Theoretical assumptions regarding health surveillance: a prospect for its integration

Aproximações teóricas acerca da Vigilância à Saúde: um horizonte para a integralidade

Aproximaciones teóricas acerca de la Vigilancia en Salud: un horizonte para la integralidad

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ABSTRACT
This study was an investigation of the proposition and development of health surveillance as an instrument or model of health. A literature search was conducted in LILACS and MEDLINE databases using the key words population's surveillance and primary health care. The literature indicated the existence of different propositions and terminologies for health surveillance which are used in epidemiology and territorial surveillance. There was emphasis on the use of health indicators, geoprocessing, and analysis of network of health surveillance agencies. Health surveillance can be used to promote health, social control of information, and to evaluate health policies and its implementation.

Keywords: Population surveillance; Public health surveillance; Epidemiologic surveillance; Primary health care

RESUMO
Investigou-se a proposição e o desenvolvimento da vigilância à saúde seja como instrumento ou modelo de atenção à saúde, nas bases de dados LILACS e MEDLINE, sob os descritores vigilância da população e cuidados primários de saúde. Identificaram-se diferentes propostas e terminologias para a vigilância à saúde que se assemelham pelo uso da epidemiologia e da noção de território. Destaca-se o uso de instrumentos como indicadores de necessidades de saúde, geoprocessamento e análise de redes de vigilância em saúde. Conclui-se que a vigilância à saúde se constitui num potencial campo para promover a saúde, o controle social da informação e avaliação das políticas e ações de saúde.

Descritores: Vigilância da população; Vigilância em saúde pública; Vigilância epidemiológica; Atenção primária à saúde

RESUMEN
Se investigó la proposición y el desarrollo de la vigilancia a la salud sea como instrumento o como modelo de atención a la salud, en las bases de datos LILACS y MEDLINE, bajo los descriptores vigilancia de la población y cuidados primarios de salud. Se identificaron diferentes propuestas y terminologías para la vigilancia a la salud que se asemejan por el uso de la epidemiología y de la noción de territorio. Se destaca el uso de instrumentos como indicadores de necesidades de salud, geo-procesamiento y análisis de redes de vigilancia en salud. Se concluye que la vigilancia a la salud se constituye en un campo potencial para promover la salud, el control social de la información y evaluación de las políticas y acciones de salud.

Descritores: Vigilancia de la población; Vigilancia en salud pública; Vigilancia epidemiológica; Atención primaria de salud

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INTRODUCTION

In Brazil, the diffusion of the health surveillance theme has happened in a context of experimentation of several strategies and models of attention to health, coming from the Brazilian Sanitation Reform, to attend the needs of reorganizing the logic of health service production process, its relationships among the supply, the demand and the attention to the population's health needs. This process occurred in parallel movements, in the scope of making the Health Unique System – Sistema Único de Saúde (SUS). In the end of the 1980s and the beginning of 1990s, as the implementation of Sanitary Districts, the proposal of Health Surveillance was built up from those experiences, based on the notion of Health Local Systems, gets contributions from epidemiologists with the analysis of health situations and human geography through the understanding of social, administrative, sanitary and epidemiological territory. In this sense, it's highlighted the integration of health practices inside the Sanitary Districts, predicting the several levels of prevention, the creation of healthy public policies for improving the quality of life of the population and the reorganization of environmental, epidemiological and sanitary surveillance actions, as well as assistance to individuals and population groups(1).

In another movement, such proposal is built from the amplification of epidemiological surveillance actions, in the sense of contemplating health problems and life conditions in their extensiveness, once these actions, in general, were turned to the host, the etiological agent and the environment. They are undoubtedly of great importance to break the chain of disease transmission, but they are restrict, as they are focal and have low affectivity for not reaching the determinants of the diseases(2-3). As from the National Seminar of Epidemiological Surveillance in 1993, it was evidenced important conceptual advances regarding to the epidemiological surveillance, culminating in the health surveillance(4).

The search on the scientific literature evidences several definitions to the term health surveillance. The present article, however, aimed to identify how the concepts of surveillance in the national and Latin American scientific literature have been used and to verify how much the statements found are articulated in the sense of contributing to an integral practice of attention to health.

METHODS

It was used LILACS databases, from the key word on the topic of population surveillance, from 1990 to 2006, which corresponds to the initial stage of the implementation of the Brazilian Health Unique System up to the present time. One hundred and sixty studies came up from the search, in which 54 were selected. On MEDLINE databases, the key words population surveillance and health primary attention were combined, in which 137 studies came up and 7 articles were included. The studies were selected after reading their abstracts and the whole articles. It was excluded the ones whose subject of study was related to a specific topic of epidemiological surveillance, the ones which were not connected to the theme and the ones whose surveillance approach was far from the reality of the developing countries.

