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Population surveys as management tools and health care models

ABSTRACT

The article briefly systematizes health care models, emphasizes the role of population surveys as a management tool and analyzes the specific case of the Brazilian Oral Health Survey (SBBrasil 2010) and its contribution to the consolidation process of health care models consistent with the principles of the *Sistema Único de Saúde* (SUS, Public Health Care System). While in legal terms SUS corresponds to a health care model, in actual practice the public policy planning and health action, the system gives rise to a care model which is not the result of legal texts or theoretical formulations, but rather the praxis of the personnel involved. Bearing in mind that the management of day-to-day health affairs is a privileged space for the production and consolidation of health care models, it is necessary to stimulate and support the development of technical and operational skills which are different from those required for the management of care related to individual demands.

DESCRIPTORS: Dental Health Surveys, utilization. Dental Health Services. Health Services Administration. Models, Organizational. Health Care (Public Health).

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INTRODUCTION

Actions developed to deal with health and disease depend on how these phenomena are explained in different historical contexts.4,12 It is from these explanations that health care necessities are derived and, in order to meet these needs, organizations and institutions are created which put into action a variety of resources and knowledge and initiate different practices and processes related to health and disease. They are, therefore, health care needs which, in different cultures condition how we organize and execute health care actions. Indigenous peoples in Brazil, for example, even today, explain disease in terms of supernatural forces and organize "pajelança" rituals to deal with the problems.¹³ A little over a century ago, on the other hand, Oswaldo Cruz started the "Vaccine Revolt", driven by the unshakeable conviction that he had the knowledge necessary to solve the problem of smallpox. In 2011, at the close of the 14th National Health Care Conference, a document was approved which stated that health care "incorporates Social Security policies, as established in the Brazilian Constitution, and needs to be strengthened as a policy of social protection [...]. The ordination of political and economic actions should guarantee social rights, universality of social policies and respect for ethnic/racial, generational, gender and regional diversity, We defend, therefore, sustainable development and the project of a Nation built on sovereignty, on sustained economic growth and strengthened productive and technological base in order to decrease external dependency". a These different understandings - those of the Indians, of Cruz and of the delegates synchronously and non-hierarchically express different ways of thinking and understanding health and disease - which lead to the modern organization of different systems of actions and operations, which can be characterized as health care models. However, what they have in common is the idea of health care needs – which are historically defined, in the light of the knowledge available in each cultural context. It should be emphasized that health care needs have different dimensions, meaning that a broad and complex set of variables need to be dealt with. These include those related to the individuals dimension and the collective sphere. Not all health care needs are known or felt by individuals and communities. Thus, the complexity of the concept of health care needs and, also, difficulties in organizing health care systems compatible with the needs of the individuals and the population.

In complex societies, such as Brazil in the 21st century, there are different cultures and systems of knowledge coexisting and mutually influencing each other, under

the aegis of the democratic rule of law.^b When determining that "health is the right of all and the duty of the State", the 1988 Constitution adds that this right should be "guaranteed through social and economic policies which aim to reduce the risk of disease and other health problems and universal, equal access to health care actions and services aimed at promoting, protecting and recovering health" and sets the *Sistema Único de Saúde's* (SUS – Brazilian health care system) principles and directives.^b In articles 196 to 200, the Constitution defines the principal structural elements of the Brazilian health care model – although a fairly expressive set of health care services which do not form part of the public system predominates in the country, such services are, in a way, regulated by the SUS.

By attributing "social and economic policies" with the mission of "guaranteeing" the right to health, the Brazilian Constitution explicitly recognizes its influence on health and disease. This recognition is compatible with what scientific knowledge identifies as "social determination in the health-disease process", according to which, health, disease and infirmities are also the result of social processes, as well as micro-organisms and other biological factors.⁵

Thus, in each territory, systems and actions consistent with these assumptions need to be organized and executed. This means identifying and understanding the health care needs of the populations in each territory. To do this, epidemiological knowledge and instruments are essential – one of these instruments is population health surveys, the object of this article. This article contains a brief summary of health care models, emphasizing the role of the population survey as a management tool and analyzes the specific case of the *Pesquisa Nacional de Saúde Bucal* (SBBrasil 2010 – National Oral Health Survey), highlighting its contribution to the process of consolidating health care models compatible with SUS principles.

