective, technical and scientific information originates form many sources and exercises a sensitizing effect on those agents responsible for making decisions, alerting them of new problems and offering them a variety of possible alternative solutions. In this case, it assumes the role of being the promoter of new ideas for the use of new technologies and concepts, acting in a much more cumulative manner. Rather than exercising an immediate and direct influence on the decision making process.

These references were the point of departure for the present study, which sought to identify the types and the nature of the information that was considered necessary for the actors involved in the process of decision making in the health. The heterogeneity of the local realities was taken into consideration and the objective was to detect what types of information may lend support to a righteous dynamic within this process — in the sense of instituting changes — although it was always granted that the equilibrium between the technical and political dimensions of this process are extremely precarious and instable.

**METHODS**

Given the characteristics of the study object, a qualitative research approach was chosen. An attempt was made to capture the complexity of the object and its dynamic within its immediate historical context, thus considering the social environment as an important source of data. Among the various types of qualitative approaches available, the investigators chose to utilize the *case study*, which consists of relating a real situation taken within its context, and verifying how the phenomena under analysis manifest themselves and how they evolve. Furthermore, an option was made to study districts in distinct situations so as to analyse recurrent processes involving the use of technical and scientific information in the decision making process, drawing close to what Stake denominates *multiple case study*.

The object of the study was the analysis of the practices inherent to the utilization of information in the decision making process in health in four districts within the State of Sao Paulo, according to the representations of the actors involved concerning the incorporation of information in this process. In this sense, Albuquerque’s conception of “institutional practices in decision making processes”, was useful. According to the latter, the decision making process takes shape as a set of conducts that precedes the formal act of deciding and prolongs itself beyond the conclusion of a project, thus constituting itself in a continual act, divisible only for analytic purposes. These conducts, in turn, constitute institutional practices that tend to reproduce and legitimize existing power relations among the institutional actors, that, consequently, are the object of their representations.

Furthermore, the dimensions of *participatory decisions* and *informed decisions* were contemplated. For the purposes of this study, it is understood that a participatory decision is one in which one or more actors have been given the opportunity to present their opinions (information, warnings, for example) before the decision was taken concretely. The parameter for the analysis of the relation between decision/information was the degree of clarity of the objectives, goals, indicators of success, norms or procedures undertaken by those who took the decision, as well as the origin of the information they utilized.

The criteria utilized for choosing the districts included in this study were: the degree administrative autonomy of the district, according to NOB/96; and the complexity of the local health system, postulating that the more populous the district, the greater tends to be the complexity of its administrative organization. The fact that the initial criteria was populational is justified by the fact that the number of small sized districts is disproportionately greater than medium sized or larger districts in the State of Sao Paulo, as, incidentally, it is emphatically greater still in all the other Brazilian States. Thus, of the four cases included in this study, only one has more than 100,000 inhabitants. Adopting this procedure, an attempt was made to assure the study would portray differentiations with respect to the size of the districts and their relations to the Brazilian Health System which are present within our reality. As to all other data concerning the complexity of actions and health services rendered locally, the composition of the expenditure in this sector, the population’s mortality profile, among others, the decision was taken to work with exactly the opposite — that is, its heterogeneity — for this is characteristic of the Brazilian reality. The search for this heterogeneity of available local resources is based on the premise that governs the regulation present in the NOB/96 itself: the larger the district, the more complex its health system tends to be, the greater its capacity to complement resources originating from federal and state transference funds for health, and the greater the possibility of having a greater degree of autonomy in the administration of the municipal health system.
Departing from these criteria, the following districts were studied: São José dos Campos (500 thousand inhabitants, seat of the Regional and Health Directory of the State Department of Health, qualified as completely autonomous administratively); Cajamar (less than 50 thousand inhabitants, qualified as completely autonomous administratively); Santo Antonio de Posse (less than 20 thousand inhabitants, recently qualified as completely autonomous administratively in primary care at the beginning of this study); and Mombuca (less than 3 thousand inhabitants, qualified as completely autonomous administratively in primary care).

