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Brazilian Health Surveillance: reflections and contribution to the debate of the First National Conference on Health Surveillance

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Abstract *This is a research on the challenges of Health Surveillance, considering its theories and practices. We performed a comprehensive review of international and national literature and institutional documents. Some of the authors also participated in the formulation of the guideline document prepared by the Formulation and Reporting Committee of the First National Conference on Health Surveillance. The complex Brazilian reality imposes that Health Surveillance be guided in a universal, integrated, participatory and territorial manner, where society and SUS workers play a leading role. It points out the need to design a structured surveillance system based on the dynamics of production, consumption and ways of living of the communities. The National Health Surveillance Policy should harbor in its core the categories and values of health social determination, the State's health regulatory responsibility, integrality, territory, participation of society and right to information.*

Key words *Public Health Surveillance, Unified Health System (SUS), Public health policy*

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Motivation and Objective

This paper aims to identify the contemporary challenges of Health Surveillance from its conceptual foundations, practices, pathways, results, gaps and perspectives. Its elaboration was motivated by the decision of the National Health Council (CNS) to hold the First National Conference on Health Surveillance (CNVS)[1], with the central objective of "proposing guidelines for formulating the National Health Surveillance Policy and strengthening health promotion and protection actions".

Thus, we performed a comprehensive review of international and national literature and analyzed institutional documents, with emphasis on the proposals related to the construction of the National Health Surveillance Policy shown (a) in the base document of the National Health Surveillance Policy Working Group (GT-PNVS), established by the Health Surveillance Secretariat of the Brazilian Ministry of Health (SVS/MS); (b) in the Cycle of Debates on Health Surveillance conducted in 2015 by the National Health Surveillance Agency (Anvisa)[2]; (c) in the establishment of the Health Surveillance Program of the Oswaldo Cruz Foundation (Fiocruz). These contributions are rapprochements to the theme, objectives, axes and sub-axes of the First National Conference on Health Surveillance (CNVS).

We also examined the Final Report of the 15th National Health Conference and reports of the Symposia conducted by the Brazilian Association of Collective Health (ABRASCO) on Health Surveillance (SIMBRAVISA), Health and Environment (SIBSA) and Worker Health (SIMBRAST).

The participation of some of the authors in the debates carried out by the Commission for Formulation and Rapporteurship for the preparation of the Guidance Document of the First CNVS[3] approved by the National Health Council underpinned this work as well. The referred document initially shows the origins of health surveillance and then health surveillance's pathway in Brazil and discusses its main challenges.

Origins and meanings of Health Surveillance

Health surveillance is one of the essential roles of public health[4,5]. According to literature, three types of information have been included in records of epidemics since the earliest civilizations: *health outcomes, risk factors, and interventions*. Finding that diseases were caused by the nature of a particular place, Hippocrates[6] concluded that the collection of health data should consider the territory, the natural environment and people. He introduced the concepts of *acute and chronic diseases* and *epidemics and endemics*.

In the Middle Ages, the concept of *quarantine* emerges as a means of controlling the spread of the plague (pest), when travelers from areas affected by certain diseases were held for forty days. The concept of *systematic mortality data collection* was introduced by John Graunt[7] (1620-1674). Thus, it was possible to understand that the quantification of disease patterns and studies on the numerical data of a population could be used to study the cause of diseases, introducing the concept of *temporal and spatial distribution of mortality*.

Public health surveillance legislation was introduced in the pre-industrial era, adopting the concept of *compulsory notification of infectious diseases*. During this same period, public health surveillance was necessary for the development policy of nations[8]. There was a need for an expanded form of public health surveillance that addressed school health, disease prevention, mother and child health, water for human consumption and sewage treatment. With the French Revolution (1788-1799), the health of the population became the responsibility of the State, starting with the concept of *social welfare*, which later became part of the Beveridge Plan[9] in the 1940s. In the essay on the birth of social medicine, Foucault[10] outlines a typology that refers us to three classic devices of health surveillance: i) interventions aimed at disease control in urban space, including displacement and population mobility; ii) interventions aimed at working environments and laborers' districts; and iii) interventions aimed at the accounting and distribution of morbidity and mortality in the general population.

In modern industrial societies, public health surveillance has been used to develop legislation and promote social change. It was the onset of the practice of collecting and analyzing vital statistics, reporting their results to authorities and the general public, which led to the emergence of a public health surveillance system concept. The decennial census, the standardization of the nomenclature of diseases and causes of death and the collection of health data by age, gender, occupation, socioeconomic status and location[11] were also introduced in the 19th century.