RESULTS

In the Latin American literature scope, it is verified the use of the term health surveillance to design the development of a health surveillance system in primary attention in Cuba. It has as its basis the diagnosis of health situation, constructed in the local level, which allows knowing the main problems in health and guiding the measures to its change. From this process, it is determined the aspects in which are submitted to surveillance, establishing who, how and when it must be watched and, at the same time, defined the tactical and strategic components. The surveillance system is put in practice in two levels, at the health basic attention and in the municipal level, in which it is established different flows of information and responsibilities for the development of surveillance actions articulated to the team work in family health(5). Such study presents the purpose of organizing the surveillance system and, however, it doesn’t approach what impact was attained with the aforementioned work.

In a study made in the same country, the survey of the knowledge needs on health surveillance among family health physicians, it was verified that most family health physicians didn't know their role in health surveillance and they hadn’t had competence deeply enough to perform activities suitable to health surveillance(6). In another perspective, and still referring to the same country, four territorial strats were defined through the demographic density and the predominant economic activity in each region, aiming to implant places that would be considered sentinel for surveillance and intervention activities. According to the authors, this method allows to analyze the disease behavior and health severity and facilitate planning resources and health actions(7).

The mentioned works are related to health surveillance, mainly to the information system and the organization of health services, in which, the latter emphasizes the advocacy of understanding and action regarding to the problems that occur in local base, the territory.

In Bolivia, Argentina and Brazil, the term surveillance, in the health area, has been mainly related to a system that includes the participation of the community and which
has structures of health information that assist the identification, planning and intervention on the leading local health problems. The popular education is referred as a powerful instrument for the articulation of local community. Besides that, it stresses the importance of the participation of the leaders involved with the community, discussing the relevance of health information.

In Bolivia, the community takes part actively in the surveillance, from the search and community intervention to data record, going beyond the traditional surveillance work process. In that country, a proposal of building nets of childhood mortality surveillance is discussed, considering the participation of the community in the process of information identification and analysis. It is also discussed in literature how epidemiologic surveillance can develop sanitary awareness and self management processes through local action.

In the beginning of the 90s, it was pointed out in the literature in Brazil the need of epidemiologic information in order to make health programs and services, and defended the need of spreading the subject of epidemiologic surveillance. It was also discussed the reorganization and updating of the Epidemiologic Surveillance System in different levels and instances, which led to the proposal of making a model of transitional Epidemiologic Surveillance for the SUS.

Although several authors have pointed to the spread of the subject of surveillance in Brazil from the 90s in a bibliographical study on disease surveillance and non transmissible injuries, the author concluded that a small part of the scientific production is dedicated to study this issue with limited advances. It points out that making a system of disease surveillance and non transmitted injuries, besides producing and publishing epidemiological information and ways of prevention, must be articulated with care, making systems of service assessment. In this sense, it goes towards development of new practices of specialty in surveillance, once they enlarge and improve the possibilities of using secondary databases, compulsory communication, records of population and hospital basis, as much as epidemiological inquiries.

It is proposed the health surveillance as an instrument of public health that starts from the analysis of health situations of population groups, and it considers their life conditions. The author mentions that, in this perspective, health surveillance makes it possible the investigation, monitoring and creation of databases on other health injuries, besides the transmissible diseases, contributing to a broader approach of health planning.

As it can be seen, it has progressively grown and redefined the object of epidemiological surveillance, expressed by the authors under several lines and terminologies, but keeping the common axe based on the Epidemiology.

The project of Technical Cooperation of Pan-American Health Organization, which aimed to Exchange experiences between Brazil and Italy, proposed health surveillance in sanitary districts, with interventions subject to be developed from their political, social and sanitary characterization. This proposal took the health surveillance as the goal to favor decision making and the practicality of actions, from the setting of priority problems, keeping in mind the transformation of practices in health.

In this perspective, health surveillance is proposed as an instrument of intervention on the determinants of health-disease process that incurs on the population groups of a specific territory tied up to the sanitary district, for the reorganization of health practices. The author defines sanitary district as a geographic, population and administrative space, coordinated by a local managerial jurisdiction and understood as a social process, not a bureaucratic one. In this model, health surveillance is informed by the geographic systems of information and operated by the problem micro-localizing, focusing on the health local planning. The territory is the key concept and its conception goes beyond the limits of a geographic space, once it is a setting where life and work relationships of a specific population procedurally fulfill. For that, in the intention of getting an overview of these aspects in a specific territory, it’s necessary to collect demographic, social-economic-political-cultural epidemiological sanitary information. From that, it’s possible to identify and analyze the problems, the epidemiological profiles and the people’s health needs to define the attention priorities to health, through inter-sector actions, based on integrity and equity.