As to the techniques and instruments utilized for collecting data, the following were used: analysis of the quantitative data available in the databanks of the official institutions; analysis of the official documents of the municipal institutions in existence in the districts included in this study; semi-structured interviews with the principal actors involved in local decision making processes, including the technical staff; observation of meetings in the respective Municipal Health Councils; and focus groups undertaken in each of the districts studied.

The interpellation among the distinct sources of information was undertaken by means of the "triangulation" of the data obtained through the distinct techniques mentioned above. In this way the investigators sought to resort to the principal components of a simplified methodology for apprehending and surveying local health needs that may be repeated in other districts, making it possible for local health policies to be based on non passive information, which, in turn, transforms the Virtual Health Library in an essential support towards this end.

RESULTS

Independently of its size, organizational capacity and the complexity of the health equipment infrastructure available in the district, the central concern of its administrators resides in developing the traditional programs instituted by the state and federal government, utilizing rationally its resources rather than trying to change or innovate the health policy delineated since the Brazilian Health System was instituted.

In fact, in the districts studied, the health programs do not contemplate regional specificities, and comprehend only those classic programs, in general elaborated by the State Health Department (Adult’s Health, Women’s Health, Dental Health, Mental Health, and others). From this perspective, the case of Santo Antônio de Posse illustrates in a radical form the predominance of other spheres of government in the definition of the local health policies implemented. As one of the interviewees stated, “health planning and administration is defined according to the directives of the State Department of Health and the Ministry of Health, because City Hall depends on these organs in order to implement their programs”.

On the other hand, attending to the health needs of the population by seeking the routes of their problems is something that is very distant from the perspective of the municipal authorities: “in health we are doing a good job with undernourished children. There’s a State project that sends milk to be distributed and a ‘multimixture’ project of the church parishes”. Within this context, the few initiatives in formulating specific programs at the municipal level, and more markedly so in the small districts, in general are motivated by the attempt to obtain more resources from the other spheres of government. Statements such as the following are common: “we presented the project ‘Struggle Against Nutritional Deficits’ to the Ministry of Health because there was supposed to be extra funds for this program”.

This fact reaffirms the role of the federal government, through the Ministry of Health, as the great health policy formulator of the Country, and in this sense, reinforces the role of the district as restricted to executing those policies. This, in turn, is reaffirmed by the action of the municipal governments themselves, that tend to have as their major motivation for utilizing the information at their disposal, their concern with respect to financial resources, whether this involves searching for new sources of funding or accounting for past expenditures to funding organs or to the population in general.

From the point of view of the administrative organization, the centralization of the decision making process is not a privilege of the federal government: no matter what the districts’ size, this process is also centralized. São José dos Campos, for example, qualified as a fully autonomous administration, according to the NOB/96, does not have health districts, and the use of information attends to the interests of the Executive power in obtaining access to the control of financial and economic data; as to the smaller municipalities, this tends to occur in a distinct way, through the centralization of the decision making power in the hands of the mayor. Note the distinction in the discourses of the mayors in both cases. In São José dos Campos the mayor stresses the need to have access to information on costs, interpreted as a factor which favours the exercise of public control: “cost is something that it would be necessary to look into, this issue of the center of costs is a very important one. You have a general notion, ... I know the average number of (health care) appointments we offer each month ... but it would be interesting to have more
parameters, a costs center”. On the other hand, in the case of Mombuca, the centralization of the decision making process is associated to the person of the mayor himself: “Mombuca is a small district in terms of population and is large in its extension. We have a population of 5 thousand inhabitants, and during harvest time this doubles. As Mayor I have to do every kind of thing here. I have a very small budget and I was spending more than 40% of it in health, until the budget broke”.

As to the role of the Legislative branch in the process of local decision making, the results obtained corroborate previous investigations: its role is essentially to legitimate the proposals coming from the Executive branch. Proposals of innovative projects made by its members practically were not mentioned. Laws, government edicts and resolutions issuing from the Executive branch institute and regulate the jurisdictions necessary for implementing, supervising and accompanying the local health system, and define the guidelines for the formulation of the basic administrative matrix necessary for municipalities qualified as fully autonomous administratively.