Investigations developed by John Snow[12] on the cholera epidemic and the relationship between deaths and the human consumption

of contaminated water led to emergence of the concept of causality. Conceptual and operational models developed to address the exponential growth of chronic-degenerative diseases characterized in the second quarter of the twentieth century contribute to the elaboration of the concepts of the natural history of diseases[13] and of primary, secondary and tertiary prevention[14].

Surveillance's milestone occurred in 1968, when the 21st World Health Assembly adopted the concept of population surveillance, defined as "systematic collection and use of epidemiological information for planning, implementing and evaluating disease control." The Assembly defined the three main aspects of surveillance: systematic collection of relevant data; consolidation and orderly evaluation of these data; and quick dissemination of results to those who need to know them for decision-making. Thus, surveillance became information for action.

As of the late 20th century, Health Surveillance has become an integral part of the health responsibility of national health systems. Progressively, the unprecedented scale of movement between countries of people, goods and commodities, expanded by the phenomenon of globalization has resulted in the establishment of global surveillance platforms.

Currently, the International Health Regulations (IHR) are currently a key global disease-fighting instrument and establish procedures to protect against the international spread of diseases. Their first version was introduced in 1951, later revised in 1969 and amended in 1973 and 1981. With their approval by the 2005 World Health Assembly (WHA) and entry into force in 2007, the new IHR introduced modifications in the global processes of monitoring, surveillance and response to public health emergencies of international importance (ESPII). These changes have implied the need to improve the processes and structures of the national public health bodies of all the countries that are signatories to this regulation by developing basic capacities to detect, evaluate, notify, communicate and respond to emergencies.

Health Surveillance in Brazil

In Brazil, the first surveillance measures date back to the colonial period. Systematic surveillance, prevention and control of diseases actions were organized only in the twentieth century through vertical programs, with the formulation, coordination and implementation of actions performed directly by the Federal Government. These programs have established themselves as national services for the control of the most prevalent diseases at the time. Its structure occurred through campaigns[15].

A predominantly rural country until the mid-1960s, Brazil experienced intense urbanization, especially from the new industrialization cycle of the 1970s, leading to the emergence of epidemiological and demographic transitions that resulted in the progressive aging of the population.

The knowledge and practices of health promotion and protection and prevention of diseases developed throughout the 20th century, as we point out below, have made an important contribution to improving the health of the Brazilian population, particularly observed by increased life expectancy, declining malnutrition and infant mortality, culminating in the emergence of the Unified Health System (SUS) with the 1988 Constitution.

The economic development of the post-1968 period, known as the "economic miracle", with the expanded industrial production and exports, imposed new demands on the State, such as regulations to adapt Brazilian production to international quality standards. In addition, emerging social issues required restructuring in health policies, driving the reform of the health sector and its services.

The reforms encompassed health surveillance as part of a broader project aimed at consolidating a "modern industrial society and a model of competitive economy" within the framework of the Second National Development Plan (PND)[16]. Therefore, this new model required more efficient regulation mechanisms in the health sector, especially as new patterns of consumption of health goods and services have diversified and become more widespread. Thus, it was necessary to have greater control and security over what was produced and consumed, in order to reduce risks to the health of the population.

The development models adopted at national level have since imposed on the great mass of workers and other social groups a way of living marked by cycles of intense and exhaustive exploitation of their workforce, low family income and poor access to public policies and urban infrastructure services. This setting has elevated Brazil to one of the most perverse developing countries in the health of urban and rural workers, breaking records of work accidents, low levels of social protection and significant informal work increase. These are inheritances of a regu-

lated citizenship[17] and typical of a still low-intensity democracy[18].

In order to cope with the complexity of a country that has sustained an accelerated and intense urbanization without structural reforms that equate old and new social issues generating deep inequalities, there was a need to overcome the model centered on vertical surveillance, prevention and disease control programs coordinated and implemented exclusively by the Federal Government until then.

The Fifth National Health Conference held in 1975 proposed the establishment of a national epidemiological surveillance system. This recommendation was operationalized with the structuring of the National Epidemiological Surveillance System[19] (SNVE), which established compulsory notification of cases and/or deaths from fourteen diseases nationwide, which came into force in 1976[20]. The SNVE was the first step towards decentralization of health surveillance actions to state health secretariats.