Parallel to this movement, health surveillance is set as a way of institutional integration between epidemiological surveillance and sanitary surveillance. For the author, this proposal has been accomplished through management reforms of several health state organizations. In this context, the health surveillance in the municipal district of Sao Paulo in the present days has surpassed the scope of epidemiological and sanitary surveillance, getting organized by the coordinated integration of epidemiological, sanitary, environmental, worker’s health and zoonosis surveillance areas, with the final aim to contribute for health promotion and injury prevention.

Referring to the latter, health surveillance embodies environmental surveillance as a new area, which doesn’t necessarily keep institutionalized, presenting itself as a multidisciplinary acting field. It is characterized by the systematization of computerized data, with the incorporation of inter-disciplinarities to deal with situations of social-environmental vulnerability. It aims to know social-environmental problems in specific regions, in order to be organized promotion and prevention actions regarding to
health, besides subsiding the construction of sustainable development policies\(^{(24-25)}\). Geoprocessing is an instrument that allows focusing on the risk areas and populations and subside planning regarding to health sanitation and surveillance\(^{(26)}\).

The redefinition of work subject demands the use of knowledge and appropriate technologies to the enlargement and diversification of action and service range, reflecting the need of changing the work process subject’s profile, as much in the individual level as the collective, in which must be considered the participation of the population as well. The change in the object, the subject and the purposes of work process incurs on the relationships established among the subjects, the knowledge and the technologies that are used for getting the work object in a health service system. Such complexity demands a set of initiatives in the micro level and the articulation of proposals in concrete situations in the scope of SUS, moving forward little by little in a macro level of the health policy formulation, in order to acquire the integrality of health attention\(^{(1)}\).

In a similar way, it is built the proposal of worker’s health surveillance to identify injuries and risks related to labor activity, from the relationship between work and health. Worker's surveillance in health is integrated to health surveillance and the participation of the community, in the perspective of work in the territory\(^{(27)}\). More recently, this model is defended as a proposal of organizing process and labor environment changing actions, through work on institutional networks\(^{(30)}\). The consolidation of this specific field in the public health area aims the worker's health promotion\(^{(30)}\).

Among the studies dedicated to structuring health surveillance instruments, it appears the investigations that have recourse to the defense of using the Epidemiology, by the analysis of demographic, social, economic, and health indicators in the service\(^{(30)}\). In this line, in Brazil, there is a report\(^{(31)}\) of the experience to implant in two municipal districts a surveillance model of endemic diseases in urban areas, guided by the surveillance health referential, which makes it possible to learn about inequities in the cities, plan interventions and proceed the monitoring of needs, guided by analyses of risk situations and epidemiological indicators. For doing that, it was built a digital territorial basis for both municipal districts using IBGE Census and digital maps of SINAN morbidity of tuberculosis and Hansen's disease. According to the authors, “(...) the surveillance model proposed favors the understanding of disease production process due to the occupation of the urban space, in the view of integration and existent databases compatibility and the interactive analysis of health and socio-demographic data.”\(^{(31)}\)

Contributing to the conceptual advance of health surveillance, another group of authors\(^{(32)}\) defines it as a model of health attention that organizes health work processes in a specific territory. For those authors, this conceptual slope favors the technical dimension, starting from a set of technological combinations, driven to risk and hazard control, besides the managerial dimension of the health surveillance notion. It approaches in different ways the subject, the object, the means and the organization of work. For the authors, health surveillance is made of a care model with the following basic characteristics: intervention on health problems; emphasis in problems that require attention and continuous follow-up; practicality of the risk concept; articulations among promotional, preventive and curative actions; inter-sector performance and actions on the territory. Thus, the practicality of health surveillance requires the estimation of regionalization principles and the division of services in hierarchies, establishing limits for the ranging areas and service influence according to its operational capacity, besides mapping the region in micro-areas of risk, defined from epidemiological profile of the population. This way, “health surveillance intends to embrace the principle of integrality, thinking in a vertical ‘perspective’ of organizing services according to levels of technological complexity, as much as the ‘horizontal’, in which is related to the articulation among the actions of health promotion, risk prevention, care and recovery”\(^{(30)}\).

For this comprehensive feature, health surveillance maybe hasn’t advanced specifically in the change of health work processes, but it comes close to the movement of Health Promotion, in which gets wider the reflection on policies and inter-sector strategies for improving life conditions. At the same time, this proposal started to be referred in the use of Family Health Strategy, exactly for being a wide-open term that manages with the integrality of health practices (promotion, protection and recovery). There is still a great gap to integrate the dialogue between health surveillance and the Family Health Strategy, as to adequate the survey on the health needs and problems of the population to the integration of actions focused to control vulnerabilities and health injuries (prevention, care and health promotion\(^{(1)}\).