SUS AS A HEALTH CARE MODEL

The SUS constitutes the result of two political movements against the civic-military dictatorship which, in terms of health care, were expressed in what became known as the Health Reform. Its formalization was defined in the 8th National Health Care Conference, in 1986, the final report of which identified "inequality in access to health care services, services inadequate to health care needs and of unsatisfactory quality and a lack of integrated actions" and the main obstacles to providing health care in that context. Tackling these

^a Ministério da Saúde (BR), Conselho Nacional de Saúde. Relatório final da 14^a Conferência Nacional de Saúde. Brasília (DF); 2012. (Série C. Projetos, Programas e Relatórios).

^b Brasil. Constituição (1988). Constituição da República Federativa do Brasil: texto promulgado em 5 de outubro de 1988.Brasília (DF): Senado Federal; 2006.

problems in the collective dimension, at that time, called for the design of a new health care model, understood as "a given way of combining techniques and technology to resolve problems and meet collective and individual health care needs. It is a reason for being, a rationality, a species of 'logic' which guides action ".10"

The aim of the SUS is to guarantee Brazilians the right to have their individual and collective health care needs met. This means responding equally to care needs – valued both in official discourse and in social imagination – and affects the process of social production of disease. However, although from a legal point of view the SUS is a health care model, from the concreteness of public policy and health care actions, the system produces a health care model which is not the result of legal texts or theoretical formulas but from the practice of the agents involved in each territory, according to the different interests affecting each sector.

HEALTH SURVEILLANCE AS A HEALTH CARE MODEL

According to Paim¹⁰ in Brazil, there are two health care models which coexist in a way which is both contradictory and complementary: "the private health care model" and the "sanitarist health care model". In parallel to these basic models, there are efforts to design alternative models incorporating "in a certain way, methods, techniques and tools from epidemiology, from planning and from the social sciences into health care". ¹⁶ The debate surrounding these health models, in a nutshell, is the issue that they always result "[...] from the historical process in which the various social actors are immersed, their respective interests and, therefore their contradictions and conflicts", ⁹ beyond abstract legal definitions and theoretical formulations.

The private medical-care model, also known as the hegemonic, hospital-centric or biomedical medical model, predominates in the Brazilian health care system. Its concept of practice is based on caring for the sick individual and operates with a biological understanding of the health-disease phenomenon, centered on health care professionals. 10 This model is functional and fits in with the model of capitalist production, as health care actions and operations are viewed as products, acquiring value in the market for goods and services. But the hegemonic biomedical model also penetrates and propagates itself healthily within in public health care service. In the biomedical model, the assumption is that health conditions lead to caring for the individuals, based on the detection of individual needs, whether perceived or not, and processed within a clinical environment. Critics of the biomedical model emphasize its limitations, which translate into a recognized reductionism which means it is unable to include the whole set of health problems of the population as a whole, resulting, in the Brazilian context, in poor coverage, centered on spontaneous demand and incompetence in developing collective actions.

On the other hand, the essence of the "sanitarist"10 health care model is in "tackling selected health care problems and in meeting the specific needs of determined groups"14 through campaigns and special programs (tuberculosis, leprosy and pregnancy, among others). It concerns, therefore, large-scale, collective hygienist initiatives, typical of Public Health institutionalized in Brazil during the 20th century. 10 At the beginning of the 21st century, although the decentralization of the public health care system in Brazil was consolidated, with states and municipalities taking on strategic roles in constructing local-regional systems and in developing integrated health care networks, and notwithstanding democratic advances in the relationships between federative health care bodies, the Brazilian Ministry of Health continued carrying out normative functions and financial management which were questioned with regards their efficiency in structuring an effective, efficient, equal and democratic health care system. For this reason, the municipilization of the system and the democratic increase of social participation in health care, although with conflicts and contradictions, represents a victory and a challenge to decentralization and to "community participation" as organizing principles of the SUS.