Nearing the 1980s, academic analysis criticizes the limitations and inadequacies of the private medical health care model and the preventive model that are unable to question and act on the origin of the conditions generating the poor health condition of the Brazilian people[21].

Collective health thinking has stemmed from a process coordinated to the struggle of society and health professionals for democracy and better living conditions. Linkages between these three movements, namely, intellectuals, society and health professionals materialize in the Brazilian Health Reform Movement[22], an essential group for the formulation of the theses approved at the 8th National Health Conference[23], held in 1986, which facilitated the definition of an expanded concept of health, registered in the 1988 Federal Constitution and materialized in the Unified Health System (SUS)[24]. Therefore, the 1988 Constitution defines the Brazilian State's responsibility for Health Surveillance.

The mid-1980s witnessed discussions on the need for decentralization and greater articulation of health surveillance services of the three spheres of government, as explained in 1986 in the Report of the National Conference on Consumer Health[25]. The First National Conference on Occupational Health[26] was held in that same year and adopted the understanding that workers' health exceeds the limits of occupational health and is the result of a set of political, social and economic factors. It became necessary for a conference to provide a diagnosis of the situation of the working class, to point out its determinants and propose concrete and coherent solutions with the purpose of transforming this reality. Health Surveillance was the subject of other conferences held in 1994, 2005 and 2016.

Reflections and the academic debate about surveillance in health care models, in search of more comprehensive models of intervention require, on the one hand, a reflection on the theoretical and epistemological foundations that underpin the new proposals of action and, on the other, a strict analysis of the concrete situation, in order to contextualize each intervention designed to produce the desired effects on reality[27].

This search requires the implementation of changes in the health work process, both in terms of its purposes or objectives and its structural elements, that is, in the work object, in the work environment, in the profile of the subjects and, mainly, in the relationships established between them and the population using services. From the viewpoint of health care's objectives or purposes, it is a matter of overcoming the model focused on "walk-in demand" care and attending patients and to include risk and disease prevention and health promotion actions beyond facility's walls, in other words, in the territories where the population of the serviced area lives and works...[28,29].

The establishment of the SUS triggered new institutional arrangements, resulting in the organization of the National Epidemiology Center (CENEPI), within the scope of the National Health Foundation (FUNASA), the establishment of the National Health Surveillance Agency (Anvisa) and later of the Secretariat of Health Surveillance (SVS), of the Ministry of Health, when the normative process of decentralization of surveillance actions intensifies[30]. The structuring and strengthening of the National Health Surveillance System stemmed from a loan agreement between FUNASA and the World Bank (VigiSUS I, VigiSUS II)[31].

In the same year that the IHR were approved, in 2005, the Strategic Health Surveillance Information Center (CIEVS) was set up to foster the capture of notifications, prospection, management and analysis of data and strategic information relevant to the practice of health surveillance, as well as gathering advanced communication mechanisms[32] through a national public health emergency alert and response network, which in mid-2010 had centers in all 27 units of the Federation and their capitals.

Through Ordinance GM/MS Nº 3.252/09, the managerial role of states and municipalities

is strengthened and the scope of Health Surveillance actions is expanded, including[33]: i) *Epidemiological surveillance*: a set of actions that provide knowledge, detection or prevention of any change in the determinants and conditionants of individual and collective health, with the purpose of recommending and adopting measures for the prevention and control of diseases and illnesses; ii) *Health surveillance*: a set of actions capable of eliminating, reducing or preventing health risks and of intervening in the health problems caused by the production and circulation of goods and the provision of services of interest to health. Included in these actions are the control of consumer goods directly or indirectly related to health – as well as all stages and processes, ranging from production to consumption – and the control of the provision of services that are directly or indirectly related to health; iii) *Workers' health surveillance*: it aims to promote health and reduce the morbidity and mortality of the working population through the integration of actions that intervene in the diseases and their determinants resulting from the development models and productive processes; iv) *Environmental health surveillance*: a set of actions that provide knowledge and detection of changes in the determinants and conditionants of the environment that interfere in human health, with the purpose of identifying prevention and control measures of environmental risk factors related to diseases or other illnesses; v) *Health promotion*: a set of individual, collective and environmental interventions responsible for acting on the social determinants of health; and vi) *Analysis of the health situation*: it provides continuous monitoring actions in the country, through studies and analyses that identify and explain health problems and the behavior of the main health indicators, contributing to a more comprehensive planning in the area.