In all the districts studied, independently of their size, the degree of autonomy in defining its health policies and the installed capacity at its disposal, it was verified that the information utilized limits itself to the tenure of simple data on the part of some strategic administrative actors, in general, civil servants who have been in office for a longer period of time or who are relatively more stable. And the outstanding fact is that information is systematically linked to the search for additional financial resources - specific federal programs – or to bureaucratic administrative accounting of past expenditures. Perhaps this is the reason why only in São José dos Campos, a larger municipality and a regional economic center, information is the object of specific processing, which ends up characterizing it as information of a strategic or administrative type. However, even in this case, the information utilized consists of simple and isolated data, not assuming the statute of information for decision making.

On the other hand, multiple actors are directly or indirectly involved in the local health system, and act creating or obstructing specific health policies. It is thus necessary to identify how they are influenced by the technical and scientific information they consider trustworthy and which interests them, taking into consideration that despite the fact that it is not utilized in the formulation of local health policies, it is produced in the districts themselves or by other external sources, and is consumed by local actors.

The information that, in general, is of greatest inter-
est to City Hall, to the general directors of the health services and to the health council are data concerning funding and invoices, that constitute a bureaucratic or administrative type of information. The information most utilized are, therefore, almost always those produced by the Departments of Health themselves, by the health units and the hospitals, and coincide because they are exactly the set of information fed to the databanks of the Ministry of Health.

Although in the smaller districts, in general, the search for information has as its vector the search for additional financial resources rather than the formulation of projects directed towards the needs and potentialities of the local reality, in all of them the political interest in accompanying events prevails. As a result, it is more efficient and agile for these actors to utilize newspapers and other means of communication as privileged sources for bringing them up to date. Mayors, heads of departments and councilmen indicate that the newspapers are their major source of data, whereas the utilization of large databanks (Departamento de Informática do Sistema Único de Saúde - Datatux [Department of Information and of Computerized Data of the Unified Health System], Fundação Instituto Brasileiro de Geografia e Estatística - FIBGE [Foundation of the Brazilian Institute of Statistics and Geography], Fundação Estadual de Análise de Dados - FSEADE [State Foundation for the Analysis of Data], Centro de Estudos e Pesquisas de Administração Municipal - EPAM [Center of Study and Research Center on Municipal Administration], Instituto Brasileiro de Administração Municipal - IBAM [Brazilian Institute of Municipal Administration], among others) is only undertaken potentially, when a specific issue momentarily inspires special interest, or when “someone brings up a specific topic for discussion from one of the services”.

As to the Legislative branch, the Executive branch is its primary source of data, this is so, moreover, because, in general, the information solicited concerns the consequences of projects presented by the Executive – costs, needs in terms of personnel, configuring apparently a certain rationalizing trait in the process of approval of the projects.

As a general tendency, however, it is noteworthy that:

a) seeking for data, in the majority of cases, is linked to the imposition of becoming familiarized with the specific necessities of determined populational groups, either for clientilistic ends or in order to install specific services or health programs;

b) the use of available information in the large existing databanks is extremely low, above all in the case of small municipalities. According to local actors, this is due not only to the discrepancy between these data and the dynamic nature of the local reality,
which has its own rhythm that is more accelerated than that portrayed in those databanks, but also to the way in which local power is operated, in which personal contacts are imperative;

c) the lack of familiarity of civil servants with those data and the lack of knowledge necessary in order to manipulate and analyze such data. The same occurs with the representatives of the municipal councils of health, which, like the Legislative branch, tend to function as legitimators of the decisions taken by the Executive branch;

d) the precariousness of the structure of the installed computer network, that in the case of the small districts, is minimum.

Although all districts have access to the databanks, and that their technical staff, state, in general, they have no difficulties in finding specialized books, the large gap always referred to is the absence of up to date information. The large databanks, being that of the CEPAM, of the IBAM and of the Regional Health Directories are pointed out particularly when it is necessary to elaborate their annual plans, are systematically evaluated as not being up to date or being out of phase.