Bearing in mind the limitations of the "sanitarist" health care model and the market distortions of the biomedical model (in other words, the private medical-health care model), the challenge lies in developing alternative, contra-hegemonic, models which "[...] take into account the heterogeneity of living conditions in the diverse social groups, as well as the diverse situations in the different Brazilian regions, states and municipalities [...]",14 and which, without forgetting that "[...] we are in capitalist countries [...] reject the idea that health care is a product or something which can be bought [...]",15 considering that the realities constitute possibilities, with alternatives for overcoming this being created based on the assumption that "[...] it is possible to make health care more than a product, or not just a product, that it becomes a right".15 Thus, the contra-hegemonic health care models are based on the principle that "[...] enjoying the highest possible standard of health care is one of the fundamental rights of every human being, irrespective of race, religion, political convictions or social and economic conditions [...]".c There is, therefore, common ground with the SUS (also

Organização das Nações Unidas para a Educação, Ciência e Cultura, Comissão Nacional da UNESCO - Portugal. Declaração universal sobre bioética e direitos humanos. Paris; 2005 [cited 2012 Jun 19]. Available : http://unesdoc.unesco.org/images/0014/001461/146180por.pdf

contra-hegemonic in the National Health Care Policy), as its activities are based not on liberal medicine but on the whole of health care. They aim, therefore, to become the benchmark of practice which tries to oppose market logic and break away from the *status quo*.

Health care surveillance is understood as the health care model which includes, but is not limited to the two aforementioned models. It corresponds, therefore, to a way of planning, organizing, carrying out and evaluating health care actions which aim to make changes in the following aspects: 1) Subject; 2) Object; 3) Means of work; and 4) Ways of organization. This model calls for the organized social participation of the population which, together with a multi-professional team, defines priorities based on "harm, risk, needs and lifestyle and health determinants (living and working conditions)". ¹⁶ For the Health Surveillance model, it is essential, therefore, that actions are developed which take into account collective needs, which may be identified using various instruments, including the population survey.

POPULATION SURVEY AS A MANAGEMENT TOOL

Despite the countless definitions of the term 'epidemiological' in the text books and manuals, references to this disciplinary field usually converge on affirming its collective character, as it studies the health-disease-care phenomenon in society. If epidemiology sustains collective health care practices, it results in various resources which can be used to identify collective health care needs. Population surveys are one such resource, used worldwide due, among other advantages, to their high descriptive power, making them relevant in planning and evaluating public policies.

Data from Health Care Information Systems are important, "but are not sufficient to meet management needs", leading to "the growing importance of population surveys". In Brazil, there is a combination of different types of population surveys, responsible for generating a substantial set of health data which, as has been highlighted, are not produced by the usual recording systems. The Surveillance of Protection and Risk Factors for Chronic Diseases Telephone Survey and the Violence and Accident Surveillance systems, as well as the National Survey of Schoolchildren's Health, are examples of such surveys, which combine different strategies of obtaining data, due to their different final objectives. In addition to these surveys,

which are the responsibility of the Health Surveillance Department of the Brazilian Ministry of Health, the *Instituto Brasileiro de Geografia e Estatística* (Brazilian Institute for Geography and Statistics) is responsible for the National Household Survey,⁶ which is staring to carry out supplements specific to health.

Notwithstanding these initiative, the regularity with which national surveys are carried out is not defined. They way in which they are undertaken is still sporadic, limited and local.¹⁷ To overcome this problem, the *Inquérito Nacional de Saúde* (INS – National Health Survey) was approved, formalized through Ordinance no.1,811, 12/8/2009, which instituted an "[...] Organizing Committee with the aim of planning and coordinating the National Health Survey".^d Proposing a roadmap for carrying out the INS, Malta et al⁶ highlighted the need to guarantee the inclusion of the proposal in both the Multi-Year Plan (2012-2015) and the National Health Plan (2012-2015) as an essential managerial and political decision.