In the process of improving the organization and management of the SUS, Health Regions[34] are established and should contain, as a minimum, primary care, urgent and emergency actions and services, psychosocial care, specialized outpatient and hospital care and health surveillance.

In 2010, aiming at proposing the elaboration of guidelines for the construction of the National Environmental Health Policy, the First National Conference on Environmental Health (CNSA)[35] was held, which promoted the debate on the relationship between production and consumption and its impacts on health and the environment.

The milestone of the National Health Surveillance Policy (GT-PNVS) was Ordinance GM/MS Nº 1.378, of 2013, which *regulates responsibilities and establishes guidelines for implementation and financing of Health Surveillance actions by the Federal Government, States, Federal District and Municipalities with regard to the National Health Surveillance System*. The Ordinance established the Tripartite Working Group with a view to discussing and elaborating the National Health Surveillance Policy. Thus, there was an effort to support the Brazilian State to face the challenges posed to health surveillance due to the changes related to the demographic and epidemiological transitions and social determinants[36].

Challenges to Health Surveillance in Brazil

The economic crisis of international capital is directly associated with the global contraction of economic activity and the subtraction of inclusive social public policies[37]. In Brazil, this is compounded by a gigantic political and ethical crisis associated with corruption, patronage and all forms of private appropriation of what is public (patrimonialism)[38].

In this setting, the essential pillars of the Federal Constitution are under threat. Constitutional Amendment Nº 95, of 2016, which establishes the New Fiscal Regime, and other proposed constitutional amendments that are underway, compounded by a gigantic volume of bills pose a serious threat to Brazilian citizenship and democracy, with violation of human rights and the obligation of the State to promote Security and Social Protection.

The reforms underway in the Federal, Social Security and Labor Legislation, if approved, will represent an unprecedented social cost. Increased working years, in a logic of private pension, combined with the deep instability of working conditions and lower wages, associated with the freezing of public spending for the absurd term of twenty years will result in a huge negative impact on the health of workers and their families, especially the poorest, the oldest people and those in situations of greater vulnerability and social inequity.

This is a huge setback to the achievements of inclusive public policies in the fields of education, environment, social security (health, welfare and social security), land rights, access to decent work, family income, food and nutritional safety, public safety, popular housing, among many others that, while partial in their nature

and outreach, have improved the livelihoods[39] of most Brazilian families. Currently, in the Chamber of Deputies, there are a large number of bills that threaten a severe blow to the universal right to health, a phenomenon that has been identified as the "deconstitutionalization of the SUS".

The foundations and directions of the national economy, centered on the exploration and export of mineral and agricultural commodities to supply the needs of the international market, have been impacted by the shrinking of the international market due to the capital crisis. Capital's strong influence in the State's decision-making on the country's development plans results in a perverse distribution of wealth, accumulated and concentrated in the hands of very few.

This concentration of wealth generates an extremely unjust country. We are the continental country with the largest urban concentration in the world, close to 85% of the population. More than half of the Brazilian men and women are concentrated in the three hundred largest cities, where more than a third live in subhuman conditions, with limited access to collective public facilities and infrastructure. Violence, in all its forms, is a dramatic result of this setting. Our cities are increasingly fragmented and unequal. The growing prevalence of young, black, single and low-income mothers expresses the level of rupture and fragility of the social fabric. The limited scope of the State in protecting citizens has generated groups of people with a high level of vulnerability that are invisible in society.

Pollution generated by rampant production and consumption results in a huge impact on the environment and people's lives. In Brazil, according to the World Health Organization, it is estimated that 18% of health problems are related to pollution[40]. Associated with the burning of the Amazon rainforest, the release of greenhouse gases contributes to the climate change issue, which results in more health risks, especially for vulnerable populations, due to the planet's increased temperature.

Harshly experienced by the populations of the semiarid region, water crisis progressively expands to large urban centers. The metropolitan region of São Paulo has recently experienced the worst water shortage in the last eighty years. The crisis stems from decades of water and soil misuse. Forest reduction through the disorderly use of urban space has been causing serious issues. The lack of water in Greater São Paulo is much more a result of pollution and waste than of climate.