It reinforces, however, the potential to health surveillance to develop the social control of information over the determinants of health for the population, to supervise policies and actions in the economic, social, political and cultural realms; besides mobilizing in the sense of health promotion. Hence, “(...) health promotion must also mean the acknowledgement of the complexity of health problems, demanding simultaneously more qualitative approaches, as well as associations to participative and territorial health strategies”\(^{(33)}\). In this perspective, health surveillance must contribute to reorientation of health services towards overcoming coverage, access and quality inequity.

The concept of social networks is incorporated to the health surveillance area, involving the health-disease process.
in the collectivities and going beyond the bureaucratic actions to attain a process that involves the participation of the population, government, and civil and scientific organizations. According to the authors, the health surveillance network can be understood as a "(...) complex system formed by the institutional articulation of actions involving, at the same time, the government, community, civil organizations and scientific institutions" (34). The construction of surveillance networks can be useful in the development of joint actions for the knowledge, detection and prevention of epidemic diseases under a perspective that embraces integrally the Idea of environment and social and collective systems. With the participation of the community, the surveillance networks can provide social control and allow the identification of critical knots that interfere in the communicative flows between the public institutions and the civil society. It is highlighted the potential to the mobilization of several actors in different instances, which allows greater efficiency and transparency to the epidemiological nature programs of SUS. For doing that, it is essential to make widely available the information and use health education in the social micro-environments (34). The autonomy and the actuation from the subjects can be reinforced, through this perspective of health surveillance, making it possible the intervention to beyond risk factors, incorporating actions oriented to modify health conditions (35).

Health surveillance is considered as an organized social response, as it comes from the unequal distribution of injuries to work with priority groups. For that, it's necessary to know the health-disease determinants in these groups, in order to promote health through intersectoriality, social inclusion, education and the strengthening of the community action. The authors present an experience in Rio Grande do Sul in the 1990s, which combined proposals of health surveillance and “Citizen School” (Escola Cidadã): “(...) Citizen school or democracy has as guiding lines the integration between school and culture, school and community; the democratization of power relationships inside the school; the coping of repetition and evaluation; interdisciplinary view; and the ongoing formation of educators.” (36). The conceptual convergence of these proposals occur in four action fields of health promotion: the development of personal skills, the strengthening of community action, the creation of environments favorable to health and the construction of healthy public policies, involving governmental and non-governmental institutions (36).

Starting from the concept of health surveillance, understood as a care model for the basic attention in health, of inter-sector nature, which requires the participation of the community and the work in the territory, are elaborated social and health need indicators and put into practice in the categories: autonomy, quality of life, human development and equity, besides the family support network and the information/articulation degree for the social participation and the development of citizenship. These indicators favor the knowledge on the reality of life and health of the individuals and the social groups to guide promotion, prevention and treatment actions (35).

Regarding to studies that investigate the development of health surveillance in services at a local level, they are scarce. In a study on the nurse's epidemiologic surveillance work at a health unit, it was verified the predominance of transmitted disease control actions, falling to the nurse a parcel work, centered in the clinical model, not integrated into the teamwork and neither to the analysis of the health situation of the local population. The authors of this study conclude on the necessary opening of new dialogue and health technology channels for the redefinition of care, attending the real demand and the discussion in service on the concepts of health work and on the health-disease process, in order to move towards health surveillance (37).

In the Municipal Health Secretary of Ribeirão Preto the epidemiological surveillance practices are investigated and it is evidenced that the potentiality of this area is in the territory work, from a project of common work to different Professional categories, in the sense of building health surveillance (38).

**FINAL CONSIDERATIONS**

The concept of health surveillance has been developed and refined, on the one hand, in the sense of enlarging the subject of surveillance to go beyond transmitted diseases, including health surveillance in the environment and the workplace. On the other hand, it has seen a conducting wire of proposals of health surveillance in Latin America that basically come from the need of reorganizing healthcare in the scope of Sanitary District territory informed by the epidemiological model, considering the participation of the population in this process.

Potentialities are identified in the proposal of health surveillance that surpass the traditional medical care model and the fragmentation of surveillance practices, the enrichment of health work techniques in the inter-sector stage; for example, with the knowledge of surveillance networks, however, there have been several gaps for implementing health practices. The conformation of a care model, which brings the reorganization of work processes, that is, the incorporation of other subjects of work, as the service managers, technicians and representatives of the population, other instruments or work means, as much management methods, as the geo-referenced information for the practicality health surveillance, lacked a political, ideological and managerial guidance at the micro and macro levels of health system.
REFERENCES