NATIONAL ORAL HEALTH SURVEY – SBBRASIL 2010

The Política Nacional de Saúde Bucal (PNSB – National Oral health Policy) recommends the use of epidemiology and the use of data concerning the territory as a support in planning, as well as recognizing the importance of "centering the activity on Health Surveillance, incorporating continuous evaluation practices and monitoring harm, risk and determinants of the health-disease process [...]". Thus, through Ordinance no. 939 of 21/12/2006, the Brazilian Ministry of Health instituted a Technical Advisory Committee (CTA-VSB) to structure and implement surveillance strategies in oral health as a component of the PNSB. Among other competencies, it falls to the CTA-VSB "to monitor the epidemiological situation in the area of oral health". f In October of 2008, the Health Minister, José Gomes Temporão, announced an epidemiological survey in oral health. In April 2009, the CTA-VSB was charged with designing the National Oral Health Survey - 2010, resulting in the so-called SBBrasil 2010 Project, a strategic initiative of the Health Surveillance component of the PNSB.11

The CTA-VSB drew up the technical and operational project of the SBBrasil 2010 and its execution fell to eight Brazilian Ministry of Health Department of Oral Health Surveillance Collaborative Centers (CECOL), installed in universities in four macro-regions of Brazil

^d Ministério da Saúde (BR). Portaria nº 1.811, de 12 de agosto de 2009. Institui, no âmbito do Ministério da Saúde, Comitê Gestor com a finalidade de planejar e coordenar a criação do Inquérito Nacional de Saúde – INS. Brasília (DF); 2009 [cited 2013 Aug 16]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2009/prt1811_12_08_2009.html

^eMinistério da Saúde (BR), Secretaria de Átenção à Saúde, Departamento de Atenção Básica, Coordenação Nacional de Saúde Bucal. Diretrizes da Política Nacional de Saúde de Bucal. Brasília (DF); 2004 [cited 2012 Jun 19]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/politica_nacional_brasil_sorridente.pdf

Ministério da Saúde (BR), Secretaria de Atenção à Saúde. Portaria nº 939, de 21 de dezembro de 2006. Brasília (DF), 2006 [cited 2013 Aug 16]. Available from: http://dtr2001.saude.gov.br/sas/PORTARIAS/Port2006/PT-939.htm

(Mid-West, Northeast, Southeast and South). The CECOL had certain responsibilities critical to carrying out the Project, such as providing "support to the State and Municipal Coordination and to the partner institutions in carrying out the research in each state" and analyzing the data collected to produce a final report. In order to do this, each state came under the responsibility of a CECOL, the criteria being geographical proximity and number of examinations to be carried out.

The starting point for constructing the database concerning the epidemiological oral health profile of the Brazilian population was 1986. Although still embryonic in theoretical and practical terms, its innovative character and the historical importance of the data it produced should not be underestimated. In 1996, a second nationwide oral health survey was carried out, followed by the SBBrasil 2003. These population surveys, together, were of great importance in developing Brazilian competence in the sector and, also, in introducing epidemiological activities into the daily routine of public orthodontic services.7 The SBBrasil 2010 followed in the footsteps of these epidemiological surveys which, in contrast to the majority of nationwide surveys, involved examinations with epidemiological aims, according to a normative pattern, as well as the habitual use of questionnaires. The examinations carried out as part of the SBBrasil 2010 followed standard recommended by the World Health Organization.¹¹

Although Federal law 8,080/90 determined the "epidemiological use for establishing priorities in allocating resources and guiding programing", h production of epidemiological knowledge is not part of the daily routine of SUS personnel. Thus, as with the surveys which preceded it, the SBBrasil 2010 was characterized as a multi-centric study which counted on the participation of different levels of SUS management (municipal, state and federal) and involved different sectors, such as further education institutions, professional bodies and research centers, seeking to amplify inter-institutional activities and contribute to transforming practices at a local level. Although many professional who worked on the SBBrasil 2010 were not specialized in this type of research, it was decided to create opportunities to de-monopolize epidemiological knowhow, taking into account that "the challenge of developing Brazilian competence in this type of investigation and, at the same time, establishing it in health surveillance practices needs to be faced and overcome".7