The low supply and limited access of a large portion of the Brazilian population to basic sanitation is a disrespect for human rights and has a serious health impact. It is responsible for cycles of major epidemics of mosquito-borne diseases over the last thirty years. Initially Dengue, now concomitantly Dengue, Zika and Chikungunya. These diseases affect the health of millions of people. The neurological complications of children whose mothers contracted Zika during pregnancy – especially the microcephaly epidemic in the Northeast – reveal the dramatic face of a State with limited capacity to protect its citizens. These recurrent epidemics also reveal the low effectiveness of vector control programs and actions centered on the dispersion of pesticides in and around the residences of Brazilian families (which consumes up to 85% of resources allocated to these actions)[41,42] and in accountability of individuals[43].

Opting for a development model based on mega-projects is generating significant socio-environmental impacts in the territories influenced by them[44]. Such impacts are felt from the pre-installation, during the installation and in the short, medium and long term of its operations. The territories contiguous to mega-projects are settings of important socio-environmental conflicts resulting from the disarrangements and ruptures in the material and immaterial plans of the way of living of the population groups and local ecosystems[45].

The crime of the Samarco company, considered the biggest environmental accident in our history, which epicenter was the rupture of tanks containing toxic waste from the mineral extraction in the Municipality of Mariana – MG, which occurred in December 2015 and expanded by about 800 kilometers along the Doce River and reached the Atlantic Ocean, affecting the lives of millions of people and polluting the environment, is not a mere coincidence[46]. It expresses, like so many other examples, the irresponsible and unsustainable way in which capital, with the State's connivance, violently "hijacks" natural resources, the means of production and the work of others to fuel the cycle of wealth concentration.

In Brazil, a continental country that has never carried out agrarian reform, the struggle for the right to land is a threat to the lives of traditional populations. Most Brazilian productive lands are large estates where productive processes based on monoculture, mainly of soybean, cotton and corn occur. To ensure greater profitability, these productive processes use genetically modified

seeds so that plantations are more likely to withstand bad weather; these genetic modifications are modulated so that plants are resistant to pest-control pesticides, as is the case of glyphosate. Brazil is among the three countries with the highest production of transgenic foods and is the largest pesticide market in the world[47]. The impact of the combinations of this environmental contamination and human exposure is very high and not adequately measured. The attempt to deregulate the use of pesticides is a serious health risk to the entire Brazilian population. A burden weighing on the population living and working in the countryside is the violence generated by the struggle for land, water and decent working conditions, conflicts that have expelled men and women from their territories or forced them out to urban centers, or even murdered them, over the years.

The emergence of the food industry and the excessive consumption of processed products, mediated by advertising and consumer ideology result in a nutritional transition characterized by an extremely caloric diet rich in sugars and fats and unsatisfactory in terms of nutritional intake. The emergence and/or worsening of pathologies such as malnutrition, dyslipidemia, obesity and other chronic non-transmissible diseases are closely linked to such changes in the diet of communities and individuals[48].

The health of Brazilians is the result of this complex and dynamic setting of economic, political, environmental and cultural realms and their interaction with the individual and collective biological characteristics of our population. Health Surveillance should be able to examine the context of people's living conditions and health to organize interventions for health promotion and protection and disease prevention, interventions that address causes, risks and diseases[49]. Health Surveillance action should be carried out at several levels: 1. national coordination, capable of influencing the policies and regulatory mechanisms of all economic, social and environmental sectors that have a relationship with health; 2. health care network, considering all its devices and points of care; 3. society, integrated to the territories.

Notes on challenges to Health Surveillance actions

a. Governance

The nature of health surveillance requires a systemic action resulting from the health responsibility of all federated entities and inherent to the mission of ensuring the health rights of the population as State action.

Thus, the reinforcement of health surveillance actions dialogues with the health responsibility of the federative entities, in search of this permanent construction of pathways for the orientation of the perspectives of universalization of Health Surveillance actions in the SUS. Among the challenges, health surveillance needs to strengthen its anticipatory and preventive capacity to influence the regulatory action of the State.

In its structuring, SUS planning and follow-up process contains institutional and participatory spaces that must be filled by processes of organization and implementation of Health Surveillance actions. This is an objective to be pursued and made explicit in health levels and regional development processes towards environmental and social sustainability and, especially, the pursuit of health sustainability.