Another negative factor is summed up to the previous ones when considering the potential use of information: the administrative fragmentation of the state that reflects itself in these databanks and in the way in which data is gathered together in its presentation, making it more difficult to make decisions and plan intersectorial actions, an thus reinforcing the pre-existent structures.

But, although they are criticized, municipal authorities consider the databanks a valuable resource, thus corroborating studies that establish a relation between the decisions taken by the Executive branch; tend to function as legitimators of the decisions and that their technical staff, state, in general, they have no difficulties in finding specialized books, the large gap always referred to is the absence of up to date information. The large databanks, being that of the CEPAM, of the IBAM and of the Regional Health Directories are pointed out particularly when it is necessary to elaborate their annual plans, are systematically evaluated as not being up to date or being out of phase.

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In this sense, the statute of the municipality or district as a federated entity instituted by the Constitution has not been assumed by the majority of districts, among other things because this requires that it should exercise financial autonomy as a precondition for its self-government.15

In the same manner, the comparison of these results with those obtained by international investigations that evaluate the factors that impel and those that restrict the use of information in the process of decision making in health, such as Trostle for the case of Mexico, also indicates that the formulation of innovative proposals at the municipal level does not take place, particularly in the case of health policies.14 Here the results analysed confirm that health policies are conceived outside of the municipality (at the Federal Level or in the States) and present themselves in the form of programs or conventions, being that the role of the municipalities is restricted to implementing them, utilizing, for this purpose, internal and basic information, or data that is commonly used for bureaucratic or administrative ends. Although the production of health statistics is constant in all municipalities, whatever their size, above all because the information is demanded by other spheres of government as part of conventions or as preconditions for the transferral of resources. Thus, the manner in which the Unified Health System is being implemented and administrated seems to constitute, in itself, an element that conforms a certain practice of collection and systematization of information on the part of the municipalities, whatever their size, above all because the issues concerning the economic and financial order are the great motivators of this collection and use of data, being of central importance in indicating invoices and controlling the funding process.
On the other hand, information made available on the Internet or printed by the public systems of information, are not incorporated in political processes and do not attend either partially or totally to the needs of the actors responsible for the municipal decisions and to the specificities of the municipalities. This is the reason why the approximation between the source and the systems of information seems to constitute an important factor for incorporating these into the decision making process. However, since it was possible to identify social actors concerned with innovation in the management of this sector, no matter what the size of the district, although this flows with greater ease in the larger districts, while, in the smaller ones, this concern translates itself, in the majority of cases, into the utopia of implementing the ideals of the Unified Health System (SUS). The availability of accessible up to date bibliography that deals with the basic health activities developed by the districts, socializing their experiences and training health professionals, may be indicated as one of the major priorities to which the BVS/Bireme should dedicate itself.

On the other hand, the evaluation of the conditions of the infra-structure of information and computerized data and the certification of its enormous deficiency, both in terms of equipment and in the training of technical personnel and professionals to utilize them, reinstates an apparent paradox present in the elucidation of the use of information in the decision making process. That is the conflict between formulations that are rational and technical in nature and their implementation in the daily life of political and administrative action in the municipality. Indeed, the coexistence of the recognition of the importance of incorporating information in the process of political and administrative decision making and the absence of effective and articulated means of providing it in daily work manifests itself. Thus, a dissociation is registered between the expression of a thought and the means of acting in the daily routine of public administration, that is inserted in the logic of subjective rationality, assuming its own configuration, arising out of the other influences to which the process of decision making on the municipal level is submitted.

This fact reinforces the need to invest in supplying a form of information that is accessible to the public at large in terms of the ease in understanding the way in which the data are organized, dispensing with more complex computer equipment and resources. In the case of the technical personnel and the decision makers in the public institutions, in particular, material should be made available to educate them in information, computerized data and systematization of data utilized in formulating policies, as well as training health councilors so they will be apt to effectively exercise public control of the health systems and policies.

**REFERÊNCIAS**