However, the operational option of conducting projects such as the SBBrasil 2010 within the SUS, rather than outside of it, posed challenges to managing the system. In the specific case of the SBBrasil, the responsibilities of the state and municipal coordination did not necessarily correspond to the post of oral health coordinators and required various types of coordination – with collaborative centers, partner institutions and field work teams among others. This meant the principles of management, such as inter-governmental cooperation and solidarity, were made concrete. It also meant understanding the health care service system beyond health care, valuing collective activities. Some of these actions and issues, as occurred with the population surveys themselves, may not be easily accepted on the part of the policy makers due, in part, to their low repercussion (including electoral). Another point concerns the field work, in other words, the stage at which the data was obtained. As the field work teams had to cover a specific number of households to carry out examinations in different census tracts, there was a decrease, or even suspension, of appointments in Primary Health Care Units and other places, on specific days. Such temporary alterations in the care routines are especially problematic in orthodontic care, as the "culture of the institution", and even that of the professionals, is to place more value on clinical work than on collective actions. Thus, conflict was produced between bosses who emphasized obtaining quantitative results, due to limited understanding of the responsibilities of the health care workers and, principally, of what the SUS is and what working in a public health care system means.

Thus, surveys require understanding on the part of management as these actions, by their very nature, produce more universal and abstract benefits compared with those of health care. Moreover, they require the health care professionals who operate on a local level to understand the object of their work from a substantially different perspective than that which predominates in the biomedical model, with its exclusive clinical-surgical focus. In general, daily practice in oral health care services is technical, biologist and, often, inconsiderate of epidemiological knowledge, devaluating it. However, the numbers of the SBBrasil final report are the fruit of anonymous work of various health care workers who, autonomously or otherwise, dedicated themselves to a collective, public interest project.

A survey such as the SBBrasil 2010 requires governmental decision and initiative from all federal bodies, directly reflected in the allocation of financial resources and in organized political support, above all on the mart of municipalities. However, although population based surveys are "capable of producing useful information for formulating national directives and policies, they are rarely capable of producing dis-aggregated information

⁸ Ministério da Saúde (BR). Secretaria de Atenção à Saúde, Secretaria de Vigilância à Saúde, Departamento de Atenção Básica, Coordenação Nacional de Saúde Bucal. Projeto SB Brasil 2010 – Pesquisa Nacional de Saúde Bucal: manual do coordenador municipal. Brasília (DF); 2009.

^h Brasil. Lei nº 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. *Diario Oficial Uniao*, Brasília, DF, 20 set 1990.

for use at a local level". The lack of representativeness of these surveys at a municipal level means significant obstacles in getting the involvement of managers, individually and collectively.

However, "the important of epidemiological knowledge in health practice is undeniable with its arguments are appropriated by individual and collective subjects, aiming at specific objectives and becoming a 'political' resource", in other words, epidemiological knowledge, in terms of health care management, is no trivial thing. Thus, the political commitment of the SBBrasil 2010 in seeking equality in health care, for example, in revealing regional inequalities in the prevalence and severity of dental caries, as well as in access to orthodontic services, needs to be highlighted.

FINAL CONSIDERATIONS

The biomedical model is hegemonic, but its contradictions engender the appearance of contra-hegemonic proposals within the logic of the functioning of the SUS, which deny the narrow borders of biology and propose other understanding(s) of health-disease. Without denying the importance of health care, the health surveillance model seeks to respond to collective needs which, of necessity,

involve activities of promotion and prevention. Thus, this includes valuing activities which analyze and control health problems, for which population based surveys are essential, above all ay a state and municipal level in providing support in decision making. As part of the historical dynamic itself, a series of specific and localized initiatives have been developed, but this is not the reality in the vast majority of public health care centers, in which epidemiology forms no part of their work routines. The difficulties which appear when carrying out surveys such as the SBBrasil 2010, which seek to involve SUS workers in data collection, reveal this limitation and show the strong influence of the biomedical model. Considering that everyday health care management is a privileged space for producing and consolidating the health care model, it is necessary to stimulate and support the development of technical and operational competencies different from those necessary to managing health care related to individual needs. Within these competencies are the planning, organization, execution and evaluation of population health surveys, as these tools are indispensable in identifying and understanding collective health care needs. For this reason, they provide scientifically based data and information to decision makers, enabling them to base their decisions on knowledge which also takes into account collective health care needs.

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