The permanent challenge of the implementation of healthy territories depends on the radicalization of the integration of health surveillance actions by overcoming their conception as a sum of epidemiological, health, environmental health and worker health surveillance, with the establishment of an integrated action among themselves, internal between the health surveillance agencies and the care network, shaped by social participation and issues defined in the territory of its scope of action. It starts from the organization of an information practice for action that defines processes of interactive interventions with intersectoral actions accompanied by integrated management and governance mechanisms.

These characteristics of the nature of Health Surveillance action must be ensured by adequate structures, human resources and budget. These elements should be monitored by health councils and should be included in the annual health plans and in the budget of the Multiannual Plans in all spheres of power. It is crucial to have a system of governance with the participation of society, articulated to instances of social control and participatory management and of legislative and executive powers.

b. Information for action

The registration of data of interest to health and of cases of morbimortality, included in the database of Health Surveillance, now with varying degrees of usefulness, whether for their quality and/or coverage are a social and technical heritage of the SUS. The necessary and appropriate investigation of the cases, threats and problems

correlated with other sources of information, necessarily including the perception, practices and knowledge of society makes it possible to define a health setting contextualized to the dynamics of the respective territories. The integration of this information is the founding element of the organization of an intervention for health promotion and protection and disease prevention. Health Surveillance information is a public good that needs to be freely available and easily accessible to society as a whole.

c. Territory as a space for analysis, management and intervention

Territory is where life and work relationships take place, that social determination of the health and disease process, a fundamental concept of Latin American Collective Health and Social Medicine is operationalized through the organization of health services in health surveillance networks. These networks are configured in participatory and intersectoral environments that enable a continuous cycle of understanding the possibilities of risks and resilience of issues related to health, epidemiological, environmental health and worker health surveillance. The result of this process consists of drawing up an intervention map on the conditionants, risks and health impacts.

When considering aspects of economic, social, environmental, cultural and political nature and mediations, Health Surveillance expands and empowers its capacity to identify where and how interventions with the greatest impact in the territory should be carried out.

The concept of territory offers a possibility of observing the dynamics of risk situations and underlying human activities, with a historicity and mobility interchanged with broader settings and pathways of the population and their reproducibility, given by spatialized demographic flows and configurations related to regional development modes.

Cases and risk situations, concrete objects of surveillance, operate in interconnected territories, establishing health surveillance networks coordinating the different approaches to Health Surveillance, with a local expression and a configuration articulated with other territories, thus transposing borders of a certain location, providing and absorbing information on the dynamics of determination, conditionalities and causal links of the cases and risk situations in focus.

The territory in health surveillance responds to inter-spatial interactions shaped by health problems that spatially connect different territories, by flows of productive and distributive chains of products of interest to health and by the surveillance of similar risk situations, configuring interconnected health surveillance networks that coordinate the different approaches of Health Surveillance.

d. Issues to be tackled

The current system of registration of SUS diseases results in a yet undefined visibility. Some emerging health issues of varying magnitude require a systemic and integrated health surveillance approach. We highlight here, as an example, issues related to mental health, drinking water, pesticides, worker's health and violence surveillance.

Identified as public health issues, in their institutional pathway they are supported by a documentary body, a set of norms and resolutions and an information system focused on the recording of cases and self-focused monitoring indicators, setting up a growing volume of information without the necessary triggering of prevention actions corresponding to the problem's scale.

Intra- and intersectoral policies are not adequately triggered and health issues arising within the health sector are restricted to partial reception of cases and registration without analysis and intervention that would result in assuming such issues in their realm of health problems. The challenge posed is to trigger integrated territory-based actions geared to the problems defined collectively in participatory and decentralized processes.

e. Monitoring and evaluation

The pathway of Health Surveillance development in the SUS has given rise to ways for a systematic evaluation of its performance[50]. There is a need to establish a qualified monitoring system as an intervention capable of effectively favoring the performance of health surveillance[51]. The evaluation process of surveillance in the territories must build theoretical-practical bridges between the approaches and the methodology and technologies used, evaluating their coherence and effectiveness in relation to the principles of the SUS and health promotion policies and agendas, valuing local population empowerment and increased community autonomy[52].

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Prospects

Health Surveillance is responsible for information for action and intervention that reduces risks and promotes health in the territories, integrated to Health Care Networks. This essential Unified Health System (SUS) role has been called to guide its action considering the complex economic, environmental, social and biological phenomena that determine the level and quality of health of Brazilian men and women at all ages. Thus, it is imperative that health surveillance be recognized in the agenda of social determination of health by bringing to itself the construction of transdisciplinary and trans-sectoral knowledge and practices.

To this end, within the scope of the United Nations central agenda for establishing, implementing and monitoring the Sustainable Development Objectives for the period 2015/2030[53], health shall *ensure a healthy life and promote the well-being for all at all ages* from the definition of a set of goals that facilitate the achievement of the objective. These goals under negotiation will express actions on the health issues that most impact on the quality of life and the burden of diseases of our population, working concurrently on the economic, environmental and social pillars, expressed in its 17 objectives. Health surveillance has the opportunity to take on a leading role in the 2030 Agenda of the Goals and Targets of Sustainable Development, placing it at the center of its policy priorities, systems, programs and actions.

The conception of the SUS management model, by privileging health planning based on the territories of the health regions enables the organization of health surveillance from the processes and practices of production and consumption and the social, environmental and cultural dynamics of society attached to them. Health surveillance must take on planning, management and health care, as well as the authorship and role of the national health policy and their respective plans. Figure 1 shows a set of vectors and articulating elements of Health Surveillance.

Therefore, we believe that, based on the constitutional right to citizenship and health through public policies in favor of quality of life, and according to the SUS Principles and Guidelines, the National Health Surveillance Policy considers at the central core of its guidelines the categories and values of the social determination of health, State's responsibility for health regulation, the integrality of the care network, intersectoriality, territory, the participation of society and the right to information.

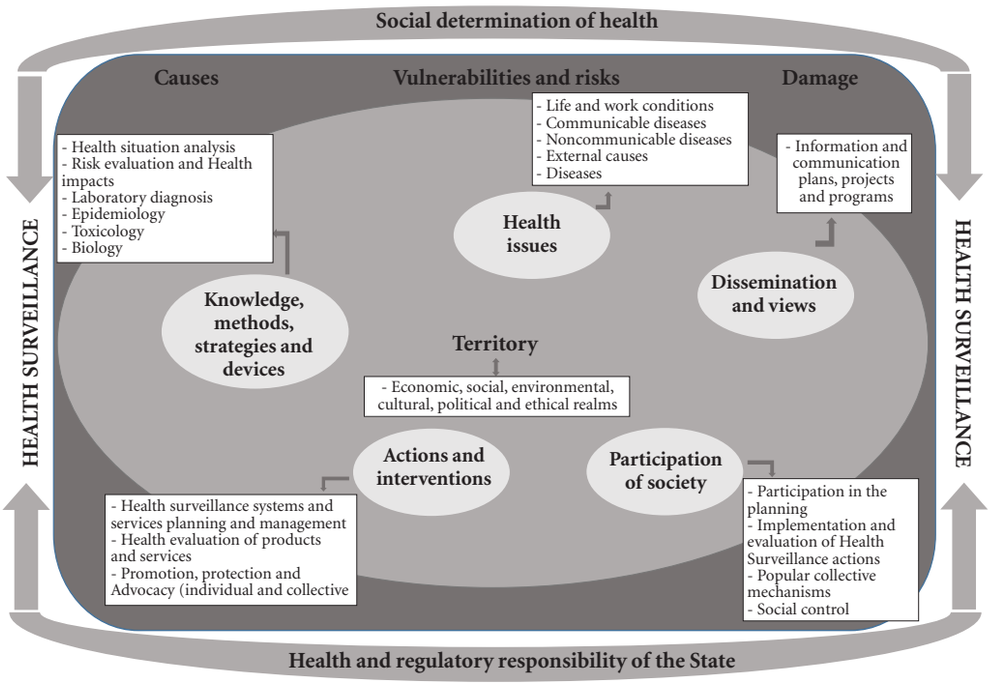

Figure 1. Set of vectors and articulating elements of Health Surveillance.

Source: the authors.

Collaborations

G Franco Netto coordinated the construction of the paper, defined its design, carried out bibliographical review, elaborated the first drafts and requested contributions to the other authors. JWR Villardi participated in the definition of the design, line and structure of the paper and reviewed drafts and the final text. JMH Machado participated in the elaboration of texts of items "Notes on the challenges of Health Surveillance and Challenges". MS Sousa, IF Brito and JA Santorum participated in the elaboration of the whole text. CO Ocké-Reis participated in the elaboration of texts related to the economic context. ALD Fenner participated in the draft's review.

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